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ABSTRACT

This publication, the 10th in a series of annual projections of data on education, incorporates projections of elementary and secondary enrollments based on revised projections by the Bureau of the Census. Because significant changes in enrollment patterns have occurred during the past few years in institutions of higher education, this edition shows, for the first time, alternate total and first-time degree credit enrollment projections. The published sources of data are noted in each table. The tables are grouped by subject matter -- together with detailed explanations of inclusions, exclusions, and descriptions of the data and projection methods. Separate chapters provide data on enrollments, graduates, teachers, expenditures, and tuition and other changes. Footnotes to the tables state the assumptions on which the projections are based, with references to tables and other data in the appendixes giving detailed technical explanation of estimation and projection methods. The appendixes also include selected details of classification changes, a glossary of terms, and a number of auxiliary tables. (Author/MLF)

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Projections of Educational Statistics to 1982-83

1973 Edition

by
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Educational Statistics
Office of Education

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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Office of Education
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FOREWORD

This publication provides projections of statistics for elementary and secondary schools and institutions of higher education. The statistics include enrollments, graduates, teachers, and expenditures. These projections, which supersede those shown in *Projections of Educational Statistics, 1981–82,* 1972 edition, are based mainly on 1962–63 to 1972–73 Office of Education data, and cover the period 1973–74 to 1982–83 for the United States. Table 1 is a summary of these projections and is available separately in a pocket-sized folder as *Statistics of Trends in Education, 1962–63 to 1982–83*, 1973 edition. Many of these data are available by State for 1972–73 in the Office of Education publication *Digest of Educational Statistics,* 1973 edition.

The projections shown here assume, primarily, that the past 11 years' trends in enrollment rates, retention rates, class sizes, and per-pupil expenditures will continue through 1982–83. Further information about projected changes and the assumptions on which these are based are shown in the main body of this report. Details of the methodology used in making these projections are given in the appendixes.

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CHAPTER I
Introduction and Summary

This is the 10th in a series of annual projections of data on education. Each year the projections are revised in accord with current information and emerging trends.

This edition incorporates projections of elementary and secondary enrollment based on revised population projections by the Bureau of the Census. These population projections take into account current fertility rates and their portent for the future. In addition, the intercensal estimates (1961–1969), on which most of both elementary-secondary and higher education enrollment trends are based, have been changed to agree with the 1970 census.

Because significant changes in enrollment patterns have occurred during the past few years in institutions of higher education, this edition shows, for the first time, alternate total and first-time degree-credit enrollment projections.

The statistical universe from which enrollments and other educational data were drawn consists of (1) the public school districts which report to their respective State departments of education, (2) the nonpublic grade schools included in the Nonpublic School Directory of the U.S. Office of Education,[1] and (3) the institutions of higher education meeting the requirements for inclusion in the Higher Education Directory of the U.S. Office of Education.[2] The coverage is for the 50 States and the District of Columbia and excludes extension centers of U.S. educational institutions abroad.

The published sources of the data, usually U.S. Office of Education surveys, are noted in each table. The tables are grouped by subject matter–together with detailed explanations of inclusions, exclusions, and descriptions of the data and projection methods–in separate chapters on enrollments, graduates, teachers, expenditures, and tuition and other charges. The projections are based, essentially, on trends in enrollment rates of the population over the past 11 years and on the projected population groups from which enrollment will be drawn in the next 10 years. However, all projections are based on assumptions and not everyone agrees on what is likely to occur in the future. Therefore, the methods and assumptions used to develop these projections are shown in detail. Footnotes to the tables state the assumptions on which the projections are based, with references to tables and other data in the appendixes giving detailed technical explanations of estimation and projection methods. The relationship of enrollment and other rates to time and the description of the data on which they are based are shown in appendix A, tables A–1 through A–4. Projections of population of the typical age at each level of enrollment are shown in appendix B, tables B–1 and B–2. (The population data are consistent with those projections by the Bureau of the Census and reported in its population series P–25[3].) The appendixes also include selected details of classification changes, a glossary of terms, and a number of auxiliary tables.

[1] U.S. Department of Health, Education, and Welfare, Office of Education, *Nonpublic School Directory, Elementary and Secondary Day Schools, 1968-69*, U.S. Government Printing Office, Washington, D.C., 1970.

[2] U.S. Department of Health, Education, and Welfare, Office of Education, *Education Directory, 1972-73, Higher Education*, U.S. Government Printing Office, Washington, D.C., 1973.

[3] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates and Projections: Projections of the Population of the United States, by Age and Sex, 1972 to 2020," Series P–25, No. 493, December 1972.

Although enrollment rates and population age groups grew steadily during the sixties, they are now growing less rapidly and some are decreasing. The interaction of these projection components determines, directly or indirectly, the numbers expected in the different areas of education. The numbers expected are shown graphically for the principal areas of education in figures 1–9 and, in more detail, with percentage increases from 1962 to 1972 and from 1972 to 1982, in table 1.

A summary of major trends, past and projected, follows:

Major trends in education

(1) The school-age population is either increasing less rapidly or declining.

	Percent change	
	1962 to 1972	*1972 to 1982*
Elementary age (5–13)	3.0	−11.0
Secondary age (14–17)	28.1	−13.8
Higher education undergraduate age (18–21)	41.0	6.4

(2) The high school graduation rate is increasing.

	Graduates as percent of 18-year-olds
1962–63	67.8
1972–73	75.2
1982–83	76.8

(3) The proportion of women enrolled in degree-credit courses is increasing.

	Women as a percent of degree-credit enrollment
1962	38.0
1972	43.1
1982	45.7

(4) Degree-credit enrollment in 2-year institutions is growing faster than in 4-year institutions.

	Degree-credit students in 2-year institutions as percent of all degree-credit students
1962	14.1
1972	21.7
1982	25.1

(5) First-time degree-credit enrollment in 2-year institutions is growing faster than in 4-year institutions

	First-time degree-credit enrollment in public 2-year institutions as a percent of all first-time degree-credit enrollment
1962	21.8
1972	36.2
1982	45.6

(6) Non-degree-credit students are making up an increasing percentage of all students in institutions of higher education.

	Non-degree-credit enrollment as a percent of total enrollment
1962	5.2
1972	10.3
1982	14.3

(7) The proportion of bachelor's degrees awarded to women is increasing.

	Women as percent of bachelor-degree recipients
1962–63	41.0
1972–73	44.1
1982–83	46.5

(8) The ratio of public elementary and secondary students to classroom teachers is declining.

	Ratio of students to classroom teachers		
	Total	*Elementary*	*Secondary*
1962	25.7	28.5	21.7
1972	21.8	24.4	18.9
1982	20.0	22.0	17.6

(9) The cost of educating public elementary and secondary students is increasing.

	Current expenditure per pupil in average daily attendance (1972–73 dollars)
1962–63	$618
1972–73	1,026
1982–83	1,446

(10) The cost of educating college students is increasing.

	Current expenditures per full-time-equivalent student for student education (1972–73 dollars)		
	All institutions	*Publicly controlled institutions*	*Privately controlled institutions*
1962–63	$1,807	$1,699	$1,984
1972–73	2,508	2,319	3,070
1982–83	3,271	2,985	4,206

FIGURE 1. ENROLLMENT IN GRADES K-12 OF REGULAR DAY SCHOOLS, BY INSTITUTIONAL CONTROL AND ORGANIZATIONAL LEVEL: UNITED STATES, FALL 1962 TO 1982

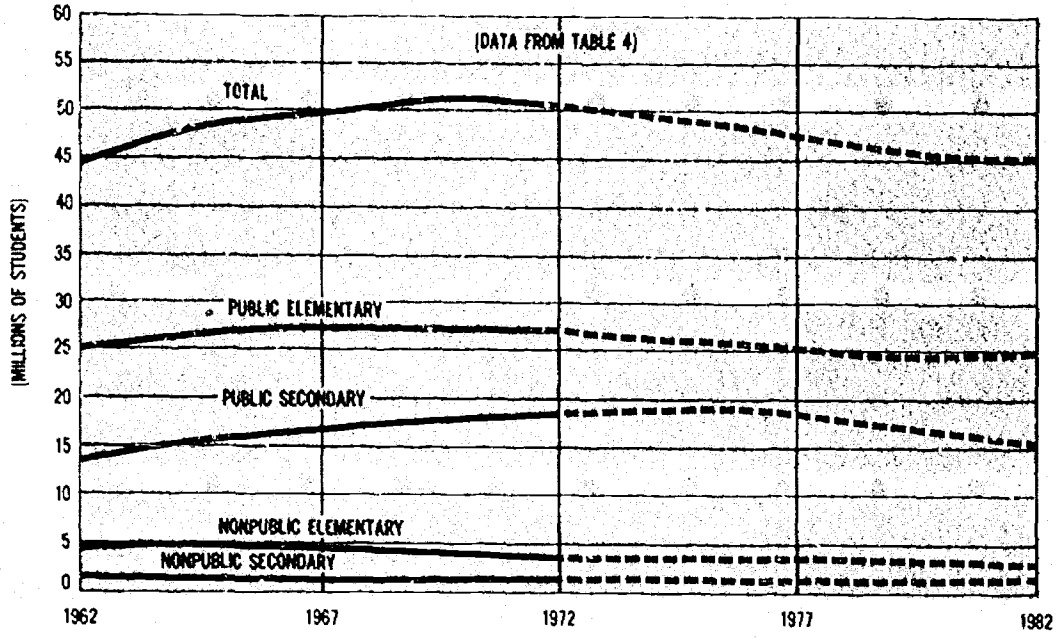


FIGURE 2. TOTAL DEGREE-CREDIT ENROLLMENT IN INSTITUTIONS OF HIGHER EDUCATION, BY CONTROL AND TYPE OF INSTITUTION: UNITED STATES, FALL 1962 TO 1982

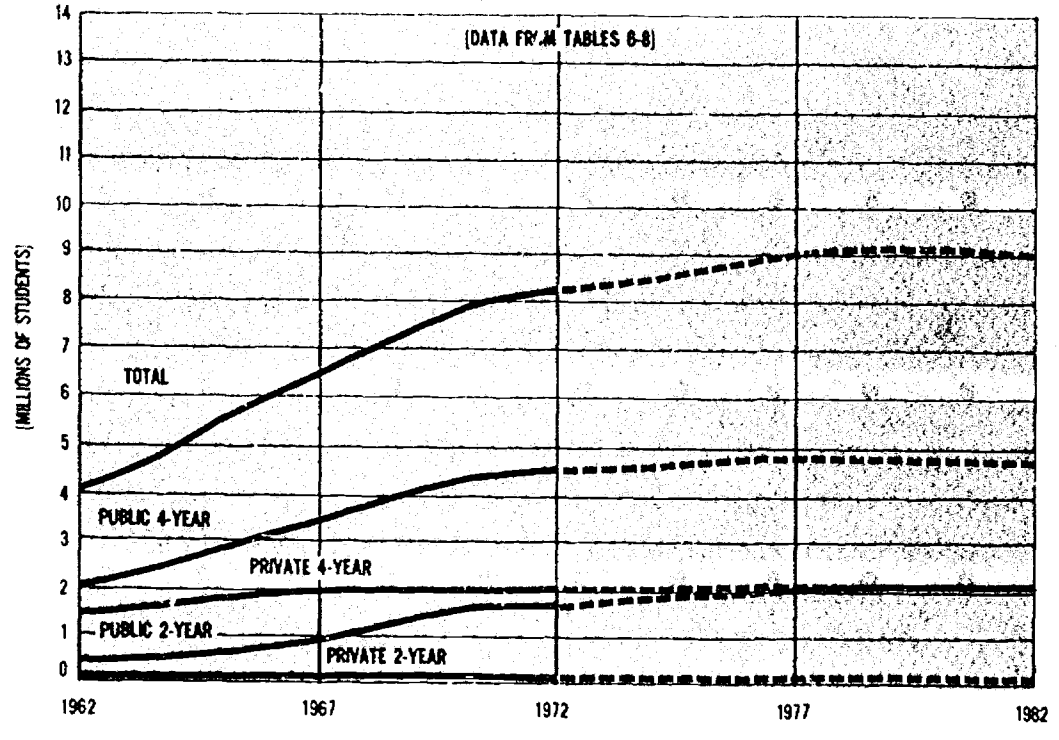


FIGURE 3. HIGH SCHOOL GRADUATES: UNITED STATES, 1962-63 TO 1982-83

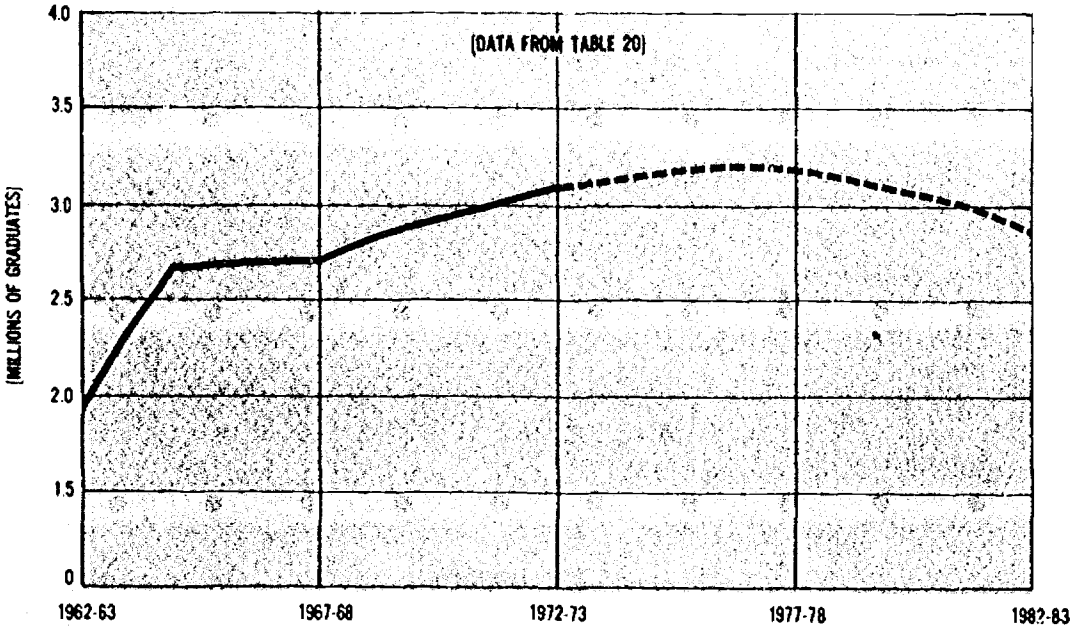


FIGURE 4. EARNED DEGREES, BY LEVEL: UNITED STATES, 1962-63 TO 1982-1983

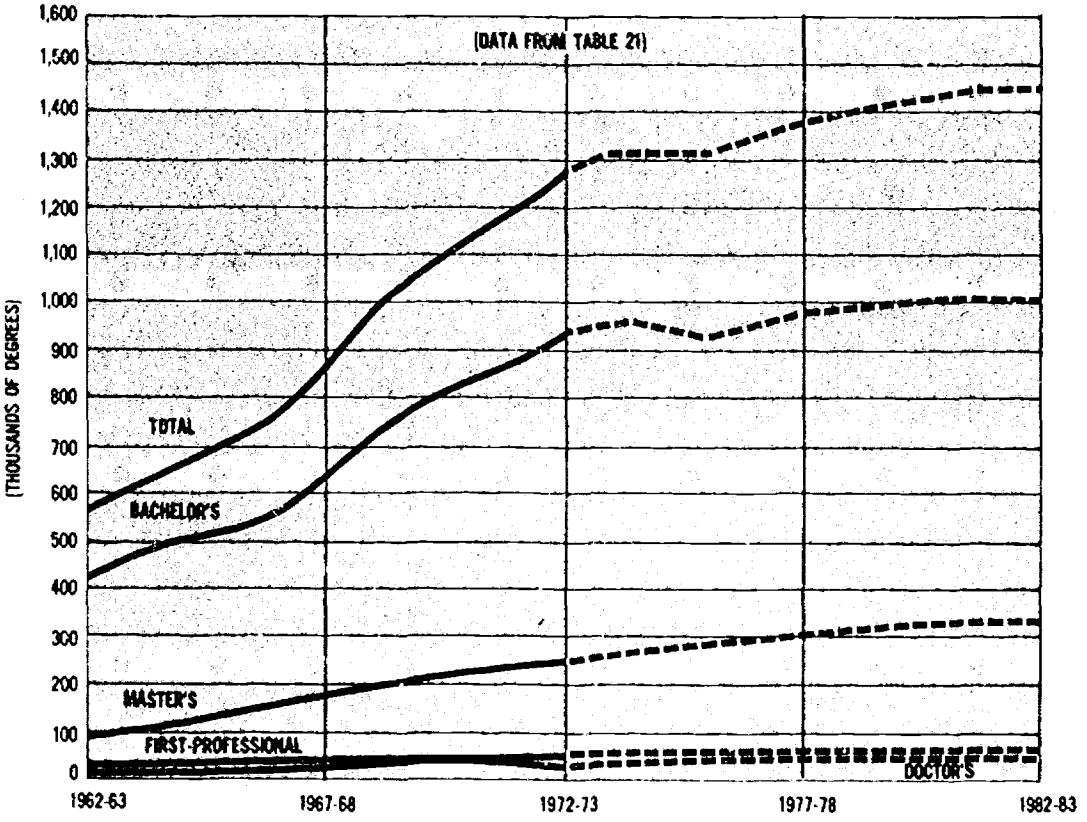
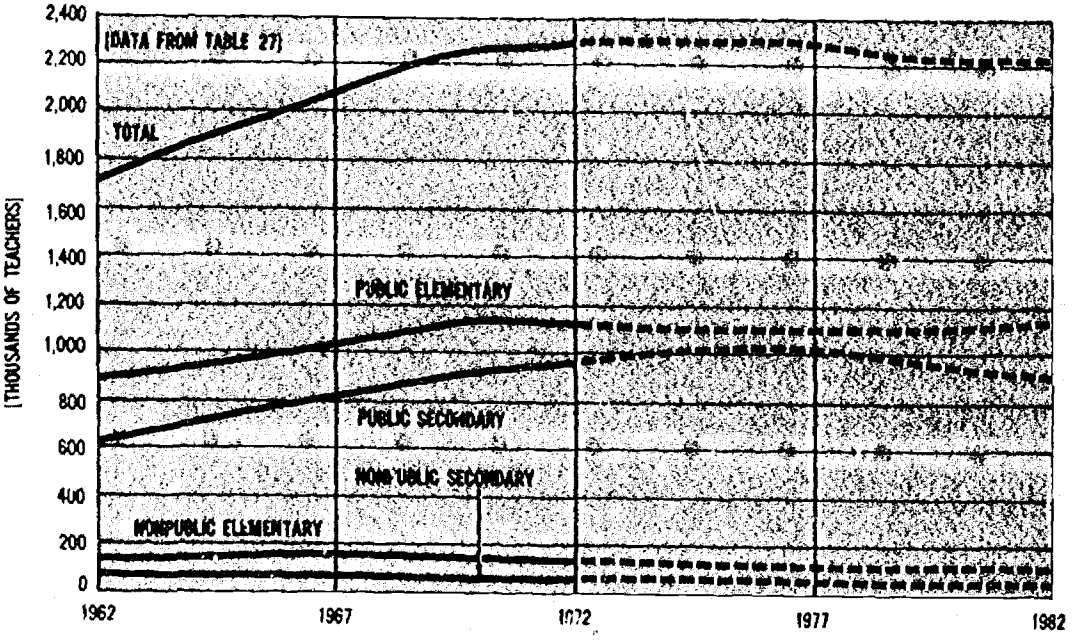


FIGURE 5. CLASSROOM TEACHERS IN REGULAR ELEMENTARY AND SECONDARY DAY SCHOOLS, BY INSTITUTIONAL CONTROL AND ORGANIZATIONAL LEVEL: UNITED STATES, FALL 1962 TO 1982



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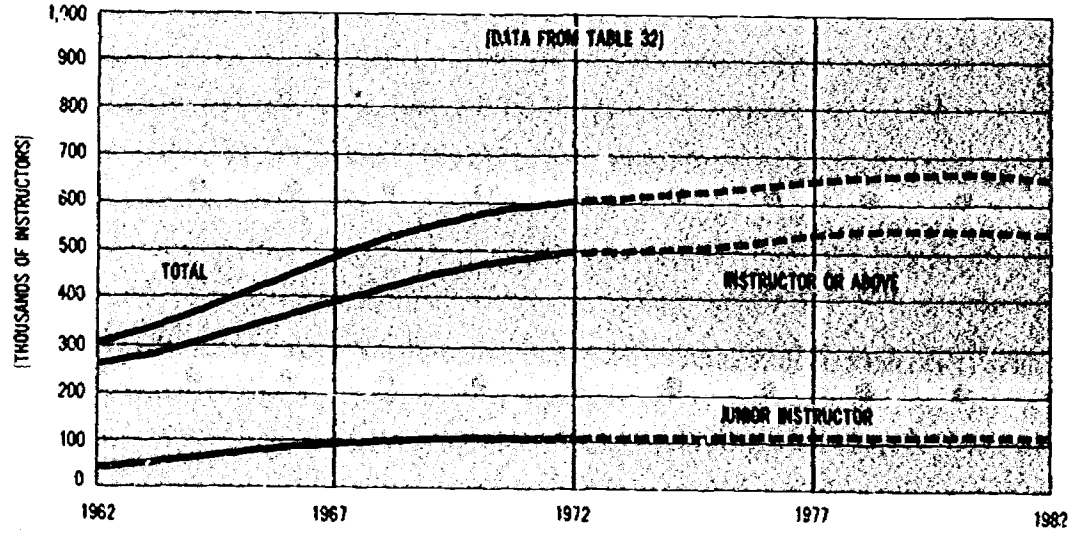
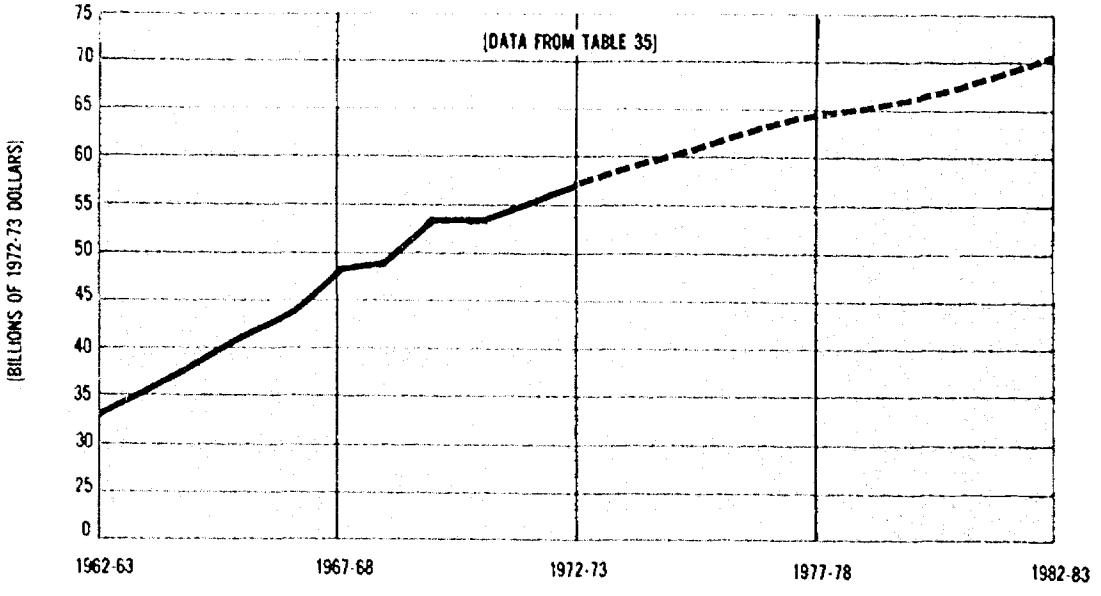


FIGURE 7. TOTAL EXPENDITURES (1972-73 DOLLARS), BY REGULAR ELEMENTARY AND SECONDARY DAY SCHOOLS: UNITED STATES, 1962-63 TO 1982-83



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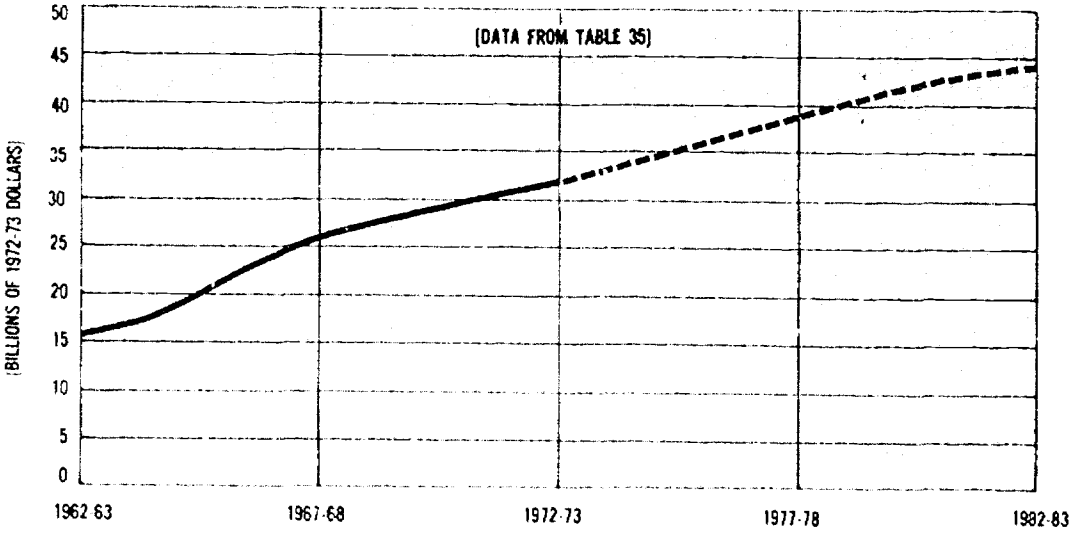

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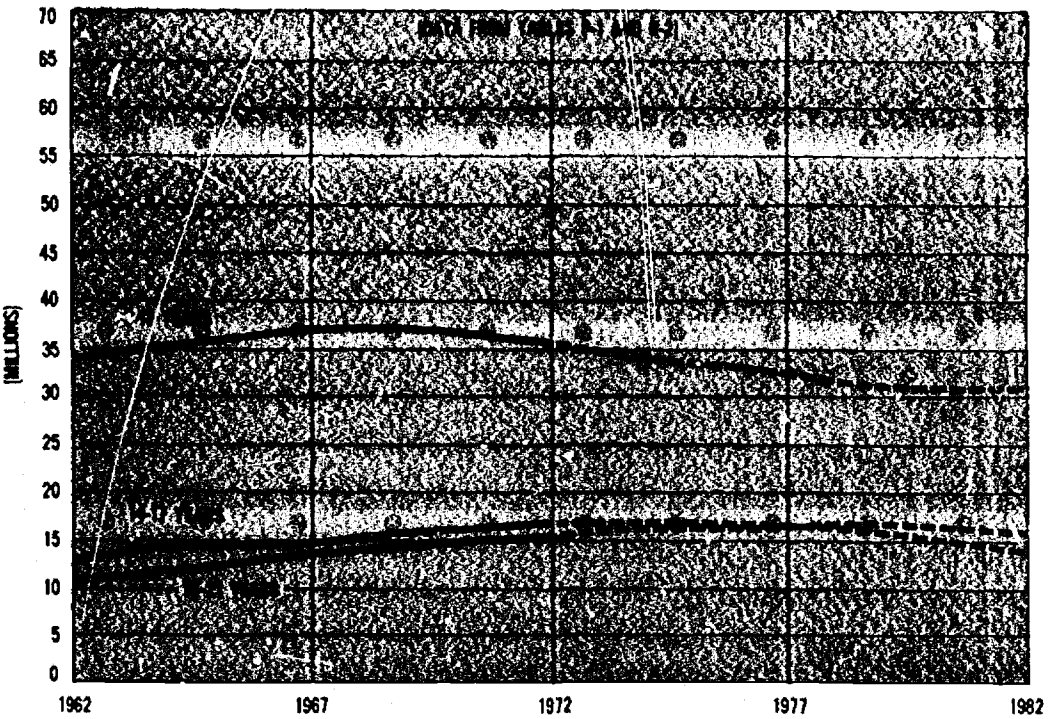

Table 1.—Summary of trends in education: United States, 1962–63 to 1982–83

Characteristic	Fall 1962	Fall 1972	Percent change, 1962 to 1972	Fall 1982[1] (projected)	Percent change, 1972 to 1982
	Thousands			Thousands	
School-age population:					
5–13	34,094	35,114	3	[2]31,234	–11
14–17	12,898	16,522	28	[2]14,241	–14
18–21	10,893	15,362	41	[2]16,342	6
18 (nearest birthday)	2,772	4,013	45	[2] 3,877	–3
Public school districts	33.1	17.0	–49	.....	...
Operating	28.9	16.5	–43	.....	...
Nonoperating	4.2	0.4	–91	.....	...
Enrollment:					
K–grade 12	44,849	50,754	13	45,100	–11
K–8	33,537	35,544	6	31,700	–11
9–12	11,312	15,209	34	13,400	–12
Public	38,749	45,754	18	40,800	–11
K–8	28,637	31,844	11	28,700	–10
9–12	10,112	13,909	38	12,100	–13
Nonpublic	6,100	5,000	–18	4,300	–14
Higher education:					
Degree-credit	4,175	8,265	98	8,927	8
Public	2,574	6,158	139	6,769	10
Private	1,601	2,107	32	2,168	3
4-year	3,585	6,473	81	6,684	3
2-year	590	1,792	204	2,243	25
Undergraduate	3,753	7,322	95	7,830	7
First-time	1,031	1,740	69	1,678	–4
Graduate	422	943	123	1,097	16
Men	2,587	4,701	82	4,843	3
Women	1,588	3,564	124	4,084	15
Full-time	2,902	5,647	95	5,971	6
Part-time	1,273	2,618	106	2,956	13
Full-time-equivalent	3,322	6,511	96	6,940	7
Non-degree-credit	229	950	315	1,489	57
Public	179	912	409	1,455	60
Private	50	38	–24	34	–11
	1962–63	1972–73		1982–83	
High school graduates	1,950	3,077	58	2,835	–8
Public	1,717	2,777	62	2,535	–9
Nonpublic	233	300	29	300	0
Men	959	1,524	59	1,405	–8
Women	991	1,552	57	1,430	–8

See footnotes at end of table.

Table 1.—Summary of trends in education: United States, 1962–63 to 1982–83 – Continued

Characteristic	Fall 1962	Fall 1972	Percent change, 1962 to 1972	Fall 1982[1] (projected)	Percent change, 1972 to 1982
Percent that high school graduates are of the 18-year-old population	67.8	75.2	...	76.8	...
Percent that first-time degree-credit enrollment is of high school graduates ..	53.6	57.7	...	56.7	...
Earned degrees:					
Bachelor's	416	941	126	999	6
Men	246	526	114	534	2
Women	171	415	143	465	12
First-professional	27	50	85	65	30
Men	26	46	77	55	20
Women	1	4	300	10	150
Master's	95	251	164	338	35
Men	64	147	130	179	22
Women	31	104	236	158	52
Doctor's	13	34	162	52	53
Men	11	29	164	42	45
Women	1	6	500	10	67
Elementary and secondary instructional staff:	**Fall 1962**	**Fall 1972**		**Fall 1982**	
Classroom teachers	1,708	2,308	35	2,236	−3
Elementary	1,021	1,260	23	1,264	0
Secondary	686	1,048	53	972	−7
Public	1,508	2,097	39	2,036	−3
Elementary	886	1,120	26	1,135	1
Secondary	621	977	57	901	−8
Nonpublic	200	211	6	200	−5
Other instructional staff (public)	133	236	77	224	−5
Higher education instructional staff, resident courses	312	600	92	652	9
Full-time-equivalent	228	471	107	513	9

Table 1.–Summary of trends in education: United States, 1962–63 to 1982–83 – Continued

Characteristic	Unadjusted dollars		Constant 1972–73 dollars
	1962–63	1972–73	1982–83
Total expenditures by regular educational institutions:[3]	Billions of dollars		
All levels	$32.4	$89.0	$114.5
Public	25.3	72.9	93.5
Nonpublic	7.1	16.1	21.0
Elementary and secondary schools	22.2	57.0	70.4
Public	19.5	51.7	64.1
Nonpublic	2.7	5.3	6.3
Institutions of higher education	10.2	32.0	44.1
Public	5.8	21.2	29.4
Nonpublic	4.4	10.8	14.7
Current expenditure per pupil in average daily attendance in public elementary-secondary schools	Dollars		
	$439	$1,026	$1,446
Estimated average charges per full-time undergraduate degree-credit student:			
Tuition and required fees:			
Public	222	399	478
Private	944	1,952	2,535
Board:			
Public	435	569	569
Private	475	622	622
Dormitory room:			
Public	244	458	563
Private	305	524	625

[1] Projections are based on assumptions given in appendix A. Users should check the acceptability of these assumptions for their purposes.

[2] Population projections are based on Series E from the Bureau of the Census.

[3] Includes current expenditures, interest, and capital outlay.

NOTE.–Data are for the 50 States and the District of Columbia. Because of rounding, detail may not add to totals.

CHAPTER II

Enrollment

Martin M. Frankel and Loraine C. Simpson

All Levels (table 2)

Total fall enrollment (elementary, secondary, and higher education) increased from 49 million in 1962 to 60 million in 1972 and is expected to decrease to 56 million by 1982. These totals include daytime enrollment in all regular public and nonpublic (parochial and nonsectarian) elementary and secondary schools; degree-credit enrollment in publicly and privately controlled institutions of higher education in programs leading to a bachelor's or higher degree; and non-degree-credit enrollment in programs that extend not more than 3 years beyond high school and are designed to prepare for a technical, semiprofessional, or craftsman-clerical position.

Excluded from the enrollments in institutions of higher education are adult education courses of regular length; short courses of any kind; and correspondence, television, or radio courses, some of which are degree-credit courses. Excluded from the enrollments in elementary and secondary schools are: (1) Those in public and nonpublic subcollegiate, vocational, technical, and trade schools, unless they are a part of the regular school system; (2) enrollment in evening classes in regular public schools; and (3) enrollment in elementary and secondary grades in public and nonpublic residential schools for exceptional children, Federal schools for Indians, federally operated schools on Federal installations, and subcollegiate departments of public and nonpublic institutions of higher education. These enrollments also exclude children aged 3 to 6 years enrolled in independent public and nonpublic nursery schools and kindergartens (exclusively preprimary schools). However, estimates of the latter enrollment are shown in table 2 as a separate item.

The projections of fall enrollments shown in table 2 are based primarily on the following assumptions: (1) The percentages of school-age persons enrolling in school will continue the 1961 to 1971 trends. (2) The retention rates in public elementary and secondary schools will remain constant at the 1971 to 1972 levels. (3) The series E school-age populations on which the projections are based will remain through 1982 substantially as now estimated and projected by the Bureau of the Census. These population bases are shown in appendix B, tables B-1 and B-2.

Elementary and Secondary Day Schools (tables 3, 4)

Fall enrollment in regular elementary and secondary day schools (tables 3 and 4) increased from 45 million in 1962 to 51 million in 1972 and is expected to decrease to the 1962 level of approximately 45 million in 1982. The 1972 enrollment excludes an estimated total of 310,000 enrolled in public and nonpublic schools, such as residential schools for exceptional children, subcollegiate departments of public and nonpublic institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. It also excludes an estimated 1.7 million between the ages of 3 and 6 years enrolled in independent nursery schools

and kindergartens, and an estimated 1.1 million in "special" (mostly private business and trade) schools.[1]

Enrollment in grades K–8 increased from less than 34 million in 1962 to a high of almost 37 million in 1969 and decreased to less than 36 million in 1972. It is expected to continue to decrease to 31 million in 1979 and 1980, then begin to increase slightly. The projected decrease of over 5 million elementary students between 1970 and 1980 is based on the assumption that the series E school-age population on which the projections are based will remain through 1982 substantially as now projected by the Bureau of the Census.

Based on the most recent birth-expectation data of wives 18–24 years old,[2] the Bureau of the Census estimates that all women 18–24 years old in 1972 will complete their childbearing with an average of about 2.1 births per woman. This is the same rate that is assumed in the series E population projections.

Enrollment in grades 9–12, which has increased from 11 million in 1962 to 15 million in 1972, is expected to remain at about the same level through 1979, and then begin to decrease rapidly as the children, born in the low-birth years of the late 1960's, progress through high school.

Enrollment in schools organized as secondary (see appendix A, "Glossary," for definition of elementary and secondary schools) increased from less than 15 million in 1962 to nearly 20 million in 1972 and is expected to decrease to about 17 million in 1982. The enrollment in secondary schools is larger than the enrollment in grades 9–12, as shown in tables 3 and 4, because it includes all enrollment in grades 9–12, as well as the enrollment in grades 7 and 8 in junior high schools. It may be even higher than it appears to be in table 4 because some State departments of education report only by grade even though some of their schools are organized on an elementary and secondary basis. In recent years, an increasing number of States have reported in this manner, and, therefore, the elementary-secondary breakdown should be used with some reservations.

The reported enrollment in elementary schools is smaller than that in kindergarten through grade 8 (tables 3 and 4) because it excludes enrollment in grades 7 and 8 in junior high schools. The reported enrollment in elementary schools increased from 30 million in 1962 to nearly 31 million in 1972 but is expected to decrease to 28 million in 1982.

Public school enrollment (tables 3, 4)

Projections of enrollment in regular public day schools are shown in table 3 by grade group and in table 4 by organizational level.

The public school enrollment by grade was projected for each grade separately and then summed to obtain the projections by grade group. The projections by grade were derived by applying (1) projected age-specific enrollment rates to 5- and 6-year-olds (Bureau of the Census population series E) and (2) projected grade-retention rates to children in grades 1–11.

It should be noted that children entering kindergarten through fall 1977 and first grade through fall 1978 are already born; thus, the number is not dependent on assumed fertility rates. By 1982, the last year shown in the tables, only projections of kindergarten through grade 5 depend on assumed fertility rates. For an explanation of the fertility rates used by the Bureau of the Census for projecting series E population, see appendix B, table B-1, footnotes.

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[1] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Characteristics, Social and Economic Characteristics of Students: October 1971," Series P–20, No. 241, October 1972.

[2] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Characteristics, Birth Expectations and Fertility: June 1972," Series P–20, No. 248, April 1973.

The enrollment in regular public day schools by organizational level was derived by assuming that the percentages of the 7th- and 8th-grade enrollment organized as secondary school enrollment will remain constant at the 1972 level.

For a more detailed description of the assumptions and methods used in projecting public school enrollment, see footnotes to tables 3 and 4 and appendix A, table A-1.

Nonpublic school enrollment (tables 3, 4)

About 10 percent of regular day school enrollment (K–12) is now in nonpublic schools, mostly (about 75 percent) in Catholic schools. Primarily because of fiscal difficulties, the enrollment in Catholic schools has been declining and is expected to continue to decline.

Because of the decreases in Catholic enrollment and because of the limited data available on other nonpublic school enrollment, the projection of nonpublic school enrollment by conventional trend methods is not feasible. The projections by grade group included in table 3 are, therefore, estimates based on the limited information available to the Office of Education at this time. (Enrollments lost by the nonpublic schools will be shifted to the public schools, so the projected total public and nonpublic enrollment should not be affected.)

The enrollments in nonpublic schools by organizational level shown in table 4 are the same as those by grade group shown in table 3 because almost all the nonpublic school 7th and 8th graders in the past have been in the elementary schools.

Institutions of Higher Education (table 5)

Fall enrollment in both 4-year and 2-year institutions of higher education includes resident and extension, day and evening, full-time and part-time students who are (1) taking work creditable toward a bachelor's or higher degree, or (2) in occupational or general studies programs not chiefly creditable toward a bachelor's degree but preparing for a technical, semiprofessional, or craftsman-clerical position. The total enrollment increased from 4.4 million in 1962 to 9.2 million in 1972 and is expected to be 10.4 million in 1982. In 1982, 14 percent of this enrollment is expected to be in occupational or general studies compared with 10 percent in 1972 and only 5 percent in 1962.

Degree-credit enrollment (tables 6–8, 13)

Opening fall enrollment in courses creditable toward a bachelor's or higher degree increased only about 200,000 and 150,000 in the 2 years from 1970 to 1972. For the 5 years 1965 to 1970, degree-credit enrollment increases averaged almost 500,000 students per year. These past 2 years of smaller enrollment increases seem to indicate an end to the era of large enrollment increases that colleges experienced during the 1960's.

Another, even stronger, indicator of the end of large annual increases in degree-credit enrollment is the drop in both 1970–1971 and 1971–1972 of first-time degree-credit enrollment. According to the Bureau of the Census,[3] the percentage of 18- and 19-year-olds enrolled in college (in degree-credit courses) has increased about 1 percent for women from 1968 to 1972. But for men, this percentage has decreased over 5 percent during this same period.

Therefore, it is no longer reasonable to assume that the past long-term trend of the percentage that degree-credit enrollment is of the 18–21-year-old population will continue. In prior editions of this publication we have made that assumption. Since we now seem to be in

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[3] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Characteristics, School Enrollment in the United States: 1972 (Advance Data, October 1972 Survey)," Series P–20, No. 247, February 1973.

the midst of changing enrollment patterns in postsecondary education, we are showing two alternate projections of total and first-time degree-credit enrollment, by sex, in appendix tables B-5 and B-6.

The projections shown in tables 6–8 and 13 are primarily based on the following two assumptions: (1) For each sex, the percentage that first-time degree-credit enrollment is of the average 18-year-old population will remain constant at the 1972 rate through 1982. (2) The percentage that total degree-credit enrollment is of the first-time degree-credit enrollment base will follow the 1962–1972 trend to 1982. The first-time degree-credit enrollment base was computed as 100 percent of the first-time degree-credit enrollment in a given year plus 75 percent, 60 percent, and 55 percent of the first-time degree-credit enrollment in the previous 3 years, respectively.

Reflecting the assumptions mentioned above, degree-credit enrollment is expected to increase less than 1 million students during the next 10 years. This is in comparison with an increase of over 4 million students during the past 10 years.

During the next decade, almost all the expected increases in enrollment will be in public institutions, about two-thirds in public 2-year institutions. Also, women will continue to make up a larger portion of degree-credit enrollment during that period. Women comprised 43 percent of degree-credit enrollment in 1972, compared with 38 percent in 1962. They are expected to make up 46 percent of degree-credit enrollment in 1982.

Alternate total and first-time degree-credit enrollment projections (tables B-5, B-6)

The higher projections in table B-5 are based primarily on the assumption that the percentage that first-time degree-credit enrollment is of the average 18-year-old population will increase, by 1982, to the higher rates reached in 1969 and 1970. The lower projections in table B-6 are based primarily on the assumption that the percentage that first-time degree-credit enrollment is of the average 18-year-old population will continue to decrease, by 1982, to the lower rates of the early 1960's.

Non-degree-credit enrollment (tables 9–11)

Opening fall enrollment in non-degree-credit courses (occupational or general studies programs) in all institutions of higher education increased from 229,000 in 1962 to 950,000 in 1972. The largest increases in non-degree-credit enrollment occurred in the past 2 years, 1970–1972, when enrollment jumped from 661,000 to 950,000.

The data on non-degree-credit enrollment, however, are suspect, since it is often difficult for colleges to differentiate between a degree-credit and a non-degree-credit student. Also, some States require that anyone taking some credits that are transferable to a degree program be classified as a degree-credit student. These inconsistencies in reporting non-degree-credit enrollment should be considered when using either degree-credit or non-degree-credit enrollment data and projections. Shifts in degree-credit status are small relative to degree-credit enrollment, but they are quite significant when compared with non-degree-credit enrollment. Therefore, it is possible that the very large increases in non-degree-credit enrollment from 1970 to 1972 are in part attributable to reporting inconsistencies. However, non-degree-credit enrollment is undoubtedly increasing and it is expected to rise to almost 1.5 million by 1982.

Over the next 10 years, almost all the expected increase of over 500,000 students will be in public 2-year institutions, which accounted for 90 percent of non-degree-credit enrollment in 1972. Men will account for more than 55 percent of the expected non-degree-credit enrollment increase, unlike degree-credit enrollment where women will account for over 75 percent of the expected enrollment increase.

The projection of non-degree-credit enrollment is based primarily on the assumption that, for each sex, non-degree-credit enrollment expressed as a percentage of the population 18–21 years of age will follow the 1962–1972 trend to 1982.

Full-time-equivalent enrollment (table 12)

Estimated full-time-equivalent opening fall enrollment in degree-credit and non-degree-credit courses increased from 3.5 million in 1962 to 7.1 million in 1972 and is expected to be 7.8 million in 1982. Of this enrollment, 75 percent was in publicly controlled institutions in 1972, and 77 percent is expected to be in publicly controlled institutions in 1982. Eighty-nine percent of the 1982 full-time-equivalent enrollment is expected to be in degree-credit courses.

The estimates of full-time-equivalent degree-credit enrollment are based on 33 percent of part-time degree-credit enrollment plus full-time degree-credit enrollment. Full-time-equivalent non-degree-credit enrollment is based on 28 percent of part-time non-degree-credit enrollment plus full-time non-degree-credit enrollment. These percentages for converting part-time enrollment to the full-time equivalent of part-time enrollment were taken from the 1964 sample survey of full-time-equivalent enrollment and credit hours.

First-time degree-credit enrollment (tables 14, 15, 16)

First-time opening fall degree-credit enrollment decreased by almost 40,000 students from 1970 to 1972. The decrease from 1971 to 1972 was larger than the decrease from 1970 to 1971. These decreases in enrollment coincide with previously mentioned Census data[4] showing that the percentage of 18- and 19-year-olds enrolled in college has been decreasing for the past few years. The projections in tables 14, 15, and 16 are based primarily on the assumption that the percentage of 18- and 19-year-olds who attend college will not continue to decrease, but will level off, and that the percentage that first-time degree-credit enrollment was of the average 18-year-old population in 1972 will remain constant through 1982.

Therefore, reflecting the average 18-year-old population, as projected by the Bureau of the Census, the first-time degree-credit enrollment is expected to increase from 1,740,000 students in 1972 to 1,834,000 students in 1977 and then drop to 1,678,000 by 1982.

Over the period it is expected that decreasing numbers of first-time degree-credit students will enroll in 4-year institutions, but that more first-time degree-credit students will enroll in 2-year institutions, especially public 2-year institutions.

Alternate projections of first-time degree-credit enrollment are shown in tables B-5 and B-6, and the primary assumptions upon which they are based are discussed in an earlier section of this chapter. (See page 16.)

Resident graduate enrollment (table 17)

Resident graduate enrollment increased from 422,000 in 1962 to 943,000 in 1972. During the next 10 years, the rate of growth of resident graduate enrollment is expected to slow down and the number of resident graduate students is expected to increase by only about 150,000 students to nearly 1.1 million.

Reflecting the overall trends in degree-credit enrollment, all the expected 150,000 increase will be in public institutions and women will account for about 85 percent of the increase. These estimates and projections are confined to resident graduate students because there were no separate data on extension graduate students until 1969.

Extension graduate students are included with resident and extension undergraduate and first-professional students in tables 18 and 19. In 1969, 1970, 1971, and 1972, the years that data on extension graduate students were collected, there were approximately 127,000, 139,000, 104,000, and 122,000 extension graduate students, respectively. The estimates of resident graduate enrollment through 1968 were derived from several sources. The principal sources were the comprehensive surveys of 1961, 1963, and 1967, and the opening fall enrollment surveys of 1966–69. The full-time and part-time attendance status estimates for

[4] *Ibid.*

1967 were based on the unpublished 1967 comprehensive survey of enrollment and the 1967 opening fall survey of enrollment. For a detailed statement of the methods used in estimating graduate enrollment, see appendix A, "Estimation Methods," sections 3a, 3b, 3h, and 3g.

The projections of graduate enrollment, by sex, were based on the assumption that the trends shown from 1962 to 1972 for estimated resident graduate enrollment as a percentage of total degree-credit enrollment will continue to 1982. It is assumed that full-time graduate enrollment as a percentage of all graduate enrollment will remain constant at the 1972 level.

Undergraduate and first-professional enrollment (tables 18, 19)

Undergraduate and first-professional enrollment in 4-year institutions was estimated by subtracting estimated resident graduate enrollment from the estimated total of opening fall degree-credit resident and extension enrollment in these institutions.

Estimated undergraduate and first-professional enrollment (table 19) in 4-year institutions rose from 3.2 million in 1962 to 5.5 million in 1972 and is expected to be 5.6 million in 1982. Undergraduate enrollment in 2-year institutions (table 8) more than tripled from 1962 to 1972 (590,000 to 1,792,000) and is expected to be 2,243,000 in 1982.

