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ABSTRACT

The summary version of "Progress of Education in the United States of America", is intended for use by educational policymakers abroad and for all persons who are interested in educational development in the United States. The report is presented in seven chapters. Chapter I identifies general principles of American public education, as expressed in the Constitution and state statutes. Chapter II outlines the structure and organization of elementary, secondary, and post-secondary education and emphasizes the importance of adult education programs. Chapter III reviews the educational roles of the federal and state governments. Chapter IV describes how school curricula are determined and developed and how entrance and graduation requirements are set. Chapter V examines teacher education programs and notes the widespread existence of inservice programs for teachers on all levels. Chapter VI discusses federal involvement in educational research and information services, bilingual and bicultural education, competency based education, and reading comprehension programs. The final chapter cites statistics related to enrollment, teachers and instructional staff, schools and school districts, high school and college graduates, school retention rates, and expenditures. Tables of data are presented in the appendix. (Author/DB)

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Education in the United States

A Brief Overview

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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Mary F. Berry, *Assistant Secretary for Education*
Office of Education
Ernest L. Boyer, *Commissioner*

This publication is excerpted from *Progress of Education in the United States of America: 1974–75 and 1975–76*, which was prepared for the 36th International Conference of Education of the UNESCO International Bureau of Education (IBE) by staff members of HEW's Education Division under the direction of Dr. Robert Leestma, Associate Commissioner for Institutional Development and International Education, U.S. Office of Education.

The full text of *Progress of Education in the United States of America: 1974–75 and 1975–76* is being made available in four languages: English, French, Russian, and Spanish. Summary versions will be available in Arabic, Chinese, Japanese, and Portuguese. The various language versions are useful not only to participants in the biennial IBE conference but also to the thousands of visitors from abroad who seek information annually from the U.S. Office of Education, and to non-English speaking educators and policymakers elsewhere who are interested in educational development in the United States.

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1.

GENERAL PRINCIPLES

The 10th amendment to the Federal Constitution provides that "the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Since responsibility for education is not mentioned in the Constitution, it is legally considered reserved to the States. Thus, each State has the full right and responsibility to organize and operate its educational system as it deems appropriate—subject only to guarantees of U.S. citizens' rights and privileges found in other sections of the Constitution.

State statutory provisions for establishment of institutions of public education vary greatly among the States. Some are quite specific; others simply mention this responsibility in broad terms. Considerable responsibility is often vested in local education authorities. Despite various differences among the several States, in practice the organizational patterns of education in the 50 States are similar as a result of such common social and economic forces as the need to prepare students for employment and higher education, accreditation requirements, and the regulations governing State and Federal funding.

As a result of either State or Federal legislation, public education in the United States is free at least through completion of high school (grade 12). It is compulsory, usually from the age of 6 to 16, offers a variety of programs to help each individual develop his or her potentialities to the fullest, and guarantees equality of access and of educational opportunity to both boys and girls and to all minority groups. Moreover, public education has a long tradition of coeducation.

Legislation also provides for establishment of private schools on every level, subject to State licensing and accreditation regulations. These institutions may receive governmental aid for a variety of specialized purposes but are for the most part financially autonomous.

The uncentralized nature, pluralistic character, and democratic principles of American education are well suited to the large and complex national situation. The diversity and flexibility that historically have characterized the American approach to education have provided free public education through the secondary level for the vast majority of American youth while at the same time creating sufficient respect for learning and enough oppor-

tunities for its future nurture so that considerable numbers of intellectually gifted students have been able to achieve international prominence among the world's literary, scientific, social, and political leaders.

2.

STRUCTURE AND ORGANIZATION

Education in the United States is organized on three principal levels: the elementary (including preschool and primary), the secondary, and the postsecondary. (See figure 1.) In addition, programs of adult and continuing education are available in such variety that it is possible for American citizens to be enrolled in structured programs or participate in informal programs of education and learning throughout their lives.

Compulsory education begins in most States at age 6 and continues usually through age 16. Most young people, however, spend considerably more time in school than the minimum number of years required by law. In fall 1975, for example, 87 percent of all 5-year-olds were enrolled in a preschool or first grade, and approximately 75 percent of all 17-year-olds had completed the 12-year elementary-secondary school sequence and had earned a high school diploma. Moreover, 46.9 percent of young people between 18 and 19 years of age and 22.4 of those aged 20 to 24 were still in school. (See chapter 7.)

On the primary and secondary levels, the academic year usually begins in early September and continues until mid-June. The school day is of approximately 6 hours' duration, usually during the period from 8:30 a.m. to 3:30 p.m. In most instances, particularly at the secondary level, students are expected to do some additional study and school assignments outside the school period. On the postsecondary level, the academic calendar is much more flexible. The norm for a full-time student is 2 semesters of approximately 15 or 16 weeks each per academic year, but there are several variations on this pattern, including the trimester system (3 per year) and the quarter system (4 per year). In the latter two patterns, the student normally does not attend school during the entire year but rather 2 out of 3 trimesters or 3 out of 4 quarters.

ELEMENTARY EDUCATION

Elementary education in the United States consists of 1 or 2 years of preschool (most commonly kindergarten) and 6 or 8 years of primary education.

Most American public school systems provide kindergarten classes for children 5 years of age. Some also provide nursery school education for children 4 years old and younger. The Head Start Program, financed in part from Federal funds, is designed primarily for children from poor families, and exists in about one school district in four.

Preschool education programs maintain a close relationship with the home and parents and aim to give the child useful experiences that will prepare him or her for elementary school. The programs are flexible and are designed to help the child grow in self-reliance, learn to get along with others, and form good work and play habits.

Although primary education may consist of 6 or 8 grades, the 6-grade elementary school is now more popular. The main purpose of the primary school is the general development of children from 6 to 12 or 14 years of age (depending on whether the school is a 6- or 8-year elementary school). The program aims to help the pupils acquire basic skills, knowledge, and positive attitudes toward learning. Emphasis is placed upon the growth of the individual child and the relation of the child's progress to his or her needs and abilities. The traditional subjects are considered tools for learning, and the teacher helps the child recognize problems, work out solutions, and evaluate the results. Many schools have ungraded classes in the first few years so that children may progress at their own speed in different subjects.

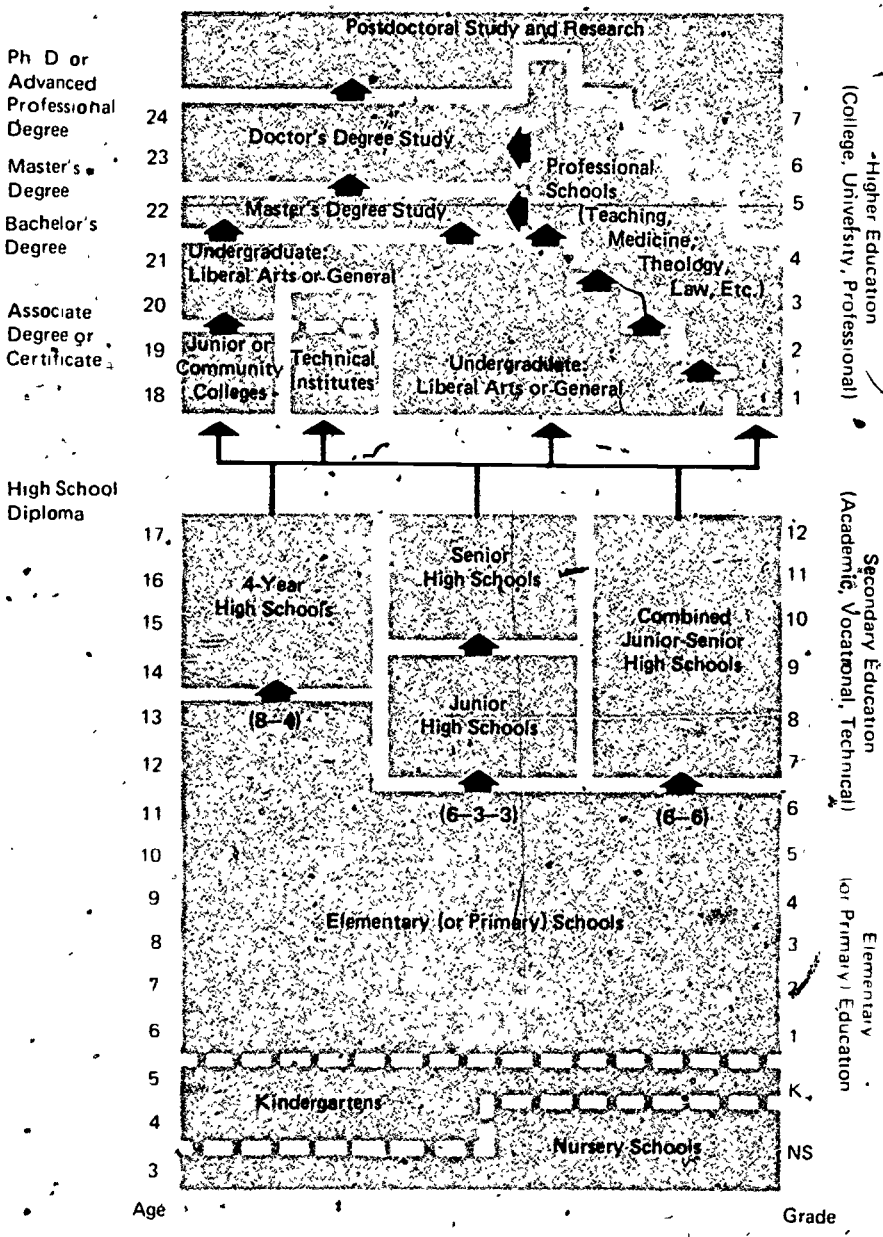
During the 1960's the middle school concept began to take form in U.S. education. A typical middle school includes grades 5 or 6 through 8, provides team teaching and other staffing patterns that vary from the usual junior high school patterns, and emphasizes gradual independence for students. Its purpose is to serve the educational needs of students in the early adolescent period, between 10 and 14 years old. Middle schools now number more than 3,200 out of a total of approximately 62,000 elementary schools.

SECONDARY EDUCATION

Secondary education in the United States begins either at grade 7 or grade 9, depending upon whether the elementary education of a particular area extends through grade 6 or grade 8.

As shown in figure 1, in the 8–4 plan used in many schools, students pursue grades 1 through 8 in an elementary school and grades 9 through 12 in a secondary school. The 6–3–3 plan provides for an elementary school of 6 grades and an intermediate (junior) and senior high school of 3 grades each. Some communities consider that intermediate schools ease the transition from elementary to secondary schools. Smaller communities sometimes use the 6–6 plan with 6 years each for both the elementary and secondary school programs. The purpose of the different organizational plans is to make

Figure 1.--The structure of education in the United States



NOTE.--Adult education programs, while not separately delineated above, may provide instruction at the elementary, secondary, or higher education level.

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the best use of a school system's physical facilities, staff, and instructional tools within the framework of the system's established educational goals.

During the early secondary years most students are going through the physical and emotional changes of puberty. Many are also making tentative choices of career goals. These years are therefore a period in which school guidance and counseling services are of considerable importance to the pupil's physical, emotional, academic, and career development.

By the beginning of grade 10, most pupils have decided whether they will follow a primarily academic program leading to university entrance, a vocational program leading to employment or specialized postsecondary training, or a general program which combines elements of both the academic and the vocational program. In recent years, the so-called general program has been criticized as being in many instances neither sufficiently academic to prepare pupils for programs of college or university study nor sufficiently job-oriented to prepare them for employment.

