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FEDERAL AID TO STUDENTS FOR HIGHER EDUCATION

A Report Prepared in

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By

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FOREWORD

This report was prepared in response to a request from the Honorable Carl Elliott, and subsequent requests received individually from the Honorable Peter Frelinghuysen, Jr., the Honorable Kenneth B. Keating, the Honorable Lee Metcalf, the Honorable Carl Perkins, the Honorable James Roosevelt, and the Honorable Frank Thompson, Jr. During the course of the study, which covered a period of months, a number of other Members of Congress asked the Legislative Reference Service to supply information such as is contained herein.

The purpose of the report is to provide an informational basis for the consideration of various bills pending in Congress, the possible drafting of new ones, and the formation of legislative decision respecting the question of financial aid to students for higher education. During the first session of the 84th Congress, over 50 bills proposing some form of Federal aid to students for higher education were introduced.

Excepting chapter VI, the study was carried out and the report prepared by Charles A. Quattlebaum, principal specialist in education on the staff of the Legislative Reference Service. Helen A. Miller, analyst in education on the staff, wrote chapter VI, which reviews and summarizes the arguments pro and con. Merwin C. Phelps, staff bibliographer, served as research assistant.

Over 100 officials of the executive branch of the Federal Government, and of the governments of the 48 States and foreign countries, supplied published source material or unpublished information by correspondence, and, in numerous instances, through conferences with the author of this report. The cooperation of these persons is gratefully acknowledged.

Appreciation is also expressed to Dr. Lloyd E. Blauch, assistant commissioner for higher education, United States Office of Education, and to Dr. Francis J. Brown, staff associate, of the American Council on Education, for their cooperation in critically reviewing the report.

ERNEST S. GRIFFITH,
Director, Legislative Reference Service.

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FEDERAL AID TO STUDENTS FOR HIGHER EDUCATION

CHAPTER I. INTRODUCTION; SUMMARY OF FINDINGS; RELEVANT CONSIDERATIONS

A. Introduction: Nature and Scope of This Report

In an article published in January 1956, Dr. Ernest A. Melby, dean of the School of Education, New York University, drew attention to the magnitude of our country's educational problems and their vital relationship to the survival of freedom. He emphasized the need to increase public understanding of the Nation's educational tasks. He declared that—

> The people who believe that the problem can be solved at the local and State level are, in the main, people who think that our existing system of education is adequate in a rapidly changing atomic age.[1]

Dr. Melby declared that—

> The waste from noncollege attendance by competent people is enormous.

He advocated Federal and State scholarships in professions in which there are serious shortages.[2]

In a message to Congress on January 12, 1956, relative to "our educational system" President Eisenhower pointed out that—

> Shortages now exist in medicine, teaching, nursing, science, engineering, and in other fields of knowledge which require education beyond the level of the secondary school.

Without reference to Federal financial aid to students on this occasion, he expressed the opinion that—

> Higher education is and must remain the responsibility of the States, localities and private groups and institutions.[3]

On Veterans Day in 1954 he had said, in substance, that in order to compete with the Soviet Union's output of scientists, our Federal Government could and possibly would have to establish scholarships.[4]

An article in Life magazine dated March 5, 1956, deals with the Soviet Union's amazing buildup of highly educated scientific and engineering manpower. The article stated that, by gearing its entire educational system to this purpose, the Soviet Union is producing an elite generation of specialists "enormously dangerous to the West but so far little noticed by it." By 1960, according to this article, the Soviet specialists will far outnumber those of the United States, which already suffers from a shortage of scientists.[5]

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[1] The Nation's Schools, January 1956, p. 43.
[2] Ibid., p. 45.
[3] 84th Cong., 2d sess., H. Doc. No. 292, pp. 5–6.
[4] Press conference as reported in the New York Times, November 11, 1954, p. 20.
[5] The Golden Youth of Communism, Life, March 5, 1956, pp. 31–36.

Considered together, the foregoing very recent statements indicate the kind of atmosphere in which the issue of Federal aid to students for higher education is currently growing. However, some of the most outstanding proposals for a program of Federal aid to students are not aimed merely at increasing the Nation's supply of scientists; and some persons have expressed the belief that overemphasis on scientific training, to the neglect of other aspects of education essential to the maintenance of our form of government and culture, would be a national disaster.

In this connection it is significant that of about 2,895,000 World War II and Korean conflict veterans who selected fields of study at college level, 24 percent chose training in engineering, medical, physical and natural sciences.[6]

The need of the Nation for the full development, through education, of its most valuable human resources—the talents of its gifted and competent youth—is fairly evident. The challenge of the Soviet Union to a technological race with the West has emphasized this need.

There seems to be a general agreement among writers on this subject that such a national need exists. However, the question of how it should be met leads to controversy. Insofar as this study is concerned, the controversy may be summarized in the questions: Should the Federal Government establish a new program of financial aid to students for higher education? If so, what should be the nature and extent of the program? Some of the subsidiary questions are listed later in this chapter.

Looking backward a few years, we find that in 1947 the President's Commission on Higher Education recommended establishment of a Federal program of scholarships and fellowships. On the other hand, the Commission on Financing Higher Education, sponsored by the Association of American Universities, in 1952 advised against expansion of Federal scholarship aid to individual students.

Within the last few years a number of other commissions, organizations and prominent persons have expressed themselves for or against establishment of a new program of Federal aid to students. Many of the various viewpoints are set forth in this report.

The principal parts of this study might be briefly described as follows:

A summary discussion of findings and relevant considerations.

A short account of the development of Federal policies in higher education and major conclusions therefrom.

A review and summary of the earlier proposals for establishment of Federal scholarships and other student aids.

A survey and digest of current proposals for a Federal program of financial aid to students.

A digest of certain related research and historical studies, and summary of findings from these studies.

A compilation and summary of arguments pro and con on the question of Federal financial aid to students.

A description and analytic summary of current Federal programs aiding students.

A survey and digest of student-aid programs of the 48 States, with a summary of major conclusions regarding the State programs.

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[6] Information obtained from the Veterans' Administration.

A survey and summary of the student-aid programs of the national governments of 27 foreign countries.

An essential consideration in this introduction is the purpose of this entire study. The general aim, mentioned in the foreword, has been to construct an informational basis for (1) the consideration of pending bills, (2) the possible drafting of new ones, and (3) the determination of legislative decision concerning the question of establishment of a new program of Federal aid to students.

For the benefit of the busy reader, each chapter of this report has been condensed from the original draft. Each chapter contains a summary or summary analysis; and this first chapter includes an overall summary of the entire work. However, for detailed information concerning the main topics, and perhaps for a thorough understanding of the constituent issues, further reading into the body of the report will be necessary.

The main text contains various details which may be of special interest to a number of readers but which are not included in the chapter summaries. For example, some Members of Congress may be particularly interested in the following detailed facts obtained from the United States Department of the Treasury concerning the United States Coast Guard Academy.

Example of Detail in the Main Text—Regarding State Quotas

Cadets at the Coast Guard Academy receive free higher education, plus subsistence and pay, from the Federal Government. Entering cadets agree to serve as commissioned officers in the Coast Guard for 4 years after graduation. Graduates of the Academy receive bachelor of science degrees. The average pay per cadet, including subsistence, during the fiscal year 1956 was $1,826.

Appointments to the Academy are made on the basis of a competitive examination, but not on the basis of State quotas. A large percentage of the enrollees at this federally supported institution come from the State in which it is located, and neighboring States. In the absence of State quotas, this may be due to the widespread knowledge of the Academy among residents of localities which are relatively close to this institution, with the result that there is a proportionately greater number of applicants from these localities.

Other details in the body of this report may be of special interest to those readers, if there are any, who are not particularly interested in this detail cited as an example. For the convenience of the reader who wishes fully to pursue one or more, if not all, of the various topics, the report has been organized for use as a reference work.

B. Résumé of Findings From This Study

Following is an overall résumé of some of the major findings from this study, without reference to sources of information. Citations to many of the sources appear in the main body of this report.

1. DEVELOPMENT OF FEDERAL POLICIES IN HIGHER EDUCATION

The Federal Government has never established a general policy governing what it should or should not do in the field of education. However, from the time of its inception the Federal Government has operated certain educational programs of its own and has given aid to the States and Territories in financing and promoting education. Almost from the beginning these Federal activities and aids have involved higher education, dating from: (1) Early Federal land

grants for the endowment of universities not under Federal control; and (2) establishment of the Military Academy at West Point, under Federal administration, as early as in 1802.

Federal policies in the field of higher education have developed sporadically, without comprehensive planning. Examples of the policies that have emerged from specific legislation providing for continuing programs are—

Operation of institutions of higher education, such as the Military, Naval, and Air Force Academies, for preparation of cadets for service, as officers, in the Armed Forces.

Promotion, through the land-grant colleges, of higher education in agriculture and the mechanic arts.

Participation in a broad program of international educational exchanges.

Provision of educational benefits, including higher education, for veterans.

Annual appropriation of Federal funds to Howard University, a privately controlled institution devoted to the education of Negroes.

Grants for scholarships and fellowships through the National Institutes of Health, the National Science Foundation, and other Federal agencies.

Further information concerning these and other Federal policies in higher education appears in chapter II of this report.

2. EARLIER PROPOSED FEDERAL STUDENT-AID PROGRAMS

The Federal Government has for over 150 years entirely and directly financed the higher education of selected individuals to prepare them for certain types of national service. Since 1862, through the land-grant institutions, the Federal Government has indirectly aided other individuals to obtain higher education in certain specified fields. In recent years the Government has provided scholarships and fellowships or similar direct aid to some persons, mainly veterans, for their higher education in fields of their choice.

In consideration of the popularity and the broad but temporary nature of the veterans' educational program, and other factors, soon after World War II various national organizations and prominent persons began urging the establishment of a general Federal scholarship program for civilians. After extensive study the President's Commission on Higher Education in 1947 set forth details of a proposed program, and reasons for supporting it. Other agencies and organizations which advanced proposals of this kind included the President's Scientific Research Board, the Department of Higher Education of the National Education Association, the National Students Association, and the American Council on Education.

In 1949 and 1950 President Truman urged Congress to establish a program of general scholarships and fellowships. For this purpose he included an item in the national budget for the fiscal year 1951.

3. SOME CURRENT PROPOSALS FOR FEDERAL AID TO STUDENTS

Since 1950 proposals for various forms of Federal aid to students for higher education have been introduced in every session of Congress.

The American Council on Education is currently sponsoring a tax

credit plan to aid college and university students, and is also reconsidering its earlier policy recommendations for a Federal scholarship program.

In 1955 new recommendations or proposals for forms of Federal aid to students emerged from deliberations within (1) the Association for Higher Education, (2) several of the State conferences which preceded the White House Conference on Education, and (3) the representative assembly of the National Education Association.

Individuals who have very recently advanced ideas in this field have included Gov. Averell Harriman (former Ambassador to the Soviet Union) and Congressman Kenneth B. Keating. Representative Keating has proposed a new, broad plan (not incorporated in a bill in 1955) for Federal award of opportunities in higher education in return for military service.

During the first session of the 84th Congress (1955), over 50 bills were introduced proposing some form of Federal aid to students for higher education. Digests of these widely varying proposals appear in chapter IV of this report.

4. DIGEST OF RELATED STUDIES

Chapter V of this report contains digests of a number of historical and research studies related to the question of Federal financial aid to students. Examples of significant findings and statements reported from these studies are the following:

College and university enrollments are greatly increasing. Nevertheless, fewer than half of the Nation's youth who graduate from high school with scholastic standing in the top 25 percent of their classes later graduate from college. Thus, through lack of full development, the Nation is losing a large percentage of its most valuable human resources.

During the period from 1935 to 1943 the Federal Government gained important experience from providing financial assistance, through the National Youth Administration, to over 2,134,000 different nonveteran students.

The nationwide shortage of highly educated manpower is now critical in many fields. Data indicate that the amount needed for scholarships is at least three times as great as the amount available.

A current study of a nationwide sampling of college and university students has given evidence that financial problems are the principal cause of student dropouts after the first year.

In 1955 the Commission on Intergovernmental Relations, established pursuant to Public Law 109, 83d Congress, stated in its report to the President that:

> * * * There is ample reason to regard State and local control of education as one of our most prized traditions. (The report did not deal specifically with the question of Federal aid to students for higher education.)

5. ARGUMENTS PRO AND CON

Proponents of Federal aid to students for higher education have advanced arguments such as these:

(*a*) The national welfare requires the full development, through education, of the Nation's most valuable human resources—the talents of its competent youth.

Shortages of highly trained scientists and engineers threaten our national survival. Shortages of well-educated people in other fields retard our improvement of human relationships—domestic and foreign.

(*b*) A major reason for failure of competent youth to graduate from college is lack of adequate finances.

(*c*) The Federal Government should remove financial barriers to the higher education of the Nation's competent youth, because: It is the only agency in a position to do this; the national interest demands it, there is ample precedent for it; it is not being accomplished otherwise; and it would not lead toward Federal control over education.

Arguments advanced by opponents of Federal aid to students for higher education have included these:

(*a*) The Nation's shortage of college graduates in fields important to our national survival is temporary and will soon be overcome, as is indicated by the growing college enrollments.

(*b*) There is no justification for governmental financing of the higher education of a few at the expense of the many.

(*c*) Federal aid would not induce enough competent youth to attend college. There are many reasons why some would not attend.

(*d*) If further governmental aid to students is needed it should be provided by the States rather than by the Federal Government, because: The State governments are in better financial condition; education is primarily a function of State and local governments; and Federal aid to students would lead toward control over education.

A full discussion of the arguments appears in chapter VI of this report.

6. EXISTING FEDERAL PROGRAMS AIDING CERTAIN STUDENTS

A number of established Federal programs directly or indirectly provide some aid to students for higher education. The existence of these programs may be expected to affect consideration of some pending bills.

The established programs principally provide only graduate, veteran, and military education opportunities. The main purpose of these programs is not financial aid to students, as such, but other Federal objectives. Generally, the existing Federal programs give assistance only to a particular group, such as veterans, or provide aid for study only in certain fields, such as science and engineering.

The veterans' educational benefits constitute by far the largest Federal program aiding students. This is, however, a temporary program with fixed termination date.

The existing Federal programs do not make available aid to higher education for which all high school seniors are eligible to compete, with free choice of institution and course of study. Altogether, the existing Federal programs provide direct financial aid for the higher education of only a very small percentage of the Nation's high-school graduates each year.

Opinions differ as to whether any of these existing Federal aids should be termed "scholarships." Some persons contend that most of these programs represent compensation for services performed or contracted for, rather than scholarships. Besides the veterans'

educational program, examples of the more outstanding Federal institutions and programs which provide financial aid to young citizens for higher education are the following:

The Air Force, Military, and Naval Academies—instruction, board, and room, and other benefits.

The Air Force, Army, and Naval Reserve Officer Training Corps programs—instruction, uniforms, and pay for advanced students.

The National Science Foundation—fellowships or grants for graduate training and research in scientific fields.

The international educational exchange program—grants to Americans to study abroad.

The National Institutes of Health—grants to graduate students for study and research in the field of public health.

Detailed information concerning these and other current Federal programs which provide some form of aid to certain students for higher education appears in chapter VII of this report.

7. STATE-FINANCED SCHOLARSHIPS AND OTHER STUDENT AIDS

The question of Federal financial aid to students for higher education involves consideration of State-financed programs of student assistance.

Most of the States finance some form of financial aid to individual students for higher education, but the State programs are generally quite restricted in nature. The largest and most generalized State-supported program of this kind (that of New York State) gave assistance to about 4.4 percent of that State's high-school graduates of 1955. With few exceptions, the State provided aid only for payment of tuition and other institutional fees, and not payment for rent, food, clothing, transportation, and other items which generally together constitute the major portion of a student's expenses.

Some other States provide free-tuition or tuition-reduction programs which affect a much larger percentage of their high-school graduates than the approximately 4.4 percent currently affected in New York State. However, many institutions which charge only nominal tuition or avoid the use of that term altogether, charge other fees. The assertion that tuition is free or nominal at an institution may have little significance in relation to a student's total expenses, which may include other fees as well as the cost of rent, food, clothing, transportation, and other necessities.

Most State-financed or State-institution-financed scholarships are available only for study in special fields, such as medicine or teaching, or for only certain groups, such as veterans or the children of deceased veterans.

Many of the State awards must be repaid by the recipients either in cash with interest or in service to the State.

In considering State aid to students for higher education it is important to distinguish between scholarships and free or low tuition. Scholarships entail direct payments to students or payment of students' fees to the institution. Low tuition or other charges represent an institutional policy. Student fees vary widely among institutions. The charges are usually lower in public than in nonpublic institutions; and in-State students pay less than out-of-State students. Whether

they are called tuition or something else, low fees, which are advantageous to all admitted to an institution, are not of the same nature as scholarships.

8. STUDENT-AID PROGRAMS OF OTHER NATIONAL GOVERNMENTS

This study has included an investigation of the student-aid programs of a number of national governments in different parts of the world. The investigation has yielded considerable data which may be helpful in considering the question of establishment of a program of Federal aid to students in the United States.

The national governments of all the 27 foreign countries included in this report provide direct or indirect aid to students for higher education. The types and scope of assistance vary widely. In some cases the arrangements include provisions for free university education plus financial aid to needy students for their living expenses.

Most of the national governments have provisions for exchange of students with other nations.

Although direct aid from the national government to individual students is a widespread practice, some national governments give indirect assistance in the form of payments to the educational institutions.

In a majority of the countries included in this study higher education is administered principally by the central government, but in some of them it is administered principally by provincial or local governments and private bodies, similar to those in the United States.

C. Relevant Considerations

The issue of establishing a new Federal program of financial aid to students involves many and varied considerations. By pointing out some of the considerations not elsewhere included or emphasized in this report, the following discussion aims to provide the Congress an added informational aid toward informed legislative decision on the issues.

1. DEFINITION OF "SCHOLARSHIPS" AND "FELLOWSHIPS"

Since this report deals with the broad subject of Federal financial aid to students rather than with the more specific topic of Federal scholarships and fellowships, exact definitions of these terms are not essential to this discussion. However, these words appear in a number of bills pending in Congress. It therefore seems appropriate to point out that they have been variously defined within and outside of such bills.

The term "scholarship" appears generally to mean financial aid to capable students for postsecondary education. In the opinion of some people the aid may range from mere payment of tuition or similar fees to complete financing of the higher education of the beneficiary, including his subsistence, clothing, and transportation, plus pay while attending an educational institution.

The scholarship may be general, that is, allowing the recipient free choice of institution and course of study, or it may be categorical, that is, exclusively for study in a particular field or at a particular institution offering only a prescribed course of training.

A fact previously mentioned in this chapter seems important for emphasis at this point. It is that some officials of Federal agencies administering institutions or programs providing free higher education and pay to students object to these being called scholarships. The position of some of these officials is that these programs, such as the ROTC and training at the Military Academy, entail contracts for public services to be rendered by the beneficiaries after graduation.

It seems noteworthy in this connection that many of the State-financed scholarships also involve agreement by the beneficiaries to render public services, such as teaching or practice of medicine within the State, after graduation.

The essential differences between the Federal and State programs in this respect seems to be that the former requires service, after graduation, primarily to the Federal Government, and the latter involves service, after graduation, primarily to a State or locality.

Study of the several forms of aid to students leads to observation of differences between: (*a*) Scholarships provided by educational institutions, (*b*) aids provided on the condition of specific service from the beneficiaries, and (*c*) noninstitutional awards entailing payments to or for an individual's education by an organization or governmental agency.

The term "fellowship" has a much more generally accepted meaning than "scholarship." As used in this report it means the allowance granted a college or university graduate student for special study or research.

2. SHORTAGE OF HIGHLY EDUCATED MANPOWER AND NATIONAL DEFENSE

Following is an example of the many recent writings and addresses on our national shortages of college-trained manpower in relation to national defense.

In an address before the higher education group [7] in Washington on October 11, 1955, Arthur S. Flemming, Director of the Office of Defense Mobilization, discussed the need for more, highly educated manpower. He said that total mobilization might become necessary because of either (1) direct attack on the United States or (2) developments elsewhere in the world. He declared that the United States must keep strong to maintain peace by deterrence. He pointed out that there is a critical need for more scientists, but also a need for more persons well trained in the art of human relationships.

He said that our society is able to make provision for the higher education of a larger percentage of our whole population, thus adding to our human resources.

3. VERY RECENT DEVELOPMENTS AFFECTING CONSIDERATION OF THE ISSUE

During April and May 1956, the 2 months prior to the time of this writing, there were a number of developments which might affect consideration of the question of establishing a new program of Federal aid to students. Considered together, these events indicate a growing interest in the issue. A résumé of some of these developments follows:

a. Appointment of the President's Committee on Education Beyond

[7] An organization of college and university administrators, Government officials, and other persons interested in higher education in the Washington, D. C., area.

the High School.—On April 19, 1956, President Eisenhower appointed 33 persons to constitute the President's Committee on Education Beyond the High School. His individual letters to these persons contained the statement that:

> In augmenting public awareness of the increased need for educational facilities and in determining how better *to assure that students will have those facilities available*, you can through the work of this committee perform a great service to the Nation. [Italic added.]

In a special message to Congress concerning "our educational system" on January 12, 1956, President Eisenhower had said that the purpose of this Committee would be—

> to lay before us all the problems of education beyond high school, and to encourage active and systematic attack upon them.

On May 15, 1956, President Eisenhower sent to the House of Representatives a request for a supplemental appropriation of $300,000 for the work of this Committee. The justification for the appropriation reads in part as follows:

> Among the problems to be studied by the Committee will be those * * * of meeting shortages of scientists, engineers, and other professions; and of insuring that students with talent continue their education until they develop to the fullness of their capacities.

Appointment of this Committee may be considered a movement by the Eisenhower administration toward solution of the problems of higher education. Statements made by President Eisenhower concerning the task of the Committee indicate that it may be expected to consider current proposals for Federal aid to students and perhaps to make recommendations respecting them.

b. Establishment of the National Committee for the Development of Scientists and Engineers.—On April 4, 1956, the White House announced appointment of the National Committee for the Development of Scientists and Engineers. The Committee's responsibilities, as outlined in a letter from President Eisenhower to the Chairman of the group, include the following:

> (1) to identify the problems connected with the development of more highly qualified scientists and engineers;
>
> (2) to enlist the cooperation of all interested individuals and groups in analyzing the problem and developing programs;
>
> (3) to make available information on effective ways of overcoming the obstacles to training this type of manpower.

It seems reasonable to conclude that proposals for Federal aid to students for scientific and engineering education will come within the scope of this Committee's deliberations and may be dealt with in its subsequent recommendations.

c. Action by and Within the United States Department of Health, Education, and Welfare.—During the month of May 1956, the Department of Health, Education, and Welfare issued two publications, namely, School Life and Higher Education—containing articles on proposals for Federal aid to college students. Both of these articles consist principally of descriptions of the various student-aid bills pending in Congress. The monthly publications containing these articles have been sent to subscribers throughout the United States and in other countries.

Various conferences concerning the problems of helping qualified students pursue higher education and proposals for Federal aid to

students, were held in the Department of Health, Education, and Welfare during April and May 1956.

d. Hearings by a subcommittee of the Joint Committee on Atomic Energy.—In April 1956, the Subcommittee on Research and Development of the Joint Committee on Atomic Energy held hearings on the shortage of scientific and engineering manpower. In testimony before the subcommittee, Hon. William Benton, a former Member of the United States Senate and past representative of the United States in international conferences, made the following statement:

> What we require today, and at once, as Chairman Price says, is a crash program. How can this be launched, and at once? It seems to me that the beginning of such a crash program must consist of Federal scholarships on a dramatic scale.
>
> Last month in Chicago, before the Association for Higher Education, I proposed a national competitive scholarship program beginning with 20,000 scholarships a year, each covering 4 years of college. I further proposed that this number should be increased as rapidly as the administration of the program and the absorptive capacity of the colleges and universities permit—to a level of 100,000 scholarships a year. To these should be added 20,000 or more graduate fellowships. Trained manpower, I said, is like money in the bank for the United States. It is our most important national resource. Premier Bulganin referred to Soviet trained manpower as "our (Soviet) gold reserve."
>
> Our United States high schools abound with talent worthy of such scholarships. Secretary Folsom recently cited an estimate that "each year about 60,000 students of high ability drop out of high school before graduation * * * and half of the students in the upper one-fourth of their high school classes do not go on to college." Dr. Dael Wolfle tells us that 150,000 pupils from each yearly age and class who could enter the important specialties fail to go to college. About half fail to go on because of the cost, another half because of lack of incentive. Both conditions are curable. All who look into the matter agree that for every student in an American college, we have another of equal ability who doesn't get in. Of the top 20 percent of our high school youngsters, two-thirds don't finish college. In my judgment, the main reason is economic.
>
> We would be perfectly justified, in view of the emergency we have been discussing, in earmarking a proportion of any proposed Federal scholarship program for science or engineering, or indeed even of initiating the far larger program with scholarships and fellowships limited to the areas we are discussing.—[Congressional Record, May 2, 1956, p. A3537.]

e. Publication by the Joint Committee on Atomic Energy, 84th Congress.—During April 1956, a large number of copies of a committee print of the Joint Committee on Atomic Energy entitled "Engineering and Scientific Manpower in the United States, Western Europe, and Soviet Russia" were distributed. Extensive publicity was given to data contained in this committee print. Its preface, written by Hon. Melvin Price, chairman of the Subcommittee on Research and Development, contains the following statement:

> One way to emphasize Government determination to meet the requirements [for trained scientific and technical manpower] would be to appropriate Federal funds to expand the science departments and engineering schools of the universities and to provide scholarships for bright young high school graduates willing to enter these fields. I think this is a prime requisite.

f. Statements by Members of Congress introducing bills.—Several bills proposing some form of Federal aid to students for higher education were introduced in Congress during April and May 1956. Statements made by Members in connection with the introduction of these bills included the following: [8]

[8] For the full text of the statements by these Members and other statements concerning the subject of this report, please see the citations given to the Congressional Record and the index thereto.

78958—56——2

(1) Mr. President, I introduce, for appropriate reference, a bill to allow an additional income-tax exemption for a full-time student in an educational institution above the secondary level. The exemption may be claimed by the taxpayer himself, or on account of a spouse or a dependent child under 23 years of age, who is in attendance at the educational institution.

* * * * * * *

* * * I feel strongly that it is in the national interest to encourage the education of young people. Not only will education contribute to the material well-being of our citizens, but in this period of competitive coexistence with the Soviets, the intelligence and training of our population may well be the key to our survival. The great emphasis which the Soviets have placed on the training of technicians, engineers, and scientists is a challenge which cannot be ignored by the Western World. This minor adjustment in the tax laws can provide an incentive to our families who have children of college age. (Senator J. W. Fulbright, Congressional Record, April 24, 1956, p. 6107.)

(2) * * * In these days when engineers and scientists are already so few as to threaten the very foundations of our economic security, and our physical safety, the loss between high school and college is nothing short of tragic. Eight out of ten promising young people of college age abandon their efforts to secure an education to earn immediate returns in less productive forms of work. Some of these boys and girls would go on with their studies if they had financial encouragement.

It is to save them for the national defense that I have today introduced a bill to provide 5,000 scholarships a year, to continue as far in the future as the need exists. Any of our 1,328 degree-granting, accredited colleges and universities would be open to the holder of one of these scholarships. By the time the program has been under way 4 years, as many as 20,000 students would be enrolled and our country would begin to benefit to the extent of about 5,000 graduates each year.

This sounds big, but in the face of the task before us I fear it is not big enough. We have no time to lose, and a start must be made that we may build as its usefulness is proven. Our task is to defend and protect our national freedoms, and this is part of the price we must pay. It can be a sound investment in the future of our youth and the welfare of our Nation. (Senator Erle C. Clements, Congressional Record, April 25, 1956, page 6292.)

(3) * * *

To get the best answers to these questions and the best guidance in drawing up my bill, I went to those responsible for the education of engineers—the deans of America's engineering schools.

* * * * * * *

The deans were unanimous in their grave concern over the engineering shortage. And they agreed on two main reasons for our failure to produce enough engineers.

First, we are wasting our precious manpower in failing to enable many bright high school students to continue to college. According to Government reports, only 53 percent of students with an I. Q. of over 120 reach college. And only 40 percent of them are able to graduate.

It is safe to assume that the great proportion of these bright youngsters do not go to college because they cannot afford to; and of those who do go, not enough go into engineering.

Thus we need to offer this vast, untapped reservoir of talent new incentives; first, to get them to college, and second, to get them into engineering.

My survey of deans found that the second big roadblock toward getting enough engineers is our shortage of qualified teachers of engineering at the college level, and of qualified mathematics and science teachers at the high school level.

And because of the much higher salaries industry can offer, many of the best teachers are being lured into industry every year.

* * * * * * *

* * * It is apparent that private individuals and industry have not, cannot, and should not be expected to solve this problem. It is a national problem. What cannot be solved independently of Government, must be solved by Government, acting for the welfare and security of all the people. In this case, only the Federal Government has the resources and prestige required for adequate and effective action.

In broad terms, what will this bill accomplish?

First, it will meet our estimated future deficit of 13,000 new engineers a year.

Thirty scholarships will be offered to outstanding residents in each congressional district in the continental United States and in the Territories. This part of

the program will become a reality in 4 years, the time it takes to turn out the first class of engineers.

Second, it will help meet our shortage of secondary-school teachers. It will offer outstanding engineering graduates the economic and professional incentives to devote a 3-year period to secondary-school teaching immediately after graduation.

The professional incentive would be the promise of a 3-year graduate fellowship leading to an advanced degree in engineering. (Representative Elmer J. Holland, Congressional Record, May 14, 1956, pages 7282–7283.)

(4) * * * We who love America and the liberty and freedom which we enjoy under our system of free competitive enterprise, must react vigorously to all phases of the communistic threat to all that we hold dear. The education of our present and future generations to provide ourselves with the trained manpower America needs is one of the most important steps.

* * * * * * *

To accomplish the rapid expansion which we must have in these fields, America must aggressively move ahead in the increasingly complex field of education.

* * * * * * *

I have introduced a bill today which I hope will make available to our country skilled technicians, scientists, and engineers in fields which are in critical supply, and vital to the defense of our country.

This will be accomplished by authorizing the Secretary of Defense to expend $10 million per year to award scholarships and graduate fellowships for scientific study or scientific work in the mathematical, physical, biological, engineering, and other sciences at accredited nonprofit American or nonprofit foreign institutions of higher education. Such selections are to be on the basis of ability.

Now, let us analyze this. The program will do a number of things to furnish a supply of technicians in branches of science most needed for defense at an early date, in time to help our country to win this new cold war. It will furnish much of the supply of teachers which must train our youth in a time of rapidly expanding population.

* * * * * * *

I hope that the Congress will bear in mind that there is ample precedent for the proposals contained in this bill. Its forerunners are the National Science Foundation, the Fulbright scholarships, and the research conducted under the Atomic Energy Act. I hope that the Congress will give my bill the early and favorable consideration required by a situation of grave concern to our country. (Representative John D. Dingell, Congressional Record, May 21, page 7733.)

(5) * * * Mr. Speaker, I am today introducing a bill designed to help meet two of the most critical problems facing our Nation today: The growing shortages in the teaching and science professions.

Today, as we cross the threshold into the nuclear era, we must face the fact that our future strength as a nation rests with the children who are now being educated and who will be educated in the next generation.

* * * * * * *

* * * Mr. Speaker, we must face squarely the fact that the scientific demands of our Nation in this highly technological era are falling upon too few shoulders. It may be no exaggeration to say that the outcome of the cold war and America's continued leadership may well depend upon how squarely we face the challenging task before us. For this reason, I sincerely hope that the House Committee on Education and Labor will consider my proposals as soon as possible. In the life of both people and nations, there comes a time for decision and action. With respect to our future teachers and scientists, that time is now. (Representative Thomas L. Ashley, Congressional Record, May 22, page 7886.)

g. Bills introduced.—During April and May 1956, at least 12 new bills were introduced proposing some form of direct or indirect Federal financial aid to students for higher education. These are the following: House: H. R. 10433, H. R. 11096, H. R. 11200, H. R. 11330, H. R. 11357, H. R. 11414; Senate: S. 3748, S. 3931, S. 3933, S. 3596, S. 3710, S. 3711.

Senate Joint Resolution 159, introduced on April 9 by Senator Edward J. Thye and 15 other Senators, proposes to establish a Joint Committee on Scientific Research. According to statements made by

Senator Thye and Senator William Langer at the time of introduction of the joint resolution, the committee, if established, may be expected to consider the national problems of producing enough highly trained manpower to assure continuing leadership by the United States in scientific and technological fields. The primary function of the joint committee, as set forth in the resolution, is that it shall maintain a continuous study to determine the adequacy of manpower supplies and means of promoting an increase of manpower supplies in science and engineering.

h. Publication of articles in newspapers and magazines.—During the months of April and May 1956, a number of articles appeared in newspapers and magazines dealing with the shortage of scientists and engineers and other matters which might affect consideration of proposals for Federal aid to students. Some of these articles contained proposals advanced by the writers, such as the following:

In an article which appeared in Life for May 7, 1956, President James R. Killian, Jr., of Massachusetts Institute of Technology, made the following statement:

* * * * * *

If there are no easy shortcuts to the education of more and better scientists, there is an opportunity for bold action. We need a national program. We need to turn from assigning blame for our educational and manpower deficiencies and to concentrate on the tactics and strategy for strengthening our manpower resources.

There are certain things that we should not do. We must not allow the pressure for scientists and engineers to obscure the need for first-rate talent in other professional fields.

* * * * * *

I advocate that we start now by establishing about 9,000 competitive, annually awarded, 4-year scholarships, these scholarships to be of three kinds: (1) 3,000 scholarships earmarked for those of high ability who wish to study science and engineering; (2) 3,000 for high ability high school graduates who need not designate in advance a field of study; (3) 3,000 to be awarded to students who have taken enough advanced work in high school to have mastered there such freshman college subjects as calculus, physics, and English, in addition to meeting other high school graduation and college entrance requirements. The need for this third kind of scholarship to give recipients advanced standing in college was recently proposed in a discussion of the Science Advisory Committee of the Office of Defense Mobilization.

4. PROPOSALS AFFECTING PROSPECTIVE FEDERAL AID TO STUDENTS

This report deals principally with proposals which, if enacted by the Congress, would provide direct or indirect Federal aid to individual students for higher education, in general or in only certain fields. However, certain other proposals have been advanced which, if enacted, might markedly affect congressional consideration of such bills. Two outstanding examples of proposals of this kind will be cited here.

One is the "oil for education" proposal as expressed in H. R. 363 introduced on January 5, 1955, by Representative Carl Elliott, and S. 772 introduced on January 27, 1955, by Senator Lister Hill for himself and 35 other Senators. Briefly, the proposal is that revenue from oil and other natural resources of the federally owned outer Continental Shelf lands of the United States be used for the support of elementary, secondary, and higher education.

The bills would create an Advisory Council on Education for National Security, to recommend to the President for submission to

Congress a plan for the allocation of the grants-in-aid for education. If enacted, the plan might make available to colleges and universities additional funds which could be used for financing scholarships and/or other forms of student assistance.

Another proposal which might have somewhat similar effects is Joint Resolution 228, introduced on February 22, 1955, by Representative Errett P. Scrivner. The resolution proposes:

> That 1 percent of all income taxes collected on individual and corporate incomes under Federal statutes shall be deemed to be revenue for the State or Territory within which it is collected, for use for educational purposes only, without any Federal direction, control, or interference.

At the beginning of his address in the House of Representatives on February 22, 1955, concerning this proposal, Mr. Scrivner said:

> If you are looking for a simple, direct program for aid to education, free from Government controls, without costly administration, and devoid of any share-the-wealth attributes, the joint resolution I am introducing today deserves consideration and support.

Part of the revenue which this joint resolution, if enacted, would make available to the States presumably might be used by them for financial aid to students for higher education.

5. AVAILABILITY OF SCHOLARSHIPS IN RELATION TO NEED

Recently much publicity has been given to increased corporate financing of scholarships. Particularly the establishment of the National Merit Scholarship Corp. has received widespread attention. This corporation began its operations in 1955 with a grant of $20 million from the Ford Foundation, supplemented with $500,000 from the Carnegie Corp., $600,000 from the Sears-Roebuck Foundation, and $30,000 from Time, Inc.—totaling the largest single sum ever devoted to scholarship purposes.

However, estimates from various sources, including estimates mentioned elsewhere in this report, concerning the total amount needed for scholarships, have generally been several times greater than the total amount currently available from all sources for this purpose.

With respect to prospective financing of scholarships by the National Merit Scholarship Corp., the Educator's Dispatch for September 22, 1955, said:

> The college scholarship plan announced last week by the National Merit Scholarship Corp. may leave the impression that a college education is being underwritten for most able but needy high-school graduates. Actually, the funds provided, although the largest in history earmarked for that purpose, show how big the need, how few the resources.

The Educator's Dispatch pointed out further that in 1956 the corporation expects to provide 350 all-expense scholarships. This would give each high school of the Nation 1 chance in 70 of getting only one of these scholarships.

The corporation hopes eventually to keep 4,000 men and women in college, all expenses paid. But in order to be able to do so many more foundations, industries, and corporations would have to build up the fund. The scholarship plan is nevertheless a heartening event in American education.

6. ALTERNATIVES OF CONGRESSIONAL ACTION

Some of the various possibilities of congressional action concerning the question of financial aid to students for higher education are shown in the widely different bills for which digests are given in chapter IV of this report. There are still other possibilities not expressed in pending bills.

Conceivably Congress might take no action on any of the pending or forthcoming proposals in this field. Here are some of the kinds of legislation which the Congress might enact to give financial help to individual students or to diminish the need for direct assistance to them:

(*a*) Federal appropriations for scholarships to be awarded high-school graduates on a State quota basis, the scholarships to be provided through State commissions, and to allow each recipient a free choice of institution of higher education, and of course of study.

(*b*) Federal insurance of loans to students in institutions of higher education, the requirements for eligibility of students for loans being specified in the Federal act, and eligibility of lenders being determined by State commissions.

(*c*) Creation of a Federal scholarship fund for loans to students selected by State agencies in proportion to the number of Members of the United States House of Representatives from States accepting provisions of the act.

(*d*) Provision of Federal scholarships to increase the number of trained personnel specifically and exclusively in one or more of the health professions.

(*e*) Establishment of a system of Federal scholarships specifically and exclusively for persons of unusual ability in engineering, physics, and chemistry and closely related sciences.

(*f*) Federal allowances for the education of children of deceased veterans, the aid being restricted to such children who are between the ages of 16 and 23 years.

(*g*) Establishment of a Foreign Service scholarship training program which would aid beneficiaries to complete studies at accredited colleges and universities of their choice.

(*h*) Establishment of a Foreign Service Academy comparable to the Military and Naval Academies.

(*i*) Allowance of a tax deduction for tuition or fees paid to institutions of higher education equal to 30 percent of the aggregate amount so paid.

(*j*) Refund to each State of 1 percent of all income taxes collected within that State on individual and corporate incomes under Federal statutes, the amount refunded to be used for educational purposes only, at any educational level, without Federal interference.

7. OTHER CONSIDERATIONS

Altogether, the factors which might enter into a study of the question of Federal aid to students for higher education are too numerous for exhaustive discussion in this report. Some of the additional considerations, like most of the foregoing, are factual. Others are questions, to some of which there are no ready available factual answers. Further research might produce reasonably objective

answers to some of these questions. The answers to others must necessarily remain matters of opinion. Such questions as the following enter into the overall issue:

(*a*) Does the Federal responsibility respecting the national defense and national welfare include a responsibility to promote the higher education of the Nation's youth?

(*b*) Should the Federal Government particularly remove financial barriers to the higher education of the Nation's most gifted and competent youth, on the assumption that they constitute a highly valuable natural resource which should be developed in the national interest?

(*c*) If a Federal program of financial aid to students should be established, should it provide scholarships, or loans, or both, for individual students?

(*d*) Would a program of Federal aid to individual students be preferable to Federal aid to the States or to institutions for higher education, the ultimate purpose of the Federal program being the same in each instance?

(*e*) If enacted, should the program of Federal aid to students allow the beneficiaries free choice of institution?

(*f*) Should such a program allow free choice of field of study, or should it be restricted to education in certain fields, such as engineering, the sciences, or medicine?

(*g*) Should Federal scholarship awards be made on the basis of nationwide competitive examinations, State quotas, or some other basis?

(*h*) Should a temporary or a long-term Federal program of student aid be established?

(*i*) Should Federal scholarships be awarded only on the basis of intellectual promise or should the financial need of the recipient also be considered? If the latter, should the scholarship be a fixed amount for every student or vary with the extent of financial need?

(*j*) Would enactment of a bill such as (1) the "oil for education" proposal, or (2) return to the States of a percentage of Federal collections of revenue, which would give the States more money for all educational purposes, be preferable to Federal appropriations for scholarships and/or loans to students?

(*k*) Should the Congress establish a broad program of educational benefits for future ex-servicemen?

(*l*) Would establishment of a Federal program of financial aid induce a majority of the Nation's gifted youth to continue their education if they would not do so without such assistance?

By action or inaction on pending and forthcoming bills, the Congress will inevitably answer some or all of these and related questions. The following chapters of this report supply additional basic material to support informed answers.

CHAPTER II. BACKGROUND: DEVELOPMENT OF FEDERAL POLICIES IN HIGHER EDUCATION

(Background of the Current Issue: An Historical Review, with Basic Reference to Federal Policies in Education in General)

A. Early Development of Policy

In its infancy the Federal Government assumed a share of the responsibility for financing education. The Federal Government early undertook two types of educational activities: (1) operating educational programs of its own, and (2) aiding the States and Territories in financing and promoting education. Both of these types of activity antedate the Constitution, and since the period of their incipiency, have included higher education.

As early as in 1785 an ordinance adopted by the Congress of the Confederation for the disposal of public lands in the Western Territory reserved lot No. 16 of every township for the support of schools within that township. Two years later, in the Northwest Ordinance, the concept of education as being in part a national responsibility was expressed in the declaration that—

> Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged.

In certain contracts for the sale of public lands in 1787 and 1788 the Congress again reserved lands for the support of schools and universities.

At the time of the framing of the Constitution a nationwide system of publicly controlled, nonsectarian schools and institutions of higher education was only the distant hope of a few statesmen and reformers. Education was almost universally regarded as being a church function; but in America there was no established national church. At one time during the Constitutional Convention education was included in a list of specific powers to be assigned to the Federal Government but the duty of administering education was later deleted from the list. The deletion was probably made to avoid raising an unresolvable controversy when there was great difficulty in obtaining agreement on inescapable issues.

Since powers not delegated to the Federal Government were reserved to the States, public education, as it slowly developed during the 19th century, came under their control. Thus the United States, instead of acquiring a unified, national system of education such as exists in most other countries acquired as many systems as there are States and Territories.

Some of the framers of the Constitution and early national leaders considered that the "general welfare clause" assigned the Federal Government responsibility for promoting education. Alexander Hamilton expressed that view in 1791. George Washington advocated the fostering of education as an obligation of the Federal Gov-

ernment. Thomas Jefferson declared that Congress should appropriate public lands for this purpose. John Quincy Adams urged Congress to promote education.

In 1802 the Congress of the United States took definite action in continuation of the general policy initiated 17 years earlier by the Congress of the Confederation. With the admission of Ohio to the Union in 1802, Congress began setting aside lands for school support at the time of admission of a State. As other States formed from the public domain were admitted, the grants of sections in townships for schools were continued. New States also received lands for academies and universities. Occasionally Federal lands were granted to specifically designated institutions of higher education.

During the first half of the 19th century the Congress also provided certain monetary grants to the States which were frequently used to support education. These monetary grants were derived principally from the sales of public lands.

The "general welfare" clause and other clauses in the Constitution have served as warrants and guides for the development of Federal educational programs.

In recent years there has been increasing contention that the "general welfare" clause assigned the Federal Government not simply the right but actually the duty to promote education. This is an ethical question which by reason of its nature has not been and is not likely to be the subject of any judicial decision. However, interpretations of the Constitution which have been made by the Supreme Court apparently would sanction any Federal activity in education which could be shown to be for the purpose of promoting the national welfare.[1] Under its constitutional powers to tax and appropriate for this purpose the Federal Government has played an increasingly important role in elementary, secondary, and higher education as it has become more and more important to the security and progress of the Nation as a whole.

B. Higher Education for National Defense

Apparently the National Government's own educational pursuits, as distinguished from aid to the States for education, began with "general instruction" in the Army under the Von Steuben regulations of 1779. This was followed by establishment of institutions of higher education for national defense. The Military Academy at West Point was established in 1802. The Artillery Corps for Instruction, assembled at Fort Monroe, Va., in 1824, was the first of the special service schools later organized by all the major services of the Army for the training of officers. The Naval Academy was established at Annapolis in 1845. The Air Force Academy in 1954.

The Morrill Act of 1862 provided specifically that military training would be given at the land-grant colleges which were founded pursuant to that act.

Organization of the Reserve Officers Training Corps in 1916, the Student Army Training Corps in 1918, and the Naval Reserve Officer Training Corps in 1925 marked important phases in cooperative educational undertakings by the Federal Government and civil institutions

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[1] *Hamilton* v. *Regents* (1934), 297 U. S. 245; *Wickard* v. *Filburn* (1942), 317 U. S. 111; *Oklahoma* v. *U. S. Civil Service Commission*, 1947, 330 U. S. 127.

of higher education. These undertakings required direct contracts with public and private colleges and universities. In the opinion of some persons the ROTC and NROTC may be considered Federal scholarship programs, as may be also the "Holloway plan" established by the Navy following World War II. The purpose was aiding individuals in collegiate training particularly for service in the Army or Navy.

During the Second World War the Congress made available to the States funds for a number of activities in education for national defense. The United States Office of Education administered several emergency programs and aids to education. Among these was a program of loans to students for training in technical and professional fields.

During World War II educational activities of all sorts and at all levels within the Armed Forces were vastly extended. At one time the Office of War Information announced that the United States Army and Navy were operating "the largest adult school system in the world." This system largely utilized the colleges and universities of the Nation.

From this account it may be seen that the Federal Government has developed a policy of large-scale provision for education for national defense. Implementation of this policy involves direct utilization of a number of Federal institutions of higher education and also contractual utilization of the facilities and services of other public and private colleges and universities.

C. Land-Grant Colleges and Connected Services

With the passage of the Morrill Act of 1862 the Congress initiated a policy of aid to the States for higher education in certain specialized fields. This act granted to each State Federal lands, or script to States in which there was not sufficient Federal land to make up their allotments. The proceeds of the sales of these grants were to provide for the endowment and support of at least one college in each State where the leading object would be "to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe." Congress later enacted laws providing for continuing annual appropriations to these institutions.

In 1887 the Congress began to make appropriations for an agricultural experiment station in each State under the direction of the land-grant college or colleges in that State. In 1914, through the Smith-Lever Act, Congress initiated a program of cooperation with the States in extension work in agriculture and home economics. This act and later acts providing for reforestation activities involve the services of the land-grant colleges.

The Federal land-grant legislation represents development of a Federal policy of promoting higher education of the kind specified, stimulating State support for this kind of education and concomitantly advancing higher education in general.

D. Vocational Education and Rehabilitation of Civilians

The Smith-Hughes Act of 1917 established a policy of Federal aid to the States in the support of vocational education in public secondary schools. The act also provided for the appropriation of Federal funds

to aid in training persons to teach industrial subjects in those schools. To this extent the act gave Federal aid to the higher education of certain individuals.

Subsequent legislation culminating in the George-Barden Act of 1946 has authorized additional appropriations and extended the scope of the Federal-State program of vocational education.

In enacting the Vocational Rehabilitation Act of 1920 the Congress initiated a policy of Federal cooperation with the States in the vocational rehabilitation of persons disabled in industry. Amendments to the original act have expanded this policy by providing continuous and increased appropriations for this purpose. Administration of the program frequently utilizes colleges and universities, as well as trade schools and other institutions, to meet the educational needs of disabled persons of employable age.

E. Emergency Relief Programs Affecting Higher Education

Notable innovations in Federal policies with respect to elementary, secondary and higher education arose during the depression of the 1930's. Certain Federal agencies established to administer various phases of the relief programs engaged in educational activities, while others administered grants and loans in aid to education. Through the Work Projects Administration and the Public Works Administration the Federal Government enabled educational institutions to renovate and construct facilities.

Federal grants-in-aid to education during this period and loans for the construction of educational buildings amounted to many hundreds of millions of dollars.

The Civilian Conservation Corps and the National Youth Administration carried out their own programs (largely education and student aid) in the States. President F. D. Roosevelt said in 1939 that the major purpose of the CCC was "to promote the welfare and further the training of the individuals" in the corps. In the same year he said that the main purpose of the NYA was "to extend the educational opportunities of the youth of the country."

Instruction in the CCC was generally below the collegiate level; however, many enrollees secured degrees by attending regular day or evening classes at colleges or universities near the camps.

The activities which were carried out by the National Youth Administration are of special interest in connection with the present study. While providing work relief, vocational guidance, and employment for persons between the ages of 16 and 25 years, the NYA administered an extensive student-aid program in secondary schools, colleges, and universities. Locally the student-aid program was administered principally by school and college officials. These were responsible for the assignment of students to suitable work and for supervising the work done. Regional representatives of the NYA served in a liaison capacity between the State and National offices.

F. The United States Office of Education and Higher Education

Consideration of the development of Federal policies in higher education must take into account the establishment of the United

States Office of Education in 1867 and subsequent activities of that Office. It was established for the basic purpose of—

> collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems and otherwise promote the cause of education throughout the country.

Although the Congress has at various times vested in the Office of Education the responsibility for the administration of certain acts or programs, some temporary and some continuing, the Office at all times has continued to give emphasis to the discharge of functions set forth in its original statute. The collection and dissemination of information remains today a fundamental activity of the Office for the promotion of higher education, as well as education at other levels.

Soon after its establishment the Office of Education accepted the responsibility of auditing the public lands granted under the Morrill Act of 1862. It was later given and has since administered other responsibilities concerning the land-grant colleges and universities. Additional duties affecting higher education assigned to the Office of Education have included, for example, determination of the accrediting agencies which shall approve educational institutions for enrollment of veterans under Public Law 550, 82d Congress.

Although there has developed a Federal policy of assigning the Office of Education specific responsibilities, some of which are in the field of higher education, these responsibilities have by no means included all those relating to Federal programs in this field. Only a small percentage of the total Federal expenditures for activities in higher education has been channeled through the Office of Education.

G. International Relations in Higher Education

As one phase of the foreign policy of the United States, for a number of years the Federal Government has cooperated with other countries in certain educational undertakings. As a member of the Pan American Union (now the Secretariat of the Organization of American States) the United States has participated in its educational program, which began in 1906. Likewise the United States since 1946 has been active in the educational undertakings of the United Nations Educational, Scientific, and Cultural Organization.

An exchange-of-persons program was initiated in 1936 under the Buenos Aires Treaty with 16 other American Republics. Through the Act of Cooperation with the Other American Republics, the 76th Congress expanded the program to include an exchange of students, teachers, and other persons with all of the other American Republics.

The Fulbright Act of 1946 established a new policy of the United States Government in aid to individuals for study abroad. The act augmented the existing educational-exchange program by authorizing the Secretary of State to negotiate executive agreements providing for educational exchange with foreign countries, financed from the sale of surplus property abroad. The Smith-Mundt Act of 1948 furnished the basis for a worldwide program of educational exchanges.

These and other actions by the Congress and by the President have developed a definite policy of participation by the United States in international educational relations, largely at the higher education

level. Generally the purpose has been to increase mutual understanding between the peoples of the United States and of other countries, to counteract anti-American propaganda, and create public opinion in other countries favorable to the United States.

It has been the policy of the Department of State to administer the educational exchange program in cooperation with a number of public and private agencies. The program has been concerned generally with college graduate and undergraduate students, primary- and secondary-schoolteachers, university lecturers and advanced research scholars, specialists, and leaders of thought and opinion.

Executive Order 10610 of May 9, 1955, transferred to the International Cooperation Administration, a semiautonomous agency under the Department of State, certain foreign-assistance activities formerly administered by the Foreign Operations Administration. Included was technical cooperation, consisting largely of demonstrations, teaching, training, exchange of information, and technical guidance. The program is aimed at helping less-developed areas of the world to further their economic development and raise their standards of living, and involves education at all levels.

H. Government Research and the Colleges

In 1863, recognizing the Government's need for research and for assistance in scientific study, Congress established the National Academy of Sciences as a quasi-official agency. As a measure of national preparedness the Academy organized the National Research Council in 1916.

In 1887 Congress inaugurated a Federal policy of giving support to agricultural research through appropriation of funds for agricultural experiment stations in connection with the land-grant colleges.

During World War I the Government began entering into contractual arrangements with colleges and universities for the performance of research activities in connection with national defense. Some arrangements of this kind were continued after the war.

During World War II the scope of such research and the number of fields of investigation were greatly increased. In 1950 the Government expended, through 14 of its agencies, an estimated total of $150 million for research carried out at colleges and universities. The Federal Government may be said to have developed a policy of broad utilization of the facilities and personnel of colleges and universities for research purposes.

I. Higher Education for Veterans

At the close of the First World War the Congress made provision for disabled veterans to receive rehabilitation training. Some of this was at the higher education level.

During World War II the Congress greatly broadened the Federal policy of providing educational benefits for veterans.

The Vocational Rehabilitation Act of 1943 and the Servicemen's Readjustment Act of 1944 established new educational programs respectively for disabled veterans and for veterans in general. Although involving education at all levels these programs have been concerned very largely with higher education.

The Vocational Rehabilitation Act of March 24, 1943, provided vocational rehabilitation for disabled veterans of World War II found to be in need of such training. In 1950 the benefits of the act were extended to veterans disabled in Korea or elsewhere under wartime conditions.

Under this legislation the facilities of educational institutions and industrial establishments have been used to provide a wide variety of vocational and academic training. Tuition, books, supplies, equipment, necessary tools, and a subsistence allowance have been provided by the Veterans' Administration.

The training load rose gradually from the initiation of the program to December 1947, when a peak number of about 256,000 veterans was in training under this legislation.