Table 2.—Summary of enrollment in educational institutions, by institutional level and control: United States, fall 1962 to 1982

[In thousands]

Year (fall)	Total enrollment (excluding independent nursery schools and kindergartens)			Institutions of higher education[1]		Regular elementary and secondary day schools[2]				Estimated independent nursery schools and kindergartens[3]	
						Grade K–8		Grade 9–12			
	Total	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic	Public	Nonpublic
1962	49,253	41,502	7,751	2,753	1,651	28,637	4,900	10,112	1,200	.....	.....
1963	51,253	43,253	8,000	3,066	1,700	29,304	5,000	10,883	1,300	.....	.....
1964	52,996	44,884	8,112	3,468	1,812	30,025	5,000	11,391	1,300	236	649
1965	54,394	46,143	8,251	3,970	1,951	30,563	4,900	11,610	1,400	305	799
1966	55,629	47,388	8,241	4,349	2,041	31,145	4,800	11,894	1,400	374	842
1967	56,803	48,707	8,096	4,816	2,096	31,641	4,600	12,250	1,400	467	897
1968	58,257	50,375	7,882	5,431	2,082	32,226	4,400	12,718	1,400	437	920
1969	59,124	51,516	7,608	5,897	2,108	32,597	4,200	13,022	1,300	326	1,023
1970	59,890	52,337	7,553	6,428	2,153	32,577	4,100	13,332	1,300	423	1,113
1971	60,229	52,885	7,344	6,804	2,144	32,265	3,900	13,816	1,300	524	1,147
1972	59,968	52,823	7,145	7,070	2,145	31,844	3,700	13,909	1,300	534	1,210
	PROJECTED[4]										
1973	59,585	52,535	7,050	7,235	2,150	31,200	3,600	14,100	1,300	601	1,319
1974	59,268	52,302	6,966	7,402	2,166	30,600	3,500	14,300	1,300	658	1,439
1975	59,102	52,215	6,887	7,615	2,187	30,200	3,400	14,400	1,300	687	1,508
1976	58,734	51,919	6,815	7,819	2,215	29,800	3,300	14,300	1,300	681	1,516
1977	58,142	51,399	6,743	7,999	2,243	29,200	3,200	14,200	1,300	732	1,549
1978	57,506	50,843	6,663	8,143	2,263	28,600	3,100	14,100	1,300	791	1,649
1979	56,685	50,123	6,562	8,223	2,262	28,200	3,000	13,700	1,300	858	1,788
1980	56,117	49,565	6,552	8,265	2,252	28,200	3,000	13,100	1,300	929	1,939
1981	55,816	49,276	6,540	8,276	2,240	28,400	3,000	12,600	1,300	1,009	2,092
1982	55,516	49,014	6,502	8,214	2,202	28,700	3,000	12,100	1,300	1,088	2,247

[1] Includes degree-credit and non-degree-credit enrollment.
[2] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations.
[3] Estimates of independent nursery school and kindergarten enrollments are based on the difference between all nursery school and kindergarten enrollments of children aged 3, 4, 5, and 6 years, as reported by the Bureau of the Census, and nursery school and kindergarten enrollments reported by the regular public and private schools.
[4] For assumptions on which projections of elementary, secondary, and higher education enrollments are based and for projection methods used, see footnotes to tables 3, 6, and 9, and methodology in appendix A, table A-1.

The projections of enrollments in independent nursery schools and kindergartens are based on the following assumptions: (a) Enrollments in all nursery schools and kindergartens of children aged 3, 4, 5, and 6 years will follow the 1964–72 trends of enrollment in these schools at each age level as a percentage of the total population of that age, and (b) enrollments in independent nursery schools and kindergartens of children aged 3, 4, 5, and 6 years will be the difference between enrollment in all nursery schools and kindergartens, as reported by the Bureau of the Census, and enrollment in nursery schools and kindergartens reported by regular public and private schools.

For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Nursery school and kindergarten enrollment data are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Nursery-Kindergarten Enrollment of Children under Six*, October 1964 through 1966, (2) *Preprimary Enrollment of Children under Six*, October 1967 and 1968, and (3) *Preprimary Enrollment*, October 1969 through 1972.

Table 3.—Enrollment in grades K–8 and 9–12 of regular day schools, by institutional control: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	K–8	9–12	K–12	K–8	9–12	K–12	K–8	9–12[3]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	4,900	1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[4]1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	[4]1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[4]4,900	[4]1,400
1966	49,239	35,945	13,294	43,039	31,145	11,894	6,200	4,800	1,400
1967	49,891	36,241	13,650	43,891	31,641	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	4,400	[4]1,400
1969	51,119	36,797	14,322	45,619	32,597	13,022	5,500	4,200	1,300
1970	51,309	36,677	14,632	45,909	32,577	13,332	5,400	[5]4,100	[5]1,300
1971	51,281	36,165	15,116	46,081	32,265	13,816	5,200	[6]3,900	[6]1,300
1972	50,754	35,544	15,209	45,754	31,844	13,909	5,000	[6]3,700	[6]1,300
	PROJECTED[7]								
1973	50,300	34,800	15,400	45,400	31,200	14,100	4,900	3,600	1,300
1974	49,700	34,100	15,600	44,900	30,600	14,300	4,800	3,500	1,300
1975	49,200	33,600	15,700	44,500	30,200	14,400	4,700	3,400	1,300
1976	48,700	33,100	15,600	44,100	29,800	14,300	4,600	3,300	1,300
1977	48,000	32,400	15,500	43,500	29,200	14,200	4,500	3,200	1,300
1978	47,100	31,700	15,400	42,700	28,600	14,100	4,400	3,100	1,300
1979	46,200	31,200	15,000	41,900	28,200	13,700	4,300	3,000	1,300
1980	45,700	31,200	14,400	41,400	28,200	13,100	4,300	3,000	1,300
1981	45,300	31,400	13,900	41,000	28,400	12,600	4,300	3,000	1,300
1982	45,100	31,700	13,400	40,800	28,700	12,100	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Includes some pupils enrolled in grades 7 and 8 of nonpublic secondary schools from 1965 through 1968.

[4] Reported data from Office of Education surveys.

[5] Estimates are based on reported data from the Office of Education and the National Catholic Education Association.

[6] Estimates are based on reports from the National Catholic Education Association.

[7] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1962–1972 trends. (2) The public school enrollment in grade 7 in a given year t will exceed the public school enrollment in grade 6 in year t–1 by 3.1 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1. (3) The public school enrollment in grade 9 in year t will exceed the public school enrollment in grade 8 in year t–1 by 4.8 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1. (4) The retention rates of all other public school grades will remain constant at the average of the rates for the past 3 years. (5) Enrollments in grades K–8 in Catholic elementary schools will decreasr from 2.9 million in 1972 to 2.0 million in 1982. (6) Enrollments in grades K–8 in all regular nonpublic day schools will decrease through 1982; grades 9–12 in these schools will remain constant at the 1970 level.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Statistics of Public Schools*, fall 1964 through 1972, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1962 and 1963, (c) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, (d) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*, (e) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*, (f) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*, (g) *Statistics of Nonpublic Elementary Schools, 1961–62*, (h) *Statistics of Nonpublic Secondary Schools, 1960–61*; and (2) National

Catholic Educational Association publications: (a) *A Report on U.S. Catholic Schools, 1970–71*, (b) *U.S. Catholic Schools, 1971–72*, (c) prepublication data from *U.S. Catholic Schools, 1972–73*.

The population projections, as of October 1, of 5- and 6-year-olds on which the enrollment projections in kindergarten and grade 1 are based, are consistent with Series E population projections in U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P–25, No. 493, December 1972. The D, E, and F population projections, together with definitions of each series, are shown in appendix B, table B-1.

For enrollment projections based on population projection Series D and F, see appendix B, tables B-3 and B-4.

Table 4.—Enrollment in regular day schools, by institutional control and organizational level: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	Elementary	Secondary	K–12	Elementary	Secondary	K–12	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	44,849	30,164	14,685	38,749	25,264	13,485	6,100	4,900	1,200
1963	46,487	30,775	15,712	40,187	25,775	14,412	6,300	5,000	[3]1,300
1964	47,716	31,221	16,495	41,416	26,221	15,195	6,300	5,000	[3]1,300
1965	48,473	31,570	16,904	42,173	26,670	15,504	6,300	[3]4,900	[3]1,400
1966	49,239	31,905	17,334	43,039	27,105	15,934	6,200	4,800	1,400
1967	49,891	31,972	17,919	43,891	27,372	16,519	6,000	4,600	1,400
1968	50,744	31,763	18,981	44,944	27,363	17,581	5,800	[3]4,400	[3]1,400
1969	51,119	31,655	19,463	45,619	27,455	18,163	5,500	4,200	1,300
1970	51,309	31,601	19,708	45,909	27,501	18,408	5,400	[4]4,100	[4]1,300
1971	51,281	31,588	19,693	46,081	27,688	18,393	5,200	[5]3,900	[5]1,300
1972	50,754	31,026	19,728	45,754	27,326	18,428	5,000	[5]3,700	[5]1,300
	PROJECTED[6]								
1973	50,300	30,300	20,000	45,400	26,700	18,700	4,900	3,600	1,300
1974	49,700	29,700	20,100	45,000	26,200	18,800	4,800	3,500	1,300
1975	49,200	29,200	20,100	44,500	25,800	18,800	4,700	3,400	1,300
1976	48,700	28,800	20,000	44,100	25,500	18,700	4,600	3,300	1,300
1977	48,000	28,300	19,700	43,500	25,100	18,400	4,500	3,200	1,300
1978	47,100	27,800	19,300	42,700	24,700	18,000	4,400	3,100	1,300
1979	46,200	27,500	18,700	41,900	24,500	17,400	4,300	3,000	1,300
1980	45,700	27,600	18,100	41,400	24,600	16,800	4,300	3,000	1,300
1981	45,300	27,800	17,500	41,000	24,800	16,200	4,300	3,000	1,300
1982	45,100	28,000	17,200	40,800	25,000	15,900	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Reported data from Office of Education surveys.

[4] Estimates based on reported data from the Office of Education and the National Catholic Education Association.

[5] Estimates are based on reports from the National Catholic Education Association.

[6] The projection of fall enrollment in regular public day schools by organizational level is based on the assumption that the percentage of enrollment in grades 7 and 8 that will be organized as elementary and as secondary enrollment will remain constant at the 1972 level.

The projection of regular fall enrollment in nonpublic schools by organizational level is based on the assumption that substantially all nonpublic enrollment in grades 7 and 8 will continue as elementary enrollment.

For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES. Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Statistics of Public Schools*, fall 1964 through 1972, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1962 and 1963, (c) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, (d) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools*, 1968–69, (e) *Statistics of Nonpublic Elementary and Secondary Schools*, 1965–66, (f) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*, (g) *Statistics of Nonpublic Elementary Schools, 1961–62*, (h) *Statistics of Nonpublic Secondary Schools, 1960–61*; and (2) National Catholic Education Association publications: (a) *A Report on U.S. Catholic Schools, 1970–71*, (b) *U.S. Catholic Schools 1971–72*, (c) prepublication data for *U.S. Catholic Schools 1972–73*.

Table 5.—Summary of enrollment in all institutions of higher education, by degree-credit status and institutional type: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total degree-credit and non-degree-credit enrollment	Degree-credit			Non-degree-credit		
		Total	4-year	2-year	Total	4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	4,404	4,175	3,585	590	229	45	184
1963	4,766	4,495	3,870	625	271	52	220
1964	5,280	4,950	4,239	711	330	52	278
1965	5,921	5,526	4,685	841	395	63	332
1966[1]	6,390	5,928	4,984	945	462	80	381
1967[1]	6,912	6,406	5,325	1,081	505	73	432
1968	7,513	6,928	5,639	1,289	585	82	503
1969	8,005	7,484	5,956	1,528	521	72	448
1970	8,581	7,920	6,290	1,630	661	68	593
1971	8,949	8,116	6,391	1,725	833	72	761
1972	9,215	8,265	6,473	1,792	950	76	874
	PROJECTED[2]						
1973	9,385	8,370	6,512	1,858	1,015	74	941
1974	9,568	8,491	6,563	1,928	1,077	73	1,004
1975	9,802	8,645	6,638	2,007	1,157	73	1,084
1976	10,034	8,811	6,724	2,087	1,223	73	1,150
1977	10,242	8,965	6,811	2,154	1,277	72	1,205
1978	10,406	9,069	6,862	2,207	1,337	72	1,265
1979	10,485	9,099	6,861	2,238	1,386	72	1,314
1980	10,517	9,097	6,842	2,255	1,420	70	1,350
1981	10,516	9,051	6,790	2,261	1,465	70	1,395
1982	10,416	8,927	6,684	2,243	1,489	69	1,420

[1] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3d–3g.

[2] For assumptions underlying these projections and for methods of projecting, see footnotes to tables 6 and 9, and table A-1 in appendix A.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished), and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Table 6.—Total degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	4,174,936	2,587,291	1,587,645	2,902,101	1,272,835	2,573,720	1,601,216
1963	4,494,626	2,772,562	1,722,064	3,068,469	1,426,157	2,848,454	1,646,172
1964	4,950,173	3,032,992	1,917,181	3,417,796	1,532,377	3,179,527	1,770,646
1965	5,526,325	3,374,603	2,151,722	3,909,987	1,616,338	3,624,442	1,901,883
1966[1]	5,928,000	3,577,000	2,351,000	4,225,000	1,703,000	3,940,000	1,988,000
1967[1]	6,406,000	3,822,000	2,584,000	4,556,000	1,850,000	4,360,000	2,046,000
1968	6,928,115	4,119,002	2,809,113	4,937,193	1,990,922	4,891,743	2,036,372
1969	7,484,073	4,419,147	3,064,926	5,253,755	2,230,318	5,414,934	2,069,139
1970	7,920,149	4,636,641	3,283,508	5,489,033	2,431,116	5,800,089	2,120,060
1971	8,116,103	4,717,098	3,399,005	5,676,486	2,439,617	6,013,934	2,102,169
1972	8,265,057	4,700,622	3,564,435	5,646,749	2,618,308	6,157,868	2,107,189
	PROJECTED[2]						
1973	8,370,000	4,695,000	3,675,000	5,699,000	2,671,000	6,256,000	2,114,000
1974	8,491,000	4,719,000	3,772,000	5,762,000	2,729,000	6,361,000	2,130,000
1975	8,645,000	4,771,000	3,874,000	5,848,000	2,797,000	6,494,000	2,151,000
1976	8,811,000	4,851,000	3,960,000	5,945,000	2,866,000	6,632,000	2,179,000
1977	8,965,000	4,923,000	4,042,000	6,033,000	2,932,000	6,758,000	2,207,000
1978	9,069,000	4,968,000	4,101,000	6,092,000	2,977,000	6,842,000	2,227,000
1979	9,099,000	4,973,000	4,126,000	6,103,000	2,996,000	6,873,000	2,226,000
1980	9,097,000	4,958,000	4,139,000	6,088,000	3,009,000	6,881,000	2,216,000
1981	9,051,000	4,922,000	4,129,000	6,059,000	2,992,000	6,847,000	2,204,000
1982	8,927,000	4,843,000	4,084,000	5,971,000	2,956,000	6,759,000	2,168,000

[1] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3d and 3f.

These estimates differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[2] The projection of total degree-credit enrollment in all institutions of higher education is based primarily on the following assumptions and methodology: (a) For each year, an enrollment base of students who enrolled in degree-credit courses for the first time in that year and in the previous 3 years was computed. The enrollment base was assumed to consist of 100 percent of the given year's first-time degree-credit students plus 75 percent, 60 percent, and 55 percent of the previous 3 years' first-time degree-credit students, respectively. (b) For each sex, it was assumed that total degree-credit enrollment expressed as a percentage of the first-time degree-credit enrollment base, described in (a), would follow the 1962–1972 trend to 1982. (c) The projection of total degree-credit enrollment by control and type of institution is based on the assumption that, for each sex, the percentage that enrollment in public 2-year institutions is of total enrollment will follow the 1962–1972 trend to 1982 with the restriction that it cannot exceed 25 percent. For the other 3 categories of institutional control and type, the 1972 percentages of total enrollment were prorated to the difference between 100 percent and the percentage in public 2-year institutions. (d) The projection of total degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1972 opening fall enrollment survey, with minor adjustments, will remain constant to 1982.

For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years (to obtain projections for the United States and outlying areas, multiply each projection in this table by 1.009). Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education. Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967.

Population on which projections are based is shown in appendix B, table B-2.

For projections of total degree-credit enrollment based on alternative assumptions (one assumption of higher enrollment rates and one assumption of lower enrollment rates for first-time degree-credit enrollment), see appendix B, tables B-5 and B-6.

Table 7.—Total degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	3,585,407	2,221,667	1,363,740	2,584,908	1,000,499	2,054,463	1,530,944
1963	3,869,837	2,385,902	1,483,935	2,741,251	1,128,586	2,297,146	1,572,691
1964	4,239,305	2,593,483	1,645,822	3,021,411	1,217,894	2,558,668	1,680,637
1965	4,684,888	2,852,757	1,832,131	3,414,535	1,270,353	2,886,552	1,798,336
1966[1]	4,984,000	3,000,000	1,984,000	3,662,000	1,322,000	3,100,000	1,883,000
1967[1]	5,325,000	3,170,000	2,155,000	3,940,000	1,385,000	3,393,000	1,933,000
1968	5,638,616	3,336,709	2,301,907	4,198,486	1,440,130	3,722,602	1,916,014
1969	5,955,644	3,508,516	2,447,128	4,404,620	1,551,024	4,002,324	1,953,320
1970	6,290,167	3,682,680	2,607,487	4,613,188	1,676,979	4,280,327	2,009,840
1971	6,390,782	3,713,926	2,676,856	4,746,400	1,644,382	4,391,228	1,999,554
1972	6,473,203	3,701,384	2,771,819	4,742,829	1,730,374	4,463,403	2,009,800
	PROJECTED[2]						
1973	6,512,000	3,671,000	2,841,000	4,765,000	1,747,000	4,493,000	2,019,000
1974	6,563,000	3,662,000	2,901,000	4,795,000	1,768,000	4,525,000	2,038,000
1975	6,638,000	3,678,000	2,960,000	4,842,000	1,796,000	4,581,000	2,057,000
1976	6,724,000	3,715,000	3,009,000	4,900,000	1,824,000	4,642,000	2,082,000
1977	6,811,000	3,752,000	3,059,000	4,956,000	1,855,000	4,702,000	2,109,000
1978	6,862,000	3,770,000	3,092,000	4,988,000	1,874,000	4,734,000	2,128,000
1979	6,861,000	3,759,000	3,102,000	4,983,000	1,878,000	4,735,000	2,126,000
1980	6,842,000	3,738,000	3,104,000	4,961,000	1,881,000	4,726,000	2,116,000
1981	6,790,000	3,702,000	3,088,000	4,920,000	1,870,000	4,685,000	2,105,000
1982	6,684,000	3,633,000	3,051,000	4,840,000	1,844,000	4,613,000	2,071,000

[1] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3d and 3f.

These estimates differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[2] For assumptions underlying these projections, see footnotes to table 6. For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table 8.--Total degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	589,529	365,624	223,905	317,193	272,336	519,257	70,272
1963	624,789	386,660	238,129	327,218	297,571	551,308	73,481
1964	710,868	439,509	271,359	396,385	314,483	620,859	90,009
1965	841,437	521,846	319,591	495,452	345,985	737,890	103,547
1966[1]	945,000	577,000	367,000	563,000	381,000	840,000	105,000
1967[1]	1,081,000	652,000	429,000	616,000	465,000	968,000	113,000
1968	1,289,499	782,293	507,206	738,707	550,792	1,169,141	120,358
1969	1,528,429	910,631	617,798	849,135	679,294	1,412,610	115,819
1970	1,629,982	953,961	676,021	875,845	754,137	1,519,762	110,220
1971	1,725,321	1,003,172	722,149	930,086	795,235	1,622,706	102,615
1972	1,791,854	999,238	792,616	903,920	887,934	1,694,465	97,389
	PROJECTED[2]						
1973	1,858,000	1,024,000	834,000	934,000	924,000	1,763,000	95,000
1974	1,928,000	1,057,000	871,000	967,000	961,000	1,836,000	92,000
1975	2,007,000	1,093,000	914,000	1,006,000	1,001,000	1,913,000	94,000
1976	2,087,000	1,136,000	951,000	1,045,000	1,042,000	1,990,000	97,000
1977	2,154,000	1,171,000	983,000	1,077,000	1,077,000	2,056,000	98,000
1978	2,207,000	1,198,000	1,009,000	1,104,000	1,103,000	2,108,000	99,000
1979	2,238,000	1,214,000	1,024,000	1,120,000	1,118,000	2,138,000	100,000
1980	2,255,000	1,220,000	1,035,000	1,127,000	1,128,000	2,155,000	100,000
1981	2,261,000	1,220,000	1,041,000	1,139,000	1,122,000	2,162,000	99,000
1982	2,243,000	1,210,000	1,033,000	1,131,000	1,112,000	2,146,000	97,000

[1] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3d and 3f.

The estimates for 1967 differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment.

[2] For assumptions underlying these projections, see footnotes to table 6. For further methodological details, see appendix A, table A-1.

NOTE.--Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967.

Population on which projections are based is shown in appendix B, table B-2.

Table 9.--Non-degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total non-degree credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	229,000	155,000	74,000	95,000	134,000	179,000	50,000
1963	271,241	182,655	88,586	115,000	156,000	217,394	53,847
1964	329,847	215,721	114,126	140,000	190,000	288,181	41,666
1965	394,539	255,417	139,122	172,000	222,000	345,154	49,385
1966[2]	462,000	279,000	183,000	213,000	249,000	409,000	53,000
1967[2]	505,000	311,000	194,000	236,000	269,000	455,000	49,000
1968	584,976	358,647	226,329	272,962	312,014	538,909	46,067
1969	520,587	327,054	193,533	245,128	275,459	481,934	38,653
1970	660,738	407,001	253,737	326,257	334,481	628,045	32,693
1971	832,541	489,906	342,635	400,746	431,795	790,375	42,166
1972	949,803	538,135	411,668	425,640	524,163	911,706	38,097
	PROJECTED[3]						
1973	1,015,000	574,000	441,000	453,000	562,000	979,000	36,000
1974	1,077,000	611,000	466,000	480,000	597,000	1,041,000	36,000
1975	1,157,000	657,000	500,000	514,000	643,000	1,121,000	36,000
1976	1,223,000	692,000	531,000	543,000	680,000	1,187,000	36,000
1977	1,277,000	724,000	553,000	567,000	710,000	1,241,000	36,000
1978	1,337,000	755,000	582,000	593,000	744,000	1,301,000	36,000
1979	1,386,000	780,000	606,000	614,000	772,000	1,350,000	36,000
1980	1,420,000	801,000	619,000	628,000	792,000	1,384,000	36,000
1981	1,465,000	827,000	638,000	647,000	818,000	1,429,000	36,000
1982	1,489,000	838,000	651,000	657,000	832,000	1,455,000	34,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," sec. 3m.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3e and 3g.

These estimates differ from estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[3] The projection of total non-degree-credit enrollment in all institutions by sex is based primarily on the assumption that enrollment, expressed as a percentage of population aged 18--21 years, will follow the 1962--1972 trend to 1982.

The projection of total non-degree-credit enrollment by institutional control and type is based on the assumption that, for each sex, the percentage that enrollment in public 2-year institutions is of total enrollment will follow the 1962--1972 trend to 1982 with the restriction that it cannot exceed 95 percent. For the other 3 institutional categories of type and control, the 1972 percentages of total enrollment were prorated to the difference between 100 percent and the percentage in public 2-year institutions.

The projection of total non-degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1972 opening fall enrollment survey, with minor adjustments, will remain constant to 1982.

For further methodological details, see appendix A, table A-1.

NOTE.--Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCE: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table 10.—Non-degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total non-degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	45,000	32,000	13,000	16,000	29,000	30,000	15,000
1963	51,518	36,492	15,026	19,000	32,000	33,673	17,845
1964	51,789	36,582	15,207	20,000	32,000	34,261	17,528
1965	63,024	43,624	19,400	25,000	38,000	41,780	21,244
1966[2]	80,000	47,000	33,000	39,000	41,000	59,000	21,000
1967[2]	73,000	48,000	26,000	32,000	41,000	51,000	22,000
1968	82,179	50,589	31,590	36,166	46,013	61,576	20,603
1969	72,358	46,974	25,384	37,171	35,187	47,820	24,538
1970	67,512	43,708	23,804	36,753	30,759	45,835	21,677
1971	71,951	43,920	28,031	40,284	31,667	47,214	24,737
1972	75,870	43,383	32,487	42,272	33,598	53,607	22,263
				PROJECTED[3]			
1973	74,000	42,000	32,000	41,000	33,000	53,000	21,000
1974	73,000	42,000	31,000	40,000	33,000	52,000	21,000
1975	73,000	42,000	31,000	40,000	33,000	52,000	21,000
1976	73,000	42,000	31,000	40,000	33,000	52,000	21,000
1977	72,000	42,000	30,000	40,000	32,000	51,000	21,000
1978	72,000	42,000	30,000	40,000	32,000	51,000	21,000
1979	72,000	42,000	30,000	40,000	32,000	51,000	21,000
1980	70,000	41,000	29,000	38,000	32,000	49,000	21,000
1981	70,000	41,000	29,000	38,000	32,000	49,000	21,000
1982	69,000	41,000	28,000	38,000	31,000	49,000	20,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," sec. 3m.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3e and 3g.

These estimates differ from estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment and revisions in the 1966 comprehensive data for 4-year institutions.

[3] For assumptions underlying these projections, see footnotes to table 9. For methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table 11.—Non-degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total non-degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	184,000	123,000	61,000	79,000	105,000	149,000	35,000
1963	219,723	146,163	73,560	96,000	124,000	183,721	36,002
1964	278,058	179,139	98,919	120,000	158,000	253,920	24,138
1965	331,515	211,793	119,722	147,000	184,000	303,374	28,141
1966[2]	381,000	232,000	150,000	174,000	208,000	350,000	32,000
1967[2]	432,000	263,000	168,000	204,000	228,000	404,000	27,000
1968	502,797	308,058	194,739	236,796	266,001	477,333	25,464
1969	448,229	280,080	168,149	207,957	240,272	434,114	14,115
1970	593,226	363,293	229,933	289,504	303,722	582,210	11,016
1971	760,590	445,986	314,604	360,462	400,128	743,161	17,429
1972	873,933	494,752	379,181	383,368	490,565	858,099	15,834
	PROJECTED[3]						
1973	941,000	532,000	409,000	412,000	529,000	926,000	15,000
1974	1,004,000	569,000	435,000	440,000	564,000	989,000	15,000
1975	1,084,000	615,000	469,000	474,000	610,000	1,069,000	15,000
1976	1,150,000	650,000	500,000	503,000	647,000	1,135,000	15,000
1977	1,205,000	682,000	523,000	527,000	678,000	1,190,000	15,000
1978	1,265,000	713,000	552,000	553,000	712,000	1,250,000	15,000
1979	1,314,000	738,000	576,000	574,000	740,000	1,299,000	15,000
1980	1,350,000	760,000	590,000	590,000	760,000	1,335,000	15,000
1981	1,395,000	786,000	609,000	609,000	786,000	1,380,000	15,000
1982	1,420,000	797,000	623,000	619,000	802,000	1,406,000	14,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," sec. 3m.

[2] The breakdown between degree-credit and non degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3e and 3g.

The estimates for 1967 differ from the estimates published in the 1968 edition of *Projections of Educational Statistics* because of data available from the 1967 comprehensive report of enrollment.

[3] For assumptions underlying these projections, see footnotes to table 9. For methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table 12.—Estimated full-time-equivalent enrollment in all institutions of higher education, by degree-credit status and institutional control: United States, fall 1962 to 1982[1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	All students			Students taking work creditable toward a bachelor's or higher degree			Students in occupational or general studies programs not chiefly creditable toward a bachelor's degree		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	3,455	2,145	1,310	3,322	2,041	1,281	133	104	29
1963	3,696	2,351	1,345	3,539	2,225	1,314	157	126	31
1964	4,115	2,671	1,444	3,924	2,504	1,421	191	167	24
1965	4,671	3,094	1,577	4,443	2,895	1,548	228	199	29
1966	5,070	3,398	1,672	4,792	3,154	1,637	278	243	35
1967	5,480	3,761	1,719	5,168	3,482	1,686	312	279	33
1968	5,954	4,228	1,726	5,594	3,899	1,695	360	329	31
1969	6,319	4,564	1,755	5,997	4,268	1,729	322	296	26
1970	6,721	4,937	1,783	6,299	4,539	1,761	421	399	22
1971	7,003	5,218	1,785	6,482	4,727	1,755	522	491	30
1972	7,083	5,300	1,783	6,511	4,757	1,754	572	543	29
	PROJECTED[1]								
1973	7,191	5,403	1,788	6,581	4,820	1,761	610	583	27
1974	7,310	5,508	1,802	6,663	4,888	1,775	647	620	27
1975	7,465	5,645	1,820	6,771	4,978	1,793	694	667	27
1976	7,624	5,780	1,844	6,891	5,074	1,817	733	706	27
1977	7,766	5,899	1,867	7,001	5,161	1,840	765	738	27
1978	7,876	5,991	1,885	7,075	5,217	1,858	801	774	27
1979	7,922	6,037	1,885	7,092	5,234	1,858	830	803	27
1980	7,930	6,054	1,876	7,081	5,232	1,849	849	822	27
1981	7,916	6,049	1,867	7,040	5,200	1,840	876	849	27
1982	7,830	5,994	1,836	6,940	5,130	1,810	890	864	26

[1] The estimations, 1962 to 1972, and the projections of the full-time equivalent of part-time enrollment are based on the assumption that the 1964 percentages of part-time enrollment equivalent to full-time enrollment (33 percent for degree-credit students and 28 percent for non-degree-credit students) have remained constant, 1962 to 1982.

For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*, and (5) Sample survey of full-time-equivalent enrollments and credit hours, fall 1964 (unpublished).

Table 13.–Summary of degree-credit enrollment in all institutions of higher education, by level and institutional type: United States, fall 1962 to 1982

(Resident and extension opening fall enrollment–in thousands)

Year (fall)	Total degree-credit enrollment	Level and type						
		Resident graduate (4-year)[1]	Undergraduate and first-professional (4-year)			Undergraduate (2-year)		
			Total[1]	First-time	Other[1]	Total	First-time	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1962	4,175	422	3,163	770	2,393	590	260	329
1963	4,495	464	3,406	775	2,631	625	272	353
1964	4,950	540	3,699	903	2,797	711	322	389
1965	5,526	619	4,066	1,041	3,025	841	401	441
1966[2]	5,928	682	4,302	989	3,313	945	389	556
1967[2]	6,406	753	4,572	992	3,580	1,081	447	634
1968	6,928	797	4,842	1,076	3,766	1,289	554	735
1969	7,484	828	5,128	1,107	4,021	1,528	642	886
1970	7,920	900	5,390	1,126	4,264	1,630	654	976
1971	8,116	908	5,483	1,096	4,387	1,725	670	1,055
1972	8,265	943	5,530	1,065	4,465	1,792	675	1,117
	PROJECTED[3]							
1973	8,370	963	5,549	1,060	4,489	1,858	710	1,148
1974	8,491	986	5,577	1,056	4,521	1,928	743	1,185
1975	8,645	1,012	5,626	1,045	4,581	2,007	771	1,236
1976	8,811	1,039	5,685	1,030	4,655	2,087	792	1,295
1977	8,965	1,066	5,745	1,020	4,725	2,154	814	1,340
1978	9,069	1,086	5,776	998	4,778	2,207	826	1,381
1979	9,099	1,098	5,763	966	4,797	2,238	824	1,414
1980	9,097	1,106	5,736	940	4,796	2,255	826	1,429
1981	9,051	1,108	5,682	914	4,768	2,261	824	1,437
1982	8,927	1,097	5,587	874	4,713	2,243	804	1,439

[1] Estimated. See appendix A, "Estimation Methods," secs. 3a, 3b, 3h, and 3j.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," secs. 3d and 3f.

[3] The projection of resident graduate enrollment in 4-year institutions is the same as that shown in table 17. It does not include extension graduate enrollment.

The projection of undergraduate and first-professional degree-credit enrollment in 4-year institutions is the difference between projected total degree-credit enrollment (resident and extension) in 4-year institutions shown in table 7 and resident graduate enrollment in 4-year institutions shown in table 17. Therefore, prior to 1969, the 1st year that extension graduate enrollment was reported, estimated and reported undergraduate and first-professional enrollment in 4-year institutions includes an unknown amount of extension graduate enrollment.

In 1969, 1970, 1971, and 1972, there were approximately 127,000, 139,000, 104,000, and 122,000 extension graduate students, respectively.

The projection of undergraduate degree-credit enrollment in 2-year institutions of higher education is the same as that shown in table 8.

NOTE.–Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) *Residence and Migration of College Students, Fall 1968; Basic State to State Matrix Tables*, (4) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and fall 1967, and (5) *Resident and Extension Enrollment in Institutions of Higher Education*, biennially, 1961 and 1963.

Table 14.—First-time degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total first-time degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	1,030,554	598,099	432,455	849,000	181,000	669,728	360,826
1963	1,046,417	604,282	442,135	864,000	182,000	686,861	359,556
1964	1,224,840	701,524	523,316	1,014,000	210,000	814,664	410,176
1965	1,441,822	829,215	612,607	1,192,000	250,000	990,021	451,801
1966[2]	1,378,000	787,000	591,000	1,140,000	238,000	947,000	430,000
1967[2]	1,439,000	814,000	626,000	1,182,000	257,000	1,024,000	415,000
1968	1,629,751	924,580	705,171	1,328,329	301,422	1,200,784	428,967
1969	1,748,655	985,719	762,936	1,404,508	344,147	1,309,359	439,296
1970	1,780,119	983,794	796,325	1,426,488	353,631	1,337,896	442,223
1971	1,765,625	967,859	797,766	1,411,032	354,593	1,339,177	426,448
1972	1,740,438	928,804	811,634	1,369,316	371,122	1,322,564	417,874
				PROJECTED[3]			
1973	1,770,000	946,000	824,000	1,386,000	384,000	1,355,000	415,000
1974	1,799,000	962,000	837,000	1,401,000	398,000	1,385,000	414,000
1975	1,816,000	971,000	845,000	1,406,000	410,000	1,406,000	410,000
1976	1,822,000	974,000	848,000	1,405,000	417,000	1,418,000	404,000
1977	1,834,000	980,000	854,000	1,407,000	427,000	1,434,000	400,000
1978	1,824,000	976,000	848,000	1,394,000	430,000	1,433,000	391,000
1979	1,790,000	957,000	833,000	1,362,000	428,000	1,411,000	379,000
1980	1,766,000	944,000	822,000	1,341,000	425,000	1,397,000	369,000
1981	1,738,000	929,000	809,000	1,315,000	423,000	1,378,000	360,000
1982	1,678,000	897,000	781,000	1,267,000	411,000	1,334,000	344,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," sec. 2b.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sec. 2a.

[3] The projection of first-time opening fall degree-credit enrollment in all institutions of higher education by sex is based primarily on the assumption that first-time enrollment, expressed as a percentage of the population averaging 18 years of age, will remain constant at the 1972 rate.

The projection of first-time opening fall degree-credit enrollment by control and type of institution is based on the assumption that, for each sex, the percentage that enrollment in public 2-year institutions is of total enrollment will follow the 1962–72 trend to 1982 with the restriction that it cannot exceed 50 percent. For the other 3 institutional categories of type and control, the 1972 percentages of total enrollment were prorated to the difference between 100 percent and the percentage in public 2-year institutions.

The projection of total first-time degree-credit enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time enrollment to total enrollment reported in the 1972 opening fall enrollment survey, with minor adjustments, will remain constant to 1982.

For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplemental Information*, 1969 and 1970, (3) data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished), and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

For projections of first-time degree-credit enrollment based on alternative assumptions (1 assumption of higher enrollment rates and 1 assumption of lower enrollment rates), see appendix B, tables B-5 and B-6.

Table 15.—First-time degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total first-time degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	770,114	441,936	328,178	680,000	90,000	445,191	324,923
1963	774,744	441,220	333,524	687,000	88,000	452,104	322,640
1964	902,599	508,117	394,482	802,000	100,000	539,251	363,348
1965	1,041,025	587,789	453,236	929,000	112,000	642,233	398,792
1966[2]	989,000	555,000	434,000	884,000	105,000	610,000	379,000
1967[2]	992,000	548,000	444,000	889,000	103,000	628,000	364,000
1968	1,076,077	591,443	484,634	966,094	109,983	705,891	370,186
1969	1,107,116	608,089	499,027	994,586	112,530	721,963	385,153
1970	1,126,368	608,823	517,545	1,013,031	113,337	736,879	389,489
1971	1,095,547	585,393	510,154	991,521	104,026	719,405	376,142
1972	1,065,128	560,035	505,093	968,578	96,550	692,944	372,184
	PROJECTED[3]						
1973	1,060,000	558,000	502,000	965,000	95,000	690,000	370,000
1974	1,056,000	556,000	500,000	961,000	95,000	687,000	369,000
1975	1,045,000	550,000	495,000	950,000	95,000	680,000	365,000
1976	1,030,000	543,000	487,000	937,000	93,000	670,000	360,000
1977	1,020,000	537,000	483,000	927,000	93,000	664,000	356,000
1978	998,000	527,000	471,000	908,000	90,000	650,000	348,000
1979	966,000	510,000	456,000	878,000	88,000	628,000	338,000
1980	940,000	496,000	444,000	856,000	84,000	611,000	329,000
1981	914,000	483,000	431,000	831,000	83,000	594,000	320,000
1982	874,000	462,000	412,000	795,000	79,000	568,000	306,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," sec. 2b.

[2] The breakdown between degree-credit and non-degree credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sec. 2a.

[3] For assumptions underlying these projections, see footnotes to table 9. For methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished), and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table 16.—First-time degree-credit enrollment in 2-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982

[Resident and extension opening fall enrollment]

Year (fall)	Total first-time degree-credit enrollment	Sex		Attendance status[1]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	260,440	156,163	104,277	169,000	91,000	224,537	35,903
1963	271,673	163,062	108,611	178,000	94,000	234,757	36,916
1964	322,241	193,407	128,834	212,000	110,000	275,413	46,828
1965	400,797	241,426	159,371	263,000	138,000	347,788	53,009
1966[2]	389,000	232,000	157,000	255,000	134,000	337,000	51,000
1967[2]	447,000	266,000	181,000	292,000	155,000	396,000	51,000
1968	553,674	333,137	220,537	362,235	191,439	494,893	58,781
1969	641,539	377,630	263,909	409,922	231,617	587,396	54,143
1970	653,751	374,971	278,780	413,457	240,294	601,017	52,734
1971	670,078	382,466	287,612	419,511	250,567	619,772	50,306
1972	675,310	368,769	306,541	400,738	274,572	629,620	45,690
	PROJECTED[3]						
1973	710,000	388,000	322,000	421,000	289,000	665,000	45,000
1974	743,000	406,000	337,000	440,000	303,000	698,000	45,000
1975	771,000	421,000	350,000	456,000	315,000	726,000	45,000
1976	792,000	431,000	361,000	468,000	324,000	748,000	44,000
1977	814,000	443,000	371,000	480,000	334,000	770,000	44,000
1978	826,000	449,000	377,000	486,000	340,000	783,000	43,000
1979	824,000	447,000	377,000	484,000	340,000	783,000	41,000
1980	826,000	448,000	378,000	485,000	341,000	786,000	40,000
1981	824,000	446,000	378,000	484,000	340,000	784,000	40,000
1982	804,000	435,000	369,000	472,000	332,000	766,000	38,000

[1] Estimated for all years prior to 1968. See appendix A, "Estimation Methods," sec. 2b.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sec. 2a.

[3] For assumptions underlying these projections, see footnotes to table 9. For methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished), and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table 17.—Resident graduate enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total resident graduate degree-credit enrollment[2]	Sex		Attendance status[2]		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	422	298	124	177	245	234	189
1963	464	327	137	188	276	267	196
1964[3]	540	373	167	221	319	317	223
1965[3]	619	423	196	256	363	370	249
1966[3]	682	458	224	285	397	411	271
1967[3]	753	498	255	317	436	464	290
1968[3]	797	514	283	342	455	505	292
1969	828	529	299	364	464	548	280
1970	900	569	331	379	521	606	294
1971	908	567	341	388	520	620	288
1972	943	572	372	393	550	651	292
	PROJECTED[4]						
1973	963	573	390	400	563	674	289
1974	986	575	411	409	577	697	289
1975	1,012	582	430	417	595	722	290
1976	1,039	592	447	428	611	749	290
1977	1,066	601	465	438	628	774	292
1978	1,086	606	480	445	641	795	291
1979	1,098	607	491	450	648	808	290
1980	1,106	605	501	451	655	819	287
1981	1,108	600	508	452	656	825	283
1982	1,097	591	506	446	651	820	277

[1] Extension graduate students are included with resident and extension undergraduate and first-professional students in tables 18 and 19 because separate data on extension graduate students were not collected until 1969. In 1969, 1970, 1971, and 1972, there were approximately 127,000, 139,000, 104,000, and 122,000 extension graduate students, respectively.

[2] For method of estimating total resident graduate enrollment and resident graduate enrollment by attendance status, 1962 to 1968, see appendix A, "Estimation Methods," secs. 3a, 3b, 3h, and 3j.

[3] The estimates for 1964 to 1968 differ from estimates published in the 1969 and prior editions of *Projections of Educational Statistics* because they take into account (a) data on graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment, (b) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions, and (c) data on graduate enrollment available from the 1969 supplementary survey.

[4] The projection of resident graduate enrollment by sex is based primarily on the assumption that, for each sex, the estimated proportion of total enrollment at the graduate level will continue the 1962–72 trend to 1982.

The projection of resident graduate enrollment by control of institution is based on the assumption that, for each sex, the percentage that enrollment in public 4-year institutions is of total enrollment will follow the 1962–72 trend to 1982 with the restrictions that it cannot exceed 75 percent for men and 80 percent for women. The percentage in private 4-year institutions was calculated as the difference between 100 percent and the percent in public 4-year institutions.

The projection of resident graduate enrollment by attendance status is based on the assumption that in each enrollment category the ratio of full-time graduate enrollment to total graduate enrollment reported in the 1972 opening fall enrollment survey, with minor adjustments, will remain constant to 1982.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, (4) *Resident and Extension Enrollment in Institutions of Higher Education*, first term 1961 and 1963, and (5) *Residence and Migration of College Students*, fall 1968.

Table 18.—Undergraduate and first-professional degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982[1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total undergraduate degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	3,753	2,290	1,463	2,725	1,028	2,340	1,413
1963	4,031	2,446	1,585	2,881	1,151	2,581	1,450
1964[2]	4,410	2,660	1,750	3,196	1,213	2,863	1,548
1965[2]	4,907	2,952	1,956	3,654	1,253	3,255	1,653
1966[2]	5,247	3,119	2,127	3,940	1,306	3,529	1,717
1967[2]	5,653	3,324	2,329	4,239	1,414	3,897	1,756
1968[2]	6,131	3,605	2,526	4,595	1,536	4,387	1,744
1969	6,656	3,890	2,766	4,890	1,766	4,867	1,789
1970	7,020	4,068	2,953	5,110	1,910	5,194	1,826
1971	7,208	4,150	3,058	5,289	1,920	5,393	1,815
1972	7,322	4,129	3,193	5,253	2,068	5,507	1,815
	PROJECTED[1]						
1973	7,407	4,122	3,285	5,299	2,108	5,582	1,825
1974	7,505	4,144	3,361	5,353	2,152	5,664	1,841
1975	7,633	4,189	3,444	5,431	2,202	5,772	1,861
1976	7,772	4,259	3,513	5,517	2,255	5,883	1,889
1977	7,899	4,322	3,577	5,595	2,304	5,984	1,915
1978	7,983	4,362	3,621	5,647	2,336	6,047	1,936
1979	8,001	4,366	3,635	5,653	2,348	6,065	1,936
1980	7,991	4,353	3,638	5,637	2,354	6,062	1,929
1981	7,943	4,322	3,621	5,597	2,346	6,022	1,921
1982	7,830	4,253	3,578	5,525	2,305	5,939	1,891

[1] The estimates for 1962 through 1968 and projections of undergraduate degree-credit enrollment in all institutions, by sex, attendance status, and institutional control, are calculated by summing the degree-credit enrollment in 2-year institutions (table 8) and corresponding categories of undergraduate degree-credit enrollment in 4-year institutions (table 19).

[2] The estimates for 1964 through 1968 differ from the estimates published in the 1969 and prior editions of *Projections of Educational Statistics* because they take into account (a) data on resident graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment, (b) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions, and (c) data on graduate enrollment available from the 1969 supplementary survey.

For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, (4) *Resident and Extension Enrollment in Institutions of Higher Education*, first term 1961 and 1963, and (5) *Residence and Migration of College Students*, fall 1968.

Table 19.—Undergraduate and first-professional degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1962 to 1982[1]

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total undergraduate degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	3,163	1,924	1,239	2,408	755	1,821	1,342
1963	3,406	2,059	1,347	2,553	853	2,030	1,377
1964[2]	3,699	2,220	1,479	2,800	899	2,242	1,458
1965[2]	4,066	2,430	1,636	3,159	907	2,517	1,549
1966[2]	4,302	2,542	1,760	3,377	925	2,689	1,612
1967[2]	4,572	2,672	1,900	3,623	949	2,929	1,643
1968[2]	4,842	2,823	2,019	3,856	985	3,218	1,624
1969	5,128	2,980	2,148	4,041	1,087	3,454	1,673
1970	5,390	3,114	2,276	4,234	1,156	3,674	1,716
1971	5,483	3,147	2,336	4,358	1,124	3,771	1,712
1972	5,530	3,130	2,400	4,350	1,180	3,812	1,718
	PROJECTED[1]						
1973	5,549	3,098	2,451	4,365	1,184	3,819	1,730
1974	5,577	3,087	2,490	4,386	1,191	3,828	1,749
1975	5,626	3,096	2,530	4,425	1,201	3,859	1,767
1976	5,685	3,123	2,562	4,472	1,213	3,893	1,792
1977	5,745	3,151	2,594	4,518	1,227	3,928	1,817
1978	5,776	3,164	2,612	4,543	1,233	3,939	1,837
1979	5,763	3,152	2,611	4,533	1,230	3,927	1,836
1980	5,736	3,133	2,603	4,510	1,226	3,907	1,829
1981	5,686	3,102	2,580	4,468	1,214	3,860	1,822
1982	5,587	3,042	2,545	4,394	1,193	3,793	1,794

[1] The estimates for 1962 through 1968 and projections of undergraduate degree-credit enrollment in 4-year institutions, by sex, attendance status, and institutional control, are calculated by subtracting resident graduate enrollment in the above categories (table 17) from corresponding categories of degree-credit enrollment in 4-year institutions (table 7).

[2] The estimates for 1964 through 1968 differ from the estimates published in the 1969 and prior editions of *Projections of Educational Statistics* because they take into account (a) data on resident graduate enrollment available from the unpublished 1967 comprehensive survey of enrollment, (b) revisions in the 1966 comprehensive survey of enrollment data for 4-year institutions, and (c) data on graduate enrollment available from the 1969 supplementary survey.

For further methodological details, see appendix A, table A-1.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 and 1967, (4) *Resident and Extension Enrollment in Institutions of Higher Education*, biennially, first term 1961 and 1963, and (5) *Residence and Migration of College Students*, fall 1968.

CHAPTER III

High School Graduates and Earned Degrees

John F. Beamer, Jr.

High School Graduates (table 20)

The number of high school graduates increased from 2.0 million in the school year 1962–63 to an estimated 3.1 million in 1972–73 and is expected to decrease to 2.8 million in 1982–83. These figures include graduates from all regular public and nonpublic high schools in the United States and, unlike the data on enrollments in chapter II, graduates from the following schools not in the regular school system: Federal schools for Indians, schools on Federal installations, residential schools for exceptional children, and subcollegiate departments of colleges and universities. Graduates of these schools comprise less than 1 percent of all high school graduates.

Two main sources form the basis for the figures quoted above. Graduates of regular public schools are reported each fall by the State departments of education. Graduates of regular nonpublic schools are reported in surveys of the schools by the Office of Education. Other graduates included above are estimated from various auxiliary sources.

Projected high school graduates by sex and by control of school are shown in table 20. The projection of public high school graduates to 1982–83 is based on the assumption that, for boys and girls separately, high school graduates expressed as a percentage of the average 18-year-old population will follow the 1961–62 to 1971–72 trends.

The projection of nonpublic high school graduates assumes little or no increase in the number of graduates in line with similar assumptions regarding nonpublic enrollments.

High school graduates, as a percent of the population averaging 18 years old (table B-2), increased greatly from 1961–62 to 1965–66 (67 to 74 percent for men and 72 to 78 percent for women). However, from 1965–66 to 1971–72, this percent has remained about the same, and we are projecting only very slight gains through 1982–83 (less than 2 percent for both men and women).

Since most new college students are from recent high school graduating classes, the leveling off of the percentage that high school graduates are of the average 18-year-old population is another indicator that college enrollments will also tend to level off during the next 10 years.

Earned Degrees

Earned-degrees reports from individual degree-granting institutions of higher education are received each fall by the Office of Education. These reports provide information on the number of degrees granted by level and sex and by academic field of concentration. They cover degrees granted during the academic year ending in June and include degrees earned in the prior summer.

In the 1972 edition of *Projections of Educational Statistics* two major changes were made. One change was the result of basing the survey of earned degrees on a new taxonomy, resulting in a breakdown of earned degrees into fields (shown in tables 22–26) which differ from the breakdown in editions prior to the 1972 edition. The new breakdown is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education*. To obtain the distribution of degrees by field for the back years, the earned degrees were redistributed as well

as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A, "Classification of Degrees by Field of Study," pages 141–144.

The other change dealt with the principal levels of earned degrees that were reported and projected. In the years before the 1972 edition, three principal levels were projected: Bachelor's, including first-professional degrees; master's degrees; and doctorates. Now, bachelor's degrees and first-professional degrees are projected separately. Since 1960–61, first-professional degrees have been reported separately from bachelor's degrees, but the definitions of what constitutes a first-professional degree have not been uniform throughout the period. For that reason, no attempt was made in the past to project these degrees separately. (See "Changes in Degree-Level Definitions," appendix A, for a comparison of these definitions.) Recently, however, a stable definition of first-professional degrees has been established, and reporting will be reasonably uniform in the future.

As previously mentioned, the earned-degrees data are received each fall by the Office of Education. However, this year the 1971–72 data for earned degrees were not processed in time to be used in making the new earned-degrees projections. Data on doctor's degrees, by sex, for 1971–72 were provided by the National Research Council.

For projecting total bachelor's degrees by sex, fall 1972 data on first-time degree-credit enrollment were available. With these data, estimates and projections could be made through 1975–76 instead of 1974–75 by projecting the percentage that the number of degrees in a certain year is of first-time degree-credit enrollment 4 years earlier.

In projecting total master's and total doctor's degrees by sex, fall 1971 data on first-year enrollment for advanced degrees by sex were available.

For projecting master's degrees, the percentage that earned degrees in a particular year are of the average first-year enrollment for advanced degrees, 1 and 2 years earlier, was used as it was in the 1972 edition.

For projecting doctor's degrees, the percentage that earned degrees in a particular year were of first-year enrollment for advanced degrees 7 years earlier was used in this edition. In the 1972 edition, an average of 5 and 6 years earlier was used. The 7-year time lapse was used on the basis of an unpublished analysis of data on earned doctor's degrees in 1971–72 provided by the National Science Foundation. (See appendix B, table B-8.)