All secondary school programs lead to the high school diploma and are offered in the same comprehensive high school in most school districts. This fact facilitates transfer from one program to another and provides the flexibility for students to build individual schedules—sometimes with the help of computers—that combine highly desirable aspects of different curricular tracks. It is not unusual for a medium-sized comprehensive high school to offer 200 or more different courses. The comprehensive high school also provides the opportunity for young people with widely different career interests and a variety of social and economic backgrounds to have regular contact with each other.

Most secondary school students have completed the minimum years of schooling required by law a year or more before graduating from high school. More than three-quarters of them remain in school, however, until they receive the high school diploma at the end of grade 12.

One reason for this is the flexibility of the American senior high school both in academic and vocational dimensions. In a growing number of schools, academically gifted pupils can take several additional hours per week of advanced science or mathematics during their last 2 years of high school. Some secondary schools offer language courses not only in French, German, and Spanish, but also in Russian and Chinese, for example. In many instances, pupils taking advanced courses receive college or university credit which permits them to enter higher educational institutions with some advanced standing.

In an increasing number of schools, secondary students of both sexes who are interested in programs of vocational-technical education have a wide selection of job-related courses. Moreover, many schools provide the opportunity for school-coordinated work-study programs. Pupils enrolled in these programs spend part of the day in school and part of the day on a job. It is possible in a growing number of school districts to complete high school graduation requirements in accelerated programs of study and thus

graduate 1 or even 2 semesters early. Pupils who leave school before earning their high school diploma may work toward it at little or no financial cost in evening programs. A wide variety of summer study and enrichment programs is also available on all levels of education.

POSTSECONDARY EDUCATION

Generally speaking, there are three main kinds of degree-granting institutions of higher education in the United States: the 2-year community or junior college, the 4-year undergraduate college, and the university, which normally includes undergraduate education as well as graduate and professional education. There are both public and private institutions in each category, with no official or implied distinction in quality between them. Both categories include a wide range of institutions.

In fall 1976, there were 3,074 degree-granting higher education institutions in the United States that were authorized to grant academic degrees. Of this number, 1,928 were universities and 4-year colleges, and 1,146 were 2-year community or junior colleges.[2] In addition, more than 8,300 nonacademic postsecondary schools in both the public and private sectors were offering job training in a wide variety of occupations. Normally, these schools do not grant academic degrees but offer certificates or diplomas of completion of training in a given trade or skill.[3]

The many and diverse degree-granting institutions in the United States comprise a broad spectrum of academic traditions, philosophies, and goals. More than half (1,607) are private institutions originally established by particular groups of citizens for specific social, educational, or religious purposes. A certain coherence and unity are maintained among so many different institutions through the work of accrediting agencies and associations, which are voluntary bodies established by institutions, professions, or specialized fields to develop and maintain standards. The Federal and State Governments also require certain standards as a condition of financial assistance. Moreover, the professional integrity of the teaching staff as well as the demands of the economy for qualified graduates motivate most institutions to monitor carefully the quality of their institutional programs. Higher education institutions offer degrees on several levels.

The Associate's Degree

The Associate of Arts (A.A.) or the Associate of Science (A.S.) degree is usually earned at a community or junior college upon completion of 2 years of study. In many instances, it represents the same level of educational achievement as completion of the first 2 years of a 4-year college or university, and large numbers of students who have earned the associate's degree transfer to 4-year institutions. Other students, especially those who have

completed programs of job-related training, normally enter the work force as mid-level technicians upon graduation. During 1975, over 360,000 associate's degrees were conferred in the United States.

The Bachelor's Degree

The bachelor's degree normally requires 4 years of academic study beyond the high school diploma. In recent years, accelerated learning plans, credit by examination or practical work experience, year-round study plans, and other innovations have enabled some students to complete the program in less than 4 years.

The two most common bachelor's degrees are the Bachelor of Arts (B.A.) and the Bachelor of Science (B.S.). The former may require more general education courses in the arts and humanities whereas the latter usually places greater emphasis on the sciences. Other common bachelor's degrees include the B. Ed. (education), the B.F.A. (fine arts), the B. Mus. (music), and the B.B.A. (business administration). The B. Arch. (architecture) is often a 5-year program. The B.D. (divinity) and the LL.B. (law) are professional degrees usually of 3 years that in most institutions require a candidate to have earned first a B.A. or a B.S. During 1976, over 925,000 bachelor's degrees were conferred in the United States.

The Master's Degree

Master's degree programs vary considerably among the approximately 900 institutions that award them. The number of fields in which master's degrees are conferred is very large, but most are called Master of Arts (M.A.) or Master of Science (M.S.) degrees or are professional degrees such as Master of Nursing (M. Nurs.) or Master of Social Work (M.S.W.). Programs leading to the degree usually require 1 to 2 years of advanced study in graduate-level courses and seminars. Frequently a thesis is required and/or a final oral or written examination. Requirements may differ not only among institutions but among disciplines within an institution as well. During 1976, over 311,000 master's degrees were conferred in the United States.

The Doctor's Degree

The doctor's degree, usually the Doctor of Philosophy (Ph. D.), is normally considered the highest degree conferred in the United States. It attests to the ability of its holder to do original research of a high order. Since work at the doctoral level is highly individualized, the specific requirements may vary widely. In general, however, the degree requires a minimum of 2 years of course work beyond the master's degree level, success in a qualifying examination, proficiency in one or two foreign languages and/or in an equivalent research tool (such as statistics) that may be considered appro-

priate to a particular field of specialization, and completion of a doctoral dissertation.

During 1976, over 34,000 doctor's degrees were conferred in the United States.

First Professional Degrees

In addition to the foregoing degrees in a wide range of academic fields, during 1976 over 62,000 first professional degrees were conferred in the United States in the following fields: dentistry (D.D.S. or D.M.D.), law (LL.B. or J.D.), medicine (M.D.), theology (B.D. or M.Div.), veterinary medicine (D.V.M), chiropody or podiatry (D.S.C. or D.P.), optometry (O.D.), and osteopathy (D.O.). The educational prerequisites and length of study required for these degrees vary with the field of study.

NOTES

[1] Considerable use was made in this section of: *Education in the United States,* Beatrice C. Lee, ed. Washington, D.C.: National Education Association, 1976. This publication provides a useful and concise overview of the structure and organization of education.

[2] Data provided by the National Center for Education Statistics.

[3] *The Condition of Education, 1977.* National Center for Education Statistics. Washington, D.C.: U.S. Government Printing Office, 1977. p. 180.

[4] For more details on this and the following paragraphs see: Clifford F. Sjogren, *Diversity, and Quality: A Brief Introduction to American Education for non-Americans.* New York: College Entrance Examination Board, 1976.

3.

RESPONSIBILITY AND ADMINISTRATION

ROLE OF THE FEDERAL GOVERNMENT

The role of the Federal Government in education is to provide encouragement, financial support, and leadership on educational issues of broad national concern, as appropriate within legislative mandates and constitutional constraints. The Federal Government is responsible also for safeguarding the right of every citizen to equal access to free public education and to equality of educational opportunity.

While a number of Federal departments and agencies have educational activities of one kind or another, the one most extensively involved in education matters is the Department of Health, Education, and Welfare (HEW). The Education Division of this Department, headed by the Assistant Secretary for Education, is composed of the U.S. Office of Education (OE), the National Institute of Education (NIE), and the Office of the Assistant Secretary for Education (ASE).

The Office of Education, established in 1867, is both the oldest and the largest unit in the Education Division. Headed by the Commissioner of Education, OE has primary responsibility for administering approximately 120 programs that have been legislated by the Congress in pursuit of particular educational goals.

The National Institute of Education, headed by a director, was established in 1972 by legislation concerned with the need for "more dependable knowledge about the process of learning and education." Its mandate calls for NIE to provide leadership in the conduct and support of scientific inquiry into the educational process. NIE thus functions as the focal point of Government-supported research in education. It also seeks to disseminate improved education practices and products. A National Council on Educational Research gives NIE policy guidance and reviews Institute operations.

The Office of the Assistant Secretary for Education coordinates the policies of the Education Division and closely related activities of constituent program units and is directly responsible for the following three units operating programs of special national significance:

- The National Center for Education Statistics (NCES), which collects and disseminates statistics and other data related to education in the United States and in other nations and conducts and publishes reports on specialized analyses of the meaning and significance of such statistics.
- The Fund for the Improvement of Postsecondary Education (FIPSE), which is a grant-making activity modeled on the foundation concept. Its mission is to help "improve postsecondary educational opportunities by providing assistance to encourage the reform, innovation, and improvement of postsecondary education."
- The Federal Interagency Committee on Education (FICE), which helps coordinate education activities of Federal agencies and advises the Secretary of HEW on education issues. FICE representatives from some 30 agencies meet regularly under the chairmanship of the Assistant Secretary for Education. FICE subcommittees work on critical education issues shared by several Federal agencies—e.g., education for the disadvantaged, education technology, education and work, research and development, and consumer protection education.

ROLE OF THE STATE GOVERNMENT IN ELEMENTARY AND SECONDARY EDUCATION

On the State level, each State legislature enacts laws pertaining to elementary and secondary education. Within the context of these laws, State educational policy and requirements for the elementary and secondary school levels are determined in most States by a State Board of Education and carried out under the leadership of a Chief State School Officer and a staff of professional educators and support personnel in the State Department of Education.

Methods of appointment to the State Boards of Education differ according to State law and tradition. In some States, members are elected directly by the people; in others, they are appointed by the Governors, and in various cases some school board members have status *ex officio* by virtue of other positions they hold.

The Chief State School Officer is appointed by the State Board of Education in 27 States, elected by popular vote in 18 States, and appointed by the Governor in 5 States. The duties of the office normally include varying combinations of such functions as distributing State funds to local education authorities, administering or interpreting school laws, certifying teachers, helping improve educational standards through inservice training programs, and providing advisory services to local superintendents and school boards. An estimated 44 percent of all funds expended in elementary and secondary education in the United States in 1975–76 came from State sources, 48 percent from local sources, and 8 percent from the Federal Government.

There are strong national associations both of State Boards of Education (the National Association of State Boards of Education) and of Chief State School Officers (the Council of Chief State School Officers). Each is an important interest group on the national scene in relation to Federal education legislation and policy.

ROLE OF LOCAL AUTHORITIES IN ELEMENTARY AND SECONDARY EDUCATION

Each State (except Hawaii) has provided for the establishment of local administrative districts and vested them with extensive authority and responsibility for establishing and regulating the schools in their districts. Each local school district has a board of education, usually made up of five to seven members who have been appointed by higher officials or elected by citizens of the school district. Within the limits of State policy, the board operates the local school system through the school superintendent and his staff.

The functions of the board of education in determining educational policies, and of the superintendent of schools in executing these policies, include a broad range of duties and responsibilities. Together, the board and the superintendent are responsible for preparing the school budget. They usually have considerable latitude within broad State policy to determine most aspects of the curriculum. They are responsible for hiring teachers and other school personnel, providing and maintaining school buildings, purchasing school equipment and supplies, and, in most cases, providing transportation for pupils who live beyond a reasonable walking distance from school. Their duties also include enacting rules and regulations consistent with State law and regulations of the State Department of Education governing operation of the schools. Thus, the limitations on the actions of school boards are those established by the State legislature and by the State education agencies, which have in most cases prescribed minimum standards for all local school districts.

While not part of the educational governance system proper, the Parent Teacher Associations (PTA's) connected with many schools are an important factor on the local scene. These voluntary associations of parents, teachers, and others interested in education not only work to improve the functioning of their local schools, but through their State associations and the National PTA attempt to obtain or strengthen legislation "for the care and protection of children and youth."