The Servicemen's Readjustment Act of 1944, as amended, has provided a broad educational program generally for veterans of World War II and subsequent service. Under the World War II legislation each honorably discharged veteran who had served 90 days or more in the armed services within certain specified dates, became eligible to pursue an elected course in a certified institution of the veteran's choice for a period equal to that of his wartime service plus 1 year. The legislation provided for payment by the Veterans' Administration of the cost of tuition, books, and supplies, and a subsistence allowance varying with the number of the veteran's dependents.

When the peak training load under this program was reached in November 1947, over 2,500,000 veterans were enrolled in educational courses.

In the enactment of Public Law 550 the 82d Congress modified the Federal policy of providing veterans educational benefits. Under the simplified system of allowance for subsistence, tuition, et cetera, the individual veteran became responsible for payments to the educational institution of his choice.

Implementation of the Federal policy of providing educational benefits for veterans resulted in unprecedented enrollments in colleges and universities and has had far-reaching effects on higher education in general. This largest of all Federal scholarship programs gave millions of persons opportunities for higher education which they might not have had otherwise.

J. Federal Surplus Property Utilization

During World War II the Federal Government accumulated a large quantity of real and personal property which later became surplus. In passing the Surplus Property Act of 1944, Congress initiated a policy of making available some of this property for educational usage. The Surplus Property Board and its successor, the War Assets Administration, with assistance from the United States Office of Education, determined distribution of such property to educational institutions on the basis of need. The institutions acquired some of the property through donation and some through purchase with discounts allowed for public benefit.

Subsequent legislation has augmented and extended the provisions for donations of Federal surplus property for educational and health purposes.

This program of secondary utilization of Federal property by tax-supported or tax-exempt health and educational institutions is now recognized as one of the important Federal-aid programs.

K. Other Federal Policies in Higher Education

Under an extension of the Lanham Act of 1941 the Federal Government began assistance to college housing on a temporary basis. As provided in the Housing Act of 1950 and college housing amendments of 1955 the Federal Government is carrying on a continuing program of loans to colleges and universities for the construction of dormitories and other residential buildings.

A full account of the development of Federal policies affecting higher education would be quite lengthy and appears unnecessary for the purposes of the present study. Besides the programs already described the Federal Government has undertaken some other activities of its own in the field of higher education and has given some additional aid to higher education under State, municipal or private administration. A brief review of the development of several of these programs follows.

An act of Congress in 1874 provided for the establishment of nautical schools at each of six designated ports, with State cooperation, for the training of officers for the merchant marine. The act of 1936 which established the United States Maritime Commission led to the training of officer candidates at Kings Point, N. Y., and Port Christian, Miss. Congress later authorized the institutions training officers for the merchant marine to grant degrees. The Maritime Administration now operates the United States Merchant Marine Academy at Kings Point, Long Island, N. Y., and gives aid to State maritime academies in New York, Massachusetts, Maine, and California.

At least since 1879 the Federal Government has pursued a policy of providing training for some of its civilian employees. The program of technical training given its employees by the National Bureau of Standards dates from 1909; and the Graduate School of the Department of Agriculture from 1920. Service and staff schools of Federal agencies have offered postsecondary instruction, sometimes in cooperation with colleges and universities. Some agencies have been authorized to provide inservice training for their personnel at private and State institutions. These programs have generally been aimed at meeting the need of the agencies for certain highly trained personnel.

Of special interest in this study is the policy initiated in the Public Health Service Act of 1944 which authorized the Surgeon General to establish research fellowships in the field of public health. The scope of this policy has been extended by subsequent legislation. Further consideration is given it in another chapter of this report.

L. Summary and Major Considerations

Through the years the Federal Government has developed policies for maintaining a variety of activities and relationships in the field of higher education. Some of these of continuing nature are the following:

(1) Operation of institutions of higher education for the Armed Forces—the Military, Naval and Air Force Academies, the Air University, the Industrial College of the Armed Forces, et cetera;

(2) Contractual arrangements with civil institutions of higher education for the training of Reserve officer candidates or military personnel on active duty, and in some instances for Federal civil personnel;

(3) Contribution to the support of higher education in agriculture and the mechanic arts in the land-grant colleges, and aid to home economics and vocational education beyond the secondary level.

(4) Cooperation with the States in a program largely utilizing colleges and universities for the vocational rehabilitation of persons disabled in industry;

(5) Assignment to the United States Office of Education of specific responsibilities affecting higher education;

(6) Participation in a program of international educational exchanges;

(7) Entering into contractual relationships with colleges and universities for the performance of research for the Government, particularly in connection with national defense;

(8) Provision of educational benefits for veterans;

(9) Donation or discount sale of Federal surplus property to educational institutions;

(10) Provisions of loans to colleges and universities for the construction of buildings for certain purposes;

(11) Annual appropriation of Federal funds to certain institutions under private control devoted to the education of the deaf (Gallaudet College) and the education of Negroes (Howard University).

The Federal policy of granting exemption from income taxation to nonprofit institutions of higher education in general has given them important if indirect financial assistance.

Federal policies in administration of programs in higher education have developed gradually and without comprehensive planning. Generally provisions have been made for administration of the programs by the agencies whose principal objectives the educational activities promote.

Congress has never enacted an overall policy or program setting forth what the Federal Government should or should not do in higher education. There have been some legislative proposals generally to coordinate Federal activities in education in a central educational agency.

Certain of the continuing activities have been restricted to publicly controlled institutions; others have been to advance higher education in general without reference to the type of control.

CHAPTER III. EARLIER PROPOSED FEDERAL PROGRAMS AND RELATED STATEMENTS

(Basic Principles of Some Bills Pending in the 84th Congress)

Soon after World War II it became apparent that a large percentage of the young people who had been in the Armed Forces would utilize the educational benefits provided them by Congress. In consideration of this fact, the temporary nature of the veterans' educational program, the rising cost of higher education, and other factors, certain national organizations and agencies began urging the establishment of a Federal scholarship program for civilians. In several messages to Congress President Truman recommended such a program of student assistance; and the task force of the Hoover Commission issued a report favorable to the basic idea.

Following is a brief review of some of the proposals and supporting statements. Essentially these same proposals are contained in bills pending in the 84th Congress. The statements here reviewed in connection with the original proposals are about as applicable today as at the time these statements were made. These proposals and statements have not been withdrawn by the organizations and individuals who advanced them, and since as a whole they constitute the basis for pending bills, this material may be considered substantially current.

A. Proposal by the President's Commission on Higher Education

On July 13, 1946, President Truman established the President's Commission on Higher Education, to which he appointed outstanding civic and educational leaders. He charged the members with the task of defining the responsibilities of colleges and universities in American democracy and in international affairs—and, more specifically, with reexamining the objectives, methods, and facilities of higher education in the United States in the light of the social role it has to play.

The magnitude of the issues involved prompted the Commission to incorporate its findings and recommendations in a series of six volumes. These were published in December 1947 under the general title "Higher Education in American Democracy." The report was generally favorable toward Federal participation in the financing of education, declaring that—

> The Federal Government assumes responsibility for supplementing State and local efforts in military defense against the Nation's enemies without; surely it may as justifiably assume responsibility for supplementing State and local efforts against educational deficiencies and inequalities that are democracy's enemies within (vol. I, p. 103).

Much of the material in the report relates to the need for Federal aid to higher education. Volume V sets forth a Program for Action

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recommended by the Commission. With respect to Federal aid to individuals the Commission recommended, that—

> Immediate steps be taken to establish a national program of federally financed scholarships and fellowships as a means of removing further the economic barrier and enabling our most competent and gifted youth to obtain for themselves and for society the maximum benefits to be gained from higher education.

In this connection, the Commission declared that—

> Not only is it important for the welfare of the Nation that adequate low-cost opportunities for higher education be made available to all the people of America, but it is of utmost importance that the Nation's most talented youth be encouraged and given the opportunity to continue their education to the fullest extent possible. For this reason the Commission advocates: (1) that a continuing Federal program for undergraduate scholarships be established beginning with $120 million in 1948–49 and continuing each year for the succeeding 5 years in an amount sufficient to provide scholarships for 20 percent of the nonveteran undergraduate enrollment; (2) that in addition to the existing Federal fellowship programs a new program be established for graduate students through the appropriation of sufficient funds to provide 10,000 grants of $1,500 each in 1948–49, 20,000 grants in 1949–50, and 30,000 grants in 1950–51, 1951–52, and 1952–53; and (3) that before 1953–54 the program of scholarships and fellowships be reexamined with a view to expanding it.
>
> On the basis of the anticipated enrollment in 1948–49, the granting of scholarships to 20 percent of the nonveteran undergraduate enrollment would provide assistance to some 300,000 students. This would be in addition to the 10,000 fellowships also proposed for the first year of the program (vol. V, p. 4).

The Commission stated that the Federal Government had already initiated a number of scholarship and fellowship programs, and recommended that at the earliest possible time all such programs should be unified under a single agency.

The Commission recommended that the proposed grants for scholarships and fellowships be made generally available rather than for study in specified fields, as is the case with most of the existing Federal programs.

The report emphasized that the program of aid recommended by the Commission should be in addition to all funds appropriated and available under existing legislation for scholarships and fellowships. The Commission advised that the national program for scholarships and fellowships in nonspecified fields which it recommended should be administered by the States in accordance with general standards established by the Federal Government.

As one of the basic principles of Federal relationships to higher learning, the Commission declared that—

> Federal funds provided for scholarships or grants-in-aid for the purpose of helping individuals of ability and fellowships for those of special talent to obtain equality of opportunity in education should be paid directly to the qualifying individuals.
>
> It is in keeping with the principles of democracy that each individual should have as free choice as facilities permit in determining the educational institution which he deems most suitable to his needs and interests, regardless of whether that institution is under public, private, or church control. That choice can be fully protected only if scholarships or fellowships, such as those proposed by this Commission in volume II, Equalizing and Expanding Individual Opportunity, are paid directly to the qualifying individual (vol. V, p. 58).

Volume II of the report of the Commission sets forth further details regarding the distribution and administration of the proposed Federal scholarships. The following statements appear in this volume:

> These programs and proposals indicate that the Federal Government recognizes the desirability of providing financial aid to students because of the public benefits which accrue. This Commission believes, however, that a general pro-

gram of national grants-in-aid and graduate fellowships, equally available within the limits of the Federal appropriation to all eligible students, will make specialized and piecemeal programs unnecessary and unwise. By having all general grant and fellowship programs administered within a single program, the competition among the various programs can be eliminated. This is imperative to meet total national needs.

* * * this Commission recommends that a national program of Federal scholarships in the form of grants-in-aid be provided for at least 20 percent of all undergraduate, nonveteran students.

It seems obvious that, in the national interest, we as a Nation can well afford to invest in the education of needy nonveterans amounts approaching those which we are now investing in the education and training of qualified veterans.

Only as the opportunity for higher education is equalized for every potential student who has the interest and the ability to profit from college and university study at both undergraduate and graduate levels, can the ideals of democracy in education be realized. The program of scholarships and fellowships here proposed is not for the welfare of the individual alone, but is vital in the national interest (vol. II, pp. 49–57).

B. Proposal by Former President Truman

President Truman repeatedly urged the Congress to enact measures providing for the assumption of further Federal responsibility for the financing of education. In messages to the 81st Congress he specifically included recommendations for a Federal program of general scholarships and fellowships.

In his Economic Report to Congress on January 7, 1949, President Truman said:

The crisis facing education must be met, and the basis for the continued improvement of our system of education made firm. Only with Federal resources can we meet adequately the increased cost imposed by expanding enrollments and the general rise in expenditures for maintenance and operation. I recommend that a Federal program for aid to elementary and secondary education be initiated. We should make plans whereby the opportunities for higher education would be expanded through cooperation between the Federal Government and public agencies and private institutions, including a system of general scholarships and fellowships.

In his budget message of January 10, 1949, the President said:

It is important to the continued progress of the Nation that we raise our educational standards and expand our fundamental research.

It has become increasingly obvious that the national welfare demands that higher education be made available to more of our talented young people. We should now determine the soundest and most practical means of providing additional opportunities for capable young people who could not otherwise afford a college or university education.

On March 8, 1949, President Truman delivered an address at Rollins College, Winter Park, Fla. In that address he said:

Education is the most important task before us. The Congress should enact legislation authorizing Federal grants to the States to meet the operating expenses of elementary and secondary schools. There is general agreement that such aid can be given without interference with State responsibility for the scope and content of the teaching.

If our country is to retain its freedom in a world of conflicting political philosophies, we must take steps to assure that every American youth shall receive the highest level of training by which he can profit. A soundly conceived Federal scholarship program in our colleges and universities is a necessary step in attaining this goal.

In his message to Congress on a national health program, April 22, 1949, the President recommended scholarship aid specifically in the field of public health. Since existing legislation in this field provided for aid to individuals only in a few disease categories, such as cancer, it may be assumed that the President had in mind additional aid.

In his budget message of January 9, 1950, President Truman said:

> Primarily because of low family incomes and of the high costs involved, more than half of our young people who would benefit from a college education are now unable to attend. This failure to develop to the fullest extent the capacities of our young people is a matter of national concern. As a step toward correcting this situation, I shall transmit to the Congress a legislative proposal to authorize a limited Federal program to assist capable youth who could not otherwise do so to pursue their desired fields of study at the institutions of their choice.
>
> This budget includes $1 million as a tentative estimate of appropriations needed in the fiscal year 1951 to establish the required organization and to initiate the program. Assistance to students would begin in the fiscal year 1952.

For consideration in connection with President Truman's remarks on the subject of scholarships and fellowships the following statement made by John R. Steelman, assistant to the President, quoted in the official journal of the United States Office of Education for February 1949, may be of particular interest.

> It becomes increasingly clear that as our national economy grows more complex, and as the United States assumes a greater position of leadership and responsibility in international affairs, higher education must be made available to every young American who is able to profit from it.
>
> The President recognized this problem when he appointed his Commission on Higher Education. He stated the Commission's first concern to be "Ways and means of expanding educational opportunities for all able young people * * *."
>
> The President's Commission found that, in terms of the number of young people with the ability to complete college and postgraduate work, the total enrollment in our institutions of higher learning should be more than double what it is today. It was found that the economic barrier is the greatest single factor that has so far restricted the number who receive higher education.
>
> What part should the Federal Government play in meeting this problem?
>
> Federal assistance to higher education is not new and is based on sound precedent. For many years the Federal Government has encouraged and assisted the colleges and universities, through grants of land and money and by exempting nonprofit institutions from Federal taxation. Recently, during the 1930's, more help has been given through construction grants for tax-supported institutions, and a program of student aid under the National Youth Administration.
>
> At the present time, over a million veterans of World War II are attending higher educational institutions all over the country, and under the GI bill they receive their tuition and subsistence from the Federal Government. This greatly increased enrollment, while it has taxed the facilities of our colleges, has at the same time given us an indication of how many young people, really want to continue their education, if they have the opportunity to do so.
>
> In the next few years, I believe we must plan, in the light of the report of the President's Commission on Higher Education, the best means by which the Federal Government can give scholarship aid to worthy young people who desire to continue their education.
>
> We Americans believe in a free market of ideas. We are convinced that in the struggle between democracy and totalitarianism, only people who have been trained to make sound individual judgments, can effectively resist a dogma or party line imposed from above. If America is to retain its freedom in a world of conflicting ideologies, we must take steps to assure every American youth the opportunity to receive the highest level of education by which he can profit. A soundly conceived Federal scholarship program is a necessary step in achieving this goal.

C. Statement by the Hoover Commission's Task Force on Public Welfare (1949)

The Lodge-Brown Act, Public Law 162, approved by the President on July 7, 1947, brought into being a Commission on Organization of the Executive Branch of the Government. Commonly known as the (first) Hoover Commission, in honor of the Chairman, Herbert Hoover, the Commission was composed of 6 Democratic and 6 Republican

members. Four Commissioners were chosen by each of the following persons: The President of the Senate, the Speaker of the House of Representatives, and President Truman.

On February 5, 1949, the Chairman submitted to Congress the report of the Commission concerning the general management of the executive branch of the Government. Shortly thereafter the Chairman sent Congress the reports and recommendations of the Commission upon the various functions and departments, and the related task force reports.

The report of the Task Force on Public Welfare (appendix P) contains the following recommendation:

> Should the Government in the future plan any new activities or extended expansion of present problems which support given areas of collegiate service or curriculum, we would strongly recommend that instead there be substituted a program designed somewhat along the lines of the present education of veterans. For reasons stated earlier in this chapter, this program seems to hold the best promise of any activity yet devised by the Government for strengthening higher education without undue control, either obvious or obscure. The selection of worthy and able students from all parts of the country who have considerable latitude in choosing institution and course of study relieves the Federal Government of any complaint that it is showing favoritism to individual institutions, geographical areas, or to special phases of the curriculum. In such a plan Federal funds should be granted to States by an equitable objective formula, but choice of institutions by students should not be limited by State lines. Within general standards as determined by Congress, States should be given responsibility for the administration of the program as it concerns the selection of able and worthy students, certification of educational institutions where studies could be pursued, and general administration of the program. If such a program were undertaken, a considerable part of the Federal funds now going directly to individual institutions for research, fellowships, and other purposes might better be channeled through it (pp. 359–360).

D. Proposal by the President's Scientific Research Board

Executive Order 9791 of October 17, 1946, established the President's Scientific Research Board and provided for a study of scientific research and development activities. The purpose was "to insure that Federal research activities contribute most effectively and efficiently to strengthening the national defense, to developing the national economy, and to increasing the store of fundamental knowledge."

In accordance with the terms of the order, the Director of War Mobilization and Reconversion became the Chairman of the Board. The order named the following Federal officials to constitute its membership: the Secretaries of Agriculture, Commerce, Interior, Navy, and War; the Federal Security and Federal Works Administrators; the Director of the Office of Scientific Research and Development; the Chairman of the Federal Communications Commission; the Chairman of the Tennessee Valley Authority; and the Chairman of the National Advisory Committee for Aeronautics.

The order set forth specific duties of the Director of War Mobilization and Reconversion including the duty to make certain studies and on the basis of these studies to prepare and submit a report to the President including among other specified data—

> his recommendations for planning, administering, and staffing Federal research programs to insure that the scientific personnel, training, and research facilities of the Nation are used most effectively in the national interest.

The order set forth the duty of the Scientific Research Board as being that of assisting the Director in the performance of his specified duties.

During September and October 1947, the Chairman of the Board at intervals presented the President five volumes which together constituted its report, entitled "Science and Public Policy." Volume 1 contains the following recommendation regarding Federal financial aid to students:

> A comprehensive Federal program for the assistance of undergraduate students should be in operation in the near future—certainly no later than 1950—to pick up as the veterans' program declines. It should apply equally to all fields of learning and should be administered through the United States Office of Education or its successor in the proposed Department of Health, Education, and Security (vol. 1, p. 36).

This recommendation is amplified and emphasized in volume 4 of the report in the following terms:

> It is even more difficult for scientists in Government and industry to continue training. Not only are they under pressure for immediate accomplishment but training facilities are often not at hand. There are instances, however, in both Government and industry where laboratory management has taken the initiative in making facilities available.
>
> Assistance in providing opportunities for scientists in Government and industry to continue their education and training is of great importance. Not only is their value to the individual organization being increased, but the total strength of the Nation's scientific personnel resources is thereby augmented.
>
> More postdoctorate fellowships are needed, so that able scientists can take time from their jobs to continue training and to further basic research. Fellowships also offer a tool which can be used to provide more teachers.
>
> In looking toward the future, we must take steps also to assure that ample numbers of potential scientists continue to enter our colleges and universities. Indications are that half our ablest high-school graduates are unable to attend college because their families cannot afford the expense.
>
> A recent study shows that in New York State 59 percent of the top fourth of the students, from the standpoint of ability, fail to go to college if their family income is less than $5,000. Only 24 percent of this same group fail to go if family incomes are more than $9,000.
>
> Over the country as a whole, economic barriers to college attendance are at least as great. This represents a serious loss to the Nation not only in scientific progress, but in all other fields of endeavor as well.
>
> Economic pressures are the main factor hampering our scientist training at all levels. It is toward redressing these pressures that recommendations and positive action must be directed. Unless this is done, and done promptly, the Nation faces a serious impairment of all scientific effort in the years ahead, and a diminution not only in the total number of scientists that can be trained, but in the quality of their work toward scientific progress.
>
> The situation in which we find ourselves today in respect to scientific manpower is dangerous not only to our national welfare but to national security. It is of the utmost urgency that steps be taken to increase and improve our scientific manpower pool. But this is almost entirely a matter of strengthening and extending our system of higher education. The problems which confront us in the field of science can be solved only in a broader setting (vol. 4, pp. 26–27.)

One of the things which the report declared that as a nation we should do is:

> Develop a national system of scholarships and fellowships to continue Federal support of students as the benefits under the Servicemen's Readjustment Act expire. Such a program should cover all fields of knowledge and not be restricted to the physical and biological sciences. * * * (vol. 4, p. 27).

E. Proposal From the American Council On Education

In response to a questionnaire circulated in 1947, more than 86 percent of the institutional members (colleges, universities, et cetera) and 94 percent of the constituent members (national educational organizations) recommended that "Federal funds be made available for a program of scholarships available to students in all types of colleges and universities." A special conference called by the Council in December 1949, endorsed this policy and proposed constituent principles and procedures for a Federal student-aid program.

More recent action by the Council is recounted in the following chapter of this report.

F. Proposal From the Association For Higher Education

As early as 1945, the Association for Higher Education (then the Department of Higher Education of the National Education Association) was concerned with national competitive scholarships for college students as indicated in the testimony of the executive secretary at a public hearing before the House Committee on Education, July 6, 1945. The association's position was outlined as follows:

> Opportunity for education in the United States should not be limited by economic circumstances of the individual. There are hundreds of thousands of young men and women who have the capacity and the desire for a college education which would make them more valuable to the Nation as well as to themselves, but they lack the economic resources to attend college. This group includes many who actually go to college now at great sacrifice to their families. There should be a substantial appropriation of Federal funds annually for a nationwide system of competitive scholarships, each payable direct to a student for college and university education only, each adequate to cover a substantial portion of expenses on a reasonable and moderate basis, and all administered by nonpolitical educational agencies under State control. There could not possibly be a more productive investment for the Nation.

In 1948 the executive committee of the association formulated the following basic principles for the recommended national scholarship program.

1. That such legislation recognize the responsibilities of the States for the control and administration of the program;
2. That such scholarships be granted and administered by a State educational committee or authority designated or established by the State for that purpose, to students of demonstrated competence to benefit from the type of program sought, with such additional factors taken into account as may be deemed necessary by the State educational committee or authority;
3. That funds be distributed among the States on the basis of a formula which takes into account both the population of college age and the number of high-school graduates within the State;
4. That the funds go directly from the State authority to the individual student to be used for any necessary expenses in attending any higher education institution approved by the State authority or by the voluntary regional accrediting agency;
5. That the legislation recognize that the scholarships must be of sufficient value to afford real relief to the able student who is now unable to attend for economic reasons, and at the same time be sufficiently flexible to permit recognition of the variability in costs of different types of programs at different levels of higher education.

6. That the legislation provide for periodic revision of any specific basis of allocation such as average or maximum scholarship amounts, and that it take into account the need for increasing annual amounts to provide for renewals;

7. That the program be designed to encourage even greater support of scholarships from philanthropy and from State sources;

8. That the legislation include the requirement that the funds be used in such manner that there be no discrimination with regard to sex, creed, or race.

In 1949, the participants in the Fourth National Conference on Higher Education, sponsored by the Association for Higher Education (the Department), supported the executive committee's eight principles in passing a resolution urging the establishment of a national scholarship program.

G. Proposal From the National Students Association

In the spring of 1949 the National Students Association proposed a "civilian GI bill" for direct support to individual students on the basis of need and ability. The association proposed that the program be administered by the States without discrimination as to race, creed, or social status.

The executive committee of the association set forth the purpose of the proposal as being that of—

> removing further the economic barriers to education and enabling our most competent and gifted youth to obtain for themselves and for society the maximum benefits to be gained from higher education.[1]

H. Statement From the United States Office of Education

On July 8, 1949, the Federal Security Administrator transmitted to the Bureau of the Budget for review and study a suggested program of Federal aid to students for higher education. Tentative drafts of proposed legislation were supported by a hundred-page staff memorandum prepared in the Office of Education. The accompanying letter from the Federal Security Administrator said in part:

> While these draft bills have been carefully considered they do not necessarily represent our final thinking in every respect. * * * They do, however, accurately reflect my own belief that the Federal Government should promptly adopt some program which will help to equalize educational opportunity above the high school level.

Listed below are in substance some of the facts and ideas advanced by the Office of Education on the basis of which legislative proposals were shaped. (The present position of the Office of Education with respect to these proposals is unknown, but these 1949 findings are of interest in and pertinent to the present study.)

1. There is nothing new, in principle, in the proposal to aid students in higher education

In addition to all scholarships, fellowships, loans, and work opportunities, a basic subsidy has always been extended to all students. For the tax-supported institutions the source of this basic subsidy is direct appropriation from tax revenues; and for the privately supported institutions the source is a combination of tax exemption and private donations. Furthermore, in all types of institutions, to varying de-

[1] Higher Education, May 15, 1949, p. 213.

grees, low salaries of the professional staff have in part underwritten the tuition charges of students. The result of all these practices, taken together, is that (with the exception of a very few institutions) students are not charged the actual costs of instruction. Accepting with gratitude that part of the subsidy contributed by the officers of instruction through low salary scales, and concentrating attention solely on the difference between tuition income and the actual expenditures of the institutions for educational and general purposes, it is seen that an important basic subsidy is extended to the students. On the average, in 1947, the nonveteran students of the Nation paid only half (50.6 percent) of the educational and general costs of their education in American universities and colleges. Fifteen years earlier the basic subsidy (the amount of educational and general expenditures which the students' tuition payments did not cover) had been nearly two-thirds (64.2 percent) of the institutional expenditures for general and instructional purposes. This basic subsidy has always been a part of the American higher educational scene, and one of the chief claims to public support and approval. That subsidy has been extended to all students, rich and poor alike, who attend colleges or universities. The basic subsidy has made higher education an accepted continuation of the principle of universal free public education at the elementary and secondary levels. Lowering financial barriers to education has made our schools and colleges a great leavening influence in American democracy.

2. Rising costs gravely threaten the basic subsidy

A tabulation of the precentage of educational and general expenses which are not borne by students, at different types of institutions, shows a significant shrinkage over the last two decades in the basic subsidy in private colleges is a matter of serious concern. This decline reflects the desperate measures of the privately supported institutions to cope with rising expenditures for instruction in the face of stationary or shrinking endowment returns. And while the shrinkage of the basic subsidy at the publicly supported institutions is less spectacular, it is no less real and no less disturbing in its connotations—for the publicly supported institutions were projected as democracy's anchor to windward against the heavy seas of financial difficulties for American youth.

Three corrolaries follow from the foregoing considerations: (a) If higher education is to play its part as one of the great leavening influences of American democracy, additional revenues must be found from sources other than the student and his parents, to maintain the basic subsidy; (*b*) if the dual pattern in higher education, in which both publicly and privately supported institutions share in carrying the load, is to be continued, these additional revenues must be found for both types of institutions; and (*c*) if a class stratification, repugnant to the American sense of fair play, is to be avoided, greatly increased amounts of financial aid to students must be forthcoming. While all three of these conclusions are of direct concern to the Nation, the problems of the institutions and of the students must be separated for purposes of legislative simplicity. The present (1949) proposals of the Office of Education are therefore concerned only with aid to students.

The inevitable effect of the presently noted developments—unless corrective measures are taken—will be that the private institutions

will eventually be forced to reject most applicants from homes of modest parental income, as they fight a losing battle against rising costs with scholarship funds inadequate to offset the escalator effect of these costs on tuition charges. Similarly, publicly supported institutions will lose one of their primary qualities as the key to opportunity for American youth. The resulting twofold stratification would limit the privately supported institutions largely to the children of the well-to-do and would eliminate many of the less affluent aspirants from publicly supported institutions as well, thereby creating a class distinction between the private and the public institutions on the one hand, and on the other hand, an equally obnoxious class distinction between those who go to college and those who, having the same abilities, do not go. Such a stratification, constricting the educational opportunity of the less privileged, would be contrary to the whole purpose and genius of American higher education. It would be a flat denial of the democratic opportunity which education has symbolized and expressed. It would constitute a body blow to the self-reliance and initiative which have enabled the child of modest circumstances to fit himself through education to contribute fully to the general welfare.

3. Presently available sources of aid to students are inadequate to maintain an acceptable degree of equality of educational opportunity

Tuition rates increased between the years 1939 and 1947. Small percentages of the students enrolled in the latter year were being helped by scholarships and fellowships in the face of the rising tuition charges, and the aided students were receiving, on the average, small amounts.

The available data indicate that tuition charges did not increase in the period under review at anything like the general rate of price increases. Educational institutions managed, on the average and with exceptions, to hold the line against rising tuition charges with remarkable effectiveness. On the other hand, the fact that increases in tuition costs did take place, ranging from 6.5 percent in medicine to 48.6 percent in education, means that there was a tendency for college matriculation and continuance in college to be influenced more by parental affluence than by student ability. On the average, throughout American higher education in the year 1946–47, only 5.5 percent of the students enrolled were receiving aid in the form of scholarships and fellowships; and the average amount of the awards was only $187.16.

4. There is a large reservoir of the highly gifted, and an even more numerous group of the better than average, who never get to college or university, primarily for financial reasons

The full meaning of the foregoing facts can be seen when it is remembered that, while 113,425 students were in college and university with financial aid in 1946–47 about 20 times that number, who had the necessary abilities to do creditable college and university work, were not in college or university at all—because of the lack of financial aid. A general conclusion, supported by many specific research investigations, is that at least half of the most capable members of high-school graduating classes do not continue their education beyond the high school. This is true at every level of scholastic ability above the

median point of the high-school class. Thus, for example, a Minnesota study states the case which other studies corroborate:

> The common assumption that all able high-school students almost without exception gravitate to college or university is not sound. For every graduate who ranked in the upper 10 percent of his high-school class and entered college, another graduate, who also ranked in the upper 10 percent, did not enter college. For every graduate who ranked in the upper 30 percent of his class and entered college, two graduates who ranked in the upper 30 percent did not enter college.

Low parental income is the chief factor in preventing able students from attending college. The President's Commission on Higher Education concluded that this is the "single, most important" factor in the whole picture of higher educational opportunity. Every study of the relationship between parental income and college attendance of persons of equal academic abilities bears out the assertion of the President's Commission. Thus, for example, the Goetsch study of superior students (top 15 percent) graduating from the high schools of Milwaukee, Wis., illustrates the findings which are generally corroborated by all other studies of the relationship between parental income and college attendance of persons having equal scholastic aptitude. The Milwaukee study shows a steady decrease in the percentage of the highly gifted who continue beyond high school, at each successively lower stage of parental income.

One further facet of the problem calls for comment. It is clear that by far the greatest total number of persons of excellent abilities are found in the homes of modest income. While it may be true that in any 100 children of professional people there will be a higher percentage of gifted children than in an equal number of unskilled workers' children, there are so many more hundreds of the latter in the total population that the net number of the highly gifted who come from the homes of moderate and low incomes is far greater than the net number who come from homes of higher income. The relative frequency of gifted children in the professional classes is higher; but only about 18 percent of the labor force can be classified as professional, semiprofessional, and managerial. Alongside this relatively small group of the population is the much larger group of skilled, semiskilled, and unskilled workers, and the farm population. The Thirty-Ninth Yearbook of the National Society for the Study of Education emphasizes the truth with understatement when it says:

> The majority of gifted and superior children come from nonprofessional classes and from families of modest income.

Such evidence as is available from tests indicates that the median intelligence level of children of professional people tends to be a little higher than that of children of parents classified as semiprofessional, and the median intelligence of children in each successively lower group in the occupational scale consistently runs a few points lower in the scale. However, it may be that part of this reported differential is due to the character of the tests which are used. Experiments have shown, for example, that when tests are devised using words and concepts familiar to the rural child, he shows a better achievement than he does on tests devised with the urban child in mind. But family income has very little predictive value for probable college success or for native ability. Studies reported in the Thirty-ninth Yearbook of the National Society for the Study of Education show an inconsistent relation between parental income and child's

intelligence, thus confirming the low predictive value of parental income for intelligence of children, as reported in other studies. In attempting to establish the degree of correlation between intelligence and various environmental factors, the studies reported in theThirty-ninth Yearbook indicate that "income predicts intelligence less adequately than almost any other environmental variable used." Investigation appears to have proceeded far enough to warrant a tentative conclusion at the present stage of the inquiry: a child's intelligence cannot be predicted by the size of his father's bank account.

Low income is, of course, not the only deterrent to college attendance, but many of the other deterrents are closely associated with lack of money. It will be time enough to conclude, on the basis of evidence, that the lower income families cannot contribute a vastly increased number of superior college students, when the financial barrier to college attendance has been removed, and experience then shows that the gifted children are not to be found where present knowledge suggests that they are. The President's Commission on Higher Education estimated that out of every 1,000 children finishing the fifth grade together, 320 have the abilities essential to a successful college career; but no more than 70 of these 320 persons have ever graduated from college. The net loss of the able thus amounts to 76 percent of those who, having college abilities, fail to enter upon and complete a college education. Making allowance for those who, even if they had the opportunity, might not care to pursue education beyond the high-school level, the Nation is faced with the fact that for every student presently enrolled in a college or university, there is at least one more, equally able and ambitious, who—mainly for financial reasons—is denied the opportunity to pursue higher education.

I. Proposals by Members of Congress

During the period, 1947–50 various bills proposing Federal aid to higher education were introduced in Congress. Representatives John Lesinski and Frank Savage, Senators William Langer, Wayne Morse, James Murray, and Claude Pepper, and other Members introduced Federal scholarship and/or student-loan bills.

The bill sponsored by the Truman administration proposing to establish a program of Federal aid to students for higher education was introduced in 1950 by the chairmen of the House Committee on Education and Labor and the Senate Committee on Labor and Public Welfare.

No action was taken on any of these bills.

J. Chapter Summary

In 1947 the President's Commission on Higher Education recommended establishment of a Federal program of general scholarships and fellowships, for the removal of economic barriers to the attainment of higher education by the Nation's most competent and gifted youth. In the same year the President's Scientific Research Board proposed establishment of a

> comprehensive Federal program for the assistance of undergraduate students * * * to pick up as the veterans' program declines.

Some months later the executive committee of the department of higher education of the National Education Association formulated

recommended principles for a national scholarship program, which a representative of the department had advocated before the House Committee on Education and Labor as early as in 1945.

In messages to Congress in 1949 and 1950 President Truman urged enactment of provisions for a Federal system of general scholarships and fellowships. In his budget sent to Congress on January 9, 1950, the President included an item to initiate the proposed scholarship program.

The report of the Task Force on Public Welfare of the Hoover Commission, submitted to Congress in 1949, contained a recommendation favorable toward establishment of a Federal civilian scholarship system "designed somewhat along the lines of the present education of veterans." In the spring of that year the National Students Association, through its executive committee, added its advocacy of a "civilian GI bill." Later in 1949 the American Council on Education proposed constituent principles and procedures for Federal scholarships which would be

available to students in all types of colleges and universities.

In consideration of these recommendations from various sources, tentative drafts of proposed Federal scholarship legislation, supported by a 100-page memorandum prepared in the United States Office of Education, were sent by the Federal Security Administrator to the Director of the Bureau of the Budget. In 1950 the respective chairmen of the House and Senate committees dealing with education introduced the administration bill. No action was taken on this or any of the other Federal scholarship bills introduced in the 82d and 83d Congresses.

CHAPTER IV. CURRENT PROPOSALS AND RELATED STATEMENTS

Since 1950 bills proposing various forms of Federal financial aid to students have been introduced in each Congress.

As of the time of this writing President Eisenhower has not sent Congress a legislative proposal to establish a Federal student-aid program, as did President Truman.

The White House Conference on Education (1955) devoted its deliberations to the problems of elementary and secondary rather than higher education. Several of the State conferences preceding the White House Conference did, however, concern themselves somewhat with the question of aid to students for higher education, particularly for the teaching profession. In December 1955, Representative Kenneth B. Keating (Republican, New York) announced that he had asked Secretary Marion B. Folsom of the Department of Health, Education, and Welfare to try to arrange a White House Conference on Higher Education.[1]

Following is a review of some of the outstanding, recent proposals for Federal aid to students, and statements by prominent persons relating to such proposals. A digest of proposals expressed in bills introduced in the 84th Congress, 1st session, 1955, constitutes a subsequent section of this chapter.

A. Comment by President Eisenhower

In a press conference on November 10, 1954, President Eisenhower said in substance, that in order to complete with the Soviet Union's output of scientists, in quality and in quantity, our Federal Government could and possibly would have to establish scholarships.[2]

B. Statement by Presidential Candidate Adlai Stevenson

Addressing the National Education Association in Chicago on July 7, 1955, Adlai Stevenson proposed establishment of a limited program of national scholarships "for promising candidates who upon graduation would undertake to give some years to teaching." In addition, "to encourage outstandingly competent teachers," he suggested awarding national scholarships to graduate students "for special teacher training," or for "advanced work for already experienced teachers." [3] He did not express himself concerning the question of establishment of a general program of Federal financial aid to students.

C. Proposals From the American Council on Education

The basic principle of Federal assistance to students qualified to pursue higher education has been approved by the American Council on Education in various actions covering a span of nearly 10 years.

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[1] Washington Star, December 4, 1955, p. A 21.
[2] Press conference as reported in the New York Times, November 11, 1954, p. 20.
[3] Text of address in New York Times, July 7, 1955, p. 14.

The earlier action by the council in favor of a Federal program of this kind has already been reviewed in this report.

During 1954 and 1955, the council's Committee on Relationships of Higher Education to the Federal Government revived consideration of the matter and concluded that it involves two separable problems: (1) a means of offsetting, for all qualified students if possible, the substantially increased cost of tuition and fees; and (2) a method of selecting and aiding highly qualified students from families not aided, or sufficiently aided, by a general program of the first type.

A tax credit proposal to meet the first objective was worked out by three council committees and introduced as H. R. 4444 during the 1st session of the 84th Congress. At the time of this writing the Committee on Relationships of Higher Education to the Federal Government has not completed its formulation of specific recommendations concerning a Federal scholarship program.. However, a 6-month study of basic data has been completed as a first step toward revised policy recommendations regarding Federal scholarships.

The proposal to meet the first-named objective is set forth in a detailed statement published by the council in 1955 entitled "A Proposed Tax Credit Plan to Aid Students in Institutions of Higher Learning." Following are excerpts from this statement:

> The one fact concerning American manpower on which everybody agrees is that serious shortages exist in professions and vocations for which a college education is essential. The most comprehensive recent study, made by Dael Wolfle for the Commission on Human Resources and Advanced Training, shows that the supply of college graduates to meet immediate needs is insufficient in the natural sciences, engineering, home economics, dentistry, medicine, nursing, school teaching, and college teaching, and that demands are increasing in social science and the humanities. Furthermore, it is noted that as the population increases the demand for professional workers increases at double the rate.
>
> With national security resting in the balance, the United States is less strong than it might be, because, as Dr. Wolfle says, "it wastes the abilities of many of its most capable sons and daughters." His investigations show that of the students in the upper two-fifths of high-school graduating classes—a group of approximately 342,000 a year—only 51 percent enroll in college. He cites evidence indicating that of the remaining 49 percent, half are probably prohibited from continuing their education by lack of funds.
>
> *The increasing cost of college education*
>
> The financial hurdle to a college education grows higher each year, as colleges and universities, both publicly and privately supported, increase tuition and fees in a determined but usually unsuccessful effort to keep pace with the rising costs of instruction in the face of decreasing proportionate income from other sources. One recent study reported by Francis J. Brown in Educational Sociology shows an increase, in the decade 1942–43 to 1952–53, of 65 percent in tuition and fees of publicly supported institutions and 78 percent in privately supported institutions. Substantial further increases have been put into effect in many institutions since 1953.
>
> * * * * * * *
>
> *General advantages of the tax credit proposal*
>
> If substantial tax relief were given for student fees paid to tax-exempt public and private educational institutions, many parents would reappraise their financial ability to pay the costs of a child's education and more children would have the advantage of the opportunities which our country is dedicated to keep open. Parents in the $8,000, $10,000, and $12,000 a year brackets, who now require partial scholarships to keep their children in college, would be able to forego these scholarship funds, thus making them available for those children coming from homes of lesser financial ability. Some institutions, without curtailing the support given to superior students from low-income homes, could conserve some of the operational funds now used for scholarships and make them available for faculty salaries and maintenance of plants, thus improving the quality of instruction.

The plan proposed, which has been studied, in several different forms, by numerous educational groups for more than a year, is based on a formula suggested by the resolutions committee of the taxation section of the American Bar Association at its 1954 convention. Briefly, the plan provides that 30 percent of student tuition and fees actually paid by the taxpayer be applied as a tax credit on the amount of income taxes otherwise payable. This means that all taxpayers who pay a given amount of tuition and fees would receive the same tax benefit in dollars, regardless of their income tax bracket.

* * * * * * *

Endorsement by educational organizations

One obvious effect of the proposed student-aid plan is that the taxpayer supporting a student in a high-tuition institution would receive a larger tax credit than one supporting a student in a low-tuition institution. The result, encouragement of increased student enrollment in all types of institutions, is considered to be in the public interest. It helps to preserve the balance between private and public colleges and universities, and thus to continue to call on private sources to supply funds for endowment and current operations of private institutions. It is clearly desirable in the interests of American democracy that children of low- and middle-income families, as well as children of the well-to-do, have the opportunity to attend both private and public colleges and universities. For that reason, as well as for others advanced above, the plan here proposed is supported in principle by the Association of State Universities, the Association of American Colleges, the American Alumni Council, and other educational groups; and it has been specifically endorsed in detail by three committees of the American Council on Education, which represents the entire range of public and private, low-tuition and high-tuition institutions existent in this country.

A digest of the student-aid bill, H. R. 4444, a proposed amendment to the Internal Revenue Code, appears in the following section of this chapter.

D. Proposal From the Association for Higher Education

The 10th Annual National Conference on Higher Education (sponsored by the Association for Higher Education) passed the following resolution on March 2, 1955:

Resolution 1. Talented Youth

Whereas our democratic society demands the maximum development of the abilities of every individual; and

Whereas the national welfare now needs especially the abilities of our most talented young people; and

Whereas the most effective utilization of the abilities of these talented young people requires extended education of high quality beyond high school; and

Whereas less than one-half of these young people now go to college and many do not graduate; and

Whereas the failure of these young people to continue their formal education results from a complex of circumstances, principally lack of financial resources and adequate motivation: Be it

Resolved, That the 10th National Conference on Higher Education request the Association for Higher Education to take steps to direct the attention of educators and of the public in general to the serious waste of the resources of youth with high abilities, and to take other appropriate steps looking toward the fuller realization of these presently underdeveloped abilities.

On July 1, 1955, the executive committee of the Association for Higher Education adopted the following resolution:

The association believes that the national welfare and the requirements of our democratic society demand the maximum development of the abilities of every individual, especially the abilities of our most talented young people. * * * Recognizing that lack of financial resources is one of the principal factors in the failure of these young people to continue their formal education, the association urges the use of Federal funds to establish a general scholarship program for talented youth.

E. Proposals from State Conferences on Education, 1955

Like the White House Conference on Education held late in 1955, the preceding State conferences on education were devoted to discussion, and generally did not lead to adoption of resolutions or issuance of recommendations. However, many suggestions and in some cases formal recommendations emanated from the State conferences. Although the subject of Federal aid to students for higher education was not on the agenda for the conferences, some of the proposals relate to this question. The following are examples.

The Arizona conference group recommended that—

> Governmental units, citizens, and organizations should provide scholarships to assist interested young people in preparing for the teaching profession.[4]

One suggestion arising from the Oregon discussion was that a well-organized program, "similar to the GI bill" be established to enable qualified young people to become teachers.[5]

A specific suggestion emanating from the Montana conference was that a bill similar to the GI bill be introduced in Congress providing that a student desirous of becoming a teacher would receive a monthly allowance for his teacher training. According to the proposal his debt to the Government would be cancelable by teaching—25 percent the first year and 25 percent for each year thereafter, so that the entire debt would be erased by 4 years of service as a teacher.[6]

The subcommittee of the Illinois Pre-White House Conference on Education, which considered this matter, reported the following recommendation:

> Studies of the origin of teachers indicate that middle- and upper-lower class families in the general economic scale supply the majority of candidates for teacher training. Since the shortages of teachers is acknowledged as a national emergency, and since the lack of candidates in training is due largely to lack of funds for college expenses, it is suggested that a national system of scholarships or financial grants be made available, under regulations providing (*a*) successful candidates chosen by examination, (*b*) choice of attending any accredited college for teacher training, (*c*) choice of area for which preparation is made, (*d*) sufficient financial grant to cover annual cost of tuition, fees, books and materials needed, and room and board, (*e*) loan repaid with equal time of service in a public school system, with privileges of leaves for interim circumstances.[7]

F. Proposal From the National Education Association

During the annual convention of the National Education Association in July 1955, the representative assembly of the association adopted a resolution calling for the use, in part, of revenues from federally controlled natural resources to finance scholarships to individuals in higher education institutions. The resolution reads as follows:

> The National Education Association believes that all rentals, royalties, and other sums payable under any lease of the outer Continental Shelf should be reserved by the Federal Government for appropriation to the States for assistance in financing an adequate salary schedule for teachers in public elementary and secondary schools, for scholarships to individuals in higher education institutions, and for research grants to colleges and universities * * *.[8]

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[4] Report of the Arizona White House Conference on Education, 1955, p. 19.
[5] Report of the Oregon White House Conference on Education, 1955, p. 37.
[6] Report of the Montana White House Conference on Education, 1955, p. 24.
[7] Illinois Pre-White House Conference on Education, Reports of the Subcommittee, p. 47.
[8] NEA, Federal Legislative Policy as Defined in the Platform and Resolutions, September 1955, p. 6.

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G. Proposal by Representative Kenneth B. Keating

(Not introduced as a bill in the 84th Cong., 1st sess.)

Upon the conclusion of the White House Conference on Education on December 3, 1955, Representative Kenneth B. Keating released to the press a statement setting forth his proposal for Federal offering of higher education opportunities in return for military service. The statement reads in part as follows:

> Although the little red schoolhouse has always been looked upon as the very foundation of our way of life, that is no longer so, at least not in the same sense. Our present security as a nation, and our hope of continued greatness and service to mankind in the future, have become overwhelmingly dependent on the quality of education at a higher level. Our colleges, our graduate schools, and all the highly specialized and technical institutions that turn out scholars and researchers to probe the varied frontiers of knowledge have an importance that we are scarcely able to recognize, it has mushroomed so fast in the last decade or two.
>
> Some of the shortages of highly trained people, at critical points in our present national-defense organization, are perilous in the extreme, and the prospects for the years ahead are dismaying. Each year, a full half of the young people of superior ability who graduate from high school in the top fourth of their class do not go to college. This means that 200,000 of those best qualified for higher education miss out entirely.
>
> A college education costs hundreds, and usually thousands of dollars. Steadily rising costs, and more and more extensive courses of study assure that these costs will continue to go up, and even then will press many of our institutions of higher learning against the wall financially, besides.
>
> From best available information the U. S. S. R. caught up with the United States in the annual number of engineering graduates about 1952. The Soviets are training engineers and scientists at a rapidly increasing rate, now in the neighborhood of 75,000 per year, while we are standing still, graduating twenty to thirty thousand annually. This alone should be enough to indicate the outlines of what may soon become a grave national crisis.
>
> It is admittedly easier to point out the problem than to solve it. However, one possible solution, partial at least, is the extension of the so-called GI education benefits, so as to include not only the veterans of our two recent wars but also other young men and women who serve, voluntarily or through selective service, in our Armed Forces. Perhaps by offering higher education opportunities on a generous and widespread basis, in return for military service rendered, we could encourage more qualified young people to go on with their educations, and at the same time increase the potential revenue to our colleges and universities without bogging down in the morass of direct Government subsidization.
>
> In this connection, one final observation seems appropriate: Let us remember that the most important, and most successful venture the Federal Government has ever made into the field of education pertained not to primary schools but to colleges, the so-called land-grant colleges which have enjoyed Federal aid and support ever since the Morrill Act of 1862.

H. Proposal by Governor Averell Harriman

(Former Ambassador to the Soviet Union)

Addressing the annual meeting of the United Parents Association in New York on December 10, 1955, Gov. Averell Harriman proposed establishment of a Federal scholarship program for qualified high-school students who otherwise would be unable to attend college. He said that he considered this the only answer to the Soviet Union's outstripping the United States in output of scientists and engineers. In this connection he said:

> They (the Soviets) select those who have special talents and give them the privilege of higher education in fields in which they have aptitude. By contrast, we leave higher education to depend far too much on the accidents of family income.

In reference to opposition by some New Yorkers to Federal aid programs Governor Harriman said:

> I cannot understand this narrow point of view. Each of us is more than just a citizen of New York. We are also citizens of the United States. And the future of our country depends upon the adequate education of all our children.[9]

I. Digest of Certain Bills Introduced in the 84th Congress, 1st Session

The following compilation contains full digests of certain bills devoted entirely or largely to legislation which would provide some form of Federal aid for the higher education of individual students. In some other cases the digests cover only those bill titles or sections which would make available some form of direct or indirect student assistance—the remainder of these bills being devoted to other matters. In general, bills which propose only to amend the veterans educational benefits program or other existing programs, or which are peripheral to the subject of this study, are not included herein.

Action taken on any one of these bills during the first session is stated following the digest or title.

1. SCHOLARSHIP, FELLOWSHIP, AND STUDENT-LOAN BILLS [10]

a. House bills

H. R. 33—Mr. Boland; January 5, 1955 (Education and Labor):

Federal Scholarship Act: Creates *a Federal Scholarship Fund* and authorizes $10 million for fiscal 1954 and such sums as are necessary for succeeding years to make loans to students selected by State agencies in proportion to number of Members of House of Representatives from States which have accepted provisions of this act. For a student to be eligible for a loan, his State must designate a State agency, establish certain methods and standards for selection, and make certain deposits into the scholarship fund which amount shall not exceed 10 percent of aggregate amount of advances made to students from the State during preceding calendar year. Sets forth the procedure for application, approval, security, and the making of loans to eligible students. The Commissioner of Education may suspend a loan where he finds that a State has made selections on a discriminatory basis. Provides for loans up to $1,000 a year for the first 4 years in college grade studies, up to $1,500 a year for first 4 years of post-college studies, and for repayments of loans to begin the second year after advances have ceased. Assures all educational institutions where students attend on loans, freedom from interference from Federal or State Governments.

H. R. 67. Mr. Bennett of Florida; January 5, 1955 (Armed Services):

Directs the Secretary of Defense to establish an officer candidate training program under which the *United States shall provide for the education of selected medical and dental students who agree to serve as doctors and dentists in the military services.* Pro-

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[9] Harriman Urges United States Scholarships, New York Times, December 11, 1955, p. 57.

[10] Source: Library of Congress, Legislative Reference Service, Digest of Public General Bills and Selected Resolutions With Indexes, 84th Cong., 1st sess., No. 7, final issue, 1955. Italic added for purposes of this study.

vides that officer candidates may receive medical or dental training under this act only at those *civil schools* which are designated by the Secretary as qualified to train doctors or dentists for the military services.

H. R. 95. Mr. Dingell; January 5, 1955 (Interstate and Foreign Commerce):

Title I: Amends Public Health Service Act (U. S. C. 42:6A (II)) to increase the number of trained personnel in medicine, nursing, dentistry, sanitary engineering, dental hygiene, hospital administration, and public health, by building new schools, and by attracting additional students *through scholarships*. (A) Specifies payments from $150 to $350 per student up to average past enrollment and from $800 to $2,400 for each student in excess of average past enrollment in professional and/or engineering schools, and from $50 to $200 per student for schools of nursing, to be paid for each of the fiscal years ending June 30, 1956, 1957, and 1958. Payments in any event shall not exceed 50 percent of the costs of instruction. Following June 30, 1957, aid shall be as determined by Congress in consideration of a health survey conducted by the Surgeon General * * *.

* * * (C) Authorized such sums as necessary to the States on the bases of population and need to permit State agencies to award at least 2 *scholarships and maintenance* to students entering the health professions. Each recipient of aid shall repay in service 1 year for every 2 academic years either in the medical service of the United States or in an area designated by the State agency as medically deficient. * * *

H. R. 286. Mr. Osmers; January 5, 1955 (Education and Labor):

Defense Scholarships Act of 1955: Establishes a system of scholarships for persons of unusual ability in the fields of engineering, physics, chemistry, and other sciences closely related to engineering, physics, or chemistry. Provides that the Commissioner of Education shall, at least annually, conduct a competitive examination in each congressional district in each State and Territory for citizens of the United States, and who have completed their education through at least the 11th grade in order to determine eligible candidates for such scholarships. Provides that the Commissioner shall from time to time prepare and publish a list of educational institutions approved for attendance by individuals holding scholarships. Each individual who holds such scholarship, shall, so long as he holds such scholarship, be deferred from induction for training and service in the Armed Forces, and from training in the National Security Training Corps.

H. R. 355. Mr. Donohue; January 5, 1955 (Education and Labor):

Same digest at H. R. 33.

H. R. 588. Mr. Teague of Texas; January 5, 1955 (Veterans' Affairs):

War Orphans' Educational Assistance Act of 1955: Establishes an *educational and training program for children of servicemen of the United States who died as a result of a disability incurred in line of duty* during World War II or the Korean service period. Limits the ages of such children while in training to the period *between the ages of 16 and 23* and limits the assistance to a period

of thirty-six months. Provides provisions for special rehabilitation training for retarded or handicapped children who would have been eligible otherwise. Provides that those children who receive educational assistance under the Veterans' Readjustment Assistance Act of 1952, etc., shall have such amount subtracted from the limit under this Act.

Sets up procedural steps to be followed in obtaining such assistance and provides for vocational counseling. Allows for the changing of programs by the student under certain conditions and for the discontinuance of the assistance for unsatisfactory progress. *Sets such assistance and allowances at a sum of $110 per month if pursued on a full-time basis* and $55 per month if pursued on a half-time basis. Gives the Administrator regulatory powers, etc., and makes numerous technical amendments.