Projections of total first-professional degrees for 1971–72 to 1973–74 were obtained by summing the projected degrees in all the individual fields. The percent that total first-professional degrees are of first-professional degrees in all health fields and in law, combined, in 1973–74, was used to determine the 1974–75 to 1982–83 projections.

For a more detailed description of the methodology used for projecting earned degrees, see appendix A, table A-2.

Past projections of earned degrees by field have been based, primarily, on the assumption that the percentage distribution of degrees by field for each sex will continue the trend of the last 11 years of actual data or else remain at approximately the rate for the last actual year through the projected period. These are still the basic assumptions. However, in the past two editions, the number of trend-line equations used has decreased greatly. The main reason for this is the change in the new taxonomy, mentioned earlier, which resulted in a lack of consistency in the number of earned degrees for a number of fields of study. Therefore, for these fields of study, the 1970–71 percentages that earned degrees in these fields were of total degrees were held constant throughout the projected period. The only year data have been collected under the new taxonomy is 1970–71.

This year, more related data from independent sources were taken into consideration than in previous editions. These are: Data on junior-year enrollment for a number of fields in 1970, 1971, and 1972, from a survey by the American Council on Education; survey data collected by the Engineering Joint Council for use in projecting engineering degrees; survey data from the National Education Association for bachelor's-degree projections in education; data from the Bureau of Health Manpower Education, National Institutes of Health, in addition to that from

ACE, for making health projections; and data from the American Bar Association for making law-degree projections.

Data from independent sources were used extensively in making projections of first-professional degrees by field of study. Medicine, dentistry, and other health professions were projected by the Division of Manpower Intelligence, National Institutes of Health. These projections are based on output resulting from support in the Comprehensive Manpower Training Act of 1971. Law-degree projections for 1972–73 to 1974–75 are based on data from the American Bar Association on both earned degrees and first-time enrollment in law schools 3 years earlier. Degree projections for the following years are based on unpublished projections of first-year law students provided by the American Bar Association.

The field of "theology and other" is the same as the field listed as "other" in last year's edition. It was decided to include theology in the name because theology made up about 94 percent of the field in 1970–71. The projections of "theology and other" degrees for 1971–72 to 1973–74 are based on an arbitrarily estimated percent that these degrees are of enrollment for advanced degrees in this field 3 years earlier. Projections of the remaining years to 1982–83 were obtained by subtracting projections of degrees in law and the health professions from projections of total first-professional degrees.

For a more detailed description of the methodology used for projecting earned degrees, by field, see appendix A, table A-2.

Earned degrees, by level and sex (table 21)

Projected degrees by level and sex are shown in table 21. Based on reports through 1970–71, the total numbers, by level, are expected to increase as follows:

Level of degree	Granted 1962–63	Estimated 1972–73	Projected 1982–83
Bachelor's	416,400	941,000	999,000
First-professional	27,100	50,200	64,500
Master's	95,500	251,400	337,700
Doctorate	12,800	34,400	52,200

The methodology for estimating and projecting these degrees is basically the same as that used for the 1972 edition of *Projections of Educational Statistics*, except for first-professional degrees.

The projections of degrees by level and sex in this edition are based on the following: (1) The relationship between college-age population and the number of degrees granted at each of the four levels during the 1960–61 to 1970–71 period, (2) first-time degree-credit enrollment 4 years before the bachelor's degree, (3) first-year enrollment for first-professional degrees 3 years before the first-professional degree, (4) the average of first-year enrollment for master's and doctor's degrees 1 and 2 years before the master's degree, and (5) first-year enrollment for master's and doctor's degrees 7 years before the doctor's degree.

For a more detailed description of the methodology used, see appendix A, table A-2.

Earned degrees, by level and field (tables 22–26)

The fields presented are divided into three main groups (a) Social sciences, (b) humanities, and (c) natural sciences and miscellaneous fields – at each level, except first-professional. The fields included in the three groups and the percentage distribution of degrees by level and field

for the years 1962–63, 1972–73, and 1982–83 are shown in table 22. The projected number of earned degrees by field is shown in tables 23–26, one for each of the four levels.

Bachelor's degrees, by field (tables 22, 23)

In 1962–63, social sciences made up only about 18 percent of all bachelor's degrees, but increased to 27 percent in 1972–73 and are projected to increase to 29 percent in 1982–83. The humanities fields have likewise been increasing: from 15 percent of total bachelor's degrees in 1962–63, the percentage rose to 17.4 in 1972–73 and is projected to increase slightly to a little over 18 percent in 1982–83. This, of course, means that natural sciences and miscellaneous fields have been decreasing proportionately.

Projections of bachelor's degrees by the field in which they were awarded are shown in table 23. The rate of increase of all three areas of study is not expected to be nearly so great in the next 10 years as during the past 10 years. In the next 10 years, not only is the actual increase in earned degrees for the areas of social sciences and humanities expected to be less, but for the area of natural sciences and miscellaneous fields the number of earned degrees is expected to be essentially the same.

Bachelor's degrees in the social sciences rose from 76,025 in 1962–63 to an estimated 255,410 in 1972–73 and are expected to be 292,990 in 1982–83. Humanities, which have grown much less rapidly, increased from 62,592 earned bachelor's degrees in 1962–63 to an estimated 163,430 in 1972–73 and are expected to be 184,050 in 1982–83. The largest area of earned bachelor's degrees, made up of natural sciences and miscellaneous fields, rose from 277,804 in 1962–63 to an estimated 522,160 in 1972–73 and is expected to be 521,960 in 1982–83.

Education and engineering are the only two fields expected to decrease in earned bachelor's degrees over the next 10 years. Physical sciences and agriculture and natural resources are expected to remain about the same over the next 10 years.

In both the social sciences and the humanities, all the fields increased or stayed the same in relation to total bachelor's degrees awarded, and all these fields are expected to continue to increase or stay the same in relation to total bachelor's degrees over the next 10 years. Most of the natural sciences and miscellaneous fields have shown a proportionate decrease in bachelor's degrees over the past 10 years, and most are expected to show a proportionate decrease for the next 10 years.

The field of social science is the one that had the largest increase as a proportion of total bachelor's degrees conferred during the past 10 years. The health professions field is expected to have the largest proportionate increase during the next 10 years. Education had the largest decrease in this proportion during the past 10 years and is also expected to have the largest such decrease during the next 10 years.

Master's degrees, by field (tables 22, 24)

The proportion of master's degrees awarded in the social sciences rose from about 15 percent in 1962–63 to an estimated 16 percent in 1972–73 and is expected to be about the same in 1982–83. For humanities, the proportion of master's degrees was about 11 percent in 1962–63, remained that in 1972–73, and is expected to remain at about the same rate through 1982–83. The greatest number of master's degrees is in the natural sciences and miscellaneous fields. For this area of study, the proportion decreased slightly from just over 73 percent in 1962–63 to just under 73 percent in 1972–73 and is expected to remain at about that level through 1982–83.

Projections of master's degrees by the field in which they were awarded are shown in table 24. As was true for bachelor's degrees, not only is the expected rate of increase to be lower during the next 10 years, but also the actual increase in earned degrees for all three areas is expected to be less. Master's degrees in the social sciences rose from 14,725 in 1962–63 to an

estimated 40,550 in 1972–73 and are expected to increase to 54,810 in 1982–83. Humanities have grown from 10,804 earned degrees in 1962–63 to an estimated 27,560 in 1972–73 and are expected to increase to 36,490 in 1982–83. For natural sciences and miscellaneous fields, the earned degrees rose from 69,941 in 1962–63 to an estimated 183,290 in 1972–73 and are expected to increase to 246,400 in 1982–83.

The field which had the largest increase in the proportion of total master's degrees during the past 10 years was "other business and management." Engineering was the field with the largest decrease in this proportion. Over the next 10 years the proportionate changes are expected to be minimal, but the largest change is expected to be a continued downward trend in engineering.

Doctor's degrees, by field (tables 22, 25)

The proportion of doctor's degrees awarded in each of the three areas (social sciences, humanities, and natural sciences and miscellaneous fields) has remained fairly constant during the past 10 years and is expected to remain fairly constant over the next 10 years.

Earned doctor's degrees, which have been increasing at a high rate during the past 10 years, are expected to continue rising a great deal in actual numbers during the next 10 years, but the rate of increase will be much less. Fields expected to more than double during the next 10 years are architecture and environmental design, health professions, and other business and management. The number of degrees in computer and information sciences is expected to increase by almost fourfold over the next 10 years. All fields are expected to show at least some increase in number of degrees by 1982–83. Doctor's degrees in education are expected to grow from an estimated 7,390 in 1972–73 to 13,900 in 1982–83. This is by far the largest expected increase in number of degrees for any field.

Doctor's degrees by fields of specialization are shown in table 25. Doctor's degrees in the social sciences rose from 2,347 in 1962–63 to an estimated 5,970 in 1972–73 and are expected to increase to 8,970 in 1982–83. Humanities have grown from 1,402 earned degrees in 1962–63 to an estimated 4,760 in 1972–73 and are expected to increase to 6,780 in 1982–83. For natural sciences and miscellaneous fields, the earned degrees rose from 9,073 in 1962–63 to an estimated 23,670 in 1972–73 and are expected to increase to 36,450 in 1982–83.

First-professional degrees, by field (table 26)

This is the second edition of *Projections of Educational Statistics* to provide a separate table for earned first-professional degrees, by field. The total number of these earned degrees rose from 27,097 in 1962–63 to an estimated 50,200 in 1972–73 and is expected to be 64,500 in 1982–83.

The number of degrees in medicine and in "other health professions" is expected to increase more over the next 10 years than it has increased during the past 10 years. However, the booming enrollments in law schools seem to be leveling off, and over the next 10 years increases in the number of law degrees granted will be much less than they were during the past 10 years.

Table 20.—High school graduates, by sex and by institutional control: United States, 1961–62 to 1982–83[1]

[In thousands]

Year	Total high school graduates	Sex		Control	
		Boys	Girls	Public	Private (estimated)
(1)	(2)	(3)	(4)	(5)	(6)
1961–62	1,925	941	984	1,685	240
1962–63	1,950	959	991	1,717	[2]233
1963–64	2,290	1,123	1,167	2,015	[2]275
1964–65	2,665	1,314	1,351	2,366	[2]298
1965–66	2,672	1,326	1,346	2,374	298
1966–67	2,679	1,332	1,348	2,381	298
1967–68	2,702	1,341	1,360	2,402	300
1968–69	2,829	1,402	1,427	2,529	300
1969–70	2,896	1,433	1,463	2,596	300
1970–71	2,943	1,456	1,487	2,643	300
1971–72	3,015	1,495	1,520	2,715	300
1972–73[3]	3,077	1,524	1,552	2,777	300
	PROJECTED[4]				
1973–74	3,130	1,552	1,578	2,830	300
1974–75	3,162	1,569	1,593	2,862	300
1975–76	3,175	1,575	1,600	2,875	300
1976–77	3,199	1,587	1,612	2,899	300
1977–78	3,183	1,580	1,603	2,883	300
1978–79	3,139	1,560	1,579	2,839	300
1979–80	3,096	1,536	1,560	2,796	300
1980–81	3,052	1,514	1,538	2,752	300
1981–82	2,960	1,469	1,491	2,660	300
1982–83	2,835	1,405	1,430	2,535	300

[1] Includes regular public and nonpublic schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. Excludes equivalency certificates. More than 99 percent of public school graduates and 97 percent of nonpublic school graduates are graduates of regular day schools.

[2] Reported data from Office of Education surveys.

[3] Estimated.

[4] The projection of public high school graduates is based on the following assumption: The number of boys graduating, expressed as a percentage of the number of boys in the population averaging 18 years of age, will increase only 1 percent throughout the projection period. (The same assumption was made for girls.)

The projection of nonpublic high school graduates is based on the following assumptions: (1) The number of nonpublic high school graduates will remain approximately the same throughout the projection period. (2) The percentage of boys among nonpublic high school graduates (48.1 percent in 1964–65) will remain constant to 1982–83.

For further methodological details, see appendix A, table A-2.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: High school graduate data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Statistics of Public Schools*, annually, fall 1963 through 1972, (2) *Statistics of Nonpublic Elementary and Secondary Schools*, 1965–66, and (3) *Nonpublic School Enrollments in Grades 9–12, Fall 1964, and Graduates, 1963–64*.

Table 21.—Earned degrees, by level and by sex of student: United States, 1961–62 to 1982–83

Year	Bachelor's degrees[1]			First-professional degrees[2]			Master's degrees[3]			Doctor's degrees (except first-professional)[4]		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1961–62	387,830	233,821	154,009	26,457	25,686	771	88,414	59,710	28,704	11,622	10,377	1,245
1962–63	416,421	245,622	170,799	27,097	26,260	837	95,470	64,198	31,272	12,822	11,448	1,374
1963–64	466,486	269,861	196,625	27,667	26,815	852	105,551	70,339	35,212	14,490	12,955	1,535
1964–65	501,248	288,538	212,710	28,755	27,748	1,007	117,152	77,544	39,608	16,467	14,692	1,775
1965–66	520,248	299,196	221,052	30,799	29,657	1,142	140,548	93,063	47,485	18,237	16,121	2,116
1966–67	558,075	322,171	235,904	32,472	31,178	1,294	157,707	103,092	54,615	20,617	18,163	2,454
1967–68	631,923	357,270	274,653	34,787	33,237	1,550	176,749	113,519	63,230	23,089	20,183	2,906
1968–69	728,167	409,881	318,286	36,018	34,499	1,519	193,756	121,531	72,225	26,188	22,752	3,436
1969–70	791,510	450,234	341,276	35,724	33,940	1,784	208,291	125,624	82,667	29,866	25,890	3,976
1970–71	839,730	475,594	364,136	37,946	35,544	2,402	230,509	138,146	92,363	32,107	27,530	4,577
1971–72[5]	876,000	493,000	383,000	45,000	42,100	2,900	237,600	141,200	96,400	33,400	28,100	5,300
1972–73[5]	941,000	526,000	415,000	50,200	46,000	4,200	251,400	147,000	104,400	34,400	28,700	5,700
	PROJECTED[6]											
1973–74	958,000	525,000	433,000	53,200	48,200	5,000	263,000	151,400	111,600	39,000	32,100	6,900
1974–75	950,000	516,000	434,000	53,900	47,800	6,100	274,000	155,800	118,200	41,000	33,200	7,800
1975–76	936,000	495,000	441,000	56,400	49,700	6,700	282,900	158,300	124,600	43,900	35,200	8,700
1976–77	958,000	506,000	452,000	58,200	51,000	7,200	292,700	161,900	130,800	46,800	37,600	9,200
1977–78	973,000	514,000	459,000	60,000	52,300	7,700	303,100	165,800	137,300	46,500	37,100	9,400
1978–79	990,000	524,000	466,000	61,300	53,100	8,200	313,000	169,700	143,300	47,700	38,200	9,500
1979–80	997,000	529,000	468,000	62,200	53,600	8,600	321,200	172,800	148,400	49,000	39,300	9,700
1980–81	1,005,000	534,000	471,000	63,000	54,100	8,900	328,900	176,000	152,900	49,900	40,000	9,900
1981–82	1,009,000	537,000	472,000	63,800	54,400	9,400	333,200	177,600	155,600	51,000	40,900	10,100
1982–83	999,000	534,000	465,000	64,500	54,700	9,800	337,700	179,300	158,400	52,200	41,900	10,300

[1] In 1971 and prior editions of *Projections of Educational Statistics*, bachelor's degrees were not shown separately, but were combined with first-professional degrees.

[2] The following specified degrees are reported as first-professional: Dentistry (D.D.S. or D.M.D.), law (LL.B. or J.D.), medicine (M.D.), theology (B.D.), veterinary medicine (D.V.M.), chiropody or podiatry (D.S.C. or D.P.S.), optometry (O.D.), and osteopathy (D.O.).

[3] Master's degrees differ from those published in the 1968 and prior editions of *Projections of Educational Statistics* because of adjustments to secure comparability with current reports of these degrees. For estimation details, see appendix A, "Estimation Methods," sec. 1. Master's degrees also differ from those published in the 1969 through 1971 editions, because of discrpancies with the reported numbers of degrees.

[4] Doctor's degrees include the Ph.D. in any field, as well as such degrees as doctor of education, doctor of juridical science, and doctor of public health (preceded by a professional degree in medicine or sanitary engineering). They exclude degrees defined as first-professional, such as doctor of veterinary medicine.

[5] Estimated.

[6] The estimation and projection of degrees by level and sex of student are based on the following assumptions:

(A) The estimates of bachelor's degrees by sex for 1971–72 and 1972–73 and the projections of these degrees for 1973–74 through 1975–76 are based on the assumption that the percentage of degrees in these years to first-time degree-credit enrollment 4 years earlier will remain approximately constant at the 1970–71 percentage. The projections for 1976–77 through 1982–83 are based on the assumption that the percentage of degrees to population will remain constant at the estimated 1975–76 rate to 1982–83.

(B) For 1971–72 to 1973–74, total first-professional degrees were obtained by summing the projected degrees of the individual fields for those years. Then, the percent that projected total degrees are of projected degrees for law and all the medical fields in 1973–74 was calculated. Of course, this statistic is greater than 100 percent. Total degrees for 1974–75 to 1982–83 were obtained by multiplying the sum of the law and medical fields projections for each year by the above-calculated percent. For methods of projecting first-professional degrees in law and medicine, see footnotes to table 26. The estimates of first-professional degrees by sex for 1971–72 and 1972–73 and the projections of these degrees for 1973–74 through 1982–83 are based on the assumption that the percentage of degrees conferred on women in each field of study would follow the 1961–62 to 1970–71 trend to 1982–83.

(C) The estimates of master's degrees for 1971–72 are based on the assumption that, for men and women separately, the percentage of degrees in 1970–71 to the average of first-year enrollment for advanced degrees, 1 and 2 years earlier, will remain approximately constant. For men, the estimate of degrees for 1972–73 and the projections for 1973–74 to 1982–83 are based on the assumption that the percentage of degrees to population will remain constant at the estimated percentage for 1971–72. For women, the estimate of degrees for 1972–73 and the projections for 1973–74 to 1982–83 are based on the assumption that the percentage of degrees to population will follow the 1961–62 to 1971–72 trend to 1982–83.

(D) The estimates of doctor's degrees by sex for 1971–72 and 1972–73 and the projections of these degrees for 1973–74 through 1977–78 are based on the assumption that the percentage of degrees in these years to the average of first-year enrollment for advanced degrees 7 years earlier will remain approximately constant. For women, the constant percentage is the same as the actual percentage for 1970–71. For men, the constant percentage is a full percent less than the 1970–71 percentage which was a drop of over 1 percent from 1969–70. The projections for 1978–79 through 1982–83 are based on the assumption that the percentage of degrees to population will remain constant and equal to the projected percentage for 1977–78.

(E) A composite population by sex, representative of the age of bachelor's recipients, was used for projecting bachelor's degrees. The same population was used with a 2-year timelag for projecting master's degrees and a 7-year timelag for projecting doctor's degrees. For population used, see appendix B, table B-2; and for estimation details, see appendix A, "Estimation Methods," sec. 6.

For further methodological details, see appendix A, table A-2.

NOTE.—Data include 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals. To obtain projections of earned degrees for the United States and outlying areas, multiply the projections in this table by 1.008 for bachelor's degrees, 1.009 for first-professional degrees, 1.004 for master's degrees, and 1.000 for doctor's degrees.

SOURCES: Degree and enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71, (b) *Opening (Fall) Enrollment in Higher Education*, 1961 through 1968 and 1971 and 1972, (c) *Enrollment for Advanced Degrees*, fall 1961, 1962 and 1963, (d) *Enrollment for Master's and Higher Degrees, Fall 1964*, (e) *Enrollment for Master's and Higher Degrees, Fall 1965: Summary Report*, (f) *Students Enrolled for Advanced Degrees*, fall 1966 through 1971, (g) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; and (2) American Bar Association publication: Millard H. Ruud, "That Burgeoning Law School Enrollment Slows," *American Bar Association Journal*, 59: 150–153, February 1973.

Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1962–63 to 1982–83

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social science	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
					Bachelor's						
1962–63	18.3	15.2	2.6	0.3	0.1	15.0	0.5	3.5	2.3	0.5	8.2
1972–73	27.1	20.3	5.5	1.2	0.1	17.4	0.6	3.9	2.4	1.3	9.1
1982–83	29.3	21.4	6.5	1.3	0.1	18.4	0.6	4.4	2.6	1.3	9.5
					Master's						
1962–63	15.4	8.0	2.0	3.0	2.5	11.3	0.4	3.5	1.9	0.3	5.2
1972–73	16.1	7.2	2.1	3.6	3.2	11.0	0.7	2.3	1.6	0.8	5.5
1982–83	16.2	7.0	2.1	3.7	3.5	10.8	0.7	2.3	1.7	0.8	5.2
					Doctor's						
1962–63	18.3	11.1	6.6	0.5	0.1	10.9	0.0	3.0	1.8	0.1	6.0
1972–73	17.4	11.2	5.5	0.6	0.1	13.8	0.1	2.4	3.2	0.5	7.6
1982–83	17.2	10.1	6.4	0.6	0.1	13.0	0.2	2.1	2.3	0.5	7.9

Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1962–63 to 1982–83 – Continued

Year	C. Natural sciences and miscellaneous fields											
	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Bachelor's											
1962–63 ...	66.7	3.9	0.0	8.4	3.9	4.5	1.6	3.3	2.9	10.1	24.2	3.9
1972–73 ...	55.5	2.9	0.4	5.5	2.5	4.5	1.5	3.3	2.6	11.1	17.4	3.6
1982–83 ...	52.2	2.8	0.5	4.6	2.4	5.3	1.4	4.6	2.7	11.0	13.2	3.8
	Master's											
1962–63 ...	73.3	3.5	0.0	10.1	4.3	3.1	1.7	2.1	0.5	5.7	39.0	3.2
1972–73 ...	72.9	1.8	0.8	7.0	2.5	2.6	1.5	4.0	0.6	11.7	37.3	3.0
1982–83 ...	73.0	1.8	0.7	5.5	2.4	2.5	1.4	4.2	0.6	12.4	38.5	3.0
	Doctor's											
1962–63 ...	70.8	3.8	0.0	10.8	18.6	11.3	4.3	1.2	0.2	1.8	16.0	2.7
1972–73 ...	68.8	3.3	0.6	11.3	12.4	11.0	3.0	1.3	0.1	2.5	21.5	1.8
1982–83 ...	69.8	2.2	1.5	8.1	8.7	10.2	4.5	2.2	0.2	3.7	26.6	1.8

Table 23.—Earned bachelor's degrees, by field of study: United States, 1961–62 to 1982–83[1]

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social sciences	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961–62	66,532	55,454	9,578	1,077	423	55,414	1,774	13,609	7,906	2,174	29,951
1962–63	76,025	63,259	10,993	1,311	462	62,592	2,028	14,515	9,707	2,263	34,079
1963–64	90,144	74,930	13,258	1,446	510	72,965	2,059	16,159	12,160	2,560	40,027
1964–65	99,240	82,224	14,527	1,866	623	80,197	2,333	17,391	13,859	2,814	43,800
1965–66	110,723	91,198	16,841	2,042	642	87,017	2,663	18,679	15,186	3,131	47,358
1966–67	124,414	102,132	19,303	2,278	701	96,074	2,937	21,548	16,706	3,519	51,364
1967–68	145,902	118,426	23,768	2,894	814	110,344	3,262	25,521	19,128	4,363	58,070
1968–69	172,616	138,478	29,295	3,843	1,000	127,905	3,477	31,588	21,493	5,197	66,150
1969–70	190,395	151,391	33,536	4,414	1,054	134,675	4,105	35,901	20,895	5,959	67,815
1970–71	205,931	157,818	37,880	9,220	1,013	139,833	5,570	30,394	19,945	10,802	73,122
1971–72[2]	222,870	169,180	42,200	10,360	1,130	149,410	5,660	33,210	20,820	11,450	78,270
1972–73[2]	255,410	190,570	52,080	11,510	1,250	163,430	6,050	36,730	22,860	12,350	85,440
	PROJECTED[3]										
1973–74	275,050	204,920	56,640	12,150	1,340	171,100	6,040	38,830	24,230	12,620	89,380
1974–75	279,550	207,400	58,430	12,340	1,380	174,800	6,060	40,070	24,800	12,760	91,110
1975–76	275,470	203,760	58,140	12,180	1,390	174,110	5,860	40,250	24,840	12,530	90,630
1976–77	281,630	207,930	59,850	12,430	1,420	178,260	6,010	41,590	25,360	12,780	92,520
1977–78	285,700	210,570	61,120	12,580	1,430	180,960	6,060	42,620	25,680	12,940	93,660
1978–79	290,390	213,680	62,500	12,760	1,450	183,930	6,150	43,730	26,000	13,130	94,920
1979–80	292,330	214,760	63,300	12,810	1,460	185,180	6,200	44,440	26,070	13,200	95,270
1980–81	294,700	216,130	64,210	12,890	1,470	186,240	6,250	44,700	26,210	13,290	95,790
1981–82	295,940	216,690	64,860	12,920	1,470	186,530	6,270	44,790	26,220	13,320	95,930
1982–83	292,990	214,220	64,570	12,760	1,440	184,050	6,220	44,210	25,830	13,180	94,610

See footnotes at end of table.

Table 23.—Earned bachelor's degrees, by field of study: United States, 1961–62 to 1982–83[1]—Continued

Year	C. Natural sciences and miscellaneous fields											
	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering[4]	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other[5]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1961–62 ...	265,884	14,570	...	36,070	15,851	16,694	6,546	12,973	11,353	40,786	95,983	15,058
1962–63 ...	277,804	16,078	...	34,972	16,217	18,849	6,748	13,944	11,880	42,156	100,909	16,051
1963–64 ...	303,377	18,624	...	37,014	17,457	22,454	6,947	13,421	13,675	45,523	110,559	17,703
1964–65 ...	321,811	19,460	87	38,514	17,859	24,272	7,377	15,444	14,886	48,169	116,529	18,614
1965–66 ...	322,508	19,977	89	37,971	17,129	26,565	7,863	15,848	14,903	48,736	115,173	18,254
1966–67 ...	337,587	21,207	222	38,696	17,739	28,483	8,636	16,541	15,593	54,418	117,482	18,570
1967–68 ...	375,677	23,513	459	40,541	19,380	31,429	9,215	18,170	17,922	62,670	132,087	20,291
1968–69 ...	427,646	27,209	933	45,517	21,480	34,989	10,965	20,230	20,032	74,501	148,554	23,236
1969–70 ...	466,440	27,442	1,544	49,678	21,439	37,031	12,382	22,141	21,183	84,871	161,904	26,825
1970–71 ...	493,966	24,801	2,388	50,046	21,412	35,743	12,672	25,226	22,099	93,428	176,571	29,580
1971–72[2] ..	503,720	25,770	2,840	51,370	22,350	38,090	12,990	27,530	23,150	97,990	170,110	31,530
1972–73 ...	522,160	27,730	3,330	51,510	23,800	42,660	13,810	31,410	24,780	104,820	164,020	34,290
	PROJECTED[3]											
1973–74 ...	511,850	28,230	3,590	49,590	23,670	50,870	13,660	35,990	24,810	104,530	141,270	35,640
1974–75 ...	495,650	28,420	3,910	43,520	23,670	51,350	13,690	37,920	24,990	105,110	126,760	36,310
1975–76 ...	486,420	27,830	4,030	40,520	22,870	50,200	13,180	39,000	24,260	101,820	126,780	35,930
1976–77 ...	498,140	28,240	4,410	41,730	23,220	51,220	13,430	40,840	24,840	104,090	129,450	36,670
1977–78 ...	506,340	28,460	4,730	42,630	23,470	51,870	13,610	42,360	25,280	105,760	131,050	37,120
1978–79 ...	515,680	28,770	5,120	43,570	23,800	52,660	13,840	43,940	25,780	107,830	132,730	37,640
1979–80 ...	519,490	28,750	5,150	44,260	23,910	52,950	13,940	44,580	26,120	108,890	133,140	37,800
1980–81 ...	524,060	28,830	5,240	45,000	24,050	53,320	14,050	45,310	26,430	110,010	133,810	38,010
1981–82 ...	526,530	28,740	5,260	45,580	24,090	53,480	14,110	45,860	26,630	110,790	133,910	38,080
1982–83 ...	521,960	28,300	5,270	45,690	23,840	52,930	14,010	45,670	26,510	110,230	131,920	37,590

[1] The breakdown of earned degrees into fields shown in this table is the same as the breakdown in last year's edition, but differs from those previous to last year. The present breakdown of earned degrees by field of study is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education*. To obtain the distribution of degrees by field for the years prior to 1970–71, earned degrees were redistributed as well as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A, "Classification of Degrees by Field of Study," pages 141–144.

[2] Estimated.

[3] The projections are based mainly on the assumption that the percentage distribution of degrees by field for each sex will continue the 1960–61 to 1970–71 trends to 1982–83 or else remain at approximately the 1970–71 rates through 1982–83. The following are exceptions to the above assumptions: (A) In health professions, projections of women nursing graduates were made by the Bureau of Health Manpower Education, National Institutes of Health. (B) In engineering, data on freshman enrollment in engineering programs from the Engineering Manpower Commission of Engineers Joint Council were used in making projections. (C) In education, data from the National Education Association, showing enrollment in teacher education by level of class for 1969–70 through 1972–73, were used to make estimates of degrees for 1971–72 and 1972–73 and projections of degrees for 1973–74 and 1974–75. (D) In several fields, data from the American Council on Education on junior-year enrollments by field were used to make estimates for 1971–72 and 1972–73 and projections for 1973–74.

[4] Includes engineering technology degrees. Engineering technology degrees, estimated at 5,500 degrees in 1971–72, are expected to increase by 500 additional degrees per year, growing to 11,000 degrees in 1982–83.

[5] Includes home economics, law, military science, theology, and interdisciplinary studies.

NOTE.–Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Earned Degrees Conferred by Institutions of Higher Education*, annually, 1960–61 through 1970–71. (b) *A Taxonomy of Instructional Programs in Higher Education*; (2) Engineering Manpower Commission of Engineers Joint Council publications: (a) *Engineering and Technology Enrollments Fall 1971*, (b) *Advance Survey of Engineering Degrees and Prospective Fall Enrollments, 1973–June 1973*; (3) American Council on Education publications: (a) *Enrollment of Junior-Year Students (1970 and 1971)*, survey No. 5, (b) *Enrollment of Junior-year Students (1971 and 1972)*, survey no. 12; and (4) National Education Association, Research Memo 1973–78, *Trends in Teacher Supply and Demand in Public Schools, 1973–76*.

Table 24.—Earned master's degrees, by field of study: United States, 1961–62 to 1982–83[1]

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social sciences	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961–62	13,023	6,561	1,832	2,490	2,140	9,574	311	3,151	1,480	251	4,381
1962–63	14,725	7,619	1,918	2,825	2,363	10,804	356	3,363	1,849	288	4,948
1963–64	16,546	8,519	2,059	3,251	2,717	12,166	383	3,673	2,196	364	5,550
1964–65	18,696	9,619	2,187	3,679	3,211	14,203	373	4,244	2,690	384	6,512
1965–66	22,541	11,616	2,423	4,586	3,916	17,667	702	5,019	3,393	523	8,030
1966–67	25,919	13,676	2,898	4,856	4,489	20,648	812	5,812	4,017	649	9,358
1967–68	28,598	14,644	3,237	5,552	5,165	22,966	1,021	6,563	4,511	730	10,141
1968–69	32,169	16,514	3,736	5,987	5,932	25,256	1,143	7,413	4,691	785	11,224
1969–70	33,878	16,659	3,953	6,755	6,511	26,305	1,427	7,843	4,803	862	11,364
1970–71	37,200	17,508	4,431	8,260	7,001	27,701	1,705	6,675	4,755	1,856	12,710
1971–72[2]	39,490	19,000	4,890	8,280	7,320	27,890	1,800	7,020	4,460	1,910	12,700
1972–73[2]	40,550	18,040	5,260	9,100	8,150	27,560	1,870	5,750	4,110	2,030	13,800
	PROJECTED[3]										
1973–74	42,760	18,360	5,550	9,640	8,710	29,130	1,960	6,120	4,370	2,140	14,540
1974–75	44,430	19,580	5,770	9,910	9,170	30,320	2,020	6,390	4,590	2,230	15,090
1975–76	45,780	19,960	5,950	10,270	9,600	31,120	2,060	6,600	4,780	2,290	15,390
1976–77	47,410	20,590	6,150	10,640	10,030	32,180	2,120	6,830	4,990	2,380	15,860
1977–78	49,120	21,260	6,350	11,040	10,470	33,270	2,180	7,080	5,200	2,450	16,360
1978–79	50,760	21,900	6,550	11,420	10,890	34,270	2,240	7,310	5,400	2,530	16,790
1979–80	52,120	22,430	6,710	11,740	11,240	35,090	2,290	7,510	5,570	2,600	17,120
1980–81	53,380	22,940	6,870	12,030	11,540	35,790	2,340	7,690	5,710	2,650	17,400
1981–82	54,090	23,210	6,960	12,200	11,720	36,150	2,350	7,800	5,800	2,690	17,510
1982–83	54,810	23,510	7,030	12,370	11,900	36,490	2,380	7,900	5,890	2,720	17,600

See footnotes at end of table.

Table 24.—Earned master's degrees, by field of study: United States, 1961–62 to 1981–82[1] — Continued

Year	C. Natural sciences and miscellaneous fields											
	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other[4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1961–62	65,817	2,680	....	8,953	3,913	2,642	1,721	1,632	511	4,890	35,728	3,147
1962–63	69,941	3,320	....	9,666	4,115	2,921	1,601	2,011	499	5,439	37,276	3,093
1963–64	76,839	3,625	....	10,857	4,555	3,296	1,682	2,279	530	5,983	40,376	3,656
1964–65	84,253	4,196	146	12,093	4,906	3,600	1,695	2,494	617	7,073	43,323	4,110
1965–66	100,340	4,769	238	13,717	4,977	4,233	2,034	2,833	862	12,280	49,905	4,492
1966–67	111,140	5,278	449	13,986	5,405	4,996	2,119	3,436	1,024	14,086	55,155	5,206
1967–68	125,185	5,527	548	15,247	5,499	5,506	2,234	3,736	1,137	16,964	62,927	5,860
1968–69	136,331	5,713	1,012	15,372	5,895	5,743	2,496	4,065	1,333	18,279	70,231	6,192
1969–70	148,108	5,636	1,459	15,723	5,935	5,800	2,197	4,488	1,033	20,516	78,275	6,996
1970–71	165,608	5,191	1,588	16,443	6,367	5,728	2,457	5,749	1,097	25,447	88,716	6,825
1971–72[2]	170,220	4,870	1,870	17,400	6,450	5,880	2,630	6,150	1,250	27,010	89,900	6,810
1972–73[2]	183,290	4,500	1,930	17,700	6,410	6,480	3,890	10,070	1,460	29,520	93,810	7,520
	PROJECTED[3]											
1973–74	191,110	4,780	2,020	15,810	6,750	6,810	4,050	10,790	1,530	31,570	99,070	7,930
1974–75	199,250	4,970	2,080	16,290	6,980	6,920	4,180	11,300	1,590	33,370	103,470	8,100
1975–76	206,000	5,100	2,120	16,560	6,980	7,120	4,260	11,750	1,620	34,690	107,440	8,360
1976–77	213,110	5,260	2,180	16,940	7,170	7,350	4,360	12,220	1,680	35,910	111,390	8,650
1977–78	220,710	5,430	2,240	17,180	7,370	7,580	4,470	12,720	1,720	37,240	115,810	8,950
1978–79	227,970	5,590	2,300	17,600	7,570	7,810	4,580	13,180	1,770	38,570	119,750	9,250
1979–80	233,990	5,730	2,340	17,930	7,730	8,000	4,680	13,570	1,830	39,750	122,950	9,480
1980–81	239,730	5,860	2,390	18,260	7,890	8,190	4,770	13,920	1,860	40,790	126,090	9,710
1981–82	242,960	5,930	2,410	18,420	7,970	8,290	4,810	14,140	1,880	41,240	128,030	9,840
1982–83	246,400	6,000	2,440	18,620	8,060	8,390	4,860	14,340	1,910	41,960	129,850	9,970

[1] The breakdown of earned degrees into fields shown in this table is the same as the breakdown in last year's edition, but differs from those previous to last year. The present breakdown of earned degrees by field of study is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education*. To obtain the distribution of degrees by field for the years prior to 1970–71, earned degrees were redistributed as well as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A, "Classification of Degrees by Field of Study," pages 141–144.

[2] Estimated.

[3] The estimates of earned degrees for most fields for 1971–72 and 1972–73 are based mainly on the assumption that the percentage that degrees in a particular field in 1970–71 are of enrollment for advanced degrees, 2 years earlier in this field, will remain approximately constant. The projections of these fields for 1973–74 to 1982–83 are based on the assumption that the percentage distribution of degrees by field for each sex will continue the 1962–63 to 1972–73 trends to 1982–83 or else remain at approximately the 1972–73 rate through 1982–83.

The fall 1971 enrollment-for-advanced-degrees data and the 1970–71 earned-degrees data were collected under a new taxonomy of fields of study. As a result, in some fields, the fall 1971 enrollment-for-advanced-degrees data and the 1970–71 earned-degrees data are not comparable with past years, making trend-line analysis meaningless. Therefore, for some fields, the percentage that master's degrees in each field was of all master's degrees in 1970–71 was held constant through 1982–83.

For methodological details, see appendix A, table A-2.

[4] Includes home economics, law, military sciences, theology, and interdisciplinary studies.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Degrees and enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71, (b) *Enrollment for Advanced Degrees*, fall 1961, 1962, and 1963, (c) *Enrollment for Master's and Higher Degrees, Fall 1964*, (d) *Enrollment for Master's and Higher Degrees, Fall 1965*, (e) *Students Enrolled for Advanced Degrees*, fall 1966 through 1971, (f) *A Taxonomy of Instructional Programs in Higher Education;* and (2) Engineering Manpower Commission of Engineers Joint Council publications: (a) *Engineers Joint Council News Release–December 6, 1972*, (b) *Advance Survey of Engineering Degrees and Prospective Fall Enrollments, 1973*, June 1973.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1961–62 to 1982–83[1]

Year	A. Social sciences					B. Humanities					
	Total social sciences	Social science	Psychology	Public affairs and services	Library sciences	Total humanities	Architecture and environmental design	Fine and applied arts	Foreign languages	Communications	Letters
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961–62	2,097	1,245	781	61	10	1,275	1	311	228	7	728
1962–63	2,347	1,417	844	69	17	1,402	3	379	237	11	772
1963–64	2,677	1,659	939	66	13	1,623	3	422	326	14	858
1964–65	2,776	1,846	839	79	12	1,848	10	428	376	17	1,017
1965–66	3,129	1,980	1,037	93	19	2,061	12	476	428	15	1,130
1966–67	3,641	2,329	1,190	106	16	2,362	18	504	505	23	1,312
1967–68	4,004	2,640	1,232	110	22	2,779	15	528	610	32	1,594
1968–69	4,599	2,953	1,508	121	17	3,124	32	684	659	22	1,727
1969–70	5,383	3,592	1,620	131	40	3,476	35	734	760	17	1,930
1970–71	5,802	3,803	1,782	178	39	3,999	36	621	781	145	2,416
1971–72[2]	6,070	4,060	1,780	190	40	4,340	40	730	960	160	2,450
1972–73[2]	5,970	3,850	1,880	200	40	4,760	40	830	1,090	170	2,630
	PROJECTED[3]										
1973–74	7,060	4,590	2,200	220	50	5,370	60	960	1,290	190	2,870
1974–75	7,190	4,440	2,450	250	50	6,040	60	1,090	1,420	200	3,270
1975–76	8,240	5,040	2,870	270	60	6,340	60	1,130	1,410	220	3,520
1976–77	8,910	5,530	3,030	290	60	6,730	80	1,240	1,430	230	3,750
1977–78	8,080	4,700	3,030	290	60	6,620	80	1,280	1,280	230	3,750
1978–79	8,230	4,810	3,060	300	60	6,310	90	1,100	1,100	240	3,780
1979–80	8,400	4,920	3,120	300	60	6,330	90	1,040	1,100	240	3,850
1980–81	8,580	5,030	3,180	310	60	6,470	100	1,070	1,130	250	3,920
1981–82	8,790	5,140	3,260	310	80	6,640	110	1,090	1,160	260	4,020
1982–83	8,970	5,260	3,330	320	60	6,780	120	1,110	1,190	260	4,100

See footnotes at end of table.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1961–62 to 1982–83[1] – Continued

Year	C. Natural sciences and miscellaneous fields											
	Total natural sciences and miscellaneous fields	Mathematics and statistics	Computer and information sciences	Engineering	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting	Other business and management	Education	Other[4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1961–62 ...	8,250	396	...	1,216	2,122	1,338	576	148	27	205	1,867	355
1962–63 ...	9,073	490	...	1,385	2,380	1,455	552	157	23	235	2,056	340
1963–64 ...	10,190	596	...	1,705	2,455	1,625	668	192	21	260	2,330	338
1964–65 ...	11,843	682	6	2,133	2,829	1,928	657	173	32	297	2,682	424
1965–66 ...	13,047	782	19	2,315	3,045	2,097	716	251	34	368	3,034	386
1966–67 ...	14,614	832	38	2,619	3,462	2,255	771	250	43	411	3,526	407
1967–68 ...	16,306	947	36	2,933	3,593	2,784	800	243	33	427	4,076	434
1968–69 ...	18,465	1,097	64	3,391	3,859	[illegible]	886	283	40	506	4,793	495
1969–70 ...	21,007	1,236	107	3,691	4,312	3,289	1,004	357	56	566	5,830	559
1970–71 ...	22,306	1,199	128	3,638	4,390	3,645	1,086	466	61	749	6,398	546
1971–72[2] ..	22,990	1,150	160	3,690	4,250	3,750	1,040	500	60	770	7,040	580
1972–73[2] ..	23,670	1,130	210	3,890	4,270	3,770	1,020	460	50	870	7,390	610
	PROJECTED[3]											
1973–74 ...	26,570	1,200	260	4,860	4,380	3,950	1,090	630	70	990	8,470	670
1974–75 ...	27,770	1,190	350	4,440	4,320	4,270	1,230	650	60	1,110	9,390	760
1975–76 ...	29,320	1,190	400	4,360	4,500	4,600	1,360	710	60	1,310	10,010	820
1976–77 ...	31,160	1,040	460	3,730	4,300	4,800	2,080	1,060	70	1,320	11,440	860
1977–78 ...	31,800	1,040	500	3,750	4,270	4,810	2,080	1,060	70	1,390	11,970	860
1978–79 ...	33,150	1,070	550	3,850	4,330	4,900	2,130	1,070	70	1,500	12,800	880
1979–80 ...	34,270	1,090	600	3,940	4,370	5,000	2,180	1,100	80	1,600	13,410	900
1980–81 ...	34,850	1,120	660	4,050	4,430	5,110	2,230	1,120	80	1,700	13,440	910
1981–82 ...	35,590	1,140	720	4,140	4,490	5,230	2,290	1,140	80	1,810	13,620	930
1982–83 ...	36,450	1,170	790	4,230	4,540	5,350	2,340	1,170	80	1,920	13,900	960

[1] The breakdown of earned degrees into fields shown in this table is the same as the breakdown in last year's edition, but differs from those previous to last year. The present breakdown of earned degrees by field of study is consistent with that shown in *A Taxonomy of Instructional Programs in Higher Education*. To obtain the distribution of degrees by field for previous years, the earned degrees were redistributed as well as possible to conform to the new taxonomy. For a complete listing of the instructional programs included in each field, see appendix A, "Classification of Degrees by Field of Study," pages 141–144.

[2] Estimated.

[3] The fall 1971 enrollment-for-advanced-degrees data and the 1970–71 earned-degrees data were collected under a new taxonomy of fields of study. As a result, in some fields, the fall 1971 enrollment-for-advanced-degrees data and the 1970–71 earned-degrees data are not comparable with past years, making trend-line analysis meaningless. Therefore, for some fields, it was assumed that the percentage that doctor's degrees in each field was of all doctor's degrees in 1970–71 would remain constant through 1982–83.

In other fields, where it seems that the most recent data are comparable with past data, data on first-year enrollments for advanced degrees by field of study were used to make estimates and projections. The time lapse used between first-year enrollment for advanced degrees and doctor's degrees varied from 6 to 11 years (see appendix B, table B-8, for time lapse, by field and sex). It was assumed, primarily, that the percentage that earned degrees in a particular field was of first-year enrollment for advanced degrees 6 to 11 years earlier (depending on time lapse used) would remain constant at the 1970–71 level. This constant was used to obtain estimates and projections for the beginning of the projected time span (through 1976–77 for a 6-year time lapse and through 1981–82 for an 11-year time lapse). For projections beyond these years, it was assumed, primarily, that the percentage that degrees in a particular field are of all doctor's degrees would remain constant at the level of the last year projected on the basis of first-year enrollments for advanced degrees.

For methodological details, see appendix A, table A-2.

[4] Includes home economics, law, military science, theology, and interdisciplinary studies.

NOTE.–Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Degree and enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71, (b) *Enrollment for Advanced Degrees*, fall 1961, 1962, and 1963, (c) *Enrollment for Master's and Higher Degrees, Fall 1964*, (d) *Enrollment for Master's and Higher Degrees, Fall 1965*, (e) *Students Enrolled for Advanced Degrees*, fall 1966 through 1971, (f) *A Taxonomy of Instructional Programs in Higher Education*; and (2) Engineering Manpower Commission of Engineers Joint Council publications: (a) *Engineers Joint Council News Release–December 6, 1972*, (b) *Advanced Survey of Engineering Degrees and Prospective Fall Enrollments, 1973*, June 1973.

Table 26.—Earned first-professional degrees, by field of study: United States, 1961–62 to 1982–83

Year	Total	Medicine[1]	Dentistry[2]	Other health professions[3]	Law[4]	Theology and other[5]
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1961–62 ...	26,457	7,138	3,183	1,599	9,548	4,989
1962–63 ...	27,097	7,231	3,169	1,691	10,105	4,901
1963–64 ...	27,667	7,303	3,180	1,624	10,868	4,692
1964–65 ...	28,755	7,304	3,108	1,794	11,782	4,767
1965–66 ...	30,799	7,673	3,247	1,834	13,481	4,564
1966–67 ...	32,472	7,723	3,341	2,003	15,114	4,291
1967–68 ...	34,787	7,944	3,422	2,153	16,916	4,352
1968–69 ...	36,018	8,025	3,408	2,290	17,436	4,859
1969–70 ...	35,724	8,314	3,718	2,372	15,445	5,875
1970–71 ...	37,946	8,919	3,745	2,495	17,421	5,366
1971–72[6] ..	45,000	9,610	3,930	2,720	22,900	5,840
1972–73[6] ..	50,200	9,880	4,220	2,750	27,500	5,850
	PROJECTED[7]					
1973–74 ...	53,200	10,770	4,570	3,040	29,000	5,820
1974–75 ...	53,900	11,730	4,740	3,220	28,300	5,910
1975–76 ...	56,400	12,740	5,060	3,400	28,900	6,300
1976–77 ...	58,200	13,200	5,140	3,560	29,900	6,400
1977–78 ...	60,000	13,730	5,210	3,680	30,700	6,680
1978–79 ...	61,300	13,900	5,290	3,770	31,400	6,940
1979–80 ...	62,200	14,080	5,370	3,860	31,700	7,190
1980–81 ...	63,000	14,260	5,440	3,960	32,100	7,240
1981–82 ...	63,800	14,440	5,510	4,060	32,400	7,390
1982–83 ...	64,500	14,620	5,580	4,160	32,700	7,440

[1] M.D. degrees only.
[2] D.D.S. or D.M.D. degrees.
[3] Includes degrees in chiropody or podiatry, optometry, osteopathy, and veterinary medicine.
[4] LL.B. or J.D. degrees.
[5] In 1971, theological professions made up 94 percent of this category.
[6] Estimated.
[7] First-professional degrees by field were projected by means of the following methods: (A) Medicine, dentistry, and other health professions were projected by the Division of Manpower Intelligence, National Institutes of Health. These projections are based on output resulting from support in the Comprehensive Manpower Training Act of 1971. (B) The projections of "theology and other" first-professional degrees are based on the following assumptions: It was arbitrarily estimated that "theology and other" degrees are 75 percent of enrollment for advanced degrees in this field 3 years earlier. This was used to determine the 1971–72 to 1973–74 projections of "theology and other" degrees. Projections of these degrees for 1974–75 to 1982–83 were obtained by subtracting projections of degrees in law and health professions from projections of total first-professional degrees. (C) Projected law degrees are based primarily on the assumption that the percentage that law degrees are of first-year law students 3 years earlier will follow the 1962 to 1972 trend to 1982 with the restriction that it cannot exceed 85 percent. The projections of degrees for 1972–73 to 1974–75 are based on first-year enrollments for 1969 to 1972 provided by the American Bar Association. Degree projections for 1973–74 to 1982–83 are based on unpublished information of first-year enrollments for 1973 to 1979 from the American Bar Association

SOURCES: Degrees data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Earned Degrees Conferred by Institutions of Higher Education*, 1960–61 through 1970–71, (b) *Students Enrolled for Advanced Degrees*, fall 1966 through 1971; and (2) American Bar Association publication: Millard H. Ruud, "That Burgeoning Law School Enrollment Slows," *American Bar Association Journal*, 59: 150–153, February 1973.

CHAPTER IV

Teachers

Martin M. Frankel and Eric J. Jerpe

Elementary and Secondary Schools

There were over 2.5 million professional persons employed in the public and private elementary and secondary day schools in fall 1972. These included principals, supervisors, librarians, guidance and psychological personnel, and classroom teachers. Of the total group, 91 percent were classroom teachers. The numbers of professional persons employed in the regular public school systems were reported to the U.S. Office of Education by the State departments of education in each of the 50 States and the District of Columbia. The numbers in the regular nonpublic day schools were reported by the individual schools in Office of Education surveys.

