

DOCUMENT RESUME

ED 105 590

EA 007 010

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 TITLE Projections of Educational Statistics to 1983-84. 1974 Edition.
 INSTITUTION National Center for Education Statistics (DHEW), Washington, D.C.
 SPONS AGENCY Office of the Assistant Secretary for Education (DHEW), Washington, D.C.
 REPORT NO NCES-75-209
 PUB DATE 75
 NOTE 177p.; A related document is ED 093 035
 AVAILABLE FROM Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (\$2.50)

EDRS PRICE MF-\$0.76 HC-\$9.51 PLUS POSTAGE
 DESCRIPTORS Census Figures; Degrees. (Titles); Educational Finance; Elementary Secondary Education; *Enrollment Projections; Expenditures; Graduates; Graphs; Higher Education; High School Graduates; *Prediction; *School Demography; *School Statistics; Statistical Data; Student Costs; *Tables (Data); Teacher Supply and Demand; Tuition

ABSTRACT

This publication, the 11th in a series of annual projections of data on education, incorporates projections of elementary and secondary enrollment based on revised projections by the Bureau of the Census. Alternate total and first-time degree credit enrollments in institutions of higher education are also shown. 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 charges. 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 appendixes also include selected details of classification changes, a glossary of terms, and a number of auxiliary tables. (Author/MLF)

HIGHLIGHTS

If present trends continue, changes can be expected in—

- Enrollment in all regular public and private elementary and secondary day schools:
 - From 50.2 million in 1973 to 45.2 million in 1983.
- Degree-credit enrollment in institutions of higher education:
 - From 8.5 million in 1973 to 8.9 million in 1983.
- High school graduates from all public and private secondary day schools:
 - From 3.1 million in 1973-74 to 2.7 million in 1983-84.
- Bachelor's degrees granted by institutions of higher education:
 - From 977,000 in 1973-74 to 1,022,000 in 1983-84.
- Full-time-equivalent teachers in all regular public and private elementary and secondary schools:
 - From 2,356,000 in 1973 to 2,345,000 in 1983.
- Full-time-equivalent instructional staff for resident courses in institutions of higher education:
 - From 488,000 in 1973 to 502,000 in 1983.
- Total expenditures of all regular public and private elementary and secondary schools:
 - From \$67.8 billion in 1973-74 to \$84.5 billion in 1983-84 (in 1973-74 dollars).
- Total expenditures of institutions of higher education:
 - From \$35.4 billion in 1973-74 to \$45.7 billion in 1983-84 (in 1973-74 dollars).

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Projections of Educational Statistics to 1983-84

1974 Edition

by
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and
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Education Statistics

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NATIONAL CENTER FOR EDUCATION STATISTICS

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . and review and report on education activities in foreign countries."--Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1975

FOREWORD

This publication provides 10-year projections of statistics for elementary and secondary schools and institutions of higher education. These statistics include enrollments, graduates, teachers, and expenditures. The projections, which supersede those shown in *Projections of Educational Statistics to 1982-83*, 1973 edition, are based mainly on 1963-64 to 1973-74 National Center for Education Statistics data and cover the period 1974-75 to 1983-84 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, 1963-64 to 1983-84*, 1974 edition. Many of these data are available by State for 1973-74 in the National Center for Education Statistics publication *Digest of Educational Statistics*, 1974 edition.

The projections presented here assume, primarily, that the past 11 years' trends in enrollment rates, retention rates, class sizes, and per-pupil expenditures will continue through 1983-84. Data concerning projected changes and the assumptions on which these are based appear throughout the main body of this report. Details of the methodology used in making these projections are given in the appendixes.

Marjorie O. Chandler, Acting Director
Division of Statistical Information and Studies

SPECIAL NOTE

Preliminary fall 1974 data on enrollment in institutions of higher education were not available in time to be included in this publication. The degree-credit and non-degree-credit enrollment projections for 1974 through 1983 are based on 1963 to 1973 trends and do not take into account the preliminary 1974 data.

The preliminary figure for 1974 total degree-credit and non-degree-credit enrollment is approximately 10.1 million, a 5-percent increase over the 1973 figure of 9.6 million. The projection in table 5 of this publication for total degree-credit and non-degree-credit enrollment is 9.7 million.

Past experience indicates that the final grand enrollment figure for 1974 will be within 1 percent of the 10.1 million figure. Therefore the final figure will undoubtedly be higher than the projection in this publication.

At present it is uncertain what portent this unexpectedly high enrollment figure will hold for future enrollments in institutions of higher education. The sizes of the 18-year-old cohorts that will be entering college through 1980 will be fairly stable and then begin to drop off sharply, arguing against continued large enrollment increases. Therefore, the long-term projections presented in this publication should not be discarded at this time.

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CHAPTER I

Introduction and Summary

This is the 11th in a series of annual projections of data on education, revised each year to take account of current information and emerging trends.

This is the second edition that includes projections of elementary and secondary enrollment based on the series E population projection of the Bureau of the Census. The series E population projection is primarily based on the assumption that women will average 2.1 births each during their lifetime. At this rate and without changes due to migration the population will replace itself after enough time has elapsed for the age structure to stabilize. Alternate projections of elementary and secondary enrollment based on series D, a higher population projection, and series F, a lower population projection, are shown in appendix B.

Alternate total and first-time degree-credit enrollment in institutions of higher education are also shown in appendix B. These alternate higher education enrollment projections are shown because of significant changes in enrollment patterns that have occurred during the past few years.

The statistical universe from which the enrollments and other educational data shown in this report 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

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, 1973-74, Higher Education*, U.S. Government Printing Office, Washington, D.C., 1974.

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. The 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 used are consistent with those projected by the U.S. Bureau of the Census and reported in its population series P-25³). The appendixes also include selected details of classification changes, a glossary of terms, and a number of auxiliary tables.

The enrollment rates and the population age groups grew steadily during the sixties. However, both enrollment rates and population age groups are now growing less rapidly and some are decreasing.

The interaction of these two 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 through 9 and, in more detail, with percentage increases from 1963 to 1973 and from 1973 to 1983, in table 1.

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-26, No. 493, December, 1972.

Figure 1. Enrollment in grades K-12 of regular day schools, by institutional control and organizational level, United States, fall 1963 to 1983

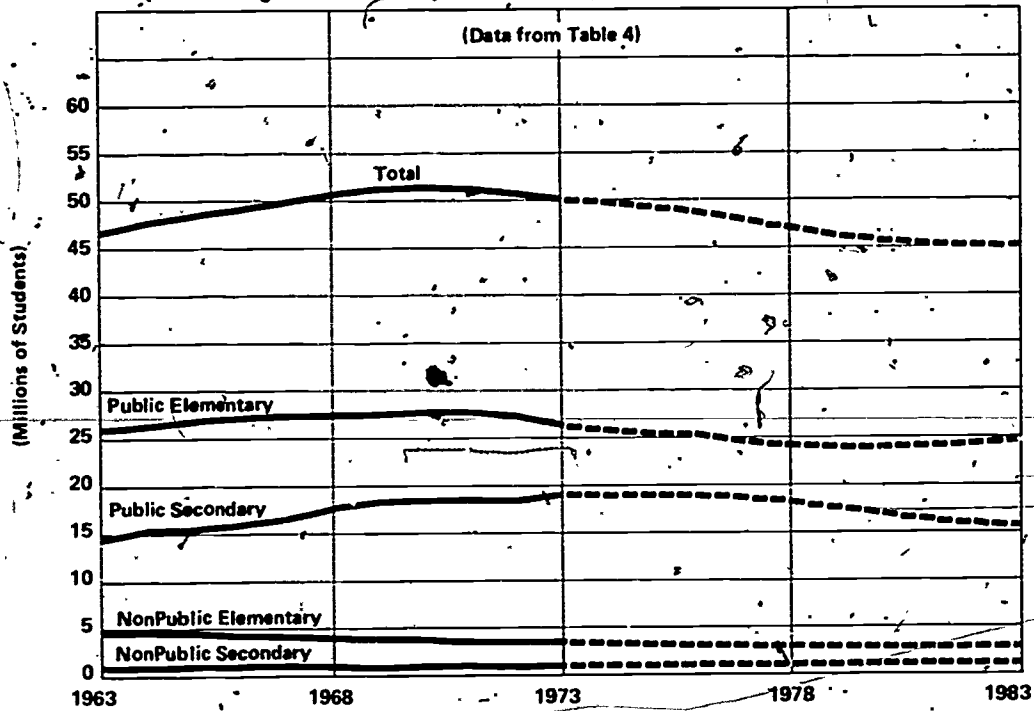


Figure 2. Total degree-credit enrollment in institutions of higher education, by control and type of institution: United States, fall 1963 to 1983