H. R. 713. Mrs. Rogers of Massachusetts; January 5, 1955 (Veterans' Affairs):

Grants $500 for not more than 4 years for the *post high-school education of minor children of deceased veterans* suffering service-connected disabilities during World War II or the Korean hostilities.

H. R. 1591. Mr. Metcalf; January 6, 1955 (Interior and Insular Affairs):

Indian Higher Education Act of 1955: Enables the Commissioner of Education under the supervision of the Federal Security Administrator to assist the States in providing *scholarships* to colleges and universities *for high school graduates of Indian blood.* Such scholarships shall cover 90 percent of the total cost and shall not exceed 25 per State for any fiscal year.

H. R. 2179. Mr. Powell; January 13, 1955 (Education and Labor):

National Defense Scientific Education Act: Authorizes the Commissioner of Education to grant *scholarships for study, at the college or graduate level,* of subjects in the fields of engineering, physics, chemistry, or similar scientific courses, in order to increase the supply of trained scientific and technical personnel in the United States. Stipulates, that with respect to such scholarships: (1) applicants must have completed at least 11 years of education; (2) examinations shall be given in each State and the District of Columbia not later than June 30, of each year; (3) awards shall be made on the basis of competitive examinations under standards established by the Commissioner; (4) no individuals shall be discriminated against on account of race, religion, color, race, sex, national origin, ancestry, or failure to obtain such scholarship in a prior year; (5) the Commissioner shall approve the educational institutions which individuals holding scholarships may attend; (6) scholarships are limited to $2,000 for any individual in any academic year; and (7) scholarships are awarded for 1 year but may be renewed by the Commissioner.

Directs the Commissioner to transmit a list of the eligibles to Members of Congress, each Member to receive names of residents of his State. Authorizes each Member to select the names of 50 eligibles which he represents back to the Commissioner, each of which shall then be entitled to receive a scholarship to be known as national defense scientific scholarships. Defers scholarship holders from military service for the duration of the scholarship.

Establishes a 12-member *Commission on National Defense Scientific Scholarships*, (1) 8 members of which shall be appointed by the President (*a*) 1 from the Atomic Energy Commission, (*b*) 1 from the National Science Foundation, and (*c*) 6 from private life, (2) 2, to be appointed by the President of the Senate from the membership of the Senate, and (3) 2, to be appointed by the Speaker of the House from the membership thereof. Compensates the members selected from private life at $50 per diem while engaged in official duties. Directs the Commission to advise and consult with the Commissioner with respect to the duties vested in him under the provisions hereof.

H. R. 2197. Mr. Sikes; January 13, 1955 (Foreign Affairs):

Latin American Student Exchange Program Act: Authorizes the Secretary of State to provide for interchanges on a reciprocal, or other basis, between the United States and the countries of South and Central America of graduate students and undergraduate students who have completed at least 2 years of education above the secondary level. American students would be selected by the Secretary of State from applicants recommended by a board, designated the Board of *Latin American scholarships*, consisting of 10 members, appointed by the President.

H. R. 2211. Mr. Thompson of New Jersey; January 13, 1955 (Education and Labor).

Student Aid Act of 1955: Authorizes annual appropriations for *Federal scholarships* beginning in fiscal 1956 with $32 million and increasing by $32 million each year until in fiscal 1959 the authorization shall be for $128 million, whereafter it shall remain the same unless the Congress change it. Provides that this money shall be used for certificates of *scholarship awarded to high-school students in the several States for pursuit of higher education*, without any discriminations as to sex, creed, race, etc. The State quota of these scholarships shall be determined as follows: One-half of the total number of scholarships shall be allotted among the States in percentages equal to the percentage the State's high-school graduates bear to the national total of high-school graduates for the year; and the remaining one-half shall be allotted in the proportion that the State's population between 19 and 21 bears to the national total population of that age.

The recipients must (1) (*a*) have a certificate of graduation from a high school of that State or (*b*) if graduated from an out-of-State high school, have the course of studies recognized as adequate by their own State, (2) not be eligible for veterans' educational training, (3) apply in accordance with State rules and (4) not have had any Federal scholarship under this or any other act vacated except for good cause.

The State commission shall, in accordance with objective tests with other measures prescribed by the Commissioner of Education, make its selection on basis of intellectural capacity and financial need. The scholarship stipend shall be uniform and not in excess of $800 a year. It shall have a duration not in excess of 4 years. The requirements for continuance during this time shall be (1) continued financial need, (2) full-time attendance, (3) no scholarship aid from other sources. The recipient may

attend any higher institution within or without the United States.

Each State desiring to participate shall establish a commission on Federal scholarships and submit it to the Commissioner of Education for approval. The payments of scholarships under this act shall be by check payable to the individual recipient transmitted through the administration of the institution he is attending.

Administration of this act shall be under the Commissioner of Education who in turn shall be responsible to the Federal Security Administrator. He shall consult with all agencies of the Federal Government with a view to coordinate all Federal scholarships; and shall be assisted by a National Council on Student Aid of 12 members with the Commissioner as Chairman to represent individual organizational, and professional interests.

Authorizes $10 million for insurance of loans to students in higher institutions of learning. No loan in excess of $600 shall be made to any student in 1 year, nor shall the aggregate unpaid balance exceed $2,400. Reimbursement under the insurance shall not be in excess of 80 percent of the unpaid balance of the loan including interest accrued at the time of default. Eligibility of lenders shall be determined by certification by the State commission; loans shall be insurable whether from funds fully owned or from trust funds of the lenders.

Eligibility of students shall depend on: (1) full-time educational work; (2) the signing of a note or other agreement, payable by installments commencing the fourth year after student ceases to devote full time to study; (3) requires full payment plus interest within 6 years after payments begin; (4) until such date of commencement carrier interest at a rate not exceeding the average market rate of Treasury obligations by 1 percent, or after commencement, not exceeding such rate by more than 2 percent; (5) permits acceleration and (6) contains any necessary terms stipulated by the Commissioner.

Certificates shall be issued under this title and upon default, death, or disability of the borrower, prior to any enforcement proceedings, the beneficiary shall inform the Commissioner who shall pay off such insurance and be subrogated to the rights of the insured against any security given for the loan. Premiums and all other funds acquired by the Commissioner under these operations shall be deposited in a revolving fund in the Treasury. Five hundred thousand dollars is authorized for initial establishment of this fund.

H. R. 3458. Mr. Priest; February 2, 1955 (Interstate and Foreign Commerce):

Title IV: *Professional Health Personnel Training Act of 1955:* Authorizes the Surgeon General *to establish and maintain traineeships*, in the Public Health Service *and elsewhere*, (1) for training of professional nurses to teach in the various fields of nurse training (including practical nurse training) or to serve in an administrative capacity in the various fields of nursing, and for graduate or specialized training in public health for doctors, engineers, nurses, and other professional health personnel, and (2) to provide such traineeships through grants to public or other

nonprofit institutions. *Includes in such traineeships stipends and allowances.*

Hearings held in March 1955.

H. R. 3695. Mr. Patterson; February 7, 1955 (Atomic Energy):

Establishes *Congressional research scholarships* for undergraduate or graduate study in the basic sciences relating to any of the types of activities specified in section 31a of the Atomic Energy Act of 1954.

H. R. 3720. Mr. Wolverton; February 7, 1955 (Interstate and Foreign Commerce):

Same digest as H. R. 3458.

H. R. 4645. Mr. Bennett of Florida; March 7, 1955 (Armed Services):

Armed Forces Medical Scholarship Act of 1955: Facilitates the procurement of doctors of medicine and doctors of dentistry for the Armed Forces by providing *grants and scholarships for education in the medical and dental professions.* Sets out qualifications for such scholarships such as (1) a citizen of the United States; (2) agreement in writing under oath to complete the requirements for graduation, and to serve in the Armed Forces, etc. Selected students shall receive $133 per month while under regularly scheduled instruction or training in a school of medicine or a school of dentistry. Declares that the scholarships authorized by this act shall be provided for by contracts with educational institutions, approved by the Secretary of Defense, offering degrees in such professions. Such scholarships shall be established, awarded, continued, or discontinued, and the purposes of this act effectuated pursuant to such regulations as the Secretary shall prescribe. Requires selected students to meet certain obligations such as acceptance of a Reserve commission in the Army, Navy, or Air Force, etc. Authorizes necessary appropriations.

H. R. 5176. Mr. Radwan; March 23, 1955 (Foreign Affairs):

Foreign Service Scholarship Training Program Act: Sets up the *Foreign Service scholarship training program* designed to provide the Foreign Service with a more constant flow of qualified candidates representing the different segments of American life. Provides that candidates for such scholarships be chosen from all the States of the Union, the Territories, and the District of Columbia, after the passage of examinations prescribed by the Secretary of State. All qualified candidates would be enlisted into a 2-year training program at the end of their sophomore year of college and offered a Federal grant of $900 a year to permit them to complete their studies at an accredited institution of higher learning of their own choice.

Requires them, in order to remain eligible for the second year of the program, to maintain their standing in the upper 25 percent of their class. Requires appointees to agree to serve in the Service, if finally eligible for appointment to it, for a period of 4 years. Provides that two-thirds of such appointments be made by the President and Members of Congress.

H. R. 5422. Mr. Elliott; March 31, 1955 (Education and Labor):

Same digest as H. R. 2211.

H. R. 5648. Mrs. Frances P. Bolton; April 19, 1955 (Interstate and Foreign Commerce):

Professional Nurse Personnel Training Act of 1955: Authorizes the Surgeon General (1) to establish and maintain *traineeships*, in the Service *and elsewhere*, for *training of professional nurses to teach* in the various fields of nurse training (including practical nurse training) or to serve in administrative or supervisory capacities in the various fields of nursing, and (2) to provide such traineeships through grants to public and other nonprofit institutions. Traineeships established pursuant to these provisions shall include such *stipends and allowances* (including travel and subsistence expenses) as the Surgeon General deems necessary.

H. R. 6176. Mr. Powell; May 11, 1955 (Education and Labor):

Same digest as H. R. 2179.

H. R. 6304. Mr. Poage; May 17, 1955 (Education and Labor):

College Students' Loan Act: Authorizes the Secretary of Health, Education, and Welfare to make *loans to assist students* in pursuing courses *at colleges and universities* in the United States. Declares that not more than $1,500 shall be advanced to any student under this act in any fiscal year. Provides that the loan shall bear interest from the date the borrower leaves school at the rate of 3 percent per year on the outstanding balance, and on an overdue and unextended balance the interest rate shall be 8 percent per year. Further provides prepayment privileges.

H. R. 7800. Mr. Priest; August 1, 1955 (Interstate and Foreign Commerce):

Aviation Incentive Movement Act of 1956: Creates through a system of contests, programs, and *scholarships*, a reservoir of civil personnel trained in all phases of aviation to meet civilian needs and to provide standby personnel for needs of national defense. Provides that the Secretary of Commerce shall prepare and carry out a national plan to capture and hold the interest of American youth in careers in aviation, through cooperation with States, local governmental units, and national, regional, and local organizations. Authorizes sums not to exceed $15 million for each fiscal year beginning after June 30, 1955, to carry out this act.

H. R. 7839. Mr. Davidson; August 2, 1955 (Education and Labor):

Educational Scholarship Act of 1955: Establishes a *program of scholarships* for students in higher education to be administered by the Commissioner of Education under the supervision and direction of the Secretary of Health, Education, and Welfare. Requires the Commissioner to make regular studies, investigations, and reports of the program. Prohibits any Federal control over the curriculum or program of instruction of any educational institution or over its administration or personnel. Provides that all scholarships shall be awarded without regard to sex, creed, race, color, national origin, or residence of such individuals. Provides that the scholarships be awarded after the holding of competitive examination to be conducted by the Educational Testing Service, of Princeton, N. J. Provides for the payment of allowances and defers individuals from military duty under the Draft Act while in school, but requires male students to serve in a ROTC unit.

b. Senate bills

S. 296. Mr. Langer; January 10, 1955 (Labor and Public Welfare):

Directs the Commissioner of Education to make *loans* up to $1,000 to all United States *citizens desiring a college education* who have completed high school or its equivalent and who make an application for such loan. The application shall contain (1) a statement that the applicant has not heretofore received a loan under this act; (2) the course of study to be undertaken; (3) a statement that the loan is necessary and will be used to defray cost thereof; and (4) a certificate from an institution that the applicant has been accepted. The loan is to be made without security, except the execution of a promissory note made payable to the United States which shall mature in 15 years at an interest rate of 1 percent. Provides a $50 million revolving fund to carry out the provisions of the act and prohibits the discrimination against any person because of race, color, or creed. Prohibits the Commissioner to exercise any influence or supervision over the applicant or the educational institution involved.

S. 338. Mr. Smathers; January 11, 1955 (Foreign Relations):

Provides for a more extensive student exchange program on a reciprocal basis with the Latin American countries. Authorizes the Secretary of State to conduct this program on a graduate student and an undergraduate student basis where the undergraduate student has completed at least 2 years of education above the secondary basis. Provides for the interchange of books, periodicals and other publications relating to education. Sets up a *Latin American Scholarship Board* composed of 10 members. Gives the Board the duties of making a selection of American students accepted for study in various Latin American countries, as well as making recommendations to the Secretary of State concerning the operation and administration of the exchange program. Authorizes cooperation between other State agencies, including the Secretary of Commerce and the Civil Aeronautics Board with a view toward utilizing surface and air transportation facilities which are recipients of subsidies from the United States in connection of transportation of students. Authorizes the appropriation of $5 million for the first year and necessary sums thereafter.

S. 886. Mr. Smith of New Jersey and others; February 1, 1955 (Labor and Public Welfare):

Same digest as H. R. 3458.

S. 980. Mr. Cotton; February 8, 1955 (Labor and Public Welfare):

Defense Scholarships Act of 1955: Directs the Commissioner of Education to conduct annually a competitive examination open to all eligible citizens of the United States with a view of determining ability and aptitude in the fields of engineering, physics, or chemistry. All persons passing the grade shall become eligible for a scholarship as follows: (1) The four individuals in each congressional district making the highest grade shall be eligible for a defense scholarship; (2) the next four persons in each congressional district not eligible under (1) with each State to have a number equal to the number of members it has in the House and the Senate; and (3) the names of the 400 making the highest grades in the country not eligible for a scholarship under (1) and (2) shall be eligible for a defense scholarship.

Each person eligible for a defense scholarship shall be granted a *scholarship for study at the college or graduate level of fields in science.* Such scholarships shall be for a period of 1 year with privilege of renewal if the Commissioner thinks it warranted. Requires certain reports to be made by the Commissioner on the progress of the program. Limits such scholarship to $1,000 per pupil per year. Also provides a subsistence allowance of $1,000 per year for each person on the scholarship. Exempts persons holding defense scholarships from induction for training and service in the Armed Forces as long as such scholarships are held.

S. 1444. Messrs. Russell and Saltonstall (by request); March 15, 1955 (Armed Services):

Same digest as H. R. 4645.

S. 1859. Mr. Humphrey; May 2, 1955 (Labor and Public Welfare):

Emergency Public Health Training Act of 1955: Modifies the Public Health Service Act (U. S. C. 42:6A (II)) so as to increase the number of trained public health personnel, by building new schools, and by attracting additional students *through scholarships.* Authorizes appropriations of $1 million and specifies payments equal to 15 percent of the amount determined by the Surgeon General to be the basic operating cost of graduate instruction in public health schools, an additional $500 for graduate full-time students regularly enrolled in excess of 30 students, and an additional $500 per each student enrolled in excess of average past enrollment be made for each of the fiscal years ending June 30, 1954, and each of the 4 succeeding years. Limits such payments to 50 percent of the costs of instruction. Authorizes $1 million per year for 4 years to build new facilities, to enlarge existing ones, and to purchase equipment, not more than 50 percent of the cost to come from Federal funds. To receive aid a school must provide assurance to the Surgeon General and it will continue for at least 10 years, and must not impose unreasonable restrictions against out-of-State students. Authorizes such sums as necessary to permit scholarships and maintenance to students entering the health professions. Regulations shall be made only after obtaining the advice and recommendations of the National Advisory Health Council.

S. 2379. Mr. Payne and others; June 30, 1955 (Interstate and Foreign Commerce):

Grants the Secretary of the Interior an annual sum of $555,000 to make grants to public and nonprofit universities and colleges in the several States and Territories of the United States for educational causes of interest and benefit to the fishing industry (*including the establishment of scholarships*). Makes an annual appropriation of $375,000 available to the Vocational Education Act available for vocational education in the fishery trades and industry.

2. OTHER BILLS (PROPOSING DIRECT OR INDIRECT AID FOR THE HIGHER EDUCATION OF INDIVIDUALS)

a. House bills

H. R. 69. Mr. Bosch; January 5, 1955 (Foreign Affairs):

Directs the Secretary of State *to establish a United States Foreign Service Academy* under the supervision of the State Department.

The President shall appoint a Superintendent in charge of the Academy who shall have immediate direction thereof. A board of visitors, consisting of 5 members of the Foreign Affairs Committee of the Senate, 10 members of the Foreign Affairs Committee of the House, and 5 State Governors, shall be appointed each year. Directs the Board of Visitors to inquire into Academy concerns, to report to Congress recommendations on Academy matters, and to visit the Academy annually. Expenses of Board members shall include actual travel expenses plus $20 per day for the annual visit.

The faculty shall consist of the Superintendent, dean of faculty and department heads enumerated herein, to be appointed by the President with the advice and consent of the Senate; assistant instructors shall be appointed by the Secretary of State.

Appointments shall be made by the Secretary of State. Not more than 5 nor less than 3 candidates shall be appointed from each State, and alternatives shall be selected by the Governor in the event the principal candidate does not pass the entrance examination; physical requirements shall be prescribed by the Superintendent.

Admission shall be limited to men and women who are *native-born citizens, who are between 18 and 25 and who have at least 2 years of college or university training.* They may be appointed, on graduation, to the Foreign Service without taking the Foreign Service examination now required. Preference in making original appointments of permanent officers in the Foreign Service shall be given to graduates of the Academy.

Instructors shall be on the same footing as to retirement from active services as officers of the Army and Navy.

Taking and subscribing to an oath is prerequisite to admission.

Directs that a *candidate shall engage to serve 10 years in the United States Foreign Service after completion of his 4-year course at the Academy.*

Salaries shall be fixed by the Secretary of State except that the Superintendent shall receive $15,000 per annum; students shall receive $1,000 per annum together with room, board, and traveling expenses.

H. R. 439. Mr. Hinshaw; January 5, 1955 (Interstate and Foreign Commerce):

Aviation Training Act of 1955: Authorizes the Secretary of Commerce *to train civilian pilots,* technicians, and others, and *to enter into contracts with approved schools obligating the United States to pay for not exceeding 75 percent of such training cost.* The numbers and categories of such trainees shall be determined by him after consultation with the Secretary of Defense, the Secretary of Labor, the National Security Resources Board, and the Office of Defense Mobilization. He may contract for the furnishing of such services in accordance with powers vested in him by the Civil Aeronautics Act of 1938, and without public advertisement of requests for bids if he so desires. Provides that 5 percent of the trainees shall be selected from applicants other than high school and college students; no person shall be accepted for training unless he furnishes assurance that he will engage in or remain available for aviation employment upon

completion of training; and that public or private institutions presenting such training be adequately qualified by appropriate Federal and State authorities. Imposes a penalty of $5,000 fine and/or imprisonment for 2 years for filing any false statement hereunder. Makes authorizations to carry out the purposes, etc.

H. R. 595. Mr. Van Pelt; January 5, 1955 (Merchant Marine and Fisheries):

Directs the Secretary of Commerce to maintain a *Merchant Marine Academy* at Kings Point, N. Y., for instruction and preparation for service in the merchant marine of persons nominated to the Academy by Senators and Members of the House of Representatives. Such cadets shall be appointed midshipmen in the Naval Reserve and shall be commissioned as ensigns in the Naval Reserve upon graduation from the Academy and *receive such pay and allowances as midshipmen at the United States Naval Academy* [amending U. S. C. 46:1126].

H. R. 823. Mr. Mack of Washington; January 5, 1955 (Foreign Affairs):

Establishes a United States Academy of Foreign Service to provide a trained force for the Foreign Service of the United States. The management of the Academy shall be invested in a board of trustees which shall consist of the Secretary of State, two members of the United States Senate, appointed by the Vice President, and two members of the House of Representatives, appointed by the Speaker. Terms of service shall be 2 years. The faculty shall consist of the president of the Academy, receiving not more than $20,000 a year and such deans, professors, etc., as are necessary. The faculty members shall be chosen by a committee of 12 educators chosen by the Secretary of State and representing each Federal Reserve district. The course of study at the Academy shall extend over 4 years. The course of studies shall include necessary higher studies, plus the privilege of temporarily assigning any student to the Military or Naval Academy to learn military observation. Appropriate degrees may be conferred. The number of students shall not be less than one for each Senator and Representative in Congress, but may be more. *Appointment shall be made by a method comparable to that regulating appointment to the Military Academy.* Admission shall be limited to men and women who are native-born citizens, who are between 20 and 25, and who have at least 2 years of college or university training. They may be appointed, on graduation, to the Foreign Service without taking the foreign service examination now required. They may serve in other departments and capacities. Every Foreign Service Academy graduate must be assigned to service in the United States 1 year out of every 5 that he serves the Government.

H. R. 1838. Mr. Rodino; January 10, 1955 (Ways and Means):

Permits as a deduction from gross income of all expenses incurred by a taxpayer for the education of a dependent attending a college or university in excess of the amount allowed normally as a dependents exemption.

H. R. 2019. Mr. Multer; January 11, 1955 (Ways and Means):

Permits as a deduction for income tax purposes the expenses paid by a taxpayer for the education of a dependent attending a

college or university which exceed the amount allowed normally as an exemption for such dependent [amending Internal Revenue Code of 1954, sec. 151].

H. R. 2569. Mr. Chelf; January 20, 1955 (Ways and Means):

Increases taxpayer's exemption for dependents to $1,000 (now $600); allows $1,800 exemption for dependent children under 21 during attendance at a business school, college, or university.

H. R. 2838. Mr. Ford; January 24, 1955 (Ways and Means):

Permits taxpayers to treat as charitable contributions, payments of tuition for the attendance of their children at a primary or secondary school conducted on a religious basis [amending Internal Revenue Code of 1954, sec. 170 (c) (2)].

H. R. 3088. Mr. Bonner; January 26, 1955 (Merchant Marine and Fisheries):

Same digest as H. R. 595.

H. R. 3318. Mr. Keogh; January 31, 1955 (Merchant Marine and Fisheries):

Same digest as H. R. 595.

H. R. 3931. Mr. Patterson; February 10, 1955 (Ways and Means):

Allows a tax deduction for tuition paid for college students equal to 30 percent of the aggregate amount so paid [amending Public Law 591, 83d Cong., ch. I, subch. B, pt. VII].

H. R. 4003. Mr. Fino; February 14, 1955 (Ways and Means):

Permits a taxpayer to deduct tuition expenses paid by him for the education of his children at any school or other educational institution. Effective January 1, 1955 [amending Public Law 591, 83d Cong., ch. 1].

H. R. 4444. Mr. Jackson; February 25, 1955 (Ways and Means):

Allows a credit against tax to the extent of 30 percent of the payments by the taxpayer to one or more educational institutions during the taxable year for the cost of education above the 12th grade of the taxpayer and of any other person or persons. Limits credit so allowed to a maximum $450 for education of the taxpayer or any other person. Reduces amount of payments by taxpayer in case of fellowship, scholarship, or grants under certain circumstances [amending Public Law 59, 83d Cong., ch. I, subch. A, pt. IV (a)].

H. R. 4750. Mr. Vanik; March 8, 1955 (Ways and Means):

Provides that an individual may deduct from Federal income taxes amounts paid as tuition or fees to certain public and private institutions of higher education for the education of any dependent of such individual [amending Public Law 591, 83d Cong., ch. 1].

H. R. 5152. Mr. Thompson of New Jersey; March 22, 1955 (Ways and Means):

Allows a credit against tax to the extent of 30 percent of the payments by the taxpayer to educational institutions during the taxable year for the cost of tuition and fees above the 12th grade of the taxpayer and of any other person or persons. Provides for an adjustment for scholarships and educational allowances. Effective January 1, 1955 [amending Public Law 591, 83d Cong., ch. I].

H. R. 5429. Mr. McCarthy; March 31, 1955 (Ways and Means):

Allows a credit against tax equal to 30 percent of the aggregate amount paid, the credit not to exceed $450 in any taxable year,

for tuition or fees to institutions of higher education, attending such institution on a full-time basis, for the taxpayer or any other individual, attending such institution on a full-time basis, at a level above the 12th grade, adjustment being made for scholarships and certain allowances [amending Public Law 591, 83d Cong., ch. I].

H. R. 5879. Mr. Dodd; April 27, 1955 (Ways and Means):

Permits a tax credit under the Internal Revenue laws of 30 percent of payments made to a public or private educational institution of higher learning with a limit of $450 for the education of any one person [amending Public Law 591, 83d Cong.].

H. R. 6043. Mr. Bonner; May 5, 1955 (Merchant Marine and Fisheries):

Same digest as H. R. 595. Passed House May 17, 1955. Senate Report 1090, July 22, 1955.

H. R. 6097. Mr. Flood; May 9, 1955 (Foreign Affairs):

Same digest as H. R. 69.

H. R. 6165. Mrs. Rogers of Massachusetts; May 11, 1955 (Armed Services):

Armed Forces Science Academy Act—Establishes in the Department of Defense a United States Armed Forces Science Academy to train selected persons for service as scientists and engineers with the Armed Forces. Directs the Secretary of Defense to determine the location of the Academy by selecting a commission to decide the site. Provides for the construction of buildings, selection of personnel, and the appointment of students.

H. R. 6506. Mrs. Kelly of New York; May 26, 1955 (Ways and Means):

Provides a 30-percent credit against the individual income tax for amounts paid as tuition or fees to certain public and private institutions of higher education.

H. R. 6912. Mr. Williams of New Jersey; June 20, 1955 (Ways and Means):

Provides a 30-percent credit against the individual income tax for amounts paid as tuition or fees to public and private institutions of higher education [amending Public Law 591, 83d Cong.].

H. R. 6978. Mr. Hillings; June 22, 1955 (Ways and Means):

Provides a 30-percent credit against the individual income tax for amounts paid as tuition or fees to public and private institutions of higher education [amending Public Law 591, 83d Cong.].

b. Senate bills

S. 781. Mr. Capehart; January 27, 1955 (Armed Services):

Armed Forces Medical Academy Act—Establishes in the Department of Defense a *United States Armed Forces Medical Academy to train selected persons for service as doctors with the Armed Forces.* Provides for the construction of a medical academy. Limits the number of cadets at the Academy to 600 at any one time. Provides for a cadet quota system. The course of instruction at the Academy shall be 4 years, and shall meet the requirements established for accrediting medical schools, with special emphasis on military medicine. Grants each cadet, upon graduation from the Academy, a commission in the Army, Navy, or Air Force. Authorizes appropriations.

S. 967. Mr. Lehman and others; February 8, 1955 (Interstate and Foreign Commerce):

Same digest as H. R. 595.

S. 1778. Mr. Wiley; April 25, 1955 (Finance):

Provides a 30-percent credit against the individual income tax for amounts paid as tuition or fees to certain public and private institutions of higher education.

Senate Joint Resolution 48. Mr. Chavez; February 21, 1955 (Armed Services):

Women's Armed Services Academy Act—Establishes in the Department of Defense a *United States Women's Armed Services Academy for the instruction and preparation for military services* of selected women who shall be known as armed services cadettes. Authorizes the Secretary of Defense to (1) acquire land from other Government agencies, (2) prepare plans, specifications, and designs in order to equip and construct such Academy, etc. Provides that each Senator and Representative shall nominate not to exceed 10 persons who shall be eligible to take a competitive examination which shall be held annually. Authorizes necessary appropriations. Further authorizes the Secretary of Defense to determine the location of the Academy.

J. Summary of Current Proposals

On November 1954 President Eisenhower said that our Federal Government could and possibly would have to establish scholarships for higher education in the sciences. In July 1955 Presidential candidate Adlai Stevenson proposed Federal scholarships for prospective teachers.

The American Council on Education is currently sponsoring a "proposed tax credit plan to aid students in institutions of higher learning." The Council is considering a revision of its earlier policy recommendations for a Federal scholarship program.

Representatives of the Association for Higher Education have for many years supported proposals for Federal scholarships. The executive committee in 1955 formally urged establishment of a general Federal scholarship program for talented youth.

Several suggestions for a GI bill for prospective teachers emanated from State conferences which preceded the White House Conference on Education in 1955.

The representative assembly of the National Education Association in 1955 called for the use, in part, of revenues from federally controlled natural resources to finance scholarships for college and university students.

In December 1955 Representative Kenneth B. Keating gave the press a formal statement proposing Federal extension of opportunities for higher education in return for military service.

Gov. Averell Harriman, former Ambassador to the Soviet Union, has proposed Federal scholarships as an answer to the Soviet's exceeding the United States in production of scientists and engineers.

Over 50 bills proposing legislation which would provide some direct or indirect Federal aid to students for higher education were introduced in the 1st session of the 84th Congress. Some propose a broad program of Federal scholarships and other student assistance. Others

propose scholarships only for certain groups, such as members of the health professions. Some propose aid in the form of loans. Others propose aid for study only in certain subject fields, such as national defense or in only certain places, such as the Latin American countries.

Some of the most recent proposals, expressed in bills and otherwise, are reviewed in the first chapter of this report; but this study does not deal with all student-aid and related bills introduced in the 2d session of the 84th Congress.

Altogether the pending proposals vary widely. A somewhat detailed review, such as is given in this chapter and also in chapter I, is necessary for a full comprehension of the nature and scope of the bills and other proposals dealt with herein.

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CHAPTER V. DIGEST OF RELATED STUDIES

A. Introduction

This chapter sets forth some of the principal facts and conclusions found in certain recent studies which bear important relationships to the question of Federal financial aid to students for higher education. The chapter does not include critical review of these studies, nor description of them except to the extent deemed desirable for identification or other essential purposes of this report.

In the instances in which an included study has not yet been published and is not generally available at the time of this writing, such information is given herein.

The included studies partake more of the nature of basic historical or statistical reports rather than arguments for or against the specific issue of Federal aid to students. Chapter VI of this report sets forth and summarizes the arguments pro and con on this subject.

B. America's Resources of Specialized Talent

(With the aid of grants from the Rockefeller Foundation totaling $240,000, this study was carried out by the Commission on Human Resources and Advanced Training, appointed by the conference board of Associated Research Councils. The report, prepared by Dael Wolfle, director of the commission, was published by Harper & Bros., New York, in 1954, as a volume of 332 pages.)

DIGEST

There is an unquestioned trend toward increase of specialization, with its accompanying demand for highly trained manpower in all fields. The size of future college graduating classes is the best single index of the future supply of such manpower.

It is expected that the number of college graduates will rise from about 270,000 in 1955 to about 590,000 in 1970. Nevertheless within the next few years there will probably be shortages of scientists, engineers, teachers, doctors, nurses, and specialists in some other fields. By about 1960 some of these shortages may be overcome by increases in number of college graduates. If the Nation maintains a high level of economic activity the shortages will contine much longer.

Generally college training—particularly in the liberal arts—produces a body of educated workers sufficiently flexible in skill and interest to move into fields in which the demands and rewards are great. This flexibility is a major national asset.

The United States wastes a large percentage of its most valuable human resources. Although most potentially good college students finish high school, the loss thereafter, through lack of further education, is large. Of all our high school graduates, less than half of the upper 25 percent in scholastic ability ever graduate from college.

Only 6 out of 10 of the top 5 percent do so. Thus our society loses the beneficial services which many of our brightest youths could perform if educated to the full extent of their capabilities.

The intellectual ability of the average college graduate is markedly superior to that of the average nongraduate. However, there is much overlapping, particularly because of the fact that many bright people never attend college. The Nation is producing enough persons competent for higher education to meet the demands for specialization in all fields.

Development of plans for better utilization of educated workers of all ages and both sexes is possible and would be socially profitable.

C. An Experience in Federal Aid to College Students

(This historical study by Helen Brookshire appears in the 29th discussion and debate manual of the National University Extension Association, published September 1, 1955—vol. I, pp. 57–62.)

DIGEST

Experience with a broad program of Federal aid to individual students occurred during the decade 1933 to 1943. This program, established to relieve emergency needs, was administered principally by the National Youth Administration.

Early during the depression of the 1930's hundreds of students were compelled to withdraw from the Nation's colleges and universities for economic reasons. It became evident that many colleges would be forced to close if the student withdrawals continued. Hence the number of highly trained professional workers would decrease, and there would be a greater number of competitors in the overcrowded lower levels of labor.

On the basis of a successful experiment at the University of Minnesota, in 1933 the Federal Emergency Relief Administration began allocating funds to nonprofit educational institutions for employment of students on part-time jobs. By the academic year 1934–35 over 100,000 students were receiving such Federal assistance.

In 1935 the administration of the program was transferred to the National Youth Administration and the aid was extended to include public school students over 16 years of age. The NYA established various criteria for eligibility of students to receive Federal payments.

There was a wide range in types of work performed by the students. These included such activities as: (1) construction, repair, and remodeling of public buildings and equipment, (2) landscaping and improvement of public grounds, (3) library services and book repair, and (4) research, statistical, and survey projects. There was considerable dissatisfaction over the program due to lack of sufficient funds to help even a majority of the needy students, and lack of jobs related to the students' fields of study. In general, however, college authorities seemed pleased with the NYA program.

During the period from 1935 to 1943 over 2,134,000 different students obtained Federal financial aid through the NYA. The peak of the program was reached in the academic year 1939–40 during which 748,000 students received Federal assistance. Of this number 188,000 were college undergraduate and graduate students.

D. Background for a National Scholarship Policy

(This work by Dr. Elmer D. West consists principally of a compilation of excerpts from many other published studies on several topics relevant to the formulation of a national scholarship policy. The work also summarizes the extracted material on these topics, describes certain studies in progress, and suggests additional studies needed. One section presents arguments concerning several subsidiary issues. An extensive bibliography concludes the book. It was published by the American Council on Education early in March 1956.)

DIGEST

There is a critical nationwide shortage of well-educated manpower in many fields. Nevertheless, available data show that large numbers of the Nation's most able high school graduates are not continuing their education. This means a great loss both to these individuals and to society.

There are various estimates of the amount available and of the amount needed for scholarships. The estimate of the amount needed is at least three times as large as the estimate of the amount available.

Family incomes are increasing, and money for scholarships is increasing; but college costs are also increasing, as are the numbers of students qualified to continue their education.

Despite the programs supported by various private and public agencies, the major recorded source of scholarships seems to be the institutions of higher learning themselves; and their major source of money for this purpose appears to be current operating funds.

The factors influencing college attendance are complex. Among these are ability, sex, family, occupation, geography, economic status, and counseling, and their interrelationships. A larger percentage of high-ability boys than of girls continue in postsecondary education. Those who live nearer to colleges or universities are more likely to attend than those who live at a distance. A substantially larger percentage of high-school graduates, both boys and girls, attend college from the higher economic levels than from the middle or lower economic levels.

Data suggest that a sufficient number of scholarships would cause three-fourths instead of one-half of the top 27 percent of high-school graduates to enter college. Generally, opinion favors unrestricted rather than categorical (designated field) scholarships.

Opinion is divided, but those administering scholarships funds seem, in general, to favor including demonstrated need as a requirement for scholarship assistance along with token or "honor" grants without reference to need.

E. College Student Retention and Withdrawal

(This study, by Robert E. Iffert, is based upon information supplied by a sample of 3 percent of the unmarried, nonveteran students who entered 147 universities, technological institutions, liberal arts colleges teachers colleges, and junior colleges in the fall of 1950 as first-time registrants. A total of 13,669 students are represented in the study. It is expected that the final report will be published as a bulletin of the Office of Education, U. S. Department of Health, Education, and Welfare, and that copies will be available for distribution sometime in the summer of 1956.)

DIGEST

Of this sample of 13,669 students only about 38 percent graduated from the institution of their original registration within the 4-year period following their entrance to these institutions. The most pressing reason for dropouts during the first year was academic problems. The principal reason for dropouts after the first year was economic difficulties.

Some other findings and conclusions from the study are the following:

The liberal arts colleges have the highest percentage of students coming from the top tenth, in scholastic standing, of their high school graduating classes. The technological institutions have the highest percentage coming from the top half of their graduating classes. Privately controlled institutions have a significantly higher percentage of students coming from the higher ranking groups in the secondary schools.

The college grades of students who drop out of the institution in which they first register generally are lower on the average than of those students who persist to graduation. There is, however, a great amount of overlap in this respect—many students who leave were near the top in their high school classes, on the placement test in college, and in their college grades.

A comparison of the persistence of students in institutions that operate on the quarter system with that in institutions that operate on a semester system, indicates that in general the institutions operating under the semester system either have greater holding power or they select students with greater persistence potential. It would appear that the larger the number of opportunities for discontinuance the greater the probability of it.

The highest first year mortality rate among 4-year institutions is found in the teachers colleges (36 percent). The lowest mortality rate is in the technological institutions (24 percent). The rate among publicly controlled institutions is 31 percent, and among privately controlled institutions 23 percent. The rank order of institutions by type, in terms of the percentage who graduate in normal progression, is technological institutions, liberal arts colleges, universities, and teachers colleges. Out of each hundred students entering each type of institution, publicly controlled versus privately controlled, about 14 more can be expected to graduate in normal progression from the latter than from the former.

F. Costs of Attending College

(This study, by Dr. Ernest V. Hollis and associates, deals with student expenditure and source of income. It reports the expenditures and major sources of income of a sampling of 15,306 students in 110 colleges and universities during the academic year 1952–53. It is expected that the report will be issued as a bulletin of the Office of Education, U. S. Department of Health, Education, and Welfare, and that copies will be available for distribution in the summer or fall of 1956.)

DIGEST

The report shows separately for publicly controlled and privately controlled colleges and universities the mean expenditure of students for 18 categories of expenses. It indicates that of the sample 15,306 students, 8,698 were attending institutions under public control and 6,608 were attending privately controlled institutions. It shows a separate distribution for colleges attended predominately by Negroes.

Of the students attending publicly controlled institutions 51 percent reported an expenditure for tuition, as distinguished from the payment

of fees. The mean amount expended by this group for tuition was $152, which is 6.9 percent of their total average expenditure of $1,120. By contrast, in privately controlled colleges, all students paid tuition in the mean amount of $511, which is 30.5 percent of the $1,674 they spent for all purposes.

When public and private colleges attended predominately by Negroes were combined, the mean expenditure for tuition was $184, which is 20.5 percent of the $857 this group of students spent for all purposes.

The report also shows the percent of students receiving funds from various sources, the mean amounts received, and the mean family income of those receiving stipulated types of funds.

The total mean income per student was $1,458, and the median family income of this group of students was $5,119.

Different proportions of the students received funds from each of the sources of income listed. For example, 61 percent of the students earned some portion of their income during the school year and the mean amount they earned was $409. The median family income of these students was $4,768.

Only 5.4 percent of the students had veterans' benefits as a source of income, but in their case it constituted $1,013 of the mean amount they received. The median family income of this group was $4,079, as compared with that of $5,119 for all of the 15,306 students.

G. Crucial Questions About Higher Education

(Under this title are summarized the results of recent research studies carried out by staff members of the State University of New York with the collaboration of officials of the State education department. The 85-page report was published by the State University of New York in 1955. The following digest covers only certain topics dealt with in the report which are significant in relation to the question of establishment of a program of Federal financial aid to students.)

DIGEST

How significant is family income?

Data were obtained on family income of 7,988 New York State high school graduates in 1953. Of those having I. Q.'s of 110–119, only 49 percent from families having incomes under $4,000 a year planned to continue their education, but 89 percent from families having incomes of $8,000 a year and over planned to continue. The percentages were considerably higher for students of higher I.Q.'s in each of these family income groups.

A relatively small percentage of the high-income students chose teacher education and relatively high percentages chose home economics and arts and science courses.

Who could make the grade?

Of a sample including 3,214 potential college students, 18 percent of those with I. Q.'s of 130 or over did not continue their education; 28 percent of those with I. Q.'s between 120 and 129 did not; and 43 percent of those with I. Q.'s between 110 and 119 failed to continue.

How many wanted to continue?

Of 4,414 students ranking scholastically in the upper half of their high-school graduating classes, 43 percent indicated a desire to continue their education.

What does this mean to the State?

In the single year 1953 over 16,000 graduates of New York State high schools, who evidently had sufficient ability to pursue college studies, were lost to the State's and the Nation's potential resources of highly educated manpower.

Nearly 22,000 high-school graduates having scholastic standing in the upper half of their classes did not go on to college. Of these over 2,000 had made outstanding records in high school.

About 12,000 of the New York State high-school graduates in 1953 did not enter college for the reason that their families needed their help in financial support.

What help from scholarships?

In 1953, of a sample including 9,954 graduates of 225 New York State high schools, about 17 percent were expecting scholarship aid to attend college. Fewer than 3 percent of these won State scholarships, worth $350 each. The value of the total number of 1,689 scholarships was distributed as follows: Less than $100, 12 percent; $100 to $299, 32 percent; $300 to $500, 26 percent; over $500, 30 percent.

Another sample, including 1,589 students expecting scholarships, estimated their college expenses at from under $900 to over $1,500.

Will work pay the way?

A 1950–51 study of liberal arts students showed that 66 percent had worked during the previous summer. During the academic year 45 percent of those living at home and 29 percent of those living away from home had paying jobs. The proceeds from their work met 26 percent of the expenses of the students living at home and 16 percent of the expenses of the students living on campus.

H. Encouraging Scientific Talent

(The National Science Foundation, the College Entrance Examination Board and the Educational Testing Service cooperated in this study. Copies of the report, prepared by Dr. Charles C. Cole, Jr., and associates, are expected to be available from the Educational Testing Service, Princeton, N. J., about July, 1956.)

DIGEST

As our American industrialization matures in critical times we discover that, in spite of phenomenal increases in the numbers graduating from our colleges and graduate schools, we have serious shortages of personnel in certain professions. Having temporarily overcome many of the material shortages of the past—such as the scarcities of capital, comfortable housing, and electric power, we are now confronted with a shortage of highly trained manpower to meet the challenges of the atomic era.

Promoting the higher education of a larger percentage of our talented youth has become an essential measure for the conservation of our

Nation's intellectual resources. The salvaging of capable high-school graduates for higher education is vital to the maintenance of world leadership by the United States.

This study has provided nationwide figures on adolescent motivation for college, interest in science, financial plans, and parental backgrounds of the high-ability students in our public high schools. A questionnaire was completed by 32,750 seniors in a random sample of public secondary schools. An analysis of the answers was carried out for 9,689 seniors who attained a score of 12 or higher on an academic aptitude test used in connection with the study.

The investigation indicated that interest in college attendance is much greater among students from professional groups than from farm and labor classes. It also showed that there is a positive correlat' n between interest in college going and intellectual ability. Interest in college going also appears to be closely related to parental education, classmates' plans, and the extent of high-school guidance.

Nearly half of the high-level-ability students cited expense as an important reason why they might not get to attend college. About 25 percent of the high-scoring boys and 45 percent of the girls cited the lack of a college goal as an important reason why they might not attend.

The high wages obtainable by young people in industrial establishments appeared to be an inducement away from college in some instances.

Some major conclusions reached in the study are the following: (1) There are important losses to the future scientific labor force as a result of some poor teaching, insufficient guidance, and inadequate facilities in the Nation's overcrowded elementary and secondary schools. (2) Many competent, well-trained, stimulating high-school science teachers are leaving the schools. (3) Deterrents in our society and lack of motivation in some instances prevent superior high-school graduates from attending college. (4) Insufficient financial resources appear to be the sole or primary reason why 60,000 to 100,000 of these persons of superior ability fail to enroll in colleges each year.

I. Federal Responsibility in the Field of Education

(The report submitted in 1955 to the Commission on Intergovernmental Relations by its Study Committee on Federal Responsibility in the Field of Education "centers primarily in the fields of elementary and secondary education" (p. 3). Following are quotations from this report which might be applicable also to higher education—and are somewhat related to the subject of the present study.)

EXCERPTS

* * * Education is the most decentralized of all major governmental activities. In this broad dispersal of power lies one of the sources of the strength of American education (p. 17).

* * * * * * *

Federal authority in the field of education is not derived from a specific grant of power but rather from other more general constitutional powers. * * * Today Congress' power in the field of education is as broad as its discretion in spending for the public welfare. It is nonetheless clear that while the power may be sweeping national conviction holds that education at the Federal level should be held to a demonstrable minimum (p. 18).

* * * * * * *

Today a number of issues rise to challenge the adequacy of this outline of power. * * *

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A recent and compelling realization of the necessity of constant expansion in a healthy economy has focused attention on the essentiality of an ever-increasing exploitation of natural resources, including the technical human resources talent of the Nation (pp. 18–19).

Serious appraisal of the consequences of our struggle with communism again points up the ever-present competition in the maximum use of available human resources. Urgent in its own right, the need for maximum development of our own people thus takes on a new and compelling dimension.

* * * The steady drift of governmental powers to the Federal level during recent decades has given rise to serious apprehension as to the future of the principles of federalism. Those who seek a redress of this balance look particularly to the field of education where the close relationship of the function to the individual citizen, the tradition of local responsibility, and the degree of citizen participation in the governmental process have always been greatest (p. 19).

(Like the report of its Study Committee on Federal Responsibility in the Field of Education, the report of the Commission on Intergovernmental Relations,[1] submitted to the President in 1955, deals with the function of education almost entirely at the elementary and secondary levels. However, the following statements either clearly relate to higher education or might be construed to include higher education, and thus have some bearing on the present study.)

EXCERPTS

Most Federal activities in support of education have been incidental to other national objectives. Assistance to land-grant colleges, agricultural extension programs, and agricultural research have all been designed to improve agriculture. Aside from these specialized grants-in-aid, funds have been provided to institutions of higher education in support of ROTC and other training programs, defense research, and veterans' programs. None of these latter programs, of course, has as its object the support of education in general, and none is administered by the Office of Education * * * (p. 186).

* * * * * *

The American people can take pride in the accomplishments of State and local governments in the continued extension of educational opportunities. Financial support has on the whole been generously provided and standards have steadily risen, even in the less wealthy States. There is ample reason to regard State and local control of education as one of our most prized traditions * * * (p. 187).

J. Helping Qualified Students To Continue Their Education

(Following is a digest of the report, by Wesley W. Walton, recorder, of a section discussion at the 38th Annual Convention of the American Council on Education on October 6 and 7, 1955. The digest emphasizes certain points, related to the present study, brought out in the 2-day discussion. These ideas emerged from the meeting of minds of the persons assembled and should not be regarded as an expression of the position of the American Council on Education as such. The full report is contained in the Educational Record for January 1956.)

DIGEST

The problem of helping qualified students to continue their education has three aspects: (1) Young people of ability are highly valuable national resources which should be identified. (2) More young

[1] The Commission on Intergovernmental Relations was established pursuant to Public Law 109, 83d Cong., approved July 10, 1953. Meyer Kestnbaum, president of Hart, Schaffner & Marx, served as Chairman of the Commission.

people should be encouraged, guided and financially aided toward higher education. (3) Actions in this direction to date have been inadequate.

Subproblems include the increased costs of college education, the need for greater number of college graduates, et cetera.

Among efforts to be considered are college student aid programs, State and Federal institutional support, private gifts, and scholarship programs.

Identification of qualified students can be accomplished through ability tests, secondary school records, and recommendations of secondary school staff.

At present there is no administration-supported bill before Congress proposing establishment of a Federal scholarship program. However, serious consideration is being directed toward incorporating the following principles: (1) The incidence of availability—providing scholarship opportunities to reach the eligible people wherever they are; (2) preservation of State integrity—perhaps with the aid of State scholarship commissions; (3) preservation of individual freedom of choice of institution and subject matter; (4) adjustment of the amount of scholarship aid to the need of the recipient—taking into consideration family resources but not variations in student fees charged by institutions.

K. Soviet Professional Manpower—Its Education, Training, and Supply

(This study by Dr. Nicholas DeWitt was financed by the National Science Foundation and published in late 1955 by that agency in cooperation with the National Academy of Sciences—National Research Council. The book represents more than 2 years of research and study.)

DIGEST

The Soviet Union is graduating almost twice as many specialists in certain fields as is the United States. In the field of engineering, between 1928 and 1954 the Soviet Union graduated about 682,000 professionals as against approximately 480,000 in the United States. Agricultural graduates in the Soviet Union totaled about 244,000, as against 133,000 in the United States. Soviet graduates in medicine outnumbered those in the United States more than 2 to 1—320,000 as against 148,000.

In general educational opportunities in the Soviet Union are more limited than in the United States. Soviet higher educational establishments graduated only about half as many persons in all fields as did the United States during the last 25 years. However, Soviet educational policy and practices have been shaped to meet the growing needs for scientific and technical manpower. Thus from a much smaller educational base the Soviet Union is turning out a higher number of trained specialists than is the United States.

Soviet training of specialists is accomplished by sacrificing other education that the democracies regard as important. The Soviet Union has a very small number of graduates in the humanities. In the United States between 65 and 70 percent of all graduates are in the social sciences and the liberal arts.

Underlying these differences in educational product are basic differences in philosophy and purpose. In the United States the ideal is to educate as many citizens as possible for their own as well as for the public welfare. On the other hand, the goal of the Soviet totalitarian government is to serve the needs of an expanding industrial order and the complexities of bureaucracy.

The high ratio of trained professionals in the Soviet labor force is achieved by early specialization and strong incentive awards for scientists and engineers. In the secondary schools 40 percent of all instruction is devoted to science.

After early choice of careers, Soviet young people are not free to change them. Job placement is involuntary, according to the field of training; and stringent laws impose severe restrictions on changes of occupation.

Soviet concentration on increasing the number of trained professionals in the labor force has involved great emphasis on improving the educational system. Of the 2 million professionals in the Soviet Union in 1954, the greatest number, about 42 percent, were trained for and employed in, the field of education. The distribution of the remainder, by fields, was as follows: 27 percent in engineering and related occupations, 16 percent in health service, 9 percent in agriculture, and only 6 percent in socioeconomic service.

In 1953 there were more than 5½ million persons with higher education in the United States, as against only 2 million in the Soviet Union. However, the number of Soviet professionals who had completed higher education was about equal to, or somewhat more than, the number of persons with similar training in the United States.

In the United States, college and university professors are finding that potentially capable students have received insufficient secondary training in science and mathematics for enrollment in college science courses. In this country low pay and lack of other incentives tend to divert science teachers into more lucrative fields.

L. Support by the Federal Government

(This topic is discussed in the report of the Commission on Financing Higher Education, entitled "Nature and Needs of Higher Education," published for the Commission by the Columbia University Press, in 1952. The Commission was sponsored by the Association of American Universities. The discussion of "Support by the Federal Government" appears on pp. 150–164 of the Commission's report.)

DIGEST

The four principal forms of Federal support of higher education are—

1. Payments made in behalf of or directly to individual students—mainly veterans. Federal disbursements of this kind are diminishing.
2. Payments to institutions for specific services. These services consist mainly of research and development projects, and courses for Armed Forces personnel.
3. Capital grants and gifts of surplus property. These have mainly provided aid for housing veterans, and for constructing medical facilities.

4. Direct operating grants to support special instructional and research activities. Such support has included Federal contributions to the operating costs of land-grant institutions, grants for medical teaching and for research in medicine and in the physical and biological sciences.

The Commission believes: (*a*) The Federal aid for education of veterans has been a wise, proper, and beneficial program. (*b*) The nation has greatly benefited from the college and university research services of critical importance to national defense, but there are dangers inherent in calling too heavily upon educational institutions for such services. (*c*) Benefits have accrued to higher education of scientists and basic research in agriculture and the natural sciences.

The Commission is opposed to introduction of new programs of direct Federal aid to institutions of higher education, and considers it undesirable for the Federal Government to expand its scholarship aid to individual students. This position is based upon reasons such as: The independence of higher education would be threatened by further Federal influence. Particularly in the field of the social sciences, which are based upon a complex network of value judgments, centralized control could do great damage. If undertaken, Federal support of institutions of high education would probably lead to political pressures for aid to all such institutions regardless of eligibility. Direct Federal control would lead to uniformity and mediocrity, with loss of initiative and originality. The Commission does not propose a halt in present Federal aid programs but opposes a drift to new forms of Federal subsidy.

M. "What the GI Bill Did for America"

(This review of accomplishments under the World War II GI bill was prepared by Sam Stravisky and published in the American Legion Magazine for June 1955—pages 14, 15, 40–43. The documented account emphasizes the effects of the program of educational benefits. The following abstract deals principally with the material concerning the Federal aid given veterans for higher education. This digest is included because of its possible usefulness in the consideration of pending proposals for establishment of a comparable program of Federal financial aid to students.)

DIGEST

The GI bill (Public Law 346, 78th Cong.) turned out to be a wise national investment in people—the Nation's most important resource. The dividends from this unique investment have been so great in terms of national security, welfare, and prosperity, that the cost of the program has already been repaid many times over. Furthermore, the dividends will keep rolling in for generations.

The veterans educational benefits program has cost the Federal Government over $15 billion. However, the training which more than 7,800,000 veterans received with Federal assistance has enabled them to attain an income level at which they are paying an extra billion dollars a year in Federal income taxes.

About 2,200,000 veterans attended colleges and universities with Federal financial assistance under the bill. The rest of the 7,800,000

educational beneficiaries attended schools below college level, received on-the-job training or institutional on-farm training.

No other national program ever gave so many people so many skills in so many pursuits as did the GI bill.

The results from allowing those pursuing higher education to have freedom of choice of educational goals, with the aid of competent counseling, is significant. About 774,000 veterans chose training to become scientists. A much smaller number, about 460,000, chose training in the humanities. Only about 100,000 chose social studies and preparation for social welfare work.