School systems vary in size from small ones in rural areas, with a single one-room elementary school, to those in metropolitan areas with hundreds of schools of various kinds and thousands of teachers. In some States an intermediate school district has sometimes been established between the State Department of Education and the local school districts, not to administer schools but to provide services to local school systems that would

not otherwise be available—consultative, advisory, and statistical services and regulatory functions. Some also provide operation of special classes, supervision of instruction, health supervision, and pupil transportation.

Ability to provide improved educational facilities and opportunities more economically in larger school districts than in smaller ones continues to be the major reason for consolidation of school districts. In 1975–76, the United States had an estimated 16,400 school districts that together raised an estimated 48 percent of all the funds expended on the Nation's public schools.

HIGHER EDUCATION

Higher education institutions, both public and private, receive their authority to function and to grant degrees from the State in which they are located. This authority is given either in the State constitution or, more often, by an act of the State legislature. The Federal Government operates no institutions other than those for preparing career military, Coast Guard, and merchant marine officers, and it exercises no direct control over the establishment of other institutions or over the standards they maintain. In such specific areas as enforcement of provisions of the Civil Rights Act related to higher education, however, the Federal Government's influence can be strong.

Most States now have some form of statewide policy planning and coordination system to guide the development of public higher education within the State. The most common kinds of arrangements for the purpose are coordinating boards and consolidated governing boards. In most statewide systems individual campuses have high degrees of institutional autonomy within the policies and overall plans established by State and/or institutional boards.

Most of the larger States have highly developed statewide systems of higher education. For example, California has a planned, three-tiered system: the California Community Colleges, with 105 2-year institutions; the California State University and Colleges, with 19 institutions; and the University of California, with 9 campuses. The State University of New York represents a single, coordinated system of a total of 64 2-year, 4-year, and graduate and professional institutions. In both States, individual institutions have a high degree of autonomy within the established plans and policies.

Nearly all higher education institutions receive some form of financial support from both State and Federal Governments, although public institutions generally receive a substantially higher proportion of their budget from public funds. Other sources of income for both public and private institutions are student tuition and fees, endowment earnings, and contributions from philanthropic foundations and individuals. Many public community colleges, particularly those drawing students from several school

districts, receive the bulk of their public funds from a separate community college district established for each institution for this purpose. In a growing number of States, public community colleges receive more than half their funds from their State government.

The principal internal policy and financial decisions affecting colleges and universities in the United States are made by their boards of trustees (sometimes called boards of regents). The procedures for selecting members of the board are, in most instances, stated in the institution's founding charter, and depending upon the institution, members may serve either specific limited terms or may be appointed for life. Public institutions may have trustees who are elected or who have been appointed by the Governor of the State; private institutions, nondenominational or religious, usually have representatives of the institution's founding body. In recent years, many boards of trustees, both public and private, have attempted to build into their boards wide representation of the diverse elements that make up the institution's academic and social environment.

NOTES

[1] The term used nationally for this official. In the individual States, the term is State Commissioner (or Superintendent) of Education (or Schools or Public Instruction).

[2] This section relies heavily on: W. Todd Furniss, ed., *American Universities and Colleges,* 11th ed., Washington, D.C.: American Council on Education, 1975. pp. 8–10.

4.

CURRICULUM

Responsibility for determining and developing school curriculums lies with State and local education authorities. There is no national curriculum on any level of education. The Federal Government is not without influence, however, in encouraging curriculum development in particular fields of study. For example, in 1958 the Congress passed legislation to stimulate individuals to study science, mathematics, and foreign languages through Federal funding of fellowships for graduate study in those areas, inservice training institutes, and other provisions. Similarly, in 1967 the Congress enacted the Education Professions Development Act, which was directed toward meeting shortages of adequately trained teachers by providing funds to train and retrain teachers for what was then discerned as a national need. Among the more recent examples of Federal initiatives in stimulating students to enter fields recognized as critical to the Nation's current or long-term needs are the personnel development provisions of the Education for All Handicapped Children Act (1975) and the Bilingual Education Act (1974), as well as the Domestic Mining and Mineral and Mineral Fuel Conservation Fellowship Program of the Higher Education Act (1965), as amended.

Each State is authorized to determine the requirements for conferral of the high school diploma within its borders. Most States require not only a minimum number of courses, but also certain specific courses in English, mathematics, science, social studies, and physical education. Although some States specify, for example, that one or more social studies courses be in American history or the history of the particular State, most State legislatures do not enter into the specifics of curriculum design. The degree of prescription by State Boards of Education varies. Local school districts may add curricular requirements or restrictions of their own, such as history or sex education.

Elementary school textbooks and other curricular materials are selected by local authorities in 27 States and by State officials in 23. Secondary school materials are selected on the local district level in 32 States and on the State level in 18. Whether the selection occurs on the State or local level, it is usually the responsibility of a textbook commission made up of professional educators and community representatives. Such a commission is usually authorized by the State or local school board to act in its name.

Most commonly, textbook commissions approve use of a number of texts for each course, and a selection from the list is then made on the local school level. A considerable amount of curriculum development is done by private publishing firms that hire educators and other specialists to prepare teaching materials which they then submit to the local and State textbook commissions for approval. In many instances, however, teams of teachers and curriculum experts on the local level develop their own teaching materials in a wide variety of fields. Teachers may usually choose a program of studies from these materials or from the variety of commercially or sometimes university-prepared courses of study that have been approved for use by local school authorities.

It is interesting to note that since the early 1940's, no State with a system of local textbook selection has changed to one of State selection. Also, several States with the selection process on the State level have modified their systems to increase the participation of local school authorities in the adoption of curricular materials.

Various college and university entrance requirements and national achievement and aptitude tests developed by private, nonprofit professional organizations exert an indirect but important influence on curriculum decisions on the secondary school level. Local school authorities are understandably concerned that graduates of their schools be readily admitted to higher education institutions and perform well on examinations for which there are national norms. Thus, a certain pragmatic curricular unity emerges throughout the Nation despite the uncentralized nature of American schools.

In postsecondary academic institutions, curriculum decisions are made most often within academic departments, and individual professors are responsible for the content of their courses. The institutions usually require that a student successfully complete a given number of credits and, to some extent, a specified sequence of courses in a major and a minor field of study as well as a number of elective courses before a degree is conferred.

However, on the college and university levels, States can exert considerable control through their licensing authority. For example, individual States can require that professionals such as teachers, medical personnel, attorneys, and engineers complete a minimum number of courses in a specified list of academic or professional subjects to qualify for a license to practice their respective professions.

5.

TEACHER EDUCATION

PRESERVICE

Teacher education in the United States is offered exclusively on the higher education level. Most large universities, both public and private, have departments or colleges of education as do those institutions that during the past few decades have been reorganized from State normal schools into State colleges. Many liberal arts colleges have teacher education programs, and a few specialized schools devote their total programs to preparing teachers of music or art or teachers of severely handicapped children. In all, there were 1,367 institutions that offered programs of teacher education at the beginning of academic year 1976–77.[1]

Candidates for teacher education programs must have completed secondary school and earned admission to a college or university. In addition, they must, in most cases, complete 1 or 2 years of general undergraduate study. They are then accepted into teacher education programs on the basis of their college academic record, personal interviews, secondary school grades, and standardized test scores. Preliminary data reported by the National Survey of the Preservice Preparation of Teachers suggest that students who are admitted to teacher education compare academically very favorably to students in other fields of study.[2]

The minimum requirement for teaching on the preschool, elementary, or secondary level in any of the 50 States is now the bachelor's degree, a diploma conferred after 4 years of study on the higher education level. Fourteen States require that teachers hold a master's degree or are prepared to earn one within a given number of years. Teachers are encouraged to pursue further study in many other States through salary increments, free tuition, and other incentives. In this regard, it is interesting to note that the ratio of master's degrees to bachelor's degrees granted by the Nation's schools, colleges, and education departments has increased from 1 to 5 in 1972–73 to almost 1 to 2 in 1976–77.[3]

All States require that the program of studies followed by future teachers include a balance of academic and professional education courses. Recent survey data show that throughout the country teacher preparation programs are increasingly built on a basic foundation of general liberal arts educa-

tion—in which the humanities, natural sciences, and social sciences are included in roughly equal proportions. To this general education foundation are added pedagogical studies including both academic courses and supervised teaching experience. Most States now require that their future teachers have experience as a student-teacher for a full semester under the supervision of an experienced teacher approved by the teacher education program in which the student is enrolled.

Another important development has been the growth of Competency-Based Teacher Education (CBTE). Fundamentally, this is an approach in which persons responsible for teacher education programs adopt a written statement of learning objectives or competencies to be attained by their students. About half of the Nation's teacher education programs have adopted some form of CBTE.

Significant changes have occurred also in the use of some techniques in teacher education programs. Comparative data obtained from national surveys of such programs in 1968, 1973, and 1976 suggest that some costly innovations such as microteaching and simulation have decreased in use after an apparent initial surge in popularity. The data also indicate that interaction analysis, questioning strategies, and Bloom's taxonomy have moved from experimental status to widespread use. The latter three approaches are characterized by low cost, ease of transfer from one type of classroom to another, and absence of expensive equipment.[4]

INSERVICE

There is hardly a school district in the country that does not encourage or assist its elementary and secondary teachers in one way or another to continue their professional growth. The opportunities for formal professional development that are most frequently available to teachers are courses and workshops. Those that attract the most participants tend to be those that focus on problems that affect large numbers of teachers, such as instructing exceptional children in regular classes, meeting the needs of children from low-income families, and providing bilingual and multicultural education.

It is not aways a higher education institution that provides these programs. Many large school districts and several smaller ones sponsor workshops utilizing their own staff, with or without outside consultants. Many districts have established inservice training centers, which often include a reference library, an audiovisual center, workrooms for developing instructional materials, and rooms for seminars or lectures. With increasing frequency, control of such teacher centers is being assumed by the teachers themselves.

Inservice opportunities, whatever their source, are not limited to workshops and lectures. They include visits to other schools, availability of consultants for individual problems, and certain days on which pupils are dismissed from school and teachers participate in special programs of professional enrichment.

Many school districts encourage their teachers to participate in inservice education in a variety of ways. They may (1) require a prescribed number of courses before a teaching contract can be renewed, (2) subsidize tuition fees at the university, (3) increase the salary of teachers who earn higher degrees, complete a given number of credit hours, or participate in other approved inservice educational activities, or (4) release teachers from classroom responsibilities and provide travel expenses to enable them to attend professional meetings.

Three emerging trends of particular significance for inservice education should be noted. The first is the movement in American society toward lifelong learning. The second is more widespread recognition that teachers are professionals and that the teaching profession should have more responsibility for improving the performance of its members. The third trend is the reduction in personnel turnover, which increases the responsibility of inservice training for helping ensure a sufficient flow of new ideas, methods, and techniques into the schools. This trend is caused primarily by the decline in school enrollments at the elementary and secondary levels, which has reduced employment possibilities for new teachers, and the improvement in salary schedules and conditions of employment, which has encouraged teachers in service to remain in the teaching profession.

NOTES

[1] Data supplied by the National Council for Accreditation of Teacher Education.
[2] *Condition of Teacher Education, 1977.* Draft Summary Report, March 1977, Lewin and Associates, Inc., Washington, D.C. March 1977.
[3] Ibid., p. 40.
[4] Ibid., pp. 77–80.

6.

EDUCATIONAL RESEARCH AND INFORMATION SERVICES

OVERVIEW

Funding

The Federal Government is the principal supporter of educational research and development (R&D) in the United States. A recent report estimated the total funds obligated in the United States for educational R&D in fiscal year 1975 at $576 million. Of this, the Federal Government provided $470 million, State governments $40 million, local governments $4 million, private foundations $57 million, and private industry $5 million.[1]

Within the Federal Government, approximately 25 departments and agencies are involved in educational R&D. Of the $576 million obligated for R&D, the bulk—$364 million—was spent by the Education Division of the Department of Health, Education, and Welfare as follows: the Office of Education ($273 million), the National Institute of Education ($75 million), and the Office of the Assistant Secretary for Education ($16 million).