Classroom teachers (table 27)

Prior to 1971, public classroom teachers were reported separately by secondary and elementary schools. The former comprise the junior high and senior high schools; the latter, the elementary or grade schools. In 1971, only the total of public elementary and secondary teachers was reported. Therefore, the numbers of elementary teachers and secondary teachers for 1971 and 1972 are estimated on the basis of data from the National Education Association.[1] (See appendix A, "Estimation Methods," section 4.) The number of classroom teachers in public secondary schools increased from 621,000 in 1962 to an estimated 977,000 in 1972 and is expected to increase to over 1.0 million in 1976 before decreasing to 901,000 in 1982. The number of teachers in public elementary schools increased from 886,000 in 1962 to an estimated 1.1 million in 1972 and is expected to remain at about 1.1 million through 1982.

The number of classroom teachers in nonpublic elementary schools has been decreasing since 1966, when it was at its peak at an estimated 150,000 teachers. The number dropped to an estimated 140,000 in 1972 and is expected to continue decreasing to 129,000 by 1982. The number of classroom teachers in nonpublic secondary schools has also decreased from a high of 78,000 in 1968 to an estimated 71,000 in 1972 and is expected to remain at 71,000 for the next 10 years.

The reduction in the number of classroom teachers in nonpublic schools is primarily due to reduced enrollments in Catholic schools, which have more than offset the reduced pupil-teacher ratios in these schools. The expected decrease in the number of classroom teachers in nonpublic elementary schools is due to the expected continued decrease in enrollments in Catholic elementary schools. The number of classroom teachers in nonpublic secondary schools is expected to remain about the same, as is the enrollment in these schools.

The projection of teachers in both public and nonpublic schools depends upon the projection of enrollments (table 4) and upon the projection of pupil-teacher ratios.

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[1] National Education Association, Research Report 1972-R12, *Estimates of School Statistics, 1972-73.*

Pupil-teacher ratios (table 28)

The pupil-teacher ratios are projected separately for public elementary and secondary schools and for nonpublic elementary and secondary schools. For each category, the projection is based primarily on the assumption that the 1962–1972 trend will continue to 1982.

The pupil-teacher ratio projections for public elementary and secondary schools are also based on the assumption that the additional revenues needed to further reduce pupil-teacher ratios will not be as readily available during the next 10 years as they were during the past 10 years. Because of this assumption, public elementary and secondary pupil-teacher ratios were projected by means of a decreasing logistic growth curve with asymptotes (lower limits) of 19 pupils per teacher for public elementary schools and 15 pupils per teacher for public secondary schools.

The pupil-teacher ratios in nonpublic elementary schools have been decreasing throughout the sixties primarily because of the reduction of pupil-teacher ratios in Catholic elementary schools, which had previously been much higher than the ratios in public elementary schools. The projection for nonpublic elementary schools is based on the assumption that pupil-teacher ratios in Catholic elementary schools will continue to decline; as a result, pupil-teacher ratios in nonpublic elementary schools will approach the lower pupil-teacher ratios in public elementary schools, but will not become lower than the public ratios by 1982. Therefore, pupil-teacher ratios in nonpublic elementary schools were projected by means of a decreasing logistic growth curve with an asymptote (lower limit) of 20 pupils per teacher, one point higher than the asymptote for public elementary schools.

The projection of the pupil-teacher ratio in nonpublic secondary schools is based on the assumption that the ratio will remain constant at its 1972 level, since it has been at approximately this level over most of the past 10 years.

Demand for additional classroom teachers (tables 29, 30)

The total demand for additional public elementary and secondary school teachers (not employed in the public schools the previous year) includes those needed to allow for enrollment changes, for lowering pupil-teacher ratios, and for replacement of teachers leaving the profession (turnover). During the period fall 1968 to fall 1972, the cumulative demand for additional public school teachers (including returnees to the profession) was estimated at over 1.0 million. It is expected to decrease to 847,000 from 1973 to 1977 and then to 760,000 from 1978 to 1982. This means that 1.6 million new teachers or returnees to the profession are expected to be employed by the public schools during the next 10 years, 1973 through 1982.

The projected demand for additional public school teachers is shown in table 29. The number of teachers necessary to take care of enrollment changes and pupil-teacher ratio changes was computed for each year as the difference between the total employed for the current year and the total employed for the previous year. The number for turnover was based on the assumption that 8 percent of the total classroom teachers will leave the profession temporarily or permanently each year.[2]

The total demand for additional nonpublic school teachers was estimated to be 29,000 from 1968 to 1972. It is expected to increase slightly to 31,000 from 1973 to 1977, and then to 38,000 from 1978 to 1982.

The projected demand for additional nonpublic elementary and secondary school teachers is shown in table 30. The numbers for taking care of enrollment changes and pupil-teacher ratio changes were computed in the same manner as for public schools, and the number for turnover

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[2]U.S. Department of Health, Education, and Welfare, Office of Education, *Teacher Turnover in Public Elementary and Secondary Schools, 1959–60*, by Frank Lindenfeld. U.S. Government Printing Office, Washington, D.C., 1963.

is based on the assumption that 4 percent (one-half the public school rate) of the nonpublic school teachers will leave the profession permanently or temporarily each year. This lower rate (4 percent) was assumed because large numbers of nonpublic school teachers belong to religious orders, where the turnover is presumably small.

Instructional staff (table 31)

Instructional staff in public elementary and secondary schools includes principals, supervisors, librarians, and guidance and psychological personnel, as well as classroom teachers. Instructional staff and classroom teachers are not reported separately for nonpublic schools. Since it is believed that the primary responsibility of most professional personnel employed by the nonpublic schools is classroom teaching, the number of instructional staff shown here is the same as the number of teachers.

Projected instructional staff is shown in table 31. Instructional staff in public elementary and secondary schools increased from over 1.6 million in 1962 to over 2.3 million in 1972 and is expected to remain at about the 2.3 million level through 1982.

The public school instructional staff projection is based on the assumption that instructional staff as a percentage of classroom teachers will remain constant at the 1972 level through 1982. The ratio of total public school instructional staff to classroom teachers increased from 1.09 in 1962 to 1.11 in 1972 and is expected to remain at that level through 1982. These ratios were applied to the public classroom teacher figures shown in table 27 to obtain the projections of public instructional staff. Nonpublic school instructional staff, as previously stated, was assumed to be 100 percent of the classroom teachers shown in table 27.

Institutions of Higher Education

The faculty data for institutions of higher education shown in tables 32–34 are from: (1) Reports in 1966 through 1968 and 1970 on the number of persons by primary position, and (2) estimates from biennial reports, 1961–62 and 1963–64, on the number of positions. Since some positions overlap, with one person filling more than one position, the number of positions is greater than the number of persons. Therefore, the biennial data for 1961–62 and 1963–64 on positions were converted to persons in each year, based on the ratio of positions to persons for total professional staff for each type and control of institution.

Instructional staff for resident courses (table 32)

Total full-time and part-time instructional staff for resident courses in all institutions of higher education increased from 312,000 in 1962 to 600,000 in 1972 and is expected to be 652,000 in 1982. These figures include full-time and part-time instructors and above, and full-time and part-time junior instructional staff for instruction in resident courses. (Junior instructional staff includes assistant instructors, teaching fellows, teaching assistants, and laboratory assistants.)

The total of full-time and part-time instructional staff for resident courses was projected separately for publicly controlled 4-year and 2-year institutions and for privately controlled 4-year and 2-year institutions, and the four results were summed to obtain the total for all institutions. The projections are based on the assumption that student-staff ratios (number of students divided by number of staff) in each institutional control and type category will remain approximately at the 1970 level to 1982. To obtain the projections, projected enrollments in each of the institutional control and type categories (tables 7 and 8) were divided by the projected student-staff ratios in corresponding categories.

Full-time-equivalent instructional staff for resident courses (table 33)

Full-time-equivalent instructional staff for resident courses in all institutions increased from 228,000 in 1962 to 471,000 in 1972 and is expected to go to 513,000 in 1982. These figures include full-time staff and full-time equivalent of part-time staff for instructor or above and junior instructional staff. In 1972, in all institutions, 92 percent of the full-time-equivalent instructional staff members with the rank of instructor or above were employed full time, and 30 percent of the full-time equivalent junior instructional staff members were employed full time.

Demand for full-time-equivalent instructional staff (table 34)

During the past 5 years (1968–1972), the total demand for additional full-time-equivalent instructional staff was 222,000. The totals are expected to be 187,000 in 1973 through 1977, and 172,000 in 1978 through 1982.

The demand for this additional staff is projected as the total of staff required for increased enrollment and student-staff ratio changes, and for replacement of those who have left the profession either temporarily or permanently. Full-time-equivalent staff required for increased enrollment and student-staff ratio changes is computed as the difference between the total number employed in successive years. Replacement requirements are estimated at 6 percent of the total number of full-time-equivalent staff employed in the previous year.

The assumption of a 6-percent replacement rate is based on unpublished data from a 1963 Office of Education study which showed that about 5 percent of the full-time instructors and above in 4-year institutions intended to leave employment in institutions of higher education during the following year. If we estimate an additional 1 percent for mortality, the annual replacement rate is then 6 percent.

Table 27.—Classroom teachers in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	Elementary	Secondary	K–12	Elementary	Secondary	K–12	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	1,708	1,021	686	1,508	886	621	200	135	65
1963	1,790	1,050	739	1,578	908	669	212	142	70
1964	1,865	1,086	779	1,648	940	708	217	146	71
1965	1,933	1,112	822	1,710	965	746	223	[3]147	[3]76
1966	2,016	1,156	860	1,789	1,006	783	227	150	77
1967	2,081	1,189	892	1,855	1,040	815	226	149	77
1968	2,161	1,223	938	1,936	1,076	860	225	[3]147	[3]78
1969	2,233	1,253	980	2,014	1,108	906	219	145	74
1970	2,278	1,278	1,000	2,061	1,132	929	217	[3]146	[3]71
1971	2,275	1,252	1,023	2,063	[4]1,111	[4]952	212	141	71
1972	2,308	1,260	1,048	2,097	[4]1,120	[4]977	211	140	71
	PROJECTED[5]								
1973	2,315	1,246	1,069	2,106	1,108	998	209	138	71
1974	2,317	1,236	1,081	2,109	1,099	1,010	208	137	71
1975	2,317	1,231	1,086	2,111	1,096	1,015	206	135	71
1976	2,321	1,230	1,091	2,117	1,097	1,020	204	133	71
1977	2,303	1,221	1,082	2,101	1,090	1,011	202	131	71
1978	2,279	1,216	1,063	2,080	1,088	992	199	128	71
1979	2,252	1,215	1,037	2,055	1,089	966	197	126	71
1980	2,242	1,229	1,013	2,044	1,102	942	198	127	71
1981	2,236	1,248	988	2,037	1,120	917	199	128	71
1982	2,236	1,264	972	2,036	1,135	901	200	129	71

[1] Includes full-time and the full-time equivalent of part-time classroom teachers (in 1972, 99 percent of teachers in the public schools were full time). Prior to 1969, the data include some part-time teachers who were not converted to full-time equivalents. Does not include teachers in independent nursery and kindergarten schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff and classroom teachers are not reported separately. All data unless otherwise indicated are estimated. Estimates through 1964 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Reported data from Office of Education surveys.

[4] Estimated. The estimates for 1971 in the 1972 edition were revised, based on data from the National Education Association. See appendix A, "Estimation Methods," sec. 4.

[5] The projection of teachers in both public and nonpublic schools depends upon the projection of enrollments (table 4) and of pupil-teacher ratios (table 28).

For further methodological details, see appendix A, table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Classroom teacher data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Statistics of Public Schools*, fall 1964 through 1972, (b) *Enrollment, Teachers, and School-housing*, fall 1962 and 1963, (c) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, (d) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*, (e) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*, (f) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*, (g) *Statistics of Nonpublic Elementary Schools, 1961–62*, (h) *Statistics of Nonpublic Secondary Schools, 1960–61*; and (2) National Education Association publication: Research Report 1972–R12, *Estimation of School Statistics, 1972–73*.

Table 28.—Pupil-teacher ratios in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1962 to 1982 [1]

Year (fall)	Public		Nonpublic (estimated) [2]	
	Elementary	Secondary	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)
1962	28.5	21.7	36.3	18.5
1963	28.4	21.5	35.3	18.5
1964	27.9	21.5	34.3	18.4
1965	27.6	20.8	[3]33.3	[3]18.4
1966	27.0	20.4	32.1	18.2
1967	26.3	20.3	30.9	18.1
1968	25.4	20.5	[3]29.7	[3]17.4
1969	24.8	20.0	28.9	17.6
1970	24.3	19.8	[3]28.1	[3]18.3
1971	[4]24.9	[4]19.3	27.6	18.3
1972	[4]24.4	[4]18.9	26.4	18.3
	PROJECTED [5]			
1973	24.1	18.7	26.0	18.3
1974	23.8	18.6	25.5	18.3
1975	23.5	18.5	25.2	18.3
1976	23.2	18.3	24.8	18.3
1977	23.0	18.2	24.5	18.3
1978	22.7	18.1	24.2	18.3
1979	22.5	18.0	23.9	18.3
1980	22.3	17.8	23.7	18.3
1981	22.1	17.7	23.4	18.3
1982	22.0	17.6	23.2	18.3

1 Includes full-time and the full-time equivalent of part-time classroom teachers (in 1972, 99 percent of teachers in the public schools were full time). Prior to 1969 the data include some part-time teachers who were not converted to full-time equivalents. Does not include teachers in independent nurseries and kindergarten schools, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

2 Instructional staff and classroom teachers are not reported separately. All data unless otherwise indicated are estimated. Estimates through 1964 revised in spring 1968 on basis of 1965 Office of Education survey.

3 Reported data from Office of Education surveys.

4 Estimated. The estimates for 1971 in the 1972 edition were revised on the basis of National Education Association data. See appendix A, "Estimation Methods," sec. 4.

5 The projections of pupil-teacher ratios in public elementary and secondary schools and in nonpublic elementary schools are based on the assumption that the ratio of enrollment to the number of teachers will follow the 1962–1972 trend to 1982.

The projection of pupil-teacher ratios in nonpublic secondary schools is based on the assumption that the 1970 pupil-teacher ratio will remain constant to 1982.

Decreases in the pupil-teacher ratios in public elementary and secondary schools due to the Elementary and Secondary Education Act of 1965 are included in the trend projections.

For further methodological details, see appendix A, table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Classroom teacher data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Statistics of Public Schools*, fall 1964 through 1972, (b) *Enrollment, Teachers, and School-housing*, fall 1962 and 1963, (c) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, (d) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*, (e) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*, (f) *Statistics of Nonpublic Elementary Schools, 1961–62*, (g) *Statistics of Nonpublic Secondary Schools, 1960–61*, and (2) National Education Association publication: Research Report 1973–R12, *Estimates of School Statistics, 1972–73*.

Table 29.--Estimated demand for classroom teachers in regular public elementary and secondary day schools: United States, fall 1967 to 1982[1]

[In thousands]

Year (fall)	Total teacher demand	Demand for additional certificated teachers[2]			
		Total	For enrollment changes	For pupil-teacher ratio changes	For teacher turnover
(1)	(2)	(3)	(4)	(5)	(6)
1967	1,855	.....	.....	.....	.....
1968	1,936	229	51	30	148
1969	2,014	233	35	43	155
1970	2,061	208	15	32	161
1971	2,063	167	7	-5	165
1972	2,097	199	-11	45	165
1968-1972	.....	1,036	97	145	794
	PROJECTED[3]				
1973	2,106	177	-16	25	168
1974	2,109	171	-16	19	168
1975	2,111	171	-17	19	169
1976	2,117	175	-19	25	169
1977	2,101	153	-31	15	169
1973-1977	.....	847	-99	103	843
1978	2,080	147	-40	19	168
1979	2,055	142	-39	15	166
1980	2,044	152	-31	19	164
1981	2,037	157	-22	15	164
1982	2,036	162	-11	10	163
1978-1982	.....	760	-143	78	825

[1] Includes full-time and the full-time equivalent of part-time classroom teachers (in 1972, 99 percent of teachers in the public schools were full time). Prior to 1969, the data include some part-time teachers who were not converted to full-time equivalents. Does not include teachers in independent nurseries and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] The estimates and projections of demand for additional certificated teachers were based on the following assumptions: (1) For changes in pupil-teacher ratios, the number of additional teachers needed is the total teacher demand in a given year less the estimated total teacher demand in the same year had the pupil-teacher ratio in the previous year remained constant. (2) For enrollment changes, the number of additional teachers needed is the total needed for both enrollment changes and pupil-teacher ratio changes less the number needed for pupil-teacher ratio changes alone; the number of additional teachers needed for both enrollment changes and pupil-teacher ratio changes is the total teacher demand in a given year less the total teacher demand in the previous years. (3) For teacher turnover, the number of additional teachers needed to replace those leaving the profession either temporarily or permanently will be 8 percent of the total employed in the previous year; the 8-percent separation rate is based on Office of Education study *Teacher Turnover in Public Elementary and Secondary Schools, 1959–60*.

The projected demand makes no allowance for replacement of teachers who hold substandard certificates (about 5 percent of employed teachers in 1969).

[3] The projection of classroom teachers in public schools by organizational level and institutional control is based on the assumption that the pupil-teacher ratio will follow the 1962–1972 trend to 1982.

For further methodological details, see appendix A, table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Statistics of Public Schools*, fall 1964 through 1972, and (2) *Enrollment, Teachers, and Schoolhousing*, 1962 and 1963.

Table 30.—Estimated demand for classroom teachers in regular nonpublic elementary and secondary day schools: United States, fall 1967 to 1982

[In thousands]

Year (fall)	Total teacher demand	Demand for additional certificated teachers[1]			
		Total	For enrollment changes	For pupil-teacher ratio changes	For teacher turnover
(1)	(2)	(3)	(4)	(5)	(6)
1967.....	226	.....	.....	.....	.....
1968.....	225	8	-7	6	9
1969.....	219	3	-9	3	9
1970.....	217	7	-3	1	9
1971.....	212	4	-7	2	9
1972.....	211	7	-7	6	8
1968-1972...	.....	29	-33	18	44
		PROJECTED			
1973.....	209	6	-4	2	8
1974.....	208	7	-3	2	8
1975.....	206	6	-4	2	8
1976.....	204	6	-4	2	8
1977.....	202	6	-4	2	8
1973-1977...	.....	31	-19	10	40
1978.....	199	5	-4	1	8
1979.....	197	5	-4	2	8
1980.....	198	9	0	1	8
1981.....	199	9	0	1	8
1982.....	200	9	0	1	8
1978-1982...	.....	38	-8	6	40

[1] The estimates and projections of demand for additional certificated teachers were based on the following assumptions: (1) For changes in pupil-teacher ratios, the number of additional teachers needed is the total teacher demand in a given year less the estimated total teacher demand in the same year had the pupil-teacher ratio in the previous year remained constant. (2) For enrollment changes, the number of additional teachers needed is the total needed for both enrollment changes and pupil-teacher ratio changes less the number needed for pupil-teacher ratio changes alone; the number of additional teachers needed for both enrollment changes and pupil-teacher ratio changes is the total teacher demand in a given year less the total teacher demand in the previous year. (3) For teacher turnover, the number of additional teachers needed to replace those leaving the nonpublic schools either temporarily or permanently is assumed to be 4 percent of the total employed in the previous year.

For further methodological details, see appendix A, table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, and (2) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*.

Table 31.—Estimated instructional staff in regular elementary and secondary day schools, by institutional control: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total	Public schools	Nonpublic schools[2]
(1)	(2)	(3)	(4)
1962	1,841	1,641	200
1963	1,929	1,717	212
1964	2,030	1,813	217
1965	2,108	1,885	223
1966	2,211	1,984	227
1967	2,297	2,071	226
1968	2,389	2,164	225
1969	2,472	2,253	219
1970	2,513	2,296	217
1971	2,500	2,288	212
1972	2,544	2,333	211
		PROJECTED[3]	
1973	2,547	2,338	209
1974	2,549	2,341	208
1975	2,549	2,343	206
1976	2,554	2,350	204
1977	2,534	2,332	202
1978	2,508	2,309	199
1979	2,478	2,281	197
1980	2,467	2,269	198
1981	2,460	2,261	199
1982	2,460	2,260	200

[1] Instructional staff includes principals, supervisors, librarians, and guidance and psychological personnel, as well as full-time and the full-time equivalent of part-time classroom teachers. (In 1972, 99 percent of classroom teachers were full time.) Prior to 1969, the data include some part-time teachers who were not converted to full-time equivalents. Does not include instructional staff in independent nursery and kindergarten schools, residential schools for exceptional children, subcollegiate departments of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Instructional staff and classroom teachers are not reported separately. All data are wholly or partially estimated. Estimates through 1964 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Projections of instructional staff in public schools are based on the assumption that the ratio of instructional staff to classroom teachers will remain constant at the 1972 level.

For further methodological details, see appendix A, table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Instructional staff data and estimates are based on U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Statistics of Public Schools*, fall 1971 and 1972, (2) *Statistics of State School Systems*, biennial circulars 1961–62 through 1969–70, (3) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, (4) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*, (5) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*, (6) *Statistics of Nonpublic Elementary Schools, 1961–62*, and (7) *Statistics of Nonpublic Secondary Schools, 1960–61*.

Table 32.—Estimated full-time and part-time instructional staff for instruction in resident courses in all institutions of higher education, by professional rank: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total	Instructor or above			Junior instructor		
		Total	Full time	Part time	Total	Full time	Part time
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962[2]	312	265	173	92	47	10	37
1963	331	281	184	97	50	10	40
1964[2]	367	307	212	95	60	12	48
1965[2]	412	339	248	91	73	15	58
1966	445	361	278	83	84	17	67
1967	484	389	299	90	95	14	81
1968	523	427	331	95	96	16	80
1969[2]	546	448	349	99	98	15	83
1970	574	472	368	104	102	15	87
1971	592	486	379	107	106	16	90
1972	600	493	384	109	107	16	91
			PROJECTED[3]				
1973	607	499	389	110	108	16	92
1974	615	506	394	112	109	16	93
1975	627	516	402	114	111	16	95
1976	640	526	410	116	114	17	97
1977	651	535	417	118	116	17	99
1978	659	542	422	120	117	17	100
1979	661	544	424	120	117	17	100
1980	663	545	425	120	118	17	101
1981	660	543	423	120	117	17	100
1982	652	536	418	118	116	17	99

[1] For method of estimating instructional staff, see appendix A, "Estimation Methods," secs. 5a–5c.

[2] Interpolated.

[3] The projection of total full-time and part-time instructional staff for resident courses was computed separately by control and type of institutions and then summed for all institutions. For each category, the projection is based primarily on the assumption that the ratio of total enrollment to total instructional staff for resident courses will remain constant at the 1970 level through 1982.

The projections of instructional staff for full-time instructor or above, part-time instructor or above, full-time junior instructor, and part-time junior instructor are based on the percentage that each type of position was of total full-time and part-time instructional staff for resident courses in 1970. These percentages were 64.2, 18.1, 2.6, and 15.1, respectively, and are assumed to remain at the 1970 level to 1982.

For methodological details, see appendix A, table A-3.

NOTE.—Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, biennially, first term 1961–62 and 1963–64, (2) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1966 and 1967, (3) *Teaching and Research Staff by Academic Fields, Fall 1968*, and (4) unpublished data from survey on employees in institutions of higher education, fall 1970.

Table 33.—Estimated full-time-equivalent instructional staff for resident courses in all institutions of higher education, by professional rank: United States, fall 1962 to 1982[1]

(In thousands)

Year (fall)	Estimated total full-time equivalent	Instructor or above			Junior instructor		
		Total	Full time	Full-time equivalent of part time	Total	Full time	Full-time equivalent of part time
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962[2]	228	203	173	30	25	10	15
1963	242	216	184	32	26	10	16
1964[2]	274	243	212	31	31	12	19
1965[2]	317	279	248	31	38	15	23
1966	351	307	278	29	44	17	27
1967	378	331	299	32	47	14	33
1968	413	364	331	33	49	16	33
1969[2]	431	382	349	33	49	15	34
1970	452	401	368	33	51	15	36
1971	466	413	379	34	53	16	37
1972	471	418	384	34	53	16	37
PROJECTED[3]							
1973	478	424	389	35	54	16	38
1974	483	429	394	35	54	16	38
1975	493	438	402	36	55	16	39
1976	504	447	410	37	57	17	40
1977	512	454	417	37	58	17	41
1978	518	460	422	38	58	17	41
1979	520	462	424	38	58	17	41
1980	521	463	425	38	58	17	41
1981	519	461	423	38	58	17	41
1982	513	455	418	37	58	17	41

[1] Estimated. See appendix A, "Estimation Methods," secs. 5a–5d.

[2] Interpolated.

[3] The projection of full-time equivalent of part-time instructional staff for resident courses is based on the following assumptions: (1) Full-time equivalent of part-time instructor or above will remain constant to 1982 at the 1970 level of 31.5 percent. (2) Full-time equivalent of junior instructional staff will remain constant to 1982 at the 1970 level of 41.2 percent.

For methodological details, see appendix A, table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, biennially, first term 1961–62 and 1963–64, (2) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1966 and 1967, (3) *Teaching and Research Staff by Academic Fields, Fall 1968*, and (4) unpublished data from survey on employees in institutions of higher education, fall 1970.

Table 34.—Estimated demand for full-time-equivalent instructional staff in institutions of higher education: United States, fall 1967 to 1982

(In thousands)

Year (fall)	Full-time-equivalent instructional staff[1]	Additional full-time-equivalent instructional staff needed		
		Total	For increased enrollment and changes of student-staff ratio	For replacement
(1)	(2)	(3)	(4)	(5)
1967	378	...	...	...
1968	413	58	35	23
1969	431	43	18	25
1970	452	47	21	26
1971	466	41	14	27
1972	471	33	5	28
1968–1972	...	222	93	129
	PROJECTED[2]			
1973	478	35	7	28
1974	483	34	5	29
1975	493	39	10	29
1976	504	41	11	30
1977	512	38	8	30
1973–1977	...	187	41	146
1978	518	37	6	31
1979	520	33	2	31
1980	521	32	1	31
1981	519	33	2	31
1982	513	37	6	31
1978–1982	...	172	17	155

[1] For method of estimating and projecting full-time-equivalent instructional staff, see table 33, footnotes 2 and 3.

[2] The projection of additional full-time-equivalent professional staff for increased enrollment and for reduction of the student-staff ratio was computed as the difference between the total full-time-equivalent professional staff employed in 2 successive years.

The projection of additional full-time-equivalent professional staff for replacement of those leaving the profession, temporarily or permanently, was estimated at 6 percent of the total full-time-equivalent professional staff employed in the previous year.

For methodological details, see appendix A, table A-3.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, biennially, first term 1961–62 and 1963–64, (2) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1966 and 1967, (3) *Teaching and Research Staff by Academic Fields, Fall 1968*, and (4) unpublished data from survey on employees in institutions of higher education, fall 1970.

CHAPTER V
Expenditures of Educational Institutions

Forrest W. Harrison and C. George Lind

Explanations and Definitions

The main tables in this chapter include only expenditures of regular public and nonpublic elementary and secondary schools and institutions of higher education in the 50 States and the District of Columbia. This means that "other" and "special" institutions are not included.

"Other" institutions include elementary and secondary residential schools for exceptional children (public and nonpublic), Federal schools for Indians (public), and federally operated elementary and secondary schools on military posts (public). In 1972–73, it is estimated that expenditures of "other" schools were about $200 million for public and $100 million for nonpublic schools in this category. Almost all "other" schools, including the nonpublic, were nonprofitmaking institutions.

"Special" institutions include schools such as trade schools or business colleges not in the regular school or college framework. Expenditure data are not available for "special" schools, but it is estimated that they spend approximately $1.2 billion per year. This estimate is based on a U.S. Bureau of the Census estimate that approximately 1.7 million persons aged 5 to 34 years were enrolled in "special" schools in October 1972.[1] If an average expenditure per student of about $1,000 is assumed, the total expenditures for these schools would be about $1.7 billion. Almost all "special" schools are nonpublic profitmaking institutions.

Regular institutions include public and most nonprofitmaking, nonpublic elementary and secondary schools (kindergarten through grade 12), plus the institutions of higher education offering degree-credit courses, and a small number of technical and professional schools. Most of these schools and colleges are oriented toward regular academic programs, but some of them are primarily technical training institutions or offer both academic and vocational courses. As noted, the main tables and discussions here are for these regular institutions. However, "other" schools are included in the discussion on page 76 and the table on pages 77 through 82.

Total expenditures include all funds expended for capital outlay, current expenditures, and interest. They exclude repayment of debt and transfers of funds that would result in duplication.

Capital outlay includes expenditures which result in additions to plant assets; this includes the expenditures by public school building authorities but excludes lease or rental payments made to these agencies. Borrowed money is included; a large percentage of the funds expended for capital outlay was received from loans. In 1969–70, it is estimated that 87 percent of the capital outlay for public elementary and secondary schools was for land and buildings; the remaining 13 percent, for new buses and other equipment. The proportion for equipment could be higher than 13 percent in 1972–73 because a substantial amount of the funds available from the Elementary and Secondary Education Act of 1965 has been spent for equipment. About 82 percent of the capital outlay by institutions of higher education during 1970–71 was for land and buildings; the remaining 18 percent was for equipment.

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[1] U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment: October 1972*, Series P–20, No. 260, 1973.

Current expenditures include any expenditures except those for repayment of debt and capital outlay. Interest is generally excluded from the current expenditures shown here because it is treated separately. The largest current expense item is salaries of instructional staff, accounting for about 61 percent of current expenditures. The remaining 39 percent goes for transportation, maintenance, etc.

Interest includes all funds expended for the use of money. Most of the interest shown here was expended on account of long-term debt that was incurred for constructing buildings.

Expenditures by Source of Funds

Regular and "Other" Schools

Although no attempt was made to project amounts of funds from the various sources to be expended by educational institutions, estimates are shown by source for the past 10 years. To do this, estimates for "other" schools were added to the total expenditures shown in table 36 for the appropriate years. The resulting total expenditures for regular and "other" schools were then broken down by source of funds by first adjusting receipts to equate them with expenditures and then assuming a continuation of the 1963–64 through 1970–71 trend in the amount of receipts from each source. Receipts and expenditures were equated mainly by including loans and excluding the receipts used for repayment of loans.

Total expenditures are defined as the expenditure of all money from both loans and grants, and exclude only the funds used for reducing debt and transfers that result in duplication. Expenditures from Federal, State, and local sources are defined as institutional expenditures of all grants (but not loans) of funds received from these sources. Expenditures from all other sources include all funds received by the institutions that were not received as grants from Federal, State, and local governments. Loans to institutions of higher education from any source are included under "all other." (It is estimated that in 1972–73, $35 million in Federal loans to institutions of higher education was included in the "all other" category shown here.)

Since the foregoing definitions are designed to show sources of funds through the eyes of educational institutions, the Federal figures shown in the preceding table are different from those shown in appendix B, table B-11, on Federal funds for education. The three main reasons are as follows:

1. Different items are included. For example, the table on Federal funds in appendix B shows grants and loans to individuals, which would appear in institutional accounts here as receipts from tuition or auxiliary services; or the money may be spent for board and room outside the institution and not be a receipt of the institution from any source.

2. The same items may be handled differently. For example, the table on Federal funds shows only basic research for institutions of higher education; the institutions include some applied research grants from the Federal Government.

3. The table on Federal funds generally shows obligated funds; the institutional figures show expenditures.

Total Expenditures

Regular Institutions (table 35)

Total annual expenditures of regular educatonal institutions (in 1972–73 dollars) increased from $48.6 billion in 1962–63 to $89.2 billion in 1972–73 and are expected to be $114.5 billion in 1982–83. The expenditure increases are caused chiefly by the increasing costs of the many items, such as school facilities and salaries of teachers, that are necessary for providing education. The projected total expenditures are shown in table 35. They are based mainly on the assumption that the 1962–63 to 1972–73 trend will continue through 1982–83.

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1963–64 to 1973–74[1]

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73	1973–74
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	AMOUNT, in billions of current dollars							
All levels:								
Total, public and nonpublic	$35.9	$45.2	$57.2	$70.2	$76.3	$83.3	$89.5	$96.3
Federal	3.3	5.0	6.8	7.4	8.3	9.0	9.5	9.6
State	10.6	13.1	16.8	22.7	24.7	27.4	29.8	32.3
Local	12.7	15.1	18.6	22.2	24.0	25.9	27.5	29.9
All other	9.3	12.0	15.0	17.9	19.3	21.0	22.7	24.5
Total, public	28.0	35.3	45.5	56.8	62.2	68.2	73.3	79.0
Federal	2.2	3.6	5.1	5.7	6.6	7.2	7.7	7.7
State	10.5	13.0	16.7	22.6	24.6	27.3	29.6	32.1
Local	12.7	15.1	18.6	22.1	23.9	25.8	27.4	29.8
All other	2.6	3.6	5.1	6.4	7.1	7.9	8.6	9.4
Total, nonpublic	7.9	9.9	11.7	13.4	14.1	15.1	16.2	17.3
Federal	1.1	1.4	1.7	1.7	1.7	1.8	1.8	1.9
State	.1	.1	.1	.1	.1	.1	.2	.2
Local	(2)	(2)	(2)	.1	.1	.1	.1	.1
All other	6.7	8.4	9.9	11.5	12.2	13.1	14.1	15.1

See footnotes at end of table.

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1963–64 to 1973–74[1]--Continued

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73	1973–74
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	AMOUNT, in billions of current dollars							
Elementary and secondary schools:								
Total, public and nonpublic	$24.6	$30.0	$37.3	$45.5	$49.2	$53.8	$57.5	$61.6
Federal	1.1	2.1	3.0	3.3	4.0	4.5	4.8	4.6
State	8.0	9.6	12.1	16.3	17.5	19.4	21.0	22.8
Local	12.4	14.7	18.0	21.3	22.9	24.7	26.2	28.5
All other	3.1	3.6	4.2	4.6	4.8	5.2	5.5	5.7
Total, public[3]	21.6	26.5	33.2	41.0	44.5	48.7	52.1	56.0
Federal	1.1	2.1	3.0	3.3	4.0	4.5	4.8	4.6
State	8.0	9.6	12.1	16.3	17.5	19.4	21.0	22.8
Local	12.4	14.7	18.0	21.3	22.9	24.7	26.2	28.5
All other	.1	.1	.1	.1	.1	.1	.1	.1
Total, nonpublic	3.0	3.5	4.1	4.5	4.7	5.1	5.4	5.6
Federal	...	...	...	...	...	...	...	...
State	...	...	...	...	...	...	...	...
Local	...	...	...	...	...	...	...	...
All other	3.0	3.5	4.1	4.5	4.7	5.1	5.4	5.6

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1963–64 to 1973–74[1]—Continued

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73	1973–74
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	AMOUNT, in billions of current dollars							
Institutions of higher education:								
Total, public and nonpublic	$11.3	$15.2	$19.9	$24.7	$27.1	$29.5	$32.0	$34.7
Federal	2.2	2.9	3.8	4.1	4.3	4.5	4.7	5.0
State	2.6	3.5	4.7	6.4	7.2	8.0	8.8	9.5
Local	.3	.4	.6	.9	1.1	1.2	1.3	1.4
All other	6.2	8.4	10.8	13.3	14.5	15.8	17.2	18.8
Total, public[3]	6.4	8.8	12.3	15.8	17.7	19.5	21.2	23.0
Federal	1.1	1.5	2.1	2.4	2.6	2.7	2.9	3.1
State	2.5	3.4	4.6	6.3	7.1	7.9	8.6	9.3
Local	.3	.4	.6	.8	1.0	1.1	1.2	1.3
All other	2.5	3.5	5.0	6.3	7.0	7.8	8.5	9.3
Total, nonpublic[3]	4.9	6.4	7.6	8.9	9.4	10.0	10.8	11.7
Federal	1.1	1.4	1.7	1.7	1.7	1.8	1.8	1.9
State	.1	.1	.1	.1	.1	.1	.2	.2
Local	(2)	(2)	(2)	.1	.1	.1	.1	.1
All other	3.7	4.9	5.8	7.0	7.5	8.0	8.7	9.5

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1963–64 to 1973–74[1]—Continued

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73	1973–74
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PERCENT							
All levels:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	9.2	11.1	11.9	10.6	10.9	10.8	10.6	10.0
State	29.5	29.0	29.4	32.3	32.4	32.9	33.3	33.5
Local	35.4	33.4	32.5	31.6	31.4	31.1	30.7	31.1
All other	25.9	26.5	26.2	25.5	25.3	25.2	25.4	25.4
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	7.9	10.2	11.2	10.0	10.6	10.6	10.5	9.8
State	37.5	36.8	36.7	39.8	39.6	40.0	40.4	40.6
Local	45.3	42.8	40.9	38.9	38.4	37.8	37.4	37.7
All other	9.3	10.2	11.2	11.3	11.4	11.6	11.7	11.9
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	13.9	14.1	14.5	12.7	12.1	11.9	11.1	11.0
State	1.3	1.0	0.9	0.7	0.7	0.7	1.2	1.1
Local	(4)	(4)	(4)	0.7	0.7	0.7	0.6	0.6
All other	84.8	84.9	84.6	85.9	86.5	86.7	87.1	87.3
Elementary and secondary schools:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1963–64 to 1973–74[1]—Continued

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73	1973–74
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PERCENT							
Federal	4.5	7.0	8.0	7.3	8.1	8.4	8.3	7.5
State	32.5	32.0	32.4	35.8	35.6	36.0	36.5	37.0
Local	50.4	49.0	48.3	46.8	46.5	45.9	45.6	46.3
All other	12.6	12.0	11.3	10.1	9.8	9.7	9.6	9.2
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	5.1	8.0	9.0	8.1	8.7	9.3	9.2	8.2
State	36.9	36.3	36.5	39.8	39.4	39.8	40.3	40.8
Local	57.6	55.3	54.2	51.9	51.7	50.7	50.3	50.8
All other	.4	.4	.3	.2	.2	.2	.2	.2
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	...	...	...	...	...	...	...	...
State	...	...	...	...	...	...	...	...
Local	...	...	...	...	...	...	...	...
All other	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Institutions of higher education:								
Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	19.5	19.1	19.1	16.6	15.9	15.2	14.6	14.4
State	23.0	23.0	23.6	25.9	26.5	27.1	27.4	27.4
Local	2.6	2.6	3.0	3.6	4.1	4.1	4.1	4.0
All other	54.9	55.3	54.3	53.9	53.5	53.6	53.9	54.2

Estimated expenditures by regular and "other" educational institutions, by source of funds: United States, 1963–64 to 1973–74[1]—Continued

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1971–72	1972–73	1973–74
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PERCENT							
Total, public	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	16.9	17.6	17.1	15.0	14.5	14.1	13.7	13.3
State	39.7	38.4	37.7	40.0	40.4	40.4	40.4	40.4
Local	4.3	4.1	4.5	5.1	5.4	5.5	5.7	5.8
All other	39.1	39.9	40.7	39.9	39.7	40.0	40.2	40.5
Total, nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	23.1	22.1	21.8	18.8	18.3	17.6	16.9	16.2
State	1.3	1.5	1.2	1.6	1.7	1.7	1.8	1.8
Local	.2	.1	.3	.7	.7	.8	.9	.9
All other	75.4	76.3	76.7	78.9	79.3	79.9	80.4	81.1

[1] In addition to regular schools (shown in table 36) these figures include "other" elementary and secondary schools such as residential schools for exceptional children, Federal schools for Indians, and federally operated elementary and secondary schools on military posts. The annual expenditures of "other" elementary and secondary schools were estimated as follows: Public, $200 million annually, 1963–64 to 1973–74; nonpublic, $100 million annually, 1963–64 to 1973–74.

[2] Less than $50 million.

[3] Total expenditures distributed according to the trend of receipts shown in appendix B, table B-10. See text for more complete explanation.

[4] Less than 0.05 percent.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Data for the table above were based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Statistics of State School Systems*, biennially, 1963–64 through 1969–70, (2) *Statistics of Public Schools*, annually, fall 1964 through fall 1972, (3) *Financial Statistics of Higher Education*, annually 1965–66 through 1970–71, (4) *Selected Summary and Trend Data*, and (5) unpublished data in the U.S. Office of Education.

Regular Public Elementary and Secondary Schools (tables 35, 37)

Current Expenditures

Annual current expenditures for public elementary and secondary schools (in 1972–73 dollars) increased from $23.1 billion in 1962–63 to $45.3 billion in 1972–73, an increase of 96 percent. They are expected to increase 25 percent to $56.8 billion by 1982–83.

Increased enrollment, together with increased expenditures per pupil, have accounted for the increase in current expenditures. Expenditures have been increasing and are expected to continue to increase for practically all of the major items included in current expenditures, such as administration, instruction, operation and maintenance of plant, fixed charges, and other school services and programs. Annual current expenditures per pupil (in 1972–73 dollars) increased from $618 in 1962–63 to $1,026 in 1972–73 and are expected to increase to $1,446 by 1982–83.

Projected current expenditures for public elementary and secondary schools are shown in table 37. They were projected as follows:

1. Current expenditures per pupil in average daily attendance (ADA) for the base years 1962–63 to 1972–73 were converted to 1972–73 dollars on the basis of the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. Monthly index numbers were averaged on a July–June basis to correspond to the school years.
2. The current expenditures per pupil for the years 1962–63 to 1972–73 were used in deriving a formula (by least squares) for projecting trend figures for 1973–74 to 1982–83. This formula was $y' = \$564 + \$42(t)$ (t=time in years, t=1 in 1962–63).
3. Average daily attendance was calculated for 1973–74 to 1982–83 by assuming that the ratio of average daily attendance to projected fall enrollment in kindergarten through grade 12 will remain constant at 0.925 through 1975–76 and 0.926 for 1976–77 through 1982–83, based on the projection of the trend of the past 11 years.
4. Total current expenditures allocated to public elementary and secondary school pupil costs (1972–73 dollars) were projected to 1982–83 by multiplying the current expenditures per pupil, as projected in step (2), by the corresponding average daily attendance projected in step (3). These figures exclude expenditures for summer schools, adult education, and community colleges operated by school districts.
5. Total current expenditures for all programs operated by school districts – including summer schools, adult education, and community colleges – were projected to 1982–83 by assuming that current expenditures for all programs will remain constant at the rate of 104 percent of current expenditures allocated for public elementary and secondary school pupil costs.
6. Current expenditures per pupil allocated to public elementary and secondary pupil costs were projected to 1982–83 by assuming that the trend of 1962–63 through 1972–73 will continue through 1982–83.
7. Total current expenditures allocated to pupil costs were projected by multiplying the current expenditures per pupil, as projected in step (6), by the corresponding average daily attendance projected in step (3).
8. Total current expenditures for all programs operated by school districts were projected by multiplying the figures in step (7) by 104 percent.

Salaries of Instructional Staff (tables 38, 31)

A large part of current expenditures for public elementary and secondary schools is for salaries of instructional staff (amounting to 57 percent in 1969–70). Total expenditures for these salaries (in 1972–73 dollars) increased from $13.7 billion in 1962–63 to $24.7 billion in 1972–73 and are expected to be $29.4 billion in 1982–83. These increases are due to larger numbers of instructional staff and to higher average annual salaries.

The average annual salary of instructional staff (in 1972–73 dollars) increased from $8,344 in 1962–63 to $10,600 in 1972–73 and is expected to be $13,000 in 1982–83. During the past 10 years, the average annual salary has been increasing about $229 per year in 1972–73 dollars. The projected figure for 1982–83 ($13,000) is based on the assumption that the 1962–63 to 1972–73 trend will continue to 1982–83.

Projected total and average annual salaries of instructional staff in public elementary and secondary schools are shown in table 38. The procedure was as follows:

The average annual salary (y) was projected as a continuation of the 1962–63 to 1972–73 trend: $y' = \$7{,}924 + \$243(t)$; (t=time in years, t=1 in 1962–63).

Total expenditures for salaries of instructional staff were then computed as the product of the average annual salary and the total number of instructional staff. (The total number of instructional staff was taken from table 31.)

Classroom Construction and Capital Outlay (table 39)

Capital outlay (in 1972–73 dollars) by regular public elementary and secondary schools, including the expenditures of State and local school building authorities, was $31.8 billion for the 5-year period 1963–64 to 1967–68, and $29.4 billion for the following 5-year period 1968–69 to 1972–73. It is expected to be $25.0 billion for 1973–74 to 1977–78 and $25.0 billion for 1978–79 to 1982–83.

Projected expenditures for capital outlay together with projections of classroom construction are shown in table 39. They are not projections of need but are simply projections of the classroom construction and capital outlay expected in the light of the 1962–63 to 1972–73 trend and other factors. The procedure was as follows:

1. The total number of rooms to be completed was estimated on the basis of the 1962–63 to 1972–73 trend, which seemed to be declining to about 60,000 rooms per year. The basic data and projections are shown in table 39.

2. Capital outlay was projected by multiplying the number of rooms to be completed by the projected capital outlay per room which was held constant at the level of $83,000 per room (1972–73 dollars). There seems to be a ceiling on the amount of money available for capital outlay expenditures, and it was held constant at $5.0 billion per year.

The basic data and projections are shown in table 39.

It should be noted that not all the capital outlay shown here represents construction. It was estimated that, in 1969–70, 13 percent of capital outlay was for equipment, and 87 percent for land and buildings.

A sharp decrease is expected in the number of rooms to be completed on account of enrollment increases, but a sharp increase is expected in the number completed for other reasons. Other reasons include: (1) Replacements (abandonments), (2) migration factors (including school district reorganization), and (3) reduction of crowded and unsatisfactory rooms. Data limitations do not permit an exact analysis of these three factors. Since there are some indications that the number of crowded and unsatisfactory rooms did not change substantially during the period between the studies of 1962 and 1964–65 (see table below), it seems safe to assume that almost all of the rooms built during that time were used to take care of migration factors. That the number of crowded and unsatisfactory rooms was not reduced during the 3-year period is indicated in Office of Education studies on school facilities for 1962 and 1964–65. The following information was selected from those two studies:

Item	1962	1964–65
Number of additional public school classrooms needed:		
To eliminate off-site rooms	6,000	14,000
To eliminate nonpermanent rooms	31,000	31,000

Item	1962	1964–65
To eliminate improvised or makeshift rooms	28,000	31,000
To eliminate rooms in buildings with four or more defects	NA	158,000
To achieve a pupil-room ratio for all students of:		
27.6 elementary and 26.3 secondary pupils	117,000	.....
27.4 elementary and 27.5 secondary pupils	.....	98,000
25 elementary and 20 secondary pupils	272,000	285,000
U.S. median pupil-room ratio:		
Elementary schools	27.6	27.4
Secondary schools	26.3	27.5

NA–Not available.

Sources: U.S. Department of Health, Education, and Welfare, Office of Education, *National Inventory of School Facilities and Personnel, Spring 1962*, by George J. Collins; and *Condition of Public School Plants, 1964–65*, by George J. Collins and William L. Stormer.

In 1964–65, the number of additional rooms which would have eliminated the use of off-site, nonpermanent, and improvised or makeshift rooms was 76,000, and the number for replacing rooms in buildings with four or more defects was 158,000. Another 98,000 rooms would have been needed to permit all public school pupils to be in rooms with an average of 27 pupils. If they were to be accommodated in rooms with no more than 25 elementary or 20 secondary pupils, the additional number needed would have been 285,000.

Interest Expenditures (table 40)

Annual expenditures (in 1972–73 dollars) for interest by public elementary and secondary schools increased from $906 million in 1962–63 to over $1.6 million in 1972–73 and are expected to be $2.3 billion in 1982–83. Projected interest is shown in table 40. The projections are based on the assumption that the 1962–63 to 1972–73 trend will continue through 1982–83. Although capital outlay is expected to level off in the next decade, this assumption seems reasonable because interest payments continue 20 years or more after construction, resulting in debt being incurred at a greater rate than it is being eliminated. The trend formula for projecting interest (y) in 1972–73 dollars was as follows: $y' = \$823 + \$72(t)$; (t=time in years, t=1 in 1962–63).

Nonpublic Elementary and Secondary Schools (tables 35, 36)

Expenditure data for nonpublic elementary and secondary schools comparable with those for public schools are nonexistent. The main reason is that it is extremely difficult to arrive at a universally accepted method for determining the value of donated services for nonpublic schools, even if data on actual expenditures were collected. These donated services make up a substantial part of nonpublic school resources, especially in the elementary and secondary schools operated by religious orders. In 1968–69, nearly three-fourths of the over 225,000 nonpublic school teachers belonged to religious orders of the Roman Catholic Church. Also, it might be argued that many of the remaining nonpublic school teachers, whose salaries generally run lower than those in public schools, really donated part of their services.

Although it is difficult to arrive at national estimates of nonpublic school expenditures that everyone will accept, the substantial contribution of nonpublic elementary and secondary schools cannot be ignored when total expenditures for education are being considered.

Therefore, illustrative estimates of nonpublic elementary and secondary school expenditures were developed rather arbitrarily and are shown in table 35. They are based on the assumption that the cost per teacher (including donated facilities and services) in nonpublic schools is the same as in the public schools. The formula was as follows: y = XP (x=ratio of nonpublic to public school teachers, and p=public school expenditures). The ratio of nonpublic to public school teachers was around 14 percent during the 1960's and is expected to be around 11 percent during the 1970's. The numbers upon which these ratios were computed are shown in table 27.

Some previous Office of Education estimates were based on the assumption that per-pupil costs in nonpublic schools were the same as in public schools. Since the average pupil-teacher ratio is higher in nonpublic than in public schools, the previous estimates were higher than those shown here. Both types of estimates are, in a sense, hypothetical: one shows what it would cost to educate nonpublic elementary and secondary school children if they were enrolled in public schools and if the public school pupil-teacher ratio were maintained; the other (tables 35 and 36) shows the cost if the pupil-teacher ratio were maintained at the nonpublic school level.