In 1952 a select committee of the House of Representatives, after an extensive investigation of the GI bill programs, issued a report containing the following statements in reference to the Federal assistance given veterans for educational pursuits:

> Almost every American knows a young ex-serviceman who entered training, found his life's work, settled down, and is now doing well.
>
> * * * * * * *
>
> The good that has been accomplished and which will show itself more clearly in each succeeding year and in succeeding generations is incalculable.

N. "Who Should Go to College—National Government Scholarships"

(The topic of National Government Scholarships is discussed on pp. 105–107 in a book entitled "Who Should Go to College," by Byron S. Hollingshead, published for the Commission on Financing Higher Education by the Columbia University Press, in 1952.)

DIGEST

Any program of Federal scholarships for bright but needy students would be susceptible to criticism of possible Federal control. The danger of such control should be minimized as much as possible.

One of the best ways in which the Federal Government could participate in a national scholarship program would be provided through Presidential appointment of a National Scholarship Commission. The President might select the appointees from a list of names recommended by educational agencies. Retaining authority to determine overall national policies, the Commission might use the United States Office of Education to administer the program.

It is assumed that scholarship awards would be made in proportion to the youth population and that selections for awards would be made on the basis of national standardized tests as well as class standing, recommendations from teachers and school administrators, and evidence of need.

Perhaps the best plan for administering the program would be for the National Commission to establish policies under which State commissions would handle the funds.

A national program which would enlist the support of teachers and administrators would probably be more effective in inducing able students to attend college than any scheme carried out by the colleges themselves.

The National Commission would have to determine the criteria of ability and need governing eligibility for scholarships.

O. Summary of Findings From These Studies

Following is a summary of findings from the various studies digested in this chapter. The summary emphasizes points which appear to be especially significant in relation to the question of establishment of a Federal program of financial aid to students. Some of these points are brought out in more than one of the studies.

SUMMARY OF FINDINGS

The United States is losing a large percentage of its most valuable human resources. Although the total number of college graduates is markedly increasing, fewer than half of the upper 25 percent and only 6 out of 10 of the top 5 percent of high school graduates are obtaining the higher education needed for full development of their potential usefulness to society.

During the decade 1933 to 1943 the Federal Government gained experience in administering a broad program of Federal aid to individual students. By financing a wide range of part-time student work projects the National Youth Administration gave assistance to over 2,134,000 different students during the 8-year period from 1935 to 1943.

The nationwide shortage of highly educated manpower is critical in many fields. There are various estimates of the amount available and the amount needed for scholarships, but it appears that the amount needed is at least three times as great as the amount available. Data suggest that awarding a sufficient number of scholarships would cause three-fourths instead of only one-half of the top 27 percent of high-school graduates to enter college.

According to findings from a current study of a nationwide sampling of 13,669 students the principal reason for dropouts from college after the first year is economic problems.

A current study of a nationwide sampling of 15,306 college and university students showed that their average annual expenses amounted to $1,120 in publicly controlled institutions and $1,674 in privately controlled colleges.

In 1953 nearly 22,000 New York State high-school graduates in the upper half of their classes failed to enter college. A study of a sample 4,414 of these students showed 43 percent of them desired to continue their education. Of a sample of 9,954 high-school graduates about 17 percent were expecting scholarships.

In 1955 the Commission on Intergovernmental Relations declared that:

> There is ample reason to regard State and local control of education as one of our most prized traditions.

On a nationwide basis, insufficient financial resources appear to constitute the sole or primary reason why each year 60,000 to 100,000 high school graduates of very superior ability do not go on to college.

Identification of high school graduates of superior ability can be accomplished through ability tests, school records and recommendations of teachers.

The Soviet Union is graduating almost twice as many specialists in certain (mainly scientific) fields as is the United States. Soviet training of specialists is accomplished by sacrificing other education that the democracies consider important.

The report of the Commission on Financing Higher Education, published in 1952, expressed opposition to new programs of direct Federal aid to institutions of higher education and disfavor of expansion of Federal scholarship aid for individual students.

The author of a study of the effects of the GI bill concluded that it turned out to be a wise national investment in the Nation's most important resource—people. The writer stated that (with freedom of choice of higher educational goals) about 774,000 veterans chose training to become scientists as against 460,000 who chose the humanities and 100,000 who chose social studies and preparation for activities in social welfare.

In a work entitlcd "Who Should Go to College," published in 1952, the author pointed out that any program of Federal scholarships for bright but needy students would be subject to criticism of possible Federal control.

CHAPTER VI. ARGUMENTS PRO AND CON

This chapter contains a factual discussion of the major arguments supporting and opposing various proposals that have been made for providing Federal financial aid to students pursuing a college education. The arguments included are those that have been emphasized in the literature. No attempt has been made to judge the validity of these arguments or to rank them in accordance with any assumed scale of importance.

Underlying the differences of opinion there is a substantial measure of agreement on two vital points: Many of our young people are not going to college although they have the ability to do college work; this apparent wastage of our human resources may be a potential danger to the country.

The controversial nature of the literature dealing with the subject has sprung from differences of opinion concerning what the Federal Government either should, or could do about the matter.

In accordance with standard practice, the arguments on the pro side have been listed first.

A. Arguments for Federal Aid to Students

1. We have a reservoir of potential first-class college graduates in those youth of outstanding natural ability who do not attend college or do not finish their college courses

Much thought has been given to America's wastage of manpower. Since World War II several important studies of our manpower resources and manpower utilization have been undertaken by private organizations, as well as by governmental agencies and the Congress. The first of these was made under the direction of Dr. Vannevar Bush, Director of the Office of Scientific Research and Development. It was published in 1945 under the title of "Science, the Endless Frontier." In this report Dr. Bush declared:

> The country may be proud of the fact that 95 percent of boys and girls of fifth grade age are enrolled in school, but the drop in enrollments after the fifth grade is less satisfying. For every 1,000 students in the fifth grade, 600 are lost to education before the end of high school, and all but 72 have ceased formal education before completion of college * * *. We cannot be complacent about the loss of potential talent which is inherent in the present situation.[1]

In 1947, the President's Commission on Higher Education also pointed out this waste of talent when it stated:

> The educational attainments of the American people are still substantially below what is necessary either for effective individual living or for the welfare of our society.
>
> * * * * * * *
>
> In 1947, about 1,600,000 or 19 percent of our high-school-age boys and girls were not attending any kind of school, and over two-thirds of the 18- and 19-year-old youths were not in school.
>
> These are disturbing facts. They represent a sobering failure to reach the educational goals implicit in the democratic creed, and they are indefensible in a

[1] Bush, Vannevar. Science, the Endless Frontier. Washington; U. S. Government Printing Office 1945, p. 20–21.

society so richly endowed with material resources as our own. We cannot allow so many of our people to remain so ill equipped either as human beings or as citizens of a democracy.[2]

Recently developed tests of mental ability and the Army general classification test reveal how many people there are who could benefit from higher education. According to the President's Commission on Higher Education, at least 49 percent of the Nation's population has the ability to complete 14 years of schooling, and at least 32 percent of the population could complete an advanced liberal or specialized professional education.[3] The President's Scientific Research Board also called attention to this in its 1947 report on manpower for research:

It has repeatedly been estimated that approximately as many students with high ability drop out of school before reaching college as enter college in any 1 year. Many of these young people take mediocre jobs and very few of them in intellectual or creative work of a high order * * *. Thus, there is a large group of able students whose talent could be put to much more profitable use by society if society were to invest in education.[4]

The data compiled by the President's Commission on Higher Education and by other public and private organizations studying the problem clearly reveal that a large number of young people who have the capacity to complete college work are not attending college, and that many of these are debarred from further study by economic factors. Mr. Marion B. Folsom, Secretary of the Department of Health, Education, and Welfare, underscored this loss of top ability in a speech before the American Association of School Administrators on February 22, 1956, in which he drew attention to the fact that half of the Nation's high-school students who graduate in the upper fourth of their classes do not go to college. He emphasized that every year almost 60,000 students capable of doing college work leave high school before graduation. Citing these facts, Mr. Folsom asked:

How much of this waste is due to lack of personal or family desire for more schooling? How can good counseling lead more children to seek higher levels of education? How much of the drop out in education is due to lack of finances? [5]

2. A major reason for the failure of competent youth to graduate from college is lack of money

One of many research studies of the correlation between the lack of money and failure to enter college reported that between 60,000 and 100,000 persons of superior ability do not enroll in institutions of higher education each year because of insufficient financial resources.[6] Seven out of ten students who are capable of completing their college educations do not do so because of low family income, according to another authority. Another study demonstrates that educational opportunities are closely correlated with family income. Of the students and families studied, only 49 percent of those high-school graduates who had IQ's of 110–119, and who came from families whose income was under $4,000 a year, planned to go to college. In contrast with this, 89 percent of the students whose families had annual incomes of $8,000 or over were going to continue their education at the college level.[7]

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[2] U. S. President's Commission on Higher Education. Higher Education for American Democracy. Vol. 1; Washington; U. S. Government Printing Office; 1947; p. 25, p. 27.
[3] Ibid., p. 41.
[4] U. S. Scientific Research Board. Science and Public Policy. Vol. 4; Washington; U. S. Government Printing Office 1947; p. 124.
[5] Press release from Department of Health, Education, and Welfare for February 22, 1956 speech.
[6] Cooperative study made by the College Entrance Examination Board, the Educational Testing Service, and the National Science Foundation.
[7] New York. State University of New York. Crucial Questions About Higher Education. New York; 1955; p. 85.

These studies prove that many more students would go to college if they had the money. Costs are increasing and many families do not have sufficient income to send their children to college. Since a large majority of superior and gifted children are from families of modest incomes it seems clear that financial aid is necessary to help meet the costs of their college educations.

3. Our national welfare depends upon the education of our competent youth

The Nation's security and stability, its progress and prosperity are absolutely dependent on the development of the talents of our young people.

One expert has pointed out:

> Society fails to secure the fullest benefit of many of its brightest youth because they do not secure the education that would enable them to work at levels for which they are potentially qualified.[8]

America's educated manpower is the Nation's most valuable resource. We are wasting talented manpower because many people are working at levels far below their potentialities. Trained personnel and technical superiority are more important than numbers of population.

One university president emphasized that:

> In the final analysis there is no substitute for the qualitative development of our best brains. Our foreign and military policy has no better ally than the educational system. In any assessment of American power, higher education has the same stature as our system of food production, our industrial organization, or our system of defense.[9]

Our American school system has traditionally worked to present a reasonably adequate educational opportunity for every young person. This is no longer true to the extent that our national welfare demands. The increasing complexity of our society requires that more of our capable young people have a college education. This growing complexity also adds to the cost of education and prolongs it. A larger enrollment in our colleges and universities is so imperatively needed that the cost would be a sound investment.

4. The United States' need is particularly great for more college-trained scientists and engineers. Shortages of graduates in these fields threaten our national survival, as is shown by comparison of United States with Soviet production of scientists and engineers

A recent comprehensive study made under the auspices of the National Science Foundation, entitled "Soviet Professional Manpower," and statements by responsible United States Government officials support the belief that we must do something to guide more of our young people into higher education.

In the study of professional manpower in the U. S. S. R., Nicholas DeWitt concluded that the Soviet Union—

> has reached a position of close equivalence with or even slight numerical supremacy over the United States as far as the supply of trained manpower in specialized professional fields is concerned. The Soviet effort continues. Our own policies in the field of education and in regard to specialized manpower resources will decide whether within the next decade or so the scales will be tipped off balance.[10]

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[8] Wolfle, Dael. Ed. Report of the Commission on Human Resources and Advanced Training. America's Resources of Specialized Talent. New York; Harpers, 1954; p. 269.
[9] De Kiewiet, C. W. Education for Survival. The ACLS Newsletter. Summer 1953; p. 7.
[10] DeWitt, Nicholas. Soviet Professional Manpower. Washington. U. S. Govt. Print. Off. 1955. P. 257.

The present number of engineers and agricultural specialists in the U. S. S. R.—

must be viewed in relation to the size of the population and the nonagricultural labor force. While the Soviet population is about one-quarter larger than that of the United States, the Soviet nonagricultural labor force is still about one-third smaller than that of the United States. Thus, the proportionate share of trained professionals employed in the Soviet Union is lower with respect to the population at large, but obviously somewhat higher in relation to the nonagricultural labor force.[11]

A comparison of the number of graduates in engineering in the Soviet Union and in the United States graphically dramatizes our disturbing dilemma. The number in the U. S. S. R. has risen from 30,000 in 1952 to 63,000 in 1955; in the United States the number has fallen from 30,000 in 1952 to 23,000 in 1955. The prediction concerning future professional manpower in the two countries is even more disturbing. Allen W. Dulles, Director of the United States Central Intelligence Agency, has warned that in this decade the number of graduates in the basic physical sciences (including engineering) in the U. S. S. R. will total 1,200,000, whereas we will graduate only 900,000 in this same period.[12]

This expanding differential of scientific professional manpower between the Soviet Union and the United States is potentially dangerous. In a recent congressional report on Engineering and Scientific Manpower in the United States, Western Europe and Soviet Russia, a Member of Congress emphasized we must accept the fact that:

Qualitatively the work of the Russians in pure science, applied science, and engineering has always been of high character. It would be a major blunder to imagine that the Soviets lag behind us as abstract thinkers about the universe or as practitioners of theories. The Russians blunder when they insist on a doctrine of genetics that temporarily appears to sustain Communist dogma. They don't commit blunders in building a hydroelectric project or a bridge, in mass-producing a swift jet bomber, in testing their nuclear weapons and building their stockpile.[13]

5. The Federal Government should remove the financial barriers to the higher education of the Nation's competent youth

a. The national interest demands it.—It is clear that the interest of the American people in this matter is not casual; it is vital, and so imperative that the normal social processes are not adequate to meet our needs. In an age when decades have shrunk to years, years to months, and months to minutes, we have little time to talk, and none to lose.

In a 1954 report, entitled "America's Resources of Specialized Talent," the Commission on Human Resources and Advanced Training declared that it would be sound national policy to encourage and help bring more of the ablest young people into institutions of higher education:

To make the maximum use of those who are potentially well qualified means to get each into the job which he can do best and in which he can contribute most effectively to the Nation. College training is the means to that end. Getting more of the ablest high-school graduates into college is therefore a major step

[11] Ibid., p. 255.

[12] 53d Annual Commencement, Columbia University, June 1, 1955. New York Times, June 5, 1955. P. 11E.

[13] Representative Melvin C. Price. In U. S. Congress. Joint Committee on Atomic Energy. Engineering and Scientific Manpower in the United States, Western Europe and Soviet Russia. 84th Cong., 2d sess. Joint Committee Print, Washington. U. S. Government Printing Office, 1956: v–vi.

in preparing them for positions of greater responsibility and usefulness than they would be likely to achieve without college training.[14]

* * * * * * *

The Nation needs to make more effective use of its intellectual resources * * * Democracy at its best gives each child access to the education and opportunities which will enable him to develop his potentialities. Each can then progress to the highest level which his abilities and interests allow. The United States stands in too vital need of the high abilities of its ablest sons and daughters to adopt any lesser goals.[15]

It is clear that the American people, through the instrumentality of their National Government, should be deeply concerned about the adequacy of our supply of skilled manpower. Can Congress be indifferent to the consequences and meanings of the findings concerning "the nature and distribution of talent and skill in American society?" The American people need a Federal program of aid to students to relieve the shortages which exist in many vital areas. The national interest would be indisputably served by helping to provide appropriate educations for those with high ability.

b. There is ample precedent for it.—Although there is no overall Federal policy or program relating to the participation of the Federal Government in the broad field of higher education, there are many separate legislative precedents for such a program. The Federal Government granted public lands for the establishment of institutions of higher education in the States, and there have been other scattered influences on higher education spread over more than 150 years. The Federal Government's interest in, and its expenditures for, higher education have reflected its response to new national needs and responsibilities.

Clearly, the Land-Grant College Act (1862) and subsequent legislation gave tremendous impetus to the expansion of higher education. The contribution made by the land-grant colleges to our national welfare in every field of intellectual activity presents dramatic evidence of the ultimate value of adequately financed higher education.

The several Reserve officer training programs of the armed services and the Navy's "Holloway plan" are considered by some to be Federal scholarship programs.

Federal grants of money were made to students under the program of the National Youth Administration in the 1930's and early 1940's. During this decade the Federal Government gained experience in administering a broad program of Federal aid to individual students. By financing part-time student work projects, the National Youth Administration gave assistance to more than 2,134,000 different students during the 8-year period of 1935–43. Although the basic intent of this program was to provide emergency depression relief, we should note that because of its operation many hundreds of thousands of trained persons were available in the ensuing defense period of World War II than otherwise would have been the case.

The international student-exchange programs operating under the Fulbright and Smith-Mundt Acts are additional examples of direct aid to individuals. The most outstanding examples of Federal aid to a large number of persons in the field of higher education are the Servicemen's Readjustment Acts of World War II and the Korean

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[14] Wolfle, Dael, ed. Report of the Commission on Human Resources and Advanced Training. America's Resources of Specialized Talent. New York. Harpers. 1954. P. 242.

[15] Ibid. P. 5–6.

conflict. This legislation has received widespread bipartisan support in the Congress; and the wisdom of its sponsors has been widely recognized, as the following statement indicates:

> Public Law 346, 78th Congress, was a wise national investment in people—the Nation's most important resource.
>
> The veterans' educational benefits program has cost the Federal Government over $15 billion. However, the training which more than 7,800,000 veterans received with Federal assistance has enabled them to attain an income level at which they are paying an extra billion dollars a year in Federal income taxes.[16]

The Federal Government's sponsorship of numerous programs in the field of higher education provides ample precedent for a Federal scholarship program as a legitimate national responsibility. It has been pointed out that under the "general welfare" clause of the United States Constitution, the Federal Government can expend tax money for any function that Congress at its own discretion chooses to support.

c. Existing scholarship aid and loan funds are inadequate.—This is true for both public and private schools. Approximately one-fourth of our institutions of higher education have no loan funds at all; in another one-fourth the amounts are insufficient.[17] Approximately half of our schools report that with great care their present loan funds appear to have a reasonably adequate relationship to present needs. In no case did a school report that it could accept more students without a proportionate increase in scholarship funds. No State makes higher education economically attainable to all of its youth who are capable of doing college work. In most cases where State aid exists, it is for only a small fraction of the total cost of college expenses. This is also true of most scholarship aid available in our private institutions of higher education. These facts must be considered in the light of the fact that experience proves that many students would not consider going into debt to attend college.

In summary, more scholarship funds are essential.

d. It would not involve controversies with respect to racial segregation and aid to private institutions.—A Federal aid scholarship and/or loan program is the only adequate solution. Such a program is not likely to incur as many involvements as a Federal program of grants to the States for education. The latter type of Federal subvention has been opposed because it has been claimed that it would infringe upon State authority over such matters as education in general, integration, and aid to private schools.

e. It would not lead toward Federal control of education.—The claim that such a program would lead toward Federal control of education can be refuted simply by pointing out that the proposed system would provide aid to individuals, not to education as such.

f. It would more nearly equalize educational opportunity for many of our youth.—A Federal scholarship program would be consistent with the Nation's traditional beliefs in equality of opportunity, and in the importance of a well-informed citizenry in a democracy. Both of these beliefs are essential to the continued enjoyment of the freedom which this Republic has always cherished. Talented young people from low-income families should be given the same opportunities for higher education as those from more fortunate families. These opportunities can be made available only through a national program of scholarships which would find and help the most promising students

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[16] Stravinsky, Sam. What the GI Bill Did for America. American Legion magazine. June 1955.
[17] Toepelman, W. L. Financial Aid to Students. *In* Current Issues of Higher Education. Washington, Association for Higher Education. 1952. P. 46.

no matter where they live, through nationwide competitive examinations. Lack of money should not prevent capable young students from attending college, and increasing their adult contributions to the growth of the Nation. Our society can no longer afford to lose the talents of young people who happen to come from families who do not have the money to pay for their education.

g. The Federal Government is the only agency in a position to finance a national program of this kind.—The States are already so burdened with the fiscal problems connected with the tremendous expansion now occurring in our elementary and secondary school systems that it is doubtful if they could undertake to finance the extensive and complex system of scholarships that is necessary.

h. We are not going to get the level of higher education we need, evaluated in a qualitative sense, unless we have a national program.—Higher education is not the mass-level process it is in the elementary school, and in large part in the secondary school. In the field of higher education new factors are the determinants. The roles of the individual scholar and expert, of specialized laboratory and research facilities, of specialized library resources, and of specialized faculties, are the things that count.

Our young people should have unrestricted access to our total educational plant, which is the only way their educational needs can be met adequately. This can be achieved only by a national program.

B. Arguments Against Federal Aid to Students

1. The national shortages of college graduates in many fields are temporary. The problem is more an educational than a demographic problem, the latter being the direct result of the low birthrate in the 1930's

In the preceding passages setting forth the arguments favoring a Federal student-aid program there appear statements to the effect that: (1) We are confronted with shortages of trained manpower, especially in scientific fields, and (2) these shortages are becoming more acute. These statements, which are supported by statistical data, are incontestably true—the shortages do in fact exist.

A more searching study of the statistics, however, reveals that much of the discussion is based on a fundamental confusion of thought—demographic facts have been confused with educational problems. Let us consider, first, the demographic facts. The college-age population of the United States in 1955 was 15.1 million. This is the smallest number in this age group since 1930, when there were 15.5 million—this, despite an increase in the total population from 123,188,000 to 165,248,000 for the same period. Our surprisingly small college-age population is the result of the drastic lowering of the birthrate in the depression years. The birthrate during and since the war has risen steadily; it is now approximately 24.8 per 1,000, whereas the average for the depression years was 18.9 per 1,000 persons. By 1960 our population will contain 16,273,000 young people 18 to 21 years old. Since 32.6 percent of this age group was in college in 1955, compared with 29.7 percent in 1950 and 15.4 percent in 1940, we are on mathematically sound ground in agreeing with an authority who estimates that our college enrollments will rise from 3 million in the present school year to 3.5 million in 1960, and to 5 million in 1970.[18] By

[18] Horn, Francis H. Problems Facing Higher Education. Teachers College Record, March 1956. Pp. 360–370.

1960 college enrollments will begin to swell. They could reach "tidal wave" proportions by the late 1960's. Such an increase will solve the problem, so far as numbers are concerned. However, it is necessary to keep in mind the difference between the size of the population of the United States and the U. S. S. R. With a population about one-quarter larger than ours, a proportionately larger college-age group, and a social policy which places emphasis on recruiting women as well as men into the specialized fields, the Soviet Union for the predictable future will continue to outnumber the United States.

The real problem—or problems—can now be clarified. Our problem is an educational, not a demographic, one; the two have hitherto been confused. The confused situation which has hitherto been seen as a single problem now can be seen to consist of two problems which are separable from each other. The demographic problem is one which only time can solve; the maturing of the war-baby crop will give us eventually the numbers that we need. In the interim we will have to face the problem of larger college enrollment recruiting from a very small percentage of our total population. For the group presently enrolled in college plus those who can be recruited from our existing college-age population we must consider a very grave educational problem. We have been assured by competent authorities that engineers and scientists are in actual and potential short supply. The problem reduces itself to this: Are we to adopt a program which will induce a larger percentage of our current student enrollment to enter scientific and technical fields? What would be the long-term effects of such a program? Might it not be possible that such a program would operate in a fashion that would, in a very few years, leave us short of educated people in other fields? We would not benefit in the long run if we embarked on an unbalanced program that would provide us with scientists but leave us short of English teachers.

Dr. Dael Wolfle, in discussing the current manpower shortages, commented as follows:

> The combination of a long-sustained period of economic rise, the longest in the Nation's history, and a thin generation which must provide military manpower, college graduates, and workers at other levels means that the demands have, for the time being, outrun the supply. The condition is not necessarily permanent; when the children born during the forties reach working age a much more generous supply will be available. But that larger supply will not solve the problems of the next few years.[19]

The National Manpower Council commented along the same lines:

> Because the 21-year-old group will be smaller in the next few years, the number of college graduates will probably continue to decline from the abnormally high point reached in 1950 until about 1955. The 1950 level may not be regained until 1964 or 1965. This trend is the basis for many of the current predictions of future shortages in the supply of professionally trained persons. From a reduced supply of college graduates it will be necessary to meet demands for men for the Armed Forces, for business and industry, for advance professional training, and for professional employment.[20]

2. There are alternative solutions which could be developed to relieve the current manpower shortage. In the meantime, much needed research could be undertaken to give the Nation a clearer picture of the exact shortages and of the existing scholarship and loan programs

It is not inevitable that we conclude that in order to bridge a temporary manpower gap a Federal scholarship program should be estab-

[19] Wolfle, Dael. Op. cit., p. 134.
[20] National Manpower Council. A Policy for Scientific and Professional Manpower. New York. Columbia University Press. 1953. P. 59.

lished. There are more constructive and more adequate solutions for this temporary shortage. We should take action to develop our present resources and to find other methods to overcome current inadequacies.

The National Manpower Council stressed this when it suggested that:

> * * * investigations of utilization practices are needed to point the way to reducing waste in the employment of persons already highly trained. The problem of finding the most effective balance among professional personnel and technical and skilled manpower in various work situations calls for careful investigation. It may also be noted that little is known about the effects which changes in technology and changes in the demand for and supply of scientific and professional manpower have upon each other.[21]

Alternative solutions to the manpower shortage were suggested by the Council:

> * * * the development of an adequate supply of scientifically and professionally trained personnel can be attained only by a large-scale concerted effort in which different kinds of action are taken by various groups. Contributions to the success of such an effort may take the form of changing existing immigration laws to facilitate the admission of foreign-born scientists; of modifying State law governing the gifts of corporations for educational and philanthropic purposes; or of providing greater opportunities for satisfying academic careers for able young scientists. The creation of conditions which make for a reasonable balance between the supply and the demand for scientific and professional manpower can only be the product of a vast, cooperative undertaking which becomes possible when the society as a whole has an understanding of its problems and shares a common purpose.[22]

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> To insure an adequate supply of scientific and professional personnel of high quality it is necessary to develop a more positive and sympathetic climate for intellectual endeavors which will make them attractive to able young men and women.[23]

A great deal more research must be undertaken before we have a complete picture of our human resources. As the National Manpower Council stated:

> The lack of a theoretical framework for manpower analysis and the inadequacy of the information concerning our human resources have made it difficult for the Nation to appraise current scientific and professional manpower problems and to work out sound policies for their solution.[24]

In addition to the foregoing suggestions, experts have expressed the view that it is necessary to have much more information and data than are now available concerning existing scholarships from all sources, private and governmental. The American Council on Education, in its report entitled "Background for a National Scholarship Policy," lists a number of research studies which should be made in the field of scholarship awards, thus emphasizing the need for additional information.

In this connection, the Commission on Financing Higher Education expressed the following view in its summary report:

> We believe that more effort should be expended upon persuading various private groups to expand their scholarship interests, upon encouraging individuals and others to provide more funds directly to colleges and universities for this purpose.[25]

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[21] National Manpower Council. Op. cit., p. 254.
[22] Ibid., p. 256.
[23] Ibid., p. 257.
[24] Ibid., p. 17.
[25] Nature and Needs of Higher Education. The Report of the Commission on Financing Higher Education. New York. Columbia University Press. 1952. P. 137.

3. Federal aid to students for higher education would be discriminatory because it would educate a few at the expense of many. Federal aid would destroy the ambition of conscientious students who would be willing to work their way through college. There are plenty of part-time job opportunities for superior students

It would not be democratic to educate a few at the expense of many. The need is not great enough to justify the expenditure of tax money which is contributed by a whole Nation for a relatively small proportion of our population. A Federal scholarship program would tax millions of less gifted, less capable Americans to help send a more favored group to institutions of higher education. One opponent of a Federal scholarship program expressed this sentiment when he wrote:

> Federal scholarships would be undemocratic and class legislation. I see no reason why ordinary people should be taxed to give an education to those whose scholastic aptitude is higher than that of the rest. Many of our most useful citizens are persons who were far from leading their class in college.[26]

Moreover, there is reason to think that taxpayers would believe that a tax-supported program such as a Federal scholarship plan should be available to every high-school graduate for his higher education, without discrimination of any sort. The current open-door admission policy of many of our public institutions of higher education is an illustration of this point of view in action. Several studies have shown that our present body of college students includes a considerable number of young people whose capacities are such that they cannot satisfactorily complete a standard college course. Their presence in college classes has had the unconscious effect of lowering scholastic standards, and their continued presence is a drain on the schools with such admission standards.

There is a respectable body of opinion which holds that a Federal scholarship program would seriously impair the recipient's sense of self-reliance. They cite the fact that millions of people have worked their way through college and point to the indisputable fact that a college education is worth some personal sacrifice.

One author writes:

> A college education is more than the acquisition of academic knowledge. Unless it trains individuals to assume responsibilities, to meet and solve challenging problems, to develop sound character and to get along with others, it has not succeeded. Quite frequently, these things have been gained as much outside of the classroom as in it. A program providing all or a large part of one's college expenses might in reality have a somewhat negative effect upon the student.[27]

The weakening of initiative under Federal subvention was predicted by Dr. Guy E. Snavely when he warned:

> Suppose we succumb to the narcotic suggestion that it is best for the taxpayers to send additional monies to Washington to be assembled and distributed back to the States, after a large share for overhead has been retained, for a general scholarship program of large dimensions; what will happen to the great horde of additional college graduates? Quite obviously most of these will clamor for Uncle Sam to guarantee them posts of responsibility with commensurate stipend. If they lack initiative in the first place, it is unlikely that they will gain it in college.[28]

Many authorities cite the fact that if a student is ready to make the sacrifices necessary to earn part of his college expenses, there are

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[26] Flynn, Very Rev. V. J., U. S. Student Help Opposed as Peril: New York Times, Jan. 11, 1950, p. 11.
[27] Withey, J. R. A., Federal Aid and the Small Private College: Association of American Colleges Bulletin, December 1953, p. 577.
[28] Snavely, Guy E., What about Federal Scholarships? Johns Hopkins Magazine, June 1950, p. 28.

plenty of opportunities for him to obtain a college education today—through scholarship programs, credit arrangements for the payment of fees, part-time jobs, and summer employment, and work-study programs, to mention only a few methods.

4. Lack of money is not the only reason for failing to enter college. There are other reasons why many students do not attend college

Federal financial aid could not possibly induce all competent youth to attend college. Some authorities contend that lack of motivation is more important than lack of money as a reason for not attending college.[29] This was expressed by one authority in these words:

> This is not to say that there are not students with ability and ambition for whom the financial barrier is insurmountable, but their number may be fewer than is commonly supposed.[30]

Some of the most important motivating factors for college attendance are directly connected with parental education, cultural backgrounds, social and occupational status, as well as prevailing community attitudes, the extent of high school guidance, geographical remoteness from an institution of higher education, or inadequate preparation.[31]

The role of cultural and of family background in the motivation of people toward higher education can be further illustrated by an authority who has had experience in working with a privately sponsored national scholarship program. He points out that:

> The undereducated will be found, for the most part, in homes without books or the money to buy them, in families without a college tradition, and in schools in run-down areas. The absence of good reading and good verbal usage at home puts these students at a disadvantage in avowedly culture-biased aptitude tests, if they ever get to take them. Families, struggling economically and without a tradition of going to college, stifle their motivation. Schools in run-down areas usually offer the most meager college preparatory curricula and the least, as well as the most stereotyped, guidance.[32]

Dr. Wolfle emphasized the importance of personal motivation as well as family attitudes as forces influential in motivating young people to enter college:

> Repeatedly it has been necessary to refer to the role played by personal motivation in determining who goes to college—for high school students as a group, the weight of the evidence seems to justify the generalization that as many potentially good students do not go to college because they do not want to as because the funds are not available * * *.
>
> For maximum success in making all potentially good college students want to go to college the attitudes toward higher education of many families and groups would have to be changed.[33]

One study, for example, concluded that interest in attending college was far greater among young people from families having professional backgrounds than among those from families with farm and labor backgrounds.

If lack of money is not the primary obstacle to college attendance it is doubtful that a Federal scholarship program would bring more gifted students into our colleges. It should be noted that the Educational Testing Service reported, after a study of veterans who at-

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[29] Millett, John, Financing Higher Education in the United States: 1952.
[30] Smith, Sherman, speech given during American Council on Education annual meeting, Washington, Oct. 6–7, 1955.
[31] Hiel, George, College Proneness, a Guidance Problem: Personnel and Guidance Journal, October 1954, p. 71–73; also Dael Wolfle. op. cit., p. 43.
[32] Plaut, Richard L., Speech given during the American Council on Education annual meeting, Washington. Oct. 6–7, 1955.
[33] Wolfle, Dael. op. cit., p. 250.

tended college under the Servicemen's Readjustment Act, that 4 out of 5 would have attended college even if they had not received Federal assistance.[34]

Deterrents to college attendance need a great deal more investigation. According to the National Manpower Council:

> The conditions which contribute to the development of potential ability and talent and the causes of poor motivation and attrition among students mentally equipped to do good college work warrant far more intensive study than they have yet received.[35]

In addition to the lack of personal motivation, the Commission on Financing Higher Education stressed the vital role of our elementary and secondary schools, declaring that:

> The major burden of this whole problem of college motivation appears to lie with our primary and secondary schools, and especially with the secondary schools. If our common school program in this country will encourage students of superior ability to think about going to college, if it will identify intellectual promise early in life and help to stimulate its growth, if it will then bring this talent to the attention of those able and eager to help young persons of limited means to go to college, then our national record in getting persons of top intellectual promise into college can be greatly improved.[36]

This position is supported by Dr. James Phinney Baxter 3d, president of Williams College, who is concerned about the inadequacy of pupil counseling in our public schools. He contends that 75,000 young people of high capabilities are not going to college each year for other than economic reasons:

> One important cause for the failure of colleges to recruit more of the gifted youths is the inadequacy or the predominantly vocational character of much of the counseling at the junior high school level.
>
> * * * Many promising boys and girls are counseled about college too late in their high school careers to take the course work prescribed for college entrance.
>
> Clearly, the counseling must be improved, extended backward at least to the ninth grade and extended outward to include the parents as well as the child. Early identification of the highly gifted child is essential.[37]

Proposals for a broad general program of Federal aid to students for higher education should be carefully studied not only in the light of statistical facts (not all of which are available) but in the light of the less measurable criteria set forth above. In addition, there are many questions that should be asked, and for which answers should be sought. For example: Do young people actually want more educational opportunities? Are they willing to further their education if they can get jobs without it? How many students are motivated to undertake further study by grants and scholarships? How many of them would have found their opportunities entirely upon their own initiative? The wisdom of spending Federal money for scholarships is certainly in question when there is manifest indifference to the opportunities already available.

5. *If a national scholarship program should be established, many of the scholarships would undoubtedly fall to students who would have attended college without such assistance. A program of this kind would not be practicable politically*

If a national scholarship program were established, it is inevitable that the scholarships would fall mostly to those who would go to college anyway, because they have come from home environments

[34] Educational Adjustment, New Jersey, Educational Testing Service, 1951.
[35] National Manpower Council, op. cit., p. 254.
[36] Commission on Financing Higher Education, op. cit., p. 50.
[37] Educator Scores Pupil Counseling, New York Times, March 4, 1956, p. 71.

favorable to college attendance. For the Government to administer a personal and family means test as a prerequisite for scholarship aid is not practicable politically, and in addition would be administratively cumbersome.

A Federal scholarship program cannot avoid being discriminatory. If a national competitive examination were used the inequality of our school systems would result in the awarding of more scholarships to students from districts with better schools. In support of this point one educational authority has stated that:

> [Our schools] vary tremendously according to geographic region, staff personnel, and student body. Because of these variations it is difficult to project any national plan, even a plan for encouraging able students to go to college, which can do justice to this variation and yet at the same time be precise enough to administer.[38]

To use a quota system based on population would be unfair, because less able students from some areas would have greater opportunities than more capable students from an area where the competition would be sharper because of a better school system.

Moreover, a Federal scholarship program predicated on financial need would be open to the kind of criticism contained in the following comment:

> The student will not be sought out because it is believed that his education will be of benefit to the Nation. Instead, he must ask for the aid and must prove that he is in financial straits. The poor but proud youngster will not have a chance. The boy whose parents are in the lower middle class will have to undergo the humiliation of a detailed analysis of his parents' income and spending habits, perhaps to be told that they could have bought a cheaper car and financed his education.[39]

How can the true financial picture of a family be determined without using an unduly intrusive and possibly impertinent investigation of family matters?

6. If further governmental aid to students for higher education is needed, it should be financed and administered by the States rather than by the Federal Government

Those who contend that the State governments are in a better financial position to support a scholarship program than the Federal Government hold that:

> The States are in a better financial position than the debt-ridden Federal Government. Existing restrictions upon the fiscal powers of the States were imposed not by the Federal Government but by the citizens of those States upon their own governments. They are not limitations upon the fiscal capacity of the States but only restrictions of the power of State legislatures to draw upon that fiscal capacity. The final power over taxes and debts rests in the people themselves. They imposed those limitations; they can alter or remove them if they find them out of step with contemporary requirements.
>
> The Federal Government has not preempted nor monopolized any tax. All major tax resources are available to the States. But the Federal Government has just about exhausted the willingness of the American people to be taxed. The only effective restriction upon the fiscal powers of the States is the size of the Federal tax burden. This restriction can be eased by reducing the financial commitments of the Federal Government, and not by adding to them.[40]

Federal-aid programs in the minds of many people sometimes assume a delusive quality which leads them to believe that the Federal Government can do something for them that they cannot do them-

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[38] Hollinshead, Byron S., Who Should Go to College? New York, Columbia University Press, 1952, p. 27.
[39] Shaw, R. S., Aid to Students, New York Times, January 9, 1948, p. 20.
[40] Freeman, Roger A, Federal Aid to Education—Boon or Bane? Washington, American Enterprise Association, 1955, p. 26.

selves. Actually, the money for any Federal program comes from the taxpayers of the several States and is returned to them through the mechanisms of the structure of the Federal Government, which necessarily entails an overhead or handling cost. The "overhead" costs of Federal subsidies were stressed by the Foundation for Economic Education, Inc., in an August 1955 memorandum on proposed Federal scholarship programs:

> Costs of the Government's overhead must always be considered in figuring the cost of any program of Government spending.
>
> When the Government grants scholarships, both the cost of collecting the tax to pay for them and the salaries of the officials handling the program, must be subtracted first before any boy or girl receives a single cent to pay for his schooling.

7. Although the Federal Government is already operating large and varied programs giving aid to students for higher education, such programs do not necessarily constitute a precedent for general aid to students in colleges

Claims have been made that precedents for such a general program exist. Does such a precedent exist in fact? The legislative intent underlying previous acts which provided for educational aid to individuals was to grant assistance as partial compensation for services rendered. Such programs as veterans' education, ROTC, research fellowships of the National Institutes of Health, and payments made by institutions to graduate students from Federal funds received under research contracts are in this category. There is no broad Federal legislation assisting individuals in obtaining higher education which is based upon any other premise.

8. Some measure of Federal control over education would inevitably accompany a general program of Federal aid to students

An illustration of what can happen when students become dependent upon a national government has been forcefully described by Sir Hector Hetherington, the vice chancellor of Glasgow University, in an article on the British University system. His conclusions follow, in part:

> Government now intervenes more closely and more continuously, and our affairs are much subject to Parliamentary interpellation.
>
> * * * * * *
>
> We are now dependent upon direct Government aid, not as to our prewar 33 percent, but as to something over 70 percent, and the proportion tends to increase.
>
> * * * * * *
>
> No longer are [students] dependent only on family savings and sacrifices or on scholarships and bursaries won by excellence in their work, or on the bounty of Mr. Carnegie. By law, any reasonably competent student who, on a quite generous computation of family resources, needs money to help him through his university course, is entitled to it.
>
> * * * * * *
>
> One way and another, almost all our departments, certainly all our scientific and medical departments, are caught in this web of governmental relationships and hardly a day passes but some adjustment has to be made.
>
> * * * * * *
>
> What troubles me more is a feeling that this tighter fitting in of the universities to a national system begins to be reflected in a greater rigidity of university structure, and in a certain change of mood * * * Of course, students grants from public funds and the requirements of national service make a difference, both to the moral and legal position of students; and it cannot be said that the standards of diligence exacted are remarkably high.
>
> * * * * * *

Wherever we turn, the dominating fact is the degree of our financial dependence on Government; and I do not think it likely to diminish. We ought assuredly to do all that we can for ourselves; but we cannot expect greatly to alter the present proportion; and that, I think, is too high for comfort. Some hold that there is little difference in practice between a 30 percent, and a 70 percent dependence. I do not share that view. If an issue arose, this difference in proportion could be critical. A much bigger front is now open to penetration; and at the best, we are apt to disagree reluctantly with the views of an almost sovereign paymaster, and more readily to acquiesce in proposals which on their merits, one does not greatly like.[41]

A lesson our own forebears learned by hard experience, and which we seem to need to learn again, is implicit in the opinion of the Supreme Court of the United States accompanying the decision in the case of *Wickard* v. *Filburn*[42] that the Federal Government must control what it subsidizes.

C. Summary of the Arguments

Proponents of Federal aid to students for higher education stress the point that we have a reservoir of potential first-class college graduates in the youth of outstanding natural ability who do not attend college or do not finish their college courses. A major reason for the failure of competent youth to graduate from college is lack of money. The national welfare depends upon the education of our competent youth. The United States need is particularly great for more college-trained scientists and engineers. Shortages of graduates in these fields threaten our national survival, as is shown by comparison of United States with Soviet production of scientists and engineers. The Federal Government should remove the financial barriers to the higher education of the Nation's competent youth. The national interest demands it. There is ample precedent for it. Existing scholarship aid and loan funds are inadequate. A Federal scholarship and/or loan program would not involve controversies over racial segregation and aid to private institutions. It would not lead toward Federal control of education. Federal aid to students for higher education would more nearly equalize educational opportunity for many of our youth. The Federal Government is the only agency in a position to finance a national program of this kind.

We are not going to get the level of higher education we need, evaluated in a qualitative sense, unless we have a national program.

Those who oppose establishing a program of Federal aid to students for higher education declare that the national shortages of college graduates in many fields are temporary. The problem is more an educational than a demographic problem, the latter being the direct result of the low birthrate in the 1930's. In support of their position, opponents of Federal aid hold that available data show that our college enrollments are certain to increase annually for many years to come. Larger graduating classes will reduce the shortage. Also, there are alternative solutions which could be developed to relieve the current manpower shortage. In the meantime, much needed research could be undertaken to give the Nation a clearer picture of the exact shortages and of the existing scholarship and loan programs.

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[41] Hetherington, Sir Hector, The British University System, 1914–54, Aberdeen University Review, Spring 1955, p. 2–11.

[42] 317 U. S. 111, p. 131.

Federal aid to students for higher education would be discriminatory because it would educate a few at the expense of many. Federal aid would destroy the ambition of conscientious students who would be willing to work their way through college. There are plenty of part-time job opportunities for superior students.

Lack of money is not the only reason for failing to enter college. There are other reasons why many students do not attend college.

If a national scholarship program should be established, many of the scholarships would undoubtedly fall to students who would have attended college without such assistance. A program of this kind would not be practicable politically.

If further governmental aid to students for higher education is needed, it should be financed and administered by the States rather than by the Federal Government. Although the Federal Government is already operating large and varied programs giving aid to students for higher education, such programs do not necessarily constitute a precedent for general aid to students in colleges. Some measure of Federal control over education would inevitably accompany a general program of Federal aid to students.

CHAPTER VII. CURRENT FEDERAL PROGRAMS AIDING CERTAIN STUDENTS

(Principally Graduate, Veteran, and Military Education Opportunities)

A. Introduction: General Characteristics

This chapter reviews the principal Federal programs which currently provide directly or indirectly some financial aid to students for higher education. The existence of these programs may be expected to affect consideration of pending bills to provide financial help to students. It is unlikely Congress would give serious consideration to a new program without a thorough knowledge of the existing ones.

Consideration of these programs in relation to pending bills should immediately take into account such important facts as the following:

The existing programs principally provide only graduate, veteran, and military education opportunities.

Congress has enacted no legislation making available general scholarships for which all or a majority of the Nation's high-school seniors are eligible to compete.

Altogether, existing Federal programs provide direct financial aid for the higher education of only a small percentage of the Nation's high-school graduates each year.

The principal purpose of current Federal programs aiding students usually is not financial aid to students as such. For example, the main purpose of the Army Reserve Officers' Training Corps is to train Reserve officers for the Army. The fact that enlistment in the corps provides some financial aid to the higher education of the individual enrollee is more or less incidental.

Another example is our program of educational exchanges with other nations. The main purpose in this case is not to finance the higher education of some of our college and graduate students. Our participation in international exchanges of persons is aimed mainly at the promotion of amicable relations with other nations, and at other closely related objectives.

Generally, the existing Federal programs either provide aid to students for study only in certain fields or at certain educational levels, or else give assistance only to a particular group of persons. The first two limitations are illustrated in the program of the National Science Foundation, which presently awards fellowships only for graduate study in the mathematical, physical, medical, biological, engineering, and other sciences.

The other type of limitation is illustrated by the veterans' educational program, which provides aid only to members of a particular group, namely, veterans. It is also noteworthy that this constitutes but a segment of a broader program of veterans' benefits.

The veterans' educational benefits constitute by far the largest Federal program aiding students. It gives assistance to members of

this particular group of persons for study in practically all major subject fields. It is, however, a temporary program, expected soon to resume a gradual decline interrupted by the Korean veterans' participation.

Outstanding among agencies carrying out programs to increase the supply of trained personnel in specific fields are the National Science Foundation, the United States Public Health Service, and the Department of Defense. The fields of emphasis are the physical, medical, and related sciences, and military science. Investigation has revealed no comparable Federal program aimed at increasing the supply of trained personnel in the social sciences.

The Department of State is outstanding as an agency administering a scholarship program designed largely to implement an established policy of the United States Government. The Department administers the Fulbright Act and other acts which provide for educational exchanges with other nations for the promotion of international understanding and good will. The program covers a multiplicity of fields of study; however, a large proportion of the fellowship holders from Latin America and the Far East are studying in the technical and scientific fields.

Certain Federal agencies have entered into contracts with, or made grants to, colleges and universities for various research activities on which considerable numbers of graduate students are working. These students are employed part time or full time on the research payroll. Their work on the research projects is also used to meet requirements for advance degrees. To the extent that this arrangement makes advanced work possible for these graduate students, it may be considered a form of fellowship aid. The compilation of full, accurate information as to the number of persons involved and the extent to which actual assistance is thus rendered to graduate students would be a large undertaking. Considerable relevant information is included in this report.

The Department of Defense operates the Air University and other institutions of higher education for its military and civilian personnel. Several Federal agencies send some of their employees to outside institutions of higher education for the purpose of increasing their professional competence. This report does not include data on these arrangements, which ordinarily are regarded as part of the in-service training programs of the agencies.

The following analyses of current Federal programs aiding students are based upon information condensed from Government publications or obtained from correspondence and conferences with officials of the agencies administering the programs. Differences in the presentation of the data are attributable to variations in the programs, the accounting procedures of different agencies, et cetera. Insofar as has seemed practicable the data have been organized in comparable form for the several agencies.

Whether these programs should be regarded as being principally or partly or only incidentally student-aid programs is largely a matter of opinion and is left to the reader's judgment. It should be borne in mind that each of these programs does in fact provide some direct or indirect financial aid to individual students, but this may not be in any case the principal or ultimate purpose of the program.

B. Programs of the Veterans' Administration

The training programs administered by the Veterans' Administration for veterans of World War II and the Korean conflict provide for training in schools of higher learning, schools below college level, a combination of institutional and on-farm training, apprentice training, and other training on the job in business establishments.

The following statements generally are not limited to college or university training inasmuch as such training is only one of the several types provided under these programs and separate cost data are not maintained in the Veterans' Administration for each type of training. The cost data available for each of the Veterans' Administration programs represent average cost for direct benefits (i. e., subsistence, tuition, books and supplies, tools and equipment for trainees under Public Law 346, 78th Cong., Public Law 16, 78th Cong., or Public Law 894, 81st Cong., and the education and training allowance for trainees under Public Law 550, 82d Cong.) for all types of training combined, including part time. Administrative cost data applicable to each program are not available.

1. VOCATIONAL REHABILITATION TRAINING FOR DISABLED VETERANS

a. History and description.—Laws providing vocational rehabilitation training benefits under programs administered by the Veterans' Administration have as their purpose the restoration of employability lost by reason of the veterans' having been disabled in military service during periods of war or declared national emergency.

A basic requirement with respect to the individual veteran's entitlement for vocational rehabilitation training is that he be in need of training to overcome the handicap of a service-incurred disability. Where need for vocational rehabilitation is found to exist, training may be provided for as long as 48 months, and longer in exceptional cases by approval of the Administrator of Veterans' Affairs. All training must be completed by the end of 9 years after the statutory end of World War II and the Korean conflict for most disabled veterans of those two basic service periods, respectively. The law allows a maximum period of 13 years in certain exceptional cases.

Every disabled veteran who trains under the vocational rehabilitation training program enters training to prepare himself for a specific occupation and pursues a training program designed to fit his particular needs. The Veterans' Administration provides vocational counseling by a trained vocational counselor for each applicant. When a counselor determines that the need for vocational rehabilitation exists, he assists the veteran in selecting an occupational goal consistent with the veteran's abilities, aptitudes, interests, previous training and experience, and with his disabilities.

The type of training which is best suited to bring the veteran to his rehabilitation goal is utilized. This may be school training in institutions of higher learning or in schools below the college level, or training on a farm in combination with related school training, or training on the job in a business establishment. Veterans pursuing training on the job may also receive related school training, as needed.

The training officer makes arrangements with an established school or business establishment, or an individual instructor when required,

to provide the instruction and training outlined in the veteran's training program. After the veteran begins training, the training officer maintains periodic contact with him at his place of training to assure that he is making satisfactory progress toward the attainment of his training objective and will become rehabilitated in a real sense. The training officer may make other arrangements to promote the training of the veteran.

While pursuing training and for 2 months after rehabilitation, disabled veterans are paid a monthly subsistence allowance, the amount of which is determined on the basis of the veteran's degree of impairment, type of dependents, number of dependents, and type of training. Veterans may receive advance payments in the form of loans of up to $100 upon entrance into training. Subsistence allowance payments are made directly from the Federal Treasury to each veteran trainee who is eligible to receive such payments on the basis of authorizations from the Veterans' Administration. Payment for tuition, books and supplies for disabled veterans who train in schools is made directly from the Federal Treasury to the schools, on the basis of vouchers which the schools submit to the Veterans' Administration.

Over 600,000 disabled veterans of World War II have participated in the vocational rehabilitation training program since its inception in July 1943. The number of veterans in training reached a peak in December 1947 when there was a total enrollment of 256,000 veterans.

The vocational rehabilitation training program for veterans who were disabled during the Korean conflict is still in an initial stage of its development. A total of 29,700 disabled veterans entered training under this program from its inception in May 1951, up until June 30, 1955.

b. Legal authorization.[1]—Public Law 16, 78th Congress, as amended, provides training benefits for disabled veterans of World War II. Public Law 894, 81st Congress, as amended, provides similar benefits for veterans disabled during the Korean conflict.

c. Number of veterans aided, fiscal year 1955.—The monthly average enrollment in these programs during the fiscal year 1955 was as follows:

Public Law 16, 78th Cong.

Total	11,257
Higher learning	2,416
Schools below college level	3,878
On-the-job	2,353
Institutional on-farm	2,610

Public Law 894, 81st Cong.

Total	13,211
Higher learning	5,098
Schools below college level	4,192
On-the-job	2,830
Institutional on-farm	1,091

The monthly average number of veterans given assistance for higher education, by States, Territories, and foreign countries, fiscal year 1955, was as follows:

[1] Detailed statement of legal authorization is available from the Veterans' Administration.

Public Law 16, 78th Cong.

Foreign countries	0	Montana	5
U. S. Territories and possessions	12	Nebraska	17
Alabama	43	Nevada	6
Arizona	55	New Hampshire	9
Arkansas	48	New Jersey	12
California	318	New Mexico	18
Colorado	76	New York	175
Connecticut	16	North Carolina	35
Delaware	1	North Dakota	8
District of Columbia	33	Ohio	86
Florida	88	Oklahoma	77
Georgia	32	Oregon	32
Idaho	8	Pennsylvania	93
Illinois	70	Rhode Island	14
Indiana	44	South Carolina	15
Iowa	23	South Dakota	12
Kansas	34	Tennessee	44
Kentucky	34	Texas	281
Louisiana	32	Utah	15
Maine	6	Vermont	7
Maryland	8	Virginia	20
Massachusetts	65	Washington	43
Michigan	82	West Virginia	37
Minnesota	35	Wisconsin	42
Mississippi	111	Wyoming	2
Missouri	37		

Public Law 894, 81st Cong.

Foreign countries	0	Missouri	76
United States Territories and possessions	43	Montana	25
Alabama	121	Nebraska	54
Arizona	42	Nevada	8
Arkansas	99	New Hampshire	26
California	358	New Jersey	88
Colorado	133	New Mexico	31
Connecticut	39	New York	478
Delaware	5	North Carolina	124
District of Columbia	18	North Dakota	33
Florida	177	Ohio	219
Georgia	51	Oklahoma	131
Idaho	36	Oregon	49
Illinois	153	Pennsylvania	317
Indiana	99	Rhode Island	43
Iowa	93	South Carolina	44
Kansas	65	South Dakota	25
Kentucky	55	Tennessee	76
Louisiana	44	Texas	524
Maine	22	Utah	36
Maryland	31	Vermont	10
Massachusetts	206	Virginia	53
Michigan	162	Washington	88
Minnesota	122	West Virginia	57
Mississippi	175	Wisconsin	111
		Wyoming	23

d. Average cost and total obligations, fiscal year 1955.—The average cost per trainee for 12 months of training was $1,666 during the fiscal year 1955.

Total obligations for direct benefits (subsistence, tuition, fees, books, supplies, and equipment) under this program for all types of training (college, below college, institutional on-farm and job training) for the fiscal year 1955 were $40,769,802.