Of all Federal educational R&D funds, 43 percent are spent on utilization (policy implementation, demonstrations, and dissemination), 40 percent on problem solution (social experimentation, policy formulation demonstrations, and development of materials), and 17 percent on knowledge production (research, evaluation, and statistical activities).[2]

Activities

Various types of institutions are involved in educational R&D, with each type tending to emphasize a different kind of activity. For example, colleges and universities are the largest group engaged in basic research; regional laboratories, R&D centers, and nonprofit institutions are the major groups engaged in development; and local education agencies are the most active in pilot, demonstration, and implementation activities. Approximately 10,000 professionals are currently working in one or another aspect of educational R&D.

The Education Amendments of 1974 listed areas of concern for Federal R&D efforts. They created a Reading Improvement Program and specified

that special attention should be given to improving bilingual, handicapped, and adult education programs. The Act also established several "national priorities," including use of the metric system, education of gifted and talented children, community schools, career education, consumer education, women's equity in education, and use of the arts in education. The National Institute of Education (NIE) was mandated to make a 3-year study of compensatory education and a 2-year study of school safety.

The Education Amendments of 1976 included reauthorization legislation for NIE, which not only extended its life for 3 years, but also identified five priority areas for educational R&D: (1) basic skills, (2) finance, productivity, and management, (3) educational equity, (4) education and work, and (5) dissemination. In addition, the Congress mandated that NIE conduct a study of vocational education programs.

Recent Developments

During the last 2 years, there have been a number of significant developments in educational R&D, particularly in the following areas: bilingual and bicultural education, experience-based career education, optional types of schools, competency-based education, reading comprehension, and dissemination and utilization of educational R&D.

Bilingual and bicultural education.—A 1974 Supreme Court decision stated that public schools must provide programs to assist children who speak little or no English—an estimated 3.6 million, approximately half of whom are Spanish-speaking. The United States is supporting a broad program of research and development in multicultural/bilingual education. An example of such research is a joint National Institute of Education and National Center for Education Statistics study that will make a determination of the number of children with limited English-speaking skills in the country and will indicate the extent to which their educational needs are presently being met by Federal, State, and local efforts. One outcome of the study will be a new assessment instrument to identify those who may profit from bilingual instruction. A related study will determine when a child can begin to profit from instruction in English following bilingual instruction. A third study is designed to determine the teaching skills needed to work effectively with limited-English-speaking students. Work is also underway to develop a clearinghouse of information in bilingual education.

Experience-based career education.—A recent national concern has been to facilitate the transition from youth to adulthood and from full-time schooling to full-time work. The Experience-Based Career Education (EBCE) program is designed to provide students with the opportunity to use the community as the classroom. This enables students to study systematically and be exposed to the world of work for purposes of learning more about themselves and different adult roles.

In EBCE, each individual community site is analyzed for its potential as a learning resource. Student experiences in the community are carefully planned, supervised, and evaluated. Students learn subject matter normally studied in the classroom, but they learn through the practical application of academic disciplines in the community. Neither students nor community members are paid for their participation in EBCE. Because learning analysts and site coordinators make sure the students are in the workplace to "learn rather than earn," academic credit is awarded for these activities and the student graduates with a regular high school diploma.

As an illustration of one of the approaches to EBCE, a student with a possible interest in law and justice may spend 1 to 4 days a week for 1 to 5 or so weeks investigating the occupations in a police station, another short period of time in a district attorney's office, and perhaps another period of time at the city jail. The specific sites and specific lengths of time (up to 13 weeks in some cases) are directly related to the scope and complexity of the academic project the student has agreed to complete. In all placements, activities are designed to improve academic skills and explore the range of experiences in the worksite. The students' progress is carefully reviewed at the EBCE Center. Designed for all students, EBCE is now being field-tested in over 100 communities involving 10,000 students and 10,000 resource sites, and has attracted widespread attention as an operating example of the kind of transitional learning many youth may need.

Optional educational programs.—Because different students learn best in different ways, research does not attempt to show the one "right" way to teach children. In a number of cities, models of a parent-choice system have been developed that both expand the range of alternatives available to students and also allow teachers a degree of freedom and flexibility not commonly found in public schools. For example, the Southeast Alternative Education Program in Minneapolis developed five different model schools in direct response to parent wishes. At the elementary level, parents and children have the choice of a traditional school stressing basic skills, a "continuous progress" school that moves children through a basic curriculum on an individualized basis, an open school with learning activities organized around interest centers, and a free school (K-12) emphasizing creativity and unrestricted curriculum choice. At the secondary level, a high school and the free school offer a similar range of choices.

Competency-based education.—Public demand for educational accountability has been increasing in recent years. Much of this demand has been stimulated by the fact that some high school students are graduating without adequate proficiency in basic skills, that is, reading, writing, and mathematics. Another factor contributing to public interest in this area has been the fact that student scores on several national achievement tests have shown a decline over the past few years.

One response to this public demand for accountability has been the development of competency-based or performance-based education. The

purpose of this type of educational program is to identify minimum acceptable levels of performance (or competencies) and to educate the student to achieve these levels. Diplomas are then awarded on the basis of demonstrated competence. The competencies are often divided into two: keeping a checkbook and filling out a job application—in short, being able to complete successfully those tasks required in everyday living.

A 1976 survey conducted by the National Center for Education Statistics revealed that 28 States and the District of Columbia are planning or operating performance-based education programs at an elementary and secondary school level. In addition, at least two State college systems require a demonstration of minimum competence in English before a student can move from the first to the second year of college.

This competency-based approach to education, while gaining momentum, is both embryonic and controversial. Some research and development is being done to establish more rigorous approaches to identifying and validating competencies and to refine the means of measuring students' abilities so that the final assessment is reliable. Notwithstanding the fact that empirical data that would give or deny credence to the competency-based movement is not yet available, it appears that competency-based education could have a significant impact on U.S. education in future years.

Reading comprehension.—Programs continue to be developed with the purpose of discovering how children read and improving their reading abilities. It is generally agreed that the process of learning how to read occurs in two stages: The first is primarily concerned with decoding, the process of learning the correspondence between speech and text; the second focuses on comprehension, the process of understanding and using what is read. Current reading techniques have emphasized the decoding stage, techniques ordinarily taught in grades 1 to 3, although comprehension is important throughout the process of learning to read. Techniques that appear to be effective for teaching decoding skills now exist, and others are being developed. On the other hand, relatively little is known about how to teach comprehension.

The issue of comprehension is being addressed through basic research on information processing. This term covers the efforts of many scientists who previously have not dealt with education, but who have developed ways of exploring the comprehension problem. This new interdisciplinary approach supports our understanding of how people acquire, store, process, and produce information. It draws on the work of scientists in various fields. For example, linguists are providing insights into syntactic, semantic, and text structures. Anthropologists are studying the ways in which different cultures organize and classify information. Psychologists are doing detailed analyses of the processes involved in comprehending text, including recognizing connections between statements, drawing simple inferences, and relating text to past knowledge. Applied psychologists and reading specialists are working on strategies for attacking and comprehending

different kinds of materials, on using structured questions for setting up expectations about the material to be comprehended, and on approaches to making materials more comprehensible. Instructional techniques and materials derived from the information processing approach frequently agree with the intuitions of successful teachers. This congruence between theory and experience creates a situation in which there is confidence that this line of research will have important long-range effects.

Dissemination and use of educational R&D.—Currently, there is a serious lack of consistent and systematic sharing and use by schools of information and products derived from educational R&D. In recognition of this condition, the Office of Education and the National Institute of Education have each developed programs designed to increase access to and use by schools of R&D results. In addition, State education agencies have begun to move more and more into a service role with respect to their client schools. This additional focus is clearly stated in the 1976 Interstate Project on Dissemination which was adopted by the Conference of Chief State School Officers.

NOTES

[1] *The Status of Education Research and Development in the United States, 1976 Databook.* Washington, D.C.: National Institute of Education, 1976.

[2] Mason, Ward S., and Bruce Craig. *Federal Support for Education Research and Related Activities,* FY 1975–77. Preliminary Report. Washington, D.C.: National Institute of Education, 1976.

7.

STATISTICS ON EDUCATION

AN OVERVIEW

Education was the primary occupation of 63.6 million Americans in fall 1975. Included in this total were almost 60.2 million students, nearly 3.2 million teachers, and about 300,000 superintendents, principals, supervisors, and other instructional staff members. This means that, in a Nation of 214 million people, nearly 3 out of every 10 persons were directly involved in the educational process. It is not surprising, therefore, that so much public attention is focused on schools and colleges and that a substantial portion of national resources is being allocated to this vital enterprise. Increased support for education in recent years has come from Federal, State, and local governments, as well as from a variety of private sources. Total expenditures of educational institutions amounted to approximately $120 billion during the school year 1975–76. The material that follows presents more detailed information on the status and progress of education in the United States.

ENROLLMENT

Total enrollment in regular educational programs from kindergarten through graduate school increased for 27 consecutive years, reaching 59.8 million in fall 1971. Subsequently, although there were small annual decreases at the elementary school (grades 1–8) level, high school (grades 9–12) and college enrollments continued to rise, so that in fall 1975 total enrollment reached an all-time high of 60.2 million students.

Between fall 1974 and fall 1975, enrollment in kindergarten through grade 8 decreased from 35.0 to 34.6 million, or slightly more than 1 percent; enrollment in grades 9 through 12 increased from 15.6 to 15.8 million, or about 1 percent; and degree-credit enrollment in higher education institutions rose from 9.0 to 9.7 million, or nearly 8 percent. Additional information on enrollment by level for public and nonpublic schools may be found in table 1.

Further increases are not anticipated at two of the three levels of education in the immediate future. Reflecting the fact that there will be

fewer children 5 to 13 years of age than in the recent past, elementary school enrollment began to drop in fall 1970 and is expected to decrease for the next several years. High school enrollment also is expected to show small annual reductions for a number of years after reaching a high of 15.8 million in fall 1976. Enrollment in colleges and universities, however, is likely to continue to increase through the early 1980's.

Since the end of World War II a dominant trend in this country has been for more persons to enter the educational system at an earlier age and to remain in school for a longer period of time than their predecessors. This trend is illustrated most dramatically by a comparison of the latest available data on the percentage of 5-year-olds enrolled in school with the comparable percentages one and two decades earlier (table 2). More than 87 percent of the 5-year-olds were enrolled in school in fall 1975 as compared with 70 percent in 1965 and 58 percent in 1955. Enrollment percentages for persons in their middle and late teens, while down slightly from the peaks they attained around 1968, were substantially higher in 1975 than in 1955 and somewhat higher than they were in 1965.

Table 3 provides evidence of the long-term growth of high school education (grades 9-12) in the United States. From 1890 to 1975, while the population 14 to 17 years of age little more than tripled, enrollment in grades 9 through 12 increased 44 times, from 360,000 to 15.8 million. In 1890, only about 1 person in 15 in the 14 to 17 age group was enrolled in school; in 1975, the figure was more than 9 out of 10.

Over the past two decades college enrollment in this country has nearly quadrupled. Part of the increase may be accounted for by the fact that there are more young people of college age. Table 4 indicates, however, that there is another important factor that has contributed to increased college attendance. The proportion of young people attending college has risen from about one-seventh in the early 1950's to more than one-third today.