Institutions of Higher Education

Current Expenditures (tables 35, 41)

Annual current expenditures of institutions of higher education (in 1972–73 dollars) increased from $10.8 billion in 1962–63 to $27.2 billion in 1972–73. They are expected to reach $38.8 billion by 1982–83. The projected data are based largely upon expected increases in enrollment and upon the trend of increasing costs per student expressed in constant dollars. The result is an expected or projected constant-dollar increase of $11.6 billion over the next 10 years compared with a constant-dollar increase of $16.4 over the past 10 years (table 35). When expressed in terms of current expenditures per full-time-equivalent student, the data in constant 1972–73 dollars are as follows:

Item	1962–63	1972–73	1982–83
Total current expenditures	$3,149	$3,840	$4,960
Publicly controlled institutions	2,767	3,331	4,245
Nonpublicly controlled institutions	3,774	5,353	7,296

Current expenditures are divided into six functional components: Student education, related activities, organized research, auxiliary enterprises, student aid, and major public services. "Student education" encompasses general administration, instruction and departmental research, sponsored programs (excluding sponsored research), extension and public services (excluding major public services), libraries, and operation and maintenance. Expenditures for student education were projected by use of the trend of annual expenditures per full-time-equivalent student over the 10-year base period in conjunction with the projected enrollment of such students (see table 41). When expressed in terms of current expenditures per full-time-equivalent student, the data in constant 1972–73 dollars are as follows:

Item	1962–63	1972–73	1982–83
Total current expenditures for student education	$1,807	$2,508	$3,271
Publicly controlled institutions	1,699	2,319	2,985
Nonpublicly controlled institutions	1,984	3,070	4,206

Current expenditures for "major public services" were considered to be a part of educational and general expenditures until 1968–69, and tables 41 and 42 indicate such inclusion. With "major public services" still a component of current expenditures but no longer a component of educational and general expenditures beginning in 1968–69, it became necessary to estimate the amounts and items in which "major public services" were included prior to 1968–69. The data indicate that organized research and related activities formerly included "major public services," although an undeterminable amount may have been reported under "student education." Based on reported dollar amounts for 1968–69, 1969–70, and 1970–71, and estimated amounts for the remainder of the base period, the data in constant 1972–73 dollars are as follows (billions of dollars):

Item	1962–63	1972–73	1982–83
Total current expenditures for major public services	$1.0	$2.1	$3.0
Publicly controlled institutions	.5	1.2	1.8
Nonpublicly controlled institutions	.5	.9	1.2

The projection of expenditures for organized research was made without regard to relationship to other components, with the exception that the amount estimated to have comprised a portion of major public services prior to 1968–69 was deleted. The data in constant 1972–73 dollars are as follows (billions of dollars):

Item	1962–63	1972–73	1982–83
Total current expenditures for organized research	$1.7	$2.6	$3.7
Publicly controlled institutions	.9	1.6	2.4
Nonpublicly controlled institutions	.8	1.0	1.3

The projections of related activities, auxiliary enterprises, and student aid are done on the basis of percentage relationship to "student education expenditures" during the base period. As in the instance of organized research, the amount of related activities estimated to have comprised a portion of major public services prior to 1968–69 was deleted. These functions are obviously closely related to trends in enrollment, but allowance had to be made for the change during the base period in their percentage relationship to student education.

Item	(Percentage of student education) 1962–63	1972–73	1982–83
Total current expenditures for related activities:			
Publicly controlled institutions	4.71	4.08	3.85
Nonpublicly controlled institutions	4.36	6.18	7.40
Total current expenditures for auxiliary enterprises:			
Publicly controlled institutions	27.42	15.50	[1] 10.93
Nonpublicly controlled institutions	32.08	24.25	[1] 20.70

[1] See footnote on following page.

Item	(Percentage of student education) 1962–63	1972–73	1982–83
Total current expenditures for student aid:			
Publicly controlled institutions	3.55	5.80	[1] 7.10
Nonpublicly controlled institutions	9.31	12.91	[1] 14.87

[1] Trend of auxiliary enterprises and student aid as a percent of student education was frozen at the projected 1977–78 level.

Capital Outlay (tables 35, 43)

Annual capital outlay of institutions of higher education (in 1972–73 dollars) reached a peak of $6.4 billion in 1966–67 and 1967–68, during the last decade, but is estimated at $4.8 billion for 1972–73, the same total expended in 1962–63. The expenditure for capital outlay is expected to be $5.3 billion for 1982–83. Capital outlay over the entire 10-year base period of 1963–64 to 1972–73 amounted to an estimated total of $54.5 billion (in 1972–73 dollars) and is expected to total $51.7 billion (in 1972–73 dollars) over the 10-year projected period of 1973–74 to 1982–83. The projection of capital outlay is based on 1971–72 capital outlay per full-time-equivalent student in 1972–73 constant dollars. Capital outlay per full-time-equivalent student declined sharply during the base period decade of rapidly rising enrollment. During the next decade, stabilized full-time-equivalent enrollments and capital outlay are expected. Capital outlay is equated to net additions to value of plant with 1 percent of value of plant at end of year added for major replacement and rehabilitation.

Expenditures for Interest (tables 35, 41)

Data on expenditures for interest by institutions of higher education are incomplete and cannot be shown as a separate item. The major portion of expenditures for interest is estimated to be included with the current expenditures shown in tables 35 and 41.

Table 35.—Expenditures (1972–73 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1962–63 to 1982–83

(In billions of 1972–73 dollars)

Year and control	Total (all levels)	Elementary and secondary schools[1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1962–63:								
Total	$48.6	$33.0	$26.2	$5.8	$1.0	$15.6	$10.8	$4.8
Public	38.0	29.1	23.1	5.1	0.9	8.9	5.9	3.0
Nonpublic	10.6	3.9	3.1	0.7	0.1	6.7	4.9	1.8
1963–64:								
Total	52.4	35.7	28.1	6.5	1.1	16.7	12.2	4.5
Public	41.0	31.5	24.8	5.7	1.0	9.5	6.7	2.8
Nonpublic	11.4	4.2	3.3	0.8	0.1	7.2	5.5	1.7
1964–65:								
Total	57.6	38.7	30.1	7.5	1.1	18.9	13.9	5.0
Public	44.7	34.2	26.6	6.6	1.0	10.5	7.7	2.8
Nonpublic	12.9	4.5	3.5	0.9	0.1	8.4	6.2	2.2
1965–66:								
Total	63.1	41.5	33.1	7.2	1.2	21.6	16.1	5.5
Public	49.3	36.8	29.3	6.4	1.1	12.5	9.0	3.5
Nonpublic	13.8	4.7	3.8	0.8	0.1	9.1	7.1	2.0
1966–67:								
Total	67.5	43.4	34.7	7.3	1.4	24.1	17.7	6.4
Public	53.0	38.5	30.8	6.5	1.2	14.5	10.3	4.2
Nonpublic	14.5	4.9	3.9	0.8	0.2	9.6	7.4	2.2
1967–68:								
Total	74.6	48.3	39.5	7.4	1.4	26.3	19.9	6.4
Public	59.3	43.0	35.2	6.5	1.2	16.3	12.1	4.2
Nonpublic	15.3	5.3	4.3	0.8	0.2	10.0	7.8	2.2
1968–69:								
Total	76.3	48.7	40.0	7.4	1.3	27.6	21.5	6.1
Public	61.4	43.6	35.8	6.6	1.2	17.8	13.2	4.6
Nonpublic	14.9	5.1	4.2	0.8	0.1	9.8	8.3	1.5
1969–70:								
Total	81.8	53.0	44.7	6.9	1.4	28.8	23.0	5.8
Public	66.3	47.8	40.3	6.2	1.3	18.5	14.4	4.1
Nonpublic	15.5	5.2	4.4	0.7	0.1	10.3	8.6	1.7
1970–71:								
Total	83.2	53.4	45.2	6.7	1.5	29.8	24.5	5.3
Public	67.9	48.4	40.9	6.1	1.4	19.5	15.7	3.8
Nonpublic	15.3	5.0	4.3	0.6	0.1	10.3	8.8	1.5

See footnotes at end of table.

Table 35.–Expenditures (1972–73 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1962–63 to 1982–83 – Continued

(In billions of 1972–73 dollars)

Year and control	Total (all levels)	Elementary and secondary schools[1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1971–72:								
Total	$86.8	$55.9	$47.9	$6.1	$1.9	$30.9	$26.2	$4.7
Public	71.1	50.7	43.5	5.5	1.7	20.4	17.0	3.4
Nonpublic	15.7	5.2	4.4	0.6	0.2	10.5	9.2	1.3
1972–73:								
Total	89.2	57.2	49.9	5.5	1.8	32.0	27.2	4.8
Public	73.1	51.9	45.3	5.0	1.6	21.2	17.7	3.5
Nonpublic	16.1	5.3	4.6	0.5	0.2	10.8	9.5	1.3
	PROJECTED							
1973–74:								
Total	91.9	58.7	51.3	5.5	1.9	33.2	28.3	4.9
Public	75.4	53.4	46.7	5.0	1.7	22.0	18.4	3.6
Nonpublic	16.5	5.3	4.6	0.5	0.2	11.2	9.9	1.3
1974–75:								
Total	94.5	60.1	52.6	5.5	2.0	34.4	29.5	4.9
Public	77.5	54.7	47.9	5.0	1.8	22.8	19.2	3.6
Nonpublic	17.0	5.4	4.7	0.5	0.2	11.6	10.3	1.3
1975–76:								
Total	97.6	61.7	54.2	5.5	2.0	35.9	30.9	5.0
Public	80.0	56.2	49.4	5.0	1.8	23.8	20.1	3.7
Nonpublic	17.6	5.5	4.8	0.5	0.2	12.1	10.8	1.3
1976–77:								
Total	100.5	63.2	55.6	5.5	2.1	37.3	32.2	5.1
Public	82.4	57.6	50.7	5.0	1.9	24.8	21.0	3.8
Nonpublic	18.1	5.6	4.9	0.5	0.2	12.5	11.2	1.3
1977–78:								
Total	103.4	64.5	56.8	5.5	2.2	38.9	33.7	5.2
Public	84.7	58.8	51.8	5.0	2.0	25.9	22.0	3.9
Nonpublic	18.7	5.7	5.0	0.5	0.2	13.0	11.7	1.3
1978–79:								
Total	105.6	65.2	57.5	5.5	2.2	40.4	35.1	5.3
Public	86.4	59.5	52.5	5.0	2.0	26.9	22.9	4.0
Nonpublic	19.2	5.7	5.0	0.5	0.2	13.5	12.2	1.3
1979–80:								
Total	107.8	66.2	58.4	5.5	2.3	41.6	36.2	5.4
Public	88.1	60.4	53.3	5.0	2.1	27.7	23.7	4.0
Nonpublic	19.7	5.8	5.1	0.5	0.2	13.9	12.5	1.4
1980–81:								
Total	110.1	67.5	59.6	5.5	2.4	42.6	37.3	5.3
Public	89.9	61.5	54.3	5.0	2.2	28.4	24.4	4.0
Nonpublic	20.2	6.0	5.3	0.5	0.2	14.2	12.9	1.3

Table 35.—Expenditures (1972–73 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1962–63 to 1982–83 — Continued

(In billions of 1972–73 dollars)

Year and control	Total (all levels)	Elementary and secondary schools[1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1981–82:								
Total	$112.4	$68.9	$60.9	$5.5	$2.5	$43.5	$38.2	$5.3
Public	91.8	62.8	55.5	5.0	2.3	29.0	25.0	4.0
Nonpublic	20.6	6.1	5.4	0.5	0.2	14.5	13.2	1.3
1982–83:								
Total	114.5	70.4	62.4	5.5	2.5	44.1	38.8	5.3
Public	93.5	64.1	56.8	5.0	2.3	29.4	25.4	4.0
Nonpublic	21.0	6.3	5.6	0.5	0.2	14.7	13.4	1.3

[1] Excludes expenditures for residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. See text table on expenditures by source of funds for data on these schools. All nonpublic elementary and secondary school expenditures shown here are estimated on the basis of expenditures per teacher in public elementary and secondary schools.

[2] Includes expenditures for subcollegiate departments of institutions of higher education, estimated at $90 million in 1972–73. Includes expenditures for interest paid from plant funds. (An estimated $275 million was expended for total interest in 1972–73.)

[3] Includes current expenditures of public elementary and secondary school systems for community services, summer schools, community colleges, and adult education.

[4] Includes capital outlay of State and local school building authorities.

[5] Interest for nonpublic schools is based on interest for public schools.

[6] Includes expenditures for interest from current funds. Excludes expenditures from current funds for capital outlay.

[7] The estimated annual capital outlay data shown here include estimated expenditures for replacement and rehabilitation.

NOTE.--Data are for 50 States and the District of Columbia.

SOURCES: Data are a summary of tables 37 through 43, each of which indicates sources of data.

Table 36.—Expenditures (current dollars) of regular educational institutions, by instructional level and institutional control: United States, 1962–63 to 1974–75

(In billions of current dollars)

Year and control	Total (all levels)	Elementary and secondary schools[1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1962–63:								
Total	$32.4	$22.2	$18.4	$3.1	$0.7	$10.2	$7.7	$2.5
Public	25.3	19.5	16.2	2.7	0.6	5.8	4.2	1.6
Nonpublic	7.1	2.7	2.2	0.4	0.1	4.4	3.5	.9
1963–64:								
Total	35.6	24.3	20.0	3.5	0.8	11.3	8.8	2.5
Public	27.8	21.4	17.6	3.1	0.7	6.4	4.9	1.5
Nonpublic	7.3	2.9	2.4	0.4	0.1	4.9	3.9	1.0
1964–65:								
Total	39.6	26.7	21.6	4.2	0.9	12.9	10.1	2.8
Public	30.8	23.6	19.1	3.7	0.8	7.2	5.6	1.6
Nonpublic	8.8	3.1	2.5	0.5	0.1	5.7	4.5	1.2
1965–66:								
Total	44.9	29.7	24.5	4.3	0.9	15.2	11.9	3.3
Public	35.1	26.3	21.7	3.8	0.8	8.8	6.7	2.1
Nonpublic	9.8	3.4	2.8	0.5	0.1	6.4	5.2	1.2
1966–67:								
Total	49.4	31.9	26.4	4.5	1.0	17.5	13.6	3.9
Public	38.7	28.3	23.4	4.0	0.9	10.4	7.9	2.5
Nonpublic	10.7	3.6	3.0	0.5	0.1	7.1	5.7	1.4
1967–68:								
Total	56.9	37.0	31.1	4.8	1.1	19.9	15.8	4.1
Public	45.3	33.0	27.7	4.3	1.0	12.3	9.6	2.7
Nonpublic	11.6	4.0	3.4	0.5	0.1	7.6	6.2	1.4
1968–69:								
Total	61.7	39.6	33.3	5.2	1.1	22.1	17.8	4.3
Public	49.6	35.5	29.8	4.7	1.0	14.1	10.9	3.2
Nonpublic	12.1	4.1	3.5	0.5	0.1	8.0	6.9	1.1
1969–70:								
Total	69.9	45.2	38.7	5.2	1.3	24.7	20.3	4.4
Public	56.6	40.8	34.9	4.7	1.2	15.8	12.7	3.1
Nonpublic	13.3	4.4	3.8	0.5	0.1	8.9	7.6	1.3

See footnotes at end of table.

Table 36.—Expenditures (current dollars) of regular educational institutions, by instructional level and institutional control: United States, 1962–63 to 1974–75 – Continued

(In billions of current dollars)

Year and control	Total (all levels)	Elementary and secondary schools[1] (nonpublic school expenditures estimated on the basis of expenditures per teacher in public schools)				Institutions of higher education[2]		
		Total	Current expenditures[3]	Capital outlay[4]	Interest[5]	Total	Current expenditures[6]	Capital outlay[7]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1970–71:								
Total	$76.0	$48.9	$41.9	$5.6	$1.4	$27.1	$22.8	$4.3
Public	62.0	44.3	37.9	5.1	1.3	17.7	14.6	3.1
Nonpublic	14.0	4.6	4.0	0.5	0.1	9.4	8.2	1.2
1971–72:								
Total	83.0	53.5	46.2	5.5	1.8	29.5	25.2	4.3
Public	68.0	48.5	41.9	5.0	1.6	19.5	16.3	3.2
Nonpublic	15.0	5.0	4.3	0.5	0.2	10.0	8.9	1.1
1972–73:								
Total	89.2	57.2	49.9	5.5	1.8	32.0	27.2	4.8
Public	73.1	51.9	45.3	5.0	1.6	21.2	17.7	3.5
Nonpublic	16.1	5.3	4.6	0.5	0.2	10.8	9.5	1.3
	PROJECTED							
1973–74:								
Total	96.0	61.3	53.4	5.9	2.0	34.7	29.5	5.2
Public	78.8	55.8	48.6	5.4	1.8	23.0	19.2	3.8
Nonpublic	17.2	5.5	4.8	0.5	0.2	11.7	10.3	1.4
1974–75:								
Total	103.1	65.5	57.0	6.4	2.1	37.6	31.9	5.7
Public	84.5	59.6	51.9	5.8	1.9	24.9	20.7	4.2
Nonpublic	18.6	5.9	5.1	0.6	0.2	12.7	11.2	1.5

[1] Excludes expenditures for residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and federally operated schools on Federal installations. See text table on expenditures by source of funds for data on these schools. All nonpublic elementary and secondary school expenditures shown here are estimated on the basis of expenditures per teacher in public elementary and secondary schools.

[2] Includes expenditures for subcollegiate departments of institutions of higher education, estimated at $90 million in 1972–73. Includes expenditures for interest from current funds and excludes interest paid from plant funds. (An estimated $275 million was expended for total interest in 1972–73.)

[3] Includes current expenditures of public elementary and secondary school systems for community services, summer schools, community colleges, and adult education. Interest is included in the estimated current expenditures of nonpublic schools.

[4] Includes capital outlay of State and local school building authorities.

[5] Interest for nonpublic schools is based on interest for public schools.

[6] Includes expenditures for interest from current funds. Excludes expenditures from current funds. Excludes expenditures from current funds for capital outlay.

[7] The estimated annual capital outlay data shown here include estimated expenditures for replacement and rehabilitation.

NOTE.—Data are for 50 States and the District of Columbia.

SOURCES: Data are a summary of tables 37 through 43, each of which indicates sources of data.

Table 37.—Current expenditures of public school systems: United States, 1962–63 to 1982–83

Year	Average daily attendance (in thousands)	Allocated to pupil costs[1]				All programs[2]	
		Per pupil in average daily attendance		Total (in billions)		Total (in billions)	
		Current dollars	1972–73 dollars	Current dollars	1972–73 dollars	Current dollars	1972–73 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962–63[3]	35,882	$439.00	$618	$15.8	$22.2	$16.2	$23.1
1963–64	37,405	460.24	638	17.2	23.9	17.6	24.8
1964–65[4]	38,600	484.00	663	18.6	25.6	19.1	26.6
1965–66	39,154	537.35	720	21.1	28.2	21.7	29.3
1966–67[4]	40,000	569.00	740	22.6	29.6	23.4	30.8
1967–68	40,828	658.26	828	26.9	33.8	27.7	35.2
1968–69[4]	41,157	696.00	836	28.6	34.6	29.8	35.8
1969–70	41,934	815.98	926	34.2	38.8	34.9	40.3
1970–71[4]	42,428	860.00	927	36.5	39.3	37.9	40.9
1971–72[4]	42,985	934.00	972	40.1	41.8	41.9	43.5
1972–73[4]	42,400	1,026.00	1,026	43.5	43.5	45.3	45.3
	PROJECTED[5]						
1973–74	42,000	[6]1,112.00	1,068	[6]46.7	44.9	[6]48.6	46.7
1974–75	41,500	[6]1,202.00	1,110	[6]49.9	46.1	[6]51.9	47.9
1975–76	41,200		1,152		47.5		49.4
1976–77	40,800		1,194		48.7		50.7
1977–78	40,300		1,236		49.8		51.8
1978–79	39,500		1,278		50.5		52.5
1979–80	38,800		1,320		51.2		53.3
1980–81	38,300		1,362		52.2		54.3
1981–82	38,000		1,404		53.4		55.5
1982–83	37,800		1,446		54.7		56.8

[1] Includes only the current expenditures for public day schools allocated to pupil costs; excludes the other expenditures shown in footnote 2.

[2] Includes current expenditures for summer schools, adult education, and community colleges operated by school districts, in addition to expenditures allocable to pupil costs.

[3] Estimated on the basis of actual enrollment and interpolated expenditures per pupil.

[4] Derived from estimates furnished by States.

[5] The projections of current expenditures of public school systems are based on these assumptions: (a) The ratio of average daily attendance to enrollment in grades K–12 of public schools (table 3) will remain constant at the level of 0.925 through 1975–76 and at 0.926 through 1982–83. (b) Current expenditures allocated to costs per pupil in average daily attendance will follow the 1962–63 through 1972–73 trend. (c) The ratio of current expenditures for all programs to current expenditures allocated to pupil costs will remain constant at the level of 1.04.

[6] Based on the assumption that the Consumer Price Index will follow the 1968–69 through 1972–73 trend through 1974–75.

For methodological details, see appendix A, table A-4, and discussion in text.

NOTE.—Data are for 50 States and the District of Columbia for all years. The expenditures shown in this table include current expenditures for administration of State boards of education and intermediate administrative units.

SOURCES: Data are based on statistics shown in the U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Statistics of State School Systems*, 1963–64 through 1969–70, and (2) *Statistics of Public Schools*, fall 1963 through 1972. Current expenditures were converted to 1972–73 dollars on the basis of the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. (For method of converting, see appendix B, table 9.)

Table 38.—Current expenditures for salaries of instructional staff in regular public elementary and secondary schools: United States, 1962–63 to 1982–83

Year	Number of instructional staff[1] (in thousands)	Salaries of instructional staff[2]			
		Average annual salary		Total (in billions)	
		Current dollars	1972–73 dollars	Current dollars	1972–73 dollars
(1)	(2)	(3)	(4)	(5)	(6)
1962–63[3]	1,641	$5,930	$8,344	$9.7	$13.7
1963–64	1,717	6,277	8,708	10.8	15.0
1964–65[4]	1,813	6,400	8,766	11.6	15.9
1965–66	1,885	6,935	9,297	13.1	17.5
1966–67[4]	1,984	7,110	9,246	14.1	18.3
1967–68	2,071	7,905	9,948	16.4	20.6
1968–69[4]	2,164	8,200	9,845	17.4	21.3
1969–70	2,253	8,840	10,020	19.9	22.6
1970–71[4]	2,296	9,570	10,316	22.0	23.7
1971–72[4]	2,288	10,100	10,508	23.1	24.0
1972–73[4]	2,333	10,600	10,600	24.7	24.7
		PROJECTED[5]			
1973–74	2,338	[6]11,300	10,800	26.4	25.3
1974–75	2,341	[6]12,000	11,100	28.1	26.0
1975–76	2,343		11,300		26.5
1976–77	2,350		11,600		27.3
1977–78	2,332		11,800		27.5
1978–79	2,309		12,100		27.9
1979–80	2,281		12,300		28.1
1980–81	2,269		12,500		28.4
1981–82	2,261		12,800		28.9
1982–83	2,260		13,000		29.4

[1] Data on number of instructional staff were taken from table 31.

[2] The average annual salaries of instructional staff are about 4 percent higher than the salaries of classroom teachers.

[3] Estimated on the basis of the actual number of instructional staff and interpolated expenditures per staff member for salaries.

[4] Estimates of salaries furnished by State education departments.

[5] The projections of current expenditures for salaries of instructional staff in public elementary and secondary schools are based on these assumptions: (a) Average annual salaries will follow the 1962–63 through 1972–73 trend. (b) The ratio of instructional staff to classroom teachers in regular public schools will follow the 1962–63 through 1972–73 trend.

[6] Based on the assumption that the Consumer Price Index will follow the 1968–69 through 1972–73 trend through 1974–75.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Statistics of State School Systems*, 1961–62 through 1969–70, and (2) *Statistics of Public Schools*, fall 1964 through 1972. Conversion to 1972–73 dollars was based on the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. (For method of converting, see appendix B, table B-9.)

Table 39.—Construction of public elementary and secondary school classrooms and capital outlay: United States, 1962–63 to 1982–83

Year	Rooms completed	Bond sales in millions of current dollars	Capital Outlay[1]				
			Current dollars			1972–73 dollars	
			Percent of bond sales	Total in millions	Per room	Total in millions	Per room
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962–63[2]	65,300	$2,274	119	$2,700	$41,300	$5,100	$58,100
1963–64	69,300	2,569	122	3,135	45,200	5,700	82,300
1964–65[3]	65,300	2,823	131	3,700	56,700	6,600	101,100
1965–66	72,600	2,883	130	3,755	51,700	6,400	88,200
1966–67[3]	71,000	3,254	123	4,000	56,300	6,500	91,500
1967–68	75,400	2,917	146	4,256	56,400	6,600	87,500
1962–64 to 1967–68	353,600	14,446	130	18,846	53,300	31,800	89,900
1968–69[3]	69,700	2,904	160	4,654	66,800	6,600	94,700
1969–70	66,100	2,813	173	4,659	70,500	6,200	93,700
1970–71[3]	65,400	3,908	130	5,061	77,500	6,100	93,300
1971–72[3]	[4]65,000	3,368	150	5,055	81,600	5,500	85,000
1972–73[3]	[4]64,000	2,900	173	5,008	85,700	5,008	78,000
1968–69 to 1972–73	330,200	15,893	155	24,437	74,000	29,408	89,100
	PROJECTED[5]						
1973–74	63,000			[6]5,400	[6]89,700	5,000	79,000
1974–75	62,000			[6]5,800	[6]93,800	5,000	81,000
1975–76	61,000					5,000	82,000
1976–77	60,000					5,000	83,000
1977–78	60,000					5,000	83,000
1973–74 to 1977–78	306,000					25,000	82,000
1978–79	60,000					5,000	83,000
1979–80	60,000					5,000	83,000
1980–81	60,000					5,000	83,000
1981–82	60,000					5,000	83,000
1982–83	60,000					5,000	83,000
1978–79 to 1982–83	300,000					25,000	83,000

[1] In 1961–62, 2 percent of capital outlay was estimated to be used for transportation equipment, 15 percent for other equipment, and 83 percent for land and buildings.

[2] Capital outlay was estimated at 119 percent of bond sales, the average for 1961–62 and 1963–64.

[3] Capital outlay was estimated by State departments of education.

[4] Estimated.

[5] Projections of construction of public elementary and secondary school classrooms and of capital outlay are based on these assumptions: (1) The total number of rooms constructed will remain constant at 60,000 rooms per year after 1975–76, based on the 1962–63 through 1972–73 trend. (2) The capital outlay per room will remain constant at $83,000 per room.

[6] Based on the assumption that the Construction Cost Index will follow the 1968–69 through 1972–73 trend through 1974–75.

For further methodological details, see appendix A, table A-4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

Table 40.—Expenditures for interest by public elementary and secondary school systems: United States, 1962–63 to 1982–83

(In millions)

Year	Total interest including payments to schoolhousing authorities or similar agencies	
	Current dollars	1972–73 dollars
(1)	(2)	(3)
1962–63[1]	644	906
1963–64	701	972
1964–65[2]	761	1,042
1965–66	792	1,062
1966–67[2]	949	1,234
1967–68	978	1,231
1968–69[2]	1,015	1,219
1969–70	1,171	1,327
1970–71[2]	1,318	1,421
1971–72[2]	1,602	1,667
1972–73[2]	1,613	1,613
	PROJECTED[3]	
1973–74	[4]1,755	1,685
1974–75	[4]1,903	1,757
1975–76		1,828
1976–77		1,900
1977–78		1,972
1978–79		2,044
1979–80		2,116
1980–81		2,188
1981–82		2,259
1982–83		2,331

[1] Interpolated.

[2] Estimates furnished by State education departments.

[3] Projections of expenditures for interest are based on the assumption that these expenditures will follow the 1962–63 through 1972–73 trend.

[4] Based on the assumption that the Consumer Price Index will follow the 1968–69 through 1972–73 trend through 1974–75.

For methodological details, see appendix A, table A-4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Data are based on statistics shown in U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Statistics of State School Systems*, 1963–64 to 1969–70, and (2) *Statistics of Public Schools*, fall 1964 through fall 1972. Conversion to 1972–73 dollars was based on the Consumer Price Index prepared by the Bureau of Labor Statistics, U.S. Department of Labor. (For method of converting, see appendix B, table B-9.)

Table 41.—Expenditures from current funds and total current expenditures (1972–73 dollars), by institutions of higher education: United States, 1962–63 to 1982–83

(In billions of 1972–73 dollars)

Year and control	Educational and general purposes			Auxiliary enterprises[4]	Student aid[5]	Major public services[6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures[7] (column 8 less column 9)
	Student education[1]	Organized research[2]	Related activities[3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962–63:[8]									
Total	$6.2	$2.4	$0.6	$1.8	$0.4	(9)	$11.4	$0.6	$10.8
Public	3.6	1.2	.4	1.0	.1		6.3	.4	5.9
Nonpublic	2.6	1.2	.2	.8	.3		5.1	.2	4.9
1963–64:									
Total	6.9	2.7	.7	2.0	.4	(9)	12.7	.5	12.2
Public	4.1	1.3	.4	1.1	.1		7.0	.3	6.7
Nonpublic	2.8	1.4	.3	.9	.3		5.7	.2	5.5
1964–65:[8]									
Total	7.8	3.0	.9	2.4	.5	(9)	14.5	.6	13.9
Public	4.7	1.4	.5	1.3	.2		8.1	.4	7.7
Nonpublic	3.1	1.6	.3	1.1	.3		6.4	.2	6.2
1965–66:									
Total	9.1	3.3	1.0	2.8	.6	(9)	16.8	.7	16.1
Public	5.6	1.5	.6	1.6	.2		9.5	.5	9.0
Nonpublic	3.5	1.8	.4	1.2	.4		7.3	.2	7.1
1966–67:									
Total	10.4	3.3	1.0	3.0	.8	(9)	18.5	.8	17.7
Public	6.5	1.6	.6	1.7	.4		10.8	.5	10.3
Nonpublic	3.9	1.7	.4	1.3	.4		7.7	.3	7.4
1967–68:									
Total	12.1	3.4	1.1	3.2	.9	(9)	20.7	.8	19.9
Public	7.8	1.8	.7	1.9	.4		12.6	.5	12.1
Nonpublic	4.3	1.6	.4	1.3	.5		8.1	.3	7.8
1968–69:									
Total	13.5	10 2.5	11 .6	3.1	1.0	12 1.5	22.2	.7	21.6
Public	8.8	1.5	.4	1.8	.4	.8	13.7	.5	13.2
Nonpublic	4.7	1.0	.2	1.3	.6	.7	8.5	.2	8.3
1969–70:									
Total	14.7	10 2.4	11 .8	3.1	1.1	12 1.7	23.8	.8	23.0
Public	9.9	1.4	.5	1.8	.5	.9	15.0	.6	14.4
Nonpublic	4.8	1.0	.3	1.3	.6	.8	8.8	.2	8.6

See footnotes at end of table.

Table 41.—Expenditures from current funds and total current expenditures (1972–73 dollars), by institutions of higher education: United States, 1962–63 to 1982–83 – Continued

(In billions of 1972–73 dollars)

Year and control	Educational and general purposes			Auxiliary enterprises[4]	Student aid[5]	Major public services[6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures[7] (column 8 less column 9)
	Student education[1]	Organized research[2]	Related activities[3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1970–71:									
Total	$15.9	[10]$2.4	[11]$0.7	$3.2	$1.2	[12]$1.8	$25.2	$0.7	$24.5
Public	10.8	1.5	.4	1.9	.6	1.0	16.2	.5	15.7
Nonpublic	5.1	.9	.3	1.3	.6	.8	9.0	.2	8.8
1971–72:[13]									
Total	17.0	[10]2.5	[11]1.8	3.3	1.3	[12]1.9	26.8	.6	26.2
Public	11.7	1.5	.5	2.0	.6	1.1	17.4	.4	17.0
Nonpublic	5.3	1.0	.3	1.3	.7	.8	9.4	.2	9.2
1972–73:[13]									
Total	17.8	[10]2.6	[11]1.8	3.2	1.4	[12]2.1	27.9	.7	27.2
Public	12.3	1.3	.5	1.9	.7	1.2	18.2	.5	17.7
Nonpublic	5.5	1.0	.3	1.3	.7	.9	9.7	.2	9.5
	PROJECTED[14]								
1973–74:									
Total	18.6	2.7	.9	3.1	1.6	2.1	29.0	.7	28.3
Public	12.9	1.7	.5	1.8	.8	1.2	18.9	.5	18.4
Nonpublic	5.7	1.0	.4	1.3	.8	.9	10.1	.2	9.9
1974–75:									
Total	19.4	2.9	.9	3.2	1.6	2.2	30.2	.7	29.5
Public	13.5	1.8	.5	1.8	.8	1.3	19.7	.5	19.2
Nonpublic	5.9	1.1	.4	1.4	.8	.9	10.5	.2	10.3
1975–76:									
Total	20.4	3.0	1.0	3.1	1.8	2.3	31.6	.7	30.9
Public	14.2	1.9	.6	1.7	.9	1.3	20.6	.5	20.1
Nonpublic	6.2	1.1	.4	1.4	.9	1.0	11.0	.2	10.8
1976–77:									
Total	21.5	3.0	1.0	3.0	2.0	2.4	32.9	.7	32.2
Public	15.0	1.9	.6	1.6	1.0	1.4	21.5	.5	21.0
Nonpublic	6.5	1.1	.4	1.4	1.0	1.0	11.4	.2	11.2
1977–78:									
Total	22.4	3.2	1.1	3.1	2.1	2.5	34.4	.7	33.7
Public	15.6	2.0	.6	1.7	1.1	1.5	22.5	.5	22.0
Nonpublic	6.8	1.2	.5	1.4	1.0	1.0	11.9	.2	11.7
1978–79:									
Total	23.4	3.3	1.1	3.2	2.2	2.6	35.8	.7	35.1
Public	16.3	2.1	.6	1.8	1.1	1.5	23.4	.5	22.9
Nonpublic	7.1	1.2	.5	1.4	1.1	1.1	12.4	.2	12.2

Table 41.—Expenditures from current funds and total current expenditures (1972–73 dollars), by institutions of higher education: United States, 1962–63 to 1982–83 — Continued

(In billions of 1972–73 dollars)

Year and control	Educational and general purposes			Auxiliary enterprises[4]	Student aid[5]	Major public services[6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures[7] (column 8 less column 9)
	Student education[1]	Organized research[2]	Related activities[3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1979–80:									
Total	$24.1	$3.4	$1.2	$3.3	$2.3	$2.7	$37.0	$0.8	$36.2
Public	16.8	2.2	.7	1.8	1.2	1.6	24.3	.6	23.7
Nonpublic	7.3	1.2	.5	1.5	1.1	1.1	12.7	.2	12.5
1980–81:									
Total	24.8	3.6	1.2	3.4	2.3	2.8	38.1	.8	37.3
Public	17.3	2.3	.7	1.9	1.2	1.6	25.0	.6	24.4
Nonpublic	7.5	1.3	.5	1.5	1.1	1.2	13.1	.2	12.9
1981–82:									
Total	25.3	3.6	1.3	3.5	2.4	2.9	39.0	.8	38.2
Public	17.7	2.3	.7	1.9	1.3	1.7	25.6	.6	25.0
Nonpublic	7.6	1.3	.6	1.6	1.1	1.2	13.4	.2	13.2
1982–83:									
Total	25.6	3.7	1.3	3.5	2.5	3.0	39.6	.8	38.8
Public	17.9	2.4	.7	1.9	1.3	1.8	26.0	.6	25.4
Nonpublic	7.7	1.3	.6	1.6	1.2	1.2	13.6	.2	13.4

[1] Includes general administration, instruction and departmental research, extension and public services, libraries, operation and maintenance of the physical plant, and sponsored activities such as training institutes and related sponsored activities which were specifically financed by outside sources.

[2] Includes all sponsored research and other separately budgeted research through 1967–68. Beginning in 1968–69, expenditures of federally funded research and development centers are included with major public service programs.

[3] Includes expenditures for such categories as laboratory schools, medical school hospitals, dental clinics, home economics cafeterias, agricultural college creameries, college operated industrial plants connected with instructional programs but not actually integral parts of them, and all other expenditures for educational and general activities which are not specifically identified as expended for "student education" or "organized research." Beginning in 1968–69, expenditures for major public service programs formerly included under "related activities" are included with major public service programs.

[4] Auxiliary enterprises include student dormitories, dining halls, cafeterias, student unions, bookstores, faculty housing, athletic programs not part of the instructional program, lectures, concerts, and expenditures for plant assets from current funds which are not itemized under educational and general expenditures.

[5] Student aid includes only grants to students in the form of scholarships, fellowships, grants-in-aid, and prizes and awards for which no services are required of the student. Loans to students are not included.

[6] Formerly included with the educational and general group prior to 1968–69. Consists of federally funded research and development centers, hospitals, and other major public service programs.

[7] Current-fund expenditures less capital outlay from current funds.

[8] Interpolated.

[9] Not separately reported until 1968–69.

[10] Data for federally funded research and development centers are reported under major public service programs.

[11] Beginning in 1968–69, related activities classified as major public service are reported separately.

[12] Prior to 1968–69, major public service programs were included with several items under educational and general.

[13] Estimated.

[14] The projection of expenditures from current funds is based on the following assumptions: (a) Expenditure for "student education" per full-time equivalent student will continue to increase as it did during the base period. (b) Auxiliary enterprises and student aid are projected on the percentage of these items to "student education" during the base years, with the trend frozen at the 1977–78 level through 1982–83. (c) Related activities are projected on the percentage of these items to "student education" during the base years. (d) Organized research and major public service are projected on the base-years trend in dollar amounts. (e) The 1971–72 to 1982–83 expenditures from current funds for capital outlay will approximate 14 percent of total capital outlay.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: See table 42. Conversion to 1972–73 dollars was based on the Consumer Price Index published by the Bureau of Labor Statistics, U.S. Department of Labor, and (for capital outlay) on the American Appraisal Company Construction Cost Index. (For method of converting the indexes, see appendix B, table B-9.)

Table 42.—Expenditures from current funds and total current expenditures (current dollars), by institutions of higher education: United States, 1962–63 to 1974–75

(In billions of current dollars)

Year and control	Educational and general purposes			Auxiliary enterprises[4]	Student aid[5]	Major public services[6]	Total expenditures from current funds (sum of columns 2 through 7)	Capital outlay from current funds only	Total current expenditures[7] (column 8 less column 9)
	Student education[1]	Organized research[2]	Related activities[3]						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962–63:[8]									
Total	$4.4	$1.7	$0.5	$1.3	$0.3	(9)	$8.2	$0.5	$7.7
Public	2.6	.8	.3	.7	.1		4.5	.3	4.2
Nonpublic	1.8	.9	.2	.6	.2		3.7	.2	3.5
1963–64:									
Total	5.0	1.9	.5	1.5	.3	(9)	9.2	.4	8.8
Public	3.0	.9	.3	.8	.1		5.1	.2	4.9
Nonpublic	2.0	1.0	.2	.7	.2		4.1	.2	3.9
1964–65:[8]									
Total	5.7	2.2	.6	1.8	.3	(9)	10.6	.5	10.1
Public	3.4	1.0	.4	1.0	.1		5.9	.3	5.6
Nonpublic	2.3	1.2	.2	.8	.2		4.7	.2	4.5
1965–66:									
Total	6.8	2.5	.6	2.1	.4	(9)	12.4	.5	11.9
Public	4.1	1.2	.4	1.2	.1		7.0	.3	6.7
Nonpublic	2.7	1.3	.2	.9	.3		5.4	.2	5.2
1966–67:									
Total	8.0	2.5	.8	2.3	.6	(9)	14.2	.6	13.6
Public	5.0	1.2	.5	1.3	.3		8.3	.4	7.9
Nonpublic	3.0	1.3	.3	1.0	.3		5.9	.2	5.7
1967–68:									
Total	9.6	2.7	.9	2.6	.7	(9)	16.5	.7	15.8
Public	6.2	1.4	.6	1.5	.3		10.0	.4	9.6
Nonpublic	3.4	1.3	.3	1.1	.4		6.5	.3	6.2
1968–69:									
Total	11.3	[10]2.0	[11].5	2.5	.9	[12]$1.3	18.5	.7	17.8
Public	7.4	1.2	.3	1.4	.4	.7	11.4	.5	10.9
Nonpublic	3.9	.8	.2	1.1	.5	.6	7.1	.2	6.9
1969–70:									
Total	13.0	[10]2.2	[11].6	2.8	1.0	[12]1.5	21.1	.8	20.3
Public	8.7	1.3	.4	1.6	.5	.8	13.3	.6	12.7
Nonpublic	4.3	.9	.2	1.2	.5	.7	7.8	.2	7.6
1970–71:									
Total	$14.7	[10]$2.2	[11]$0.7	$3.0	$1.1	[12]$1.7	$23.4	$0.8	$22.8
Public	10.0	1.3	.4	1.8	.5	1.0	15.0	.4	14.6
Nonpublic	4.7	.9	.3	1.2	.6	.7	8.4	.2	8.2
1971–72:[13]									
Total	16.4	[10]2.4	[11].7	3.2	1.3	[12]1.8	25.8	.6	25.2
Public	11.3	1.5	.4	1.9	.6	1.0	16.7	.4	16.3
Nonpublic	5.1	.9	.3	1.3	.7	.8	9.1	.2	8.9
1972–73:[13]									
Total	17.8	[10]2.6	[11].8	3.2	1.4	[12]2.1	27.9	.7	27.2
Public	12.3	1.6	.5	1.9	.7	1.2	18.2	.5	17.7
Nonpublic	5.5	1.0	.3	1.3	.7	.9	9.7	.2	9.5
	PROJECTED[14]								
1973–74:									
Total	19.4	2.8	.9	3.3	1.6	2.2	30.2	.7	29.5
Public	13.4	1.7	.6	1.9	.8	1.3	19.7	.5	19.2
Nonpublic	6.0	1.1	.3	1.4	.8	.9	10.5	.2	10.3
1974–75:									
Total	21.1	3.1	1.0	3.3	1.8	2.4	32.7	.8	31.9
Public	14.6	1.9	.6	1.9	.9	1.4	21.3	.6	20.7
Nonpublic	6.5	1.2	.4	1.4	.9	1.0	11.4	.2	11.2

[1] Includes general administration, instruction and departmental research, extension and public services, libraries, operation and maintenance of the physical plant, and sponsored activities such as training institutes and related sponsored activities which were specifically financed by outside sources.

[2] Includes all sponsored research and other separately budgeted research through 1967–68. Beginning 1968–69, expenditures of federally funded research and development centers are included with major public service programs.

[3] Includes expenditures for such categories as laboratory schools, medical school hospitals, dents' clinics, home economics cafeterias, agricultural college creameries, college-operated industrial plants connected with instructional programs but not actually integral parts of them, and all other expenditures for educational and general activities which are not specifically identified as expended for "student education" or "organized research." Beginning in 1968–69, expenditures for major public service programs formerly included under "related activities" are included with major public service programs.

[4] Auxiliary enterprises include student dormitories, dining halls, cafeterias, student unions, bookstores, faculty housing, athletic programs not part of the instructional program, lectures, concerts, and expenditures for plant assets from current funds which are not itemized under educational and general expenditures.

[5] Student aid includes only grants to students in the form of scholarships, fellowships, grants-in-aid, and prizes and awards for which no services are required of the student. Loans to students are not included.

[6] Prior to 1968–69, included with the educational and general group. Consists of federally funded research and development centers, hospitals, and other major public service programs.

[7] Current-fund expenditures less capital outlay from current funds.

[8] Interpolated.

[9] Not separately reported until 1968–69.

[10] Data for federally funded research and development centers are reported under major public service programs.

[11] Beginning in 1968–69, related activities classified as major public service are reported separately.

[12] Prior to 1968–69, major public service programs were included with several items under educational and general.

[13] Estimated.

[14] Projected by applying the 1968–69 to 1972–73 trend in the Consumer Price Index to the projected expenditures of current funds in constant dollars (table 41).

For further methodological details, see appendix A, table 4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Expenditure data from U.S. Department of Health, Education, and Welfare, Office of Education, publication: *Financial Statistics of Institutions of Higher Education*, 1963–64, 1965–66, 1966–67, 1968–69; and unpublished data from the same source for 1969–70 and 1970–71.

Table 43.—Capital outlay of institutions of higher education: United States, 1962–63 to 1982–83

Year	Total		Public		Nonpublic	
	Millions of current dollars	Millions of 1972–73 dollars	Millions of current dollars	Millions of 1972–73 dollars	Millions of current dollars	Millions of 1972–73 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1962–63[1]	$2,634	$4,748	$1,696	$2,990	$938	$1,758
1963–64	2,466	4,497	1,518	2,768	948	1,729
1964–65[1]	2,825	5,023	1,595	2,836	1,230	2,187
1965–66	3,253	5,575	2,064	3,537	1,189	2,038
1966–67	3,943	6,394	2,573	4,172	1,370	2,222
1967–68	4,175	6,424	2,732	4,204	1,443	2,220
1963–64 to 1967–68	16,662	27,913	10,482	17,517	6,180	10,396
1968–69	4,297	6,118	3,218	4,575	1,079	1,543
1969–70	4,332	5,759	3,066	4,076	1,266	1,683
1970–71	4,344	5,255	3,147	3,807	1,197	1,448
1971–72[2]	4,333	4,719	3,153	3,434	1,180	1,285
1972–73[2]	4,771	4,771	3,487	3,487	1,284	1,284
1968–69 to 1972–73	22,077	26,622	16,071	19,379	6,006	7,243
			PROJECTED[3]			
1973–74	5,206	4,842	3,822	3,555	1,384	1,287
1974–75	5,660	4,921	4,168	3,624	1,492	1,297
1975–76		5,024		3,714		1,310
1976–77		5,131		3,803		1,328
1977–78		5,226		3,882		1,344
1973–74 to 1977–78		25,144		18,578		6,566
1978–79		5,299		3,942		1,357
1979–80		5,329		3,972		1,357
1980–81		5,334		3,983		1,351
1981–82		5,324		3,980		1,344
1982–83		5,266		3,944		1,322
1978–79 to 1982–83		26,552		19,821		6,731

[1] Interpolation based on reported value of plant at close of previous year and the beginning of following year.

[2] Estimated.

[3] The projection of capital outlay is based on observation of the relationship of total capital outlay per full-time-equivalent (FTE) enrollment during the base period. This observation supports a theory that capital outlay can be expected to level off during periods of little or no increase or decrease in FTE enrollment. The projection is based on projected FTE enrollment and capital outlay per-FTE enrollment, 1971–72.

For further methodological details, see appendix A, table A-4.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: Capital outlay data from U.S. Department of Health, Education, and Welfare, Office of Education, publication: *Financial Statistics of Institutions of Higher Education*, 1961–62 through 1968–69; and unpublished data for 1969–70 and 1970–71.

CHAPTER VI

Student Charges by Institutions of Higher Education

C. George Lind

Definitions and Limitations

Estimated average student charges are based on the charges reported by institutions of higher education for the years 1962–63 through 1964–65, 1966–67, 1968–69, and 1971–72, weighted by the number of full-time students attending the institutions. The charges were those to a typical undergraduate full-time resident-in-State student. Since reports on student attendance during the 1962–63 through 1964–65 and 1966–67 base years did not identify the full-time students as undergraduates, graduates, or nonresidents, the weighting factor assumes that graduates and nonresidents are charged the undergraduate and resident tuition and fees. Undergraduates were identified in reports on students for 1968–69 and 1971–72, but the 1971–72 data were available only as total full-time when the weighting procedures were being carried out.

Estimated average charges per student (entire academic year) (tables 44, 45)

The estimated average student charges (tuition and required fees, board, and room) by publicly controlled institutions of higher education, in 1972–73 constant dollars, increased from $1,267 in 1962–63 to $1,426 in 1972–73 and are expected to reach $1,610 by 1982–83 (table 44). Estimated average student charges by nonpublicly controlled institutions of higher education were $2,425 in 1962–63, $3,098 in 1972–73, and are expected to reach $3,782 by 1982–83.

Tuition and required fees are largely responsible for the increases in student charges. Tuition and fees, in constant 1972–73 dollars, charged by publicly controlled institutions rose from $312 in 1962–63 to $399 in 1972–73 and are expected to reach $478 by 1982–83.

Nonpublicly controlled institutions charged an estimated average tuition and fee of $1,328 in 1962–63, $1,952 in 1972–73, and are projected to be charging $2,535 by 1982–83. Required fees are those for matriculation, laboratory, library, health, etc., but do not include books. Charges for tuition and required fees vary to a considerable extent by control and type of institution. Two factors bear upon the variation: (1) Income of public institutions from government sources, and (2) the varying cost of educating a student in different types of institutions.

The charges for board, while increasing slightly during the base period (table 45), when adjusted to constant 1972–73 dollars (table 44), had declined slightly in all but 2-year institutions. The declines are not projected and, in effect, the assumption is made that the many large institutions which had held their board charges unchanged, in current unadjusted dollars, will not be able to continue that practice during the next decade.

For dormitory rooms, nonpublicly controlled institutions generally charge more than publicly controlled institutions, and universities generally charge more than other types of institutions. However, the rate of the increases in charges for dormitory rooms is not markedly dissimilar by either control or type of institution, and the variations in the charges may be ascribed to the level of accommodation afforded.