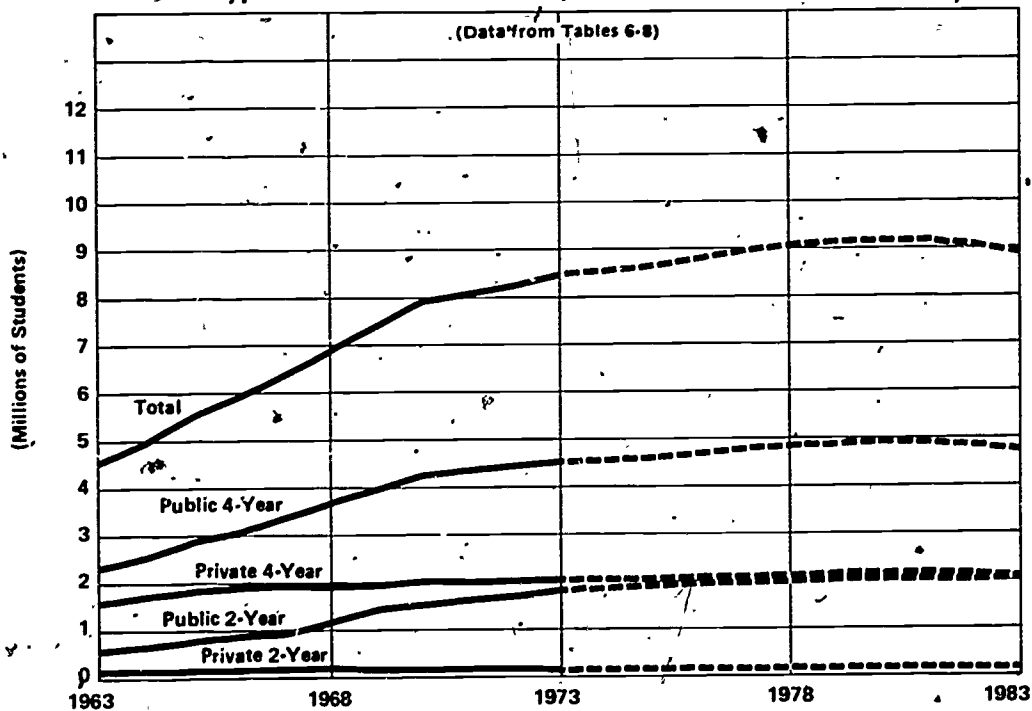


Figure 3. High school graduates: United States, 1963-64 to 1983-84

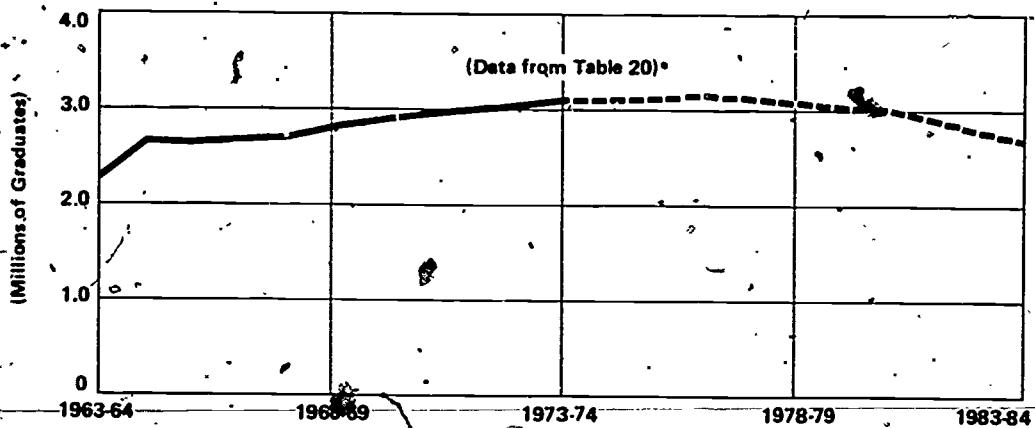


Figure 4. Earned degrees, by level: United States, 1963-64 to 1983-84

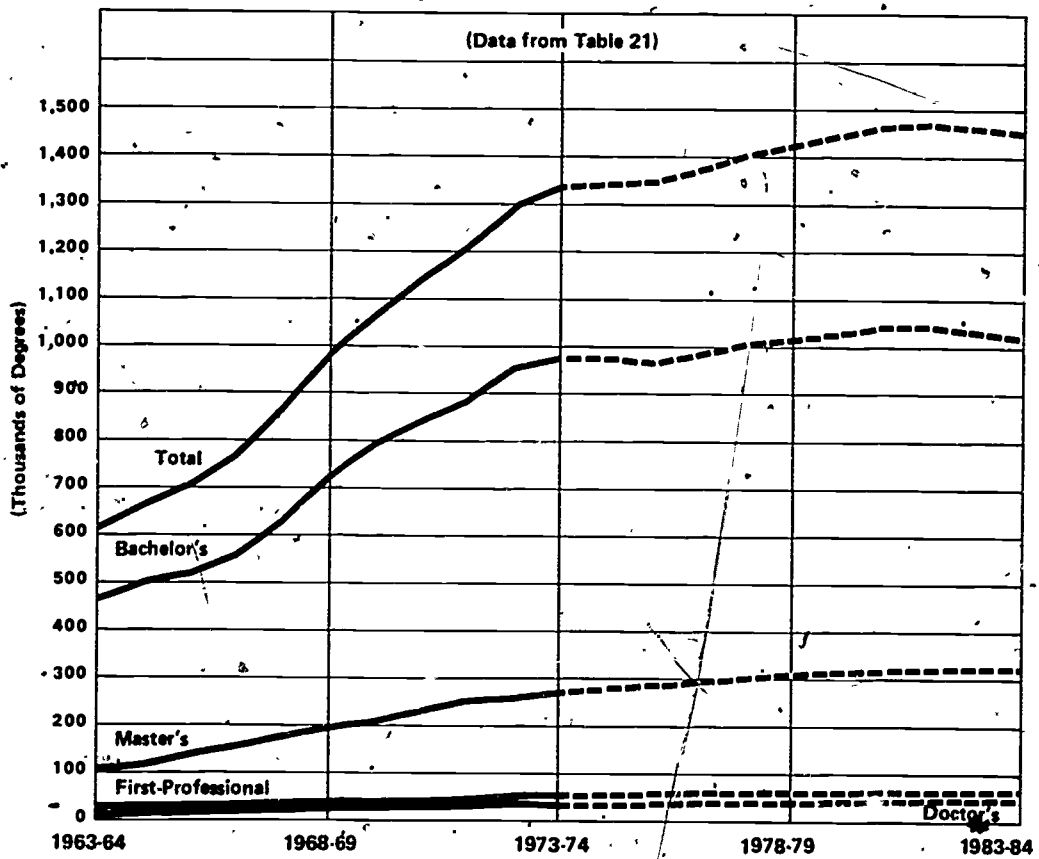


Figure 5. Classroom teachers in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1963 to 1983