For half a century the Federal Government has assisted State and local governments in providing vocational education programs. In recent years, a variety of new programs has been added to the traditional classes in agriculture, home economics, and trades and industry, and the number of participants has increased at a rapid rate. Approximately 15.5 million students were enrolled in federally aided vocational classes in 1975 (table 5).

TEACHERS AND INSTRUCTIONAL STAFF

The teaching staff in American schools and colleges grew rapidly during the 1960's, keeping pace with and frequently exceeding the rise in enrollments. The growth rate has been more modest for the past several years. Between fall 1974 and 1975, the number of elementary school teachers increased by about 1 percent and the secondary school teachers by 2 percent. The increase at the college level is estimated at nearly 8 percent (table 6).

The long-range trend is for the number of public elementary and secondary school teachers to grow at a somewhat faster rate than school enrollment. Consequently, there has been a slight decline in the past few years in the number of pupils per teacher. As table 7 indicates there were 20.4 pupils per teacher in public schools in 1975 as compared with 22.3 pupils for each teacher 5 years earlier.

SCHOOLS AND SCHOOL DISTRICTS

There were approximately 16,400 local school districts in the United States in fall 1975, a new low and about 1,600 less than in 1970 (table 7). The number of school districts is gradually being reduced through a process of reorganization and consolidation at local or State initiative.

The number of public elementary schools is also declining over time. This trend reflects school consolidations and, in many instances, the closing of small rural schools as the Nation's population became increasingly concentrated in urban areas and family size decreased. In 1974–75 the public school system included 61,800 elementary schools, 23,800 secondary schools, and 1,900 combined elementary-secondary schools (organized and administered as a single unit).

HIGH SCHOOL AND COLLEGE GRADUATES

More than 3.1 million persons graduated from secondary school (completed grade 12) in 1975, and 1.3 million received earned degrees from American colleges and universities. Included in the degrees conferred were 979,000 bachelor's and first professional degrees, 292,000 master's degrees, and 34,000 doctorates. Over the past 15 years, the annual number of high school graduates has increased by two-thirds, the number of bachelor's and first-professional degrees has risen by two and one-half times, and the number of advanced degrees has nearly quadrupled (tables 8 and 9). These high growth rates reflect the rise in the number of young people of high school and college age and also a substantial increase in the proportion completing each level of education.

Data on earned degrees conferred by major field of study in the year ending in June 1975 are shown in table 10. At the bachelor's level more degrees were conferred in education, social sciences, and business and management than in any other field. The traditional fields of law, health professions, and theology were the leaders at the first-professional level. The leading fields in terms of the number of master's degrees conferred were education, business and management, and social sciences. More than 3,000 doctor's degrees were conferred in each of five fields: education, social sciences, physical sciences, biological sciences, and engineering.

SCHOOL RETENTION RATES AND EDUCATIONAL ATTAINMENT

Table 11 shows the increase in school retention rates from the fifth grade through college entrance since the early 1930's. During this period, the proportion of fifth graders who went on to graduate from secondary school increased from about 30 to nearly 75 percent. In other words, the rate of graduation for this group is now about two and one-half times that which prevailed in 1932. The increase in college attendance is even more striking: approximately 45 percent of our young people now enter college, compared with 12 percent in 1932.

Since 1940 the U.S. Bureau of the Census has collected statistics on the educational attainment of the population in this country. Table 12, which is derived from Census publications, compares the educational attainment of the population 25 to 29 years of age with that of the total population 25 years of age and over. The former group in March 1976 had completed one-half year of school more than the total adult population. Nearly 85 percent of the 25 to 29 age group reported that they had completed the equivalent of secondary school education, as compared with 64 percent of all adults. Almost 24 percent of the young adults identified themselves as college graduates, while fewer than 15 percent of all adults had completed 4 or more years of college.

Only one percent of the persons 14 years of age and over were illiterate in 1969 (table 13). This illiteracy rate may be compared with that of 2.2 percent in 1959, 4.3 percent in 1930, and 10.7 percent in 1900. Thus the 20th century has seen a steady reduction in the percentage of persons in the United States who are unable to read and write.

INCOME

Public elementary and secondary schools in the United States derive virtually all their revenue from various governmental sources. Income from other sources, such as gifts and fees, amounts to less than one-half of one percent of the total revenue receipts. Local governments contribute more than any other source, but in recent years the proportions from the Federal and State Governments have been increasing. In school year 1975–76 an estimated 48 percent of the revenue receipts of public schools came from local sources, 44 percent from State governments, and 8 percent from the Federal Government (table 14). The Federal contribution between 1963–64 and 1975–76 rose from $897 million to about $5.3 billion, or from 4.4 percent to 8.0 percent of the total amounts.

Although State and local governments have primary responsibility for public education in the United States, the Federal Government for many years has maintained an active interest in the educational process. In

recent years an increasing amount of Federal support for all levels of education has been provided through a variety of programs administered by a number of Government agencies. It is estimated that Federal grants reached an all-time high of $19.7 billion during the fiscal year that ended June 30, 1976. Table 15 presents a summary of Federal funds for education, training, and related activities for fiscal years 1975 and 1976.

EXPENDITURES

Expenditures for public elementary and secondary schools in the United States during school year 1975–76 are estimated at $67.1 billion (table 16). This represented an increase of nearly 18 percent over the $57.0 billion expended 2 years earlier. Per-pupil expenditures have also risen rapidly in recent years. The current expenditure per pupil in average daily attendance in 1975–76 was nearly $1,400, and the total expenditure, including current expenditure, capital outlay, and interest on school debt, approached $1,600 per pupil.

Table 17 compares total expenditures for public and private education at all levels (elementary, secondary, and higher education) with the gross national product over the past half century. Educational expenditures are estimated at $120 billion during school year 1975–76, an amount equal to 7.9 percent of the gross national product. In relation to the gross national product, expenditures today are more than four times as great as they were during the middle 1940's.

Expenditures for vocational education from Federal, State, and local funds are shown in table 18. In 1975 the Federal Government contributed 13 percent of the money, and the remaining 87 percent came from State and local sources. A major goal of American education at the present time is to train young people for useful careers. The increased emphasis on education for a career is reflected in the sevenfold rise in outlays for vocational education over the past decade. In many respects vocational education taken as a whole is the fastest growing segment of the American educational system.

Table 1.—Enrollment in educational institutions, by level of instruction and by type of control: United States, fall 1974 and fall 1975[1]

[In thousands]

Level of instruction and type of control	Fall 1974	Fall 1975
1	2	3
Total elementary, secondary, and higher education	59,677	60,169
Public	52 132	52 504
Nonpublic	7 545	7 666
Kindergarten-grade 12 (regular and other schools)[2]	50,654	50 438
Regular public schools	45 053	44,838
Regular nonpublic schools	5 300	5 300
Other public schools	241	240
Other nonpublic schools	60	60
Kindergarten-grade 8 (regular and other schools)[2]	35 020	34 645
Regular public schools	30 921	30 545
Regular nonpublic schools	3 900	3,900
Other public schools	174	175
Other nonpublic schools	36	25
Grades 9-12 (regular and other schools)[2]	15 633	15 794
Regular public schools	14 132	14 294
Regular nonpublic schools	1 400	1 400
Other public schools	66	65
Other nonpublic schools	35	35
Higher education (total degree-credit enrollment in universities, colleges, professional schools, teachers colleges, and junior colleges)[3]	9 023	9 731
Public	6 838	7 426
Nonpublic	2 185	2 306
Undergraduate[4]	7 834	8 468
Graduate	1 190	1 263

[1] The 1974 and 1975 figures for regular nonpublic and other elementary and secondary schools are estimates. Surveys of nonpublic elementary and secondary schools have been conducted at less frequent intervals than those of public schools and of institutions of higher education. Consequently, the estimates for nonpublic schools are less reliable than those for other types of institutions. The estimates are derived from the increases expected from population changes combined with the long-range trend in school enrollment rates of the population.

[2] Regular schools include schools which are a part of State and local school systems and also most non profit making nonpublic elementary and secondary schools, both church affiliated and nonsectarian. Other schools include subcollegiate departments of institutions of higher education, residential schools for exceptional children, Federal schools for Indians, and Federal schools on military posts and other Federal installations.

[3] Excludes undergraduate students in occupational programs which are not ordinarily creditable toward a bachelor's degree. There were approximately 1,200,000 of these non degree credit students in fall 1974 and 1,453,000 in 1975.

[4] Includes students working toward first professional degrees such as M.D., D.D.S., LL.B., and B.D.

NOTE: Fall enrollment is usually smaller than school year enrollment since the latter is a cumulative figure which includes students who enroll at any time during the year. Because of rounding, details may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Day Schools, Fall Enrollment in Higher Education*, and estimates of the National Center for Education Statistics.

Table 2.—Percent of the population 5 to 34 years old enrolled in school, by age: United States, October 1947 to October 1975

Year	Total, 5 to 34 years	5 years[1]	6 years[1]	7 to 9 years	10 to 13 years	14 and 15 years	16 and 17 years	18 and 19 years	20 to 24 years	25 to 29 years	30 to 34 years
1	2	3	4	5	6	7	8	9	10	11	12
1947	42.3	53.4	96.2	98.4	98.6	91.6	67.6	24.3	10.2	3.0	1.0
1948	43.1	55.0	96.2	98.3	98.0	92.7	71.2	26.9	9.7	2.6	.9
1949	43.9	55.1	96.2	98.5	98.7	93.5	69.5	25.3	9.2	2.8	1.1
1950	44.2	51.8	97.0	98.9	98.6	94.7	71.3	29.4	9.0	3.0	.9
1951	45.4	53.8	96.0	99.0	99.2	94.8	75.1	26.3	8.3	2.5	
1952	46.8	57.8	96.8	98.7	98.9	96.2	73.4	28.7	9.5	2.6	1.2
1953	48.8	58.4	97.7	99.4	99.4	96.5	74.7	31.2	11.1	2.9	1.7
1954	50.0	57.7	96.8	99.2	99.5	95.8	78.0	32.4	11.2	4.1	1.5
1955	50.8	58.1	98.2	99.2	99.2	95.9	77.4	31.5	11.1	4.2	1.6
1956	52.3	58.9	97.0	99.4	99.2	96.9	78.4	35.4	12.8	5.1	1.9
1957	53.6	60.2	97.4	99.5	99.5	97.1	80.5	34.9	13.0	5.5	1.8
1958	54.8	63.8	97.3	99.5	99.5	96.9	80.6	37.6	13.4	5.7	2.2
1959	55.5	62.9	97.5	99.4	99.4	97.5	82.9	36.8	12.7	5.1	2.2
1960	56.4	63.7	98.0	99.6	99.5	97.8	82.6	38.4	13.1	4.9	2.4
1961	56.8	66.3	97.4	99.4	99.3	97.6	83.6	38.0	13.2	4.4	2.0
1962	57.8	66.8	97.9	99.2	99.3	98.0	84.3	41.8	15.6	5.0	2.6
1963	58.5	67.8	97.4	99.4	99.3	98.4	87.1	40.9	17.3	4.9	2.5
1964	58.7	68.5	98.2	99.0	99.0	98.6	87.7	41.6	16.8	5.2	2.6
1965	59.7	70.1	98.7	99.3	99.4	98.9	87.4	46.3	19.0	6.1	3.2
1966	60.0	72.8	97.6	99.3	99.3	98.6	88.5	47.2	19.9	6.6	2.7
1967	60.2	75.0	98.4	99.4	99.1	98.2	88.8	47.6	22.0	6.6	4.0
1968	60.0	74.9	98.3	99.1	99.1	98.0	90.2	50.4	21.4	7.0	3.9
1969	60.0	76.2	98.2	99.3	99.1	98.1	89.7	50.2	23.0	7.9	4.8
1970	58.9	77.7	98.4	99.3	99.2	98.1	90.0	47.7	21.5	7.5	4.2
1971	58.5	82.5	98.4	99.1	99.2	98.6	90.2	49.2	21.9	8.0	4.9
1972	56.8	83.5	98.1	99.0	99.3	97.6	88.9	46.3	21.6	8.6	4.6
1973	55.4	84.1	98.5	99.1	99.2	97.5	88.3	42.9	20.8	8.5	4.5
1974	55.2	87.0	98.7	99.1	99.5	97.9	87.9	43.1	21.4	9.6	5.1
1975	55.0	87.2	99.0	99.3	99.3	98.2	89.0	46.9	22.4	10.1	6.6

[1] Includes children enrolled in kindergarten but excludes those enrolled in nursery schools.