Table 44.—Estimated average charges (1972–73 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1962–63 to 1982–83

(Charges are for the academic year and in constant 1972–73 dollars)

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1962–63:[1]																
Public	$1,267	$1,388	$1,145	$865	$312	$377	$270	$136	$612	$642	$567	$508	$343	$369	$308	$221
Nonpublic	2,425	2,845	2,263	1,788	1,328	1,617	1,223	844	668	713	650	601	429	515	390	343
1963–64:[1]																
Public	1,285	1,423	1,175	875	325	390	298	135	603	649	555	501	357	384	322	239
Nonpublic	2,518	2,920	2,358	1,822	1,404	1,687	1,297	891	676	716	659	592	438	517	402	339
1964–65:[1]																
Public	1,301	1,440	1,188	874	333	408	307	136	597	633	551	494	371	399	330	244
Nonpublic	2,611	3,016	2,479	1,994	1,490	1,777	1,401	962	668	705	656	636	453	534	422	356
1965–66:[2]																
Public	1,318	1,481	1,209	898	346	438	322	146	595	635	546	492	376	408	341	260
Nonpublic	2,686	3,105	2,544	2,088	1,546	1,835	1,456	1,030	663	709	646	634	477	561	442	424
1966–67:[1]																
Public	1,324	1,522	1,231	923	358	468	337	157	594	637	542	489	382	417	352	277
Nonpublic	2,762	3,194	2,610	2,183	1,603	1,893	1,511	1,099	658	713	637	633	501	588	462	451
1967–68:[2]																
Public	1,338	1,508	1,254	992	356	460	337	180	588	624	550	506	394	424	367	306
Nonpublic	2,775	3,202	2,647	2,218	1,632	1,930	1,557	1,124	650	700	630	634	493	572	460	460
1968–69:[1]																
Public	1,341	1,495	1,276	1,060	354	453	337	204	582	611	557	522	405	431	382	334
Nonpublic	2,786	3,210	2,686	2,252	1,660	1,967	1,603	1,148	641	687	624	635	485	556	459	469
1969–70:[2]																
Public	$1,364	$1,544	$1,288	$1,080	$366	$484	$347	$203	$579	$612	$548	$527	$419	$448	$393	$350
Nonpublic	2,869	3,310	2,744	2,259	1,738	2,051	1,666	1,172	636	689	615	619	495	570	463	468
1970–71:[2]																
Public	1,387	1,593	1,300	1,099	378	515	357	201	576	613	539	532	433	465	404	366
Nonpublic	2,952	3,410	2,802	2,267	1,816	2,135	1,729	1,196	631	691	606	603	505	584	467	468

1971–72[1]																
Public	1,411	1,643	1,314	1,117	391	547	368	200	573	614	530	536	447	482	416	381
Nonpublic	3,035	3,511	2,859	2,274	1,894	2,219	1,791	1,219	627	693	596	588	514	599	472	467
1972–73:[3]																
Public	1,425	1,667	1,333	1,148	399	564	378	210	569	610	527	539	458	493	428	399
Nonpublic	3,098	3,579	2,925	2,342	1,952	2,281	1,853	1,266	622	690	590	590	524	608	482	436
	PROJECTED[4]															
1973–74:																
Public	1,444	1,695	1,355	1,178	407	581	398	219	569	610	527	542	468	504	440	417
Nonpublic	3,167	3,652	2,998	2,408	2,011	2,344	1,915	1,317	622	690	590	592	534	618	493	504
1974–75:																
Public	1,463	1,724	1,378	1,210	415	598	399	229	569	610	527	545	479	516	452	436
Nonpublic	3,235	3,723	3,070	2,476	2,069	2,406	1,977	1,359	622	690	590	594	544	627	503	523
1975–76:																
Public	$1,481	$1,752	$1,400	$1,241	$423	$615	$409	$239	$569	$610	$527	$548	$489	$527	$464	$454
Nonpublic	3,303	3,795	3,143	2,542	2,127	2,468	2,039	1,405	622	690	590	596	554	637	514	541
1976–77:																
Public	1,500	1,780	1,422	1,272	431	632	419	248	569	610	527	552	500	538	476	472
Nonpublic	3,371	3,867	3,215	2,610	2,185	2,531	2,101	1,452	622	690	590	598	564	646	524	560
1977–78:																
Public	1,517	1,808	1,444	1,303	438	649	429	258	569	610	527	555	510	549	488	490
Nonpublic	3,441	3,939	3,288	2,677	2,244	2,593	2,163	1,499	622	690	590	600	575	656	535	578
1978–79:																
Public	1,536	1,837	1,467	1,335	446	666	440	268	569	610	527	558	521	561	500	509
Nonpublic	3,509	4,010	3,360	2,746	2,302	2,655	2,225	1,545	622	690	590	602	585	665	545	599
1979–80:																
Public	1,554	1,865	1,489	1,365	454	683	450	277	569	610	527	561	531	572	512	527
Nonpublic	3,577	4,081	3,433	2,811	2,360	2,717	2,287	1,592	622	690	590	604	595	674	556	615
1980–81:																
Public	1,573	1,892	1,511	1,396	462	699	460	287	569	610	527	564	542	583	524	545
Nonpublic	3,646	4,154	3,505	2,878	2,419	2,780	2,349	1,638	622	690	590	606	605	684	566	634
1981–82:																
Public	1,592	1,920	1,533	1,427	470	716	470	297	569	610	527	567	553	594	536	563
Nonpublic	3,714	4,225	3,578	2,946	2,477	2,842	2,411	1,685	622	690	590	608	615	693	577	653

Table 44.—Estimated average charges (1972–73 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1962–63 to 1982–83 — Continued

(Charges are for the academic year and in constant 1972–73 dollars)

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1982–83:																
Public	$1,610	$1,948	$1,555	$1,459	$478	$733	$480	$307	$569	$610	$527	$570	$563	$605	$548	$582
Nonpublic	3,782	4,297	3,650	3,012	2,535	2,904	2,473	1,731	622	690	590	610	625	703	587	671

[1] Represents charges weighted by numbers of full-time degree-credit students 1962–63 through 1964–65; weighted by full-time resident students for 1966–67, by full-time undergraduate degree-credit students for 1968–69, and by total full-time students for 1971–72. These charges, shown in table 45 in current dollars, were converted to 1972–73 constant dollars by application of the Consumer Price Index. (See constant-dollar index, appendix B, table B-9.

[2] Interpolated.

[3] Estimated.

[4] Decreases in charges for board during the base period, in constant 1972–73 dollars, are frozen at the 1972–73 level.

For further methodological details, see appendix A, table A-5.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, publications: *Higher Education Basic Student Charges* and *Opening Fall Enrollment in Higher Education.*

Table 45.—Estimated average charges (current dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1962–63 to 1974–75

(Charges are for the academic year and in current unadjusted dollars)

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1962–63:																
Public	$901	$986	$814	$615	$222	$268	$192	$97	$435	$456	$403	$361	$244	$262	$219	$157
Nonpublic	1,724	2,022	1,608	1,271	944	1,149	869	600	475	507	462	427	305	366	277	244
1963–64:																
Public	926	1,026	846	630	234	281	215	97	435	468	399	361	257	277	232	172
Nonpublic	1,815	2,105	1,700	1,313	1,012	1,216	935	642	487	516	475	427	316	373	290	244
1964–65:																
Public	950	1,051	867	638	243	298	224	99	436	462	402	361	271	291	241	178
Nonpublic	1,907	2,202	1,810	1,455	1,088	1,297	1,023	702	488	515	479	464	331	390	308	289
1965–66:[1]																
Public	983	1,105	901	670	258	327	240	109	445	474	407	367	280	304	254	194
Nonpublic	2,004	2,316	1,898	1,558	1,153	1,369	1,086	769	495	529	482	473	356	418	330	316
1966–67:																
Public	1,026	1,171	947	710	275	360	259	121	457	490	417	376	294	321	271	213
Nonpublic	2,124	2,456	2,007	1,679	1,233	1,456	1,162	845	506	548	490	487	385	452	355	347
1967–68:[1]																
Public	1,063	1,199	997	788	283	366	268	143	467	496	437	402	313	337	292	243
Nonpublic	2,206	2,545	2,104	1,763	1,297	1,534	1,237	893	517	556	501	504	392	455	366	366
1968–69:																
Public	1,117	1,245	1,063	883	295	377	281	170	485	509	464	435	337	359	318	278
Nonpublic	2,321	2,673	2,237	1,876	1,383	1,638	1,335	956	534	572	520	529	404	463	382	391
1969–70:[1]																
Public	1,204	1,362	1,136	953	323	427	306	179	511	540	483	465	370	395	347	309
Nonpublic	2,531	2,920	2,421	1,993	1,533	1,809	1,470	1,034	561	608	543	546	437	503	408	413

See footnotes at end of table.

Table 45.—Estimated average charges (current dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1962–63 to 1974–75 — Continued

(Charges are for the academic year and in current unadjusted dollars)

Year and control	Total tuition, board, and room				Tuition and required fees				Board (7-day basis)				Dormitory rooms			
	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year	All	University	Other 4-year	2-year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1970–71:[1]																
Public	$1,287	$1,478	$1,206	$1,020	$351	$478	$331	$186	$534	$569	$500	$494	$402	$431	$375	$340
Nonpublic	2,739	3,164	2,599	2,103	1,685	1,981	1,604	1,110	585	641	562	559	469	542	433	434
1971–72:																
Public	1,357	1,579	1,263	1,073	376	526	354	192	551	590	509	515	430	463	400	366
Nonpublic	2,917	3,375	2,748	2,186	1,820	2,133	1,721	1,172	603	666	573	565	494	576	454	449
1972–73:[1]																
Public	1,426	1,667	1,333	1,148	399	564	378	210	569	610	527	539	458	493	428	399
Nonpublic	3,098	3,579	2,925	2,342	1,952	2,281	1,853	1,266	622	690	590	590	524	608	482	486
	PROJECTED															
1973–74:[1]																
Public	1,505	1,765	1,411	1,227	424	605	404	228	593	635	549	565	488	525	458	434
Nonpublic	3,299	3,805	3,124	2,509	2,095	2,442	1,995	1,367	648	719	615	617	556	644	514	525
1974–75:[1]																
Public	1,585	1,868	1,590	1,310	450	648	432	248	616	661	571	590	519	559	587	472
Nonpublic	3,504	4,032	3,326	2,682	2,241	2,606	2,142	1,472	674	747	539	643	589	679	545	567

[1] Data for 1965–66, 1967–68, 1969–70, 1970–71, and 1972–73 through 1974–75 estimated by applying the Consumer Price Index to the data in table 44. See constant-dollar index, appendix B, table B-9.
For further methodological details, see appendix A, table A-5.

NOTE.—Data are for 50 States and the District of Columbia for all years.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Higher Education Basic Student Charges*, 1961–62 through 1964–65, 1966–67, 1968–69, and 1971–72; and (2) *Opening Fall Enrollment in Higher Education*, 1961 through 1964, 1966, 1968, and 1971.

APPENDIX A

General Methodology

Estimation Methods

Classification of Degrees by Field of Study

Changes in Degree-Level Definitions

Glossary

General Methodology

The 1973 projections of educational data by the U.S. Office of Education are based on reports of regular elementary and secondary day schools, both public and private, and of accredited institutions of higher education listed in the Education Directory of the Office of Education.[1] The projections include enrollments at all levels, high school graduates, degrees by level and field, teacher and faculty demand, and expenditures in elementary and secondary schools and in institutions of higher education. Of these projections, those based directly on population were for: the number of children attending independent nursery and kindergarten schools, those attending kindergarten and first grade of regular public schools, enrollments in higher education, and high school graduates. The others (with the exception of enrollment in grades 2 through 12 of the public schools, degrees by level, and degrees by field) were based on enrollments. Enrollments in grades 2 through 12 of public schools were based on grade retention rates. (Retention rates could not be used for projecting higher education enrollments because the data on these enrollments have not been collected by year of enrollment.) Degrees by level were based on both enrollments and population; degrees by field were based on enrollments and the distribution of total degrees by field.

The population averaging 18 years of age was chosen for projecting both high school graduates and first-time college enrollment. This age group gave a smoother fit when correlated with these data than could be obtained with other age groups. For projecting kindergarten and first-grade enrollments, the populations aged 5 and 6 years were used.

The population aged 18–21 years was used for projecting college enrollments in non-degree-credit courses. A first-time degree-credit enrollment base was used for projecting degree-credit enrollment. The first-time degree-credit enrollment base was computed as 100 percent of the first-time degree-credit enrollment in a given year plus 75, 60, and 55 percent of the first-time degree-credit enrollment in the 3 previous years, respectively.

For estimating and projecting degrees, both population and enrollments were used. Estimates and projections in the beginning of the projected time period (1971–72 to 1975–76 for bachelor's degrees, 1971–72 to 1974–75 for first-professional degrees, 1971–72 for master's degrees, and 1971–72 to 1977–78 for doctor's degrees) were based on enrollments, while the remainder of the projections (through 1982–83) were based on a composite population. The composite population is representative of the actual ages of the recipients of bachelor's degrees. (For details of estimating the population, see appendix A, "Estimation Methods," sec. 5.) Age at time of master's degrees was assumed to be 2 years older than at time of bachelor's degrees, and age at time of doctor's degrees was assumed to be 7 years older than at time of bachelor's degrees. The choice of average time elapsed between bachelor's and master's degrees was made empirically. The choice of average time elapsed between bachelor's and doctor's degrees was made on the basis of unpublished data from the National Science Foundation.[2]

For making the projections, regression methods were used wherever a trend could be established. Where no consistent series was available or the data were too irregular to establish a trend, a constant based on the latest observation or an average of the last two or three observations was used.

[1] U.S. Department of Health, Education, and Welfare, Office of Education, *Education Directory, 1972–73, Higher Education*, U.S. Government Printing Office, Washington, D.C., 1973.

[2] National Science Foundation, Science Education Studies Group, unpublished analysis.

For some projections—such as graduate enrollments, enrollments in institutions of higher education by full-time and part-time attendance, and non-degree-credit enrollments—relationships had to be obtained from a different series of data and transferred to the opening fall higher education enrollment series. The latter series is current and has been reasonably consistent in the past, although prior to 1969 it lacked some detailed characteristics required by educators for decisionmaking.

For estimating trends, observations in the 11 most recent years were used, and these were extrapolated for 10 years into the future. The 11-year timespan was considered better than a longer timespan because of rapid changes in economic and social conditions and improvement in available statistics in recent years.

Straight lines and logistic growth curves, fitted by the least-squares technique to a ratio (for example, of enrollment to population) as the dependent variable and time in years as the independent variable, were the primary projection devices.

Logistic growth curves of the form

$$y' = \frac{K}{1+e^{-(a+bt)}}$$

were used when it was decided that continued straight-line growth would be unrealistic. Since the logistic growth curve is asymptotic (has an upper limit) at the point K, an upper limit must be selected based on consideration of the statistic being projected. For some statistics, selection of the upper limit can be quite arbitrary.

Logistic growth curves are fitted by making the transformation

$$z' = \log \frac{y'}{K-y'}$$

and then fitting a straight line to the z' values. It should be noted that the standard error is in terms of the z' values, not the y' values.

For both the straight line and the logistic growth curve, the fitted curve often lies considerably above or below the last observed point, resulting in an unusual rise or drop from the last actual observation. To avoid this and give face validity to the projections, the fitted curve was used only to establish the last point, and a new curve was drawn through the last observed ratio and the end point on the fitted curve. (In this case, the fitted equation is used only to establish the ratio at the end of the 10-year span.)

For each major area (enrollments, degrees, teachers, and expenditures), the tables that follow outline the equations and constants that were used: the standard error and index of determination, when appropriate, and the adjusted equations, if used. Footnotes explain the meaning of the variables and constants used for estimating.

The tables are followed by sections which explain the methods used in estimating missing data of the past 11 years, define the meaning of terms as used by the Office of Education in requesting data, and outline the classification of summarized degree data.

Table A-1.—Methodology (Chapter II)

Item	Text table number	Projection method				
			Trend			
		Constant	Least squares equation (y=percent; t=year; 1962=1)[1]	Index of determination	Standard error	Adjusted equation[2]	Other
Fall enrollment (independent public kindergarten and nursery schools)[3]	2	....	.....	....	....	.....	(4)
3 years old[5]	.....	....	$y'=0.42+0.39t$	0.92	0.34	$y'=1.12+0.36t$	
4 years old[6]	.....	....	$y'=6.89+0.97t$	.96	.61	$y'=7.50+0.94t$	
5 years old[7]	.....	....	$y'=80/[1+e^{-(0.23+0.13t)}]$	.97	.065	$y'=80/[1+e^{-(0.24+0.13t)}]$	
6 years old[8]	.....	....	$y'=2.27+0.26t$	.78	.39	$y'=2.57+0.24t$	
Fall enrollment (independent nonpublic kindergarten and nursery schools)[3]	2	....	.....	....	....	.....	(9)
3 years old[10]	.....	....	$y'=1.75+1.01t$	.95	.69	$y'=2.54+0.96t$	
4 years old[11]	.....	....	$y'=5.42+1.32t$	.98	.54	$y'=6.02+1.29t$	
5 years old[12]	.....	11.4					
6 years old[13]	.....	0.6					
Fall enrollment (regular public day schools)	3						
Kindergarten[14]	.....	....	$y'=95/[1+e^{(0.088-0.116t)}]$	.98	.061	$y'=95/[1+e^{(0.048-0.110t)}]$	
Grade 1[15]	.....	95.4					
Grade 2[16]	.....	94.4					
Grade 3[17]	.....	98.6					
Grade 4[18]	.....	98.8					
Grade 5[19]	.....	99.4					
Grade 6[20]	.....	99.6					
Grade 7[21]	.....	....	$y\hat{7}(t)=y\hat{6}(t-1)+.031C(t-1)$				
Grade 8[22]	.....	98.7					
Grade 9[23]	.....	....	$y\hat{9}(t)=y\hat{8}(t-1)+.048C(t-1)$				
Grade 10[24]	.....	97.1					
Grade 11[25]	.....	91.8					
Grade 12[26]	.....	90.7					
Elementary ungraded[27]	.....	....	$y'=0.56+0.16t$	0.94	0.14	$y'=1.10+0.13t$	
Secondary ungraded[28]	.....	....	$y'=0.85+0.12t$	0.86	.17	$y'=0.81+0.12t$	
Postgraduate[29]	.....	10,000					
Organizational level[30]	4						
Fall enrollment (regular nonpublic day schools)	3,4						
Grades kindergarten to 8	.....	....	.....	....	....	.....	(31)
Grades 9 to 12	.....	....	.....	....	....	.....	(32)

Table A-1.—Methodology (Chapter II)—Continued

Item	Text table number	Projection Method: Constant	Trend: Least squares equation (y=percent; t=year; 1962=1)[1]	Trend: Index of determination	Trend: Standard error	Trend: Adjusted equation[2]	Other
Degree-credit fall enrollment	6-8, 13						
Men[33]			y'=160.48+0.94t	0.80	1.64	y'=155.75+1.17t	
Public 4-year institutions							(34)
Private 4-year institutions							(34)
Public 2-year institutions[35]			y'=25/[1+e(0.36−0.17t)]	.94	.15	y'=25/(1+e(0.50−0.18t)]	
Private 2-year institutions							(34)
Women[33]			y'=136.44+1.82t	.92	1.97	y'=132.14+2.02t	
Public 4-year institutions							(34)
Private 4-year institutions							(34)
Public 2-year institutions[35]			y'=25/[1+e(0.57−0.19t)]	.94	.17	y'=25/[1+e(0.26−0.17t)]	
Private 2-year institutions							(34)
Non-degree-credit fall enrollment	9						
Men[36]			y'=2.40+0.37t	0.92	0.37	y'=3.40+0.32t	
Public 4-year institutions							(37)
Private 4-year institutions							(37)
Public 2-year institutions[38]			y'=95/[1+e−(0.50+0.22t)]	.95	.17	y'=95/[1+e−(0.88+0.22t)]	
Private 2-year institutions							(37)
Women[36]			y'=0.88+0.34t	.88	.45	y'=2.46+0.27t	
Public 4-year institutions							(37)
Private 4-year institutions							(37)
Public 2-year institutions[38]			y'=95/[1+e−(0.58+0.20t)]	.92	.21	y'=95/[1+e−(0.75+0.19t)]	
Private 2-year institutions							(37)
Full-time non-degree-credit fall enrollment[39]	9-11						
Men, public 4-year institutions		52.9					
Women, public 4-year institutions		56.1					
Men, private 4-year institutions		60.0					
Women, private 4-year institutions		58.2					
Men, public 2-year institutions		44.5					
Women, public 2-year institutions		41.6					
Men, private 2-year institutions		63.0					
Women, private 2-year institutions		89.3					
Full-time-equivalent degree-credit fall enrollment[40]	12						
Public institutions		33.0					
Private institutions		33.0					

Table A-1.—Methodology (Chapter II)—Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (y=percent; t=year; 1962=1)[1]	Index of determination	Standard error	Adjusted equation[2]	
Full-time-equivalent non-degree-credit fall enrollment[41]	12						
Public institutions	.....	28.0					
Private institutions	.....	28.0					
First-time degree-credit fall enrollment	14-16						
Men[42]	.....	45.5					
Men (high alternative assumption)[43]	B-5	....	$y'=40.00+0.50t$				
Men (low alternative assumption)[43]	B-6	....	$y'=49.30-0.35t$				
Public 4-year institutions	.....	....	.....	....	....	.....	(44)
Private 4-year institutions	.....	....	.....	....	....	.....	(44)
Public 2-year institutions[45]	.....	....	$y'=50/[1+e^{(0.43-0.14t)}]$	0.95	0.12	$y'=50/[1+e^{(0.56-0.15t)}]$	
Private 2-year institutions	.....	....	.....	....	....	.....	(44)
Women[42]	.....	41.0					
Women (high alternative assumption[43]	B-5	....	$y'=36.47+0.43t$				
Women (low alternative assumption[43]	B-6	....	$y'=48.02-0.62t$				
Public 4-year institutions	.....	....	.....	....	....	.....	(44)
Private 4-year institutions	.....	....	.....	....	....	.....	(44)
Public 2-year institutions[45]	.....	....	$y'=50/[1+e^{(0.72-0.14t)}]$	.95	.11	$y'=50/1+e^{(0.62-0.13t)}]$	
Private 2-year institutions	.....	....	.....	....	....	.....	(44)
Full-time first-time degree-credit fall enrollment[46]	14-16						
Men, public 4-year institutions	.....	91.3					
Women, public 4-year institutions	.....	89.9					
Men, private 4-year institutions	.....	88.5					
Women, private 4-year institutions	.....	87.6					
Men, public 2-year institutions	.....	61.5					
Women, public 2-year institutions	.....	52.1					
Men, private 2-year institutions	.....	91.3					
Women, private 2-year institutions	.....	91.8					
Graduate fall enrollment (4-year institutions)	17						
Men[47]	.....	12.2					
Public 4-year institutions[48]	.....	....	$y'=75/[1+e^{-(0.83+0.11t)}]$	0.97	0.073	$y'=75/[1+e^{-(0.92+0.11t)}]$	
Private 4-year institutions	.....	....	.....	....	....	.....	(49)
Women[50]	.....	....	$y'=15/[1+e^{-(0.105+0.070t)}]$	.86	.097	$y'=15/[1+e^{(0.018-0.076t)}]$	
Public 4-year institutions[48]	.....	....	$y'=80/[1+e^{-(0.81+0.14t)}]$	.95	.11	$y'=80/[1+e^{-(0.81+0.14t)}]$	
Private 4-year institutions	.....	....	.....	....	....	.....	(49)

Table A-1.—Methodology (Chapter II)—Continued

Item	Text table number	Projection method: Constant	Trend: Least squares equation (y=percent; t=year; 1962=1)[1]	Trend: Index of determination	Trend: Standard error	Trend: Adjusted equation[2]	Other
Full-time graduate fall enrollment (4-year institutions)[51]	17						
Men, public institutions	.....	47.6					
Women, public institutions	.....	32.0					
Men, private institutions	.....	45.1					
Women, private institutions	.....	38.6					
Full-time undergraduate and first-professional degree-credit fall enrollment (4-year institutions)[52]	19						
Men, public institutions	.....	79.8					
Women, public institutions	.....	75.7					
Men, private institutions	.....	80.6					
Women, private institutions	.....	79.7					
Full-time undergraduate degree-credit *fall enrollment* (2-year institutions)[53]	8						
Men, public institutions	.....	52.8					
Women, public institutions	.....	43.7					
Men, private institutions	.....	78.3					
Women, private institutions	.....	79.4					

[1] If a computer is not available, tables of exponential functions, which are found in most books of mathematical tables, may be used to simplify computations of projected values from logistic growth curves.

[2] Unless otherwise noted, adjusted by relocating curve through last observed point and 1982 point of fitted curve.

[3] First observation is for 1964.

[4] Total public kindergarten and nursery school enrollment less kindergarten enrollment in regular public day schools.

[5] y=percent 3-year-olds enrolled in public kindergarten and nursery schools is of population aged 3 years.

[6] y=percent 4-year-olds enrolled in public kindergarten and nursery schools is of population aged 4 years.

[7] y=percent 5-year-olds enrolled in public kindergarten and nursery schools is of population aged 5 years.

[8] y=percent 6-year-olds enrolled in public kindergarten and nursery schools is of population aged 6 years.

[9] Total nonpublic kindergarten and nursery school enrollment less kindergarten enrollment in regular nonpublic day schools.

[10] y=percent 3-year-olds enrolled in private kindergarten and nursery schools is of population aged 3 years.

[11] y=percent 4-year-olds enrolled in private kindergarten and nursery schools is of population aged 4 years.

[12] Constant=percent in 1972 that 5-year-olds enrolled in private kindergartens and nursery schools were of population aged 5 years.

[13] Constant=percent in 1972 that 6-year-olds enrolled in private kindergartens and nursery schools were of population aged 6 years.

[14] y=percent kindergarten enrollment is of population aged 5 years.

[15] Constant=percent in 1972 that 1st-grade enrollment was of population aged 6 years.

[16] Constant=percent in 1972 that grade 2 was of grade 1 in preceding year.

[17] Constant=percent in 1972 that grade 3 was of grade 2 in preceding year.

[18] Constant=percent grade 4 in 1972 was of grade 3 in preceding year.
[19] Constant=percent grade 5 in 1972 was of grade 4 in preceding year.
[20] Constant=percent grade 6 in 1972 was of grade 5 in preceding year.
[21] $y_7(t)$=enrollment in grade 7 in year t; y_6 (t−1)=enrollment in grade 6 in year t−1; C (t−1)=enrollment in grades K–8 of Catholic schools in year t−1. For projections of enrollments in grades K–8 of Catholic schools, see footnote 7, part 5, table 3.
[22] Constant=percent grade 8 in 1972 was of grade 7 in preceding year.
[23] $y_8(t)$=enrollment in grade 9 in year t; $y_8(t-1)$=enrollment in grade 8 in year t−1; C(t−1)=enrollment in grades K–8 of Catholic schools in year t−1. For projections of enrollment in grades K–8 of Catholic schools, see footnote 7, part 5, table 3.
[24] Constant=percent grade 10 in 1972 was of grade 9 in preceding year.
[25] Constant=percent grade 11 in 1972 was of grade 10 in preceding year.
[26] Constant=percent grade 12 in 1972 was of grade 11 in preceding year.
[27] y=percent elementary ungraded enrollment is of population aged 5 to 13.
[28] y=percent secondary ungraded enrollment is of population aged 14 to 17.
[29] Constant=postgraduate enrollment in 1972.
[30] Constant=1972 percent that 7th- and 8th-grade students enrolled in secondary schools were of total 7th- and 8th-grade students.
[31] Approximations based on assumption that the number of enrollments in grades K–8 in nonpublic schools will continue to decrease to 1979 and then remain constant.
[32] Approximations based on assumption that the number of enrollments in grades 9–12 in nonpublic schools will remain at the 1970 level through 1982.
[33] y'=percent opening fall enrollment is of the first-time degree-credit enrollment base, described in footnote 2 of table 6.
[34] For the three categories other than public 2-year institutions, the 1972 percentages of total degree-credit enrollment were prorated to the difference between 100 percent and the percentage in public 2-year institutions.
[35] y'=percent opening fall degree-credit enrollment in public 2-year institutions is of total degree-credit enrollment.
[36] y'=percent opening fall non-degree-credit enrollment is of population aged 18–21 years.
[37] For the three categories other than public 2-year institutions, the 1972 percentages of total non-degree-credit enrollment were prorated to the difference between 100 percent and the percentage in public 2-year institutions.
[38] y'=percent opening fall non-degree-credit enrollment in public 2-year institutions is of total non-degree-credit enrollment.
[39] Constant=percent in 1972 that full-time non-degree-credit enrollment was of total non-degree-credit enrollment.
[40] Constant=percent that full-time equivalent of part-time degree-credit enrollment was of part-time degree-credit enrollment in the 1964 full-time-equivalent enrollment and credit-hours survey (percent same in publicly and privately controlled institutions).
[41] Constant=percent full-time equivalent of part-time non-degree-credit enrollment was of part-time non-degree-credit enrollment in the 1964 full-time-equivalent enrollment and credit-hours survey (percent same in publicly and privately controlled institutions).
[42] Constant=percent in 1972 that first-time opening fall degree-credit enrollment was of population aged 18 at nearest birthday.
[43] y=percent that first-time opening fall degree-credit enrollment is of population aged 18 at nearest birthday.
[44] For the three categories other than public 2-year institutions, the 1972 percentages of total first-time degree-credit enrollment were prorated to the difference between 100 percent and the percentage in public 2-year institutions.
[45] y'=percent first-time degree-credit enrollment in public 2-year institutions is of total first-time degree-credit enrollment.
[46] Constant=percent in 1972 that full-time first-time degree-credit opening fall enrollment was of total first-time degree-credit opening fall enrollment.
[47] Constant=percent that resident graduate degree-credit enrollment was of total resident and extension degree-credit enrollment in 1972.
[48] y'=percent resident graduate enrollment in public 4-year institutions is of total resident graduate enrollment.
[49] The percentage of resident graduate enrollment in private 4-year institutions is the difference between 100 percent and the percentage in public 4-year institutions.
[50] y=percent that resident graduate degree-credit enrollment is of total resident and extension degree-credit enrollment.
[51] Constant=percent in 1972 that full-time graduate enrollment was of total graduate enrollment.
[52] Constant=percent in 1972 that full-time undergraduate and first professional degree-credit enrollment was of total undergraduate and first-professional degree-credit enrollment.
[53] Constant=percent in 1972 that full-time opening fall degree-credit enrollment was of total opening fall degree-credit enrollment.

Table A-2.—Methodology (Chapter III)

Item	Text table number	Projection method				Other
		Constant (percent)	Trend			
			Least squares equation (y= percent; t= year; 1961–62= 1)[1]	Index of determination	Standard error	Adjusted equation[2]
High school graduates:	20	....				
Public[3]						
Men	...	....	$y'=67/[1+e^{-(1.79+0.26t)}]$	0.72	0.56	$y'=67/[1+e^{-(0.73+0.31t)}]$
Women	...	....	$y'=70/[1+e^{-(1.70+0.27t)}]$	.85	.39	$y'=70/[1+e^{-(1.13+0.29t)}]$
Nonpublic[4]	...	[5]48.1				
Bachelor's degrees conferred on men[6]	21	52.32 75.00				
Selected fields[7]	23					
Social sciences[8]	...	23.0				
Psychology[8]	...	5.60				
Public affairs and services[8]	...	1.15				
Library sciences[9]	...	0.02				
Architecture and environmental design[9]	...	1.00				
Fine and applied arts	...	....	.....	....	....	....	(10)
Foreign languages[9]	...	1.00				
Communications[9]	...	1.47				
Letters[9]	...	6.00				
Mathematics and Statistics[11]	...	....	$y'=4.714-0.083t$	.47	309	$y'=3.52-0.026t$
Computer and information sciences	...	....	.....	....	....	.....	(12)
Engineering	...	....	.....	....	....	.....	(13)
Physical sciences[9]	...	3.88				
Biological sciences[8]	...	6.60				
Agriculture and natural resources[9]	...	2.50				
Health professions[8]	...	1.45				
Accounting[9]	...	4.20				
Other business and management[9]	...	....	$y'=15.08+0.16t$	.33	.79	$y'=17.25+0.06t$
Education[14]	...	5.70				
Other[9]	...	2.88				

Table A-2.—Methodology (Chapter III) — Continued

Item	Text table number	Projection method: Constant (percent)	Projection method: Trend: Least squares equation (y= percent; t= year; 1961–62= 1)[1]	Trend: Index of determination	Trend: Standard error	Trend: Adjusted equation[2]	Other
Bachelor's degrees conferred on women[6]	21	54.35, 22.50					
Selected fields[7]	23						
Social sciences[8]	...	18.00					
Psychology	...	....	.....	....	....	.....	(15)
Public affairs and services[9]	...	1.30					
Library sciences[9]	...	0.26					
Architectural and environmental design[9]	...	0.18					
Fine and applied arts[9]	...	5.00					
Foreign languages[9]	...	4.00					
Communications[5]	...	1.05					
Letters[9]	...	12.24					
Mathematics and statistics[9]	...	2.50					
Computer and information sciences[11]	...	....	$y'=-0.026+0.008t$	.74	.016	$y'=0.037+.005t$	
Engineering[9]	...	0.11					
Physical sciences[11]	...	....	$y'=0.5/[1+e^{-(0.346+0.051t)}]$	.97	.032	$y'=0.5/[1-e^{-(0.447+0.047t)}]$	
Biological sciences[8]	...	3.50					
Agriculture and natural resources[9]	...	0.15					
Health professions	...	....	.....	....	....	.....	(16)
Accounting[11]	...	....	$y'=0.271+0.025t$	.90	.029	$y'=0.33+0.022t$	
Other business and management[9]	...	2.31					
Education	...	....	.....	....	....	.....	(17)
Other[9]	...	4.35					
Master's degrees conferred on men[18]	21	45.00, 8.40					
Selected fields[7]	24						
Social sciences[19]	...	40.00, 8.60					
Psychology[19]	...	37.00, 2.20					

Table A-2.—Methodology (Chapter III) — Continued

Item	Text table number	Projection method				Other
		Constant (percent)	Trend			
			Least squares equation (y= percent; t= year; 1961–62= 1)[1]	Index of determination	Standard error	Adjusted equation[2]
Public affairs and services[20]	...	3.10				
Library sciences[20]	...	1.00				
Architecture and environmental design[20]	...	1.10				
Fine and applied arts[19]	...	41.00, 2.20				
Foreign languages[19]	...	40.00, 0.90				
Communications[20]	...	0.90				
Letters[20]	...	3.90				
Mathematics and statistics[19]	...	38.00, 2.20				
Computer and information sciences[19]	...	40.00, 1.20				
Engineering[21]	...	10.20				
Physical sciences[19]	...	38.00, 3.70				
Biological sciences[19]	...	34.00, 3.00				
Agriculture and natural resources[19]	...	79.00, 2.50				
Health professions[19]	...	69.00, 2.70				
Accounting[19]	...	40.00, 0.90				
Other business and management[22]	...	....	$y'=22/[1+e^{(0.92-0.26t)}]$	0.96	0.18	$y'=22/[1+e^{(1.02-0.26t)}]$
Education[23]	...	50.00	$y'=24/[1-e^{(-1.502-0.077t)}]$	.583	.227	$y'=24/[1-e^{(-1.958-0.055t)}]$
Other[20]	...	3.00				
Master's degrees conferred on women[24]	21	45.00	$y'=8/[1+e^{(1.03-0.18t)}]$	.97	.11	$y'=8/[1+e^{(1.20-0.18t)}]$
Selected fields[7]	24					
Social sciences[19]	...	38.00, 5.10				
Psychology[19]	...	36.00, 2.00				
Public affairs and services[20]	...	4.30				
Library sciences[25]	...	6.40	$y'=55.68+3.62t$	.99	.83	$y'=54.42+3.70t$
Architecture and environmental design[20]	...	0.26				
Fine and applied arts[19]	...	36.00, 2.50				

Table A-2.—Methodology (Chapter III) — Continued

Item	Text table number	Projection method				
		Constant (percent)	Trend			Other
			Least squares equation (y= percent; t= year; 1961—(i2= 1)[1]	Index of determination	Standard error	Adjusted equation[2]
Foreign languages[19]	...	48.00, 2.70				
Communications[20]	...	0.70				
Letters[22]	...	....	y'=9.00−0.10t	(26)	(26)	
Mathematics and statistics[19]	...	36.50, 1.30				
Computer and information sciences[20]	...	0.18				
Engineering[19]	...	37.00, 0.20				
Physical sciences[19]	...	37.00, 0.90				
Biological sciences[19]	...	38.00, 1.90				
Agriculture and natural resources[19]	...	56.00, 0.24				
Health professions[25]	...	6.00	y'=54.74+2.51t	.66	5.72	y'=62.31+2.14t
Accounting[23]	...	46.00	y'=0.0645+0.0060t	.67	.015	y'=0.1073+0.0039t
Other business and commerce[23]	...	35.00	y'=0.360+0.075t	.88	.099	y'=0.746+0.056t
Education[25]	...	53.40	y'=39.62+0.63t	.48	2.09	y'=41.32+0.55t
Other[20]	...	2.90				
Doctor's (except first-professional) degrees conferred on men[27]	21	11.90, 2.12				
Selected fields[7]	25					
Social sciences[28]	..	13.00, 10.00				
Psychology[29]	...	22.50, 5.25				
Public affairs and services[30]	...	0.49				
Library sciences[28]	...	2.27, 0.10				
Architecture and environmental design[31]	...	6.60, 0.20				
Fine and applied arts[31]	...	10.00, 1.82				
Foreign languages[31]	...	18.00, 1.40				
Communications[30]	...	0.50				
Letters[30]	...	6.50				
Mathematics and statistics[29]	...	11.00, 2.37				

Table A-2.—Methodology (Chapter III) — Continued

Item	Text table number	Projecuon method: Constant (percent)	Trend: Least squares equation (y= percent; t= year; 1961–62= 1)[1]	Trend: Index of determination	Trend: Standard error	Trend: Adjusted equation[2]	Other
Computer and information sciences[32]	...	....	y'=−0.25+0.10t	(26)	(26)		
Engineering[29]	...	12.20, 9.50					
Physical sciences[33]	...	27.50	y'=5/[1−e^(−0.209−0.022t)]	0.87	0.044	y'=5/[1−e^(−0.465−0.012t)]	
Biological sciences[29]	...	30.00, 10.00					
Agriculture and natural resources[29]	...	40.00, 5.00					
Health professions[29]	...	13.00, 1.93					
Accounting[29]	...	1.90, 0.16					
Other business anc management[33]	...	2.10	y'=1.86+0.14t	0.92	0.14	y'=1.42+0.16t	
Education[34]	...	13.00, 23.00					
Other[30]	...	1.65					
Doctor's (except first-professional) degrees conferred on women[35]	21	4.36, 0.53					
Selected fields[7]	25						
Social sciences[28]	...	6.30, 8.25					
Psychology[28]	...	18.00, 9.80					
Public affairs and services[36]	...	1.00					
Library sciences[28]	...	0.22, 0.17					
Architecture and environmental design[37]	...	9.00, 0.52					
Fine and applied arts[37]	...	4.50, 3.00					
Foreign languages[31]	...	10.00, 5.50					
Communications[36]	...	0.40					
Letters[36]	...	12.00					
Mathematics and statistics[29]	...	3.25, 1.21					
Computer and information sciences[29]	...	9.00, 0.54					
Engineering[29]	...	9.00, 0.50					
Physical sciences[29]	...	14.50, 3.44					
Biological sciences[29]	...	17.50, 9.12					

Table A-2.—Methodology (Chapter III) – Continued

Item	Text table number	Projection method: Constant (percent)	Trend: Least squares equation (y= percent; t= year; 1961–62= 1)[1]	Trend: Index of determination	Trend: Standard error	Trend: Adjusted equation[2]	Other
Agriculture and natural resources[28]	...	32.00, 1.33					
Health professions[38]	...	3.09	$y'=1.20+0.20t$	(26)	(26)		
Accounting[29]	...	2.50, 0.08					
Other business and management[29]	...	2.00, 0.81					
Education[39]	...	3.70, 36.60					
Other[36]	...	2.20					
First-professional degrees conferred, total[40]	21	113.40					
Selected fields	26						
Medicine	...	....	.....	....	....	.....	(41)
Dentistry	...	....	.....	....	....	.....	(41)
Other health professions	...	....	.....	....	....	.....	(41)
Law[42]	...	....	$y'=85/[1+e^{(-0.74-0.13t)}]$	.85	.16	$y'=85/[1+e^{(-1.31-0.10t)}]$	
Theology and other[43]	...	75.00					
Women	21	....	.....	....	....	.....	(44)
Medicine[45]	...	....	$y'=4.37+0.41t$	.99	.23	$y'=4.87+0.38t$	
Dentistry[46]	...	1.10					
Other health professions[45]	...	....	$y'=1.39+0.36t$	.88	.45	$y'=0.97+0.38t$	
Law[45]	...	....	$y'=0.75+1.06t$	.81	1.82	$y'=7.58+0.74t$	
Theology and other[46]	...	3.4					
Men	21	....	.....	....	.....	.....	(47)

[1] If a computer is not available, tables of exponential functions, which are found in most books of mathematical tables, may be used to simplify the computation of a projected value from a logistic growth curve.

[2] Adjusted by relocating curve through last observed point and 1982–83 point of fitted curve.

[3] y=percent that public high school graduates are of population averaging 18 years of age for men and women separately.

[4] Assumes approximately no change in number of nonpublic high school graduates through 1982–83.

[5] Constant=percent that boys were of nonpublic high school graduates in 1964–65.

[6] First constant=percent that bachelor's degrees in 1970–71 were of first-time degree-credit enrollment 4 years earlier. This constant was used to determine the 1971–72 to 1975–76 projections. Second constant=percent that projected bachelor's degrees in 1975–76 are of the composite population. This constant was used to determine the 1976–77 to 1982–83 projections.

[7] Projections of degrees by field of study are based primarily on the assumption that, for each field, the percentage that degrees in the field are of degrees in all fields will follow past trends. However, when the projected percentages for each field are summed over all fields, the sum for each projected year does not usually add to 100 percent. Therefore, for each year, the projected percentages for individual fields obtained from the equations in this table are prorated so that they add to 100 percent. Also, due to the new taxonomy now in use (1970–71 data), there are new fields plus changes in some of the older fields which make it impossible to obtain meaningful trends. Therefore, in many cases arbitrary decisions had to be made from general knowledge obtained through various sources.

[8] On the basis of American Council on Education data on junior-year enrollment, by field, an estimated percentage that degrees in this field are of all bachelor's degrees was projected to 1973–74.

[9] Constant=percent in 1970–71 that bachelor's degrees in this field were of all bachelor's degrees.

[10] The percentage that degrees in the field are of all bachelor's degrees was estimated to increase by 0.1 percent per year until it reached 3.50 percent in 1979–80 and then was held constant.

[11] y=percent that bachelor's degrees in this field are of all bachelor's degrees.

[12] The percentage that degrees in this field are of all bachelor's degrees was estimated to increase by 0.05 percent per year until it reached 0.85 percent in 1978–79 and then was held constant.

[13] Engineering degrees for both men and women are projected in the following manner: (A) Engineering technology degrees are projected separately and the number of these degrees is arbitrarily projected to increase to 5,500 in 1971–72 and then increase 500 degrees each year to 11,000 degrees in 1982–83. (B) The projections of engineering degrees (excluding engineering technology degrees) for 1971–72 through 1976–77 are based on the assumption that the percentage that engineering graduates are of freshman enrollment in engineering programs 4 years earlier will increase 1 percent each year over the 1970–71 percentage of 58 percent. The projections for 1971–72 and 1972–73 are based on survey data collected by the Engineering Joint Council. (C) The projections of engineering degrees (excluding engineering technology degrees) for 1977–78 to 1982–83 are based on the assumption that the 1976–77 percentage that projected engineering degrees are of the projection of total bachelor's degrees will remain constant at 3.50 percent. (D) Engineering technology degrees and engineering degrees are added together to obtain total engineering degrees. (E) Total engineering degrees conferred on men are the difference between total engineering degrees and total engineering degrees conferred on women. The method of projecting engineering degrees conferred on women is described further on in this table.

[14] Projections for 1972–73 through 1974–75 are based on data from the National Education Association, showing enrollments in teacher education by level of class for 1969–70 through 1972–73. The NEA survey shows that, for each succeeding year after 1969–70, the enrollment was down for both freshmen and sophomores. From the actual 9.84 percent that education degrees were of total bachelor's degrees in 1970–71, the projected percentages for 1971–72 through 1974–75 are 8.60, 7.70, 6.40, and 5.70, respectively. This last percentage is held constant through 1982–83.

[15] On the basis of American Council on Education data on junior-year enrollments by field, an estimated projection that degrees in this field are of all bachelor's degrees was projected to 1973–74. At this time, the percentage was 5.80. For 1974–75, the percentage was raised to 6.00 and then for each of the following years through 1982–83 the percentage was increased 0.1 percent.

[15] American Council on Education data comparing junior-year enrollments in health professions, and projections of nursing graduates made by the Bureau of Health Manpower Education, National Institutes of Health, were considered in making the projections in this field. From the actual 5.34 percent that degrees in health professions were of total bachelor's degrees in 1970–71, the projected percentages for 1971–72 through 1974–75 are 5.38, 5.58, 5.98, and 6.20, respectively. For the following years, the percentage is raised 0.2

percent per year until 7.0 percent is reached in 1979, and then the percentage is raised 0.1 percent per year.

[17] Projections for 1972–73 through 1974–75 are based on National Education Association data showing enrollments in teacher education by level of class for 1969–70 through 1972–73. The NEA survey shows that, for each succeeding year after 1969–70, the enrollment was down for both freshmen and sophomores. From the actual 36.11 percent that education degrees were of total bachelor's degrees in 1970–71, the projected percentages for 1971–72 through 1974–75 are 32.14, 28.29, 22.70, and 19.82, respectively. This last percentage is held constant through 1982–83.

[18] First constant=percent that master's degrees in 1970–71 were of the estimated average first-year enrollment for advanced degrees, 1 and 2 years earlier. This constant was used to determine the 1971–72 projection. Second constant=percent that 1971–72 projection of master's degrees is of the composite population, 2 years earlier. This constant was used to determine the 1972–73 to 1982–83 projections.

[19] First constant=percent or approximate percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field 2 years earlier. This constant was used to determine the 1971–72 and 1972–73 projections. Second constant=percent that projected earned degrees in this field in 1972–73 are of total master's degrees in 1972–73. This constant was used to determine the 1973–74 to 1982–83 projections.

[20] Constant=percent in 1970–71 that master's degrees in this field were of all master's degrees in 1970–71.

[21] Engineering degrees for 1971–72 and 1972–73 are based on Engineering Joint Council survey data on total engineering degrees, which were not available in time to be used to determine the trends on which projections are based. As a result, the projections for 1971–72 and 1972–73 are somewhat higher than estimates based on trends would have indicated. The percentage used is a constant 10.2 percent of total projected master's degrees.

[22] y=percent that master's degrees in this field were of all master's degrees in 1970–71.

[23] Constant=approximate average percent that earned degrees in this field in the past few years ending in 1970–71 were of first-year enrollment for advanced degrees in the same field 2 years earlier. This constant was used to determine the 1971–72 and 1972–73 projections. y=percent that earned degrees in this field are of all master's degrees. The extrapolated percentages were used to determine the 1973–74 to 1982–83 projections (1962–63=1).

[24] Constant=percent that master's degrees in 1970–71 were of the average first-year enrollment for advanced degrees 1 and 2 years earlier. This constant was used to determine the 1971–72 projection. y=percent that master's degrees are of the composite population 2 years earlier. The extrapolated percentage of earned degrees over population for 1971–72 was used in determining the trend for the projections for 1972–73 to 1982–83 (1962–63=1).

[25] y=percent that earned degrees in this field are of first-year enrollment for advanced degrees in the same field 2 years earlier. These percents were used to obtain the projections for 1971–72 and 1972–73. Constant=approximately the percent that earned degrees in this field are of total master's degrees in 1972–73. This constant was used to determine the 1973–74 to 1982–83 projections.

[26] Not applicable; straight-line trend determined arbitrarily.

[27] First constant=percent that earned doctor's degrees for 1971–72 (estimated from National Research Council data) were of enrollment for advanced degrees 7 years earlier. This constant was used to determine the 1972–73 to 1977–78 projections. Second constant=percent that projected doctor's degrees in 1977–78 are of the composite population, 7 years earlier. This constant was used to determine the 1978–79 to 1982–83 projections.

[28] First constant=percent or approximate percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field 7 years earlier. This constant was used to determine the 1971–72 to 1977–78 projections. Second constant=percent that projected earned degrees in this field in 1977–78 are of total doctor's degrees in 1977–78. This constant was used to determine the 1978–79 to 1982–83 projections.

[29] First constant=percent or approximate percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field, 6 years earlier. This constant was used to determine the 1971–72 to 1976–77 projections. Second constant=percent that projected earned degrees in this field in 1976–77 are of total doctor's degrees in 1976–77. This constant was used to determine the 1977–78 to 1982–83 projections.

[30] Constant=percent in 1970–71 that doctor's degrees in this field were of all doctor's degrees.

[31] First constant=percent or approximate percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field, 8 years earlier. This constant was used to determine the 1971–72 to 1978–79 projections. Second constant=percent that projected earned degrees in this field in 1978–79 are of total doctor's degrees in 1978–79. This constant was used to determine the 1979–80 to 1982–83 projections.

[32] y=percent that doctor's degrees in this field are of total doctor's degrees.

[33] Constant=percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field, 6 years earlier. This constant was used to determine the 1971–72 to 1976–77 projections. y=percent that earned degrees in this field are of all doctor's degrees. The extrapolated percentages were used to determine the 1977–78 to 1982–83 projections (1966–67=1).

[34] First constant=percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field, 10 years earlier. This constant was used to determine the 1971–72 to 1980–81 projections. Second constant=percent that projected earned degrees in this field in 1980–81 are of total doctor's degrees in 1980–81. This constant was used to determine the 1981–82 and 1982–83 projections.

[35] First constant=percent that earned doctor's degrees for 1971–72 (estimated from National Research Council data) are of enrollment for advanced degrees, 7 years earlier. This constant was used to determine the 1972–73 to 1977–78 projections. Second constant=percent that projected doctor's degrees in 1977–78 are of the composite population, 7 years earlier. This constant was used to determine the 1978–79 to 1982–83 projections.

[36] Constant=percent in 1970–71 that doctor's degrees in this field were of all doctor's degrees.

[37] First constant=approximately the percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field, 9 years earlier. This constant was used to determine the 1971–72 to 1979–80 projections. Second constant=percent that projected earned degrees in this field in 1979–80 are of total doctor's degrees in 1979–80. This constant was used to determine the 1980–81 to 1982–83 projections.

[38] y=percent that earned degrees in this field are of first-year enrollment for advanced degrees in the same field, 6 years earlier. These percents were used to obtain the projections for 1971–72 to 1976–77. Constant=percent that projected earned degrees in this field in 1976–77 are of total doctor's degrees in 1976–77. This constant was used to determine the 1977–78 to 1982–83 projections.