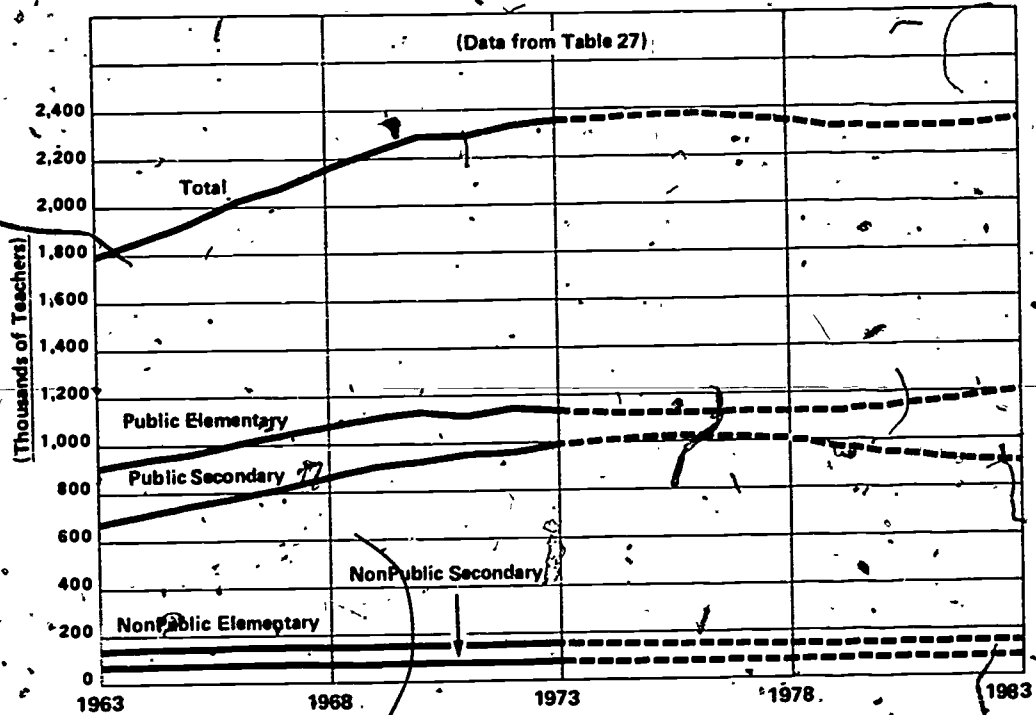


Figure 6. Instructional staff for resident courses in institutions of higher education, by professional rank: United States, fall 1963 to 1983

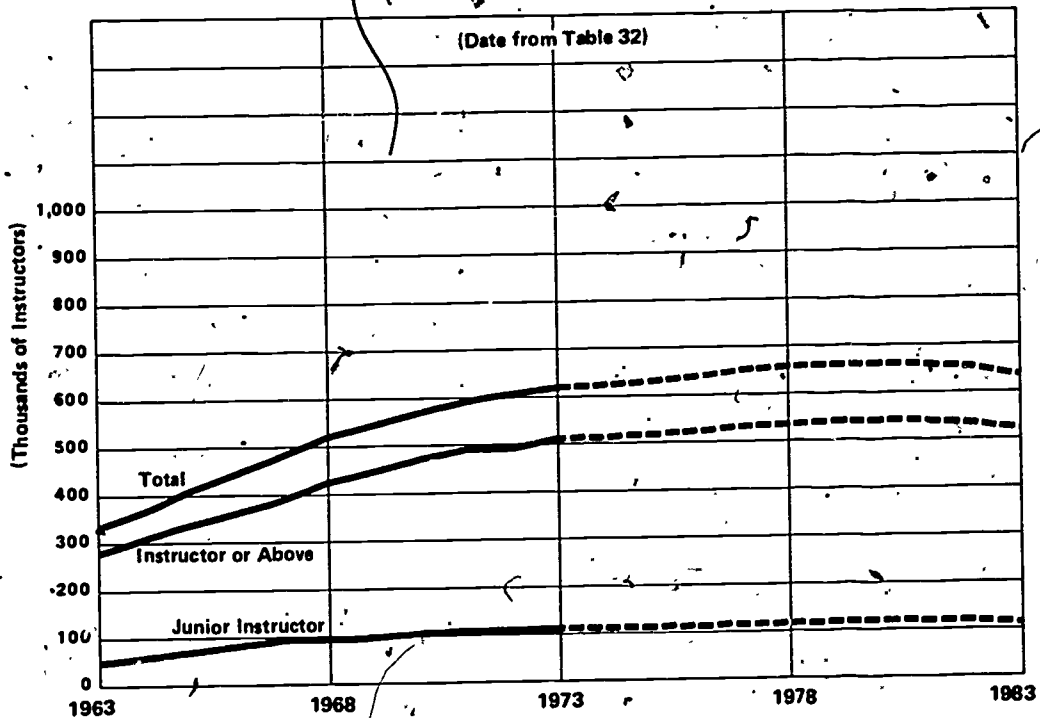


Figure 7: Total expenditures (1973-74 dollars), by regular elementary and secondary day schools: United States, 1963-64 to 1983-84

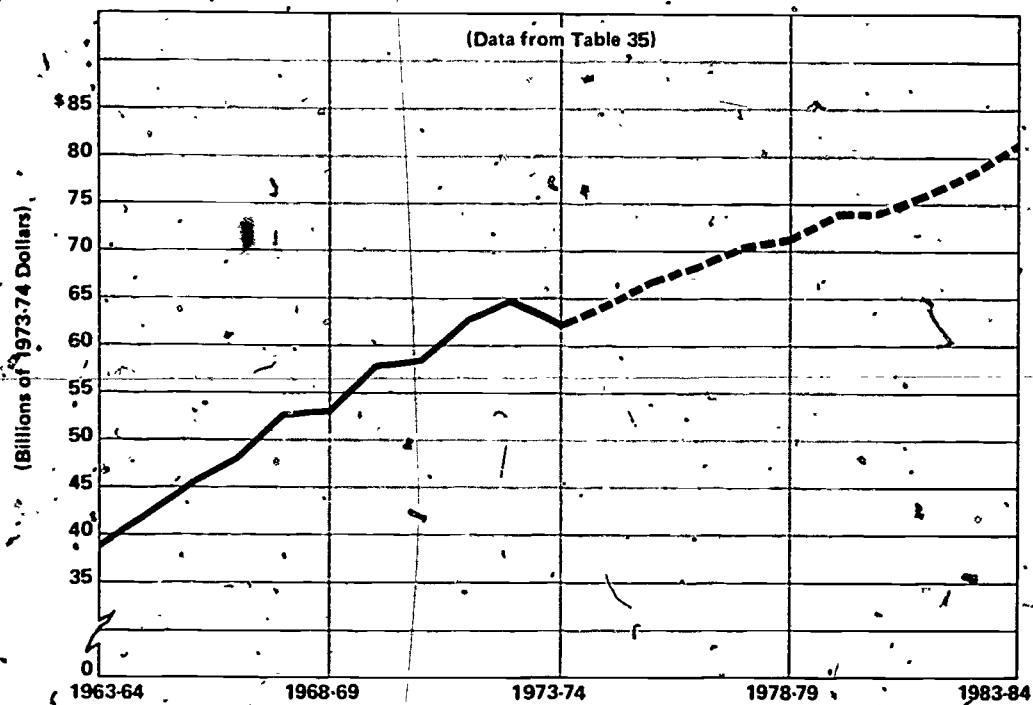


Figure 8: Total expenditures (1973-74 dollars), by institutions of higher education: United States, 1963-64 to 1983-84