2. EDUCATION AND TRAINING FOR VETERANS OF WORLD WAR II

a. History and description.—Education and training benefits were authorized for veterans of World War II as an aid in their readjustment to civilian life after release from military service, and to restore lost educational opportunities. The law provides that persons who actively served in the Armed Forces for a period of 90 days or longer during the statutory period of World War II and who have been released from military service under conditions other than dishonorable have the right to pursue an elected course of education and training for a period equal to the veteran's wartime service plus 1 year, up to a maximum of 48 calendar months of full-time training. Veterans discharged by reason of an actual service-incurred injury or disability after less than 90 days' service are also eligible for training under this program.

Training must have been commenced by July 25, 1951, or within 4 years after release from military service, whichever is later. Training cannot be provided beyond July 25, 1956, excepting for certain veterans who enlisted or reenlisted under the Armed Forces Voluntary Recruitment Act of 1945.

Each eligible veteran has the right to elect any course of training he desires to pursue except that a veteran may not pursue training for avocational or recreational purposes. The veteran may pursue school training in institutions of higher learning or in schools below the college level or he may train on a farm in combination with related school training or he may train on a job in a business establishment.

A veteran who desires to change his course or has completed or discontinued a course and desires additional training is permitted to pursue a new course in the same general field or to make one change of general field without prior approval, provided conduct and progress have been satisfactory.

Vocational counseling is provided by the Veterans' Administration upon request or when the Veterans' Administration determines that it is required.

The responsibility for approving schools and establishments to participate in the education and training program is vested in the several States and the Administrator of Veterans' Affairs. Schools which have been approved for training under the law include both private and public schools and institutions of higher education providing all levels of instruction. Training programs have also been approved for apprentice and other training on the job in many thousands of business establishments throughout the country.

Upon application, a veteran is paid a monthly subsistence allowance while he pursues a course of education and training, except a correspondence course. Increased amounts of subsistence allowance are paid to veterans with dependents, but there is a limit to the amount a trainee may receive in combined subsistence allowance and income from productive labor. Veterans who pursue courses on a part-time basis receive a proportionately reduced subsistence allowance.

Subsistence allowance payments are made directly from the Federal Treasury to each veteran trainee who is eligible to receive such payments on the basis of authorizations from the Veterans' Administration. Payment for tuition, fees, books, and supplies for veterans who train in schools is made directly from the Federal Treasury to the

schools on the basis of vouchers which the schools submit to the Veterans' Administration. If the tuition rate exceeds $500 for an ordinary school year the charges in excess of the $500 rate are payable from Federal funds only if the veteran elects to have his entitlement exhausted at an accelerated rate. Veterans training on the job are provided necessary tools and equipment by the Veterans' Administration.

Over 7,800,000 veterans of World War II have participated in the education and training program since its inception in July 1944. This number represents 1 out of every 2 veterans of World War II. The number of veterans in training reached a peak in December 1947 when a total of 2,800,000 veterans was enrolled.

b. Legal authorization.[2]—Public Law 346, 78th Congress, as amended. Termination of the war for purposes of this program was fixed as July 25, 1947, by Public Law 239, 80th Congress.

c. Number of veterans aided, fiscal year 1955.—The monthly average enrollment in this program during the fiscal year 1955 was as follows:

Total	141,472
Higher learning	47,136
Schools below college level	74,122
On the job	3,618
Institutional on farm	16,596

The monthly average number of veterans given assistance for higher education by States, Territories, and foreign countries, fiscal year 1955, was as follows:

Foreign countries	593	Missouri	984
United States Territories and possessions	223	Montana	83
Alabama	621	Nebraska	216
Arizona	236	Nevada	23
Arkansas	328	New Hampshire	43
California	4,236	New Jersey	1,779
Colorado	701	New Mexico	226
Connecticut	608	New York	6,139
Delaware	46	North Carolina	501
District of Columbia	1,416	North Dakota	66
Florida	1,038	Ohio	2,548
Georgia	650	Oklahoma	1,011
Idaho	68	Oregon	469
Illinois	2,158	Pennsylvania	3,900
Indiana	1,005	Rhode Island	121
Iowa	386	South Carolina	263
Kansas	396	South Dakota	56
Kentucky	492	Tennessee	784
Louisiana	566	Texas	2,969
Maine	50	Utah	519
Maryland	1,025	Vermont	27
Massachusetts	2,072	Virginia	351
Michigan	1,492	Washington	646
Minnesota	971	West Virginia	245
Mississippi	1,177	Wisconsin	529
		Wyoming	84

d. Average cost and total obligations, fiscal year 1955.—The average cost per trainee for 12 months of training (including part-time training) was $715 during fiscal year 1955.

Total obligations for direct benefits (subsistence, tuition, fees, books, supplies, and equipment) under this program for all types of training (college, below-college, institutional-on-farm, and job train-

[2] Detailed statement of legal authorization is available from the Veterans' Administration.

ing) for fiscal year 1955 were $101,095,443. It is estimated that 79 percent of the veterans enrolled under this program during fiscal year 1955 pursued training on a part-time basis.

3. EDUCATION AND TRAINING FOR VETERANS OF THE KOREAN CONFLICT

a. History and description.—Education and training benefits were authorized for veterans of the Korean conflict as an aid in their readjustment to civilian life after release from military service, and to restore lost educational opportunities. The law provides that persons who actively served in the Armed Forces for a period of 90 days or longer during the statutory period of the Korean conflict (June 27, 1950, through January 31, 1955), and who have been released from military service under conditions other than dishonorable, have the right to pursue an elected course of education and training for a period equal to 1½ times the veterans' military service during the Korean conflict, up to a maximum of 36 calendar months of full-time training. This service period for persons in the active military service on January 31, 1955, is extended to include the additional period until the person's unconditional discharge or release from such service after January 31, 1955.

Veterans discharged by reason of service-incurred disabilities after less than 90 days' service are also eligible for training under this program.

Training must have been commenced by August 20, 1954, or within 3 years after release from military service, whichever is later. Training cannot be afforded beyond 8 years after the veteran's separation from active military service, or in any event cannot extend beyond January 31, 1965.

Each eligible veteran has the right to elect any program of training he desires to pursue except that a veteran may not pursue training for avocational or recreational purposes. The veteran may pursue school training in institutions of higher learning or in schools below the college level or he may train on a farm in combination with related school training or he may train on the job in a business establishment.

A veteran who desires to change his program or has completed or discontinued a program and desires additional training is permitted to initiate not more than 1 additional program without prior approval, provided that it is done within a 3-year period after separation from active military service, and further provided that his previous program had not been interrupted or discontinued due to his own misconduct, his own neglect, or his own lack of application. After the expiration of 3 years beyond the date of separation from active military service an eligible veteran who has not had a prior change of program may make not more than one change of program with the approval of the Administrator.

Vocational counseling is provided by the Veterans' Administration upon request or when the Veterans' Administration determines that it is required.

Schools and business establishments receive approval to offer specified programs of education and training under the provisions of the law. The responsibility for approving programs of education and training in schools and business establishments is vested in the several States. Schools in which courses of education and training have been approved under the law include both private and public schools and institutions of higher education providing all levels of instruction. Training programs have also been approved for apprentice and other training on the job in many thousands of business establishments throughout the country.

Upon application, a veteran is paid a monthly education and training allowance while he pursues a course of education and training, except that veterans pursuing correspondence courses only or flight training only are paid on the basis of the amount of training completed rather than on the basis of a prescribed monthly rate. The education and training allowance is provided to meet, in part, the expenses of the trainee's subsistence, tuition, fees, supplies, books, and equipment. Increased amounts are paid to veterans with dependents. Veterans who pursue school training on a part-time basis receive a proportionately reduced education and training allowance.

The payments are made directly from the Federal Treasury to each veteran trainee who is eligible to receive such payments on the basis of authorizations from the Veterans' Administration. As a prerequisite for these payments the veteran is required to submit to the Veterans' Administration a monthly certification of satisfactory attendance and progress, approved by the trainer.

A total of 1,029,000 veterans of the Korean conflict have participated in the program since its inception in August 1952, up until June 30, 1955. This training program is still in an expanding stage of development, and the peak training loads anticipated have not yet been reached.

b. Legal authorization.[3]—Public Law 550, 82d Congress, as amended. Termination of the Korean conflict for purposes of this program was fixed as January 31, 1955, by the President's Proclamation of January 1, 1955 (proclamation No. 3080). This termination date was modified by Public Law 7, 84th Congress, to extend the basic service period in the case of a person in the active service in the Armed Forces on January 31, 1955, until the date of the person's first discharge or release from such service after January 31, 1955.

c. Number of veterans aided, fiscal year 1955.—The monthly average enrollment in this program during fiscal year 1955 was as follows:

Total	418,393
Higher learning	191,782
Schools below college level	145,464
On the job	53,919
Institutional on farm	27,228

[3] Detailed statement of legal authorization is available from Veterans' Administration.

The monthly average number of veterans given assistance for higher education by States, Territories, and foreign countries, fiscal year 1955, was as follows:

Foreign countries	819	Missouri	3,941
United States Territories and possessions	2,085	Montana	878
Alabama	4,137	Nebraska	1,590
Arizona	1,271	Nevada	197
Arkansas	1,985	New Hampshire	483
California	21,650	New Jersey	4,087
Colorado	2,676	New Mexico	1,059
Connecticut	2,294	New York	16,291
Delaware	247	North Carolina	3,886
District of Columbia	1,049	North Dakota	959
Florida	3,734	Ohio	8,263
Georgia	4,581	Oklahoma	5,293
Idaho	686	Oregon	1,997
Illinois	8,712	Pennsylvania	10,577
Indiana	4,795	Rhode Island	867
Iowa	2,700	South Carolina	1,762
Kansas	2,738	South Dakota	928
Kentucky	2,360	Tennessee	3,872
Louisiana	3,196	Texas	13,840
Maine	524	Utah	2,440
Maryland	2,906	Vermont	292
Massachusetts	5,459	Virginia	2,390
Michigan	7,416	Washington	3,487
Minnesota	4,157	West Virginia	2,121
Mississippi	4,107	Wisconsin	3,619
		Wyoming	379

d. Average cost and total obligations, fiscal year 1955.—The average cost per trainee for 12 months of training (including part-time training) was $1,347 during fiscal year 1955.

Total obligations for payment of education and training allowances to veterans (to assist them in meeting expenses of subsistence, tuition, fees, books, supplies, and equipment) under this program for all types of training (college, below-college, institutional-on-farm, and job training) for fiscal year 1955 were $563,421,364. It is estimated that 29 percent of the veterans enrolled under this program during fiscal year 1955 pursued training on a part-time basis.

C. Programs of the National Science Foundation

1. NATIONAL SCIENCE FOUNDATION FELLOWSHIPS

a. History and description.—Within the limits of funds made available specifically for such purpose, the National Science Foundation has statutory authority to award scholarships and fellowships in the mathematical, physical, biological, engineering, and other sciences. At present the Foundation is awarding fellowships for graduate predoctoral and postdoctoral training in these areas.

Early in 1951 the National Science Board reached the conclusion that the Foundation could accomplish one of its aims—that of increasing the Nation's supply of highly trained scientists—most directly and most quickly through a graduate fellowship program. The fellowship program was inaugurated in the 1952–53 academic year, and thus will be in its fourth year of operation during the 1955–56 academic year.

The section of the National Science Foundation Act which deals with the award of scholarships and fellowships provides that individuals selected for such awards are to be chosen solely on the basis

of ability, but requires the use of procedures which will result in a wide geographical distribution of awards if the number of fellowships is limited. Selection must be made from among individuals of substantially equal ability. The act further specifies that individuals chosen for these awards are to be given free choice of graduate institution, provided only that the institution chosen must be an accredited, nonprofit American or nonprofit foreign institution of higher education.

The Foundation, through its fellowship program, is attempting: (*a*) To seek out able science students interested in training beyond the baccalaureate level; and (*b*) to afford these able students the opportunity of attending those institutions which can best provide the training required in order for each fellow to develop his potentialities to the fullest.

Through the fiscal year 1955, the Foundation had awarded a total of 1,920 fellowships, 1,741 at the predoctoral and 179 at the postdoctoral level.

Screening and evaluation of fellowship applications has been accomplished each year by panels of scientists set up for this purpose by the National Academy of Sciences-National Research Council, operating under a Foundation contract. The Foundation selects from a list of evaluated candidates submitted to it by the Academy-Council those individuals who are to be awarded fellowships.

b. Legal authorization.—Public Law 507, 81st Congress—the National Science Foundation Act of 1950—section 10.

c. Number of graduate students aided, fiscal year 1955.—Fiscal year 1955 funds are being used to support 663 predoctoral and 54 postdoctoral fellows (a total of 717) for study during the 1955–56 academic year.

d. Geographical distribution of awards.—The States of permanent residence of individuals being supported as NSF fellows during the 1955–56 academic year are as follows:

State	Predoctoral	Postdoctoral	Total	State	Predoctoral	Postdoctoral	Total
Alabama	5	0	5	New Hampshire	3	0	3
Arizona	5	0	5	New Jersey	27	2	29
Arkansas	5	0	5	New Mexico	3	0	3
California	68	7	75	New York	88	7	95
Colorado	9	1	10	North Carolina	9	0	9
Connecticut	12	3	15	North Dakota	3	0	3
Delaware	2	1	3	Ohio	36	1	37
District of Columbia	2	1	3	Oklahoma	12	0	12
Florida	9	0	9	Oregon	8	0	8
Georgia	3	0	3	Pennsylvania	45	4	49
Idaho	1	0	1	Rhode Island	4	0	4
Illinois	47	3	50	South Carolina	3	0	3
Indiana	20	1	21	South Dakota	2	0	2
Iowa	13	0	13	Tennessee	8	0	8
Kansas	8	1	9	Texas	12	2	14
Kentucky	6	0	6	Utah	7	2	9
Louisiana	9	0	9	Vermont	2	0	2
Maine	2	0	2	Virginia	13	0	13
Maryland	13	2	15	Washington	16	5	21
Massachusetts	28	5	33	West Virginia	1	0	1
Michigan	23	1	24	Wisconsin	17	3	20
Minnesota	18	1	19	Wyoming	2	0	2
Mississippi	8	0	8	Alaska	0	0	0
Missouri	16	1	17	Hawaii	2	0	2
Montana	0	0	0	Puerto Rico	0	0	0
Nebraska	7	0	7				
Nevada	0	0	0	Total	662	54	716

e. Amount of Federal aid per graduate student.—The Foundation provides its fellows with stipends as follows: Predoctoral—first year $1,400, intermediate $1,600, terminal $1,800; postdoctoral—$3,400.

In addition the Foundation pays tuition and required fees as well as limited dependency and travel allowances. The average costs per fellow for the fiscal year 1955 were estimated to be: Predoctoral—first year $2,070, intermediate $2,500, terminal $2,730; postdoctoral—$4,550.

f. Total Federal obligations for the program, fiscal year 1955.—Federal obligations for the program for the fiscal year 1955 were: Predoctoral $1,607,305; postdoctoral $250,442; total $1,857,747.

2. NATIONAL SCIENCE FOUNDATION RESEARCH GRANTS

The Foundation is authorized by its establishing act (Public Law 507, 81st Cong.)—

> to initiate and support basic scientific research in the mathematical, physical, medical, biological, engineering, and other sciences, by making contracts or other arrangements (including grants, loans, and other forms of assistance) for the conduct of such basic scientific research * * *.

At present the Foundation is awarding grants for the support of such basic research, and included in this activity is the support of a number of graduate and postdoctoral students performing research services for the grantee. Selection of students is made locally, stipends are fixed locally, and funds are provided for services rendered.

The numbers of students supported through research grants are, insofar as Foundation records are concerned, only approximate because this is a matter of grantee control. Records of the Foundation indicate student-support from research grants, by field, in the fiscal year 1955 as follows:

Postdoctoral	122
Predoctoral	581
Undergraduate	27
Technicians	65
Other	89
Total	884

The amount of financial support to individuals is variable according to local circumstances. There is reason to believe, however, that the average support levels are of the same approximate order of magnitude as the stipends under the fellowship program.

D. Programs of the Atomic Energy Commission

1. FELLOWSHIPS IN RADIOLOGICAL PHYSICS

a. History and description.—The radiological physics fellowship program gives training in a specialized field closely related to the atomic energy program, to selected college graduates with degrees in basic sciences or engineering. The program is accredited for graduate level training leading to an advanced degree.

With the expansion of the atomic energy program, the need for trained personnel in this field was becoming increasingly important. In 1948 the fellowship program was established. The National Research Council administered the fellowships for the first 2 years.

During this time 42 fellows spent 12 months at either the California Institute of Technology (1 fellow), the Oak Ridge National Laboratory (21 fellows), the University of Minnesota (2 fellows), or the University of Rochester cooperating with the Brookhaven National Laboratory (18 fellows).

Since the academic year 1950–51 the Oak Ridge Institute of Nuclear Studies [4] has administered the program for the Commission. During this period there have been only minor modifications. The program began with 2 training centers providing 9 months of regular university graduate work in the sciences, followed by 3 months additional study and field training at a cooperating installation of the AEC. The training centers were Vanderbilt University in cooperation with the Oak Ridge National Laboratory and the University of Rochester in cooperation with the Brookhaven National Laboratory. The University of Washington and the Hanford Works were added to the program for the 1953–54 academic year.

b. Legal authorization.—The Atomic Energy Act of 1946, Public Law 585, 79th Congress, as amended.

c. Number of graduate students aided academic year 1954–55.—During the academic year 1954–55 the Commission supported a total of 54 fellowships under this program.

d. Distribution of fellowships by States, academic year 1954–55.—At the time of appointment the fellows were in residence at institutions of higher education in 24 States, as follows:

Arkansas	1	Nebraska	1
Georgia	3	Nevada	1
Idaho	2	New Mexico	1
Illinois	3	New York	3
Indiana	1	North Carolina	2
Iowa	5	Ohio	5
Kentucky	3	Oregon	1
Massachusetts	2	Pennsylvania	3
Michigan	2	Tennessee	7
Minnesota	3	Washington	1
Mississippi	1	West Virginia	1
Missouri	1	Wisconsin	1

e. Average amount of Federal aid per graduate student, and total cost, fiscal year 1955.—The average amount of direct assistance per fellow was $2,240. The total cost of the program was $133,118.

2. FELLOWSHIPS IN INDUSTRIAL HYGIENE

a. History and description.—In view of the limited supply of chemists and engineers equipped with special knowledge required for positions in industrial hygiene the industrial hygiene fellowship program was developed by the AEC in 1952 to provide highly trained specialists in this field of vital importance to the atomic energy program. Fellowships are awarded to selected college graduates with degrees in basic science or engineering, for graduate study in the Harvard University School of Public Health or the University of Pittsburgh Graduate School of Public Health. The fellowship leads to a master of science degree.

b. Legal authorization.—The Atomic Energy Act of 1946, Public Law 585, 79th Congress, as amended.

[4] A nonprofit educational corporation operating under contract with the Atomic Energy Commission.

c. Number of graduate students aided, academic year 1954–55.—During the academic year 1954–55 the Commission supported eight fellowships under this program.

d. Distribution of fellowships by States, academic year 1954–55.—The fellows came from institutions of higher education in seven States as follows:

California	1	Ohio	2
Illinois	1	Pennsylvania	1
Maryland	1	New York	1
Minnesota	1		

e. Amount of Federal aid per graduate student, and total cost, fiscal year 1955.—The average amount of direct assistance per fellow was $3,106. The total cost of the program was $33,170.

3. FELLOWSHIPS IN INDUSTRIAL MEDICINE

a. History and description.—The University of Rochester, Rochester, N. Y., atomic energy project administers for the Commission a fellowship program in industrial medicine.

The program was begun in the academic year 1949–50 with two fellowships. Present authorization is for 8 new appointments per annum along with possible extensions for 1 year of some of those appointed and trained the previous year. Appointees are doctors of medicine with 2 years postdoctoral experience.

The purpose of the program is to supply medical personnel qualified not only in industrial medicine but with sufficient knowledge of nuclear energy to be able to cope with the medical problems of plants operating in the nuclear field.

b. Legal authorization.—The Atomic Energy Act of 1946, Public Law 585, 79th Congress, as amended.

c. Total number of students aided, fiscal 1955.—Only seven students.

d. Average amount of Federal assistance per student, fiscal 1955.—This amounted to $5,287.

e. Total Federal obligation for the program, fiscal 1955.—Total Federal obligations amounted to $44,000.

4. OFF-SITE RESEARCH PROGRAM

The Commission conducts an off-site research program through which a sizable number of graduate students are employed as research assistants in colleges and universities holding the research contracts. The students are paid a salary for their work from contract funds according to university employment standards. Based on a sampling of more than one-third of the research contracts in effect in January 1955, it is estimated that approximately 1,545 research assistants were thus employed.

E. Programs of the Department of the Air Force

1. AIR FORCE RESERVE OFFICERS TRAINING CORPS

a. History and description.—Provision for the establishment of a Reserve Officers Training Corps as the source of officers for the newly authorized Officers Reserve Corps were included in the reorganization of the Military Establishment in 1916 when Congress enacted the original National Defense Act.

During the years 1920 through 1923, Air Corps (then Air Service) ROTC units were established at seven colleges and universities. However, these units were phased out beginning in 1932.

In 1946, the Army Air Forces re-entered the ROTC field, activating air units at 78 institutions. The current program encompasses units at 188 degree-granting institutions throughout the United States, Puerto Rico, and Hawaii. Today, the AFROTC constitutes a large and important program for producing junior Air Force officers.

The postwar AFROTC program was administered initially by the War Department General Staff; however, in 1949, the Department of the Air Force assumed control of the program.

The mission of the AFROTC is to select and prepare cadets, through a permanent program of instruction at civilian institutions, to serve as officers in the Reserve and Regular components of the Air Force.

The AFROTC program is composed of 2 separate and distinct phases, a 2-year basic course and a 2-year advanced course. The two phases correspond to the freshman and sophomore years, and to the junior and senior years, respectively. Completion of the basic course does not guarantee acceptance into the advanced course. Cadets accepted for the advanced course will attend a period of summer training normally conducted between the junior and senior years.

Enrollment in this program is restricted to students who are citizens of the United States, are not less than 14 years of age, are physically qualified for military service, and meet character and loyalty requirements.

b. Legal authorization.—National Defense Act of 1916, as amended.

c. Total number of students paid commutation, fiscal 1955.—The number of students who received some financial remuneration from the Federal Government under the program totaled 20,300.

d. Numbers of students enrolled by States and foreign countries in educational institutions therein, fiscal 1955.—

Alabama	372	New Hampshire	267
Arizona	281	New Jersey	602
Arkansas	93	New Mexico	190
California	1, 234	New York	1, 698
Colorado	288	North Carolina	579
Connecticut	356	North Dakota	182
District of Columbia	259	Ohio	1, 741
Florida	376	Oklahoma	530
Georgia	461	Oregon	453
Hawaii	77	Pennsylvania	1, 143
Idaho	97	Puerto Rico	91
Illinois	708	Rhode Island	87
Indiana	998	South Carolina	533
Iowa	590	South Dakota	56
Kansas	671	Tennessee	289
Kentucky	379	Texas	1, 594
Louisiana	812	Utah	629
Maine	40	Vermont	132
Maryland	316	Virginia	351
Massachusetts	851	Washington	598
Michigan	840	West Virginia	148
Minnesota	403	Wisconsin	316
Mississippi	164	Wyoming	29
Missouri	575	Foreign countries	0
Montana	161		
Nebraska	246	Total	[1] 23, 886

[1] Includes both those cadets who received and who did not receive financial remuneration.

e. Average amount of Federal payment per student, fiscal 1955.—Cadets are assisted by a commutation of subsistence allowance in the amount of 90 cents per day during their advanced course enrollment with the exception of the summer training period. The Air Force does not pay tuition charges levied by the training institutions. During the summer training, cadets are paid at the rate prescribed for airmen of grade E–1 of the Regular Air Force with less than 4 months of service.

The Air Force furnishes instructors, uniforms, and necessary equipment to the training institutions for use by the AFROTC units. AFROTC students who attend camp receive subsistence and quarters, uniforms and medical care.

f. Total Federal obligations for the program, fiscal 1955.—$5,300,000.

2. UNITED STATES AIR FORCE ACADEMY

a. History and description.—The Air Force Academy Act was signed into law on April 1, 1954. The Academy is temporarily located at Lowry Air Force Base, Colo., where the first class of 306 cadets was sworn in on July 11, 1955. The permanent site of the Air Force Academy will be constructed on an area of 17,500 acres, 6 miles north of Colorado Springs, Colo. It is anticipated that this site will be ready for occupancy in the fall of 1957. A gradual buildup of the cadet student body will take place, particularly after the move to the permanent site, until the full strength of 2,496 cadets, authorized by law, is reached.

The mission of the Air Force Academy is to provide instruction, experience, and motivation to each cadet so that he will graduate with the knowledge and the qualities of leadership required of a junior officer in the United States Air Force, and with a basis for continued development throughout a lifetime of service to his country, leading to readiness for responsibilities as a future air commander. This mission is accomplished through the program of instruction, which consists of the academic curriculum and the airmanship program. There will also be an adequate intercollegiate and intramural athletic program at the Academy. Upon graduation the cadets will receive a bachelor of science degree, a commission as a second lieutenant in the Regular Air Force, and the aeronautical rating of aircraft observer (navigator).

b. Legal authorization.—Public Law 325, 83d Congress; Chapter 127.

c. Total number of students, fiscal year 1955.—None.

d. Total Federal obligations for the program, fiscal year 1955.—None.

F. Programs of the Department of the Army

1. ARMY RESERVE OFFICERS TRAINING CORPS

a. History and description.—The Reserve Officers Training Corps (ROTC) as it is known today was authorized by the National Defense Act of 1916. Its primary purpose is to produce officers for the Army Reserve and the Regular Army. The first officers to be commissioned through the program were graduated from participating institutions in 1920. Since its inception the ROTC has been the chief source of

the Nation's Reserve officers. Today the Corps is also the major source of officers for the Regular Army.

At present, some 200,000 students at 550 or more schools ranging from high school through senior colleges and universities are enrolled in Army ROTC training. In order for ROTC instruction to be alined with the appropriate academic level of instruction within the program it is divided into a junior division (high school), military schools division (intermediate), and a senior division (college).

b. Legal authorization.—The National Defense Act of 1916, as amended (39 Stat. 191), especially, sections 40 through 47 thereof.

c. Total number of students paid commutation, fiscal year 1955.—Students enrolled in the advanced course of the senior division receive 90 cents a day as commutation in lieu of subsistence. The Department of the Army does not pay tuition charges levied by the training institutions. This commutation allowance is paid for a period not to exceed 595 days while the student is enrolled in the advanced course, including summer vacation period, less the time spent at ROTC camp.

There were 32,465 advanced course students in the fiscal year 1955; however, 2,231 had previously completed the training and so did not receive any commutation; therefore, 30,234 received commutation in fiscal 1955.

d. Number of students enrolled by States and foreign countries in educational institutions therein, fiscal 1955.—Such information is available by totals for the 6 Army Areas and 3 overseas commands as follows:

First Army area: Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, and New Jersey	6,260
Second Army area: Pennsylvania, Ohio, Kentucky, West Virginia, Maryland, Delaware, and Virginia	6,014
Third Army area: Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, and Florida	4,071
Fourth Army area: Arkansas, Oklahoma, New Mexico, Texas, and Louisiana	3,925
Fifth Army area: Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, Wyoming, Nebraska, Iowa, Illinois, Missouri, Kansas, Colorado, and Indiana	6,927
Sixth Army area: Montana, Idaho, Washington, Oregon, California, Nevada, Utah, and Arizona	2,778
Alaska	18
Hawaii	135
Puerto Rico	106
Total	30,234

e. Average amount of Federal payment per student, fiscal year 1955.—Average commutation in lieu of subsistence is $267 for each of the 2 years in the advanced course.

f. Total Federal obligations for the program, fiscal year 1955.—The Army ROTC budget (President's) for fiscal year 1955 included $9,067,000 for commutation in lieu of subsistence. The total cost of the ROTC program for the fiscal year 1955 was $16,171,252.

2. UNITED STATES MILITARY ACADEMY

a. History and description.—The United States Military Academy was established officially in March 1802 at West Point, N. Y., and was opened in July 1802. Continued changes have been instituted from the time of its inception. While modifying its academic or military

training whenever the need arose, the Academy always has built, and continues to do so, on the foundation of leadership integrated by excellence of character and excellence of knowledge. The mission of United States Military Academy is to instruct and train the corps of cadets so that each graduate shall have the qualities and attributes essential to his progressive and continuing development throughout a lifetime career as an officer of the Regular Army. The general academic objective of the program is the orientation of all courses, both military and academic, to the problem of national security today.

b. Legal authorization.—Act of Congress, March 16, 1802.

c. Total number of students, fiscal year 1955.—The average strength of the United States Corps of Cadets in the fiscal year 1955 was 2,209.

d. Enrollment of students by States and foreign countries, fiscal year 1955.—The United States Military Academy class entered fiscal year 1955 by numbers from State or country was as follows:

Alabama	4	North Carolina	7
Arizona	6	North Dakota	4
Arkansas	3	Ohio	30
California	38	Oklahoma	13
Colorado	7	Oregon	7
Connecticut	12	Pennsylvania	39
Delaware	3	Rhode Island	5
Florida	14	South Carolina	3
Georgia	10	South Dakota	6
Idaho	5	Tennessee	14
Illinois	25	Texas	26
Indiana	11	Utah	6
Iowa	14	Vermont	1
Kansas	7	Virginia	26
Kentucky	10	Washington	9
Louisiana	11	West Virginia	10
Maine	8	Wisconsin	8
Maryland	16	Wyoming	1
Massachusetts	25	District of Columbia	6
Minnesota	16	Alaska	2
Michigan	22	Hawaii	4
Mississippi	9	Puerto Rico	1
Missouri	8	Vice President (appoints 2 at large)	2
Montana	3	Foreign:	
Nebraska	8	Thailand	2
Nevada	4	Philippines	1
New Hampshire	4	Peru	1
New Jersey	19		
New Mexico	4	Total	623
New York	63		

e. Federal cost per student, fiscal year 1955.—$8,374.

f. Total Federal obligations for the program, fiscal year 1955.—The approximate total obligations of appropriated funds for operation of the United States Military Academy in the fiscal year 1955 was $18,500,000.

G. Programs of the Department of the Navy

1. NAVAL RESERVE OFFICERS TRAINING CORPS

a. History and description.—The Naval Reserve Officers Training Corps was originally authorized by act of March 4, 1925. The first NROTC contract students, provided for by this program, were enrolled in 1926 at 6 colleges and universities. By 1945, the NROTC program had been expanded to include 27 colleges and universities. In August 1946, the regular NROTC program, generally known as the Holloway plan, was authorized by Public Law 729, 79th Congress. The NROTC program was then expanded to include 52 colleges and universities, at which number it remains to date. The current NROTC program includes two types of students as follows:

(1) Regular students: These are appointed by the Secretary of the Navy as midshipmen, USNR, and are candidates for Regular commissions in the Navy and Marine Corps. They are obligated to make 3 summer cruises, serve 3 years on active duty after commissioning and retain commission status for a total of 8 years. In return, they receive $50 per month retainer pay and the Navy provides for their tuition, fees, books, instructional equipment, and uniforms.

(2) Contract students: These are candidates for commissions in the Naval Reserve and Marine Corps Reserve. Originally, they were not obligated to serve on active duty. However, the 1951 amendments to the Universal Military Training Act currently require contract students to serve, subject to order of the Secretary of the Navy, not less than 2 years on active duty after commissioning, in order to be deferred from induction by reason of their enrollment in the NROTC. Further, by current Department of Defense and Navy policy all contract graduates are being ordered to active duty for 2 years. In addition, the Marine Corps is currently accepting contract students, in limited numbers, for Regular commissions in the Marine Corps. Contract students receive no remuneration from the Navy, except 90 cents per day during their third and fourth years in the program, and are furnished the necessary uniforms.

The mission of the NROTC is to provide, by a permanent system of training and instruction in essential naval subjects at civilian educational institutions, a source from which qualified officers may be obtained for the Navy and Marine Corps, and the Naval Reserve and Marine Corps Reserve.

b. Legal authorization.—The Naval Reserve Officers Training Corps operates under the authority of section 22 of the act of March 4, 1925, as amended (34 U. S. C. 821), and Public Law 729, 79th Congress, approved August 13, 1946, as amended.

c. Total number of students enrolled, fiscal year 1955.—At the beginning of the academic year, September 1954–June 1955, there were 14,459 students enrolled in the NROTC program. Of this number, 6,291 were regular students and 8,168 were contract students. A total of 9,467 students received some Federal financial remuneration.

d. Numbers of students assisted by States and foreign countries and educational institutions therein, fiscal year 1955.—The NROTC enrollment and regular input for fiscal year 1955 by State was as follows:

Alabama	250	New Jersey	352
Arizona	0	New Mexico	191
Arkansas	0	New York	1,139
California	1,291	North Carolina	639
Colorado	246	North Dakota	0
Connecticut	397	Ohio	557
Delaware	0	Oklahoma	311
District of Columbia	0	Oregon	187
Florida	0	Pennsylvania	931
Georgia	357	Rhode Island	363
Idaho	173	South Carolina	206
Illinois	698	South Dakota	0
Indiana	706	Tennessee	251
Iowa	281	Texas	590
Kansas	271	Utah	229
Kentucky	161	Vermont	0
Louisiana	249	Virginia	255
Maine	0	Washington	303
Maryland	0	West Virginia	0
Massachusetts	848	Wisconsin	562
Michigan	266	Wyoming	0
Minnesota	229	Alaska	0
Mississippi	135	Canal Zone	0
Missouri	265	Hawaii	0
Montana	0	Puerto Rico	0
Nebraska	221		
Nevada	0	Total	14,459
New Hampshire	340		

e. Average Federal cost per student, fiscal year 1955.—Midshipman, USNR (Regular), $1,935 per student per year; contract students, $634 per student per year (cost prorated over a 4-year period).

f. Total Federal obligations for the program, fiscal year 1955.—Actual and estimated obligations for both regular and contract program amounted to $14,679,010.

2. UNITED STATES NAVAL ACADEMY PROGRAM

a. History and description.—The Naval Academy was established in 1845 at Annapolis, Md., and has remained in continuous operation since that date. For a brief period during the Civil War it was moved away from Annapolis.

The mission of the Naval Academy is—

> Through study and practical instruction to provide the midshipmen with a basic education and knowledge of the naval profession; to develop them morally, mentally, and physically; and by precept and example to indoctrinate them with the highest ideals of duty, honor, and loyalty in order that the naval service may be provided with graduates who are capable junior officers in whom have been developed the capacity and foundations for future development in mind and character leading toward a readiness to assume the highest responsibilities of citizenship and Government.

Young men admitted to the Naval Academy are midshipmen, United States Navy.

b. Legal authorization.—Basic authority is 34 United States Code 1021; Revised Statutes 1511. Other statutes relate to appointing authority, course of study, et cetera.[5]

c. Total number of students enrolled, fiscal year 1955.—3,689, including 15 foreigners.

[5] Detailed statement of legal authorization is available from the Department of the Navy.

d. Enrollment by States and foreign countries, fiscal year 1955.—Two men from the Kingdom of Belgium were admitted on June 27, 1955. The Kingdom of Belgium is reimbursing the United States Government for the direct training cost involved.

The United States Naval Academy entering class for fiscal year 1955 by States, was as follows:

Alabama	19	New Jersey	57
Arizona	12	New Mexico	4
Arkansas	9	New York	121
California	103	North Carolina	21
Colorado	16	North Dakota	7
Connecticut	20	Ohio	52
Delaware	4	Oklahoma	18
District of Columbia	10	Oregon	12
Florida	26	Pennsylvania	99
Georgia	25	Rhode Island	6
Idaho	4	South Carolina	14
Illinois	37	South Dakota	5
Indiana	35	Tennessee	20
Iowa	18	Texas	41
Kansas	13	Utah	5
Kentucky	18	Vermont	12
Louisiana	13	Virginia	53
Maine	15	Washington	17
Maryland	40	West Virginia	13
Massachusetts	33	Wisconsin	27
Michigan	31	Wyoming	3
Minnesota	22	Alaska	1
Mississippi	6	Canal Zone	1
Missouri	20	Hawaii	8
Montana	6	Puerto Rico	2
Nebraska	17	Philippines	13
Nevada	5		
New Hampshire	9	Total	1,218

e. Average Federal cost per student, fiscal year 1955.—$6,629.

f. Total Federal obligations for the program, fiscal year 1955.—Actual and estimated obligations for the fiscal year 1955 amounted to $21,737,728.

H. Research Contracts of the Department of Defense

The following information has been obtained from the Department of Defense for inclusion in this report.

Contracts for research and development in the Department of Defense are let by the Army technical services, the Navy bureaus and offices, and the Air Force commands and centers, following project approval by appropriate authority. The project officers determine whether the work can best be done at an internal facility or by contracts with an industrial organization, an educational institution, or other nonprofit organization. The determination to use the facilities of an educational institution is made upon the basis of the nature of the work to be performed and the adequacy of the facilities and competence of the staffs of the organizations considered.

Contractors, in most cases, do not list the entire staff that may be working on the contract, but may reveal numbers of people and total cost, as well as the names of key people whose prominence may have a definite influence in obtaining the contract and in conducting the required work. It is not possible without a survey of each contractor to determine the number of graduate students who may be working on Department of Defense contract research projects.

I. The International Educational Exchange Program (Department of State)

a. History and description.—In 1936, a pact proposed by the United States was adopted by the American Republics, and later ratified by 17 of them including the United States. It was entitled "The Convention for the Promotion of Inter-American Cultural Relations." Its purpose was to advance—

> greater mutual knowledge and understanding of the people and institutions of the countries represented, and a more consistent educational solidarity on the American continent.

This purpose was to be achieved through educational exchanges and the—

> encouragement of a closer relationship between unofficial organizations which exert an influence on the formation of public opinion.

To carry out this program, Public Law 355 was passed by the 76th Congress in 1939, thereby giving the United States its first Government-sponsored international educational exchange program. Exchanges began in 1940.

With the exception of special emergency funds of the President which were used for a limited number of exchanges with the Near and Far East, the Government's exchange program was limited to the Western Hemisphere until after World War II.

With the passage of Public Law 584, 79th Congress (Fulbright Act), and Public Law 402, 80th Congress (United States Information and Educational Exchange Act of 1948), and other related acts, the Congress authorized educational exchange activities throughout the free world.

The general purpose of the program as stated in Public Law 402, 80th Congress, is—

> to promote a better understanding of the United States in other countries and to increase mutual understanding between the people of the United States and the people of other countries.

Through such activities as study, teaching, lecturing, research, observation, consultation, or the acquiring of specialized practical experience while at the same time enjoying extended personal contacts with the people of the host country, its participants are able to further these objectives.

In the administration of this program, the Department of State relies heavily upon the voluntary cooperation of American educational institutions, organizations, and community groups. In accordance with the Smith-Mundt Act, it utilizes also the facilities of a number of private agencies, under contract, to stimulate maximum voluntary cooperation in the program, to assist in announcing and publicizing program opportunities in the United States, and to perform professional and related services involving the selection of American grantees and the placement, orientation, programing, and supervision of foreign grantees. The Department, furthermore, relies upon the resources of American educational institutions, organizations, and community groups for financial cooperation.

Approximately 60 percent of the grants offered to foreign nationals under the Department's program are partial in nature and depend for their implementation upon scholarships and stipends offered by American groups or organizations. Assistance from private groups

is impressive both financially and as an expression of interest in and support of the program. It also necessarily plays a major role in determining the placement of foreign nationals in American institutions of higher learning.

The same policy of cooperation is basic in the overseas operation of this program. According to a statement published by the Department of State, such a policy is extremely important today when a good part of the world is quite sensitive to the threat or charge of "cultural imperialism". In the administration of this program, for example, there are, in 24 foreign countries, binational commissions composed of local American residents and nationals of the country who participate in the planning and administration of the program under the Fulbright Act. In other countries there are similar groups known frequently as "Committees on Study and Training in the United States." Such binational participation has made it possible to develop programs that will best meet the mutual interests of the United States and the other countries involved and so assure maximum acceptability abroad.

With the aim of reaching the goals set for this program by its authorizing legislation, the following points have been emphasized in the Department of State.

The persons selected for interchange should be key people who in themselves and through their activities have access to significant groups in other countries. They must possess those personal characteristics, such as emotional maturity, adaptability, and a genuine interest in other cultures and people, that are likely to aid them in carrying out their planned activity as well as to make them good unofficial representatives of their own countries.

The experience provided for each grantee must satisfy his own immediate professional or academic goal since the successful attainment of this goal is indispensable to the promotion of ultimate program objectives. This means that the school, university, research center, or organization with which the grantee is associated must have the kind of resources that will meet his needs.

There should be widespread geographic and institutional distribution of grantees in the United States. Such emphasis is called for in legislative directives, which foresaw that such distribution would contribute substantially to achieving the objectives of the program.

b. Legal authorization.—Public Law 355, 76th Congress, An Act for Cooperation with the Other American Republics (22 U. S. C. 501). Public Law 584, 79th Congress, the Fulbright Act, as amended (22 U. S. C. 50 App. 1641). Public Law 402, 80th Congress, the United States Information and Educational Exchange Act of 1948, the Smith-Mundt Act (22 U. S. C. 1431 et seq.). Public Law 265, 81st Cong., the Finnish Educational Exchange Act (20 U. S. C. 222–224). Public Law 48, 82d Congress, the India Emergency Food Aid Act of 1951 (50 U. S. C. 2136). Public Law 665, 83d Congress, the Mutual Security Act of 1954 (reference for Irish Scholarship program (22 U. S. C. 1937); reservation of foreign currencies (22 U. S. C. 1766). Public Law 480, 83d Congress, the Agricultural Trade Development and Assistance Act of 1954 (7 U. S. C. 1704).

c. Total number of students aided, 1955.—During the 1955 fiscal year, grants were awarded to 1,026 Americans to study abroad, and to 1,712 foreign nationals to come to the United States for university study.

d. Number of students assisted by States and foreign countries.—The following tables give data for the fiscal year 1954, the latest year for which such data are available at the time of this writing.

Grants to American citizens, by State of residence, for university study abroad—fiscal year 1954

Alabama	8	New Jersey	32
Arizona	2	New Mexico	6
Arkansas	7	New York	184
California	54	North Carolina	21
Colorado	15	North Dakota	6
Connecticut	18	Ohio	46
Delaware	7	Oklahoma	11
District of Columbia	10	Oregon	14
Florida	5	Pennsylvania	44
Georgia	10	Rhode Island	10
Idaho	4	South Carolina	8
Illinois	42	South Dakota	8
Indiana	17	Tennessee	14
Iowa	11	Texas	20
Kansas	14	Utah	5
Kentucky	14	Vermont	7
Louisiana	11	Virginia	11
Maine	7	Washington	10
Maryland	20	West Virginia	4
Massachusetts	40	Wisconsin	19
Michigan	29	Wyoming	1
Minnesota	21	Alaska	---
Mississippi	2	Hawaii	3
Missouri	15	Puerto Rico	1
Montana	3	United States citizen abroad	1
Nebraska	10		
Nevada	2	Total	892
New Hampshire	8		

Grants to foreign nationals for university study in the United States, by State in which the study was carried out—fiscal year 1954

Alabama	3	New Jersey	37
Arizona	6	New Mexico	-----
Arkansas	6	New York	280
California	115	North Carolina	21
Colorado	20	North Dakota	-----
Connecticut	59	Ohio	70
Delaware	-----	Oklahoma	9
District of Columbia	16	Oregon	18
Florida	7	Pennsylvania	82
Georgia	11	Rhode Island	6
Idaho	2	South Carolina	4
Illinois	131	South Dakota	7
Indiana	42	Tennessee	9
Iowa	29	Texas	28
Kansas	59	Utah	5
Kentucky	29	Vermont	4
Louisiana	8	Virginia	21
Maine	5	Washington	35
Maryland	22	West Virginia	2
Massachusetts	202	Wisconsin	65
Michigan	74	Wyoming	2
Minnesota	51	Alaska	-----
Mississippi	3	Hawaii	-----
Missouri	29	Puerto Rico	-----
Montana	4	United States citizens abroad	-----
Nebraska	11		
Nevada	-----	Total	1,633
New Hampshire	4		

e. Average amount of Federal assistance per student, fiscal year 1955.—Americans to study abroad, $2,121; foreign nationals to come to the United States for university study, $1,738.

f. Total Federal obligations for the program, fiscal year 1955.—Obligated for total program, including administrative costs, $18,848,053; obligated for student exchange, including contractual costs, $5,622,832.

J. Programs of the National Institutes of Health (Department of Health, Education, and Welfare)

1. ALL INSTITUTES

a. History and description.—Authority for the research fellowship program was initiated with the passage of the National Cancer Institute Act of 1937. A few fellowships were awarded each year until 1946 when the program was expanded and 25 fellowships were granted through the general funds of the National Institutes of Health and the National Cancer Institute. As each Institute has been activated a research fellowship program has been established.

All applications are received in the Research Fellowships Branch, Division of Research Grants, National Institutes of Health and are processed by this office for review by the boards of specialists in the various fields. A preliminary screening to determine whether the applicant is a true fellow and meets basic qualifications is made by the Central Qualifications Board. Review for scientific merit and educational value as well as such other factors as the desirability of increasing research personnel in a particular field, etc., is the duty of the special fellowships boards. These boards are composed of scientists employed by the National Institutes of Health.

Applications are received at any time of the year. Approximately 90 days are required for processing, review, and approval.

b. Legal authorization.—The research fellowships program operates under title 42, Public Health Service Act, chapter I, subchapter E, part 61.

c. Number of graduate students aided, fiscal year 1955.—

Research fellowships	666
Predoctral	239
Postdoctral	390
Special	37
Dental student part-time fellowships	65
Medical student part-time fellowships	311
Total	1,042

d. Number of graduate students assisted by States and Foreign countries, fiscal year 1955.—

Alabama	7	New York	105
California	60	North Carolina	15
Colorado	3	North Dakota	1
Connecticut	32	Ohio	15
District of Columbia	18	Oklahoma	5
Florida	3	Oregon	3
Georgia	2	Pennsylvania	39
Illinois	34	Rhode Island	11
Indiana	16	South Carolina	4
Iowa	6	South Dakota	1
Kansas	9	Tennessee	7
Louisiana	6	Texas	7
Maryland	29	Utah	8
Massachusetts	102	Virginia	7
Michigan	11	Washington	13
Minnesota	9	Wisconsin	17
Missouri	13	Puerto Rico	2
New Hampshire	1	Foreign	41
New Jersey	5		

e. Average amount of Federal aid per graduate student, fiscal year 1955.—Average awards to fiscal year 1955 Public Health Service research fellows were as follows:

Level	Stipend	Tuition and grants	Travel	Total
Predoctoral:				
First year	$1,717	$507	$33	$2,257
Intermediate	1,941	582	8	2,531
Terminal year	1,936	487	None	2,423
Average predoctoral	1,919	536	7	2,462
Postdoctoral:				
First year	3,986	115	66	4,167
Continuation	3,889	131	16	4,036
Average postdoctoral	3,949	121	47	4,117
Special	5,270	185	None	5,455
Average fellowship	3,295	272	30	3,597

f. Total Federal obligations for the program, all Institutes, fiscal year 1955.—$2,562,000.

2. TRAINEESHIPS OF THE NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES

a. History and description.—The traineeship program of the National Institute of Arthritis and Metabolic Diseases was started in January 1951 as a result of recommendation by the National Advisory Arthritis and Metabolic Diseases Council. The first stipends for trainees were paid from fiscal year 1952 funds, in the amount of $50,000. Fourteen traineeships were awarded.

The intent of the program is to increase the number of personnel well qualified in matters pertaining to arthritis and metabolic diseases. Awards are made to qualified graduate students who possess unusual competence for training to combat these diseases.

b. Legal authorization.—Public Law 692, 81st Congress.

c. Total number of graduate students aided, fiscal year 1955.—46 trainees.

d. Number of students assisted by States, fiscal year 1955.—

Alabama	1	New York	9
California	3	North Carolina	3
District of Columbia	2	Ohio	3
Illinois	1	Pennsylvania	5
Louisiana	1	Tennessee	1
Massachusetts	7	Virginia	2
Minnesota	2	Washington	5
Missouri	1		

e. Average Federal cost per trainee, fiscal year 1955.—About $4,190.

f. Total Federal obligations for the program, fiscal year 1955.—$189,972.

3. NATIONAL CANCER INSTITUTE TRAINEESHIPS

a. History and description.—The intent of the traineeship program is to increase the number of well-qualified physicians in the diagnosis and treatment of cancer in the fields of surgery, radiology, pathology, and internal medicine. The number of appointments, including renewals, has ranged from 3 during the fiscal year 1938 to 177 in 1955. Initially, only a small number of physicians could be appointed because of the limited appropriation to the Institute. In time, the number gradually increased, although restricted during the war years because of lack of suitable applicants. Since the close of World War II the number of trainees has expanded considerably, but has not been able to keep up with the rate of increase of applicants.

b. Legal authorization.—Public Law 410, 78th Congress, section 402 (c).

c. Total number of graduate students aided, fiscal year 1955.—177.

d. Number of graduate students aided, by States, fiscal year 1955.—

Arkansas	1	Missouri	8
California	12	New York	46
Colorado	5	North Carolina	10
District of Columbia	3	Ohio	1
Georgia	4	Oklahoma	1
Illinois	3	Pennsylvania	22
Iowa	1	Tennessee	5
Kansas	2	Texas	6
Louisiana	2	Utah	3
Maryland	6	Virginia	2
Massachusetts	16	Washington	3
Michigan	7	Wisconsin	1
Minnesota	7		

e. Average amount of Federal assistance per graduate student, fiscal year 1955.—Average Federal cost, $2,824.86; annual stipend rate, $3,600.

f. Total obligations for the program, fiscal year 1955.—$500,000.

4. NATIONAL HEART INSTITUTE TRAINEESHIPS

a. History and description.—The Surgeon General of the Public Health Service has established, by the authority delegated to him by the Congress, National Heart Institute traineeships. The intent of this program is to increase the number of well-qualified individuals in the clinical aspects of cardiovascular disease. These direct traineeships are recommended on a competitive basis by a special traineeship board and are paid directly by a monthly Federal check to the successful candidate.

b. Legal authorization.—The National Heart Act, Public Law 655, 80th Congress chapter 481, section 412 (g).

c. Total number of graduate students supported, fiscal year 1955.—104.

d. Number of graduate students assisted, by States and foreign countries, fiscal year 1955.—

Alabama	2	New York	15
California	9	North Carolina	4
Connecticut	3	Ohio	1
District of Columbia	4	Pennsylvania	16
Georgia	4	South Carolina	1
Illinois	3	Tennessee	2
Indiana	1	Virginia	1
Kentucky	1	Washington	3
Louisiana	2	Wisconsin	1
Maryland	6	Brazil	1
Massachusetts	7	England	1
Michigan	2	Puerto Rico	1
Minnesota	9	Scotland	1
New Jersey	2	Sweden	1

e. Acreage stipend per student, fiscal year 1955.—$3,766.

f. Total Federal obligations for the program, fiscal year 1955.—$391,623.

5. NATIONAL HEART INSTITUTE GRADUATE TRAINING GRANTS

a. History and description.—The National Heart Institute graduate training grant program has developed pursuant to an act of the 80th Congress. The program has as its purpose the establishment, improvement, and expansion of clinical and research training programs in the cardiovascular and related areas. These training grants are recommended, on a competitive basis, by the National Advisory Heart Council. Indirect traineeships are awarded by the local institution and paid by the institution utilizing funds provided in the Federal training grant to the institution for this purpose.

b. Legal authorization.—The National Heart Act, Public Law 655, 80th Congress, chapter 481, section 412 (g).

c. Total number of graduate students aided, fiscal year 1955.—86.

d. Number of graduate students aided, by States, fiscal year 1955.—

California	6	Minnesota	10
Georgia	13	New York	6
Kansas	1	North Carolina	4
Louisiana	5	Ohio	1
Maryland	4	Pennsylvania	12
Massachusetts	6	Virginia	2
Michigan	5	Wisconsin	11

e. Average stipend per graduate student, fiscal year 1955.—$3,625.

f. Total Federal obligations for the program, fiscal year 1955.—The graduate-training grant makes funds available for several categories other than traineeship stipends (e. g., permanent equipment, consumable supplies, travel, overhead, etc.). The total graduate training grant obligation in fiscal year 1955 was $602,312. Of this sum the amount of $311,734 represents the total traineeship stipend.

6. NATIONAL INSTITUTE OF MENTAL HEALTH

a. History and description.—The increasing incidence and prevalence of mental disease has been the concern of Federal, State, and local health authorities since World War II. Approximately half

of the hospital beds in the United States are occupied by the mentally ill. Great numbers of psychiatrists, psychologists, social workers, and psychiatric nurses are required to provide adequate treatment and followup of these ill persons. In addition, there is an extremely great need for the training of people skilled in the prevention of the mental diseases.

The training program of the National Institute of Mental Health is directed toward improving the quality of teaching and training and to provide assistance to individuals seeking training to be added to the pool of those required to provide adequate service. Grants are made to medical schools to improve undergraduate psychiatric training. Grants are also made to institutions, training centers, universities, and hospitals for the purpose of developing graduate training programs in psychiatry, clinical psychology, psychiatric social work, and psychiatric nursing. Stipends are provided to individuals seeking training in the above areas.

b. Legal authorization.—Section 303 of the Public Health Service Act (Public Law 410, 78th Cong.) as amended by the National Mental Health Act (Public Law 487, 79th Cong.).

c. Total number of graduate students aided, fiscal year 1955.—756.

d. Number of graduate students assisted, by States, fiscal year 1955.—

Alabama	---	Minnesota	39
Arkansas	---	Mississippi	---
California	62	Missouri	27
Colorado	30	Nebraska	13
Connecticut	25	New York	77
District of Columbia	36	North Carolina	28
Florida	---	Ohio	32
Georgia	7	Oklahoma	---
Hawaii	---	Oregon	---
Illinois	46	Pennsylvania	67
Indiana	16	Puerto Rico	---
Iowa	12	Tennessee	22
Kansas	14	Texas	3
Kentucky	7	Utah	5
Louisiana	36	Vermont	---
Maryland	15	Virginia	2
Massachusetts	107	Washington	11
Michigan	13	Wisconsin	4

e. Average cost per trainee, fiscal year 1955.—$2,198.

f. Total Federal obligations for the program, fiscal year 1955.—$4,661,709.