NOTE.—Data are based upon sample surveys of the civilian noninstitutional population.

SOURCES: (1) U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20. (2) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, reports on *Preprimary Enrollment*.

Table 3.—Enrollment in grades 9-12 in public and nonpublic schools compared with population 14-17 years of age: United States, 1889-90 to fall 1975

School year	Enrollment, grades 9-12[1]			Population 14-17 years of age[2]	Total number enrolled per 100 persons 14-17 years of age
	All schools	Public schools	Nonpublic schools		
1	2	3	4	5	6
1889-90	359,949	[3] 202,963	[3] 94,931	5,354,653	6.7
1893-1900	699,403	[3] 519,251	[3] 110,797	6,152,231	11.4
1909-10	1,115,398	[3] 915,061	[3] 117,400	7,220,298	15.4
1919-20	2,500,176	[3] 2,200,389	[3] 213,920	7,735,841	32.3
1929-30	4,804,255	[3] 4,399,422	[3][4] 341,158	9,341,221	51.4
1939-40	7,123,009	6,635,337	487,672	9,720,419	73.3
1941-42	6,933,265	6,420,544	512,724	9,749,000	71.1
1943-44	6,030,617	5,584,656	445,961	9,449,000	63.8
1945-46	6,237,133	5,664,528	572,605	9,056,000	68.9
1947-48	6,305,168	5,675,937	629,231	8,841,000	71.3
1949-50	6,453,009	5,757,810	695,199	8,404,768	76.8
1951-52	6,596,351	5,917,384	678,967	8,516,000	77.5
1953-54	7,108,973	6,330,565	778,408	8,861,000	80.2
1955-56	7,774,975	6,917,790	857,185	9,207,000	84.4
1957-58	8,869,186	7,905,469	963,717	10,139,000	87.5
1959-60	9,599,810	8,531,454	1,068,356	11,154,879	86.1
1961-62	10,768,972	9,616,755	1,152,217	12,046,000	89.4
Fall 1963	12,255,496	10,935,536	1,319,960	13,492,000	90.8
Fall 1965	13,020,823	11,657,808	1,363,015	14,145,000	92.1
Fall 1969	14,418,301	13,084,301	1,334,000	15,550,000	92.7
Fall 1971	15,226,000	13,886,000	1,340,000	16,279,000	93.5
Fall 1973	15,476,526	14,141,526	1,335,000	16,745,000	92.4
Fall 1975[5]	15,795,000	14,360,000	1,435,000	16,941,000	93.2

[1] Unless otherwise indicated, includes enrollment in subcollegiate departments of institutions of higher education and in residential schools for exceptional children. Beginning in 1949-50, also includes Federal schools.

[2] Includes all persons residing in the United States but excludes Armed Forces overseas. Data from the decennial censuses have been used when appropriate. Other figures are Bureau of the Census estimates as of July 1 preceding the opening of the school year.

[3] Excludes enrollment in subcollegiate departments of institutions of higher education and in residential schools for exceptional children.

[4] Data for 1927-28.

[5] Estimated.

[6] Preliminary data.

NOTE: Beginning in 1959-60, includes Alaska and Hawaii.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Statistics of State School Systems, Statistics of Public Elementary and Secondary Day Schools, Statistics of Nonpublic Elementary and Secondary Schools*, and unpublished data.

Table 4.—Degree-credit enrollment in institutions of higher education compared with population aged 18–24 United States, fall 1950 to fall 1975

Year	Population 18-24 years of age[1]	Enrollment	Number enrolled per 100 persons 18-24 years of age
1	2	3	4
1950	16,076,000	2,286 500	14 2
1951	15,781,000	2,107,109	13 4
1952	15,473,000	2,139,156	13 8
1953	15,356,000	2,235,977	14 6
1954	15,103,000	2,452,466	16 2
1955	14,968,000	2,660,429	17 8
1956	14,980,000	2,927,367	19 5
1957	15,095,000	3,047,373	20 2
1958	15,307 000	3,236 414	21 2
1959	15 677,000	3,377 273	21 5
1960	16,128,000	3,582,726	22 2
1961	17,004,000	3,860,643	22 7
1962	17,688,000	4,174,936	23 6
1963	18,268,000	4,494,626	24 6
1964	18,783,000	4,950,173	26 4
1965	20 293 000	5,526,325	27 2
1966	21 376 000	5 928 000	27 7
1967	22 327 000	6,406 000	28 7
1968	22 883 000	6 928,115	30 3
1969	23,723 000	7,484 073	31.5
1970	24,687,000	7 920 149	32 1
1971	25 779,000	8 116,103	31 5
1972	25 913,000	8 265,057	31 9
1973	26,397 000	8,518 150	32 3
1974	26,915 000	9,023,446	33 5
1975	27 623 000	9 731 431	35 2

[1] These Bureau of the Census estimates are as of July 1 preceding the opening of the academic year They include Armed Forces overseas.

[2] Estimated

NOTE.—Data are for 50 States and the District of Columbia Beginning in 1953, enrollment figures include extension students.

SOURCES (1) U S Department of Health Education and Welfare National Center for Education Statistics, *Fall Enrollment in Higher Education.* (2) U S Department of Commerce Bureau of the Census *Current Population Reports,* Series P 25 Nos 311, 519, and 614

Table 5.—Enrollment in federally aided vocational education classes, by type of program United States and outlying areas, 1920 to 1975

Fiscal year	Total	Type of program: Agriculture	Distributive occupations	Home economics	Trades and industry	Health occupations	Technical education	Office occupations	Other programs
1	2	3	4	5	6	7	8	9	10
1920	265,058	31,301		48,938	184,819				
1930	981,882	188,311		174,967	618,604				
1940	2,290,741	584,133	129,433	818,766	758,409				
1942	2,624,786	605,099	215,049	954 041	850,597				
1944	2,001,153	469 959	181,509	806,605	543,080				
1946	2,227,663	510,331	174,672	911,816	630,844				
1948	2,836,121	640,791	292,936	1,139,766	762,628				
1950	3,364,613	764,975	364,670	1,430 366	804 602				
1952	3,165,988	746,402	234,984	1 391,389	793,213				
1954	3,164,851	737,502	220,619	1,380,147	826,583				
1956	3,413,159	785,599	257,025	1,486,816	883,719				
1958	3 629,339	775,892	282,558	1,559,822	983,644	27,423			
1960	3,768,149	796,237	303,784	1 588,109	938,490	40 250	101,279		
1962	4 072,677	822,664	321,065	1,725,660	1,005,383	48,985	148 920		
1964	4,566,390	860,605	334,126	2,022,138	1,069,274	59,006	221,241		
1966	6,070,059	907,354	420,426	1 897,670	1,269,059	83 677	253,838	1,238 043	
1968	7,533,936	851 158	574,785	2,283,338	1 628,542	140,987	269,832	1,735,997	49,297
1970	8,793,960	852,983	529 365	2,570,410	1,906 133	198,044	271,730	2 111,160	354,135
1972	11 710,767	896,460	640 423	3,445 698	2 397,968	336 652	337,069	2,351,878	1,304,619
1974	13,794,512	976,319	832 905	3 702,684	2,824,317	504,913	392,887	2,757,464	1,803,023
1975	15,485,828	1,012,595	873,224	3 746,540	3,016,509	616 638	447,336	2,951,065	2,821,921

SOURCES U S Department of Health, Education and Welfare Office of Education reports on *Vocational and Technical Education,* and *Summary Data, Vocational Education*

Table 6.—Estimated number of classroom teachers in elementary and secondary schools, and total instructional staff for resident courses in institutions of higher education
United States, fall 1974 and fall 1975[1]

[Full-time and part time teachers and staff]

Level of instruction and type of control	Fall 1974	Fall 1975
1	2	3
Total elementary, secondary, and higher education	3 067 000	3 155 000
Public	2 630 000	2,703 000
Nonpublic	437 000	452 000
Elementary and secondary classroom teachers in regular and other schools[2]	2,445,000	2,485 000
Public	2,181,000	2,219 000
Nonpublic	264 000	266 000
Elementary classroom teachers in regular and other schools[2]	1,352 000	1 368,000
Public	1 179 000	1,195,000
Nonpublic	173 000	173 000
Secondary classroom teachers in regular and other schools[2]	1,093,000	1 117 000
Public	1 002 000	1 024,000
Nonpublic	91 000	93 000
Higher education instructional staff for resident courses[3]	622 000	670 000
Public	449,000	484 000
Nonpublic	173,000	186,000

[1] The figures for nonpublic and other elementary and secondary schools and for institutions of higher education in 1974 and 1975 are estimates. Data for nonpublic elementary and secondary schools are not as complete as those for public schools; consequently the estimates for nonpublic schools are not as reliable as those for public schools or for higher education. The estimates are derived from enrollment changes combined with the long term trend in pupil teacher ratios.

Whether grades 7 and 8 are counted as 'elementary' or 'secondary' depends on the structure of the local school system.

[2] The figures include elementary and secondary classroom teachers in regular public and nonpublic schools and other schools such as Federal schools for Indians, federally operated schools on posts, subcollegiate departments of colleges, and residential schools for exceptional children. For 1974 and 1975, the numbers of such teachers are estimated as 12 000 in public and 2 000 in nonpublic elementary schools, 4 000 in public and 3 000 in nonpublic secondary schools.

[3] Includes full time and part time staff with rank of instructor or above, and junior staff such as graduate assistants for instruction in resident courses.

SOURCES: Surveys and estimates of the National Center for Education Statistics, U.S. Department of Health, Education and Welfare.