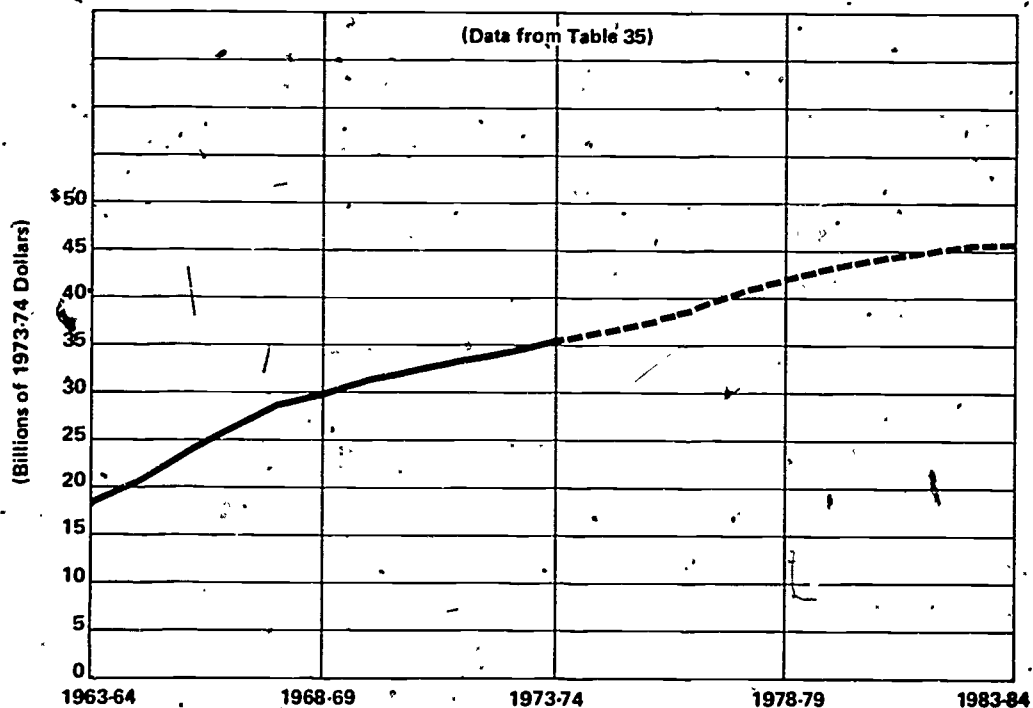


Figure 9. School- and college-age population: United States, October 1963 to 1983

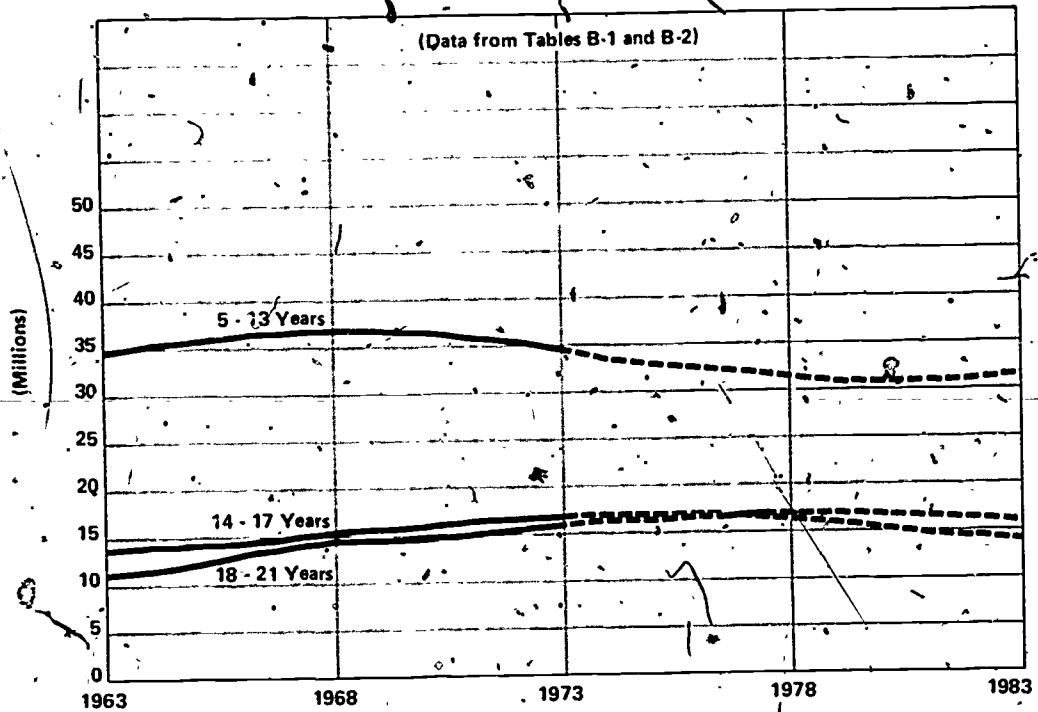


Table 1.—Summary of trends in education: United States,
1963-64 to 1983-84

Characteristic	Fall 1963	Fall 1973	Percent change 1963 to 1973	Fall 1983 ¹ (projected)	Percent change, 1973 to 1983
	Thousands			Thousands	
School-age population:					
5-13	34,746	34,555	-1	31,549	-9
14-17	13,681	16,770	23	13,996	-17
18-21	11,199	15,864	42	15,955	1
*18 (nearest birthday)	2,875	4,072	42	3,691	-9
Public school districts					
Operating	31.7	16.7	-47	.....	.....
Nonoperating	27.8	16.3	-41	.....	.....
.....	3.9	0.4	-90	.....	.....
Enrollment:					
K-grade 12					
K-8	46,487	50,209	8	45,200	-10
9-12	34,304	34,933	-2	32,100	-8
.....	12,183	15,276	25	13,100	-14
Public					
K-8	40,187	45,409	13	41,000	-10
9-12	29,304	31,333	7	29,100	-7
.....	10,883	14,076	29	11,900	-15
Nonpublic					
.....	6,300	4,800	-24	4,200	-12
Higher education:					
Degree credit					
Public	4,495	8,520	90	8,940	5
Private	2,848	6,389	124	6,806	7
.....	1,646	2,131	29	2,134	0
4-year					
2-year	3,870	6,598	70	6,827	3
.....	625	1,922	208	2,113	10
Undergraduate					
First-time	3,974	7,397	86	7,660	4
Graduate	1,046	1,757	68	1,584	-10
.....	521	1,123	116	1,280	14
Men					
Women	2,773	4,772	72	4,865	2
.....	1,722	3,747	118	4,075	9
Full-time					
Part-time	3,068	5,684	85	5,320	-6
Full-time-equivalent	1,426	2,836	99	3,620	28
.....	3,539	6,620	87	6,515	-2
Non-degree credit					
Public	271	1,082	299	1,637	51
Private	217	1,031	375	1,554	51
.....	54	51	-6	83	63
	1963-64	1973-74		1983-84	
High school graduates					
Public	2,290	3,095	35	2,679	-13
Nonpublic	2,015	2,795	39	2,379	-15
.....	275	300	9	300	0
Men					
Women	1,123	1,537	37	1,329	-14
.....	1,167	1,558	34	1,350	-13

See footnotes at end of table.

Table 1.—Summary of trends in education: United States,
1963-64 to 1983-84—Continued

Characteristic	1963-64	1973-74	Percent change, 1963 to 1973	1983-84 ¹ (pro- jected)	Percent change, 1973 to 1983
Percent that high school graduates are of the 18-year-old population	68.4	74.5	...	75.8	...
Percent that first-time degree-credit enrollment is of high school graduates	53.6	57.9	...	56.9	...
Earned degrees:					
Bachelors	466	977	110	1,022	5
Men	270	534	98	530	-1
Women	197	443	125	492	11
First-professional	28	54	93	64	19
Men	27	49	81	54	10
Women	1	5	400	11	120
Master's	106	270	155	319	18
Men	70	152	117	171	12
Women	35	118	237	148	25
Doctor's	14	34	143	45	32
Men	13	27	108	35	30
Women	2	6	200	10	67
Elementary and secondary instructional staff:	Fall 1963	Fall 1973		Fall 1983	
Classroom teachers	1,790	2,356	32	2,345	0
Elementary	1,050	1,286	22	1,354	5
Secondary	739	1,070	45	991	-7
Public	1,578	2,125	35	2,111	-1
Elementary	908	1,134	25	1,205	6
Secondary	669	991	48	906	-9
Nonpublic	212	231	9	234	1
Other instructional staff (public)	139	244	76	243	0
Higher education instructional staff, resident courses	331	620	87	637	3
Full-time-equivalent	242	488	102	502	3