7. TRAINEESHIPS OF THE NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS

a. History and description.—The purpose of the graduate clinical traineeships program in neurology and ophthalmology is to encourage professional personnel in related fields such as obstetrics, pediatrics, orthopedics, psychiatry, internal medicine, general medicine, and physiotherapy to take special training in the diagnosis, treatment, and care of patients with neurologic or sensory disorders.

Clinical traineeships are awarded on the basis of an application setting forth the applicant's past record of training and experience and describing the training to be undertaken if support is awarded. All applications require substantiating material such as official transcripts from previous training institutions and letters of recommenda-

tion from at least four persons who have knowledge of the applicant's personal and scholastic qualifications. Each application must be signed by the dean of the institution at which the training is to be taken. All applications are carefully evaluated by the National Institute of Neurological Diseases and Blindness Traineeship Board consisting of professional men competent to judge the potentialities and appropriateness of the proposed training.

The clinical traineeship program began in fiscal year 1952 when $35,000 was appropriated for this purpose. It supported 13 trainees. The same number was supported in 1953 under the same amount of appropriation. In 1954 and 1955 the allotment for this activity was increased to $104,000 which served to support 32 and 29 trainees, respectively, for these 2 years. With an increased allotment of $275,000 for fiscal year 1956, it is estimated that 75 traineeships will be awarded.

b. Legal authorization.—Section 433 of the Public Health Service Act, as amended (42 U. S. C. 289c), and related provisions.

c. Total number of graduate students supported, fiscal year 1955.—31.

d. Number of graduate students assisted, by States, fiscal year 1955.—

Indiana	1	New York	6
Louisiana	1	North Carolina	2
Massachusetts	14	Pennsylvania	2
Michigan	2	British Isles	2
Missouri	1		

e. Average cost per graduate student, fiscal year 1955.—$3,325.

f. Total Federal obligations for the program, fiscal year 1955.—$103,083.

8. GRADUATE-TRAINING GRANTS BY THE NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS

a. History and description.—The purpose of the graduate medical training grants program is to enable training institutions to establish, improve, and expand programs to train teachers and clinical investigators in neurology, ophthalmology, and otology. The lack of more rapid progress in these fields is directly attributable to the critical shortage of teachers and laboratory and clinical investigators who have had thorough training in neurologic or sensory disorders. The current year is the third for this activity and, therefore, the first year in which 3-year residencies (following the regular 2-year internship) under this program will be completed and additional trained personnel thereby made available. The shortage of personnel thus trained is so acute, however, that little relief will be noticeable for a number of years to come.

Applications for support of graduate medical training programs are received, processed, and reviewed in the same manner as are applications for research grants. The Neurology Training Grant Committee and the Ophthalmology Training Grant Committee, consisting of nongovernmental consultants, meet regularly to evaluate applications and recommend action to the National Advisory Neurological Diseases and Blindness Council.

This program started in fiscal year 1953 during which time 6 grants in the amount of $58,000 were awarded. The appropriation was increased to $400,000 in 1954 and to $900,000 in 1955, which sufficed

to support 32 and 55 grants, respectively. With $1,525,000 allotted for this activity for 1956 it is estimated that approximately 86 grants can be made.

b. Legal authorization.—Section 433 (a) of the Public Health Service Act as amended (42 U. S. C. 289c) and related provisions.

c. Total number of graduate students aided, fiscal year 1955.—150, estimated.

d. Number of grants to institutions, by States, fiscal year 1955.—

Alabama	1	Massachusetts	6
California	2	Michigan	1
Colorado	1	Minnesota	2
Connecticut	1	Missouri	2
District of Columbia	3	New York	15
Georgia	1	North Carolina	3
Illinois	2	Oklahoma	1
Indiana	1	Oregon	1
Iowa	2	Pennsylvania	2
Kentucky	1	Texas	1
Louisiana	2	Utah	1
Maryland	3		

e. Average cost per graduate student, fiscal year 1955.—$6,450, estimated.

f. Total Federal obligations for the program, fiscal year 1955.—$968,241.

K. Program of the Office of Vocational Rehabilitation (Department of Health, Education, and Welfare)

1. TRAINEESHIPS AND FELLOWSHIPS

a. History and description.—Teaching and traineeship grants of the Office of Vocational Rehabilitation are related to a single objective—an annual progressive increase in the number and quality of rehabilitations. This objective is rooted in the purpose of the 1954 Vocational Rehabilitation Act, stated in section 1 as—

> * * * assisting the States in rehabilitating physically handicapped individuals so that they may prepare for and engage in remunerative employment to the extent of their capabilities, thereby increasing not only the social and economic well-being but also the productive capacity of the Nation. * * *

The following types of grants are made:

(1) Teaching grants to institutions and agencies, to encourage the development of new programs for the preparation of rehabilitation personnel and to introduce the rehabilitation concept throughout the training programs in professional fields contributing to rehabilitation.

(2) Teaching grants to institutions and agencies, to assist in the expansion of rehabilitation training programs already in existence.

(3) Grants to institutions and agencies to provide short-term training for professional personnel either in orientation to the field of rehabilitation or specialized courses in rehabilitation methods and techniques.

(4) Traineeship awards to institutions for individuals to enable them to secure basic professional training (long-term training) in the fields related to rehabilitation services to the disabled.

(5) Traineeship awards to institutions for individuals to pursue short-term training in fields related to rehabilitation.

(6) Rehabilitation research fellowships to assist qualified candidates in securing advanced training in research methods.

b. Legal authorization.—The Vocational Rehabilitation Act of 1954 (Public Law 565, 83d Cong., secs. 4 and 7).

c. Total number of students aided, fiscal year 1955.—Long-term traineeships, 201; short-term traineeships, 873; total, 1,074.

d. Number of traineeships by State.—Distribution of long-term traineeships by State of residence of trainees, fiscal year 1955, was as follows:

Alabama	1	Nebraska	0
Arizona	0	Nevada	0
Arkansas	2	New Hampshire	0
California	14	New Jersey	3
Colorado	4	New Mexico	1
Connecticut	3	New York	26
Delaware	0	North Carolina	13
District of Columbia	13	North Dakota	0
Florida	4	Ohio	9
Georgia	4	Oklahoma	2
Idaho	0	Oregon	2
Illinois	13	Pennsylvania	5
Indiana	2	Rhode Island	1
Iowa	4	South Carolina	0
Kansas	0	South Dakota	0
Kentucky	1	Tennessee	2
Louisiana	2	Texas	5
Maine	1	Utah	1
Maryland	0	Vermont	1
Massachusetts	13	Virginia	5
Michigan	18	Washington	3
Minnesota	7	West Virginia	0
Mississippi	1	Wisconsin	2
Missouri	13	Wyoming	0
Montana	0		

The first period in which most training funds were used was the last semester of the academic year 1954–55. Selection of institutions was limited to those which had a degree of readiness and required facilities and staff to provide training. Trainees, in the majority of instances, were selected from those already enrolled in the institutions.

The States in which short-term training was given and number of trainees in each during the fiscal year 1955 were as follows:

Arkansas	16	Massachusetts	25
California	2	Michigan	16
Connecticut	25	Minnesota	80
District of Columbia	19	New York	132
Florida	75	Pennsylvania	144
Georgia	6	Tennessee	16
Illinois	34	Texas	28
Iowa	65	Utah	49
Kentucky	50	Virginia	71
Louisiana	20		

The short-term courses in the main drew their trainees from many States and in some instances were nationwide. The relative concentration of training shown in the table is due largely to the availability in only certain communities of the institutions and facilities to conduct the necessary training and the current concentrations of professional personnel.

e. Average amount of Federal assistance per student, fiscal year 1955.—Long-term traineeships, $665;[6] short-term traineeships, $208.

f. Total Federal obligation for the program, fiscal year 1955.—$294,566.14.

L. Programs of the Department of Commerce

1. UNITED STATES MERCHANT MARINE ACADEMY

a. History and description.—Under authority of the Merchant Marine Act of 1936, as amended, and War Shipping Administration General Order No. 24 issued pursuant thereto, the United States Merchant Marine Cadet Corps was established in 1938 for the purpose of training American citizens to become licensed officers of the Merchant Marine. Prior to acquiring Government-owned facilities, to be used specifically for this purpose, potential officers were trained in a status of cadets and cadet officers on Government-owned and subsidized vessels and, in cooperation with other governmental and private agencies, etc., under rules and regulations prescribed by the United States Maritime Commission.

Public Law 472, 77th Congress, authorized the purchase of the land and facilities at Kings Point, Long Island, N. Y., upon which the present buildings and facilities are located. These facilities are adequate to house and train approximately 2,400 cadets.

In 1946, Congress passed two acts authorizing the training of a limited number of persons other than citizens of the United States. Public Law 370, 79th Congress, authorized the training of not to exceed 50 Filipinos a year. This program was continued through fiscal year 1954 with the graduation of approximately 36 Filipinos in 1954.

Public Law 701, 79th Congress, authorized the training of not to exceed 12 persons at a time from the American Republics with not more than 2 persons from any of such Republics at the same time.

b. Legal authorization.—The several acts cited under "History and description" above.

c. Total number of students enrolled, fiscal year 1955.—1,014.

During fiscal year 1955 the number of cadets in training ranged from 429 to 697 with an average of 601 for the year. This average of 601 at the academy includes the total of the first, second, and fourth year classes and does not include the third class of approximately 200 cadets who spend their second year at sea aboard United States merchant marine vessels.

[6] This amount represents long-term training awards for only part of the fiscal year.

d. Number of students enrolled, by States and foreign countries, fiscal year 1955.—A large percentage of the enrollment at the Academy is from New York and neighboring States. The enrollment for the fiscal year 1955 by States, Territories, and foreign countries was as follows:

Alabama	3	New Mexico	0
Arizona	1	New York	396
Arkansas	2	North Carolina	7
California	41	North Dakota	0
Colorado	3	Ohio	39
Connecticut	28	Oklahoma	1
Delaware	1	Oregon	3
District of Columbia	12	Pennsylvania	75
Florida	19	Rhode Island	14
Georgia	5	South Carolina	2
Idaho	5	South Dakota	2
Illinois	26	Tennessee	6
Indiana	3	Texas	5
Iowa	6	Utah	1
Kansas	4	Vermont	2
Kentucky	4	Virginia	10
Louisiana	11	Washington	11
Maine	7	West Virginia	1
Maryland	14	Wisconsin	16
Massachusetts	52	Wyoming	1
Michigan	16	Puerto Rico	0
Minnesota	15	Alaska	2
Mississippi	1	Canal Zone	0
Missouri	8	Hawaii	5
Montana	3	Chile	5
Nebraska	4	Colombia	1
Nevada	2	Ecuador	1
New Hampshire	3	Mexico	2
New Jersey	95		

e. Average cost per student, fiscal year 1955.—The average cost per cadet at the Academy was $3,306.53.

f. Total Federal obligations for the program, fiscal year 1955.—The overall cost of the Academy was $1,987,227.

2. Federal aid to cadets at State marine schools

a. History and description.—State marine school training has a long history dating back to the opening of State schools in New York in 1874, Pennsylvania in 1889, Massachusetts in 1893, California in 1931, and Maine in 1941. Federal supervision of and assistance to the State schools and aid to individual cadets therein had its inception in an act of March 4, 1911. This authorized appropriation annually of grants of $25,000 per school, conditioned on State appropriations of at least equal amounts, additional aid of $25,000 per school to pay per capita costs of training out-of-State cadets, and varying amounts for maintenance and repair of training vessels loaned by the United States to the State schools. In addition, Federal funds are provided for uniforms, textbooks, and subsistence allowances for both in-State and out-of-State cadets, with a limitation not to exceed 710. To receive Federal aid a cadet must have inactive status in the Naval Reserve.

The purpose of the programs is to train young men to become licensed officers in the United States merchant fleet.

Training consists of 3- and 4-year courses leading to graduation with commissions as ensign, United States maritime service, and ensign, United States Naval Reserve, and license as third mate or

third engineer on merchant vessels. Graduates of all these institutions receive academic degrees recognized by the respective States. Graduates of the New York State Maritime College are awarded nationally recognized degrees based upon 4 years of study.

b. Legal authorization.—Act of Congress approved March 4, 1911 (34 U. S. C. 1121–1123) as amended.

c. Total number of students aided, fiscal year 1955.—The Federal appropriation for the fiscal year 1955 (Public Law 121, 84th Cong.) was $320,200 for allowances for uniforms, textbooks, and subsistence for cadets at State marine schools. This sum provided Federal aid to an average of 710 students as follows: the New York Academy 260 and the other State maritime academies 150 each.

d. Number of students assisted by States.—The following shows the average number of cadets receiving the uniform, textbook and subsistence allowances at each school during the fiscal year 1955:

California	87	Massachusetts	122
Maine	149	New York	331

While 260 is the number of cadets agreed upon to receive uniforms, textbooks and subsistence payments at the New York school, because of the fact that they had 71 additional eligible cadets who could be paid and California and Massachusetts had considerably less than their allowable quota of 150 each, it was determined that all eligible cadets at the New York institution could be paid during fiscal 1955 without exceeding the overall total of 710 for the year.

The enrollment at the California Maritime Academy was, with the exception of one Oregonian resident, all residents of California.

The Maine Maritime Academy's enrollment consisted of: 1 resident from Rhode Island; 6 from New Jersey; 6 from Massachusetts; 4 from Connecticut; 2 from Pennsylvania; 1 from the Canal Zone; 4 from New York; and 4 from New Hampshire. The remainder were residents of the State of Maine.

The Massachusetts Maritime Academy's enrollment consisted of: 1 resident from Rhode Island; 1 from Connecticut; 1 from Maine; and 1 from New York. The remainder were residents of the State of Massachusetts.

The New York State Maritime College's enrollment consisted of: 24 residents from New Jersey; 2 from Massachusetts; 1 from the Canal Zone; 4 from Connecticut; 1 from Texas; and 1 from Maryland. The remainder were residents of the State of New York.

e. Amount of Federal aid per student, fiscal year 1955.—$200 annually for uniforms and textbooks and approximately $275 annually for subsistence for each of the 710 federally aided students.

f. Total Federal obligations for the program, fiscal year 1955.—The distribution of appropriated Federal funds and obligations against each item for the fiscal year 1955 was as follows:

	Appropriated	Obligated
Direct annual grant	$100,000	$100,000
Out-of-State per capita grant	90,000	48,630
Uniform, textbook, and subsistence allowance	320,200	303,211
Maintenance and repair to vessels loaned by the United States	149,800	143,876
Total	660,000	595,717

M. Program of the Department of the Treasury

1. UNITED STATES COAST GUARD ACADEMY

a. History and description.—The original authority for the establishment of a school of instruction for the Coast Guard is the act of July 31, 1876 (17 Stat. L., 102, 107). Instruction of future officers was first conducted in the revenue cutter *Chase*. In 1903 the course was lengthened from 2 to 3 years. The cutter *Chase* was decommissioned in 1907 and the school of instruction continued on board the cutter *Itasca* until September 15, 1910. At that time, the school was established at Fort Trumbull, New London, Conn. Under authority of the act of February 15, 1911 (36 Stat. L., 906) that site was transferred from the War Department to the Treasury. In 1932 the present Coast Guard Academy at New London, Conn. was completed. It is now large enough to accommodate 500 cadets in barracks and is equipped with the necessary classrooms, laboratories, etc., to train a cadet corps of that size.

The curriculum is composed largely of science and marine engineering subjects, in addition to navigation, seamanship, ordnance and gunnery, military law, etc. Academy graduates are awarded bachelor of science degrees and their background is comparable to that of graduates of civilian engineering schools. When a young man enters the Academy as a cadet, he signs an agreement that he will serve as a commissioned officer for a period of 4 years after his graduation.

b. Legal authorization.—Title 14, United States Code, section 181 and 182.

c. Total number of students, fiscal year 1955.—533 cadets (as of July 19, 1955).

d. Numbers of students, by States, fiscal year, 1955.—A large percentage of the cadets at the Academy come from Connecticut and neighboring States. Of 230 new cadets appointed as of July 1955, a total of 152 were from 8 States. Appointments to this class of 1959, by States, were as follows:

Alabama	1	Missouri	2
Arizona	1	Nebraska	1
California	27	New Hampshire	1
Connecticut	13	New Jersey	18
Delaware	1	New York	38
Florida	6	North Carolina	4
Georgia	4	Oregon	1
Idaho	1	Pennsylvania	13
Ohio	10	Rhode Island	4
Illinois	7	South Dakota	1
Indiana	1	Tennessee	1
Iowa	4	Texas	5
Kansas	1	Vermont	1
Maine	1	Virginia	5
Maryland	10	Washington	5
Massachusetts	23	Wisconsin	3
Michigan	7	West Virginia	1
Minnesota	2	District of Columbia	4
Mississippi	1	Territory of Alaska	1

e. Average amount of Federal assistance per student, fiscal year 1956.—$1,826 per annum (average pay per cadet, including subsistence).

f. Total Federal obligations for the program, fiscal year 1955.—Obligation for the Academy $2,544,684.

N. Program of the Department of the Interior

1. AID TO INDIAN STUDENTS

a. History and description.—A program of direct Federal aid to Indian students in vocational schools and institutions of higher learning through nonreimbursable grants began in the Bureau of Indian Affairs with a provision in fiscal year 1933 for $10,000 for tuition purposes only. In 1947 the appropriation language was changed to include the phrase "for tuition and other purposes." Regulations governing the distribution of these grants have limited the aid to students of one-fourth or more degree Indian blood coming under the jurisdiction of the Bureau. The regulations stress need, scholastic ability, planned programs and references of the applicants. The program in a measure supplants or supplements loan funds.

b. Legal authorization.—Part 44, chapter 1, title 25, Code of Federal Regulations (issued under R. S. 161, sec. 11, 48 Stat. 986; 5 U. S. C. 22; 25 U. S. C. 471; 25 U. S. C. 13).

c. Total number of students aided, fiscal year 1955.—89.[7]

d. Number of students assisted, by States, fiscal year 1955.—

Arizona	37	Missouri	1
California	3	New Mexico	14
Colorado	9	Oklahoma	14
Illinois	1	Utah	1
Iowa	2	Washington	1
Minnesota	4	Territory of Alaska	1
Mississippi	1		

e. Average amount of Federal assistance per student, fiscal year 1955.—$189.

f. Total Federal obligations for the program, fiscal year 1955.—$16,823.

O. Other Programs

Besides the programs already described, certain other Federal programs and cooperative arrangements between the United States Government and institutional, State or foreign country jurisdictions provide, generally indirectly, some aid to students for higher education. The following programs are not described in detail because they are small, or peripheral to this study, or because adequate information is not available concerning the extent to which they give aid to students for higher education.

As with the programs already described, the ultimate aim of these programs in some cases is not to aid individuals for their higher education but the attainment of other major objectives directly related to the national welfare.

1. THE FEDERAL-STATE VOCATIONAL EDUCATION PROGRAM (OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE)

A program of vocational education in the United States has been developed in conformity with the provisions of the Smith-Hughes Act, approved by the Congress February 23, 1917, and the Vocational Education Act of 1946, commonly known as the George-Barden Act.

[7] In addition to the 89 students for which information is here provided there were 12 students in institutions not listed as institutions of higher education in the 1954–55 Education Directory issued by the U. S. Office of Education.

While the vocational training program is of less than college grade, provision is made for the college-level training of teachers who will participate in the vocational training.

Federal funds for vocational education are certified by the United States Office of Education to State boards for vocational education who have final authority in their respective States for the use of the funds, on a dollar-for-dollar matching basis in schools under public supervision and control. Colleges receive only such Federal vocational education funds as the State board may see fit to pay them as reimbursement for the training of vocational teachers. In some States the State board reimburses the college as much as 50 percent of the salary of the teacher trainers; in other States no reimbursement is made for teacher training. In each State the arrangements for teacher training are based upon an agreement between the State board for vocational education and the teacher training institution.

2. AID TO THE LAND-GRANT COLLEGES AND UNIVERSITIES (OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE)

Federal allotments to States and specified territories are made from the permanent appropriation of the second Morrill Act and the Nelson amendment and from the annual appropriations under the Bankhead-Jones Act of the land-grant institutions in the States.

States and Territories are not required to match appropriation with annual funds, but use of the money must meet requirements of second Morrill Act, which, among other things, requires that the money be spent for instruction in eight specified fields.

The amount of indirect aid which individual students receive from Federal support of these institutions is incalculable.

3. AID TO HOWARD UNIVERSITY AND GALLAUDET COLLEGE

For many years the Congress has annually appropriated funds for the support of Howard University, which operates principally for the benefit of Negroes, and Gallaudet College, which offers higher education especially for deaf students. Both of these institutions are located in the District of Columbia but draw students also from other parts of the United States and foreign countries.

The amount of aid to their higher education which individual students receive from Federal support of these institutions is not capable of exact appraisal.

4. FEDERAL CONTRACTS WITH INSTITUTIONS FOR RESEARCH

There are some other Federal-institutional research contract programs besides those already described in this report. Examples follow:

Pursuant to authorizing acts of August 14, 1946, and July 28, 1954, the Department of Agriculture contracts with institutions of higher education and other agencies for the performance of research service and extension work. These contracts are written in terms of the research to be performed. According to information obtained from the Department it does not have information with respect to (1) the extent, if any, that students are employed in carrying out these con-

tracts, nor (2) the number of students thus employed on the basis of fellowships or otherwise.

The National Advisory Committee for Aeronautics has a university research contracts program which provides indirect financial assistance to some university students. According to information obtained from the committee headquarters, it is—

> unable to estimate the number of students who might be indirectly assisted through this program, or the average amount of assistance per student.

5. PROGRAMS OF THE INTERNATIONAL COOPERATION ADMINISTRATION

A number of Federal agencies participate in technical cooperation and exchange programs of the International Cooperation Administration being carried out under the Mutual Security Act of 1954. The basic purpose of these programs is to provide opportunities for training, study or observation to selected officials of public and private agencies in foreign countries to enable them better to perform particular duties in connection with economic development projects which their countries are carrying on in cooperation with the International Cooperation Administration. These officials are usually of mature years, and their training period in the United States consists primarily of on-the-job activities and observations of United States methods of performing particular functions. Provisions for this training sometimes utilize the facilities of institutions of higher education. Participants may spend only a few days in such an institution; they may participate in group seminars ranging from a few days to several weeks, especially arranged for them; or they may be enrolled as special students for all or part of 1 academic year. Only rarely, and then only as a by-product of their training program, do they become candidates for degrees from universities in the United States.

6. TENNESSEE VALLEY AUTHORITY STUDENT-RESEARCH CONTRACTS

During the fiscal year 1955 the Tennessee Valley Authority provided financial assistance to 3 students who performed research studies submitted in partial fulfillment of the requirements for graduate degrees at 3 universities. These studies were of specific assistance to the Tennessee Valley Authority.

P. Analytic Summary

About a dozen departments and independent agencies of the Federal Government are administering programs which provide some direct or indirect aid to students for higher education. General characteristics of these programs have been described in the introduction to this chapter. It was there pointed out, in substance, that in most cases financial aid to individual students is a concomitant effect or means to an end rather than the ultimate purpose of these programs. Opinions differ as to whether most of these students aids should be termed scholarships.

Some of the programs provide assistance only to graduate students and are ordinarily called fellowships.

Many persons take the viewpoint that some of these programs primarily represent compensation for services performed rather than

any form of direct financing of the education of students. This attitude has been expressed particularly with respect to payments made by institutions to graduate students from Federal funds received under research contracts. Argument for the same viewpoint has been applied to a number of the other programs, such as veterans' education, the Reserve Officers' Training Corps program and the research fellowships of the National Institutes of Health.

When viewing these programs in connection with current proposals for establishment of a general program of Federal financial aid to students, the following considerations are of major importance:

(1) None of the existing programs offers scholarships for which all high-school graduates are eligible to compete with free choice of institution and course of study. (2) The existing programs make available some Federal financial aid to only a small percentage of the nation's high-school graduates each year. (3) None of the existing programs has for its basic aim the removal of financial barriers to the higher education of the Nation's most gifted and/or most needy young people. (4) None of the existing Federal programs operates on the principle of allocation of Federal funds to States for general scholarships to be awarded in accordance with prescribed terms.

Most of the existing Federal programs do not provide benefits on the basis of State quotas. For example, the enrollments at the United States Coast Guard Academy are drawn largely from the State in which this institution is located and a small number of other States.

In terms of number of students affected, and cost to the Federal Government, by far the largest programs giving some financial aid to students are those administered by the Department of Defense for the training of young men to become officers and by the Veterans' Administration (for veterans only).

Following is a listing and summary description of the programs reviewed in the preceding pages as actually providing, directly or indirectly, some aid to students for higher education, although in most cases this is not the principal or ultimate purpose of the program.

The Veterans' Administration finances vocational rehabilitation training for disabled veterans and education and training for non-disabled veterans eligible to receive such benefits under acts of Congress. Generally the programs allow the individual veteran, under guidance, a choice of educational institution and course of study. A large percentage of the assistance given veterans is for the pursuit of higher education. In fiscal 1955 about 250,000 veterans received aid for education at this level.

The National Science Foundation awarded 717 fellowships for graduate predoctoral and postdoctoral training in the mathematical, physical, biological, engineering and other sciences in fiscal 1955. It also awarded grants for the support of basic research in these fields. About 900 graduate students received stipends from the grantee institutions for services performed in connection with the Federal contracts.

The Atomic Energy Commission supports small numbers of fellowships in radiological physics, industrial hygiene, and industrial medicine. These numbered 69 in fiscal 1955. In that year colleges and universities holding research contracts with the Commission paid stipends from Federal funds to about 1,500 graduate students working on these contracts.

The departments of the Air Force, Army, and Navy have Reserve Officer Training Corps programs, which enroll students. The following numbers of students enrolled in these programs in institutions of higher education received some Federal financial remuneration during the fiscal year 1955: Air Force ROTC, 20,300; Army ROTC, 30,234; Naval ROTC, 9,407. The largest amount of aid per student was received by the 6,291 "Regular" NROTC enrollees who receive $50 per month retainer pay, besides tuition, fees, books, instructional equipment, and uniforms.

The Air Force, Military, and Naval Academies provide appointees to these institutions free higher education leading to academic degrees. Cadets receive board and room and other benefits. The first-class of 306 cadets entered the Air Force Academy in July 1955. The average strength of the corps of cadets at the Military Academy was 2,209 in fiscal 1955. The total enrollment at the Naval Academy that year was 3,689.

The Department of Defense has contracts with certain colleges and universities for the carrying out of research projects in which a number of graduate students are employed by the institutions. According to information obtained from the Department, it does not have information as to the number of students who thus receive indirect Federal financial assistance nor the amount of aid which they receive.

The purpose of the international educational exchange program is to promote a better understanding of the United States in other countries and to increase mutual understanding between the people of the United States and the people of other countries. Under this program in fiscal 1955, 1,026 Americans received grants to study abroad, and 1,172 foreign nationals received grants to come to the United States for university study.

In fiscal 1955, the several National Institutes of Health altogether awarded financial assistance to about 2,400 graduate students for study or research in the field of public health, generally for the purpose of increasing the number of physicians trained to combat particular diseases.

The Office of Vocational Rehabilitation (Department of Health, Welfare, and Education) financed in fiscal 1955 a total of 1,043 long-term and short-term graduate traineeships to strengthen and expand the Nation's resources for the rehabilitation of handicapped people.

The Department of Commerce administers two programs providing aid to students for higher education. One is the United States Merchant Marine Academy at Kings Point, Long Island, N. Y., which enrolled 1,014 cadets in fiscal 1955. The other is aid to cadets at the State marine schools. The law allows Federal supply of uniforms, textbook, and subsistence allowances to 710 cadets annually at these State institutions. A majority of the cadets at the State marine schools come from the four States in which these institutions are located (New York, Maine, Massachusetts, and California) and neighboring States.

Graduates of the United States Coast Guard Academy at New London, Conn., receive the degree of bachelor of science. A large percentage of the cadets come from Connecticut and neighboring States. On July 1, 1955, the Academy had an enrollment of 533.

The Department of Interior annually provides aid for the higher education of a small number of Indian students—89 in fiscal 1955.

Other Federal programs which aid some students in higher education, but which are small, or provide only indirect assistance, or otherwise are only peripheral to this study, include the following:

(1) Teacher training under the Federal-State vocational education program.

(2) Federal support of the land-grant colleges and universities.

(3) Howard University and Gallaudet College.

(4) Federal contracts with institutions for research (already reviewed herein for some agencies).

(5) Certain programs of the International Cooperation Administration.

CHAPTER VIII. STATE-FINANCED SCHOLARSHIPS

(Summary and Analysis of State Provisions for Scholarships and Other Financial Aids to Students)

A. Sources of Information

The basic information in this chapter has been compiled from a variety of sources. Data have been drawn principally from the most recent college and university catalogs, State codes, and session laws available in the Library of Congress, and from correspondence with State educational officials. These persons generally have supplied memoranda, bulletins or similar material.

Considered for the United States as a whole, State provisions for financial aid to students are quite complicated, involving questions of definition, and of interpretation of laws and regulations. In some instances neither extensive research in the Library of Congress nor study of the correspondence has yielded information perfectly clear and adequate for the preparation of a concise but comprehensive summary of the State aid for students. Time has not permitted the continuation of research or correspondence to verify every detail for every State. It is believed, however, that the summaries and general statements in this chapter are inclusive and accurate insofar as they have any important bearing on the consideration of a Federal scholarship program—which is the principal purpose of this study.

B. Major Conclusions From Study of State Programs

From a study of the information obtained from sources already listed the following conclusions are outstanding.

No State makes higher education economically attainable to all of its youth who are qualified to pursue it. No State has removed all financial barriers to the higher education of all of its most gifted youth.

No State offers general scholarships to a large percentage of its high-school graduates for study at institutions and in subject fields of their choice.

No State has a scholarship program aimed at meeting the entire cost of higher education for any students. Beneficiaries of the more generous State-assistance programs usually must pay in full their own expenses for food, room rent, clothing, et cetera. In most cases the State aid received is only a small fraction of the total cost of the higher education of the individual.

The largest and most generalized State-supported scholarship program (that of New York State) made available in 1955 general scholarships for about 3 percent of its 1955 high-school graduates. In addition, the overall State program is providing certain tuition-reducing scholarships at Cornell University, scholarships for veterans, children of deceased or disabled veterans, and students of medicine, dentistry, and nursing for a total of about 1.4 percent of the State's

1955 high school graduates. If the tuition reductions are counted as scholarships the State is currently financing a grand total of 5,238 scholarships—thus providing some aid for altogether about 4.4 percent of its 1955 high-school graduates numbering 120,000.

All of these scholarships are solely or principally for the payments of tuition or other institutional fees. Generally the scholarship holders must meet their own expenses for rent, food, clothing, transportation, et cetera. The regents scholarships for professional study of medicine and dentistry are to some extent exceptional.

The New York State general scholarship program is unique in that it enables most of the high-school seniors in the State to compete for scholarships valid at any accredited institution of higher education in the State, public, or private.

To the extent that mere free tuition or tuition reduction may be regarded as a form of scholarship, a much larger percentage of high-school graduates is affected by the programs of some other States. Mere provision by a State for free tuition at State institutions is not ordinarily regarded, however, as a State scholarship program.

If free tuition is regarded as a form of scholarship, importantly related considerations should immediately be taken into account. One is that in most States some or all State institutions charge fees which are the equivalent of tuition. Another is that State provisions for tuition exemption or reduction seldom apply to privately controlled institutions.

The assertion that "tuition is free" or "nominal" at an institution may have little significance in relation to the total cost to the student for a year's attendance at that institution.

Tuition is often only one of several specified charges. The real cost to a student for instruction may be much more than tuition or other fees plus living expenses. Some institutions avoid the use of the word "tuition," but instead use the term "registration" or "matriculation" fee or some other term.

The real cost of a college or university education might be considered to include, besides institutional fees, what the student must spend for a decent living and what he must spend to avoid embarrassment. In most cases, the latter includes many expenditures in addition to prescribed fees—in some instances, for example, such expenditures as fraternity dues, which may amount to several hundred dollars.

C. Summary Analysis of State Programs

Besides the New York scholarship program already observed, several scholarship and/or scholarship-loan programs financed by other States are outstanding with respect to the size of State appropriations to support them.

The Florida Legislature has appropriated $420,000 annually for the 1955–57 biennium to provide scholarship loans for students preparing to teach—loans being cancellable by service to the State as a teacher. The Louisiana Legislature has appropriated $359,400 for the fiscal year 1955–56 for scholarships in State-supported institutions. For the same year the Maryland Legislature has appropriated $532,750 of State aid to essentially private institutions which in turn award scholarships according to State legal provisions. For financial aid to students in the fields of medicine and nursing the Mississippi

Legislature has appropriated $500,000 for the fiscal year 1955–56. For this year the New Jersey Legislature has appropriated $400,000 for scholarships at Rutgers University and Douglass College. The Virginia Legislature has appropriated about the same amount for scholarship loans which can be canceled by teaching in that State.

Altogether these appropriations are sufficient to meet a part of the cost of higher education for a small percentage of the total number of the 1955 high-school graduates in these States. Many of the scholarships are available for study only in specified fields.

The fact that the legislature of any State makes no appropriation for scholarships does not necessarily mean that the State is providing no financial aid to students. In many States the regents or trustees of State institutions have been given authority to grant scholarships—usually in the form of waiver or reduction of institutional fees. In this report no attempt is generally made to draw a fine distinction between State aid, as such, for students, and State institutional aid for students. The question of importance (or unimportance, depending upon one's viewpoint) of free tuition for all State residents has already been discussed in this chapter.

According to information obtained from State officials the following States as such finance no scholarship programs: Arizona, Arkansas, California, Colorado, Georgia, Idaho, Kansas, Missouri, Nevada and Texas. In California, Missouri, and Texas, State institutions award a limited number of scholarships or fee exemptions.

Throughout the United States many of the available State-financed scholarships are for study only in special fields. At least 21 States, namely Alabama, Connecticut, Delaware, Florida, Illinois, Maine, Maryland, Massachusetts, Michigan, Nebraska, New Hampshire, New Jersey, North Dakota, Ohio, Oregon, Rhode Island, Utah, Vermont, Virginia, West Virginia, and Wisconsin, have State-financed or State-institution-financed scholarships or other forms of financial aid for students preparing for the teaching profession. Most of these scholarships and other aids have been instituted since 1940. They reflect a recognition on the part of State legislatures of the need for more and better prepared teachers.

State-financed or State-institution-financed scholarships specifically in the fields of medicine and/or dentistry, and/or nursing are available to qualified applicants in Connecticut, Minnesota, Mississippi, and Virginia. Special State scholarships are available to veterans, children of veterans, or war orphans in Connecticut, Illinois, Iowa, Massachusetts, Michigan, New Hampshire, New Mexico, New York, South Carolina, South Dakota, Utah, and Washington. Laws and regulations governing the awarding of scholarships in many States would encourage special consideration of children of deceased veterans for such awards.

In several States, members of the legislature have authority to award scholarships according to conditions set forth in State laws. Thus in Illinois each member of the general assembly may annually award one scholarship to the University of Illinois. In Louisiana a specified sum is allotted each member of the legislature for scholarships and a fixed amount is allowed the Governor for the same purpose. In Maryland members of the legislature award scholarships to successful contestants in competitive examinations. In Pennsylvania each State senator has authority to award 12 scholarships a year to

State institutions. Similarly in Vermont each State senator has authority to award 10 scholarships to qualified applicants.

Illinois, Louisiana, and New York are outstanding with respect to the number of types of State-financed or State-institution-financed aids made available to students. Counting tuition-reduction or rebate as one type of assistance, in each of these States five or more forms of aid to students are financed by the State or by public institutions within it.

At least a dozen States offer scholarships giving recipients a choice of any one of a number of State institutions. About as many offer aid for study in any field selected by the beneficiary. In most cases these awards are very limited in number or are available only to qualified members of a special group, such as veterans.

An important feature of many of the State awards is that they must be repaid by the recipients either in cash with interest or in service to the State.

Generally State institutions charge much higher tuition or fees to students whose legal residence is outside the State in which the institution is located.

Some graduate fellowships are available at most of the larger State-supported institutions of higher education. These are not reviewed in detail in this report. Neither are athletic scholarships, which are offered by most State institutions under rules of the regional associations of institutions of higher education.

Some States finance arrangements for participation in regional education programs.

A few States maintaining racial segregation have arrangements for Negro students to pursue, at private or out-of-State colleges, courses offered in publicly supported institutions for white students but not offered in the State institutions for Negro students. Such arrangements are not generally called scholarships.

A few State institutions offer scholarships to foreign students on the basis of a reciprocal agreement with institutions in other countries.

D. Analysis of the Largest State Scholarship Program [1]

The preceding summary points out that the largest and most generalized State-supported scholarship program is that operating in New York State. The following somewhat detailed analysis of this program is given in expectation that it will be helpful in the consideration of proposals to establish a general system of Federal scholarships or some other form of Federal aid to students.

1. NEW YORK STATE REGENTS SCHOLARSHIP PROGRAM

In May 1955 a total of 3,388 or about 3 percent of the 120,000 high-school seniors in New York State were awarded Regents College scholarships. These scholarships, which in several respects comprise the most important part of the New York State Regents scholarship program, were first established by the legislature in 1913.

Most of the high-school students in New York State are eligible to compete for these scholarships, which are valid at any accredited institution of higher education in the State, public or private.

[1] Source: Principally based upon information obtained, by correspondence, from Peter P. Muirhead, Chief, Bureau of Examinations and Testing, the State Education Department, the University of the State of New York.

In addition to these scholarships, New York State is providing in 1955 a total of 1,855 scholarships for veterans or children of certain veterans or for study at a particular institution or in a particular subject field.

The State is therefore financing in 1955 a total of 5,238 scholarships, providing altogether some degree of financial assistance toward the higher education of about 4.4 percent of the total of 120,000 high school graduates.

In considering these scholarships it should be borne in mind that they are aimed primarily at payment of institutional fees, and that generally the recipients must meet their own living expenses and other costs incidental to attendance at the educational institution.

Certain distinguishing characteristics of the New York State scholarship program have already been pointed out in this chapter.

Following is a description of the several types of scholarships constituting the State program.

The New York State Regents scholarship program consists of 6 different types of awards. The following data concerning these awards are for the year 1955.

Type of scholarship	Number of annual awards	4-year stipend	Annual value of full program
Regents College scholarships	3,388	$1,400	$4,743,200
State war service scholarships for veterans	1,200	1,400	1,680,000
Cornell scholarships	150	800	120,000
Regents scholarships for children of deceased or disabled veterans	100	1,800	180,000
Regents scholarships for professional study in medicine and dentistry	100	3,000	300,000
Regents scholarships for professional education in nursing	300	1,400	420,000
Total	5,238		7,443,200

These scholarships vary considerably in purpose and in character. The major features may be summarized as follows:

In terms of both the number of candidates and the number and total value of awards the Regents College scholarships are the most important of the five types of scholarships offered by New York State. There are 3,388 scholarships provided annually for the entire State. These are assigned on a county basis, with at least 20 for each assembly district. In effect, therefore, there is a separate scholarship competition for each county and the number of scholarships assigned to each county is in direct relationship to the county population. The basis for awarding this scholarship, as for each of the other scholarships for undergraduate study, is a written examination (⅘ objective and ⅕ essay) covering the basic curriculum of the secondary school. To be eligible to receive the scholarship, a candidate must have completed an approved 4-year course within 6 years of enrollment, must have attended recognized secondary schools in New York State for at least 3 years, and must have attended such a school for at least half of the school year immediately prior to the award. Each scholarship carries a stipend of $350 a year for 4 years and is valid at any accredited college or university in the State. The scholarship money must be used to pay tuition and fees, where such are charged, but any remainder is made available to the scholarship winner as a cash award.

The Regents war service scholarships for veterans provide 1,200 scholarships annually to honorably discharged veterans of World War I, World War II, or the Korean war. Each county in the State is entitled to eight scholarships for each assembly district. Under the terms of the scholarship, up to $350 a year for 4 years is allowed for tuition and fees (excluding charges for books and supplies) for full or part-time study, day or evening, at any college or university, or at any business, professional, technical, or trade school located in the State and approved by the State Education Department. The only educational requirement is that candidates present evidence that they have had an educational program fitting them for such study. All scholarship funds except those required to meet charges for tuition and fees revert to the State at the end of each fiscal year. These scholarships cannot run concurrently with any other State or Federal scholarship or benefit for educational purposes.

There are 150 Cornell scholarships, 1 for each assembly district. These are tuition-reducing scholarships to the extent of $200 a year for 4 years. They are applicable only to Cornell University, but not to the New York State tuition-free colleges administered by Cornell University, veterinary college, college of agriculture, college of home economics, and New York School of Industrial and Labor Relations. To receive a scholarship, a candidate must be at least 16 years of age and must have attended an approved secondary school of the State for at least 6 months during the school year preceding the award.

The 100 Regents scholarships for children of deceased or disabled veterans entitle the holder to tuition up to $450 a year in any approved college or university in the State. As in the case of the Regents College scholarship, the scholarship money must be used to pay tuition and fees, when such are charged, but any remainder is made available to the scholarship winner as a cash award. First preference is given to children of veterans who died while serving in the Armed Forces. Second preference is given to children of veterans who died after discharge. The remaining scholarships are awarded to children of disabled veterans. These scholarships are awarded on a statewide rather than a county basis.

There are 100 Regents scholarships for professional study in medicine and dentistry which provide $750 for each of 4 years in approved professional schools in New York State. On the basis of competitive examination, 36 medical scholarships and 14 dental scholarships are awarded to candidates residing in the counties of New York City, and the same number are allocated to candidates residing in all the other counties of the State. The examination is written and consists of a professional aptitude test and achievement tests in college biology, physics, and chemistry. To receive a scholarship, a candidate must have completed the preprofessional program required for admission to the professional study of medicine or dentistry in New York State and must have been in attendance at an approved preprofessional college for at least one semester during the year prior to the award.

The newly established 300 Regents scholarships for professional nursing education provide $350 for each year of professional study in approved nursing programs in New York State. They are assigned on a county basis, with two for each assembly district, and awarded on the basis of a competitive examination covering the basic curriculum of the secondary school. To be eligible to receive a scholarship, a

candidate must have completed an approved 4-year secondary school program and must have attended an approved secondary school in New York State for at least one semester during the year in which the examination is given. The scholarship money is used for tuition and fees and is paid to the scholarship winner as a cash award.

The extent of the entire State scholarship program and the competition therefor in the last 2 years is indicated in the following table.

	1954		1955	
	Candidates	Awards	Candidates	Awards
Regents college	20,288	1,694	22,883	3,388
War service	4,474	1,200	4,570	1,200
Cornell	5,942	150	5,600	150
Veterans' children	474	100	490	100
Medical-dental	816	100	716	100
Nurse			4,805	300

2. REGENTS SCHOLARSHIP EXAMINATION

The Regents scholarship examination, as the single comprehensive examination is called, constitutes the basis for awarding each year all of the scholarships included in the State program.

Great care is followed in constructing the Regents scholarship examination in order that it may be as effective an instrument as possible for accomplishing the purpose for which it was designed. For example, in addition to the regular services of the State education department's subject matter, test development, and editing staff, the professional talents of more than 50 of the most competent and experienced New York State high-school teachers were engaged in varying capacities as subject-matter specialists, question committee members, consultants and revision committee members in the construction of the 1955 Regents scholarship examination. The results of these professional efforts were further refined by pretesting all of the suggested objective test items on more than 5,000 college freshmen in some of the colleges of the State.

The examination, which consists of about 300 objective-type items carrying 374 credits and 2 essay-type questions carrying 90 credits, is based as far as possible upon the subjects required of all New York State high-school students in completing an approved 4-year secondary school program in the State. The test items are distributed among the required subjects of the secondary school curriculum.

The Regents war-service scholarship and the Regents scholarship for professional study in medicine and dentistry are also awarded upon the basis of comprehensive examinations (entirely objective), constructed with the same underlying purpose in mind—to select those with the best promise.

3. FOLLOWUP STUDIES

The procedures and examinations for awarding the scholarships are subjected to continuing close scrutiny. A comprehensive study is made of the results of each scholarship series.

Analysis of the college records of scholarship winners has indicated that as a group the candidates who win these awards do well in the freshman year of college. Thus, the standings achieved on the regents

scholarship examination have provided colleges with valid and helpful information to serve as a basis for predicting the early college success of high-school seniors.

Additional studies have shown that the winning of a regents college scholarship is largely independent of the type of school attended or size of school attended. The scholarships are won by pupils in villages and central schools with small enrollments and in city schools with large enrollments, in proportion to total pupil enrollment in such schools throughout the State. With the county system of awards, this could scarcely be otherwise. From a recent study it seems clear that they are distributed in approximately the same proportion in which levels of family income are distributed throughout the State.

4. RATIO OF SCHOLARSHIPS TO HIGH-SCHOOL GRADUATES

Significant as has been the growth in the size of the scholarship program, it has not kept pace with the increased enrollments in higher education in the State of New York. For example, when the program was established in 1913, there were only about 15,000 secondary school graduates in the State; and the 750 scholarships provided educational opportunity for 5 percent of the secondary school graduates. In 1955, however, as has been pointed out, about 120,000 pupils were graduated from the secondary schools and the 3,388 scholarships helped to meet the higher education needs of only about 3 percent of the secondary school graduates. By 1965, based on present elementary school enrollment and preschool population statistics, it is estimated that the awards will provide scholarships for less than 2 percent of the secondary school graduates in the State.

In view of this changed situation, coupled with the fact that in New York State education beyond the secondary school is provided chiefly through private colleges and universities, the board of regents in 1944, prior to the creation of the State University of New York, recommended the creation of 12,000 regents college scholarships at $350 a year. The regents scholarship plan would provide sufficient scholarships to take care of approximately 10 percent of the graduates of the secondary schools of the State. Since that time there have been significant increases in the regents scholarship program, the most significant being the increase from 1,694 to 3,388 awards in 1944, but these increases are far from the goal established by the Board of Regents for "* * * a truly adequate system of scholarships to widen the gates of educational opportunity."

E. Student Aid, by States

Following are summaries of the State-financed scholarship programs and other forms of State financial aid to students for higher education in the States and Territories of the United States, together with information concerning student expenses at some institutions.

Alabama

An act of the legislature has provided State scholarships having a maximum value of $100 a year each for 250 prospective elementary teachers. The annual appropriation of $25,000 to finance the scholarships is distributed equally among the 5 State teachers colleges. The

allocation to each college is administered by the president of that institution.

At the University of Alabama and at other State institutions of higher education in Alabama there is no charge specifically for tuition for Alabama residents but all students must pay certain fees besides living expenses. The cost to the Alabama student for fees, books, and supplies at the university is estimated at $165 per academic year. The 1954–55 catalog of the university, states that an Alabama student "should find it possible to attend the university with a capital outlay of approximately $650, which does not include laundry, spending money, or other incidentals." Expenses for clothing, transportation, and some other personal needs are additional. Out-of-State students have an added charge of $250 per year for tuition at the university.

Alaska

An act of the Territorial legislature authorizes a scholarship to the University of Alaska for one student from each high school in the Territory. The scholarship covers room rent in a dormitory at the university for 2 years next succeeding graduation from a Territorial high school.

To obtain this scholarship, the student must have completed 4 years of high-school work in the Territory, must have had the highest average standing in his class for all credits earned, and must present a certificate from the superintendent or principal to the effect that he is entitled to receive the benefits of the scholarship.

In the event that any student entitled to the scholarship does not elect to take advantage of its benefits, the scholarship becomes available to the next in class standing who desires to attend the University.

Arizona

Except for participation in a regional interstate cooperative program, the State of Arizona finances no scholarships. The university of Arizona and Arizona State colleges do not charge Arizona residents tuition, but all students must pay certain fees besides their living expenses.

The 1954–55 catalog of the University of Arizona states that:

> The minimum cost of covering all university charges for the academic year, exclusive of the nonresident tuition fee which totals $300, is approximately $677. * * * All students should add to this list incidental personal expenses as needed, and a room reservation deposit of $10.

The estimate of $677 does not include expenses for clothing, travel, and other personal needs.

Arkansas

The State of Arkansas finances no scholarships, except for needy children of deceased veterans of World War II. For these there is an annual appropriation of $7,500.

The University of Arkansas does not charge Arkansas residents tuition, but charges a registration fee of $130 per academic year of 2 semesters. A 1954–55 bulletin of the university states that "the minimum cost of attending the university for 2 semesters, excluding the cost of clothing and other personal expenditures, is about $600." Presumably transportation is one of the expenses not counted in this estimate.

California

The State of California as such finances no scholarships or fellowships.[2] Some money appropriated to the general support of the University of California may be used by the regents for scholarship and fellowship purposes. This, however, is not generally considered to be State aid specifically for these purposes inasmuch as the University of California is an independent corporation—not subject to any fiscal control by the State.

The State institutions of California do not require residents of the State pursuing nonpreprofessional or nonprofessional courses to pay tuition. However, the University of California charges State residents an "incidental fee" of $84 per college year of two semesters. The 10 State colleges have a fee for "materials and services" ranging from $40 to $44 for 2 semesters for these students. Tuition and fees differ but are generally much higher in the professional schools and colleges.

The 1954–55 general catalog of the University of California at Berkeley contains "A table of estimated minimum, moderate, and liberal budgets for a college year of two semesters for a student who will enroll in a nonpreprofessional or nonprofessional course and who has been classified as a resident of the State." The estimate for the principal items of necessary expense to the student ranges from $634 to $1,359. Clothing and travel are not included in the itemized estimate.

Colorado

The State of Colorado has no program of scholarships. Publicly controlled as well as privately controlled colleges and universities charge tuition and/or fees to students who are residents of Colorado. Charges are higher to nonresidents attending public institutions.

Joint honor scholarships in limited numbers are awarded outstanding high-school graduates by certain participating State institutions. Winners of these scholarships are exempt from tuition charges but must pay other student fees plus personal expenses.

Connecticut

The State of Connecticut provides financial assistance for educational purposes to a limited number of prospective teachers, student nurses, and children of certain deceased veterans, as follows:

(1) *Teachers college scholarships.*—In accordance with section 1413 of the 1949 revision general statutes, the State board of education is authorized to maintain not more than 100 scholarships for students attending the State teachers colleges. Such scholarships are awarded on the basis of academic achievement, general fitness, and need.

Each scholarship has an annual value of $300, but the State board of education may divide any scholarship between two students.

(2) *Remission of tuition at the teachers colleges.*—The legislative act establishing the teachers' colleges provides for remission of tuition—

> of deserving students of exceptional promise, provided the fees of not more than 10 percent of the pupils in each class in each year shall be remitted.

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[2] A new State financed program of general scholarships will start in the school year 1956–57. The program calls for an initial 640 awards, to be increased to a maximum of 2,500 in 1959–60.

(3) *Emergency scholarship fund at the teachers colleges.*—In 1951 the legislature authorized the State board of education to establish and maintain an emergency training program to prepare graduates of approved 4-year colleges and universities to teach in the elementary schools of the State. The act provided for receipts from tuition fees to be deposited in a special fund known as the emergency scholarship fund. This fund may be used under such regulations as the State board of education may prescribe for scholarship aid to students enrolled in this program.

(4) *Aid to children of deceased veterans.*—Section 1365 of the 1949 revision general statutes, as amended in 1955, provides State financial assistance for the higher education of children of certain deceased veterans. The child must have been a resident of Connecticut at the time of induction of the veteran, or must have continually resided in Connecticut for at least 12 months. In 1953–54 the number of applications approved for this assistance was 15. State expenditure for this purpose amounted to about $2,800.

(5) *Trustee scholarships at the University of Connecticut.*—There are no State scholarships for the university financed by legislative appropriations. The trustees, however, have a program of scholarships, the funds for which are derived from college income.

(6) *State nursing scholarships.*—The Connecticut State Board of Examiners for Nursing has statutory authority to administer a program of financial assistance for nursing education in duly accredited institutions of learning in the State. For the school year 1953–54 the board awarded 538 such scholarships having an average value of about $193.

Delaware

The State of Delaware provides financial aid to a limited number of students at institutions of higher education supported by the State, as follows:

The catalog of the University of Delaware containing announcements for 1954–55 lists the following State financial aids to students for attendance at the university.

> Delaware State scholarships, three awards of varying amounts, awarded to Delaware residents. Physical ability and promise of leadership are considered in granting the awards.
>
> Delaware State grants-in-aid, 15 annual awards of varying amounts. Qualifications are the same as those for Delaware State scholarships.

The catalog of Delaware State College containing announcements for 1954–55 states that:

> The State legislature has made available to this institution the sum of $15,000 which is to be distributed to students who are residents of Delaware to help pay their college expenses. The amount of these scholarships depends upon the need, deportment, and scholastic standing of the student.

Delaware residents are not specifically charged tuition at State institutions. At the University of Delaware there is a "general university fee" of $255 per college year of 2 semesters. For nonresidents of Delaware there is an additional charge of $290 per year specifically for tuition.

District of Columbia

The District Government finances no scholarships or fellowships. At the college (for teachers) administered by the Board of Education

there is no charge for tuition for residents of the District. The college charges, however, certain fees for all students. Living expenses are additional.

Nonresident students are required to pay additional charges for tuition amounting to about $475 a year at Wilson Teachers College.

Florida

For the past 10 years, Florida has provided a number of $400-a-year scholarship loans to encourage students to prepare for the teaching profession.[2] Continuing this program, the 1955 legislature appropriated $420,000 annually for the 1955–57 biennium to provide 1,050 such scholarship loans. These are allocated to each county according to the ratio of the county population to the total population of the State. If after July 1 of any year the allotments to any county have not been filled by applicants from that county, the remaining scholarship loans may be made on a statewide basis.