Table 7.—Selected statistics for public elementary and secondary schools
United States, fall 1970 and fall 1975[1]

Item	Fall 1970	Fall 1975	Percentage change 1970 to 1975
	2	3	4
Local school districts			
Total	17 995	16 376	9 0
Operating	17,181	16,003	-6 8
Nonoperating	814	383	-55 4
Number of schools			
Elementary only	64 539	61 759	-4 3
Secondary only	23 972	23,837	0 6
Combined elementary and secondary	2,310	1 860	19 5
Enrollment			
Total	45 909 088	44,838 490	2 3
Elementary	27,501 001	25,692,214	-6 6
Secondary	18 408 087	19 146 276	4 0
Percent of total enrollment in elementary schools	59 9	57 3	
Percent of total enrollment in secondary schools	40 1	42 7	
Classroom teachers			
Total full time and part time	2,055 218	2 205 889	7 2
Elementary schools	1 127 962	[3] 1 183 059	4 9
Secondary schools	927,256	[3] 1 020 030	10 0
Percent of total teachers in elementary schools	54 9	[3] 53 7	
Percent of total teachers in secondary schools	45 1	[3] 46 3	
Pupil-teacher ratio			
All schools	22 3	20 4	
Elementary schools	24 3	[3] 21 7	
Secondary schools	19 8	[3] 18 8	
Public high school graduates[2]			
Total graduates of regular day school programs	2 688 639	2 823,023	9 1
Boys	1 285,518	1 389 353	8 1
Girls	1 303 121	1,433,670	10 0
Other programs	36,585	36 392	-0 5
High school equivalency certificates	141 793	225 585	59 1

[1] Whether grades 7 and 8 are counted as 'elementary' or 'secondary' depends on the structure of the local school system
[2] Data for previous school year
[3] Estimated

SOURCE U S Department of Health Education and Welfare National Center for Education Statistics *Statistics of Public Elementary and Secondary Day Schools, Fall 1970* and *Fall 1975*

Table 8.—Number of high school graduates compared with population 17 years of age
United States, 1869 70 to 1974 75

School year	Population 17 years old[1]	High school graduates			Number graduated per 100 persons 17 years of age
		Total	Boys	Girls	
1	2	3	4	5	6
1869 70	815,000	16 000	7 064	8,936	2 0
1879 80	946,026	23,634	10 605	13,029	2.5
1889 90	1 259,177	43 731	18 549	25 182	3 5
1899 1900	1 489,146	94,883	38,075	56 809	6 2
1909 10	1,786 240	156 429	63 676	92 753	8 8
1919 20	1,855,173	311,266	123 684	187 682	16 8
1929 30	2 295 822	666,904	300 376	366 528	29 0
1939 40	2 403 074	1 221,475	578 718	642,757	50 8
1941 42	2,425 574	1 242 375	576 717	665 658	51 3
1943 44	2 410 339	1 019,233	423 971	595 262	42 3
1945 46	2 254 738	1 080 033	466 926	613 107	47 9
1947 48	2 202 927	1 189 909	562 863	627,046	54 0
1949 50	2 034,450	1,109 700	570 700	629 000	59 0
1951 52	2 040 800	1 196,500	569,000	627 300	58 6
1953 54	2 128 600	1,276,100	612 500	663,600	60 0
1955 56	2,270 000	1 414,800	679 500	735 300	62 3
1957 58	2,324 000	1,505 900	725 500	780,400	64 8
1959 60	2,862,005	1,864 000	898,000	966 000	65 1
1961 62	2 768 000	1 925,000	941 000	984 000	69 5
1963 64	3,001 000	2,290 000	1 121 000	1 169 000	76 3
1965 66	3,515 000	2,632 000	1,308 000	1 324 000	74 9
1967 68	3,521,000	2 702 000	1 341 000	1 361,000	76 7
1969 70	3,825 343	2,896 000	1 433 000	1 463 000	75 7
1971 72	3 957 000	3 006 000	1,490 000	1 516 000	76 0
1973 74	4 096 000	3 077 000	1 513 000	1 564 000	75 1
1974 75	4 210 000	3,140 000	1,541 000	1 599 000	74 6

[1] Data from Bureau of the Census
[2] Includes graduates of public and nonpublic schools
[3] Revised since originally published

NOTE.—Beginning in 1959 60 includes Alaska and Hawaii

SOURCES U S Department of Health Education and Welfare National Center for Education Statistics *Statistics of State School Systems, Statistics of Public Elementary and Secondary Day Schools Fall 1975 Statistics of Nonpublic Elementary and Secondary Schools,* and unpublished data

Table 9.—Earned degrees conferred by institutions of higher education: United States, 1869-70 to 1974-75

Year	Earned degrees conferred			
	All degrees	Bachelor's and first professional	Master's except first professional[1]	Doctors
1	2	3	4	5
1869-70	9 372	9 371	0	1
1879-80	13,829	12,896	879	54
1889-90	16,703	15,539	1 015	149
1899-1900	29 375	27 410	1,583	382
1909-10	39,755	37,199	2,113	443
1919-20	53,516	48 622	4 279	615
1929-30	139,752	122,484	14 969	2 299
1939-40	216,521	186 500	26,731	3,290
1941-42	213 491	185 346	24,648	3,497
1943-44	141,582	125 863	13,414	2 305
1945-46	157,349	136,174	19 209	1 966
1947-48	317 607	271 019	42 400	4 188
1949-50	496 661	432,058	58 183	6,420
1951-52	401 263	329 986	63,534	7,683
1953-54	356 608	290 825	56 788	8 995
1955-56	376 973	308 812	59 258	8,903
1957-58	436 979	362 554	65 487	8 938
1959-60	476,704	392 440	74 435	9 829
1961-62	514 323	417 846	84,855	11,622
1963-64	614 194	498,654	101 050	14,490
1965-66	709,832	551,040	140 555	18 237
1967-68	866,548	666 710	176 749	23,089
1969-70	1,065,391	827 234	208,291	29 866
1971-72	1,215,680	930,684	251 633	33,363
1973-74	1,310,441	999,592	277 033	33 816
1974-75	1 305,382	978 849	292 450	34 083

[1] Beginning in 1965-66 includes all master's degrees.

NOTE - Beginning in 1959-60 includes Alaska and Hawaii.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Biennial Survey of Education in the United States, Earned Degrees Conferred*, and unpublished data.

Table 10.—Earned degrees conferred by institutions of higher education, by field of study and by level: United States, 1974-75

Field of study	Earned degrees conferred			
	Bachelor's degrees (requiring 4 or 5 years)	First professional degrees (requiring at least 6 years)	Master's degrees	Doctor's degrees (Ph.D., Ed.D., etc.)
1	2	3	4	5
All fields	922,933	55,916	292,450	34,083
Agriculture and natural resources	17,528		3,067	991
Architecture and environmental design	8,226		2,938	69
Area studies	3,035		1,134	165
Biological sciences	51,743		6,560	3,384
Business and management	133,822		36,364	1,011
Communications	19,248		2,794	165
Computer and information sciences	5,033		2,299	213
Education	166,969		119,778	7,443
Engineering	46,852		15,348	3,108
Fine and applied arts	40,782		8,362	649
Foreign languages	17,606		3,807	157
Health professions	49,090	20,443	10,692	618
Home economics	16,772		1,901	156
Law	436	29,296	1,245	21
Letters[1]	57,577		11,861	2,498
Library science	1,069		8,091	56
Mathematics	18,181		4,327	975
Military sciences	340			
Physical sciences	20,778		5,807	3,626
Psychology	50,988		7,066	2,442
Public affairs and services	28,160		15,299	285
Social sciences	135,674		16,924	4,209
Theology	4,809	5,095	3,228	872
Interdisciplinary and other fields	28,217	1,082	3,568	270

[1] Includes general English, English literature, Comparative literature, Classics, Linguistics, Speech, debate and forensic science, Creative writing, Teaching of English as a foreign language, Philosophy, and Religious studies.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Earned Degrees Conferred, 1974-75*.

Table 11.—Estimated retention rates,[1] 5th grade through college entrance, in public and nonpublic schools: United States, 1924-32 to 1967-75

School year pupils entered 5th grade	Retention per 1,000 pupils who entered 5th grade								High school graduation		First time college students
	5th grade	6th grade	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade	Number	Year of graduation	
1	2	3	4	5	6	7	8	9	10	11	12
1924-25	1,000	911	799	741	612	470	384	344	302	1932	118
1926-27	1,000	919	824	754	677	552	453	400	333	1934	129
1928-29	1,000	939	847	805	736	624	498	432	378	1936	137
1930-31	1,000	943	872	824	770	652	529	463	417	1938	148
1932-33	1,000	935	889	831	786	664	570	510	455	1940	160
1934-35	1,000	953	892	842	803	711	610	512	467	1942	129
1936-37	1,000	954	895	849	839	704	554	425	393	1944	121
1938-39	1,000	956	908	853	796	658	532	444	419	1946	(2)
1940-41	1,000	968	910	836	781	697	566	507	481	1948	(2)
1942-43	1,000	954	909	847	807	713	604	539	505	1950	205
1944-45	1,000	952	929	858	848	748	650	549	522	1952	234
1946-47	1,000	954	945	919	872	775	641	583	553	1954	283
1948-49	1,000	984	956	929	863	795	706	619	581	1956	301
1950-51	1,000	981	968	921	886	809	709	632	582	1958	308
1952-53	1,000	974	965	936	904	835	746	667	621	1960	328
1954-55	1,000	980	979	948	915	855	759	684	642	1962	343
1956-57	1,000	985	984	948	930	871	790	728	676	1964	362
Fall 1958	1,000	983	979	961	946	908	842	761	732	1966	384
Fall 1960	1,000	980	973	967	952	913	858	787	749	1968	452
Fall 1962	1,000	987	977	967	959	928	860	790	750	1970	461
Fall 1964	1,000	988	985	976	975	942	865	791	748	1972	433
Fall 1966	1,000	989	986	985	985	959	871	783	744	1974	448
Fall 1967	1,000	992	988	984	984	956	870	775	743	1975	452

[1] Rates for the 5th grade through high school graduation are based on enrollments in successive grades in successive years in public elementary and secondary schools and are adjusted to include estimates for nonpublic schools. Rates for first time college enrollment include full time and part time students enrolled in programs creditable toward a bachelor's degree.

[2] Data not available.

[3] Revised since originally published.

NOTE.—Beginning with the class in the 5th grade in 1958, data are based on fall enrollment and exclude ungraded pupils. The net effect of these changes is to increase high school graduation and college entrance rates slightly.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics: *Biennial Survey of Education in the United States, Statistics of State School Systems, Fall Statistics of Public Elementary and Secondary Day Schools* and unpublished data.

Table 12.—Level of school completed by persons age 25 and over and 25 to 29, by race: United States, 1970 to 1976

Race, age, and date	Percent, by level of school completed: Less than 5 years of elementary school	4 years of high school or more	4 or more years of college	Median school years completed
1	2	3	4	5
All races				
25 and over				
1910[1]	23 8	13.5	2 7	8 1
1920[1]	22 0	16 4	3 3	8 2
1930[1]	17 5	19 1	3 9	8 4
April 1940	13 5	24 1	4 6	8 6
April 1950	10 8	33 4	6 0	9 3
April 1960	8 3	41 1	7 7	10.5
March 1970	5 3	55 2	11 0	12 2
March 1974	4 4	61 2	13 3	12 3
March 1976	3 9	64 1	14 7	12 4
25 to 29				
April 1940	5 9	37 8	5 8	10 4
April 1950	4 6	51 7	7 7	12 1
April 1960	2 8	60 7	11 1	12 3
March 1970	1 1	75 4	16 4	12 6
March 1974	1 2	81 9	20 7	12 8
March 1976	0 8	84 7	23 7	12 9
White				
25 and over				
April 1940	10 9	26 1	4 9	8 7
April 1950	8 7	35 5	6 4	9 7
April 1960	6 7	43 2	8 1	10.8
March 1970	4 2	57 4	11 6	12 2
March 1974	3 5	63 3	14 0	12 4
March 1976	3 0	66 1	15 4	12 4
25 to 29				
1920[1]	12 9	22 0	4 5	8 5
April 1940	3 4	41 2	6 4	10 7
April 1950	3 2	55 2	8 1	12 2
April 1960	2 2	63 7	11 8	12 3
March 1970	9 6	77 8	17 3	12 6
March 1974	1 1	83 4	22 0	12 8
March 1976	0 8	85 9	24 6	12 9
Black and other races				
25 and over				
April 1940	41 8	7 7	1 3	5 7
April 1950	31 4	13 4	2 2	6 9
April 1960	23 5	21 7	3 5	8 2
March 1970	14 7	36 1	6 1	10 1
March 1974	12 2	44 3	8 0	11 1
March 1976	10 7	47 8	9 6	11 6
25 to 29				
1920[1]	44 6	6 3	1 2	5 4
April 1940	26 7	12 1	1 6	7 1
April 1950	15 4	23 4	2 8	8 7
April 1960	7 2	38 6	5 4	10 8
March 1970	2 2	58 4	10 0	12 2
March 1974	1 8	71 3	11 0	12 5
March 1976	0 9	76 1	17 5	12 6

[1] Estimates based on retrojection of 1940 census data on education by age

NOTE.—Prior to 1950 data exclude Alaska and Hawaii. Data for 1974 and 1976 are for the noninstitutional population.