**Table 1.—Summary of trends in education, United States,
1963–64 to 1983–84—Continued**

Characteristic	Unadjusted dollars		Constant 1973–74 dollars
	1963–64	1973–74	1983–84
Billions of dollars			
Total expenditures by regular educational institutions:³			
All levels	\$35.6	\$98.5	\$127.1
Public	27.8	80.3	103.7
Nonpublic	7.8	18.2	23.4
Elementary and secondary schools	24.3	63.1	81.4
Public	21.4	56.9	73.3
Nonpublic	2.9	6.2	8.1
Institutions of higher education	11.3	35.4	45.7
Public	6.4	23.4	30.4
Nonpublic	4.9	12.0	15.3
Dollars			
Current expenditure per pupil in average daily attendance in public elementary-secondary schools			
	\$460	\$1,147	\$1,696
Estimated average charges per full-time undergraduate degree-credit student:			
Tuition and required fees:			
Public	234	442	523
Private	1,012	2,185	2,796
Board:			
Public	435	617	617
Private	487	671	671
Dormitory room:			
Public	257	510	623
Private	316	580	680

¹ Projections are based on assumptions given in appendix A of *Projections of Educational Statistics to 1983–84*. 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, details 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 51 million in 1963 to 60 million in 1973 and is expected to decrease to 56 million in 1983. 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 participants in 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) enrollments in evening classes in regular public schools; and (3) enrollments 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. The elementary and secondary school 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 1963 to 1973 trends; (2) the retention rates in public elementary and secondary schools will remain constant at the average of the 1969 to 1973 levels; and (3) the series E school-age population on which the projections are based will remain through 1983 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 46 million in 1963 to 51 million in 1970. In 1973 this enrollment was 50 million, a million less students than in 1970, and by 1983 it is expected to decrease to 45 million, a

million fewer students than in 1963. The 1973 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 1.6 million between the ages of 3 and 6 years enrolled in independent nursery schools and kindergartens and an estimated 1.3 million in "special" (mostly private business and trade) schools.¹

Enrollment in grades K-8 increased from 34 million in 1963 to a high of almost 37 million in 1969 and has decreased to 35 million in 1973. It is expected to continue to decrease to 31 million in 1979 and 1980 and then begin to increase, reaching 32 million by 1983. 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 1983 substantially as now projected by the Bureau of the Census.

Based on the most recent birth expectation data of wives 18 to 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 12 million in 1963 to 15 million in 1971, is expected to remain at about the same level through 1979, and then begin to decrease rapidly to 13 million in 1983 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 definitions of elementary and secondary schools) increased from 16 million in 1963 to 20 million in 1973 and is expected to decrease to about 17 million in 1983. The enrollment in secondary schools is larger than the enrollment in grades 9 through 12 as shown in tables 3 and 4 because it includes all of the grades 9 through 12 enrollment 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, increasing numbers 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. Enrollment in elementary schools reached a peak of 32 million in 1967 but had dropped to 30 million in 1973 and is expected to continue to decrease to 27 million in 1979 and 1980 and then begin to increase, reaching 28 million by 1983.

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 (1) by applying projected age-specific enrollment rates to 5- and 6-year-olds (Bureau of the Census population series E) and (2) by applying projected grade-retention rates to children in grades 1 through 11.

It should be noted that children entering kindergarten through fall 1977 and first grade through fall 1978 were already born when the latest population projections were made; and

¹U.S. Department of Commerce, Bureau of the Census, "Current Population Reports, Population Characteristics, Social and Economic Characteristics of Students: October 1972," Series P-20, No. 260, February 1974.

²U.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.

thus the number is not dependent on assumed fertility rates. By 1983, the last year shown in the tables, only projections of kindergarten through grade 6 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.

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 1973 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 the regular day school enrollment (K-12) are now in nonpublic schools, mostly (about 75 percent) in Catholic schools. For the past 10 years, 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 National Center for Education Statistics 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 4.8 million in 1963 to 9.6 million in 1973 and is expected to be 10.6 million in 1983. In 1983, 16 percent of this enrollment is expected to be in occupational or general studies compared to 11 percent in 1973 and only 6 percent in 1963.

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

Opening fall enrollment in courses creditable toward a bachelor's or higher degree increased an average of 200,000 students per year for the past 3 years, 1970 to 1973. For the prior 5 years, 1965 to 1970, degree-credit enrollment increased an average of almost 500,000 students per year. These past 3 years of smaller increases seem to indicate an end to the era of large annual enrollment increases that marked the 1960's.

Data from the Bureau of the Census³ showing the percentage of 18- and 19-year-olds enrolled in college (in degree-credit courses) also seem to indicate a leveling off of degree-credit enrollment. The census data show that from 1970 to 1973 the percentage of 18- and 19-year-old men enrolled in college dropped more than 5 percent and the percentage of 18- and 19-year-old women enrolled in college declined more than 3 percent.

³U.S. Department of Commerce, Bureau of the Census, "Current Population Reports, Population Characteristics, School Enrollment in the United States (Advance data)," October 1972 and 1973, Series P-20, Numbers 247, February 1973, and 261, March 1974.

Therefore, it is no longer reasonable to assume that the past trend of the percentage that degree-credit enrollment is of the 18-21 year-old population will continue into the future. In 1972 and prior editions of this publication that assumption was made. In view of current changing enrollment patterns in postsecondary education, two alternate projections of total and first-time degree-credit enrollment, by sex, are given in appendix tables B-5 and B-6.

The projections shown in tables 6-8 and 13 differ from the projections in the appendix in that they are based on the assumption that for each sex the percentage that first-time degree-credit enrollment is of the average 18-year-old population will remain constant at the 1973 level through 1983.

Reflecting the aforementioned assumption, degree-credit enrollment is expected to increase by 700,000 students from 1973 to 1980 and then decrease by 200,000 students from 1980 to 1983, corresponding to the projected dip in the college-age population after 1980. This is compared to an increase of 4 million students during 1963-1973.

During the next 10 years, 1973-1983, almost all of the expected enrollment increases will be in public institutions with women accounting for over 75 percent of the increases.

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

The higher projections in table B-5 are primarily based on the assumption that by 1983 the percentage that first-time degree-credit enrollment is of the average 18-year-old population will increase to the higher rates that it reached in 1969 and 1970. The lower projections in table B-6 are primarily based on the assumption that by 1983 the percentage that first-time degree-credit enrollment is of the average 18-year-old population will continue to decrease to the lower rates of the mid 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 271,000 in 1963 to 1,082,000 in 1973, an increase of 800,000 students. More than half of the increase has occurred during the past 3 years, 1970-1973, when enrollment jumped from 661,000 to 1,082,000.

However, it is possible that some of the increases in non-degree-credit enrollment are due to increased coverage, rather than actual enrollment increases. Colleges often find it difficult to differentiate between degree-credit and non-degree-credit students. Also it may be that some students who were previously considered to be adult education students are now being counted as non-degree-credit students.

These and other inconsistencies in reporting non-degree-credit students 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 to non-degree-credit enrollment. Therefore, it is possible that the very large increases in non-degree-credit enrollment from 1970 to 1973 are in part attributable to reporting inconsistencies. However, non-degree-credit enrollment is undoubtedly increasing and it is expected to rise to more than 1.6 million students in 1983.

Over the next 10 years (1973-1983) almost 500,000 of the expected increase of over 550,000 students will be in public 2-year institutions, which represented 90 percent of non-degree-credit enrollment in 1973. Men will account for about 53 percent of the expected non-degree-credit enrollment increase, unlike degree-credit enrollment where women will account for more than 75 percent of the expected enrollment increase.

The projection of non-degree-credit enrollment is primarily based 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 1963 to 1973 trend to 1983.

Full-time-equivalent enrollment (table 12)

Estimated full-time-equivalent opening fall enrollment in degree-credit and non-degree-credit courses increased from 3.7 million in 1963 to 7.3 million in 1973 and is expected to be 7.5 million in 1983. The full-time-equivalent enrollment in degree-credit courses is projected to increase by 200,000 through 1980 and then drop 300,000 from 1980 to 1983, making the 1983 projection less than the estimated amount in 1973.