The awards are made on the basis of competitive examinations held at least twice a year. To be eligible to compete in the examination, the applicant must have the recommendation of local school officials, must be in good health, and must be a bona fide resident of the State of Florida. In addition, he must promise, if awarded a scholarship loan, to begin teaching in a Florida public elementary school, kindergarten, secondary school, or a combination of elementary and secondary schools, immediately following graduation from college.

The holder of a scholarship loan is required to attend a college or university in Florida approved for teacher education and must make satisfactory scholastic progress each year. In addition, he must be registered in the college, school, department, or division of education and have his program of studies approved by the dean of education in accordance with the requirements for the graduate certificate as contained in Florida regulations relative to teacher education and certification.

The scholarship may be renewed from year to year for as long as 4 years or until the holder receives the bachelor's degree, provided he continues his teacher training course and makes satisfactory academic progress.

Each time the scholarship holder receives a payment, he must execute a promissory note under seal covering the amount of scholarship funds received. For each year of teaching in the public schools of Florida following his graduation from college, he will be entitled to receive cancellation of notes covering 1 year's use of the scholarship.

The University of Florida, Florida State University, and Florida Agricultural and Mechanical College for Negroes do not charge Florida residents "tuition"; but all students must pay certain fees besides living expenses. The University of Florida charges a registration fee of $150 per college year of 2 semesters. Non-Florida students pay a tuition charge of $300 per college year in addition.

The 1954–55 catalog of the University of Florida contains a summary of "typical" expenses for a school year for a Florida resident at that institution totaling $1,080. The list of items does not include clothing or travel, but includes unspecified "incidental" expenses amounting to $200.

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[2] The State has recently added about 200 awards worth $300 a year each for nursing education.

Georgia

The State of Georgia as such finances no program of scholarships.[3]

Georgia residents are exempt from "tuition" charges but are required to pay matriculation fees at State institutions. In its announcements for 1954–55 the university included an estimate that "the reasonably necessary annual expenses of a (Georgia resident) student at the university vary from $750 to $850." This estimate "does not include travel, clothing, and incidental expenses."

Announcements of the Georgia Institute of Technology for 1955–56 contain an estimate of expenses amounting to $1,192.50 for a Georgia resident student for the academic year.

According to the director of the division of instruction, Georgia State Department of Education, it has not been possible in that State—

> to recruit for teacher education many competent people who are kept out of the profession because they are unable to pay for college training.

Hawaii

An appropriation by the Territorial legislature provides 12 scholarships worth $120 a year each for freshmen entering the University of Hawaii. Two of these scholarships are awarded residents of each representative district in Hawaii. The scholarship is held for 4 years, provided the beneficiary maintains a satisfactory record of work at the University.

Students registered for 12 or more credit hours in any semester at the university pay $100 for tuition and $10 for registration per semester.

The university estimates minimum expenses of the average student at from $800 to $1,200 a year. The estimate does not include the cost of clothing, laundry, transportation, and other personal items.

Idaho

Idaho has no State-financed system of scholarships.[4]

There is no "tuition" charge for students in public institutions of higher education in Idaho who are legal residents of Idaho; however, such students must pay a uniform schedule of fees in addition to living expenses.

The University of Idaho Guide for 1953–55 estimates the expenses of a student who is a resident of Idaho at from $580 to $725 "not including personal and incidental costs." The costs of clothing and travel apparently are not included. Nonresident students pay an additional charge for tuition of $150 for 2 semesters.

Illinois

The State of Illinois awards a limited number of scholarships for instruction of prospective teachers, and for veterans and children of veterans, besides 1 fee-exemption scholarship at the University of Illinois for each county and 1 for award by each member of the general assembly. In general, these scholarships are aimed at payment of tuition or other institutional fees without providing assistance for living expenses or other costs incidental to attendance at an educational institution.

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[3] Except certain grants to Negroes, explained earlier in this chapter.

[4] The University of Idaho has a fund of about $9,000 a year for scholarships and loans for teacher training. Awards to needy students are repayable in cash or by teaching in the State.

A description of the several scholarships follows.

(1) *Teacher training scholarships.*—There are awarded annually to each recognized 4-year, public, private, and parochial high school with an enrollment of fewer than 500 students, 3 scholarships; to each school with an enrollment of 500 to 1,000 students, inclusive, 4 scholarships; and to each such school with an enrollment of more than 1,000 students, 5 scholarships. Each scholarship entitles its holder to gratuitous instruction in any of the following institutions: Illinois State Normal University, Northern Illinois State Teachers College, Eastern Illinois State College, Western Illinois State College, and Southern Illinois University.

(2) *Scholarships to veterans.*—Any person who served in the Army, Navy, or Marine Corps of the United States, during World War I, not including members of the Students' Army Training Corps, or any time between September 16, 1940, and the termination of the national emergency proclaimed by the President of the United States of America on December 16, 1950, who, at the time of entering upon such service, was a resident of Illinois and who was honorably discharged from such service, and who possesses all necessary entrance requirements is eligible, except as otherwise provided, by statute, upon application and proper proof, to be awarded a scholarship to the Illinois State Normal University, the Northern Illinois State Teachers College, the Eastern Illinois State College, the Western Illinois State College, or the Southern Illinois University or the University of Illinois. These scholarships are valid for 4 years of gratuitous instruction. However, no veteran may use this scholarship during any period in which he is receiving financial assistance for educational purposes from the Federal Government.

(3) *Children of deceased veterans.*—Children of servicemen who were killed in action or who died during World War I, World War II, or the conflict between June 25, 1950, and the date of termination of the national emergency proclaimed December 16, 1950, or who died from a service-connected disability, are eligible for educational assistance. Such eligible children may receive $150 annually from age 14 until 22 years of age, while they are attending a secondary school of college in Illinois. Children must have 1 year of domicile in the State of Illinois prior to application. In addition to the cash benefit, such children may be admitted to tax-supported institutions of higher learning free of tuition.

(4) *County scholarships for children of veterans.*—University of Illinois. Each county is entitled annually to 1 honorary scholarship in the university for each period of war service (generally 3 available to each county). This scholarship is designed for the benefit of the children of persons who served in the Armed Forces of the United States during the Civil War, World War I, and World War II, or who served between June 25, 1950, and the termination of the national emergency proclaimed December 16, 1950. Preference is given to children of such persons as are deceased or disabled. The trustees of the university may from time to time add to the number of honorary scholarships when, in their judgment, such additions will not embarrass the finances of the university. These scholarships cover tuition and incidental fees and are granted upon public examination conducted by the board of trustees of the university to children not less than 15 years of age.

(5) *County competitive scholarships.*—University of Illinois. Each county of the State of Illinois is permitted to award annually one scholarship determined by competitive examination. These scholarships are awarded only to individuals who are at least 16 years of age and are residents of the county and have never attended any college. The scholarships pay for tuition and incidental fees. Each county may also receive a 4-year scholarship in agriculture and home economics. Such scholarships entitle the holder thereof to gratuitous instruction for a period of 4 years.

(6) *General assembly scholarships.*—University of Illinois. Each member of the general assembly may nominate annually 1 person of school age, who is otherwise eligible, for a scholarship to the University of Illinois for a period of 4 years. A member of the general assembly may determine his selection by competitive examination or otherwise.

In 1954, the University of Illinois estimated expenses for two semesters for students, residents of Illinois, at $954 "minimum" and $1,144 "moderate." The estimates did not include expenses for such items as clothing, transportation, and recreation.

Indiana

The State of Indiana provides no scholarships except those making available to a limited number of high school graduates free instruction at the four State institutions of higher education. At least two of these scholarships are available for each county at each of the State institutions. The scholarships are competitive awards based upon high-school scholastic records. The scholarships provide only exemption from payment of certain registration and tuition charges. Children of certain veterans are exempt from payment of fees at the university.

Iowa

The only program of financial aid to individual students financed by the State of Iowa as such is that provided for a limited number of children of veterans.

For the Iowa soldiers' bonus board there has been appropriated from the general fund of the State for each year of the biennium beginning July 1, 1955, and ending June 30, 1957, the sum of $8,000 or so much thereof "as may be necessary" to be used for the purpose of—

> administration and aiding in the education of children of honorably discharged soldiers, sailors, marines, nurses, or other component part of the military forces of this State or Nation.

The State colleges offer a few fee reductions to students who find it impossible to continue school without financial assistance. Certain requirements must be met for eligibility for this aid.

Kansas

The State of Kansas finances no scholarship program.

The University of Kansas general information bulletin for 1954–55 lists matriculation, incidental, health and student union fees totaling $155 for first year students who are residents of Kansas—the total for nonresidents being $315 for the year.

The cost to the student for board and room, clothing, books and supplies, travel and other personal expenses are additional.

Kentucky

The Department of Education of the Commonwealth of Kentucky finances no scholarships. The State government, however, provides a limited number of scholarships through the department of highways and other departments of the State government.

The University of Kentucky estimates the minimum expense for a Kentucky resident student at that institution at $850 for an academic year of 2 semesters. Clothing and transportation expenses are not listed in the itemized estimate but "incidentals" amounting to $100 a year are included.

Louisiana

The State of Louisiana finances several forms of financial aid up to $400 a year for selected individual students to attend State institutions of higher learning. None of these programs includes aid to students for attendance at institutions under private control.

(1) *Legislative scholarships.*—Act 172 of the 1954 session of the Louisiana State Legislature appropriated, out of the general fund, $359,400 for the fiscal year of 1954–55, and the same amount for the fiscal year 1955–56, to be used for student aid scholarships in State-supported institutions of higher education.

This amount is allotted for payments of the accounts of students appointed to scholarships by members of the legislature and by the Governor. At the beginning of each fiscal year the following amounts are set aside for such appointments: $24,000 for each member of the legislature and $17,000 for the Governor. No student may receive more than the aggregate sum of $300 for the 9-month session through legislative scholarships. Amounts intended for either direct aid payment or payment of any part of a student's expenses, paid to any of the State-supported institutions of higher education for the accounts of students thus appointed shall be disbursed by such institutions, at their own discretion, according to the needs of the student. The appropriated funds are distributed among the colleges in amounts determined by the number of the beneficiary students enrolled in each college.

(2) *Thomas H. Harris scholarships.*—Act 499 of the 1948 session re-created the Thomas H. Harris Scholarship Foundation and the 1954 legislature allocated the $33,000 appropriated annually for the biennium to the 10 State-supported educational institutions. This fund is administered by a board of trustees of five members, appointed by the Governor, and the State superintendent of education, who serves as ex officio secretary-treasurer.

The board sets the policy with respect to high scholastic standards to be met by scholarship beneficiaries, their economic needs, and has limited the grant to a maximum of $300 per year, to be issued in payment for instructional and living expenses.

The purpose of this foundation is to grant scholarships to young people of acute mind, pleasing personality, good character, ambitious purpose, and positive qualities of leadership.

(3) *Legislative fee exemption scholarship.*—Act 321 of the 1950 session of the legislature amended Act 380 of the 1946 session by authorizing the State-supported educational institutions of higher learning to award annually scholarships covering scholastic expenses up to $100 per annum, of which 4 are intended for appointment by the lieutenant governor, and 4 by each senator and representative.

Thus, the lieutenant governor and each State senator and representative is entitled to award annually 4 scholarships at each of the 11 State-supported institutions of higher learning to bona fide citizens and residents of the State for more than 2 years prior to their selection, for a period of 4 years, or until such students have graduated. This scholarship entitles the recipient to an elimination of all scholastic expenses up to $100 per annum and is valid regardless of additional aid or other form of scholarship, provided that the recipient complies with all the requirements of the institution and maintains a passing grade.

(4) *High school scholarships.*—This type of scholarship is provided by the Louisiana State Board of Education and the board of supervisors of Louisiana State University.

It varies at the different colleges under the State board of education; its value is approximately $25, and at Louisiana State University it is worth about $30. Such scholarship is given annually to a graduate in the upper third of every graduating class of 25 or less in the State, and a greater number to the larger high schools. A student must be in the upper third of his class to be awarded this scholarship.

(5) *Louisiana State University student honor award.*—A limited number of honor awards valued at $270 per year are given to students in the colleges of the university who have completed with high academic records enough work in their freshman year to be eligible for admission to a senior college. The award requires no performance of work or services and shall be made in 9 monthly installments of $30 each. The holders of these honor awards must make a B average in all work scheduled each semester, or the awards will be canceled without privilege of renewal. The award shall be made by the committee on student employment and scholarships upon recommendation of the deans of the respective colleges, who shall certify that the sophomores to receive scholarships have at least a B average in work completed in their freshman year and that they posses other characteristics deemed necessary for satisfactory performance in the college to which they are admitted.

(6) *Parish loan fund.*—Act 394 of the 1948 legislature amends a portion of Act 17 of the 1942 session (which legislature enacted Acts 17, 18, and 19 creating a parish loan fund for high-school graduates) and makes provision for appropriating money by the school board and the police jury. The act also amends Act 19, which provided that the amount appropriated for the Thomas H. Harris Scholarship Foundation would be prorated among the different parishes.

Act 394 provides that no individual will be permitted to borrow in excess of $400 in any 12-month period. Rules and regulations regarding such loans are to be established by the parish loan committee, composed of members of the parish school board and the police jury.

(7) *Other student aids.*—Ministerial, band and orchestra, and certain other scholarships exempt the recipients from payment of certain fees at the university.

Maine

The State of Maine provides a number of scholarships in amounts not exceeding $200 a year for students who are preparing for teaching and are enrolled in any of the State teachers colleges and normal schools. The scholarships are awarded to young men and women on

the basis of need, general worth, professional promise as potential teachers, and demonstrated willingness and ability to earn toward meeting their expenses. Orphans of veterans may obtain State scholarships worth $150 a year each.

At the University of Maine tuition for regular students who are residents of the State is $265 for the academic year. Additional fees bring the total cost for instruction to $316 for these students. All living expenses are additional.

Maryland

The State of Maryland provides financial aid to a number of essentially private institutions of higher education which in return make scholarships available according to conditions set forth in the State laws. These institutions and the number of scholarships and amounts appropriated therefor are as follows:

Name of college or university	Number of tuition scholarships	Number of full scholarships	Amount appropriated, 1955–56
Johns Hopkins University	121	29	$198,750
Maryland Institute	29	----------	21,500
St. John's College	29	29	75,000
Washington College	79	38	95,000
Western Maryland College	28	58	95,000
Hood College	26	58	47,500
Total	312	212	532,750

Most of these scholarships are awarded by State senators or members of the house of delegates after competitive examinations have been given to prospective applicants.

The five State teachers colleges exempt from all tuition Maryland students who sign a pledge to teach 2 or more years in the State. The colleges are: Frostburg State Teachers College, Towson State Teachers College, Salisbury State Teachers College, Coppin State Teachers College, Bowie State Teachers College.

Morgan State College, which heretofore has been primarily a Negro college, has a scholarship fund of approximately $50,000 annually which is administered to needy students. A similar program exists for the University of Maryland amounting to $106,000. Tuition and fixed fees for Maryland students at Morgan State College are $149 per year. At the university fixed charges or tuition of $236 is payable by Maryland students.

Massachusetts

The Commonwealth of Massachusetts provides financial aid for the higher education of children of certain deceased veterans, and for a very limited number of students at the University of Massachusetts and at the State teachers colleges, as follows:

Chapter 69, section 7B, of Massachusetts law provides for reimbursement toward the higher education, in an amount not to exceed $750 for a period of not more than 4 years, of any child resident of the Commonwealth of Massachusetts who has matriculated between the ages of 16 and 24, inclusive, whose father or mother was a World War I or II or Korean veteran, whose service was credited to Massachusetts and who was killed in action or died as a result of such service.

Section 5 of chapter 73 of the general laws provides that the department of education may expend annually, in semi-annual payments, not more than $6,000 in aiding students in the State teachers colleges.

The University of Massachusetts has statutory authority to grant 25 scholarships worth $250 each which may be renewed annually during the 4 years of college. These scholarships are known as "Commonwealth scholarships."

Michigan

The State of Michigan annually provides 1,000 tuition-exemption scholarships for prospective teachers in Michigan schools. Recipients must pay institutional fees other than tuition, plus their living expenses. The scholarships are administered by the scholarship committee of the State board of education and are distributed among the four State colleges of education. Standards of eligibility of Michigan high-school graduates for these scholarships include intention of entering the teaching profession, financial need, and superior scholastic standing in high school.

Under the provision of Act 245, Public Acts of Michigan, 1935, the State board of education admits to the colleges under its jurisdiction children not under 16 and not over 22 years of age of deceased or disabled soldiers, sailors, or marines. The children admitted to colleges under this act are not required to pay any matriculation or athletic fees or tuition.

The various public as well as nonpublic colleges in the State have individual scholarship and student loan arrangements.

Minnesota

The State of Minnesota provides a limited number of scholarships for Indian students and for student nurses. In addition, certain State-financed scholarships are available for attendance at the University of Minnesota, which charges tuition and other fees.

An act of the 1955 legislature established scholarships for Indian students in approved colleges and business or vocational schools and appropriated $5,000 for this purpose for the first year. The act also provided $75,000 a year for student nurses' scholarships.

The general information bulletin of the University of Minnesota for 1955–56 contains an estimate of average expenses of Minnesota residents attending that institution ranging from about $1,000 to $1,500 per academic year—fall, winter, and spring quarters. This estimate "does not take into account laundry and clothing expense, nor any cost for such items as recreation, travel, and other incidentals."

Mississippi

The State of Mississippi provides financial aid to students in the fields of medicine and nursing.

In 1946 the Legislature of Mississippi passed an act establishing a State medical education board, and gave it authority to grant to applicants deemed worthy and well qualified a loan or scholarship for the purpose of pursuing courses in medical education, under the terms prescribed by the enabling act. The appropriation expiring on June 30, 1956, is $500,000 for the support of this program. Loans made under the provisions of this act must be repaid to the State in cash with interest or in service rendered by the beneficiary by practicing medicine at some place within the State approved by the State medical education board.

The State legislature provided an appropriation for the biennium ending June 30, 1956, for $58,500 to the board of trustees of the State institutions of higher learning to be expended for scholarships in nursing education.

Missouri

The State of Missouri has no State scholarship plan for students attending colleges and universities. However, the seven State colleges and universities award a few scholarships each year to high ranking high-school graduates. For the most part, these scholarships cover registration fees for two semesters. Thus the scholarships are for small amounts only and do not give the students assistance with board and room and other costs.

The University of Missouri provides from State funds a few scholarships at the graduate level. These scholarships cover only registration fees for two semesters.

Montana

The State of Montana awards a limited number of scholarships exempting the holders from payment of registration and incidental fees at State institutions, and other financial aids to a few students, as follows:

(1) *At Montana State University.*—The principal of each fully accredited high school in the State may name from each year's graduating class one for each 25 graduates or major fraction thereof, depending on the size of the class, to be recipients of high-school honor scholarships. These scholarships exempt the holders from the payment of the registration fee and the incidental fee at the university.

Six scholarships of $75 each (the cost of music tuition for 1 year) are awarded annually to students of sophomore, junior, or senior standing on the basis of their past records in the school of music at Montana State University and the faculty's estimate of their future success in music.

The music school foundation makes a grant of $500 to a graduate of the school of music for advanced study in a graduate music school of the student's choice in the field of violin or cello, provided the student returns to the State to render professional service.

Montana State University is authorized to award to 5 percent of the students in regular attendance above the freshman year, scholarships exempting the holders from payment of the registration and incidental fees during three quarters of the following college year.

(2) *At Montana State College.*—The State board of education awards high-school honor scholarships to students with outstanding high-school records. The scholarships exempt students from the registration and incidental fee, amounting to $60 during the freshman year.

During the annual high-school week, several cash scholarships to be used for necessary expenses while in attendance at Montana State College are awarded outstanding winners of the scholarship events.

Each unit of the University of Montana is authorized to award students already in attendance therein, scholarships exempting the holders from the payment of the registration and the incidental fees for the following year on the basis of demonstrated scholarship, character, and promise. The number of such scholarships may not exceed 5 percent of the students enrolled in the classes above the freshman year.

Three teaching fellowships are available. One-half of the time is to be devoted to teaching, the other half to graduate study. One is in bacteriology at $1,000 per academic year, one in botany at $1,000 per academic year, and one in engineering physics at $500 the first year and $600 the second.

(3) *At other institutions.*—High-school honor scholarships and advanced honor scholarships, already described, are offered also at the Eastern Montana College of Education, Western Montana College of Education, Northern Montana College, and the Montana School of Mines.

Nebraska

The regents of the University of Nebraska and the board of education of State normal schools make available a limited number of scholarships for graduates of Nebraska high schools to attend the University of Nebraska and the State normal schools. The scholarships cover a part of the cost of tuition and/or fees at the University for the freshman year only, and at the normal schools for eight semesters. Further information concerning these scholarships follows.

The regents of the University of Nebraska provide, annually, 250 scholarships for freshmen entering the university, who have graduated from Nebraska high schools. Each accredited Nebraska high school may enter any students in the upper fourth of the graduating class. Each school is allowed at least two contestants even though this number may constitute more than the upper fourth of the graduating class in small schools.

The basis of choosing regents' scholars is as follows: Students are ranked according to scores made in the tests required of all competitors. From these, the highest-ranking person in each school, down to and including the first 250 schools, is designated as a winner. Thereafter, the awards are given to high-scoring students, the number of "alternates" in any one school being proportionate to the total number of its graduates.

If the winner is unable to accept the scholarship the highest alternate in the State is then eligible for consideration. The scholarship is worth up to $120 and is valid for both the first and second semesters of the freshman year, provided the recipient maintains a satisfactory scholastic record in the university.

To one student of good moral character graduating from each accredited 4-year high school in Nebraska, holding rank in the highest 25 percent of the graduating class, there is awarded a scholarship to any one of the normal schools in the State. The selection of the student is left to the discretion of the superintendent or principal of the high school and the board of education of the high school.

Scholarships have a maximum value of $240 which is allowable in amounts not to exceed $30 each semester for not more than 8 semesters and/or the sum of not more than $17.50 may be applied toward fees for each term of summer school.

Nevada

The State of Nevada as such finances no scholarships, loans, or similar financial aids for students. At the University of Nevada, the State's only institution of higher education, tuition is free to Nevada residents, who are required to pay however, a consolidated fee, and

fees for special purposes. The consolidated fee amounts to $130 for undergraduate and $100 for graduate students per academic year of 2 semesters. Nonresidents pay a tuition charge of $135 a semester.

Certain scholarships are available to students through provisions made by the board of regents of the university.

The 1955–56 catalog of the university contains an estimate of expenses for an undergraduate student, who is a resident of Nevada, ranging from $832 to $1,150 per academic year of 2 semesters—not including "such items of expenses as clothing, travel, and personal incidentals."

New Hampshire

The State of New Hampshire grants limited tuition-exemption scholarships to children of certain deceased veterans; the trustees of the university award 250 tuition grants annually; and the teachers' colleges award scholarships of varying value to a limited number of students, as follows:

New Hampshire Laws of 1943, chapter 35, as amended by laws of 1951, chapter 220, appropriate money to be used for the sole purpose of contributing to the payment of board, room rent, books and supplies, at institutions of secondary or college grade, of children between the ages of 16 and 25 years, who are legal residents of the State at the time of application, whose fathers or mothers were enlisted or inducted from the State of New Hampshire, and served in the Army, Navy, or Marine Corps of the United States from April 6, 1917, to July 2, 1921, or during World War II or the Korean conflict and who have since died from service-connected disabilities so rated by the Federal Government. Such children are admitted to State institutions of secondary or college grade free of tuition.

The sum of $2,700 is appropriated annually for carrying out the provisions of this law. Not more than $250 can be paid for any 1 child for any 1 year. No individual is eligible to receive the benefits provided for a period of more than 4 years. The act is administered by the State board of education.

The trustees of the University of New Hampshire, in order to enable some students to attend the university who would be unable to do so without financial assistance, award 250 tuition grants annually to residents of New Hampshire who have attended college for less than 2 semesters. Each tuition grant pays $75 per year and is good for 1 year only.

By legislative action in 1953, the teachers colleges in New Hampshire have a scholarship program which permits grants of various sums to New Hampshire students who meet the following qualifications: (1) Must show financial need; (2) must have a good high-school scholastic standing; (3) must possess leadership qualities; (4) must promise to teach 1 year for each year scholarship aid is received in New Hampshire. These grants usually range between $50 and $300 per year.

New Jersey

Each year the New Jersey State Legislature appropriates funds for use in granting tuition scholarships to students enrolled at Rutgers University and at Douglass College (formerly New Jersey College for Women). For the year ending June 30, 1956, the appropriations are as follows: Rutgers University, $260,000; Douglass College, $140,000.

The scholarships are awarded on the basis of ability and financial need. They cover tuition and registration fees. All students are subject to certain other fees besides living expenses.

By legislative enactment in 1937, the State teachers' colleges in New Jersey are authorized to exempt 10 percent of the students enrolled from the payment of tuition, which amounts to $100 per academic year. These scholarships are restricted to those who are in financial need. They are awarded on the basis of a competitive examination. In addition, these colleges are authorized to provide work "scholarships" for a maximum of 25 percent of the students enrolled. These work scholarships enable students to earn part or all of their tuition.

New Mexico

The State of New Mexico as such finances no program of financial aid to students for attendance at colleges and universities, except that for the benefit of children of certain deceased veterans, as follows:

The New Mexico Legislature makes an annual appropriation for the purpose of providing matriculation fees, board, room, rent, and supplies for the benefit of children aged 16 to 22 inclusive, of World War I or World War II veterans who died as a result of service-connected disabilities. Not more than $300 in addition to free tuition may be paid for any 1 child for any 1 year.

Generally State residents as well as nonresidents pay tuition and fees at State institutions of higher education, in addition to living expenses.

State institutions have authority to grant a limited number of tuition-reduction scholarships to residents of New Mexico. Awards are made on the basis of financial need, superior academic achievement in high school, and other factors.

New York

Information concerning State financial assistance to individual students in higher education in New York has already been given in this chapter under the heading "Analysis of the Largest State Scholarship Program."

North Carolina

The State of North Carolina finances no scholarships except for children of certain deceased or disabled veterans. The State finances also a program permitting an indefinite number of loans for students of medicine, dentistry, pharmacy, and nursing. According to an act of the 1953 general assembly these allow $1,200 for medical and dental students for 4 years, $800 for pharmacy for 4 years, and varied amounts for nursing education for 3 years.

Tuition and/or fees charged at State institutions are not uniform but are substantial at all public as well as at private colleges and universities in the State.

The State provides an unlimited number of scholarships for children of war veterans killed in service or who died as a result of service-connected wounds or disabilities; 15 scholarships for children of veterans rated 100 percent disabled; and 10 scholarships for children of veterans having service-connected wartime disability of 30 percent or more. The scholarships are tenable for 4 years and provide free tuition, room, board, and all necessary fees required of students and

furnished by the State educational institutions at which the student has matriculated.

North Dakota

North Dakota provides a limited number of scholarships for qualified residents of the State to prepare for one-room rural school teaching.

The law grants to each county 6 scholarships having a value of $300 each. The scholarships may be used at any one of the State teachers colleges in North Dakota. The winner of a scholarship may make his or her own selection of one of these institutions.

The county superintendent of schools certifies to the State superintendent of public instruction the names of 6 candidates and 6 alternates for scholarships from his county. The State board of education makes the final selection of scholarship recipients.

In selecting candidates for scholarships, consideration is given to (1) vocational adaptability for teaching, (2) health, (3) character, (4) personal-social characteristics, (5) history of rural experience, (6) capacity and willingness to make a success of college privileges, and (7) willingness to teach in a rural school.

Each recipient of a scholarship must sign and execute a note to the State treasurer for the amount of the scholarship. If the recipient, before these notes become due, has satisfactorily completed a legal school term of teaching in a one-room rural school, the notes and accrued interest thereon are canceled.

Tuition and fees charged at State-supported institutions of higher education in North Dakota are generally lower than those charged at State-supported institutions in some other States.

According to estimates contained in announcements of the University of North Dakota for 1955–56, student expenses at that institution for a North Dakota resident range from $703.50 to $834.50 for a 9 months' college year, not counting the cost of travel and clothing.

Ohio

An act of the Ohio General Assembly initiated in the fiscal year 1953–54 the Ohio Scholarship fund to relieve the elementary teacher shortage in public schools of the State. The fund has been replenished by subsequent appropriations. It provides 495 scholarship loans available annually. The scholarship loans are allocated among the 88 counties in Ohio.

Each scholarship for a teacher trainee has a maximum value of $500 a year. Recipients of payments from the scholarship fund sign notes, endorsed by a responsible citizen, for the amounts received. Death, total disability, or service as a teacher in the public schools of Ohio for the time required by law relieves the scholarship recipient and the endorser of the note from repayment.

The superintendent of public instruction prescribes the standards and requirements for eligibility for a scholarship loan.

As a further incentive to increase the supply of elementary teachers, the 6 State universities each year grant about 400 additional scholarships which remit all fees. The scholarship recipients must, however, bear their expenses for board, room, clothing, books, transportation and incidentals.

The State universities of Ohio do not charge "tuition" as such, but have a schedule of other fees. The total cost of education at a State university approaches the cost of attending a private institution in Ohio.

Oklahoma

In 1947 the Oklahoma State Legislature provided that:

> A system of student scholarships in each State-owned institution of higher education shall be authorized by the Oklahoma State regents for higher education to be administered by the governing board of control of the institution.

Accordingly the State regents have authorized each constituent institution of the State system to use one-half of 1 percent of the previous year's educational and general budget for scholarship purposes.

According to the chancellor of the Oklahoma State Regents for Higher Education:

> Federal scholarships would certainly be welcome in Oklahoma, assuming that sound details of administration for these can be agreed upon. There is no question whatever as to the need.

Oregon

For the most part, State financial aid to students in Oregon takes the form of legislative scholarships in which the State board of higher education is permitted to remit all or parts of tuition and fees. The following are the three types of legislative scholarships which the board has legal authority to award:

(1) A fee scholarship to 2 percent of the enrollment of each of the several institutions under the control of the State board of higher education. These scholarships remit all general and laboratory fees but do not remit such fees as health service, gymnasium-suit service, and student activities fees. These scholarships are awarded on the basis of the need and scholarship of student. They are restricted to State residents.

(2) Fee scholarships amounting to all fees for students at the colleges of education who plan to prepare themselves to teach in the elementary schools. The board is permitted by law to award up to 10 percent of the current enrollment at each of the 3 colleges of education. The basis of award is need and ability. The scholarships are restricted to State residents.

(3) Under legislative sanction, the board is permitted to award both in-State and out-of-State fee scholarships to foreign students and to students from Hawaii and Alaska. The basis of award is need and ability. Awards of 1956–57 foreign scholarships, to new holders, are to be limited to one-half of the number awarded for 1955–56.

Pennsylvania

The Pennsylvania Department of Public Instruction annually awards 80 scholarships valued at $100 each to graduates of Pennsylvania approved high schools on the basis of competitive examinations. These scholarships are known as State scholarships. The department of public instruction has established regulations for the conduct of the competitive examinations for the scholarships.

In addition each State senator has the privilege of awarding 3 tuition-exemption scholarships annually in each of the 4 State-aided universities (12 scholarships per year for each senator), University of Pennsylvania, Temple University, University of Pittsburgh, and the Pennsylvania State University. The value of the scholarship is the amount of tuition in the university attended.

Rhode Island

Rhode Island provides financial assistance to persons preparing to teach and to certain other students as follows:

The State appropriates for tuition of students each year $25,000 in the Rhode Island School of Design, $15,000 to Bryant College for training teachers of commercial subjects, and $5,000 to Rhode Island College of Pharmacy. The State also gives $25,000 a year for extension courses in education for teachers in service, and also for those preparing to be teachers, at Brown University and Providence College. These institutions are all under private or church control.

There is no tuition charge for residents of Rhode Island at the University of Rhode Island or at the Rhode Island College of Education. At both institutions, however, all students must pay a fee—$200 per academic year of 2 semesters at the university and $25 at the College of Education, besides living expenses.

The State appropriates $5,000 a year to the State department of education to provide scholarships for preparation for the teaching of handicapped children.

South Carolina

The State of South Carolina provides free tuition at State institutions for orphans of South Carolina veterans of World War I and II and for children of totally disabled South Carolina veterans. It also provides scholarships of $150 per year for orphans of South Carolina veterans killed in service or who died from a service-connected disability of World War I and II. The State finances a number of scholarships for training in medicine, pharmacy, et cetera, at the medical college at Charleston and the State College for Negroes at Orangeburg.

State-supported institutions of higher education in South Carolina charge other students tuition and/or fees. As in other States, tuition charges are higher for out-of-State residents.

South Dakota

There are two appropriations by the State of South Dakota for financial aid to students attending colleges and universities. One is a $40,000 biennial appropriation for the purpose of paying tuition of veterans and children of deceased veterans at State educational institutions under the control and management of the State board of regents. The second is an appropriation of $15,000 for the biennium for tuition for Indian students. The State board of regents also administers this fund.

State as well as privately controlled institutions in South Dakota make varying charges for tuition besides other fees. Tuition charges are higher for out-of-State residents.

Tennessee

Tennessee does not have a scholarship program for higher education which is supported by a State appropriation. State-supported institutions do not charge tuition to residents of the State but charge certain fees to all students. In some cases remission of specific fees is made to needy students.

According to estimates contained in the 1955–56 announcements of the University of Tennessee, necessary expenses for Tennessee students at that institution range from $949 to $1,074, not including expenses for travel, clothing, and incidentals.

Texas

The State of Texas finances no program of general scholarships. The highest ranking graduate of each accredited high school is eligible for admission to State-supported institutions without payment of the tuition or other fees, according to the terms used in the particular institutions.

The State also provides tuition exemption for about 200 foreign students.

Utah

The State of Utah, under the administration of the State department of public instruction, provides scholarships covering tuition, books, and supplies at any State-supported college to State residents who are unremarried widows or children of persons who died as a result of service in the United States Armed Forces during World War II.

One hundred normal school scholarships, entitling the holder to an abatement of $100 a year from tuition fees for each year of study, are maintained in the department of education of the university. These scholarships are offered to persons who are preparing to teach in the public schools of the State. Each county and city school district is entitled to at least 1 scholarship every 3 years.

Vermont

The State of Vermont finances a limited number of tuition-reducing awards, and scholarships for prospective teachers, as follows:

Each State senator is authorized by law to award 10 tuition-reducing scholarships a year in the amount of $200 each to qualified and needy applicants who are residents of Vermont. The amount of the scholarship is applicable to the partial payment of tuition of the holder at any senior college or university in Vermont which is a member of the New England Association of Colleges and Secondary Schools, with the exception of Norwich University and the University of Vermont.

Acts of the State legislature in 1955 provided for a reduction of tuition charges at the University of Vermont to not more than $345 per academic year, and provided for a minimum of 200 scholarships worth $200 each to be awarded selected students at Norwich University.

The State department of education has an appropriation of $30,000 to be used for grants-in-aid of $180 each for deserving students who are preparing to become teachers. Tuition is free to Vermont students at the three teachers colleges, but the student must pay certain fees at these institutions besides living expenses.

Virginia

The State of Virginia provides a limited number of scholarships principally for prospective teachers and teachers in service and for medical students, as follows:

An appropriation of about $400,000 is available to maintain regular term and summer school scholarship-loans for prospective and experienced teachers. The program finances about 800 regular term scholarship-loans worth $400 for each of the freshman and sophomore years and $300 for each of the junior and senior years. The scholarship-loans permit attendance at either State or privately supported institutions. The loans can be canceled by teaching in the public schools of Virginia for specified periods after graduating.

The State has authorized medical scholarship-loans of $100 per year each for medical students who may cancel these loans by practicing medicine in rural communities after graduation. In addition, the State Board of Health is authorized to offer for each of the 10 congressional districts 6 annual scholarships of $150 each.

Special State scholarships covering board and tuition are available at Virginia Military Institute. The beneficiaries, called State cadets, are selected by the institution, 1 from each of the 40 State senatorial districts and 11 at large from the State. Acceptance of the scholarship commits the beneficiary to perform 2 years of service to the State either as a public-school teacher, highway engineer, or enlistee in the National Guard.

For several years the State colleges have been authorized to utilize 25 percent of accumulated State scholarship-loan funds for unrestricted scholarships of from $300 to $500 each.

In a letter to the Legislative Reference Service of the Library of Congress dated June 21, 1955, the Virginia Superintendent of Public Instruction stated that: "Studies have shown that in Virginia many young men and women whose high-school record is excellent are prevented from attending college because of economic status."

Washington

The State of Washington has no general scholarship program. It provides, however, aid for tuition and materials for the higher education of children of deceased war veterans. The State also annually awards a scholarship to one outstanding Indian student graduating from high school and provides grants-in-aid for blind students.

The University of Washington and Washington State College have authority to grant a limited number of scholarships to students from friendly foreign countries, provided that educational institutions in those countries offer reciprocal scholarships to students or graduates of the University of Washington and Washington State College.

At the State colleges of education tuition is free but students pay certain fees, amounting to less than $150 a year, plus living expenses.

West Virginia

West Virginia, through the State Board of Education, finances the following scholarships remitting certain fees in the estimated amount as follows: (1) American Legion oratorical contest winners—12 scholarships remitting tuition, $50 each per year; (2) Veteran of Foreign Wars essay contest winners—12 scholarships remitting tuition, $50 each per year; (3) elementary teaching scholarships—40 scholarships remitting tuition and all fees, $80 per year; and (4) West Virginia Academy of Science scholarships—5 scholarships remitting tuition, $50 each per year. When in full effect, the total of these scholarships will be 69 each year.

State institutions of higher education in West Virginia charge tuition and/or fees. Tuition charges are higher to out-of-State residents.

Wisconsin

State law authorizes a limited number of fee-exemption scholarships in Wisconsin teachers' colleges and in the State university. The board of regents of normal schools and of the State university have authority to grant scholarships equivalent in value to the payment of

incidental fees to freshmen, who, during their high-school courses rank as follows: (1) First in scholarship in Wisconsin public high schools and private secondary schools enrolling less than 250 students, (2) first and second in scholarships in high schools enrolling 250 to 750 students, and (3) first, second, and third in schools enrolling 750 or more students. The law provides also for alternates next in line in case the eligible persons do not accept the scholarships. It gives the board of regents authority to grant scholarships to bona fide residents of the State, equivalent in value to the payment of incidental fees to freshmen, who during their high-school courses were good students and who are in financial need and possess qualifications of leadership. The number of these scholarships available is limited to 15 percent of the previous year's freshman class at the State institutions. Scholarships may be granted in the same amount to those who are recommended and supervised by the rehabilitation division of the State board of vocational and adult education.

The regents of the university also have legal authority to remit nonresident tuition either in whole or in part to a number of needy and worthy nonresident students not exceeding 8 percent of the number of nonresident students registered in the preceding year, upon the basis of merit shown by suitable tests, examinations, or scholastic attainment. Each State senator and assemblyman may recommend the remittance of tuition of a nonresident who has scholastic qualifications entitling him to attend the university.

There is also a State loan fund which makes loans available to needy students. The fund is administered by the State Department of Public Welfare. A maximum loan of $200 a year for fees and tuition and $120 per semester ($240 a year) for maintenance may be made to a student. No interest is charged during attendance in college, but the loans bear interest at the rate of 4 percent from the date of last attendance and mature 2 years later.

Wyoming

The State of Wyoming and the board of trustees of the University of Wyoming provide a limited number of institutional fee-reducing scholarships for Wyoming residents. Student winners of these scholarships must pay for their room, board, clothing, transportation, and other needs.

Section 70–111 of the compiled Statutes of Wyoming for 1945–46 provides that county commissioners may designate 1 to 3 scholarship winners annually from their respective counties on a county quota basis. Scholarships are valid for 1 academic year or 2 semesters only, the benefits being $67.50 per semester. The registration fee at the university is $200 for an academic year of 2 semesters.

The board of trustees of the university provides honor scholarships for each accredited 4-year high school in the State. The number of awards for each high school is based on the size of the graduating class.

The 1955 legislature established scholarships to encourage greater enrollment in the college of education.

CHAPTER IX. STUDENT-AID PROGRAMS OF OTHER NATIONAL GOVERNMENTS

A. Introduction and Summary

In carrying out the request for a comprehensive study of the subject of this report, the writer investigated the student-aid programs of a number of countries in various parts of the world. The investigation has yielded considerable information which may be of value in the determination of legislative policy in the United States.

This chapter presents the principal findings from the study of the different national programs. The principal purpose of the chapter is to provide an additional aid to the informed consideration of bills pending in Congress. Undoubtedly in considering new proposals for Federal aid to students for higher education many Members will be interested in knowing what other countries are doing along these lines.

The investigation was limited by the time available, the difficulty of obtaining the necessary information in some cases, and other factors. A detailed discussion of these limitations and the reasons therefor would be of relatively minor interest and is therefore omitted here.

The information contained herein was obtained largely through correspondence and conferences with officials of the Embassies of the respective foreign countries in Washington, D. C. A few of the data were drawn from reference sources, such as the Year Book of Education (London, 1953), the World Survey of Education (UNESCO, 1955) and Study Abroad (UNESCO, 1954). Other facts were extracted from current publications of foreign governments. Additional sources are indicated in footnotes.

Following is a summary of significant findings from the study.

The national governments of all the countries included in this study provide direct or indirect financial aid to students for higher education. The types and scope of assistance vary widely. The aid is often direct.

In certain countries the central governments have established provisions for free education in the universities, and furnish additional financial aid to needy students.

Direct aid to individual students from central governments include scholarships, bursaries, loans, fellowships, and other allowances. Generally the loans allow long-term repayment after graduation, or repayment in service to the Government. In certain instances the loans do not begin bearing interest until after graduation of the student.

Most of the national governments have established provisions (1) to facilitate the higher education of a limited number of their own citizens abroad, and (2) to provide education for a limited number of foreign students through educational exchange arrangements with other countries.

Indirect assistance to native students is provided in certain countries in the form of payments by the central government to the institutions.

While in a majority of the countries higher education is administered principally by the central government, in others it is administered principally by the constituent state, provincial, or local governments and private bodies, similar to those in the United States.

Some observations concerning the programs of other countries which may be of special interest in relation to legislative proposals pending in the United States are the following:

In general, the Federal Government of Canada has programs somewhat similar to those of our own Federal Government giving direct aid to certain students for higher education principally in specified fields. However, although most of the colleges and universities in Canada are under Provincial or private control, the Federal Government of Canada makes grants-in-aid to these institutions by Province, on the basis of enrollment in the institutions as a ratio of the total Provincial population. This form of Federal aid amounted to $131.52 per student throughout the country in 1954–55. The United States Government has no such program.

The central government of the United Kingdom provides numerous scholarships and grants to students through its education departments for England and Wales, Scotland, and Northern Ireland. The central government also supplies a large proportion of the funds spent by local authorities on educational services of all kinds, including locally awarded scholarships and other student aids for higher education. Both the national and local-government awards are generally made on the basis of public examinations given all students wishing to attend a university.

The central government also contributes indirectly to the expenses of every university student by making grants to the universities to enable them to maintain their fees at a reasonable level. The United States Government has no program of this kind. (It does, however, contribute to the further endowment and support of the land-grant institutions, for the provision of higher education in certain specified subject fields).

The following statements summarize the student-aid programs of a few other countries in different parts of the world.

In Norway higher education is principally financed by the central government and is free to students except for nominal fees. The National Government also provides several forms of financial assistance to students for personal expenses. Outstanding among these aids is the state loan fund for interest-free loans under easy repayment terms.

The Government of the Federal Republic of Germany has established a number of types of aid to students including provisions for reduction of institutional fees, cash subsidies, free meals, health care, loans, and an employment program for students. The constituent States of the Federal Republic also provide university scholarships.

In efforts to make the right to higher education guaranteed to capable students by the Italian Constitution a reality, the National Government of Italy has made large-scale provisions for financial aid to students. In numerous cases the Government-supported universi-

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ties refund tuition payments in whole or in part. The National Government also finances thousands of scholarships and fellowships for native and foreign students.

Aid to students for higher education provided by the National Government of Turkey consists of: (1) Scholarships for Turkish citizens, especially for study for the teaching profession; (2) outright financial aid to Turkish students in need of it, and (3) scholarships and financial aid to non-Turkish citizens and Turkish refugees from other countries.

The Australian National Government finances and administers a Commonwealth scholarship scheme for Australian residents, a training scheme for ex-members of the armed forces, a Colombo plan technical cooperation scheme, and a southeast Asian fellowship and scholarship scheme. Each of these provides payment of institutional fees, and living allowances for the assisted students.

The National Government of Argentina provides free university education for qualified students. Most of the young people who attend universities live nearby with their families and thus avoid problems of obtaining room and board.

B. English Speaking Countries

1. AUSTRALIA

The Australian National Government provides financial assistance to individuals for higher education under the following schemes:

1. Commonwealth scholarship scheme (Australian residents).
2. Training schemes for ex-members of the armed forces—Commonwealth Reconstruction Training Scheme; Disabled Members' and War Widows' Training Scheme, Korea and Malaya Training Scheme;
3. Colombo plan, technical cooperation scheme (nationals of south and southeast Asian countries who will return to their own countries on completion of training);
4. Southeast Asian fellowship and scholarship schemes (nationals of south and southeast Asian countries and inhabitants of islands in the South Pacific who will return to their own countries on completion of training).

Each of these schemes provides for the payment of all compulsory fees charged by the tertiary institution (university, technical college, or other approved institution) attended by the assisted student. In addition, provision is made for living allowances, and in some schemes for other special allowances.

a. The Commonwealth scholarship scheme.—This came into operation on January 1, 1951. It provides for the award of 3,000 scholarships each year, and these are allocated among the States on a population basis.

Most of the scholarships are open for competition among persons under 25 years of age who wish to commence courses at universities and other approved institutions in Australia. These scholarships are known as open entrance scholarships.

A small quota of scholarships is reserved for persons between the ages of 25 and 30 years. These scholarships are known as mature age scholarships.

Scholarships may also be awarded to students who have completed 1 or more years of an approved course. These scholarships are known as later year scholarships.

The courses approved under the scheme comprise (*a*) all first-degree courses at universities; (*b*) certain undergraduate diploma courses at universities; (*c*) certain diploma courses at technical schools; and (*d*) certain other professional courses.

The award of Commonwealth scholarships is made entirely on merit without regard to the means of an applicant's parents. In general, selection is based on the results obtained by the applicant at the examination qualifying for matriculation at one of the Australian universities.

Students awarded Commonwealth scholarships are entitled to the following benefits without any means test: Tuition fees, examination fees, matriculation fees, degree fees, and other compulsory fees such as union and sports fees and nonrefundable laboratory fees.

A scholar who undertakes his course on a full-time basis is also entitled to certain traveling allowances.

Scholars undertaking approved full-time courses on a full-time basis may apply for a living allowance, which is payable subject to a means test. The maximum living allowances are £169 [1] per annum in the case of a scholar living with his parents and £240.10.0 per annum in the case of a scholar living away from his parents. These maximum allowances are payable when the adjusted family income of the student's parents does not exceed £600. The adjusted family income is ascertained by taking the full income of the scholar's parents for the financial year immediately preceding the year in which living allowance is desired and deducting £100 for the first dependent child (other than the scholar) under 16 years of age and £50 for each other dependent child under 16 years of age. The maximum allowances are reduced at the rate of £3 for every £10 by which the adjusted family income exceeds £600.

b. The Commonwealth reconstruction training scheme.—In order to provide for the training of discharged members of the Armed Forces and other specified classes who were in need of training as a means of their reestablishment in civil life the Commonwealth Government of Australia, under part III of the Reestablishment and Employment Act, made provision for the Commonwealth reconstruction training scheme. The scheme came into operation on February 1, 1944.

Training may be undertaken in the professions or in vocational occupations (including rural occupations) and may be on a full-time or part-time basis.

Full-time trainees have their tuition fees paid in full by the Commonwealth. During training in a training institution (university, technical school, etc.) they receive living allowance, dependents' allowances, fares allowance, and living-away-from-home allowance, where applicable. Essential books and equipment (up to a limited value) are provided without cost to the trainee.

Part-time trainees do not receive allowances; their financial assistance is limited to a total expenditure of £60 to meet the cost of tuition fees, books, and the like in the case of trainees who commenced training

[1] The par value of the Australian pound in terms of United States dollars is 224 cents. (International Monetary Fund Schedule of Par Values, August 1, 1955.)

prior to January 1, 1951. Those who commenced training on or after January 1, 1951 may receive either assistance up to £75 or the cost of lecture fees if these alone exceed £75.

c. The disabled members and widows training scheme.—The Commonwealth reconstruction training scheme already referred to was designed for those who, on being discharged from the Armed Forces, required training to reestablish themselves in civil life. There were among the war-disabled, however, members whose state of health prevented them from considering training; there were also those who were able to resume their former occupations, but later, after the closing date of the C. R. T. S. developed disabilities that necessitated training for more suitable employment. To meet the needs of these two classes a separate scheme was introduced. The scheme also includes war widows, whose husbands' deaths occurred after the closing date of the C. R. T. S., or where the widows were unable to take advantage of the C. R. T. S. because of family responsibilities. The scheme came into operation on January 1, 1953.

d. The Korea/Malaya training scheme.—This scheme provides for the reestablishment of members of the forces who served overseas in connection with the Korea and Malaya operations and widows of members who died as a result of service in those operations. The assistance in general is similar to that provided under the Commonwealth reconstruction training scheme. The scheme came into operation on July 1, 1952.

e. The Colombo Plan—Technical cooperation scheme and Southeast Asian fellowship and scholarship schemes.—Under the first scheme, awards in Australia are made at three levels—scholar, junior fellow and senior fellow. The awards of fellow and scholar, which are made under the Southeast Asian fellowship and scholarship schemes, are equivalent to those of junior fellow and scholar respectively under the technical cooperation scheme.

In general, scholarships are awarded to those undertaking undergraduate courses, junior fellowships to students taking postgraduate courses or courses of practical training and observation, and senior fellowships to senior officials of the beneficiary countries desiring short courses of observation to learn something of new or advanced techniques in their particular fields.

The present rates of living allowances paid to award holders are: Scholar £460 per annum; junior fellow £640 per annum; senior fellow £800 per annum.

In addition, all students receive an initial clothing allowance of £20, which is increased to £40 if training is to extend into the winter months; all costs of travel in connection with training to and from Australia and within Australia are met, and all fees for tutors, including those for private tutorials in English (if required) or in the subjects of their courses of study, are paid. No special allowance is made for books, as provision was made for reasonable costs for books in determining the scales of living allowance. Medical (including dental) expenses were allowed for in the same way. However, if an awardholder has heavy medical expenses he may be assisted to meet them.

2. CANADA

The Federal Government of Canada provides various forms of direct and indirect financial aids to students for higher education, as follows:

a. Federal grants to universities, by Province.—With the exception of the 3 Canadian services colleges (mentioned later) the universities and colleges in Canada are under Provincial and private control. Since the 1951–52 session, however, the Federal Government has made grants-in-aid to universities and colleges, by Province. The grants are on the basis of total population in each Province, with distribution in each Province being made on the basis of eligible enrollment in its institutions as a ratio of the total Provincial population. Only full-time students in degree credit courses of university standard are counted as eligible students.

For the 1954–55 session these Federal grants amounted to $5,390,000 [2] or $131.52 per student.[3]

b. The Department of National Defense assistance to students.—The Department of Defense operates 3 Canadian services colleges and 2 junior Canadian services colleges which together impart to the students enrollees a full education in military tactics and related scientific subjects.

The reserve officer training plan of the Department of Defense is a scheme by which students who elect to serve in the Armed Forces for a specified length of time after graduation may receive college or university training with pay, the cost of tuition, board, uniforms, books, instruments and other essential fees being borne by the Department for the duration of the course. In addition the cadet receives $55 a month throughout his course. He is provided with free medical and dental care during the entire training period. Cadets at universities are given $65 a month subsistence allowance in lieu of room and board. Over 1,200 persons were assisted in this fashion in the 1954–55 academic year.

The Department also subsidizes medical and dental undergraduates at universities under an arrangement described as the 21-month medical and dental subsidization plan. Under this plan, a limited number of medical and dental students receive subsidies during their final 21 months of study prior to being licensed to practice. On selection for subsidization, these students are enrolled as subordinate officers and paid at the rate of $185 a month, plus subsistence allowance, while completing their studies. On graduation they are granted either a permanent or short-service commission.

c. Assistance under the Department of Labor Canadian Vocational Training Act.—In 1919 Federal assistance to vocational education was introduced, and although most of the grants were for education at the secondary level, in some cases certain branches of vocational training have been given through the facilities of the universities.

Dominion-Provincial bursaries for higher education were in force in 1954–55 in all Provinces except Quebec (which in 1954–55 had its own program of assistance). These bursaries are awarded to students

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[2] The free exchange rate of the Canadian dollar in terms of United States currency as of August 1955 was 101.502 cents. Federal Reserve Bulletin, September 1955, p. 1065.

[3] Institutions in the Province of Quebec were not in receipt of grants in 1954–55.

between the ages of 16 and 30 taking any degree course, other than theological, in any year, on the basis of academic merit plus financial need. They are confined to students who without this assistance could not enter on or continue their courses.

Awards vary from $25 to $800 among Provinces but in no Province is the average per student over $500. In some Provinces they are given as a grant, in others as a loan.

The grants, voted annually by Parliament, are administered in accordance with the provisions of 4 Federal-Provincial agreements. The Federal Government undertakes to provide up to 50 percent of the total cost of such projects. From April 30, 1939, to March 31, 1954, assistance was given to over 35,000 university students, the total Federal contribution being $2,714,122.

The present program was started in 1939 to promote and assist in the training of young people to fit them for gainful employment in Canada.

d. Aid provided by the Department of Veterans' Affairs.—The Children of the War Dead (Education Assistance) Act provides fees and allowances to the children of deceased veterans whose death has resulted from military service and on whose behalf a pension is in payment, or has been in payment under the Pension Act. Financial assistance is payable while making satisfactory progress at an institution of higher learning, admission to which requires graduation from a secondary school. The cost of education or instruction must not exceed $500 for any academic year. Monthly allowances of $25 are payable for a period not in excess of 4 academic years, or 36 months, whichever is the lesser.