SOURCES: U.S. Department of Commerce, Bureau of the Census, *1960 Census of Population*, Vol. 1, Part 1; *Current Population Reports*, Series P-20, Series P-19, No. 4; and 1960 Census Monograph, *Education of the American Population* by John K. Folger and Charles B. Nam.

Table 13.—Percent of illiteracy[1] in the population: United States, 1870 to 1969

Year	Percent illiterate[2,3]
1	2
1870	20 0
1880	17 0
1890	13 3
1900	10 7
1910	7 7
1920	6 0
1930	4 3
1940	2 9
1947	2 7
1952	2 5
1959	2 2
1969	1 0

[1] Illiteracy is defined as the inability to read or write a simple message either in English or in any other language.

[2] Percentages refer to the population 10 years old and over from 1870 to 1940 and to the population 14 years old and over from 1947 to 1969.

[3] Estimated.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, No. 217.

Table 14.—Revenue receipts of public elementary and secondary schools from Federal, State, and local sources: United States, 1919-20 to 1975-76

School year	Total	Federal	State	Local (including intermediate)[1]	School year	Total	Federal	State	Local (including intermediate)[1]
1	2	3	4	5	1	2	3	4	5
	AMOUNT IN THOUSANDS OF DOLLARS					PERCENTAGE DISTRIBUTION			
1919-20	$970,120	$2,475	$160,085	$807,561	1919-20	100.0	0.3	16.5	83.2
1929-30	2,088,557	7,334	353,670	1,727,553	1929-30	100.0	.4	16.9	82.7
1939-40	2,260,527	39,810	684,354	1,536,363	1939-40	100.0	1.8	30.3	68.0
1941-42	2,416,580	34,305	759,993	1,622,281	1941-42	100.0	1.4	31.5	67.1
1943-44	2,604,322	35,886	859,183	1,709,253	1943-44	100.0	1.4	33.0	65.6
1945-46	3,059,845	41,378	1,062,057	1,956,409	1945-46	100.0	1.4	34.7	63.8
1947-48	4,311,534	120,270	1,676,362	2,514,902	1947-48	100.0	2.8	38.9	58.3
1949-50	5,437,044	155,848	2,165,689	3,115,507	1949-50	100.0	2.9	39.8	57.3
1951-52	6,423,816	227,711	2,478,596	3,717,507	1951-52	100.0	3.5	38.6	57.8
1953-54	7,866,852	355,237	2,944,103	4,567,512	1953-54	100.0	4.5	37.4	58.1
1955-56	9,686,677	441,442	3,828,885	5,416,350	1955-56	100.0	4.6	39.5	55.9
1957-58	12,181,513	486,484	4,800,368	6,894,661	1957-58	100.0	4.0	39.4	56.6
1959-60	14,746,618	651,639	5,768,047	8,326,932	1959-60	100.0	4.4	39.1	56.5
1961-62	17,527,707	760,975	6,789,190	9,977,542	1961-62	100.0	4.3	38.7	56.9
1963-64	20,544,182	896,956	8,078,014	11,569,213	1963-64	100.0	4.4	39.3	56.3
1965-66	25,356,858	1,996,954	9,920,219	13,439,686	1965-66	100.0	7.9	39.1	53.0
1967-68	31,903,064	2,806,469	12,275,536	16,821,063	1967-68	100.0	8.8	38.5	52.7
1969-70	40,266,923	3,219,557	16,062,776	20,984,589	1969-70	100.0	8.0	39.9	52.1
1971-72	50,003,645	4,467,969	19,133,256	26,402,420	1971-72	100.0	8.9	38.3	52.8
1973-74	58,230,892	4,930,351	24,113,409	29,187,132	1973-74	100.0	8.5	41.4	50.1
1975-76[2]	67,136,937	5,345,912	29,321,594	32,469,431	1975-76[2]	100.0	8.0	43.7	48.4

[1] Includes a relatively small amount from nongovernmental sources (gifts and tuition and transportation fees from patrons). These sources accounted for 0.4 percent of total revenue receipts in 1967-68.

[2] Estimated

NOTE.—Beginning in 1959-60, includes Alaska and Hawaii. Because of rounding, details may not add to totals.

SOURCES: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Statistics of State School Systems*, and *Statistics of Public Elementary and Secondary Day Schools, Fall 1975*.

Table 15.—Federal funds for education and related activities: Fiscal years 1975 and 1976

Level and type of support	1975	1976[1]	Percentage change, 1975 to 1976
1	2	3	4
Federal funds supporting education in educational institutions			
Total grants and loans	$17,589,325,000	$20,137,337,000	14.5
Grants, total	17,109,675,000	19,670,065,000	15.0
Elementary-secondary education	4,998,055,000	5,079,389,000	1.6
Higher education	7,996,305,000	9,700,094,000	21.3
Vocational-technical and continuing education	4,116,315,000	4,890,582,000	18.8
Loans, total (higher education)	479,650,000	467,272,000	-2.6
Other Federal funds for education and related activities			
Total	5,783,952,000	6,488,773,000	12.2
Applied research and development	1,970,056,000	2,000,401,000	1.5
School lunch and milk programs	1,831,784,000	2,333,118,000	27.4
Training of Federal personnel	1,014,986,000	1,108,388,000	9.2
Library services	227,645,000	247,508,000	8.7
International education	93,474,000	104,207,000	11.5
Other[2]	646,007,000	695,151,000	7.6

[1] Estimated

[2] Includes agricultural extension services, educational television facilities, education in Federal correctional institutions, value of surplus property transferred, and any additional Federal programs.

SOURCE: U.S. Department of Health, Education and Welfare, National Center for Education Statistics, *Digest of Education Statistics, 1976*.

Table 16 —Total and per pupil expenditures of public elementary and secondary schools
United States, 1919-20 to 1975-76

School year	Expenditures for public schools (in thousands of dollars)					Expenditure per pupil in average daily attendance	
	Total	Current expenditures for day schools	Current expenditures for other programs[1]	Capital outlay	Interest	Total[2]	Current[3]
1	2	3	4	5	6	7	8
1919-20	$1,036,151	$861,120	$3,277	$153,543	$18,212	$64	$54
1929-30	2,316,790	1,843,552	9,825	370,878	92,536	108	87
1939-40	2,344,049	1,941,799	13,367	257,974	130,909	106	88
1949-50	5,837,643	4,687,274	35,614	1,014,176	100,578	259	209
1959-60	15,613,255	12,329,389	132,566	2,661,786	489,514	472	375
1961-62	18,373,339	14,729,270	194,093	2,862,153	587,823	530	419
1963-64	21,324,993	17,218,446	427,528	2,977,976	701,044	559	460
1965-66	26,248,026	21,053,280	648,304	3,754,862	791,580	654	537
1967-68	32,977,182	26,877,162	866,419	4,255,791	977,810	786	658
1969-70	40,683,428	34,217,773	635,803	4,659,072	1,170,782	955	816
1971-72	48,050,283	41,817,782	396,319	4,458,949	1,378,236	1,128	990
1973-74	56,970,355	50,024,638	453,207	4,978,976	1,513,534	1,364	1,207
1975-76[5]	67,102,569	57,436,029	1,713,704	5,982,539	1,970,297	1,580	1,388

[1] Includes expenditures for adult education summer schools community colleges and community services (when separately reported)
[2] Includes current expenditures for day schools capital outlay and interest on school debt
[3] Includes day school expenditures only excludes current expenditures for other programs
[4] Excludes data for adult education and community colleges
[5] Estimated

NOTE —Beginning in 1959-60 includes Alaska and Hawaii Because of rounding details may not add to totals

SOURCES U S Department of Health Education and Welfare, National Center for Education Statistics *Statistics of State School Systems*, and *Statistics of Public Elementary and Secondary Day Schools Fall 1975*

Table 17 —Gross national product related to total expenditures[1] for education
United States, 1929-30 to 1975-76

Calendar year	Gross national product (in millions)	School year	Expenditures for education	
			Total (in thousands)	As a percent of gross national product
1	2	3	4	5
1929	$103,095	1929-30	$3,233,601	3.1
1931	75,820	1931-32	2,966,464	3.9
1933	55,601	1933-34	2,294,896	4.1
1935	72,247	1935-36	2,649,914	3.7
1937	90,446	1937-38	3,014,074	3.3
1939	90,494	1939-40	3,199,593	3.5
1941	124,540	1941-42	3,203,548	2.6
1943	191,592	1943-44	3,522,007	1.8
1945	212,010	1945-46	4,167,597	2.0
1947	232,757	1947-48	6,574,379	2.8
1949	258,023	1949-50	8,795,635	3.4
1951	330,183	1951-52	11,312,446	3.4
1953	366,129	1953-54	13,949,876	3.8
1955	399,266	1955-56	16,811,651	4.2
1957	442,755	1957-58	21,119,565	4.8
1959	486,465	1959-60	24,722,464	5.1
1961	523,292	1961-62	29,366,305	5.6
1963	594,738	1963-64	36,010,210	6.1
1965	688,110	1965-66	45,397,713	6.6
1967	796,312	1967-68	57,213,374	7.2
1969	935,541	1969-70	70,400,980	7.5
1971	1,063,436	1971-72	83,220,945	7.8
1973	1,306,554	1973-74	98,512,847	7.5
1975	1,516,338	1975-76[3]	120,100,000	7.9

[1] Includes expenditures of public and nonpublic schools at all levels of education (elementary secondary and higher)
[2] Revised figure originally published
[3] Estimated

NOTE —Beginning with 1959-60 school year includes Alaska and Hawaii

SOURCES (1) U.S Department of Health Education and Welfare National Center for Education Statistics *Statistics of State School Systems, Financial Statistics of Institutions of Higher Education*, and unpublished data. (2) U.S Department of Commerce Bureau of Economic Analysis *Survey of Current Business* August 1965 January 1976 and July 1976

Table 18.—Expenditures of Federal, State, and local funds for vocational education
United States and outlying areas, 1920 to 1975

(In thousands of dollars)

Fiscal year	Total	Federal	State	Local
1	2	3	4	5
1920	$8,535	$2,477	$2 670	$3,388
1930	29 909	7,404	8,233	14,272
1940	55,081	20,004	11,737	23,340
1942	59,023	20,758	14 045	24,220
1944	64,299	19,958	15,016	29,325
1946	72,807	20,628	18,538	33,641
1948	103 339	26,200	25 834	51,305
1950	128,717	26,623	40,534	61,561
1952	146,466	25,883	47,818	72,784
1954	151,289	25,419	54,550	71,320
1956	175 886	33,180	61,821	80,884
1958	209 748	38,733	72,305	98,710
1960	238,812	45,313	82,466	111 033
1962	283 948	51 438	104,264	128,246
1964	332 785	55,027	124 975	152 784
1966	799,895	233,794	216,583	349,518
1968	1,192,863	262,384	400,362	530,117
1970	1,841,846	300,046	(1)	1,541 801
1972	2 660 759	466,029	(1)	2,194,730
1974	3,433,820	468,197	(1)	2 965,623
1975	4 037,277	536,140	(1)	3,501,137

[1] State funds are included with local funds in column 5

NOTE.—Because of rounding details may not add to totals

SOURCES U.S. Department of Health Education and Welfare, Office of Education, reports on *Vocational and Technical Education*, and *Summary Data; Vocational Education*.

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