The percentage of part-time enrollment in degree-credit courses increased from 29 percent in 1968 to 33 percent in 1973 and is expected to be 40 percent by 1983. This is a further indication of the changing enrollment patterns in degree-credit courses. Throughout most of the 1960's, the percentage of full-time students remained at about 70 percent. However, recent trends indicate that this percent is decreasing and is expected to be about 60 percent in 1983.

In non-degree-credit courses part-time enrollment has always accounted for more than 50 percent of total enrollment. This relationship is expected to continue through 1983. The full-time-equivalent enrollment in non-degree-credit courses is expected to increase from 667,000 in 1973 to 1,012,000 in 1983.

The estimates of full-time-equivalent degree-credit enrollment is 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 degree-credit enrollment expressed as a percentage of the average 18-year-old population reached its highest point for both men and women in 1969 and 1970. Since then the percentages have declined. These decreases coincide with the previously mentioned census data⁴ that show 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 1973 will remain constant through 1983.

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 1,757,000 students in 1973 to 1,819,000 students in 1977 and then drop to 1,584,000 by 1983.

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 14).

Graduate enrollment (table 17)

The graduate enrollments and projections in this edition differ from graduate figures in previous editions because they include extension graduate enrollment, which previously was included in undergraduate and first-professional degree-credit enrollment figures.

Graduate enrollment increased from 521,000 in 1963 to 1.1 million in 1973. During the next 10 years, 1974-1983, the rate of growth of graduate enrollment is expected to slow down and the number of graduate students is expected to increase only about 160,000 students to nearly 1.3 million.

⁴ Ibid page 13.

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

Undergraduate and first-professional degree-credit enrollment in 4-year institutions was projected by subtracting projected graduate enrollment from projected total opening fall degree-credit enrollment in these institutions.

Estimated undergraduate and first-professional degree-credit enrollment (table 19) in 4-year institutions rose from 3.3 million in 1963 to 5.5 million in 1973. This enrollment is expected to increase to nearly 5.75 million in 1980 and then decrease to 5.5 million by 1983. Undergraduate degree-credit enrollment in 2-year institutions (table 8) more than tripled from 625,000 in 1963 to more than 1.9 million in 1973. However, this rapid growth is not expected to continue; an increase of only about 200,000 students is expected by 1983, raising the enrollment to 2.1 million.

Table 2.—Summary of enrollment in educational institutions, by institutional level and control: United States, fall 1963 to 1983

[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		
	(2)	Public (3)	Nonpublic (4)	Public (5)	Nonpublic (6)	Grade K-8		Grade 9-12		Public (11)	Nonpublic (12)
						Public (7)	Nonpublic (8)	Public (9)	Nonpublic (10)		
1963	51,253	43,253	8,000	3,066	1,700	29,324	5,000	10,883	1,300	403	1,391
1964	52,996	44,384	8,112	3,468	1,812	30,025	5,000	11,391	1,300	236	1,461
1965	54,394	46,143	8,251	3,970	1,951	30,563	4,900	11,610	1,400	305	1,472
1966	55,629	47,388	8,241	4,349	2,041	31,145	4,800	11,394	1,400	374	1,507
1967	56,803	48,707	8,096	4,816	2,096	31,641	4,600	12,250	1,400	457	1,571
1968	58,257	50,375	7,882	5,431	2,082	32,226	4,400	12,718	1,400	437	1,607
1969	59,124	51,516	7,608	5,897	2,108	32,577	4,200	13,022	1,300	326	1,626
1970	59,890	52,337	7,553	6,428	2,153	32,577	4,100	13,332	1,300	421	1,667
1971	60,229	52,885	7,344	6,804	2,144	32,265	3,900	13,816	1,300	524	1,741
1972	59,859	52,814	7,045	7,071	2,144	31,831	3,700	13,913	1,200	549	1,760
1973	59,812	52,829	6,983	7,420	2,183	31,333	3,600	14,076	1,200	343	1,255
* PROJECTED ⁴											
1974	59,409	52,525	6,884	7,525	2,184	30,700	3,500	14,300	1,200	403	1,391
1975	59,103	52,307	6,796	7,707	2,196	30,200	3,400	14,400	1,200	430	1,461
1976	58,829	52,110	6,719	7,910	2,219	29,800	3,300	14,400	1,200	429	1,472
1977	58,371	51,726	6,645	8,126	2,245	29,300	3,200	14,300	1,200	493	1,507
1978	57,557	50,992	6,565	8,292	2,265	28,600	3,100	14,100	1,200	558	1,607
1979	56,779	50,306	6,473	8,406	2,273	28,200	3,000	13,700	1,200	626	1,751
1980	56,356	49,877	6,479	8,477	2,279	28,200	3,000	13,200	1,200	693	1,902
1981	55,991	49,514	6,477	8,514	2,277	28,300	3,000	12,700	1,200	765	2,058
1982	55,738	49,280	6,458	8,480	2,258	28,700	3,000	12,100	1,200	840	2,214
1983	55,777	49,360	6,417	8,360	2,217	29,100	3,000	11,900	1,200	913	2,371

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 1964-73 trends of enrollment in these schools at each age level as a percentage of the total population of that age. (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, details may not add to totals.

SOURCES: Nursery school and kindergarten enrollment data are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (a) *Nursery-Kindergarten Enrollment of Children under Six*, October 1964 through 1966, (b) *Preprimary Enrollment of Children under Six*, October 1967 and 1968, (c) *Preprimary Enrollment*, October 1969 through 1972; and (2) U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, Population Characteristics, Nursery School and Kindergarten Enrollment: October 1973*, Series P-20, No. 268, August 1974.

Table 3.—Enrollment in grades K-8 and 9-12 of regular day schools, by institutional control: United States, fall 1963 to 1983¹

[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) ⁴	(7)	(8)	(9)	(10)
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	41,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	41,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	4,900	41,400
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	41,400
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	54,100	51,300
1971	51,281	36,165	15,116	46,081	32,265	13,816	5,200	63,900	61,300
1972	50,644	35,531	15,113	45,744	31,831	13,913	4,900	63,700	61,200
1973	50,209	34,933	15,276	45,409	31,333	14,076	4,800	63,600	61,200
PROJECTED⁷									
1974	49,700	34,200	15,500	45,000	30,700	14,300	4,700	3,500	1,200
1975	49,200	33,600	15,600	44,600	30,200	14,400	4,600	3,400	1,200
1976	48,700	33,100	15,600	44,200	29,800	14,400	4,500	3,300	1,200
1977	47,900	32,500	15,500	43,500	29,300	14,300	4,400	3,200	1,200
1978	47,000	31,700	15,300	42,700	28,600	14,100	4,300	3,100	1,200
1979	46,200	31,200	14,900	42,000	28,200	13,700	4,200	3,000	1,200
1980	45,600	31,200	14,400	41,400	28,200	13,200	4,200	3,000	1,200
1981	45,200	31,300	13,900	41,000	28,300	12,700	4,200	3,000	1,200
1982	45,000	31,700	13,300	40,800	28,700	12,100	4,200	3,000	1,200
1983	45,200	32,100	13,100	41,000	29,100	11,900	4,200	3,000	1,200

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 Educational Association.

⁶ Estimates are based on reports from the National Catholic Educational 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 1963-1973 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 3.2 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 5.1 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 100,000 students per year from 2.7 million in 1973 to 2.0 million in 1980 and then remain constant. (6) Enrollments in grades K-8 in all regular nonpublic day schools will decrease 100,000 students per year from 3.6 million in 1973 to 3.0 million in 1979 and then remain constant; grades 9-12 in these schools will remain constant at the 1973 estimated level.

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

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (a) *Statistics of Public Schools*, fall 1964 through 1973, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1963, (c) *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)*; and (2) National Catholic Educational Association publications: (a) A

Report on U.S. Catholic Schools, 1970-71, (b) U.S. Catholic Schools, 1971-72 through 1973-74.