[39] First constant=percent that earned degrees in this field in 1970–71 were of first-year enrollment for advanced degrees in the same field, 11 years earlier. This constant was used to determine the 1971–72 to 1981–82 projections. Second constant=percent that projected earned degrees in this field in 1981–82 are of total doctor's degrees in 1981–82. This constant was used to determine the projection for 1982–83.

[40] Projections for 1971–72 to 1973–74 were obtained by summing the projected degrees of all the individual fields. Constant=percent that total first-professional degrees are of first-professional degrees in all health fields and in law, combined, in 1973–74. This constant was used to determine the 1974–75 to 1982–83 projections.

[41] These projections were made by the Bureau of Health Manpower Education, National Institutes of Health, and are based on output resulting from support in the Comprehensive Health Manpower Training Act of 1971.

[42] y=percent that law degrees are of first-year law students, 3 years earlier. Projections of degrees for 1972–73 to 1974–75 are based on first-year enrollments for 1969 to 1972 provided by the American Bar Association. Degree projections for the following years are based on American Bar Association unpublished projections of first-year students.

[43] Constant=arbitrarily estimated percent that "theology and other" degrees are of enrollment for advanced degrees in this field, 3 years earlier. This constant was used to determine the 1971–72 to 1973–74 projections of "theology and other" degrees. Projections of this field for 1974–75 to 1982–83 were obtained by subtracting projections of degrees in law and in the health professions from projections of total first-professional degrees.

[44] The total number of degrees granted to women was projected by summing the projected degrees granted to women in the individual fields.

[45] y=percent that earned degrees granted to women in this field are of all degrees in this field.

[46] Constant=percent that earned degrees granted to women in the field were of all degrees in the field in 1970–71.

[47] The number of degrees granted to men was projected as the difference between projections of total degrees and projections of degrees granted to women.

Table A-3.—Methodology (Chapter IV)

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; t=year; 1962=1)[1]	Index of determination	Standard error	Adjusted equation[2]	
Classroom teachers in regular day schools	27						
Public elementary	....	....	....	....	....	....	(3)
Public secondary	....	....	....	....	....	....	(3)
Nonpublic elementary	....	....	....	....	....	....	(3)
Nonpublic secondary	....	....	....	....	....	....	(3)
Pupil-teacher ratios in regular elementary and secondary day schools	28						
Public elementary[4]	....	....	$y'=19/[1-e^{-(1.016t+0.048t)}]$	0.93	0.045	$y'=19/[1-e^{-(0.965+0.049t)}]$	
Public secondary[4]	....	....	$y'=15/[1-e^{-(1.116+0.037t)}]$	.94	.034	$y'=15/[1-e^{-(1.224+0.032t)}]$	
Nonpublic elementary[4]	....	....	$y'=20/[1-e^{-(0.699+0.061t)}]$	.98	.027	$y'=20/[1-e^{-(0.806+0.056t)}]$	
Nonpublic secondary[5]	....	18.3					
Demand for classroom teachers in public regular day schools	29						
For enrollment increase	....	....	....	....	....	....	(6)
For teacher turnover[7]	....	8.0					
For reduction of pupil-teacher ratio	....	....	....	....	....	....	(8)
Demand for classroom teachers in nonpublic regular day schools	30						
For enrollment increase	....	....	....	....	....	....	(6)
For teacher turnover[9]	....	4.0					
For reduction of pupil-teacher ratio	....	....	....	....	....	....	(8)
Instructional staff in regular elementary and secondary day schools	31						
Public[10]	....	111.0					
Nonpublic	....	....	....	....	....	....	(11)
Total instructional staff for resident courses	32						
Public 4-year institutions[12]	....	14.6					
Private 4-year institutions[12]	....	11.0					
Public 2-year institutions[12]	....	25.2					
Private 2-year institutions[12]	....	15.8					
Instructor or above[13]	....	82.3					
Full-time[14]	....	78.0					
Junior instructional staff[15]	....	17.7					
Full-time[16]	....	14.8					

Table A-3.—Methodology (Chapter IV)—Continued

Item	Text table number	Projection method					
		Constant (percent)	Trend				Other
			Least squares equation (y=percent; t=year; 1962=1)[1]	Index of determination	Standard error	Adjusted equation[2]	
Full-time-equivalent instructional staff for resident courses	33						
Full-time equivalent of part time:							
Instructor or above[17]	....	31.5					
Junior instructional staff[18]	....	41.2					
Total demand for estimated full-time-equivalent instructional staff in institutions of higher education	34						
Demand for additional instructional staff:							
For increased enrollment and changes of student staff ratio	....	....	....	....	....	....	(19)
For replacement[20]	....	6.0					

[1] If a computer is not available, tables of exponential functions, which are found in most books of mathematical tables, may be used to simplify computations of projected values from logistical growth curves.
[2] Adjusted by relocating curve through last observed point and 1982 point on fitted curve.
[3] Projected enrollment (table 3) divided by projected pupil-teacher ratio (table 28) calculated separately for each type of school by control and level.
[4] y=ratio of number of pupils to number of teachers.
[5] Constant=estimated 1972 ratio of number of pupils to number of teachers.
[6] Total teacher demand in a given year less total teacher demand in the previous year less the number of teachers needed for pupil-teacher ratio changes.
[7] 8 percent of total teacher demand in previous year.
[8] The enrollment divided by the pupil-teacher ratio of a given year less the same enrollment divided by the pupil-teacher ratio of the previous year.
[9] 4 percent of total teacher demand in each previous year.
[10] Constant=ratio that instructional staff was to classroom teachers (staff-teacher ratio times projected classroom teachers=projected instructional staff) in 1972.
[11] Number of instructional staff assumed same as number of classroom teachers.
[12] Constant=1970 ratio of enrollment to instructional staff for resident courses.
[13] Constant=percent instructor or above was of the entire instructional staff in 1970.
[14] Constant=percent full-time instructor or above was of total instructor or above in 1970.
[15] Constant=percent junior instructional staff was of the entire instructional staff in 1970.
[16] Constant=percent full-time junior instructional staff was of total junior instructional staff in 1970.
[17] Constant=percent full-time equivalent of part-time instructor or above was of part-time instructor or above in 1970 in all institutions.
[18] Constant=percent full-time-equivalent junior instructional staff was of part-time junior instructional staff in 1970 in all institutions.
[19] Increase in total full-time equivalents employed over each previous year.
[20] Constant=percent of total full-time equivalents employed in previous year.

NOTE.—Sources of data and assumptions on which projections were based are given in text table footnotes.

Table A-4.—Methodology (Chapter V)

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (t=years; 1962–63=1)	Index of determination	Standard error	Adjusted equation	
Expenditures for education by elementary and secondary day schools	35, 36						
Current expenditures:							
Public	.....	.....	.....	....	.....	.....	(1)
Nonpublic	.....	.....	.....	....	.....	.....	(2)
Capital Outlay:							
Public	.....	.....	.....	....	.....	.....	(3)
Nonpublic	.....	.....	.....	....	.....	.....	(4)
Interest:							
Public	.....	.....	.....	....	.....	.....	(5)
Nonpublic	.....	.....	.....	....	.....	.....	(6)
Expenditures for education by institutions of higher education	35, 36						
Current expenditures:							
Public	.....	.....	.....	....	.....	.....	(7)
Nonpublic	.....	.....	.....	....	.....	.....	(7)
Capital outlay:							
Public	.....	.....	.....	....	.....	.....	(8)
Nonpublic	.....	.....	.....	....	.....	.....	(8)
Current expenditures of public school systems	37						
Average daily attendance	....	[9]92.5 92.6					
Current expenditures allocated to pupil costs							
Per pupil in average daily attendance:							
Total	.....	.....	$y'=\$554+\$42(t)$[10]	0.93	18.98	$y'=\$564+\$42(t)$	(11)
Current expenditures for all programs		[12]1.04					
Expenditures for salaries of instructional staff in public elementary and secondary day schools	38						
Average annual salary:[13]	.....	.....	$y'=\$8,227+\$229(t)$	0.96	$156	$y'=\$7,924+\$243(t)$	
Total salary	.....	.....	.....	....	.....	.....	(14)
Construction of public elementary and secondary school classrooms and capital outlay	39						
Number of rooms completed	.....	[15]60,000					
Capital outlay (school year):	.....	.....	.....	...	...	.....	(16)

Table A-4.—Methodology (Chapter V) — Continued

Item	Text table number	Projection method					
		Constant	Trend				Other
			Least squares equation (t=years; 1962–63=1)	Index of determination	Standard error	Adjusted equation	
Expenditures for interest by public elementary and secondary schools	40		$y'=\$810+\$72(t)$[17]	0.94	$66	$y'=\$823+\$72(t)$	
Expenditures from current funds and total current fund expenditures by institutions of higher education	41, 43						
Expenditures for educational and general purposes:							
Student education (per student):							
Public	.....	.....	$y'=\$1,555+\$65(t)$[18]	0.95	$50	$y'=\$1,520+\$67(t)$	
Nonpublic	.....	.....	$y'=1,735+112(t)$[19]	.98	$49	$y'=1,706+114(t)$	
Organized research (000's dollars) excluding fed. funded R&D:							
Public	.....	.....	$y'=\$773,425+\$75,077$[20]	.94	$61,549	$y'=\$589,091+\$83,455(t)$	
Nonpublic	.....	.....	$y'=878,087+19,831$[21]	.19	136,412	$y'=660,656+29,714(t)$	
Related activities (percent) excluding major public service							
Public	.....	.....	$y'=4.99-0.05(t)$[22]	.23	0.32	$y'=4.36-.02(t)$	
Nonpublic	.....	.....	$y'=3.91+1.5(t)$[23]	.68	.36	$y'=4.72+.12(t)$	
Expenditures for auxiliary enterprises (percent of student ed							
Public	.....	.....	$y'=31.3-1.2(t)$[24]	.77	2.19	$y'=29.2-1.1(t)$	
Nonpublic	.....	.....	$y'=35.8-0.8(t)$[24]	.49	2.86	$y'=32.8-0.7(t)$	
Expenditures for student aid (percent of student education):							
Public	.....	.....	$y'=3.1+0.2(t)$[24]	.81	.38	$y'=2.7+0.3(t)$	
Nonpublic	.....	.....	$y'=8.6+0.4(t)$[24]	.96	.24	$y'=8.2+0.4(t)$	
Expenditures for major public service (000's dollars):							
Public	.....	.....	$y'=\$331,236+\$65,222(t)$	.99	$21,308	$y'=\$387,645+\$62,658(t)$	
Nonpublic	.....	.....	$y'=\$502,775+\$32,898(t)$	.78	$57,904	$y'=\$422,893+\$36,529(t)$	
Capital outlay from current funds only (percent of total cap. out):							
Public	.....	[25]14.0					
Nonpublic	.....	[25]14.0					
Capital outlay of institutions of higher education ($ per FTE enrollment):							
Public	.....	[26]$658					
Nonpublic	.....	[26]$720					

[1] See method detailed for table 37 in footnotes 9 to 12 of this table (A-4).
[2] Ratio of nonpublic school teachers to *public school teachers times* public school current expenditures.
[3] See method detailed for table 39 in footnotes 15 and 16 of this table (A-4).
[4] Ratio of nonpublic school teachers to public school teachers times public school capital outlay.
[5] See method detailed for table 40 in footnote 17 of this table (A-4).
[6] Ratio of nonpublic school teachers to public school teachers times public school interest.
[7] See method detailed for table 41 in footnotes 18 to 25 of this table (A-4).
[8] See method detailed for table 43 in footnote 26 of this table (A-4).
[9] Constant percent assumes that the percent that average daily attendance in public schools was of K–12 enrollment in public schools in 1970–71 (92.5) will continue through 1975–76 and will change to 92.6 for 1976–77 through 1982–83.
[10] y=current expenditure allocated to pupil costs per pupil in average daily attendance.
[11] Average daily attendance times cost per pupil for each year.
[12] Percent that expenditures for all programs were of expenditures allocated to pupil costs in recent years. Constant percent times total current expenditures allocated to pupil costs=current expenditures for all programs. Percent that expenditures for all programs were of expenditures allocated to pupil costs in recent years. Constant percent times total current expenditures allocated to pupil costs=current expenditures for all programs.
[13] y=average annual salary of instructional staff in public elementary and secondary schools.
[14] Average annual salary times number of instructional staff in public elementary and secondary schools in each year.
[15] Estimated number of rooms to be completed held constant at 60,000 after 1975–76 and through 1982–83.
[16] Estimated number of rooms completed (table 39) times estimated capital outlay per room.
[17] y=annual expenditures for interest in public elementary and secondary schools.
[18] y=expenditures for student education per full-time-equivalent student in publicly controlled institutions of higher education.
[19] y=expenditures for student education per full-time-equivalent student in nonpublicly controlled institutions of higher education.
[20] y=expenditures for organized research in publicly controlled institutions of higher education, excluding federally funded R.&D. centers.
[21] y=expenditures for organized research in nonpublicly controlled institutions of higher education, excluding federally funded R.&D. centers.
[22] y=expenditures for related activities as a percent of expenditures for student education in publicly controlled institutions of higher education.
[23] y=expenditures for related activities as a percent of expenditures for student education in nonpublicly controlled institutions of higher education.
[24] Percentage of student education frozen at the projected 1977–78 level.
[25] Constant percent = estimated average capital outlay from current funds as percent of capital outlay from all sources.
[26] Total capital outlay per full-time-equivalent student, 1971–72, applied to projected full-time-equivalent projection through 1982–83.

Table A-5.—Methodology (Chapter VI)

Item	Text table number	Projection method: Constant	Trend: Least squares equation (y=dollars; t=years; 1961–62=1)	Trend: Index of determination	Trend: Standard error	Trend: Adjusted equation
Estimated average charges per full time undergraduate resident degree-credit student in institutions of higher education (dollars)	.....	.....				
Tuition and required fees: [1]						
Public	.....	.....	y'=$307.65+$8.11(t)	0.94	7.52	y'=$311.94+$7.91(t)
Universities	.....	.....	y'=356.83+17.93(t)	0.93	19.11	y'=377.58+16.94(t)
Other 4-year institutions	.....	.....	y'=273.51+9.85(t)	0.92	10.79	y'=265.76+10.22(t)
2-year institutions	.....	.....	y'=119.85+8.89(t)	0.85	13.97	y'=103.16+9.68(t)
Nonpublic	.....	.....	y'=1,285.42+59.52(t)	0.98	28.77	y'=1,311.01+58.29(t)
Universities	.....	.....	y'=1,561.60+63.94(t)	0.99	26.81	y'=1,595.92+62.31(t)
Other 4-year institutions	.....	.....	y'=1,184.65+61.36(t)	0.99	23.65	y'=1,170.80+62.02(t)
2-year institutions	.....	.....	y'=825.93+43.12(t)	0.94	39.64	y'=753.10+46.59(t)
Board: [2]						
Public	.....	.....	NA	NA	NA	NA [3]
Universities	.....	.....	NA	NA	NA	NA [3]
Other 4-year institutions	.....	.....	NA	NA	NA	NA [3]
2-year institutions	.....	.....	y'=490.62+3.80(t)	0.52	13.77	y'=504.78+3.12(t)
Nonpublic	.....	.....	NA	NA	NA	NA [3]
Universities	.....	.....	NA	NA	NA	NA [3]
Other 4-year institutions	.....	.....	NA	NA	NA	NA [3]
2-year institutions	.....	.....	NA	NA	NA	NA [4]
Room: [5]						
Public	.....	.....	y'=333.02+10.96(t)	0.98	5.17	y'=341.39+10.56(t)
Universities	.....	.....	y'=358.86+11.74(t)	0.98	6.39	y'=369.74+11.23(t)
Other 4-year institutions	.....	.....	y'=295.56+12.02(t)	1.00	2.61	y'=295.96+12.00(t)
2-year institutions	.....	.....	y'=197.26+18.30(t)	0.98	9.17	y'=198.63+18.24(t)
Nonpublic	.....	.....	y'=425.72+9.49(t)	0.84	15.45	y'=413.11+10.09(t)
Universities	.....	.....	y'=508.28+9.26(t)	0.76	19.49	y'=504.66+9.43(t)
Other 4-year institutions	.....	.....	y'=390.79+9.37(t)	0.84	15.21	y'=367.02+10.50(t)
2-year institutions	.....	.....	y'=336.47+15.94(t)	0.80	29.89	y'=281.43+18.56(t)

[1] y=average charge for tuition and required fees per full-time degree-credit student, calculated separately for each category by type and control of institution.

[2] y=average charge for board per full-time degree-credit student, calculated separately for each category by type and control of institution with t=9 held constant to 1982–83 with the exception of 2-year institutions.

[3] Charges frozen at the projected 1972–73 level. A projected decrease in charges for board is not expected to be valid.

[4] An amount equal to the constant dollar increase from 1971–72 to 1972–73 is projected.

[5] y=average charge for room per full-time degree-credit student, calculated separately for each category by type and control of institution.

Estimation Methods

General Statement

The basic data for projecting the educational components listed below were wholly or partially estimated for the years indicated. (A few items which were estimated and explained in the tables are not shown here.)

Unless otherwise specified, all educational components were estimated separately by type and control of institution and by sex and attendance status of student:

1. Degrees, bachelor's and master's -- total, library science, social work – 1961–62 to 1964–65 (tables 21–24)
2. Enrollment, first-time (tables 14–16)
   a. Degree-credit, 1966 and 1967
   b. Attendance status, 1962 to 1967
3. Enrollment, total (tables 6–11, 17–19)
   a. Graduate (resident), 1962 and 1963
   b. Graduate (resident), 1964 to 1966
   c. Undergraduate, 1962 to 1966
   d. Degree-credit, 1966
   e. Non-degree-credit, 1966
   f. Degree-credit, 1967
   g. Non-degree-credit, 1967
   h. Graduate (resident), 1967
   i. Undergraduate and first-professional, 1967
   j. Graduate (resident), 1968
   k. Undergraduate and first-professional, 1968
   l. Non-degree-credit attendance status, 1962 to 1967
4. Public elementary teachers and public secondary teachers, separately, 1971 and 1972
5. Instructional staff in institutions of higher education (tables 32–34)
   a. Instructional staff persons, 1961 and 1963
   b. Full-time junior instructional staff, 1962–65
   c. Full-time equivalent of part-time junior instructional staff, 1962–65
   d. Full-time junior instructional staff, 1968
6. Population (composite), 1962 to 1982 (table B-2)

1. Degrees, bachelor's and master's – total, library science, social work – 1961–62 to 1964–65 (tables 21–24)

From 1958–59 to 1964–65, all master's degrees that were considered first-professional were reported as first-professional degrees. These were reported separately as first-professional and later added to bachelor's degrees from 1961–62 to 1964–65. Most library science and social work master's degrees were in this category.

Beginning in 1965–66, all master's degrees, whether or not they were considered first-professional, were reported with master's degrees. In 1969, in order to obtain comparable series in these two fields as well as for total master's degrees and total bachelor's and first-professional degrees, degrees reported as first-professional degrees in library science and in social work between 1961–62 and 1964–65 were subtracted from bachelor's and first-professional degrees and added to master's degrees.

2. Enrollment, first-time (tables 14–16)

2a. Degree-credit, unreported in 1966 and 1967

To estimate resident and extension first-time opening fall enrollment by degree-credit status in both 1966 and 1967, percentages of resident and extension total enrollment by degree-credit status calculated from the unpublished 1966 comprehensive survey of enrollment (not available by sex) were applied to resident and extension first-time enrollment (combined degree-credit, non-degree-credit, men, and women).

To estimate resident and extension degree-credit first-time opening fall enrollment by sex in both 1966 and 1967, percentages of resident and extension degree-credit total enrollment by sex calculated from the 1965 opening fall enrollment survey were applied to estimated degree-credit first-time enrollment on men and women.

2b. Attendance status, unreported 1962 to 1967

To estimate degree-credit first-time enrollment by attendance status in 1962 to 1967, percentages of degree-credit first-time enrollment by attendance status calculated from the 1961 comprehensive survey of enrollment and the 1968 opening fall enrollment survey, together with interpolations of these percentages for the years 1962 to 1967, were applied to 1962 to 1967 degree-credit first-time enrollment (combined full-time and part-time).

3. Enrollment, total (tables 6–11, 17–19)

3a. Resident graduate, unreported 1962 and 1963

To estimate resident graduate opening fall enrollment for 1962 and 1963 in each control of institution and sex category, linear equations were fitted to the percentages that resident graduate enrollment were of resident and extension degree-credit enrollment calculated from the comprehensive enrollment surveys in 1957, 1959, 1961, and 1963. These estimated percentages were applied to resident and extension degree-credit opening fall enrollment in 1962 and 1963.

To estimate resident graduate opening fall enrollment by attendance status for 1962 and 1963 in each control of institution and sex category, use was made of diverse attendance status data from several sources: Comprehensive enrollment survey, resident graduate enrollment 1959 and 1961, undergraduate and first-professional 1957, 1959, 1961, and undergraduate 1963; enrollment for advanced degrees (not by sex) 1960 to 1963; opening fall enrollment survey total degree-credit resident and extension 1962 and 1963. By balancing all of this information and by using interpolations and extrapolations, full-time resident graduate enrollment as a percentage of total resident graduate enrollment was estimated for 1962 and 1963 by control and sex categories. These percentages were applied to estimated resident graduate enrollment in 1962 and 1963 in each control of institution and sex of student category.

3b. Resident graduate, unreported 1964 to 1966

To estimate resident graduate opening fall enrollment from 1964 to 1966 in each control of institution and sex category, interpolations were made between the percentages that resident graduate enrollment was of resident and extension degree-credit enrollment in 4-year institutions in 1963 and 1967. These interpolated percentages were applied to resident and extension degree-credit enrollment in 1964, 1965, and 1966.

To estimate resident graduate opening fall enrollment by attendance status from 1964 to 1966 in each control of institution and sex category, interpolations were made between the

percentages that full-time resident graduate enrollment was of total resident graduate enrollment in 1963 and 1967. These percentages were applied to estimated resident graduate enrollment for 1964, 1965, and 1966, in each control of institution and sex of student category.

3c. Undergraduate, unreported 1962 to 1966

To estimate resident and extension undergraduate and first-professional opening fall enrollment in 4-year institutions, 1962 to 1966, the estimate of resident graduate enrollment was subtracted from degree-credit resident and extension enrollment in each year in each control of institution and sex and attendance status of student category. (In 2-year institutions, undergraduate degree-credit enrollment is the same as total degree-credit enrollment.)

3d. Degree-credit, unreported in 1966

To estimate resident and extension total opening fall enrollment by degree-credit status and attendance status in 1966, percentages of resident and extension total enrollment by degree-credit status in each attendance status category calculated from the unpublished 1966 comprehensive survey of enrollment (not available by sex) were applied to reported 1966 total enrollment by attendance-status categories.

To estimate full-time degree-credit and part-time degree-credit opening fall enrollment by sex in 1966, percentages of full-time degree-credit enrollment by sex and of part-time degree-credit enrollment by sex calculated from the 1965 opening fall enrollment survey (non-degree-credit enrollment was not reported by attendance status in 1965) were applied to estimated degree-credit attendance-status categories.

3e. Non-degree-credit, unreported in 1966

The estimation of non-degree-credit enrollment by attendance status in 1966 was a byproduct of the estimation of degree-credit enrollment by attendance status in 1966.

To estimate non-degree-credit total opening fall enrollment by attendance status and sex in 1966, estimated degree-credit categories by attendance and sex were subtracted from reported total degree-credit and non-degree-credit categories by attendance status and sex. These differences were adjusted to agree with the estimated nondegree categories by attendance status which were a byproduct of the estimation of degree-credit enrollment by attendance status.

3f. Degree-credit, unreported in 1967

To estimate resident and extension total opening fall enrollment by degree-credit status in 1967:

(1) Percentages of resident and extension total enrollment by degree-credit status in each sex category (not available by attendance status), calculated from the unpublished 1967 comprehensive survey of enrollment, were applied to reported 1967 total enrollment by sex categories.

(2) Similar percentages by degree-credit status in each attendance status cateogry (not available by sex), calculated from the 1967 comprehensive enrollment survey, were applied to reported 1967 resident and extension total enrollment by attendance-status categories.

(3) Probability estimates were applied to the two sets of estimates (one by sex, one by attendance status) to obtain estimates of resident and extension total enrollment by degree-credit status in each sex and attendance-status category.

3g. Non-degree-credit, unreported, 1967

The estimation of resident and extension non-degree-credit enrollment by sex and attendance status in 1967 was a byproduct of the estimation of resident and extension degree-credit enrollment by attendance status and sex in 1967.

3h. Resident graduate, unreported in 1967

To estimate resident graduate opening fall enrollment by sex and attendance status in 1967:

(1) Percentages of resident postbaccalaureate enrollment by resident graduate and first-professional enrollment status in each sex category, calculated from the unpublished 1967 comprehensive survey of enrollment, were applied to reported 1967 resident postbaccalaureate enrollment in corresponding sex categories.

(2) Similar percentages for attendance-status categories, calculated from the 1967 comprehensive survey of enrollment (this survey reported categories by sex and attendance status independently), were applied to reported 1967 resident postbaccalaureate enrollment in corresponding attendance-status categories.

(3) Probability estimates were applied to the two sets of estimates (one by sex, one by attendance status) to obtain estimates of resident graduate and resident first-professional enrollment by sex and attendance status.

3i. Undergraduate and first-professional, unreported in 1967

To estimate resident and extension degree-credit undergraduate and first-professional opening fall enrollment in 1967 (a revision because the 1967 comprehensive survey of enrollment was not available until 1970), estimated 1967 resident graduate enrollment was subtracted from the total of estimated 1967 resident and extension degree-credit enrollment in 4-year institutions in each sex and attendance-status category.

3j. Resident graduate, unreported in 1968

To estimate resident graduate opening fall enrollment for 1968 in each control of institution and sex category, an interpolation was made between the percentages that resident graduate enrollment was of postbaccalaureate enrollment in 1967 and 1969. This interpolated percentage was applied to postbaccalaureate enrollment in 1968.

To estimate resident graduate opening fall enrollment by attendance status in each control of institution and sex category, an interpolation was made between the percentages that full-time resident graduate enrollment was of total resident graduate enrollment in 1967 and 1969. The interpolated percentage was applied to estimated resident graduate enrollment.

3k. Undergraduate and first-professional, unreported in 1968

To estimate resident and extension degree-credit undergraduate and first-professional opening fall enrollment in 1968 (a revision because the 1967 comprehensive survey of enrollment was not available until 1970), estimated 1968 resident graduate enrollment was subtracted from the total of reported 1968 resident and extension degree-credit enrollment in 4-year institutions in each sex and attendance-status category.

3l. Enrollment, total non-degree-credit by attendance status, 1962–67 (tables 9–11)

Non-degree-credit enrollment by attendance status was not reported in the opening fall enrollment surveys prior to 1968. In 1964, the sample survey of full-time-equivalent enrollment

and credit hours reported that 40 percent of total non-degree-credit enrollment was full time (not available by type and control of institution).

To estimate the full-time percentages from 1962 to 1964, the full-time percentages by type and control of institution from the 1968 opening fall enrollment survey were prorated down to equal about 40 percent for the total. For the years 1965 to 1967, the percentages between 1964 and the actual 1968 percentages, for each type and control of institution, were interpolated.

4. Public elementary and secondary teachers, separately, unreported 1971 (tables 27, 28)

For teachers in public elementary and secondary schools in each year, both the number of elementary teachers and the number of secondary teachers reported by the National Education Association were prorated to the total number of teachers reported in *Statistics of Public Schools.*

5. Instructional staff in institutions of higher education (tables 32–34)

5a. Instructional staff persons, unreported in 1961 and 1963

For each category of type and control of institution, the average ratio of total professional positions to total number of professional persons was calculated from *Faculty and Other Professional Staff in Institutions of Higher Education,* biennially, first-term 1961–62 and 1963–64. This ratio was applied to the number of reported instructional positions for both professional ranks to estimate the number of instructional persons.

5b. Full-time junior instructional staff, unreported in 1962–65

The percentage in 1966 that full-time junior instructional staff was of total junior instructional staff was assumed to have been the same in 1962 through 1965.

5c. Full-time equivalent of part-time junior instructional staff, unreported in 1962–65

The percentage in 1966 that full-time-equivalent of part-time junior instructional staff was of part-time junior instructional staff was assumed to have been the same in 1962 through 1965.

5d. Full-time junior instructional staff, unreported in 1968

The percentage in 1967 that full-time junior instructional staff was of total junior instructional staff was assumed to have remained constant.

6. Population, composite, 1962 to 1982 (table B-2)

Beginning with the 1969 edition of *Projections of Educational Statistics,* the 18-year-old population used previously for projecting degrees by level was replaced by a composite population. This population is not only more representative of the actual ages of the recipients but tends to smooth out any rough year-to-year changes in population.

For this purpose, the percentage distributions of ages at graduation from college found by Laure M. Sharp in the 1958 survey *Two Years After the College Degree* were taken as the base. These percentage distributions, kept separate for men and for women, were detruncated to

avoid too many age classes and then restored to 100 percent by prorating, with the following result:

Age	Percent of graduates: Men	Women
21	10	21
22	43	61
23	15	8
24	15	7
25	9	2
26	8	1

To obtain the composite population for a given year, the above percentages were applied to the corresponding age-specific populations in that year and the products summed.

The timelags for each level were kept the same as in previous projections. These timelags were 2 years from the bachelor's degree to the master's degree, and 3 years from the master's degree to the doctorate.

A comparison of the fits obtained from equations based on the 18-year-old population and from equations based on the composite population showed that the latter produced a higher index of determination.

Classification of Degrees by Field of Study

[Individual fields listed in *Taxonomy of Instructional Programs in Higher Education*]

I. Social Sciences
- Social Sciences
  - Social sciences, general
  - Anthropology
  - Archaeology
  - Economics
  - History
  - Geography
  - Political science and government
  - Sociology
  - Criminology
  - International relations
  - Afro-American (black culture) studies
  - American Indian cultural studies
  - Mexican-American cultural studies
  - Urban studies
  - Demography
  - Area studies
  - Other
- Psychology
  - Psychology, general
  - Experimental psychology (animal and human)
  - Clinical psychology
  - Psychology for counseling
  - Social psychology
  - Psychometrics
  - Statistics in psychology
  - Industrial psychology
  - Developmental psychology
  - Physiological psychology
  - Other, specify
- Public Affairs and Services
  - Community services, general
  - Public administration
  - Parks and recreation management
  - Social work and helping services (other than clinical social work)
  - Law enforcement and corrections (baccalaureate and higher programs)
  - International public service (other than diplomatic service)
  - Other, specify
- Library Science
  - Library science, general
  - Other

II. Humanities
- Architecture and Environmental Design
  - Environmental design, general
  - Architecture
  - Interior design
  - Landscape architecture
  - Urban architecture
  - City, community, and regional planning
  - Other, specify
- Fine and Applied Arts
  - Fine arts, general
  - Art (painting, drawing, sculpture)
  - Art history and appreciation
  - Music (performing, composition, theory)
  - Music (liberal arts program)
  - Music history and appreciation (musicology)
  - Dramatic arts
  - Dance
  - Applied design (ceramics, weaving, textile design, fashion design, jewelry, metalsmithing, interior decoration, commercial art)
  - Cinematography
  - Photography
  - Other, specify
- Foreign Languages
  - Foreign languages, general (includes concentration on more than one foreign language without major emphasis on one language)
  - French
  - German
  - Italian
  - Spanish
  - Russian
  - Chinese
  - Japanese
  - Latin
  - Greek, classical
  - Hebrew
  - Arabic
  - Indian (Asiatic)
  - Scandinavian languages
  - Slavic languages (other than Russian)
  - African languages (non-Semitic)

- Other, specify
- Communications
  - Communications, general
  - Journalism (printed media)
  - Radio/television
  - Advertising
  - Communication media (use of videotape, films, etc., oriented specifically toward radio/television)
  - Other, specify
- Letters
  - English, general
  - Literature, English
  - Comparative literature
  - Classics
  - Linguistics (includes phonetics, semantics, and philology)
  - Speech, debate, and forensic science (rhetoric and public address)
  - Creative writing
  - Teaching of English as a foreign language
  - Philosophy
  - Religious studies (excludes theological professions)
  - Other, specify

III. Natural Sciences and Miscellaneous Fields

- Mathematics and Statistics
  - Mathematics, general
  - Statistics, mathematical and theoretical
  - Applied mathematics
  - Other, specify
- Computer and Information Sciences
  - Computer and information sciences, general
  - Information sciences and systems
  - Data processing
  - Computer programing
  - Systems analysis
  - Other, specify
- Engineering
  - Engineering, general
  - Aerospace, aeronautical and astronautical engineering
  - Agricultural engineering
  - Architectural engineering
  - Bioengineering and biomedical engineering
  - Chemical engineering (includes petroleum refining)
  - Petroleum engineering (excludes petroleum refining)
  - Civil, construction, and transportation engineering
  - Electrical, electronics, and communications engineering
  - Mechanical engineering
  - Geological engineering
  - Geophysical engineering
  - Industrial and management engineering
  - Metallurgical engineering
  - Materials engineering
  - Ceramic engineering
  - Textile engineering
  - Mining and mineral engineering
  - Engineering physics
  - Nuclear engineering
  - Engineering mechanics
  - Environmental and sanitary engineering
  - Naval architecture and marine engineering
  - Ocean engineering
  - Engineering technologies (baccalaureate and higher programs)
  - Other, specify
- Physical Sciences
  - Physical sciences, general
  - Physics, general (excludes biophysics)
  - Molecular physics
  - Nuclear physics
  - Chemistry, general (excludes biochemistry)
  - Inorganic chemistry
  - Organic chemistry
  - Physical chemistry
  - Analytical chemistry
  - Pharmaceutical chemistry
  - Astronomy
  - Astrophysics
  - Atmospheric sciences and meteorology
  - Geology
  - Geochemistry
  - Geophysics and seismology
  - Earth sciences, general
  - Paleontology
  - Oceanography
  - Metallurgy
  - Other, specify
- Biological Sciences
  - Biology, general
  - Botany, general
  - Bacteriology
  - Plant pathology
  - Plant pharmacology
  - Plant physiology
  - Zoology, general
  - Pathology, human and animal
  - Premedical, predental, and preveterinary science
  - Pharmacology, human and animal
  - Physiology, human and animal
  - Microbiology
  - Anatomy
  - Histology
  - Biochemistry
  - Biophysics
  - Molecular biology
  - Cell biology (cytology, cell physiology)

- Marine biology
- Biometrics and biostatistics
- Ecology
- Entomology
- Genetics
- Radiobiology
- Nutrition, scientific (excludes nutrition in home economics and dietetics)
- Neurosciences
- Toxicology
- Embryology
- Other, specify

Agriculture and Natural Resources
- Agriculture, general
- Agronomy (field crops and crop management)
- Soils science (management and conservation)
- Animal science (husbandry)
- Dairy science (husbandry)
- Poultry science
- Fish, game, and wildlife management
- Horticulture (fruit and vegetable production)
- Ornamental horticulture (floriculture, nursery science)
- Agricultural and farm management
- Agricultural economics
- Agricultural business
- Food science and technology
- Forestry
- Natural resources management
- Agriculture and forestry technologies (baccalaureate and higher programs)
- Range management
- Other, specify

Health Professions
- Health professions, general
- Hospital and health care administration
- Nursing (baccalaureate and higher programs)
- Dentistry, D.D.S. or D.M.D. degree
- Dental specialties (work beyond first-professional degree, D.D.S. or D.M.D.)
- Medicine, M.D. degree
- Medical specialties (work beyond first-professional degree, M.D.)
- Occupational therapy
- Optometry
- Osteopathic medicine, D.O. degree
- Pharmacy
- Physical therapy
- Dental hygiene (baccalaureate and higher programs)
- Public health
- Medical record librarianship
- Podiatry (Pod.D. or D.P.) or podiatric medicine (D.P.M.)
- Biomedical communication
- Veterinary medicine, D.V.M. degree
- Veterinary medicine specialties (work beyond first-professional degree, D.V.M.)
- Speech pathology and audiology
- Chiropractic
- Clinical social work (medical and psychiatric and specialized rehabilitation services)
- Medical laboratory technologies (baccalaureate and higher programs)
- Dental technologies (baccalaureate and higher programs)
- Radiologic technologies (baccalaureate and higher programs)
- Other, specify

Accounting

Other Business and Management
- Business and commerce, general
- Business statistics
- Banking and finance
- Investments and securities
- Business management and administration
- Operations research
- Hotel and restaurant management
- Marketing and purchasing
- Transportation and public utilities
- Real estate
- Insurance
- International business
- Secretarial studies (baccalaureate and higher programs)
- Personnel management
- Labor and industrial relations
- Business economics
- Other, specify

Education
- Education, general
- Elementary education, general
- Secondary education, general
- Junior high school education
- Higher education, general
- Junior and community college education
- Adult and continuing education
- Special education, general
- Administration of special education
- Education of the mentally retarded
- Education of the gifted
- Education of the deaf
- Education of the culturally disadvantaged

- Education of the visually handicapped
- Speech correction
- Education of the emotionally disturbed
- Remedial education
- Special learning disabilities
- Education of the physically handicapped
- Education of the multiply handicapped
- Social foundations (history and philosophy of education)
- Educational psychology (includes learning theory)
- Preelementary education (kindergarten)
- Educational statistics and research
- Educational testing, evaluation, and measurement
- Student personnel (counseling and guidance)
- Educational administration
- Educational supervision
- Curriculum and instruction
- Reading education (methodology and theory)
- Art education (methodology and theory)
- Music education (methodology and theory)
- Mathematics education (methodology and theory)
- Science education (methodology and theory)
- Physical education
- Driver and safety education
- Health education (includes family life education)
- Business, commerce, and distributive education
- Industrial arts, vocational and technical education
- Other, specify
  - Agriculture education
  - Home economics education

Other

- Home economics
  - Home economics, general
  - Home decoration and home equipment
  - Clothing and textiles
  - Consumer economics and home management
  - Family relations and child development
  - Foods and nutrition (includes dietetics)
  - Institutional management and cafeteria management
  - Other, specify
- Law
  - Law, general
  - Other, specify
- Military sciences
  - Military science (Army)
  - Naval science (Navy, Marines)
  - Aerospace science (Air Force)
  - Other, specify
- Theology
  - Theological professions, general
  - Religious music
  - Biblical languages
  - Religious education
  - Other, specify
- Interdisciplinary studies
  - General liberal arts and sciences
  - Biological and physical sciences
  - Humanities and social sciences
  - Engineering and other disciplines
  - Other, specify

Changes in Degree-Level Definitions

Prior to 1960–61	1960–61 through 1964–65	1965–66
BACHELOR'S DEGREES		
Number of years of work not specified. First-professional degrees included.	Number of years of work specified as less than 5. First-professional degrees excluded.	Number of years of work specified as less than 6. First-professional degrees excluded.
FIRST-PROFESSIONAL DEGREES		
Included with bachelor's degrees.	5 or more years of work required. Includes first-professional degrees, such as degrees in dentistry, law, medicine, and theology. Includes master's degrees, such as degrees in business administration, hospital administration, law, library science, social work, and theology.	6 or more years of work required. Includes first-professional degrees, such as degrees in dentistry, law, medicine, and theology. Excludes all master's degrees.
MASTER'S DEGREES		
	Includes all master's degrees, except some considered first-professional. Includes second-professional degrees below level of doctorate.	Includes all master's degrees, including those considered first-professional prior to 1965–66. Includes second-professional degrees below level of doctorate.
DOCTOR'S DEGREES		
Includes Ph.D. in any field and such degrees as doctor of education, doctor of juridical science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering).	No change.	No change.

Glossary

Courses

Adult education courses
Group instruction in courses which are designed for, or attended principally by, persons who have terminated their formal education.

Degree-credit courses
Courses which carry credit toward a bachelor's or higher degree.

Individual lessons
Lessons in music, art, speech, etc.

Non-degree-credit courses
Courses extending not more than 3 years beyond high school and designed to prepare students for immediate employment in an occupation or cluster of occupations at the technical and/or semiprofessional level (engineering-related or non-engineering-related), or at the craftsman-clerical level (artisans, skilled workers, and clerical workers).

Short courses
Courses that carry no credit toward a degree because of less than prescribed length.

Degrees

Bachelor's or first-level degrees
Lowest degree conferred by college, university, or professional school, requiring 4 or more years of academic work. For changes in Office of Education classification, see appendix A, "Changes in Degree-Level Definitions."

Doctor's degrees (except first-professional)
Highest academic degree conferred by a university; includes Ph.D. in any field; includes doctor of education, doctor of juridical science, and doctor of public health (preceded by professional degree in medicine or sanitary engineering).

First-professional degrees
An academic degree which requires at least 2 academic years of previous college work for entrance and which requires a total of at least 6 academic years of college work for completion. Beginning in 1965–66, Office of Education classification includes the following degrees only: Law (LL.B. or J.D. only); dentistry (D.D.S. or D.M.D. only); medicine (M.D. only); veterinary medicine (D.V.M. only); chiropody or podiatry (D.S.C. or D.P.); optometry (O.D.); osteopathy (D.O.); and theology (B.D. only). For changes in Office of Education classification, see appendix A, "Changes in Degree-Level Definitions."

Master's or second-level degrees
An academic degree higher than a bachelor's but lower than a doctor's. All degrees classified as first-professional are excluded.

Expenditures, elementary and secondary

Current expenditures, regular elementary and secondary day schools
Includes current expenditures for administration, instruction, plant operation and maintenance, fixed charges (retirement, social security, insurance, etc.), and other school services (pupil transportation, food services, health services, attendance services, and miscellaneous school services).

Current expenditures, total
Includes current expenditures for regular elementary and secondary day school programs and current expenditures for other school programs including summer schools, adult education, community colleges, and community services.

Expenditures, total
Includes total current expenditures for all programs, capital outlay, and interest on school debt.

Expenditures, general

Capital outlay
An expenditure for land or existing buildings, improvement of grounds, construction of buildings, additions to buildings, and initial or additional equipment. Includes replacement and rehabilitation and installment or lease payments (excluding interest) which have a terminal date and result in the acquisition of property.

Constant dollars (1972–73)
Expenditure data which have been adjusted by means of price and cost indexes to equal the purchasing power of 1972–73 dollars. This eliminates inflationary factors and allows direct comparison between years.

Current dollars
Expenditure data which have not been adjusted to compensate for inflation. (Projection of unadjusted expenditure data has been limited to 2 years.)

Current expenditures
Any expenditure except for capital outlay and debt service. If accounts are kept on the accrual basis, current expense includes total charges incurred, whether paid or unpaid. If accounts are kept on the cash basis, it includes only actual disbursements.

Debt service
Includes payment for retirement of debt and for use of long-term loans (not repaid in the year in which made).

Interest
Any payment for use of money.

Expenditures, higher education

Current expenditures, total
The term used for total expenditure from current funds less expenditures from current funds which are used for capital outlay (about 16 percent of total capital outlay is expended from current funds).

Current fund expenditures, total
Includes expenditures for auxiliary enterprises, organized research, related activities, student aid, and student education. Approximately 16 percent of total capital outlay by institutions of higher education is estimated to have been expended directly from current funds.

Auxiliary enterprises.--Expenditures for services to students, faculty, or other staff for which a fee is charged that is directly related to, but not necessarily equal to, the cost of service. For example, dormitories, food service, and student stores.

Organized research.--Expenditures for all sponsored research and all separately budgeted research. Excludes expenditures for research carried on as part of the regular instructional services departmental research which is included with expenditures for student education.

Related activities.--Expenditures for activities which exist to provide instructional or laboratory experience for students and which incidentally create goods or services that may be sold onthe campus or to the general public. Expenditures are incurred in addition to those necessary solely for the educational benefit of the students. Expenditures from current funds which could not be reported under "student education" or "organized research" are here included under "related activities."

Student aid.--Expenditures for assistance to students through scholarships, fellowships, and prizes. Recipients are not required to repay, either through services or monies.

Student education.--Expenditures for those components of educational and general expenditures which are most closely related to instruction. Includes instruction and research which are part of regular instructional services (departmental research), extension and public service, libraries, physical plant operation and maintenance, general administration, and other sponsored activities.

Expenditures, total
Includes expenditures for capital outlay, debt service including interest, and total current expenditures.

Student charges
Student charges include charges for tuition, required fees, room, and board. Required fees are those for matriculation, laboratory, library, health, etc. They do not include books. Student charges as reported in this circular are based on full-time, resident (in-State or in-district) students.

Schools

Elementary schools
Schools with teaching primarily organized by grades, composed of a span of grades not above grade eight.

Independent nursery and kindergarten schools
Schools that offer nursery and/or kindergarten instruction only.

Other schools
Other schools include residential schools for exceptional children (public and nonpublic), Federal schools for Indians, federally operated schools on Federal installations, and subcollegiate departments of public and private institutions of higher education.

Regular schools
Schools for normal children that satisfy the requirements of the State education laws and offer at least one grade beyond kindergarten.

Residential schools for exceptional children
Residential schools for the handicapped (outside the regular public and private school systems) include public and private residential schools for the deaf, blind, mentally deficient, epileptic, and delinquent. (Most handicapped children are in special classes within the regular public and private school system.)

Secondary schools
Schools with teaching organized by subject matter taught, composed of junior high and high schools.

Special schools
Special schools are schools not in the regular school system, such as trade schools or business colleges.

Students

Advanced-degree students
Students who have attained at least one standard degree and have been accepted as candidates for master's or doctor's degrees.

Extension students
Students who most commonly take instruction away from main campus; also students receiving on-campus instruction offered by an extension division.

First-professional students
See first-professional degrees.

First-time students
Freshmen not previously enrolled in any institutions of higher education.

Full-time students
Students enrolled in courses with credits equal to at least 75 percent of the normal full-time semester course load.

Full-time-equivalent students
The estimated number of full-time students equal to a given number of part-time students. (For degree-credit students, the percentage of part-time to full-time is estimated at 33 percent; for non-degree-credit students, 28 percent.)

Graduate students
Students who have attained at least one standard degree and are or might be candidates for a master's or doctor's degree (except first-professional).

Occupational students
See non-degree-credit courses.

Postbaccalaureate students
Students who have attained at least one standard degree and are or might be candidates for a first-professional, master's, or doctor's degree.

Resident students (enrollment)
Students who attend classes on a main campus or a branch campus. Students' living quarters (whether on- or off-campus) and their legal domicile (whether in-State or out of-State) are irrelevant.

Resident students (student charges)
Students with legal domicile in-State or in-District.

Unclassified students
Students who are not candidates for a degree, diploma, certificate, or equivalent award, although taking courses in regular classes with other students.

Undergraduate students
Degree-credit or non-degree-credit students who have not received formal recognition as having completed the prescribed degree-credit or non-degree-credit requirements of an accredited institution of higher education.

APPENDIX B

Statistical Tables

Table B-1.—School-age population (U.S. Census Projection Series D, E, and F), ages 5, 6, and 5–13 years: United States, 1962 to 1983[1]

[Ages as of October 1, populations in thousands]

Year (fall)	Age 5			Age 6			Ages 5–13		
	D	E	F	D	E	F	D	E	F
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	.....	4,128	.....	.....	4,027	.....	.....	34,094	.....
1963	.....	4,132	.....	.....	4,126	.....	.....	34,768	.....
1964	.....	4,115	.....	.....	4,129	.....	.....	35,394	.....
1965	.....	4,108	.....	.....	4,111	.....	.....	35,894	.....
1966	.....	4,145	.....	.....	4,108	.....	.....	36,367	.....
1967	.....	4,060	.....	.....	4,144	.....	.....	36,653	.....
1968	.....	3,988	.....	.....	4,060	.....	.....	36,784	.....
1969	.....	3,892	.....	.....	3,987	.....	.....	36,734	.....
1970	.....	3,701	.....	.....	3,891	.....	.....	36,453	.....
1971	.....	3,510	.....	.....	3,708	.....	.....	35,852	.....
1972	.....	3,386	.....	.....	3,516	.....	.....	35,114	.....
	PROJECTED								
1973	.....	3,349	.....	.....	3,392	.....	.....	34,326	.....
1974	.....	3,453	.....	.....	3,355	.....	.....	33,613	.....
1975	.....	3,573	.....	.....	3,460	.....	.....	33,095	.....
1976	.....	3,582	.....	.....	3,579	.....	.....	32,664	.....
1977	3,404	3,321	3,290	.....	3,590	.....	32,094	32,011	31,980
1978	3,596	3,216	3,074	3,410	3,327	3,296	31,805	31,341	31,169
1979	3,794	3,270	3,070	3,602	3,223	3,080	31,897	30,911	30,536
1980	3,950	3,399	3,160	3,800	3,277	3,077	32,339	30,804	30,191
1981	4,103	3,524	3,246	3,956	3,405	3,167	33,054	30,940	30,044
1982	4,253	3,645	3,327	4,109	3,530	3,253	33,957	31,234	30,028
1983	4,397	3,761	3,402	4,259	3,652	3,334	34,921	31,549	29,981

[1] In projecting the number of children to be born, the Census Bureau uses a cohort-component method in which each of the components of population change (fertility, mortality, and migration) is projected separately. The key assumption in this method is that of the completed cohort fertility (average number of births per woman upon completion of childbearing).

The Census Bureau uses several different assumptions as to completed cohort fertility. The following are three of these assumptions:

(1) Series D—completed cohort fertility of 2.5 children per woman is somewhat higher than the most recent data on birth expectations of wives 18–24 years old indicate.

(2) Series E—completed cohort fertility of 2.1 children per woman is slightly lower than the most recent data on birth expectations of wives 18–24 years old indicate. However, about one-half of all women 18–24 years old have never been married and it has been well established that there is an inverse relationship between age at first marriage and fertility. Therefore, 2.1 births per woman seems the most reasonable fertility assumption to use.

A completed cohort fertility of 2.1 is also of interest because at this rate and without immigration the population would replace itself after enough time had elapsed for the age structure to stabilize.

(3) Series F—completed cohort fertility of 1.8 children per woman is an entirely arbitrary choice since there is no precedent in American demographic history on which to assign such a low level. However, the average number of births expected by wives 18–24 years old has been decreasing steadily since 1967. If this trend continues, the 1.8 rate may prove to be more appropriate in the future.