Under the Veterans Rehabilitation Act (payable to veterans of World War II and the Korean war) a veteran can receive vocational, undergraduate, or postgraduate training. In vocational training assistance may be granted for 12 months except that in special cases this may be extended to the period of service over 12 months. In undergraduate training assistance may be given up to the period of service but extended beyond that time if the veteran's progress and achievements indicate that it is in the public interest to do so. This policy is also followed in postgraduate studies.

This financial assistance was not visualized as meeting the whole cost of education, but as an aid toward education. The maximum amount of fees, costs, and charges must not exceed $500 for a period of 8 months of vocational training, or for any undergraduate or postgraduate academic year. Fees include tuition, athletic and regular student activities, cost of texts not included in fees, and expendable material supplied by the institution. Not included are uniforms, tools, instruments, reference books, or costs of materials for articles which become the property of the student.

Monthly allowances paid are: For single veterans $60; man and wife, $90. There are additional allowances for other dependents.

Similar allowances and costs may be paid to provide for vocational training up to 12 months for pensioned veterans of World War I if such training is indicated in order to permit the acceptance of suitable employment.

e. Aid from the Department of Citizenship and Immigration.—Through the Indian Affairs Branch, public funds appropriated for the education of Canadian Indians may be expended to defray all or part of the costs incidental to the education of persons of Indian

status at institutions of higher learning. On the recommendation of officials who investigate the merits and needs of each applicant for assistance, expenditures are authorized for university fees, books and equipment, clothing, transportation, room and board, and sometimes pocket money. For a student in medicine, dentistry, law, and so forth the award will amount to several thousand dollars.

f. The National Research Council bursaries, fellowships, and scholarships.—In 1944–55 the National Research Council made 225 awards in pure and applied sciences, medicine, and dentistry at the graduate level, valued at $535,329. These awards are normally tenable at Canadian universities but in special cases may be held at other approved institutions.

g. Training awards from the Department of National Health and Welfare.—In the past two decades and more particularly in the past few years the Department of National Health and Welfare has contributed substantial sums to promote the training of social workers, public health nurses and doctors, recreational leaders and other professional persons in the field of health and welfare. More than 6,500 graduate awards were made from 1948 to March 31, 1954. They include normal fees and traveling expenses plus personal stipends ranging from $125 to $150 per month for the duration of the course.

Government bursaries, scholarships, and fellowships are provided by special grants from the Department of National Health and Welfare to the Provincial governments. These are for study in fields of public health, health administration, and hospital service. The grants cover normal fees and traveling expenses plus personal stipends ranging from $125 to $150 per month, depending on the course of training and personal responsibilities of the trainee.

The Department also provides national fitness postgraduate scholarships by special grants for study in the fields of recreation and/or physical education. The grants have a value of $300 to $1,200. The number is not specified.

h. Aid to students from other countries under the Colombo plan.—In 1954–55, 58 Colombo plan students were studying in Canada under the auspices of the Department of Trade and Commerce.

i. Other Federal aids to students.—Other aids to students provided by the Federal Government of Canada include the following: Canadian Government overseas, scholarships and fellowships; National Research Council of Canada awards in psychology; Central Mortgage and Housing Corporation, bursaries and fellowships; awards under the Canadian Government meteorological career program and the National Gallery of Canada scholarship.

j. Research activities.—Each year the several departments of the Federal Government spend several millions of dollars on research projects carried out by the universities. This expenditure provides considerable indirect aid to graduate students working on these projects.

3. NEW ZEALAND

The National Government of New Zealand provides a variety of forms of financial aid to students for higher education.

Control of higher education in New Zealand is vested in the New Zealand University, founded by the New Zealand University Acts of 1870, 1874, and 1875.

The university was formerly an examining, not a teaching, body with four teaching institutions affiliated to it—the Auckland University College; Victoria University College at Wellington; Canterbury University College at Christchurch; and Otago University at Dunedin. By the New Zealand University Amendment Act, 1926, the constitution of the university was altered so that it now actually consists of the four university colleges. Each of the colleges, besides providing the usual university courses, specializes in certain directions: Otago University has medical and dental schools, a school of mining and metallurgical engineering, a school of home science, and a school of physical education; Canterbury University College has a school of engineering and a school of fine arts; Auckland University College has a school of architecture, a school of fine arts, and a school of engineering; and Victoria University College specializes in law, has a school of public administration, and a school of social work. There are also two agricultural colleges, viz., Massey and Canterbury, associated with the university.

By means of an amendment to its own statutes and with the consent of its constituent colleges, the university has set up a university grants committee, through which applications for grants are placed before the National Government.

Free university education was instituted in 1911 for all holders of university scholarships (gained by examination) and bursaries (since 1945, gained by accrediting). Scholarships awarded by the University of New Zealand are the university junior scholarships and university national scholarships which are of the value of £80 [4] and £70 per annum, respectively, plus tuition fees, and are tenable for 4 years. In the case of holders living away from home a further amount of £60 and £40, respectively, is allowed. The number of university junior and national scholarships awarded each year is 30 (10 junior and 20 national). These scholarships, together with the Taranaki scholarship and certain privately endowed scholarships, are awarded on the results of the entrance scholarships examination conducted by the University of New Zealand.

Scholarships awarded during the degree course are the university senior (£90 per annum) and John Tinline scholarship (£90 per annum). The various colleges also have private scholarships for which their own students may compete. The scholarships awarded at the end of the university course include the Rhodes scholarships, the 1851 exhibition scholarships, the postgraduate scholarships in arts and science, the traveling scholarships in commerce, law, engineering, architecture, medicine and dentistry, the Macmillan Brown agricultural scholarship, the Shirtcliffe scholarships, the Gordon Watson scholarship, the Shell postgraduate scholarship, the Michael Hiatt Baker scholarship, the Rutherford scholarships, the Oxford studentship, and the national research scholarships. All are tenable abroad. In addition there are postgraduates scholarships tenable in New Zealand. The University of New Zealand also awards research fellowships, the value of which is not fixed, but the normal grants have been approximately £300 per annum for a period of 2 years. Each university college may also award 1 research scholarship of an annual value of £200 tenable in New Zealand.

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[4] The exchange rate of the New Zealand pound in terms of U. S. dollars as of August 1955 was $2.7591 (U. S. Federal Reserve Bulletin, September 1955).

Several different kinds of central-government-financed bursaries, as distinct from scholarships, are awarded each year. For the most part these provide full tuition fees, while several provide also bursary or boarding allowances. Bursaries awarded by the department of education are university national (boarding and ordinary), special, post-primary teachers' and physical education bursaries. There are also bursaries awarded by other departments of the national government.

National boarding bursaries to the number of 65 are available annually to candidates who, though not qualifying for scholarships, have performed creditably in the entrance scholarship examination. At least 40 of these bursaries go each year to students who are required to live away from home in order to attend a university college; the remainder, however, may be held by students who, though living at home, are in need of financial assistance. In addition to full tuition fees, the bursary allowance (£70) is paid.

Ordinary national bursaries are available to all students qualifying for university entrance either by examination or by accrediting. These bursaries cover full tuition fees. Bursars who hold a higher school certificate receive in addition a small bursary allowance of £30 if they attend as full-time students. Both forms of national bursary are tenable for 4 years, or for 5 years in the case of medical, dental, and engineering students.

In order to assist qualified students to pursue university courses in agriculture, architecture, fine arts, engineering, science, and home science, approximately 110 special bursaries are awarded each year. They are tenable for 5 years for engineering and 4 years for other courses. They provide full tuition fees, a cash payment of £30, and (where appropriate) a boarding allowance of £40.

The total number of university national (ordinary and boarding) and special bursaries in 1953 was 3,623.

Bursaries, etc., are also awarded annually by other departments of the central government and include medical and dental bursaries (department of health), national research scholarships and national research fellowships (department of scientific and industrial research), rehabilitation bursaries (rehabilitation department), coal-mining bursaries (mines department), and public service bursaries (public service commission).

In addition, under the Colombo plan, the New Zealand Government by the end of March 1955 had spent about £275,000 in providing courses of study within New Zealand for students from Colombo plan countries, in sending New Zealand experts to the area of south and southeast Asia, and on equipment supplied for purposes of training and administration in projects with which New Zealand experts have been associated. By June 1955 courses of training or observation had been provided in New Zealand for 212 people from south and southeast Asia, 50 of whom were still undergoing training in New Zealand at that time.

The Colombo plan had its origin in and took its name from a meeting of the British Commonwealth foreign ministers at Colombo, Ceylon, in January 1950. The plan falls into two parts: Capital assistance and technical assistance. The latter program is designed to supplement capital assistance under the Colombo plan as well as supplement the technical assistance activities of the United Nations and its specialized agencies—in which New Zealand also participates.

Membership of the plan is not confined to British Commonwealth countries but the members of the Commonwealth founded it and they remain its core. The basic concept of the plan is one of international cooperation.

4. REPUBLIC OF IRELAND

The National Government of the Republic of Ireland provides the following several forms of financial assistance to individual students for higher education.

a. University scholarships awarded to students of secondary schools.—Scholarships tenable at university institutions are awarded annually by the department of education on the results of the leaving certificate examination to students who wish to pursue their academic courses through the medium of the Irish language. Of these scholarships a limited number is reserved for students from the exclusively Irish-speaking areas of the country.

The value of each scholarship is £150 [5] per annum in the case of a student who has to live away from home while following the university course and £110 per annum otherwise. Subject to fulfillment of the conditions of tenure a scholarship is tenable for the full period of the degree course and in certain cases for postgraduate study for a further period of up to 3 years.

These scholarships are available to foreign-born students on the same conditions as to Irish students.

b. University scholarships awarded by the department of agriculture.—A limited number of scholarships is awarded annually by the department of agriculture on the results of an open competitive examination to students who propose to pursue university degree courses in general agriculture, horticulture, and dairy science. These scholarships enable the holders, subject to their making satisfactory progress, to receive free tuition at the appropriate university college for the 4 years' degree course, together with a maintenance allowance and traveling expenses between home and college at the commencement and the end of each session. Candidates for these scholarships must be Irish citizens or the children of Irish citizens.

Candidates for scholarships in general agriculture or in dairy science are required to show that they have had a thorough experience of farming work in Ireland and have a sound practical knowledge of all ordinary farming operations. Candidates for scholarships in horticulture are required to have a good knowledge of practical gardening.

Past or present students of universities, who have attended or are attending university courses leading to a degree, are not eligible to compete for these scholarships.

The examination consists of written, oral, and practical tests in agriculture for scholarships in general agriculture and in dairy science, and written, oral, and practical tests in horticulture for scholarships in horticulture.

c. Maintenance allowance to students for training in scientific research.—These grants, which are intended as allowances toward maintenance, are made to university graduates engaged in training in scientific research. In the selection of applicants for the award of grants, the Minister for Education has the assistance of an advisory commit-

[5] The exchange rate of the Irish pound in terms of United States dollars as of August 1955 was $2.7867 (U. S. Federal Reserve Bulletin, September 1955).

tee composed of representatives of the National University of Ireland, Trinity College, Dublin, the Institute for Industrial Research and Standards, and the department of education. A grant is normally awarded for a period of 12 months but in exceptional circumstances an award may be made to a student for a second or third period. Grants are paid in quarterly installments and payment of each installment is subject to the receipt of a recommendation from the supervisor of the student's work. The maximum amount of allowance payable to a student is £150 per annum or £110 per annum in the case of a student who can reside at home while engaged in the research. These allowances are available to foreign-born students on the same conditions as to Irish students.

The allowances made to students are not awards of the nature of scholarships but are intended to make it possible for them to defer taking paid work.

The amount of allowance is ordinarily a sum which, with any private resources available for the student, is adequate, but not more than adequate, to maintain the student in view of his or her particular circumstances and for the payment of the fees chargeable.

In determining the amount of allowance particular attention is given to the following points: (*a*) Whether the student will reside at home or in lodgings; (*b*) what fees the student will be called upon to pay; (*c*) whether the student will hold any other scholarship, studentship or grant; (*d*) that those allowances to students are not, in the view of the Minister for Finance, such as to be regarded as income for income tax purposes.

d. Scholarships and studentships offered by the Dublin Institute for advanced studies.—In accordance with the statutory provisions governing its establishment, the Dublin Institute for Advance Studies, whose activities are financed by grants from the national government, offers scholarships and studentships in the field of Celtic studies, theoretical physics, and cosmic physics.

The normal qualification for a scholarship is a university degree with honors or its equivalent, together with evidence of capacity for original research.

Scholarships are awarded without consideration of nationality, provided that the candidate satisfies Irish immigration requirements for residence in Dublin during the period of the scholarship.

Stipends may be paid to scholars, the maximum annual amounts of such stipends being fixed from time to time by the Council of the Institute on the recommendation of the governing board. Stipends are payable monthly.

Scholarships are awarded initially for a period not exceeding 1 year, but may be renewed. Normally the total period of a scholarship with stipend will not exceed 2 years.

Studentships are awarded to persons who have studied in the school, in order that they may continue advanced study and research elsewhere, but they are awarded only to Irish nationals or graduates of Irish universities. They may be held in any university, institute, or other research establishment approved by the governing board.

Stipends are paid to the holders of studentships, the amount of the stipend and allowance for traveling expenses being fixed by the governing board in each individual case, subject to the approval of the council. Holders of studentships may not engage in tuition or other

employment, or avail themselves of other scholarships or educational grants, without the consent of the governing board.

Studentships are awarded initially for a period of 1 year, but may be renewed. Normally the total period of tenure of a studentship will not exceed 2 years.

5. UNION OF SOUTH AFRICA

Under the Act of Union (1910) and subsequent legislation the Union Government generally controls higher education and other educational functions considered to be in the national interest. However, each of the nine universities is governed by a council, consisting of members appointed by the Union Government, the convocation and the senate of the university, and the municipality within which the university stands. The universities receive from the Union Government subsidies equivalent to about 50 percent of their total expenditures. They offer considerable financial assistance to students attending them.

The Department of Education, Arts, and Sciences of the Union Government also directly provides several forms of financial aid to students for higher education. These include the following:

a. Bursaries for native students for medical training.

b. Bursaries of the National Council for Social Research.—For students whose academic careers and interests indicate that they will become good research workers. The object is to train research workers, and the sum awarded may be used for the support of the bursar, who must be a full-time student.

c. Ad hoc grants of the National Council for Social Research.—To enable the holder to perform an approved piece of work. These are made only for actual expenses of investigations.

d. Aid at the technical colleges, which are subsidized by the Union Government.—Loans to student teachers, repayable after commencement of teaching; and bursaries to student teachers, equivalent to class fees, which are not repayable.

e. Union scholarships.—A limited number of scholarships to the value of £300 [6] per annum for 2 years, or £600 for 1 year provided that proper cause is presented to the university and provided that the scholarship is held entirely overseas, is made available to South African universities through the Department of Education, Arts, and Science. These bursaries are awarded on the results of the examinations for the master's degrees. They are tenable for study in any field, and may be held in the Union, overseas, or partly in South Africa and abroad.

f. Senior bursaries of the National Council for Social Research.—Senior bursaries, varying between £400 and £800 and not exceeding £3,000 per annum in total value, are awarded by the National Council for Social Research for postgraduate research in the fields of the social sciences to persons who have already proved their ability as research workers. Usually a senior bursary is awarded for research in South Africa, but it may, at the discretion of the Council, be made available for study or research abroad. Where it is awarded for work outside the Union, the bursar is normally required to spend at least 6 months

[6] The par value of the South African pound in United States currency as of August 1955 was $2.80 (International Monetary Fund Schedule of Par Values, August 1955).

at 1 institution. A senior bursary is awarded for the total period of study or investigation and is not renewable.

g. Department of Agriculture bursaries.—Periodically a limited number of postgraduate bursaries varying between £500 and £800 per annum is offered by the Department of Agriculture for study abroad in specified subjects. Such bursaries are not offered regularly.

h. Bursaries to nationals of other countries for study or research in South Africa.—As a result of reciprocal agreements with the governments concerned the following exchange bursaries are offered annually by the Union Government to nationals of the respective countries under the age of 35 years: (1) Germany (Federal Republic), 3 annually, each worth £250 plus costs of travel from South African port of entry and back and tuition fees at the South African university selected; (2) Belgium, 2 annually, each worth £200 plus tuition fees at a South African university; (3) France, 3 annually, each worth £300 plus cost of return passage to France not exceeding £72 and tuition fees at a South African university not exceeding £90; (4) the Netherlands, 10 annually, each worth £200 plus tuition fees at a South African university not exceeding £90.

6. UNITED KINGDOM

Under the general principle that no suitable person should be debarred from attending a university by lack of financial means, the Central Government of Great Britain provides numerous grants to students through its education departments. These consist of the Ministry of Education for England and Wales, the Scottish Education Department, and the Northern Ireland Ministry of Education. A number of other departments of the Central Government award scholarships of various kinds from public funds, usually for study in specific fields.

This report describes the principal scholarship schemes whereby United Kingdom students may attend the universities with the help of public funds. The account does not cover all forms of education beyond the secondary stage. Excluded, for example, is the system of grants for prospective teachers attending colleges which do not award degrees. The grants described in this report generally apply to students following a course of study leading to a first degree or the equivalent and do not include aids to students undertaking research.

This report includes some information concerning the grants made by the local educational authorities, because they parallel the national schemes, and because the Central Government supplies a large proportion of the funds spent by local authorities on educational services of all kinds.

Thus the education departments of the Central Government not only directly aid many individual students but also contribute to the aid given by local educational authorities to other students. Furthermore, the University Grants Committee (the committee of the Treasury through which grants are paid from the Central Government to the universities) is contributing indirectly to the expenses of every student by enabling the universities to hold their fees at a reasonable level.

The awards made by the education departments of the central Government and by the local education authorities are based on

results of public examinations which are taken at school by all boys and girls who hope to attend a university.

Aid to students from overseas is usually in the form of grants for graduate study. The principal channel for these grants is the British Council. The Council does not make grants in the United States, but the British Government recently instituted the Marshall scholarships for American students. The Marshall scholarship scheme is described later in this report.

Very few of the grants from the Further Education and Training Scheme, under which veterans of World War II were able to continue their education, are still outstanding. Although in the immediate postwar years they were a very important element in the financing of individual students at the universities, they are not a permanent part of the British scholarship system.

a. England and Wales.—The Minister of Education has power under section 100 of the Education Act of 1944 to make grants to individual students for the purpose of enabling them, without hardship to themselves or their parents, to take advantage of facilities for higher education for which they may be suited. The main types of grants made are the following, the word "state" being understood to mean the Central Government:

Normal state scholarships.—These grants are awarded to students of secondary schools to enable them to follow an honors degree course at a university or university college in England or Wales. The grant is made on the basis of the standard reached in the higher school certificate examination, which is a public examination conducted in the secondary schools by joint boards of the universities and is normally taken at the age of 17 or 18 by students expecting to proceed to a university.

Technical state scholarships.—These awards are made to students of technical institutions who, as a result of full-time or part-time study, have reached the standard of the ordinary national certificate or diploma in scientific or technological subjects, to enable them to follow an honors degree course at a university or university college in England or Wales, or a course of equivalent standing at a technical college.

State scholarships for mature students.—Grants are made to persons over the age of 25 years, who are capable of profiting by a course of study at a university and who have pursued some form of adult education, to enable them to follow an honors degree course at a university or university college in England or Wales.

The authorized total for new annual awards of state scholarships—normal, technical and mature—is 2,000. In the academic year 1953–54 a total of 1,979 such awards were taken up. The gap is accounted for by the fact that some students postpone their entrance to the universities, either because of their national service or because they wish to remain an extra year in school.

Supplemental awards.—The Minister of Education makes grants to students at universities and university colleges in England and Wales who have been awarded scholarships offered by the universities on the basis of unrestricted, open competitive examination, to supplement the emoluments arising from such scholarships. In 1953–54 the number of such supplemental awards totaled 1,272.

Determination of the value of these grants takes into account any awards from other sources and any contribution by the parent or

guardian, assessed according to income. The grants are made sufficient to cover the remaining portion of the cost of fees and maintenance at a standard rate approved for each university. In cases of need, an additional sum may be paid for maintenance during vacations. A mature state scholar may also receive allowances for his dependents.

The duration of the grant is normally the duration of the course, ordinarily 3 or 4 years.

The Minister of Education also makes grants to teacher-training colleges and to university teacher-training departments for tuition fees and maintenance costs of approved students. Allowance is made for the students' contributions according to their means. To be eligible for these grants students must follow courses of study leading to the status of qualified teacher (including graduation in the case of students at a university training department) or supplementary and special courses for experienced qualified teachers.

Local education authorities (that is, the elected councils of counties and large cities) are empowered under section 81 of the Education Act of 1944 to make grants to students to enable them to pursue a course of study at a university, university college, teachnical college or other institution of similar standing. The amount of these awards and the conditions governing them are at the discretion of the local education authorities, subject to approval by the Minister of Education. Usually they provide for the payment of fees and maintenance. The cost is met partly out of the proceeds of local taxes (approximately 40 percent) and partly out of subsidiaries paid to the local education authorities by the Ministry of Education (approximately 60 percent).

In the academic year 1953–54, a total of 9,000 local education authority major awards and 928 minor awards were taken up for the first time.

b. Scotland.—In Scotland, education falls under the jurisdiction of the secretary of state for Scotland.

The principal number of awards to students at universities made directly by the secretary of state under section 70 of the Education (Scotland) Act of 1946 are the supplemental awards, which are available at universities and university colleges in England and Wales to students ordinarily resident in Scotland. They supplement the emoluments arising from scholarships offered by the universities, gained as a result of unrestricted, open, competitive examination. These follow the same lines as the corresponding awards made by the Minister of Education in England and Wales. In the academic year 1953–54, a total of 55 supplemental awards at English universities were current.

Under the terms of section 43 of the Education (Scotland) Act of 1946 the local education authorities are empowered to make grants to students along lines similar to those followed by the local education authorities in England and Wales, as already described, subject however, to the approval of the secretary of state for Scotland. The cost is defrayed partly out of the proceeds of local taxes (approximately 40 percent) and partly out of subsidies paid to the education authorities by the secretary of state (approximately 60 percent). Similar grants are made, in case of need, to students undergoing training as teachers. In the academic year 1953–54, a total of 5,046 bursaries were held at the universities in Scotland, of which 1,573 were new awards that year.

c. Northern Ireland.—The Northern Ireland Minister of Education awards state exhibitions for university study mainly on the basis of results in the senior certificate examination. The exhibitions are worth £80 [7] a year for 4 years and are tenable at approved universities. They may be supplemented by awards from the local education authorities. In the academic year 1952–53, 31 state exhibitions were awarded.

The Minister of Education also makes senior research grants, and maintenance allowances for research workers. Three of the former and 11 of the latter were awarded in 1952–53.

The average annual value of university awards made by the local education authorities is £100. In 1952–53 a total of 723 of these awards were current, of which 236 were new.

a. Scholarships from public funds offered in specified fields of study (Central Government of the United Kingdom).—The Agricultural Research Council provides junior fellowships, research studentships, training grants, and veterinary training grants. Unspecified numbers of these grants are made every year, in the main to honors graduates in the appropriate fields.

The Colonial Office provides colonial agricultural probationerships, colonial forest probationerships, colonial research fellowships, colonial research studentships, and training for fishery appointments. Grants are usually made according to needs, in the main to suitably qualified honors graduates in the appropriate fields.

The Treasury offers postgraduate studentships in Oriental, Slavonic, East European, and African studies. Candidates usually have first class honors degrees from universities within the Commonwealth, and must intend to follow a career of teaching and research in the subject in the United Kingdom. The period of the studentship is from 3 to 6 years, of which at least a third is spent in the area to which the studies relate. The full rate of allowance is £440 to £500 a year for unmarried students, plus an additional allowance for married men, with traveling expenses, and additional sums to meet the cost of living in other countries.

The National Coal Board offers up to 100 scholarships yearly in mining and engineering and allied subjects, to men inside the industry and to men from outside. The scholarships cover all fees, and provide a maintenance allowance of up to £300 a year. At the end of the university course the students receive 3 years directed practical training in the industry on salary.

e. Marshall scholarships.—Twelve Marshall scholarships at British universities are offered annually by the British Government to United States graduate students. The awards are an expression of the United Kingdom's gratitude for the generous and far-sighted program for European recovery.

The awards are made to students of either sex, who must be citizens of the United States. Candidates must be under 28 years of age on October 1 in the year in which the award will be taken up, and must be graduates of a degree-granting college or university of the United States.

The scholarships are tenable at any university in the United Kingdom. The awards are made for 2 years in the first instance, but may be extended for a third year.

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[7] Par value of the pound sterling in metropolitan areas of the United Kingdom in terms of United States dollars is $2.80. (International Monetary Fund Schedule of Par Values, August 1, 1955.)

The value of a Marshall scholarship is £550 a year. Individual scholarships may be raised to £600 a year, since the cost of living at British universities may vary. A married man's scholarship is increased by £200 a year. Marshall scholarships are not subject to United Kingdom income tax. Marshall scholars receive their transportation to and from their universities in the United Kingdom.

In appointing Marshall scholars, the selectors look for distinction of intellect and character as evidenced both by scholastic attainment and by other activities and achievements. Preference is given to candidates who combine high academic ability with the capacity to play an active part in the United Kingdom university to which they go.

C. Continental European Countries

1. AUSTRIA

There is no Federal law concerning Federal financial aid to students in Austria. However, a certain sum is every year set aside in the national budget for such aid, which sum is distributed at the discretion of the Federal Ministry of Education. At present the individual student is given 1,000 Austrian shillings [8] per semester, under condition that he is an Austrian citizen, that his achievements are on the average good, and that he is needy. Financial assistance was given in 440 cases for the summer semester, 1955.

Moreover the Austrian Education Service has granted scholarships of 3,000 Austrian shillings each to 100 students. The scholarships are to take the burden of breadwinning off those students so they can devote themselves to their studies. These scholarships are to help towards the scientific training and development of students whose personalities point to outstanding achievements in the fields of scientific work and public service in the future.

The selection of scholars is made by the Federal Ministry of Education on the basis of suggestions submitted by the deans or faculties concerned.

Apart from the scholarships and financial aid granted by the Federal Ministry of Education numerous other bodies and institutions, public as well as private, give support to students.

2. DENMARK

University training in Denmark is free. Lectures are public and may be attended by any person without charge regardless of previous education. An examination leading to an academic degree, however, can only be obtained by students who have passed the matriculation examination.

The rule that instruction at the universities and other advanced educational establishments must be free is deeply rooted in Denmark and gives individuals of all classes the opportunity to obtain academic degrees. Furthermore, free education scholarships are granted by the National Government as an aid to the subsistence of the students while studying. Qualified students have, usually 2 or 3 years after matriculation, a good chance of gaining full scholarships enabling them to complete their studies at very small expenses. Dormitories, where

[8] The par value of the Austrian shilling in United States currency as of August 1955 was 3.84615 cents (International Monetary Fund Schedule of Par Values, August 1955).

students can get room and board either free or at a small charge, are provided at the universities.

Some examples of financial assistance made available by the National Government to students for higher education are the following:

At the University of Copenhagen, in addition to free tuition, financial aid amounting to 100,800 kroner [9] is provided for operation of the dormitories, and 15,000 kroner for free meals at the students' canteen. A National Government foundation named Konnumtetet contributes approximately 662,120 kroner in scholarships and 8,400 kroner for dental care of students.

The National Government subsidizes teachers colleges offering free education by an annual amount of approximately 350 kroner per student. The private colleges for teachers receive an annual grant of 165 kroner per student in order that the tuition fees may be reduced accordingly. These aids are reserved for Danish citizens.

The National Government has allocated an annual grant of 6 million kroner to the newly established Young Peoples Educational Foundation. It is expected from this grant to make approximately 4 million kroner available to students at institutions of higher learning, under the Ministry of Education, and that out of this amount about 2.3 million kroner will be used for scholarships and 1.3 million kroner for study loans.

Scholarships provided by the Danish Government exclusively for foreign students number 27, with an annual value of 109,080 kroner. These scholarships may be used for study at any one of the Danish institutions of higher learning. National Government subsidies at some of the institutions are available for either Danish or foreign students.

3. FEDERAL REPUBLIC OF GERMANY

The Government of the Federal Republic of Germany in the fiscal year 1953–54 provided financial assistance to students for higher education as follows:

Type of allowance	Number of students receiving assistance	Approximate total subsidies in deutschemarks [1] in the Federal Republic and in West Berlin
		Millions
For reduction of institutional fees	52,500	6.5
Subsidies in cash, without requirement of repayment	4,200	.6
Free meals	10,000	.88
Health care:		
Sickness care for students	48,000	2.43
Promotion and improvement of health	1,000	.12
Subsidies for work, including among others the Studentisches Arbeitsprogramm (work program for students)	5,200	1.24
Donations in kind through the Studentenwerk (students assistance program)	4,200	.08
Short-term loans	9,000	.42
Long-term loans	3,400	1.2
Other allowances, such as initial aid for refugees from the Soviet zone of Germany	115	.12

[1] The par value of the deutschemark in United States currency as of August 1955 was 23.8095 cents. (International Monetary Fund Schedule of Par Values, August 1955.)

[9] The par value of the Danish krone in United States currency as of August 1955 was 14.4778 cents (International Monetary Fund Schedule of Par Values, August 1955).

In addition to these aids, students pursuing higher education received benefits from social subsidies from the Government of the Federal Republic as follows:

Type of allowance	Number of students receiving assistance	Approximate total subsidies in deutschemarks [1] in the Federal Republic and in West Berlin
		Millions
For refugees, etc., according to the law on the equalization of burdens	10,500	8.8
For Spätheimkehrer (late returnees from the war) according to the law on returnees	2,200	1.5
For general educational purposes according to the law on social studies	(2)	(2)

[1] The par value of the deutschemark in United States currency as of August 1955 was 23.8095 cents. (International Monetary Fund Schedule of Par Values, August 1955.)
[2] Exact data not obtained.

The "Länder" (states within the Federal Republic) provided 18,500 university scholarships, having a total value of 5.66 million D-Marks, in the fiscal year 1953–54.

4. FRANCE [10]

Each year the National Government of France awards a number of scholarships and/or grants-in-aid for students for higher education.

The awards are allocated to the institutions in which the prospective recipients will pursue their studies. The Minister of National Education allocates most of the awards, but some are distributed by other ministers, such as those for Agriculture, the Armed Forces, Public Health and Public Works.

French provinces and municipalities also provide certain scholarships or grants-in-aid for students attending institutions of higher learning.

The following information applies only to the higher education scholarships and/or grants-in-aid awarded by the Ministry of National Education.

Each year the Minister allocates these awards in consideration of recommendations from the regional college commissions. The per annum rate of assistance to a student is fixed according to his scholastic merit and the financial circumstances of his family.

The awards are allocated:

(*a*) To the Faculties of Letters and Sciences, for students wishing to obtain "certificates of higher studies" for teaching, certificates of physical, chemical, and biological studies, "diplomas of graduation," and "doctor's diplomas."

(*b*) To the faculties of law, for students seeking diplomas of admissibility to practice.

(*c*) To the faculties of medicine and pharmacy and to certain dental schools, for students wishing to obtain doctorates of medicine (M. D.) or the diploma of pharmacist or surgeon-dentist.

[10] Statement based upon the following sources: (1) "Les Bourses de l'Enseignement Supérieur." Avenirs. Novembre–Décembre 1953, pp. 42–44 (translation by Mrs. Elizabeth Hanunian). (2) Letter from M, Pierre Donzelot, permanent representative of French universities in the United States, to the writer of this report, dated December 7, 1955.

(*d*) To the institutes of applied sciences.

Regulations governing these awards are available to all students throughout the Nation.

The scholarships and/or grants-in-aid are paid in monthly installments equivalent to one-tenth of the total amount, running from November to August. The beneficiaries have been receiving payment by Treasury check transmitted to them by officials of the institutions attended.

Most of the scholarships are awarded for 1 year only, but are renewable.

Students eligible to receive benefits under social-security legislation, or who are beneficiaries of the medical care provisions made by certain organization, may receive national scholarships or grants-in-aid at reduced rates.

For the academic year 1955–56, funds allocated for scholarships by the Ministry of National Education amounted to 4,146 million francs [11] (about $12 million). This represented an increased value of about $3 million over the amount of 3,316 million francs given in 1954–55.

The scholarships are available both for the "pupils of the Nation" and for children of French citizens residing abroad.

Candidates training to become public officials may obtain larger amounts of financial aid from the National Government than other students, but must repay these amounts unless they serve the Government at least 10 years.

A scholarship recipient is prohibited from holding a paying job unless he has declared it on his application form.

Students who are recipients of financial aid from the National Government are exempt from payment of certain institutional fees. Provision for these exemptions cost the National Government approximately 48 million francs in 1953, in addition to the grants-in-aid to students.

The French National Government also provides financial assistance for students under international educational exchange arrangements.

5. GREECE

Scholarships provided by the National Government of Greece are administered by the Institute of Government Scholarships, which is a Government service attached to the Ministry of Education.

The budget of this Institute for fiscal year 1953–54 amounted to approximately $333,000. Scholarships awarded for that fiscal year and their values were as follows: high-school scholarships, $39,800; university scholarships, $108,200; scholarships aboard, $143,300; total, $291,300.

Five percent of the university scholarships are reserved for foreign students of Greek ancestry. Ten percent of the scholarships at high-school level are reserved for professional training.

Individual scholarships amount to: $120 annually for high-school grantees; $200 annually for university grantees; $1,200 annually for scholarships abroad. Grantees are selected on a competitive basis.

Scholarships for study abroad include the following fields of study: education, 43 percent; applied sciences, 37 percent; moral sciences, 15

[11] From 1955 to August 1955 the free exchange value of the franc in United States currency was 28.56 cents (Federal Reserve Bulletin, September 1955, p. 1065).

percent; art, 5 percent. With respect to these scholarships, it is the policy of the Institute of Government Scholarships to give absolute preference to postgraduates.

6. ITALY

The Italian Constitution guarantees to capable students the right to higher education. In order to make this guaranty effective it has been necessary for the National Government to make large-scale provision for financial aid to students.

Student employment in part-time or full-time jobs is frequent in Italy. Over half of the students attending some of the universities perform remunerative work of some kind. The Central Government has recently expanded its program of scholarship aid to give some of these students more time for study.[12]

In the academic year 1953–54 the National Government supported 3,425 scholarships for undergraduate university students. The value of these scholarships was 260,590,000 lira. In that year the Government-supported universities gave out a total of 156,400,000 lire [13] as tuition refunds. A total of 5,414 students received free tuition, to the amount of 38,038,000 lire. Partial exemption from tuition payments, amounting to 4,762,500 lire, was distributed among 1,361 students.

For the academic year 1955–56 the Italian National Government is providing 10 million lire for 125 scholarships of 80,000 lire each for graduate studies. These are awarded to deserving and needy students and are distributed proportionately among Italian universities and institutes of higher learning.

The National Government is also supporting 17 fellowships for postgraduate studies at an Italian university or institute of higher learning during the academic year 1955–56. The amount of each grant is 180,000 lire. This sum can be increased to a maximum of 280,000 lire, depending upon the availability of funds, the place where the grantee resides, and other circumstances.

In addition, in 1955–56 the National Government is financing 9 fellowships for postgraduate studies at a foreign university or institute of higher learning. The amount of each grant is basically 700,000 lire. This can be increased to a maximum of 900,000 lire, depending upon the country in which the grantee is planning to study and other factors.

7. NETHERLANDS

The Netherlands National Government grants scholarships and loans without interest to Netherlands subjects desiring to study at a Netherlands institution for higher education.

The criteria for obtaining a scholarship or loan without interest are based upon the scholarly record and other evidences of the ability of the student. The amount of the scholarship or loan without interest depends on the financial circumstances of the parents. The maximum amount available for a scholarship is 2,000 guilders [14] plus exemption

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[12] R. C. Simonini, Jr., The Universities of Italy, American Association of University Professors Bulletin, winter, 1954–55, p. 588.

[13] The exchange rate of the Italian lira in terms of United States currency as of November 1955 was 0.625 cents (International Monetary Fund, International Financial Statistics, November 1955).

[14] The par value of the Netherlands guilder in United States currency as of August 1955 was 26.3158 cents (International Monetary Fund Schedule of Par Values, August 1955).

from tuition. There are also scholarships available for students desiring to write a thesis.

The National Government awards scholarships for study of zoology in Italy, for study of botany in France and Indonesia, and for European studies at the College of Europe in Belgium; it awards the Ramsay Memorial Fellowship for study in chemistry in the United Kingdom. Furthermore, the Government awards special grants for study abroad to students desiring to prepare a thesis.

All of these fellowships are available for Netherlands nationals only.

The National Government also awards exchange scholarships under bilateral conventions to nationals of Belgium, Luxembourg, France, Italy, and Great Britain. Six of these scholarships are available to nationals of Canada, Denmark, Germany, Norway, and Sweden. Twenty such scholarships are available to South African graduates and undergraduates.

There are three Netherlands Government scholarships available to nationals of the United States.

Scholarships for Netherlands summer courses are available for nationals of Germany (4), of Italy (2), and of Spain (4).

There are two UNESCO-Netherlands Government fellowships for the study of natural sciences and cultural activities available to nationals of Mexico and Syria.

The scholarships available for foreign nationals are administered by the ministries of education or of foreign affairs of the respective countries, or in some cases by other educational agencies abroad.

In the Netherlands the scholarships are administered either by the Ministry of Education, Arts, and Sciences or by the Royal Netherlands Academy of Sciences in Amsterdam.

The duration of the scholarships and the amounts available vary from 1 month (for the summer courses) and 400 guilders, to 1 year and 2,000 guilders.

8. NORWAY

Since 1911 the Norwegian National Government has principally financed higher education in Norway. Except for nominal matriculation, laboratory, and examination fees there are no charges to students for instruction. However, many students have real problems of obtaining funds to meet other expenses connected with their college educations.[15] To help solve these problems the national government has provided other forms of student assistance.

The main step in Norway toward making studies available to everyone was taken soon after World War II, by the creation of the State loan fund. This organization started its activity in 1947. Its main objective is to render loans free from interest to students in order to help them finance their studies. The loans bear no interest until after the final examination. They are thereafter repayable according to a certain installment plan in the course of 15 years. In certain cases, the loan fund gives permission to modify the installment plan or even remit the loan.

A main feature of this organization is that it does not demand guarantors or any other security. The loan fund has, since the start, undergone great development. While the yearly loans in 1947–48 were Norwegian kroner [16] 3,319,600, the total amount in 1953–54 was

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[15] James A. Storing, Student Aid in Norway, School and Society, May 17, 1952, p. 310.

[16] The par value of the Norwegian kroner in United States currency as of August 1955 was 14 cents (International Monetary Fund Schedule of Par Values, August 1955).

Kr. 12,817,300. In this way the loans totaled as of June 30, 1954, Kr. 55.5 millions.

Loans can be granted to students studying at Norwegian universities, colleges, and teachers colleges. In exceptional cases such loans can also be extended to Norwegian citizens studying at corresponding institutions abroad.

In order to evaluate the applications, the loan fund must consider both the applicants' economical status, his school credits, and other details. The loan fund has greatly expanded the possibilities for impecunious students to obtain an education. Payments of the loans prove that more than 30 percent of the total is fully repaid before the amounts actually become due.

Lately, the national government has granted Kr. 400,000 as subsidy to social measures for students. This amount has mainly been used to lower the prices for student restaurants and for the student boardinghouses, which are run by the Students' Union.

The students obtain a 30 percent reduction on all the governmental railways and on the express service along the coast. Kr. 225,000 is set aside for this purpose in the national budget.

For the time being available scholarships amount to a relatively small amount seen in relation to the enormous existing demand. For instance, the University of Oslo grants each year Kr. 150,000 to scholarships. This scholarship arrangement is now in the process of revision in favor of a nationwide arrangement which, at a rough estimate, will amount to Kr. 20 millions.

The Ministry of Foreign Affairs (the Office for Cultural Relations) provides grants to foreign students in Norway. In recent years, 25 scholarships have been distributed—each of Kr. 3,200 to students from about 15 different countries. The grants cover study in Norway for 8 months. The Office for Cultural Relations has yearly Kr. 80,000 at its disposal for scholarships abroad for the further education of Norwegian students.

9. SWEDEN

Higher education in Sweden is mainly financed and administered by the national government. The small number of private institutions receive government subsidies.

Students attending institutions of higher education in Sweden are not required to pay any tuition charges, and, with very few exceptions, they are not charged for materials they use in laboratories. There are small examination fees. The fee is about 25 crowns ($5) for a bachelor of arts or master of arts and about $20 for a doctor of philosophy degree.

At all universities—particularly in Uppsala and Lund—there are many private scholarships, most of them rather long-established. Such a scholarship does not give the student enough money for a whole year.

There are also national government scholarships called Naturastipendier. These scholarships, which cover food, rent, and a small amount for books, are available to all students at the universities and similar higher technical, medical, business, and other professional schools for students who can prove that they need this kind of scholarship.

Students of certain ability can obtain through the Swedish Riksbank loans, without interest, up to a certain amount; and, thereafter, loans with very low interest.

Finally, there are government scholarships, given to students without regard to their personal economic status. They are: Uppsala and Lund, 101 at each; University of Gothenburg, 36; and, finally, at the University of Stockholm and the Carolinian Institute, 80. These scholarships are all for postgraduates but they are of two kinds. The lower ones are given to people preparing for the licentiate and the higher ones are given to those preparing for the doctorate. The lower scholarships are at present worth 3,000 crowns each and the higher ones are worth 6,000 crowns each which means roughly $600 and $1,200, respectively.

10. SWITZERLAND

Tuition fees in Swiss universities are extremely low in comparison with those prevailing in similar institutions in some other countries. In general, they amount to only one-eighth or one-tenth of the fees of American universities. The Swiss university does not maintain a campus or provide living accommodations for the students. However, since in relation to the size of the country the number of universities is large (one, in fact, for each of the larger Swiss towns), the student usually lives with his parents or with a relative and is thus able to live inexpensively while studying. Therefore in Switzerland, because of readily available low-cost education, scholarships for economic reasons are less needed than in some other countries.

The Federal Government of Switzerland nevertheless provides financial assistance for higher education to needy students of merit in three instances: (1) Scholarships to students of the Federal Institute of Technology. This institution is under the direct supervision of the federal council. (2) Credits for the furtherance of art, by proposal of the Department of the Interior through the intermediary of a special Federal Art Commission. This Commission organizes national art exhibits and promotes the sale of the work of the students to defray the expenses of their education. (3) Apprentice fellowships granted by the Swiss Federal Office of Industrial Arts and Trades and Labor in certain professions to Swiss citizens of high school age.

Such fellowships are granted only if the recipient also receives allocations from other sources (his canton, a society, association, foundation, etc.), and the Federal grant must not exceed one-third of such allocations.

Federal subsidies for the furtherance of higher education are less needed in Switzerland, because many other funds—upward of 1,200—have been set up to assist qualified youth. In addition, all the Swiss universities are prepared to waive or lower tuition fees, at least from the second year on, for students of merit whose resources are limited. In many cases towns and cantons will furnish funds for the purchase of books and materials and, if absolutely necessary, will also provide for a portion of the student's living expenses. Then, too, there is the granting of student loans, by the university direct or in cooperation with the cantons and private organizations. These loans are made available to especially gifted students, to be paid back on their honor, and without interest, within a specified time, usually 5 or 10 years after the termination of studies.

D. Countries of the Middle East

1. EGYPT

The National Government of Egypt has established measures to reduce the cost of higher education for Egyptian students and their families. Such measures include provision for waiver of university tuition fees (ordinarily $45 to $60 yearly) for students unable to pay them.

Thus about 60 percent of all students at Cairo university are exempt from charges for tuition. In some of the colleges as many as 75 percent of the students are exempt.

At Cairo University the Government has provided a number of buildings including dormitories. The Government pays the difference between the actual cost (about 18 Egyptian pounds [17] monthly) and the charge to the resident students (about 5 Egyptian pounds monthly) for room and board. For students not living in the dormitories the cafeterias provide meals costing the student only about 9 cents each, the Government paying the balance of the cost.

Medical service is another important student aid from the national Government. By paying the obligatory fee of one pound yearly the student obtains complete medical care including hospitalization and surgery if needed.[18]

2. ISRAEL

As of August 1955 the Ministry of Education and Culture of Israel had in the budgetary estimates for 1955–56 the sum of 53,000 Israeli pounds [19] for scholarships for higher education. This sum was itemized as follows: 50 scholarships for the Hebrew University in Jerusalem at I£400 each; 25 scholarships for the technion (Israel Institute of Technology) Haifa, at I£400 each; 18 scholarships in art at I£50 to 150; 4 scholarships for high school graduates by competitive examination at I£300 each; 3 scholarships for visitors from abroad at the Hebrew University or the technion at I£1,800 each; research scholarships in Israel totaling I£6,400; scholarships for advanced students totaling I£2,400, special aid for Israelis going abroad for research or study totaling I£4,000.

The university and the technion proposed that the distribution be changed as follows: 36 scholarships for the university at I£600 each, and 18 scholarships for the technion at I£600 each, the other items remaining the same.

The contention of the university and the technion was that the value of the scholarships should be raised, even at the risk of limiting their number, in order to allow the recipients to live, even if sparely and economically, on the scholarship and be free to attend their studies on a full-time basis.

The Ministry pays the money to the university and the technion, and they choose the candidates by competitive examination or on the result of terminal grades and reports by the professors. The institutions report to the Ministry the result of their choice, and also send progress reports. The same applies to the research scholarships.

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[17] The par value of the Egyptian pound in United States currency as of August 1955 was 281.156 cents (International Monetary Fund Schedule of Par Values, August 1955).

[18] James A. Bellamy, Cairo University, Middle Eastern Affairs, June–July 1955, pp. 188–189.

[19] The value of the Israeli pound in United States currency is about 56 cents (information obtained from the Board of Governors of the Federal Reserve System, Washington, D. C.).

The choice of candidates for the scholarships to visiting students from abroad is made in the first place by the Israeli Legations in the various countries, the final choice resting with the Hebrew University and the technion. The Ministry of Education and Culture is not yet in a position to allocate scholarships for Israelis to study abroad.

The Ministry of Agriculture is also allocating a sum of I£3,000 this year to scholarships to the agriculture department of the Hebrew University for prospective teachers in agricultural schools.

3. TURKEY

The National Government of Turkey provides scholarships and other financial aids to students as follows:

a. Scholarships to Turkish citizens.—To meet the need for teachers in Turkey, the National Ministry of Education gives scholarships to students for teacher training in teachers colleges and normal schools as well as in universities. The Ministry also provides scholarships for some other students who are studying at the universities and higher educational institutions. The students are selected by examinations given by the university staffs of the departments concerned.

Scholarship students are paid 125 liras [20] monthly, including summer holiday periods. Tuition, examination and laboratory expenses are all paid by the National Ministry of Education. These expenses are around 50 liras per year. After graduation, these scholarship students must work for the National Government for one and a half times as long as they have been supported. Those who do not work for the Government or have not finished their studies successfully are required to pay back all the expenses, plus 50 percent interest.

b. Outright financial aid to Turkish students.—Aid is given from the National Ministry of Education's budget twice yearly to university day students who are in need, and who are recommended by the Students Association for assistance. The amount of the aid varies and is decided upon by the administrative body of the student's department and institution. The budget set aside for this purpose is 100,000 Turkish liras.

c. Scholarships and financial aid to non-Turkish citizens and Turkish refugees from other countries.—The amount of assistance is decided through reciprocal agreement between countries. The selection of students is made by the Governments concerned.

According to the reciprocal agreement with Iraq, students from that country receive 235 liras monthly; Turkish students in Iraq receive a corresponding amount, 30 dinars. German students receive 170 liras monthly and Turkish students 250 marks under reciprocal agreement. Students from the Near East and European countries with whom Turkey has no reciprocal agreement or who do not study under this kind of agreement receive 125 Turkish liras monthly, the same as Turkish students.

In addition, the above type of student (*a*) is exempt from tuition and university fees, (*b*) receives 200 Turkish liras yearly for clothing, (*c*) receives 200 Turkish liras every 2 years for an overcoat, (*d*) receives 30 to 100 Turkish liras yearly for books, (*e*) has his medical expenses paid, and (*f*) receives 200 Turkish liras for return travel expenses.

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[20] The par value of the Turkish lira in United States currency as of August 1955 was 35.7143 cents (International Monetary Fund Schedule of Par Values, August 1955).

Rights of non-Turkish citizens are protected through the Turkish Foreign Office or by the Turkish Embassy in the student's country.

Turkish refugee students receive the same assistance as those from the Near East and European countries with whom Turkey has no reciprocal agreement. These students receive aid and protection through the Turkish Foreign Office.

E. Asiatic Countries

1. JAPAN

The Japanese National Government has established one or more universities in each prefecture. In these national universities the tuition fees are low—less than $16 a year.

About half the students attending these institutions receive aid from the National Government in the form of 25-year loans, but the amount averages only about $5 a month. There are few dormitories. Many of the students live in boarding-houses which are not within the jurisdiction of the university.

The Education Ministry has estimated that about 90 percent of the students perform part-time work. The average earnings amount to only about $6 a month.[21]

2. INDIA

The Central Government of India operates the "central" 4 of the 32 universities in India. The rest are "state universities," chiefly financed by the state governments. The Central Government has, however, established a University Grants Commission with power to grant funds and loans to Indian institutions of higher education on the basis of their needs and merits. In 1953–54 the Central Ministry of Education spent over $6,300,000, about 40 percent of its whole budget, directly on university and technological education in the country. Thus the Central Government has provided indirect aid to students for higher education.

In 1953–54 the Central Government instituted 350 senior scholarships and 238 junior scholarships to promote research in universities and other institutions of higher education.[22]

The Central Government also provides scholarships to "scheduled castes, scheduled tribes, and backward classes." A sum of 1,750,000 [23] rupees was provided in 1952–53 for scholarships to students of these classes for postmatriculation education. This sum was further enlarged by 1,260,000 rupees. Of the 5,893 awards made during 1952–53, 1,726 were for professional, 276 for postgraduate, 953 for graduate, and 2,936 for undergraduate studies. A budget provision of 4 million was made during 1953–54.

With a view to promoting cultural relations between India and other countries the Central Government formulated in 1949 a scheme to award 70 scholarships to scholars from other conutries. In 1953–54 provision to award 100 such scholarships was made. The Central Government has also made other arrangements with similar objectives, such as the overseas scholarship scheme, the federation of British

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[21] Dallas, Finn, Japanese Universities Today, the Yale Review, Summer 1954, pp. 566–567.

[22] D. K. Hingorani, "Higher Education in India: Recent Developments", Higher Education, February 1955, pp. 79–83.

[23] The par value of the Indian rupee in U. S. currency as of August 1955 was 21 cents. (International Monetary Fund Schedule of Par Values, August 1955).

industries scheme, the Indo-German industrial cooperation scheme, scholarships to students from Asia and Africa, and United Nations and UNESCO fellowships.[24]

Since the devaluation of the pound sterling, the Government of India has had to regulate dollar expenditures severely, so there has been a curtailment of Government aids for foreign students to study in India.[25]

F. South American Countries

1. ARGENTINA

University education in Argentina, both for native and foreign-born students, is entirely free. It is made so by the National Government rather than by the provincial governments.

The universities receive their support from the National Government, through the Ministry of Education. There are no provincial or private universities.

Usually the students live at home with their families and so do not have problems of obtaining room and board while pursuing their studies.

2. CHILE

The University of Chile, located in the capital city, Santiago, was granted legal autonomy in 1931, with certain supervisory authority over higher education throughout the country. This national university has a monopoly for the conferring of university degrees requiring Government approval in the fields of medicine, dentistry, and law. Since it organizes the relevant examinations it controls the studies for these careers.

The University of Chile has its own endowment, constituted by the property and income assigned to it by law; and it also receives an annual subsidy from the National Government, through the Ministry of Education.

Within recent years the budget of the Ministry of Education has carried additional items for scholarships, such as the following:

Scholarships to teachers and students from the provinces for attendance at summer classes at the University of Chile.

Scholarships for high-ranking graduate men at the Pedagogical Institute, the Institute of Physical Education, and the Institute of Biology.

Scholarships for students of high talents in the plastic arts and music.

"Pedro Aguirre Cerda" scholarships in technical and trade schools.

Scholarships in industrial and agricultural schools.

Certain students at the University of Chile are granted exemption from the payment of tuition fees.

3. PERU

Except in very special cases the National Government of Peru does not provide direct financial assistance to students for higher education. However, the National Government supports the leading uni-

[24] Government of India, Ministry of Information and Broadcasting. *India*, a reference manual, 1954. pp. 277–278.

[25] Information obtained from the Embassy of India in Washington, D. C.

versity of Peru, namely San Marcos, with a substantial subsidy. The University of San Marcos uses some of these funds to provide scholarships and other financial aid to leading students so that they may complete their studies.

The National Government also often makes grants to other universities in Peru in order that they may carry out special projects.

Cases in which the National Government provides financial aid directly to individual students involve special legislation.

4. URUGUAY

University studies are gratuitous in Uruguay. The Universidad Nacional is a public institution, sustained by funds assigned to it by the general budget. All entrance fees to the university and tuition fees were abolished, in order to establish free instruction in all courses of the different schools and colleges. In addition to this policy in favor of the student body, the National Government maintains in its budget a scholarship fund to aid the better students of the secondary schools in obtaining higher education. For this purpose, each of the secondary institutions has at its disposal an annual amount for scholarships, to be awarded to the more scholarly students. Such scholarships consist of monthly allowances sufficient to enable the student to dedicate himself completely to his studies during the 2 years of the colegio, or preuniversity study.

In the capital city university students are very frequently aided by employment in Federal agencies, where they obtain the means to enable them to continue their studies.

The system of fellowships, on the other hand, has become the basis of professional, magisterial, and technical-military education.

The law which created the normal schools established local scholarships—that is, scholarships assigned to the interior provinces of the country for one or more students, who are then obliged to give 2 years' service with the Government of the province from which they come. During the period of the scholarship, the student can live in the capital, where he can pursue the free courses of study.

The same system obtains in professional-technical-military education, where the students, chosen through competitive examinations, obtain scholarships to live in the military academy, with a further allowance for expenses.

The municipal authorities, and some private institutions, frequently offer aid to good students, assigning them scholarships and traveling expenses within the country.

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