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.



Table 4.—Enrollment in regular day schools, by institutional control and organizational level: United States, fall 1963 to 1983¹

[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)
1963	46,487	30,775	15,712	40,187	25,775	14,412	6,300	5,000	31,300
1964	47,716	31,221	16,495	41,416	26,221	15,195	6,300	5,000	31,300
1965	48,473	31,570	16,904	42,173	26,670	15,504	6,300	34,900	31,400
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	34,400	31,400
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	44,100	41,300
1971	51,281	31,588	19,693	46,081	27,688	18,393	5,200	53,900	51,300
1972	50,644	31,023	19,621	45,744	27,323	18,421	4,900	53,700	51,200
1973	50,209	30,014	20,194	45,409	26,414	18,994	4,800	53,600	51,200
PROJECTED⁶.									
1974	49,700	29,300	20,400	45,000	25,800	19,200	4,700	3,500	1,200
1975	49,200	28,800	20,400	44,600	25,400	19,200	4,600	3,400	1,200
1976	48,700	28,400	20,300	44,200	25,100	19,100	4,500	3,300	1,200
1977	47,900	27,900	20,000	43,500	24,700	18,800	4,400	3,200	1,200
1978	47,000	27,400	19,600	42,700	24,300	18,400	4,300	3,100	1,200
1979	46,200	27,200	19,000	42,000	24,200	17,800	4,200	3,000	1,200
1980	45,600	27,200	18,400	41,400	24,200	17,200	4,200	3,000	1,200
1981	45,200	27,400	17,800	41,000	24,400	16,600	4,200	3,000	1,200
1982	45,000	27,600	17,400	40,800	24,600	16,200	4,200	3,000	1,200
1983	45,200	28,000	17,200	41,000	25,000	16,000	4,200	3,000	1,200

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 Educational Association.

⁵ Estimates based on reports from the National Catholic Educational 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 secondary enrollment will remain constant at the 1973 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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (a) *Statistics of Public Schools*, fall 1964 through 1973, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1963, (c) *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*; and (2) National Catholic Educational Association publications: (a) *A Report on U.S. Catholic Schools, 1970-71*, (b) *U.S. Catholic Schools, 1971-72, through 1973-74*.

Table 5.—Summary of enrollment in all institutions of higher education, by degree-credit status and institutional type: United States, fall 1963 to 1983

[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)
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	361
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
1973	9,602	8,520	6,598	1,922	1,082	82	1,000
PROJECTED²							
1974	9,709	8,560	6,615	1,945	1,149	89	1,060
1975	9,903	8,665	6,680	1,985	1,238	97	1,141
1976	10,129	8,824	6,783	2,041	1,305	101	1,204
1977	10,371	8,994	6,897	2,097	1,377	107	1,270
1978	10,557	9,118	6,979	2,139	1,439	113	1,326
1979	10,679	9,175	7,012	2,163	1,504	116	1,388
1980	10,756	9,210	7,036	2,174	1,546	121	1,425
1981	10,791	9,201	7,029	2,172	1,590	124	1,466
1982	10,738	9,118	6,964	2,154	1,620	127	1,493
1983	10,577	8,940	6,827	2,113	1,637	127	1,510

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

² For assumption, 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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, and (3) data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished).

Table 6.—Total degree-credit enrollment in all institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1963 to 1983

[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)
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	6,158,929	2,106,128
1973	8,519,750	4,772,288	3,747,462	5,684,049	2,835,701	6,388,619	2,131,131
PROJECTED ²							
1974	8,560,000	4,753,000	3,807,000	5,650,000	2,910,000	6,434,000	2,126,000
1975	8,665,000	4,782,000	3,883,000	5,654,000	3,011,000	6,532,000	2,133,000
1976	8,824,000	4,857,000	3,967,000	5,691,000	3,133,000	6,671,000	2,153,000
1977	8,994,000	4,944,000	4,050,000	5,739,000	3,255,000	6,819,000	2,175,000
1978	9,118,000	5,007,000	4,111,000	5,752,000	3,366,000	6,926,000	2,192,000
1979	9,175,000	5,029,000	4,146,000	5,723,000	3,452,000	6,978,000	2,197,000
1980	9,210,000	5,038,000	4,172,000	5,675,000	3,535,000	7,010,000	2,200,000
1981	9,201,000	5,026,000	4,175,000	5,605,000	3,596,000	7,004,000	2,197,000
1982	9,118,000	4,969,000	4,149,000	5,489,000	3,629,000	6,942,000	2,176,000
1983	8,940,000	4,865,000	4,075,000	5,320,000	3,620,000	6,806,000	2,134,000

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, for each sex, is based primarily on the following assumptions and methodology: (a) For each year, a base of students enrolled full time in degree-credit courses for the first time in that year and in the previous 3 years was computed. The full-time enrollment base was assumed to consist of 100 percent of the given year's full-time degree-credit students plus 75 percent, 60 percent, and 55 percent of the previous 3 years full-time first-time degree-credit students, respectively. (b) It was assumed that full-time undergraduate and unclassified enrollment, expressed as a percentage of the full-time first-time degree-credit enrollment base, described in (a), would remain constant at the 1973 level through 1983. (c) It was assumed that full-time undergraduate and unclassified enrollment expressed as a percentage of total undergraduate and unclassified enrollment would follow the 1968-1973 trend

through 1983. (d) The projection of total degree-credit enrollment is based on the assumption that the percentage that undergraduate and unclassified degree-credit enrollment, expressed as a percentage of total degree-credit enrollment, will follow the 1968-1973 trend through 1983. (e) The projection of total degree-credit enrollment by attendance status was computed by adding the full-time undergraduate and unclassified degree-credit enrollment, described in (a), and the full-time postbaccalaureate (graduate and first-professional) degree-credit enrollment. (f) The postbaccalaureate enrollment was computed as the difference between total degree-credit enrollment and undergraduate and unclassified degree-credit enrollment. (g) It was assumed that full-time postbaccalaureate degree-credit enrollment, expressed as a percentage of total postbaccalaureate degree-credit enrollment, would remain approximately constant at the 1973 level through 1983. (h) The projection of total degree-credit enrollment by control of institutions is primarily based on the assumption that the percentage distribution of total degree-credit enrollment by type and control of institution will remain approximately constant at the 1973 percentages through 1983.

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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment*

in Higher Education, Supplementary Information, 1969 and 1970, and (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 1963 to 1983

[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)
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	4,464,464	2,008,739
1973	6,598,024	3,723,830	2,874,194	4,760,208	1,837,816	4,559,408	2,038,616
PROJECTED ²							
1974	6,615,000	3,712,000	2,903,000	4,734,000	1,881,000	4,577,000	2,038,000
1975	6,680,000	3,735,000	2,945,000	4,735,000	1,945,000	4,635,000	2,045,000
1976	6,783,000	3,793,000	2,990,000	4,761,000	2,022,000	4,719,000	2,064,000
1977	6,897,000	3,862,000	3,035,000	4,798,000	2,099,000	4,811,000	2,086,000
1978	6,979,000	3,911,000	3,068,000	4,804,000	2,175,000	4,877,000	2,102,000
1979	7,012,000	3,925,000	3,087,000	4,777,000	2,235,000	4,905,000	2,107,000
1980	7,036,000	3,935,000	3,101,000	4,734,000	2,302,000	4,926,000	2,110,000
1981	7,029,000	3,926,000	3,103,000	4,674,000	2,355,000	4,922,000	2,107,000
1982	3,964,000	3,881,000	3,083,000	4,575,000	2,389,000	4,878,000	2,086,000
1983	6,827,000	3,799,000	3,028,000	4,431,000	2,396,000	4,782,000	2,045,000

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.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, and (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 8-2.