For a detailed explanation of the cohort-component method, see the following source: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Population Estimates: Projections of the Population of the United States, by Age, Sex, and Color to 1960, with Extensions of Population by Age and Sex to 2015," Series P–25, No. 381, December 18, 1967, pp. 1–49.

SOURCES: Office of Education estimates are based on unpublished Census Bureau population data by age as of July 1. Population estimates for 1962 to 1971 are consistent with estimated data in *Current Population Reports*, "Population Estimates and Projections: Preliminary Estimates of the Population of the United States, by Age and Sex: April 1, 1960 to July 1, 1971," Series P–25, No. 483, April 1972. Population projections for 1972 to 1983 are consistent with projection data in *Current Population Reports*, "Population Estimates and Projections: Projections of the Population of the United States, by Age and by Sex: 1972 to 2020," Series P–25, No. 493, December 1972.

Table B-2.—High school- and college-age population: United States, 1962 to 1983[1]

[Ages as of October 1, population in thousands]

Year (fall)	14–17	18		18–21		Composite populations[2]	
	Total	Men	Women	Men	Women	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	12,698	1,404	1,368	5,493	5,400	1,157	1,182
1963	13,639	1,456	1,419	5,663	5,565	1,212	1,253
1964	14,201	1,692	1,643	5,829	5,722	1,294	1,354
1965	14,192	1,829	1,774	6,244	6,111	1,369	1,420
1966	14,458	1,790	1,736	6,628	6,474	1,384	1,398
1967	14,822	1,800	1,746	7,027	6,864	1,411	1,418
1968	15,242	1,840	1,786	7,316	7,146	1,501	1,553
1969	15,632	1,898	1,841	7,318	7,153	1,656	1,747
1970	15,978	1,944	1,882	7,466	7,296	1,682	1,731
1971	16,302	1,992	1,924	7,614	7,431	1,751	1,779
1972	16,522	2,042	1,971	7,786	7,576	1,803	1,814
	PROJECTED						
1973	16,683	2,080	2,010	7,976	7,736	1,856	1,850
1974	16,813	2,114	2,042	8,151	7,896	1,886	1,882
1975	16,797	2,133	2,060	8,318	8,058	1,929	1,918
1976	16,695	2,140	2,068	8,436	8,172	1,975	1,964
1977	16,536	2,154	2,082	8,512	8,254	2,022	2,007
1978	16,254	2,144	2,069	8,583	8,317	2,058	2,041
1979	15,864	2,104	2,031	8,576	8,307	2,096	2,069
1980	15,362	2,074	2,004	8,524	8,258	2,116	2,080
1981	14,773	2,042	1,973	8,442	8,179	2,136	2,093
1982	14,241	1,971	1,906	8,300	8,042	2,147	2,096
1983	13,996	1,876	1,815	8,099	7,856	2,134	2,068

1 All ages are in completed years, except age 18, which has been calculated to nearest birthday. No fertility assumptions are used in this table because the persons included are already born.

2 The composite population (used for projecting degrees) was derived by (1) prorating to 100 percent the detruncated percentage distribution of the ages of recipients of bachelor's degrees which had been found by Laure M. Sharp in the 1958 survey *Two Years After the College Degree*, and (2) applying these percentages to corresponding age groups which were consistent with the other populations shown in this table. For further estimating details, see appendix A, "Estimation Methods," section 5.

SOURCES: Office of Education estimates are based on unpublished Census Bureau population data by age as of July 1. Population estimates for 1962 to 1971 are consistent with estimated data in *Current Population Reports*, "Population Estimates and Projections: Preliminary Estimates of the Population of the United States, by Age and Sex: April 1, 1960 to July 1, 1971," Series D–25, No. 483, April 1972. Population projections for 1972 to 1983 are consistent with projection data in *Current Population Reports*, "Population Estimates and Projections: Projections of the Population of the United States, by Age and by Sex: 1972 to 2020," Series P–25, No. 493, December 1972.

Table B-3.—Enrollment in grades K–8 and 9–12 of regular day schools, with projections based on U.S. Census population projection Series D, by institutional control: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	K–8	9–12	K-12	K–8	9–12	K-12	K–8	9–12[3]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	[4]4,900	[4]1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[4]1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[4]4,900	[4]1,400
1966	49,239	35,945	13,294	43,039	31,145	11,894	6,200	4,800	1,400
1967	49,891	36,241	13,650	43,891	31,641	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[4]4,400	[4]1,400
1969	51,119	36,797	14,322	45,619	32,597	13,022	5,500	4,200	1,300
1970	51,309	36,677	14,632	45,909	32,577	13,332	5,400	[5]4,100	[5]1,300
1971	51,280	36,165	15,116	46,080	32,265	13,816	5,200	[6]3,900	[6]1,300
1972	50,754	35,544	15,209	45,754	31,844	13,909	5,000	[6]3,700	[6]1,300
	PROJECTED[7]								
1973	50,300	34,800	15,400	45,400	31,200	14,100	4,900	3,600	1,300
1974	49,700	34,100	15,600	44,900	30,600	14,300	4,800	3,500	1,300
1975	49,200	33,600	15,700	44,500	30,200	14,400	4,700	3,400	1,300
1976	48,700	33,100	15,600	44,100	29,800	14,300	4,600	3,300	1,300
1977	48,000	32,500	15,500	43,500	29,300	14,200	4,500	3,200	1,300
1978	47,500	32,100	15,400	43,100	29,000	14,100	4,400	3,100	1,300
1979	47,200	32,200	15,000	42,900	29,200	13,700	4,300	3,000	1,300
1980	47,100	32,700	14,400	42,800	29,700	13,100	4,300	3,000	1,300
1981	47,300	33,400	13,900	43,000	30,400	12,600	4,300	3,000	1,300
1982	47,700	34,300	13,400	43,400	31,300	12,100	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Includes some pupils enrolled in grades 7 and 8 of nonpublic secondary schools from 1965 through 1968.

[4] Reported data from Office of Education surveys.

[5] Estimates are based on reported data from the Office of Education and the National Catholic Education Association.

[6] Estimates are based on reports from the National Catholic Education Association.

[7] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1962–1972 trends. (2) The public school enrollment in grade 7 in a given year t will exceed the public school enrollment in grade 6 in year t–1 by 3.1 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1. (3) The public school enrollment in grade 9 in year t will exceed the public school enrollment in grade 8 in year t–1 by 4.8 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1. (4) The retention rates of all other public school grades will remain constant at the average of the rates for the past 3 years. (5) Enrollments in grades K–8 in Catholic elementary schools will decrease from 2.9 million in 1972 to 2.0 million in 1982. (6) Enrollments in grades K–8 in all regular nonpublic day schools will decrease through 1982; grades 9–12 in these schools will remain constant at the 1970 level.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Statistics of Public Schools*, fall 1964 through 1972, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1962 and 1963, (c) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, (d) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968–69*, (e) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*, (f) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*, (g) *Statistics of Nonpublic Elementary Schools, 1961–62*,

(h) *Statistics of Nonpublic Secondary Schools, 1960–61*; and (2) National Catholic Educational Association publications: (a) *A Report on U.S. Catholic Schools, 1970–71*, (b) *U.S. Catholic Schools, 1971–72*, (c) prepublication data from *U.S. Catholic Schools, 1972–73*.

The population projections, as of October 1, of 5- and 6-year-olds on which the enrollment projections in kindergarten and grade 1 are based are consistent with Series D population projections in U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P–25, No. 493, December 1972. The D, E, and F population projections, together with definitions of each series, are shown in appendix B, table B-1.

Table B-4.—Enrollment in grades K–8 and 9–12 of regular day schools, with projections based on U.S. Census population projection Series F, by institutional control: United States, fall 1962 to 1982[1]

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated)[2]		
	K–12	K–8	9–12	K–12	K–8	9–12	K–12	K–8	9–12[3]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	44,849	33,537	11,312	38,749	28,637	10,112	6,100	4,900	1,200
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	[4]1,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	[4]1,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	[4]4,900	[4]1,400
1966	49,239	35,945	13,294	43,039	31,145	11,894	6,200	4,800	1,400
1967	49,891	36,241	13,650	43,891	31,641	12,250	6,000	4,600	1,400
1968	50,744	36,626	14,118	44,944	32,226	12,718	5,800	[4]4,400	[4]1,400
1969	51,119	36,797	14,322	45,619	32,597	13,022	5,500	4,200	1,300
1970	51,309	36,677	14,632	45,909	32,577	13,332	5,400	[5]4,100	[5]1,300
1971	51,280	36,165	15,116	46,080	32,265	13,816	5,200	[6]3,900	[6]1,300
1972	50,754	35,644	15,209	45,754	31,844	13,909	5,000	[6]3,700	[6]1,300
	PROJECTED[7]								
1973	50,300	34,800	15,400	45,400	31,200	14,100	4,900	3,600	1,300
1974	49,700	34,100	15,600	44,900	30,600	14,300	4,800	3,500	1,300
1975	49,200	33,600	15,700	44,500	30,200	14,400	4,700	3,400	1,300
1976	48,700	33,100	15,600	44,100	29,800	14,300	4,600	3,300	1,300
1977	47,900	32,400	15,500	43,400	29,200	14,200	4,500	3,200	1,300
1978	47,000	31,600	15,400	42,600	28,500	14,100	4,400	3,100	1,300
1979	45,900	30,900	15,000	41,600	27,900	13,700	4,300	3,000	1,300
1980	45,000	30,600	14,400	40,700	27,600	13,100	4,300	3,000	1,300
1981	44,500	30,600	13,900	40,200	27,600	12,600	4,300	3,000	1,300
1982	44,000	30,600	13,400	39,700	27,600	12,100	4,300	3,000	1,300

[1] Does not include independent nursery schools and kindergartens, residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, federally operated schools on Federal installations, and other schools not in the regular school system.

[2] Estimated unless otherwise noted. Estimates for years prior to 1965 revised in spring 1968 on basis of 1965 Office of Education survey.

[3] Includes some pupils enrolled in grades 7 and 8 of nonpublic secondary schools from 1965 through 1968.

[4] Reported data from Office of Education surveys.

[5] Estimates are based on reported data from the Office of Education and the National Catholic Education Association.

[6] Estimates are based on reports from the National Catholic Education Association.

[7] The projection of fall enrollment in regular day schools is based on the following assumptions: (1) Enrollment rates of the 5- and 6-year-old population in public school kindergarten and grade 1 will follow the 1962–1972 trends. (2) The public school enrollment in grade 7 in a given year t will exceed the public school enrollment in grade 6 in year t–1 by 3.1 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1. (3) The public school enrollment in grade 9 in year t will exceed the public school enrollment in grade 8 in year t–1 by 4.8 percent of the projected enrollment in grades K–8 in Catholic elementary schools in year t–1. (4) The retention rates of all other public school grades will remain constant at the average of the rates for the past 3 years. (5) Enrollments in grades K–8 in Catholic elementary schools will decrease from 2.9 million in 1972 to 2.0 million in 1982. (6) Enrollments in grades K–8 in all regular nonpublic day schools will decrease through 1982; grades 9–12 in these schools will remain constant at the 1970 level.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, Office of Education, publications: (a) *Statistics of Public Schools*, fall 1964 through 1972, (b) *Enrollment, Teachers, and School-housing*, fall 1962 and 1963, (c) prepublication data from *Statistics of Nonpublic Elementary and Secondary Schools, 1970–71*, (d) *Statistics of Public and Nonpublic Elementary Day Schools, 1968–69*, (e) *Statistics of Nonpublic Elementary and Secondary Schools, 1965–66*, (f) *Nonpublic School Enrollment in Grades 9–12, Fall 1964, and Graduates, 1963–64*, (g) *Statistics of Nonpublic Elementary Schools, 1961-62*,

(h) *Statistics of Nonpublic Secondary Schools, 1960–61*; and (2) National Catholic Educational Association publications: (a) *A Report on U.S. Catholic Schools, 1970–71*, (b) *U.S. Catholic Schools, 1971–72*, (c) prepublication data from *U.S. Catholic Schools, 1972–73*.

The population projections, as of October 1, of 5- and 6-year-olds on which the enrollment projections in kindergarten and grade 1 are based are consistent with Series F population projections in U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P–25, No. 493, December 1972. The D, E, and F population projections, together with definitions of each series, are shown in appendix B, table B-1.

Table B-5.—Total and first-time degree-credit enrollment in all institutions of higher education, by sex, with projections based on assumed high enrollment rates: United States, fall 1962 to 1982[1]

[In thousands]

Fall	Total			First-time		
	Total	Men	Women	Total	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1962	4,175	2,587	1,588	1,031	598	432
1963	4,495	2,773	1,722	1,046	604	442
1964	4,950	3,033	1,917	1,225	702	523
1965	5,526	3,375	2,152	1,442	829	613
1966[2]	5,928	3,577	2,351	1,378	787	591
1967[2]	6,406	3,822	2,584	1,439	814	626
1968	6,928	4,119	2,809	1,630	925	705
1969	7,484	4,419	3,065	1,749	986	763
1970	7,920	4,637	3,284	1,780	984	796
1971	8,116	4,717	3,399	1,766	968	798
1972	8,265	4,701	3,564	1,740	929	812
	PROJECTED[1]					
1973	8,408	4,714	3,694	1,793	957	836
1974	8,590	4,768	3,822	1,843	983	860
1975	8,826	4,862	3,964	1,879	1,003	876
1976	9,095	5,000	4,095	1,904	1,017	887
1977	9,351	5,127	4,224	1,938	1,034	904
1978	9,555	5,229	4,326	1,946	1,040	906
1979	9,683	5,286	4,397	1,929	1,031	898
1980	9,776	5,325	4,451	1,921	1,027	894
1981	9,825	5,341	4,484	1,911	1,021	890
1982	9,770	5,292	4,478	1,853	986	867

[1] These projections are based primarily on the assumption that, for each sex, the percentage that first-time degree-credit enrollment is of the average 18-year-old population will increase, by 1982, to the higher rates it reached in 1969 and 1970.

The methodology used to make these projections is the same that was used to make the total degree-credit enrollment projections in table 6 and the first-time degree-credit enrollment projections in table 14.

For details of this methodology, see appendix A, table A-1, and the footnotes to tables 6 and 14.

[2] The breakdown between degree-credit and non-degree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sec. 2a.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966, and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table B-6.—Total and first-time degree-credit enrollment in all institutions of higher education, by sex, with projections based on assumed low enrollment rates: United States, fall 1962 to 1982[1]

[In thousands]

Fall	Total			First-time		
	Total	Men	Women	Total	Men	Women
1962	4,175	2,687	1,688	1,031	598	432
1963	4,495	2,773	1,722	1,046	604	442
1964	4,950	3,033	1,917	1,225	702	523
1965	5,526	3,375	2,152	1,442	829	613
1966[2]	5,928	3,577	2,351	1,378	787	591
1967[2]	6,406	3,822	2,584	1,439	814	626
1968	6,928	4,119	2,809	1,630	925	705
1969	7,484	4,419	3,065	1,749	986	763
1970	7,920	4,637	3,284	1,780	984	796
1971	8,116	4,717	3,399	1,766	968	798
1972	8,265	4,701	3,564	1,740	929	812
	PROJECTED[1]					
1973	8,344	4,681	3,663	1,754	938	816
1974	8,413	4,683	3,730	1,764	947	817
1975	8,488	4,700	3,788	1,757	947	810
1976	8,559	4,745	3,814	1,744	944	800
1977	8,605	4,775	3,830	1,734	941	793
1978	8,607	4,782	3,825	1,706	930	776
1979	8,539	4,751	3,788	1,654	905	749
1980	8,429	4,695	3,734	1,609	884	725
1981	8,287	4,624	3,663	1,565	864	702
1982	8,079	4,515	3,564	1,495	828	667

[1] These projections are based primarily on the assumption that, for each sex, the percentage that first-time degree-credit enrollment is of the average 18-year-old population will continue to decrease, by 1982, to the lower rates of the early 1960's.

The methodology used to make these projections is the same that was used to make the total degree-credit enrollment projections in table 6 and the first-time degree-credit enrollment projections in table 14.

For details of this methodology, see appendix A, table A-1, and the footnotes to tables 6 and 14.

[2] The breakdown between degree-credit and nondegree-credit enrollment in 1966 and 1967 is estimated. See appendix A, "Estimation Methods," sec. 2a.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1962 through 1968, 1971, and 1972, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, (3) unpublished data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966, and (4) *Resident and Extension Enrollment in Institutions of Higher Education, First Term 1961*.

Population on which projections are based is shown in appendix B, table B-2.

Table B-7.—First-year students enrolled for master's and doctor's degrees and for first-professional degrees, by sex: United States and outlying areas, fall 1960 to 1971[1]

[In thousands]

Year (fall)	Enrollment for master's and doctor's degrees			Enrollment for first-professional degrees		
	Total	Men	Women	Total	Men	Women
1960[2]	197	140	57	(3)	(3)	(3)
1961[4]	217	152	65	(3)	(3)	(3)
1962[4]	240	166	75	(3)	(3)	(3)
1963[4]	271	184	87	(3)	(3)	(3)
1964[4]	318	213	105	(3)	(3)	(3)
1965[4]	359	237	122	(3)	(3)	(3)
1966	371	241	130	36	35	2
1967	428	270	158	42	39	2
1968	458	279	179	47	44	3
1969	494	296	199	56	52	4
1970	528	316	212	63	58	5
1971	525	310	215	69	62	7

[1] In 1971, the last year for which data are available, outlying areas made up slightly less than 0.5 percent of first-year enrollment for master's and doctor's degrees and 1 percent of first-year enrollment for first-professional degrees.

[2] Estimation of sex breakdown based on the percentage that the sum of men's master's degrees in 1961–62 and men's doctor's degrees in 1964–65 was of the sum of total master's degrees in 1961–62 and total doctor's degrees in 1964–65.

[3] Not collected prior to 1966.

[4] The percentage that men's enrollment was of total enrollment was interpolated.

NOTE.—Because of rounding, detail may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, Office of Education, publications: (1) *Students Enrolled for Advanced Degrees*, fall 1968 through 1971, (2) *Enrollment for Master's and Higher Degrees, Fall 1965. Summary Report*, (3) *Enrollment for Master's and Higher Degrees, Fall 1964*, and (4) *Enrollment for Advanced Degrees*, fall 1960 through 1963.

Table B-8.—Estimated time lapse (in years) from first-year enrollment for advanced degrees to doctor's degree, by field of study, and by sex[1]

	Mathematics and statistics	Computer and information sciences	Engineering	Physical sciences	Biological sciences	Agriculture and natural resources	Health professions	Accounting
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Men	6	6	6	6	6	6	6	6
Women	6	6	6	6	6	7	6	6

	Other business and management	Education	Architecture and environmental design	Fine and applied arts	Foreign languages	Social science	Psychology	Library sciences
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Men	6	10	8	8	8	7	6	7
Women	6	11	9	9	8	7	7	7

[1] Based on data from National Science Foundation on the time lapse from graduate entry to doctor's degree. All students enrolled in the first year of an advanced degree course did not necessarily enter graduate school during the same year.

SOURCE: National Science Foundation, Science Education Studies Group, unpublished analysis of data on earned doctor's degrees in 1971–72.

Table B-9.—Constant-dollar index

[1972–73 = 100]

July to June	Consumer price index[1]	Construction cost index[2]
1962–63	71.070	53.365
1963–64	72.084	54.837
1964–65	73.006	56.257
1965–66	74.592	58.360
1966–67	76.899	61.672
1967–68	79.465	64.984
1968–69	83.293	70.347
1969–70	88.225	75.237
1970–71	92.774	82.650
1971–72	96.121	91.798
1972–73	100.000	100.000
	ESTIMATED[3]	
1973–74	104.166	107.505
1974–75	108.331	115.009

[1] The monthly indexes were averaged on a July-to-June basis to correspond with the school year and converted to 1972–73 = 100. The 1967 = 100 index number for 1972–73 was 128.242.

[2] The monthly indexes were averaged on a July-to-June basis to correspond with the school year and converted to 1972–73 = 100. The 1967 = 100 index number for 1972–73 was 158.500.

[3] Estimated on 5-year trend, 1968–69 through 1972–73.

SOURCES: The Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor; and the American Appraisal Company Construction Cost Index, published in *Construction Review* by the U.S. Department of Commerce.

Table B-10.—Estimated receipts by regular and "other" educational institutions, by level, by control, and by source: United States, 1963–64 to 1970–71[1]

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1963–64	1965–66	1967–68	1969–70	1970–71
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	AMOUNT (In billions of current dollars)					PERCENT				
All levels of education:										
Total, public and nonpublic	$36.6	$46.8	$58.9	$70.8	$77.6	100.0	100.0	100.0	100.0	100.0
Federal	3.4	5.3	6.9	7.5	8.3	9.3	11.3	11.7	10.6	10.7
State	10.8	13.7	17.3	22.9	25.4	29.5	29.3	29.4	32.3	32.7
Local	12.8	15.5	18.9	22.0	24.2	35.0	33.1	32.1	31.1	31.2
All other	9.6	12.3	15.8	18.4	19.7	26.2	26.3	26.8	26.0	25.4
Total, public	28.5	36.9	46.8	57.3	63.4	100.0	100.0	100.0	100.0	100.0
Federal	2.2	3.9	5.2	5.8	6.6	7.7	10.6	11.1	10.1	10.4
State	10.7	13.6	17.2	22.8	25.2	37.6	36.8	36.7	39.8	39.8
Local	12.8	15.5	18.9	21.9	24.1	44.9	42.0	40.4	38.2	38.0
All other	2.8	3.9	5.5	6.8	7.5	9.8	10.6	11.8	11.9	11.8
Total, nonpublic	8.1	9.9	12.1	13.5	14.2	100.0	100.0	100.0	100.0	100.0
Federal	1.2	1.4	1.7	1.7	1.7	14.8	14.1	14.1	12.6	12.0
State	.1	.1	.1	.1	.2	1.2	1.0	.8	.8	1.4
Local	(2)	(2)	(2)	.1	.1	(3)	(3)	(3)	.7	.7
All other	6.8	8.4	10.3	11.6	12.2	84.0	84.9	85.1	85.9	85.9
Elementary and secondary										
Total, public and nonpublic	24.7	30.9	37.9	45.0	49.4	100.0	100.0	100.0	100.0	100.0
Federal	1.1	2.2	3.0	3.3	3.9	4.5	7.1	7.9	7.3	7.9
State	8.0	9.9	12.3	16.1	17.6	32.4	32.0	32.5	35.8	35.6
Local	12.5	15.1	18.3	21.0	23.1	50.6	48.9	48.3	46.7	46.8
All other	3.1	3.7	4.3	4.6	4.8	12.5	12.0	11.3	10.2	9.7

See footnotes at end of table.

Table B-10.—Estimated receipts by regular and "other" educational institutions, by level, by control, and by source: United States, 1963–64 to 1970–71[1] — Continued

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1963–64	1965–66	1967–68	1969–70	1970–71
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	AMOUNT (In billions of current dollars)					PERCENT				
Total, public	$21.7	$27.3	$33.7	$40.5	$44.7	100.0	100.0	100.0	100.0	100.0
Federal	1.1	2.2	3.0	3.3	3.9	5.1	8.0	9.0	8.1	8.7
State	8.0	9.9	12.3	16.1	17.6	36.9	36.3	36.5	39.8	39.4
Local	12.5	15.1	18.3	21.0	23.1	57.6	55.3	54.2	51.9	51.7
All other	.1	.1	.1	.1	.1	.4	.4	.3	.2	.2
Total, nonpublic	3.0	3.6	4.2	4.5	4.7	100.0	100.0	100.0	100.0	100.0
Federal	...	...	...	...	...	...	...	...	...	...
State	...	...	...	...	...	...	...	...	...	...
Local	...	...	...	...	...	...	...	...	...	...
All other	3.0	3.6	4.2	4.5	4.7	100.0	100.0	100.0	100.0	100.0
Institutions of higher education										
Total, public and nonpublic	11.9	15.9	21.0	25.8	28.2	100.0	100.0	100.0	100.0	100.0
Federal	2.3	3.1	3.9	4.2	4.4	19.3	19.5	18.5	16.3	15.6
State	2.8	3.8	5.0	6.8	7.8	23.6	23.9	23.8	26.4	27.3
Local	.3	.4	.6	1.0	1.1	2.5	2.5	2.9	3.8	3.9
All other	6.5	8.6	11.5	13.8	14.9	54.6	54.1	54.8	53.5	53.2
Total, public	6.8	9.6	13.1	16.8	18.7	100.0	100.0	100.0	100.0	100.0
Federal	1.1	1.7	2.2	2.5	2.7	16.9	17.6	17.1	15.0	14.5
State	2.7	3.7	4.9	6.7	7.6	39.7	38.4	37.7	40.0	40.4
Local	.3	.4	.6	.9	1.0	4.3	4.1	4.5	5.1	5.4
All other	2.7	3.8	5.4	6.7	7.4	39.1	39.9	40.7	39.9	39.7

Table B-10.—Estimated receipts by regular and "other" educational institutions, by level, by control, and by source: United States, 1963–64 to 1970–71[1] — Continued

Source of funds, by control and level	1963–64	1965–66	1967–68	1969–70	1970–71	1963–64	1965–66	1967–68	1969–70	1970–71
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	AMOUNT (In billions of current dollars)					PERCENT				
Total, nonpublic	$5.1	$6.3	$7.9	$9.0	$9.5	100.0	100.0	100.0	100.0	100.0
Federal	1.2	1.4	1.7	1.7	1.7	23.1	22.1	21.8	18.8	18.3
State	.1	.1	.1	.1	.2	1.3	1.5	1.2	1.6	1.7
Local	(2)	(2)	(2)	.1	.1	.2	.1	.3	.7	.7
All other	3.8	4.8	6.1	7.1	7.5	75.4	76.3	76.7	78.9	79.3

[1] Includes estimates for "other" elementary and secondary schools such as residential schools for exceptional children, Federal schools for Indians, and federally operated elementary and secondary schools on posts. The annual receipts of "other" elementary and secondary schools were estimated as follows: Public, $200 million annually, 1963–64 to 1970–71; nonpublic, $100 million annually, 1963–64 to 1970–71.

[2] Less than $50 million.

[3] Less than 0.05 percent.

NOTE.—Receipts include revenue and nonrevenue receipts, current and plant-fund receipts, and proceeds of loans, less transfers of funds which would result in duplication, and less repayment of loans. All receipts and deductions concerning loans are included in "all other" sources. Deduction of transfers was made from data in "all other" sources.

Table B-11.—Federal funds for education and related activities: Obligations for fiscal years 1962 to 1967 and outlay for fiscal years 1968 to 1974

[In thousands of dollars]

Type of support, level, and program area	New obligational authority						Outlay						
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973 (estimated)	1974 (estimated)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	PART I. Federal funds supporting education in educational institutions												
Total grants and loans	$2,173,700	$2,507,600	$2,749,300	$3,908,700	$6,779,578	$8,352,886	$7,804,464	$8,055,386	$9,222,139	$10,927,645	$11,901,721	$13,070,635	$12,888,823
Grants, total	1,853,200	2,111,700	2,350,500	3,379,800	6,167,878	7,811,283	7,201,173	7,523,169	8,615,843	10,442,808	11,325,086	12,440,088	12,462,906
Elementary-secondary education	566,100	600,400	666,300	942,900	2,480,078	3,037,637	2,967,004	2,838,439	3,212,418	3,724,363	3,856,527	4,088,258	4,062,779
School assistance in federally affected areas	304,900	330,300	323,100	407,600	433,900	469,137	506,372	397,581	656,372	527,043	648,608	467,452	130,910
Economic opportunity Programs[1]	53,000	60,900	67,000	123,500	404,300	721,257	628,533	552,434	534,482	664,355	473,307	764,701	683,936
National Defense Education Act—equipment[2]	59,300	58,700	92,900	90,900	104,400	109,200	109,009	74,316	58,547	44,647	42,629	38,260	11,764
Supporting services[3]	4,300	4,700	5,200	6,500	173,100	273,551	280,481	290,107	237,532	215,252	267,749	346,111	186,020
Assistance for educationally deprived children[4]	.....	.....	.....	.....	959,000	1,057,455	1,056,983	1,096,106	1,207,894	1,575,282	1,613,847	1,564,700	455,029
Teacher Corps	4,000	6,800	5,100	.....	6,500	11,324	16,019	19,358	18,191	28,761	23,887	40,613	37,565
Vocational education	26,400	26,300	24,900	127,700	184,678	194,636	185,224	152,441	181,379	241,481	282,545	294,276	153,536
Dependents' schools abroad	40,500	45,300	61,500	80,500	86,100	87,533	68,220	108,589	137,138	146,615	168,908	191,621	211,102
Public lands revenue for schools	43,500	44,600	48,800	51,500	54,100	50,173	52,294	66,112	82,376	78,893	73,285	89,377	98,634
Assistance in special areas[5]	14,800	17,700	32,600	50,200	68,800	56,969	58,286	71,118	78,992	120,719	156,757	170,988	162,400
Veterans' education	.....	.....	.....	.....	.....	1,294	3,200	4,924	6,233	13,763	16,674	37,708	36,378
Emergency school assistance	.....	.....	.....	.....	.....	.....	.....	.....	.....	51,239	68,816	54,364	175,012
Education revenue sharing	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,692,698
Other[6]	4,400	5,100	5,400	4,500	5,200	5,108	2,383	5,353	13,282	16,313	19,515	27,487	27,794
Higher education	1,210,300	1,397,800	1,480,400	2,052,600	2,830,400	3,634,494	3,267,988	3,318,177	3,814,332	4,745,192	4,963,464	5,760,253	5,937,467
Basic research in U.S. educational institutions proper[7]	602,900	691,600	698,600	784,900	940,300	1,032,823	1,061,818	1,020,905	985,784	1,054,385	1,199,980	1,325,335	[8]1,350,000
Research facilities[7]	121,800	157,900	133,500	191,700	194,000	250,568	199,790	238,516	225,130	227,908	186,864	213,601	[8]213,000
Training grants	196,000	234,600	261,200	282,400	365,500	363,608	381,116	404,990	704,689	769,295	982,008	1,143,343	1,010,851
Fellowships and traineeships	103,900	143,000	181,800	196,900	264,900	350,162	320,303	247,840	191,271	267,907			
Facilities and equipment	37,100	41,000	56,100	384,100	668,900	822,203	549,382	482,387	513,162	518,944	400,147	263,201	254,260
Other institutional support	33,000	43,400	69,500	93,400	163,800	169,925	139,637	173,066	178,156	266,090	292,291	352,474	350,441
Other student assistance	103,900	69,900	62,300	100,400	214,200	590,586	608,883	740,498	1,003,594	1,631,185	1,902,174	2,462,799	2,753,915
Other higher education assistance	11,700	16,400	17,400	18,800	18,800	54,619	2,059	9,975	12,546	9,478	.....	.....	.....
Vocational-technical and continuing education (not classifiable by level)	87,800	113,500	203,800	384,100	857,400	939,152	971,181	1,366,553	1,589,083	1,973,253	2,506,095	2,591,577	2,462,660
Vocational, technical, and work training[9]	34,600	82,700	171,000	364,300	817,900	827,303	851,683	1,163,444	1,269,254	1,515,741	1,941,281	1,895,683	1,768,225
Veterans' education	49,900	29,000	25,100	10,300	6,300	54,000	79,645	123,970	244,634	357,414	429,229	534,889	555,364
General continuing education[10]	400	400	1,900	1,500	19,200	29,200	28,701	60,364	65,855	88,305	125,715	147,087	*22,244
Training State and local personnel	2,900	1,400	5,800	8,000	14,000	28,649	11,152	18,775	9,350	11,793	8,870	13,918	16,827
Loans, total (higher education)	320,500	386,900	398,800	529,100	611,700	741,583	603,281	532,227	606,296	484,837	576,636	630,547	405,917
Student loan program, National Defense Education Act[11]	74,600	90,700	111,300	160,100	235,000	237,954	226,303	259,641	295,173	382,102	515,072	595,400	380,341
College facilities loans[12]	245,900	306,200	287,500	369,000	375,800	503,629	376,978	272,586	311,123	102,735	61,563	35,147	25,576

See footnotes at end of table.

Table 9-11.—Federal funds for education and related activities: Obligations for fiscal years 1962 to 1967 and outlay for fiscal years 1968 to 1974—Continued

[In thousands of dollars]

Type of support, level, and program area	New obligational authority						Outlay						
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973 (estimated)	1974 (estimated)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	PART II. Other Federal funds for education and related activities												
Total	$2,777,384	$2,935,341	$3,238,851	$3,717,232	$3,903,869	$3,830,053	$3,805,629	$3,339,867	$3,428,724	$4,011,245	$4,563,984	$5,124,583	$5,037,412
Applied research and development[7]	754,700	805,700	906,300	952,300	1,026,600	1,088,150	1,142,350	1,237,498	1,236,749	1,318,963	1,497,989	1,618,718	[8]1,649,000
School lunch and milk programs	386,900	379,300	411,700	507,500	421,900	448,005	543,845	587,700	676,196	928,186	1,213,075	1,472,860	1,273,263
Training of Federal personnel	1,177,500	1,279,600	1,370,400	1,577,900	1,706,700	1,537,398	1,138,333	639,853	691,694	854,930	961,215	1,045,679	1,115,027
U.S. academies	59,416	59,099	119,796	130,971	154,583	133,007	141,599	170,468	184,262	218,869	232,047	233,288	232,340
Professional training, military	1,086,584	1,188,601	1,202,604	1,373,229	1,470,507	1,309,948	923,470	375,105	492,040	614,099	718,180	800,016	867,637
Civilian education and training in non-Federal facilities	31,500	31,900	48,000	73,700	81,600	94,449	73,264	94,280	15,392	21,962	10,988	12,373	15,050
Library services	22,200	23,900	25,300	82,900	86,300	141,381	136,099	186,124	170,135	186,338	166,086	174,657	150,744
Grants to public libraries	6,900	7,400	7,500	54,900	56,000	76,000	62,017	62,794	50,235	52,975	56,246	50,873	17,904
National library services[13]	15,300	16,500	17,800	28,000	31,300	65,381	74,082	123,330	119,900	133,363	108,850	123,784	132,840
International education	109,100	116,100	130,000	178,700	232,658	326,742	272,008	278,136	193,464	180,668	122,740	136,335	139,098
Educational exchange program	28,100	35,600	38,000	37,400	53,500	44,712	41,670	38,172	30,850	36,101	37,837	42,442	47,711
Agency for International Development projects	81,000	80,500	84,600	97,800	111,800	203,270	140,000	170,000	111,325	105,508	56,612	65,882	64,889
Action (previously Peace Corps)	.....	.....	.....	44,300	57,175	41,944	43,641	44,096	28,150	25,026	19,819	20,983	18,925
Other international education and training	.....	.....	7,400	9,200	10,183	36,816	46,697	25,868	23,139	13,933	9,472	7,048	7,573
Other	346,984	330,741	396,151	417,932	429,701	388,376	372,994	400,356	460,486	542,160	593,839	676,304	710,280
Agricultural extension service	59,300	63,000	79,400	85,400	90,700	92,824	90,030	97,273	124,526	154,672	169,811	191,898	197,198
Educational television facilities	.....	.....	5,200	5,100	15,200	3,304	6,737	8,756	19,163	28,580	8,000	8,000	11,000
Education in Federal correctional institutions	2,100	2,500	2,900	3,500	3,600	6,341	3,862	3,816	5,007	6,333	9,066	9,561	9,545
Value of surplus property transferred:													
Acquisition cost of personal property	244,900	223,800	268,700	277,300	266,400	215,509	199,383	223,503	246,330	255,668	299,805	329,788	362,767
Fair value of real property	21,000	21,100	15,100	17,900	15,100	16,884	26,276	13,254	12,468	25,718	12,200	23,000	20,000
Other[14]	19,664	20,341	24,851	28,732	38,701	53,714	46,906	53,754	52,992	71,189	94,957	114,267	109,370

[1] Includes Office of Economic Opportunity, Indian education, Appalachian Regional Development, Department of Labor, New York City in-school work support, and Head Start Preschool.

[2] Includes small amounts for National Defense Education Act loans to private elementary-secondary schools.

[3] Includes supplemental centers, school library materials, strengthening State education agencies, captioned films for the deaf, dissemination of information, school counseling and testing, American Printing House for the Blind, planning and evaluation, National Aeronautics and Space Administration elementary-secondary schools program, and Civil Rights technical assistance.

[4] Includes Elementary and Secondary Education Act title I, handicapped children, dropout prevention, bilingual education, Kendall School for the Deaf, and Model School for the Deaf.

[5] Includes District of Columbia, Canal Zone, territories and dependences, Cuban refugees, and payments in lieu of taxes by the Atomic Energy Commission and the Tennessee Valley Authority.

[6] Includes elementary-secondary programs of the National Science Foundation, National Foundation on the Arts and the Humanities, Department of Defense, Junior ROTC, National Aeronautics and Space Administration, Office of Child Development programs not included elsewhere, and Office of Education programs and expenditures not otherwise included.

[7] Data are from *Federal Funds for Research, Development, and Other Scientific Activities*, annual publication, National Science Foundation. Includes university-operated research centers.

[8] 1974 amounts are estimated by the Office of Education at 1.9 percent increase over 1973 level.

[9] Includes adult vocational education and manpower training programs.

[10] Includes Office of Education, Action, Social and Rehabilitation Service, Department of Housing and Urban Development, Office of Economic Development, and additional programs for continuing education.

[11] Includes National Defense Education Act and insured student loans.

[12] Includes Department of Housing and Urban Development college housing loans, and Office of Education college facilities loans.

[13] Includes Library of Congress, Smithsonian Institution, General Services Administration, National Archives and Records Service, National Agricultural Library, National Library of Medicine, and Government Printing Office depository library and catalog and index activities.

[14] Includes Office of Education and education programs and administrative expenditures not otherwise included.

NOTE.—Because of the exclusion of some programs and because data are based on Federal disbursement rather than the authority to spend, the figures since 1968 are not strictly comparable with those for earlier years.

SOURCES: Compiled by the National Center for Educational Statistics, Office of Education, U.S. Department of Health, Education, and Welfare, from information collected by the Office of Management and Budget for its report *Special Analyses, Budget of the United States, Fiscal year 1974*. Research data are from *Federal Funds for Research, Development, and Other Scientific Activities*, Vol. XXI, National Science Foundation.

Table B-12.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1974

[In thousands of dollars]

Legislative program	1960	1962	1964	1966	1968	1970	1971	1972	1973[1]	1974[1]
1	2	3	4	5	6	7	8	9	10	11
Total	**$459,965**	**$547,408**	**$673,005**	**$2,024,428**	**$3,613,476**	**$4,111,598**	**$4,543,641**	**$4,903,711**	**$4,868,661**	**$4,975,084**
Elementary and Secondary Education Act[2]	811	1,247	1,648	816,982	1,327,723	1,412,949	1,743,115	1,835,564	1,798,028	613,669
Title I. Educationally deprived children	.....	.....	.....	746,904	1,049,116	[3]1,170,355	1,516,210	1,570,388	1,500,004	411,000
Title II. Library resources	.....	.....	.....	47,871	91,054	44,670	59,253	74,648	76,800	59,963
Title III. Supplementary education centers	.....	.....	.....	10,938	161,256	158,781	112,071	122,527	142,270	83,191
Title V. Strengthening State departments of education[4]	811	1,247	1,648	11,269	26,297	29,247	28,545	32,879	33,336	10,862
Title VII. Bilingual education	.....	.....	.....	.....	.....	6,192	20,876	26,010	35,708	40,056
Title VIII. Dropout prevention	.....	.....	.....	.....	.....	3,704	6,160	9,112	9,910	6,597
School assistance in federally affected areas	258,198	282,909	334,289	409,593	506,372	656,372	527,043	648,608	467,452	130,910
Maintenance and operation	174,850	226,419	283,688	353,851	470,887	620,463	506,851	628,305	442,248	106,235
Construction	83,348	56,490	50,601	55,742	35,485	35,909	20,192	20,303	25,204	24,675
Higher Education Act	.....	.....	.....	35,232	365,884	531,090	653,307	772,707	943,042	1,451,307
Title I. University community services	.....	.....	.....	3,926	9,897	10,669	10,963	9,518	5,894	.....
Title II. Library programs:[5]										
College library resources	.....	.....	.....	.....	48,906	34,063	5,596	3,913	10,973	8,298
Library training	.....	.....	.....	.....	11,381	7,005	4,769	2,469	2,678	3,597
Acquisition and cataloging by Library of Congress	.....	.....	.....	300	5,478	5,721	7,079	.....	.....	.....
Title III. Strengthening developing institutions	.....	.....	.....	.....	22,428	27,731	35,894	35,766	50,000	77,577
Title IV. Student assistance:										
Equal educational opportunity grants	.....	.....	.....	.....	103,104	142,577	160,676	167,600	278,267	[6]634,704
Work-study program and cooperative education	.....	.....	.....	30,634	111,812	172,075	191,665	251,997	258,513	263,535
Insured loans	.....	.....	.....	.....	28,947	98,330	150,396	201,321	246,945	294,710
Student loans insurance fund	.....	.....	.....	.....	.....	2,323	11,035	26,589	46,167	57,000
Title V. Teacher Corps	.....	.....	.....	362	16,019	18,191	28,761	23,887	40,613	37,565
Title VI. Undergraduate instructional assistance:										
Television and other equipment	.....	.....	.....	.....	5,415	4,968	2,258	5,684	10,258	3,990
Special programs for disadvantaged—Talent Search, Special Services, Upward Bound	.....	.....	.....	10	2,497	7,437	[4]4,215	43,963	52,734	79,331
Higher Education Facilities Act	.....	.....	.....	105,526	461,965	437,387	340,033	212,628	134,545	109,838
Title I. Public community colleges and technical institutes and other undergraduate facilities	.....	.....	.....	48,739	317,063	317,227	277,690	180,700	106,634	71,362
State administration and planning	.....	.....	.....	1,675	5,066	5,961	5,540	7,221	3,550	2,900
Major disaster areas	.....	.....	.....	.....	147	.....	.....	200	.....	.....
Title II. Graduate facilities	.....	.....	.....	4,220	37,970	.....	.....	.....	.....	.....
Title III. College construction loans	.....	.....	.....	50,892	101,719	114,199	56,802	24,468	14,361	15,576
Construction loans interest subsidization	.....	.....	.....	.....	.....	.....	1	39	10,000	20,000
Vocational education[7]	45,179	51,762	54,503	128,468	255,224	285,568	370,954	430,722	453,265	251,612
Vocational Education Act of 1963										
George-Barden and supplemental acts	45,179	51,762	54,503	118,396	250,197	271,282	328,087	370,619	384,913	202,619
Smith-Hughes Act										
Work-study program and cooperative education	.....	.....	.....	10,072	5,027	5,322	16,011	24,256	25,110	16,291
Innovative programs in vocational education and research	.....	.....	.....	.....	.....	1,593	8,801	13,777	16,958	16,692

See footnotes at end of table.

Table B-12.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1974—Continued

[In thousands of dollars]

Legislative program	1960	1962	1964	1966	1968	1970	1971	1972	1973[1]	1974[1]
1	2	3	4	5	6	7	8	9	10	11
National advisory council	.....	.....	.....	.....	.....	$94	$271	$321	$324	$69
State advisory councils	.....	.....	.....	.....	.....	2,218	2,474	2,658	2,690	93
Consumer and homemaking education	.....	.....	.....	.....	.....	5,059	15,310	19,091	23,273	15,648
Education professions development	8,683	13,893	13,969	42,147	60,271	104,671	93,541	93,117	98,123	77,125
Elementary and secondary teacher training programs[8]	8,683	13,893	13,969	42,147	58,357	72,924	63,078	69,641	79,195	66,587
Preschool, elementary, and secondary training grants to States	.....	.....	.....	.....	.....	21,500	22,525	13,562	7,837	2,351
Higher education training programs	.....	.....	.....	.....	1,884	10,247	7,938	9,924	11,091	8,187
Public Library Services and Construction Act	6,056	6,932	7,443	40,915	62,017	52,687	52,270	54,086	48,367	14,831
Public library services	6,056	6,932	7,443	25,000	34,306	33,489	37,637	44,284	35,681	9,329
Construction	.....	.....	.....	15,915	26,615	17,527	12,788	7,184	10,068	4,885
Interlibrary cooperation	.....	.....	.....	.....	1,096	1,671	1,845	2,618	2,618	617
Educational improvement for the handicapped	380	1,191	4,982	15,366	40,955	79,065	85,146	93,138	113,500	89,760
Education for the handicapped	.....	.....	.....	.....	7,867	31,073	29,280	32,657	36,844	10,780
Teacher education and recruitment	308	943	2,466	10,448	24,162	31,219	27,366	25,205	35,273	29,870
Research and innovation (includes Deaf-Blind and Resource Centers)	.....	.....	1,016	3,227	8,277	12,515	20,667	16,883	22,476	25,970
Captioned films and media services	72	248	1,500	1,691	649	4,258	5,079	11,706	11,446	12,355
Early childhood education	.....	.....	.....	.....	.....	.....	2,754	6,687	7,461	10,785
National Defense Education Act	117,965	158,801	216,338	320,172	370,034	332,898	330,783	392,233	389,902	62,683
Title II. Student loans and cancellations	40,326	74,532	111,729	177,394	182,825	194,520	231,706	287,163	305,908	28,631
Title III. Instructional assistance: Grants and loans[9]	49,848	39,510	56,131	76,175	85,916	58,547	44,647	42,629	38,260	11,764
Title IV. College teacher fellowships	4,620	17,313	19,680	31,974	60,650	63,518	40,884	53,782	[10]27,500	[10]20,228
Title V. Guidance, counseling, and testing	12,870	14,064	13,710	22,017	23,093	.....	.....	.....	.....	.....
Title VI. Language development:[11] Language and area centers, fellowships, and research	10,301	13,382	15,088	12,612	17,550	16,313	13,546	8,659	18,234	2,060
Research and development	6,004	7,461	12,712	31,245	79,955	87,823	114,905	[12]102,235	[12]106,972	[12]69,762
Training and research	.....	.....	.....	.....	4,832	6,736	6,929	4,844	2,483	662
Construction	.....	.....	.....	.....	333	1,917	3,582	13,085	8,605	3,185
Research and development and educational media research and dissemination (includes amounts for research in education renewal proposal)[13]	6,004	7,461	12,712	31,245	74,790	79,170	104,394	[14]84,306	[14]95,884	[14]65,915
Adult basic education[15]	.....	.....	.....	33,616	28,701	43,464	57,018	56,971	61,472	27,245
Civil rights activities	.....	.....	.....	5,291	7,437	10,608	19,132	22,315	17,791	16,096
Land-grant colleges	5,052	10,744	14,500	14,500	14,500	21,961	12,680	12,600	8,700	2,700
Education revenue sharing	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,692,699
Drug abuse	.....	.....	.....	.....	.....	.....	.....	6,916	11,172	9,968

Special foreign currency program—training, research, and study (grants to American institutions overseas)	.....	6	138	500	857	774	1,749	2,279	2,736	3,257
Educational broadcasting facilities[16]	.....	.....	.....	.....	.....	4,163	5,580	12,182	12,845	11,818
Follow Through	.....	.....	.....	.....	.....	.....	.....	2,024	42,810	52,298
Emergency school assistance	.....	.....	.....	.....	.....	.....	51,239	69,899	54,443	180,157
Office of Education salaries and expenses, including technical services and planning and evaluation	11,608	12,664	14,251	25,901	40,906	47,714	68,170	73,645	98,293	100,737
Miscellaneous expired accounts	.....	.....	.....	.....	.....	.....	17,745	11,049	4,203	6,612
Consolidated Working Fund—net advances and reimbursements	+29	−202	−1,768	+1,026	−9,325	+2,404	−769	−207	.....	.....
Expenditures from funds transferred to the Office of Education by other Federal agencies:[17]										
Manpower Development and Training Act[18]	.....	.....	64,777	75,532	99,451	121,451	141,529	126,500	.....	.....
Educational television facilities	.....	.....	1,962	4,663	6,737	0	.....	.....	.....	.....
Mutual exchange activities (foreign currency)[19]	.....	.....	.....	1,592	1,434	930	944	873	.....	.....
Appalachian Regional Development and Training Act[20]	.....	.....	.....	.....	21,753	27,128	37,906	[21]36,640	.....	.....
Cuban Refugee Program	.....	5,195	9,603	9,302	16,990	19,488	19,851	18,110	.....	.....
Office of Economic Opportunity[22]	.....	.....	.....	54,681	686	38,234	47,280	78,096	.....	.....
Consolidated Working Fund—gross outlay	62	3,068	2,250	10,515	11,396	6,165	56,000	3,377	.....	.....

[1] Estimated.
[2] Title VI for education of the handicapped is not included here but is included under "Educational improvement for the handicapped." "Nutrition and Health" is included under "Research and Development."
[3] Includes some elementary-secondary school expenditures from expired accounts.
[4] Includes title X, National Defense Education Act (NDEA).
[5] Amounts for college library improvement are included under "Research and development."
[6] Includes Basic Educational Opportunity Grants.
[7] Amounts for vocational research are included under "Research and development."
[8] Includes funds for teacher training institutes (after 1969) provided under the National Foundation on the Arts and the Humanities Act and NDEA.
[9] Includes assistance under the National Foundation on the Arts and the Humanities Act.
[10] Includes "Ellender" fellowships.
[11] Includes Fulbright-Hays Act.
[12] Includes transfers to the National Institute of Education.
[13] Includes amounts for college library improvement and vocational research in addition to other R.&D. funds.
[14] Includes "Nutrition and Health."
[15] Includes amounts for adult vocational education and adult vocational education teacher training.
[16] Amounts for this activity supported with transferred funds prior to 1969.
[17] Amounts listed below are not included in the Office of Education expenditure totals.
[18] Includes amounts for Area Redevelopment Act.
[19] Includes Educational Exchange.
[20] Funds transferred prior to 1967 are included in the Consolidated Working Fund.
[21] Also includes Development Facilities, Economic Development Assistance, Department of Commerce ($1,981 thousand); Regional Development Programs, Regional Action, Planning Commission ($3,319 thousand); and Military Construction, Army ($470 thousand).
[22] Some OEO transfers also included in the Consolidated Working Fund.

SOURCE: Compiled by the National Center for Educational Statistics and the Office of Administration, Office of Education, U.S. Department of Health, Education, and Welfare.