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

V

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 1963 to 1983

[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)
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
1973	1,921,726	1,048,458	873,268	923,841	997,885	1,829,211	92,545
PROJECTED²							
1974	1,945,000	1,041,000	904,000	916,000	1,029,000	1,857,000	88,000
1975	1,985,000	1,047,000	938,000	919,000	1,066,000	1,897,000	88,000
1976	2,041,000	1,064,000	977,000	930,000	1,111,000	1,952,000	89,000
1977	2,097,000	1,082,000	1,015,000	941,000	1,156,000	2,008,000	89,000
1978	2,139,000	1,096,000	1,043,000	948,000	1,191,000	2,049,000	90,000
1979	2,163,000	1,104,000	1,059,000	946,000	1,217,000	2,073,000	90,000
1980	2,174,000	1,103,000	1,071,000	941,000	1,233,000	2,084,000	90,000
1981	2,172,000	1,100,000	1,072,000	931,000	1,241,000	2,082,000	90,000
1982	2,154,000	1,088,000	1,066,000	914,000	1,240,000	2,064,000	90,000
1983	2,113,000	1,066,000	1,047,000	889,000	1,224,000	2,024,000	89,000

¹The 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.

²For 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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (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 1963 to 1983

[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)
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
1973	1,082,373	598,764	483,609	505,444	576,929	1,030,897	51,476
PROJECTED ³							
1974	1,149,000	636,000	513,000	541,000	608,000	1,091,000	58,000
1975	1,238,000	682,000	556,000	583,000	655,000	1,175,000	63,000
1976	1,305,000	717,000	588,000	613,000	692,000	1,239,000	66,000
1977	1,377,000	758,000	619,000	648,000	729,000	1,307,000	70,000
1978	1,439,000	790,000	649,000	677,000	762,000	1,366,000	73,000
1979	1,504,000	823,000	681,000	707,000	797,000	1,428,000	76,000
1980	1,546,000	844,000	702,000	727,000	819,000	1,467,000	79,000
1981	1,590,000	870,000	720,000	748,000	842,000	1,510,000	80,000
1982	1,620,000	880,000	740,000	762,000	858,000	1,538,000	82,000
1983	1,637,000	891,000	746,000	770,000	867,000	1,554,000	83,000

¹ Estimated for all years prior to 1968. See appendix A, "Estimation Methods," sec. 31.

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 1963-1973 trend to 1983.

For each sex, it was assumed that the percentage distribution of total non-degree-credit enrollment, by type and control of institution, would remain constant at the 1973 percentages through 1983.

The projection of total non-degree-credit enrollment by attendance status is based on the assumption that, for each sex, full-time non-

degree-credit enrollment, expressed as a percentage of total non-degree-credit enrollment, will remain constant at the average of the 1968 to 1973 percentages through 1983.

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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, and (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 10.—Non-degree-credit enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1963 to 1983

[Resident and extension opening fall enrollment]

Year (fall)	Total non- degree-credit enrollment	Sex		Attendance status ¹		Control	
		Men	Wcmen	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
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
1973	82,293	45,012	37,281	50,038	32,258	56,882	25,411
PROJECTED ³							
1974	89,000	49,000	40,000	55,000	34,000	62,000	27,000
1975	97,000	53,000	44,000	60,000	37,000	68,000	29,000
1976	101,000	55,000	46,000	62,000	39,000	71,000	30,000
1977	107,000	58,000	49,000	66,000	41,000	75,000	32,000
1978	113,000	61,000	52,000	70,000	43,000	79,000	34,000
1979	116,000	63,000	53,000	71,000	45,000	81,000	35,000
1980	121,000	65,000	56,000	75,000	46,000	85,000	36,000
1981	124,000	67,000	57,000	77,000	47,000	87,000	37,000
1982	127,000	68,000	59,000	78,000	49,000	89,000	38,000
1983	127,000	68,000	59,000	78,000	49,000	89,000	38,000

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

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.

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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, and (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 8, table 8-2.

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 1963 to 1983

[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)
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
1973	1,000,080	553,752	446,328	455,409	544,671	974,015	26,065
PROJECTED³							
1974	1,060,000	587,000	473,000	486,000	574,000	1,029,000	31,000
1975	1,141,000	628,000	513,000	523,000	618,000	1,107,000	34,000
1976	1,204,000	662,000	542,000	551,000	653,000	1,168,000	36,000
1977	1,270,000	699,000	571,000	582,000	688,000	1,232,000	38,000
1978	1,326,000	728,000	598,000	607,000	719,000	1,287,000	39,000
1979	1,388,000	760,000	628,000	636,000	752,000	1,347,000	41,000
1980	1,425,000	778,000	647,000	652,000	773,000	1,382,000	43,000
1981	1,466,000	803,000	663,000	671,000	795,000	1,423,000	43,000
1982	1,493,000	811,000	682,000	684,000	809,000	1,449,000	44,000
1983	1,510,000	823,000	687,000	692,000	818,000	1,465,000	45,000

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

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.

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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, and (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 12.—Estimated full-time-equivalent enrollment in all institutions of higher education, by degree-credit status and institutional control: United States, fall 1963 to 1983¹

[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)
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	5,301	1,782	6,511	4,758	1,753	572	543	29
1973	7,287	5,491	1,796	6,620	4,864	1,756	667	627	40
PROJECTED									
1974	7,321	5,522	1,799	6,610	4,856	1,754	711	666	45
1975	7,416	5,608	1,808	6,648	4,890	1,758	768	718	50
1976	7,532	5,709	1,823	6,725	4,953	1,772	807	756	51
1977	7,666	5,823	1,843	6,813	5,025	1,788	853	798	55
1978	7,753	5,897	1,856	6,863	5,063	1,800	890	834	56
1979	7,793	5,932	1,861	6,863	5,061	1,802	930	871	59
1980	7,798	5,935	1,863	6,841	5,039	1,802	957	896	61
1981	7,775	5,916	1,859	6,791	4,994	1,797	984	922	62
1982	7,690	5,848	1,842	6,687	4,909	1,778	1,003	939	64
1983	7,527	5,721	1,806	6,515	4,774	1,741	1,012	947	65

¹ The estimations, 1963 to 1973, 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) remain constant, 1963 to 1983.

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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (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) 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 1963 to 1983

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total degree- credit enrollment	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)
1963	4,495	521	3,349	775	2,574	625	272	353
1964	4,950	608	3,631	903	2,728	711	322	389
1965	5,526	697	3,988	1,041	2,947	841	401	441
1966 ²	5,928	768	4,216	989	3,227	945	389	556
1967 ²	6,406	849	4,476	992	3,484	1,081	447	634
1968	6,928	885	4,754	1,086	3,668	1,289	554	735
1969	7,484	955	5,000	1,107	3,893	1,528	642	886
1970	7,920	1,031	5,259	1,126	4,133	1,630	654	976
1971	8,116	1,012	5,379	1,096	4,283	1,725	670	1,055
1972	8,265	1,066	5,407	1,065	4,342	1,792	675	1,117
1973	8,520	1,123	5,475	1,076	4,399	1,922	681	1,241
PROJECTED ³								
1974	8,560	1,141	5,474	1,095	4,379	1,945	690	1,255
1975	8,665	1,163	5,517	1,105	4,412	1,985	697	1,288
1976	8,824	1,200	5,583	1,108	4,475	2,041	699	1,342
1977	8,994	1,232	5,665	1,116	4,549	2,097	703	1,394
1978	9,118	1,257	5,722	1,110	4,612	2,139	699	1,440
1979	9,175	1,273	5,739	1,090	4,649	2,163	687	1,476
1980	9,210	1,290	5,746	1,074	4,672	2,174	677	1,497
1981	9,201	1,301	5,728	1,058	4,670	2,172	666	1,506
1982	9,118	1,297	5,667	1,021	4,646	2,154	643	1,511
1983	8,940	1,280	5,547	971	4,576	2,113	612	1,501

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 graduate enrollment in 4-year institutions is the same as that shown in table 17.

The projection of undergraduate and first-professional degree-credit enrollment in 4-year institutions is the same as that shown in table 19.

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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (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*, 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 1963 to 1983

[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)
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	1,322,903	417,535
1973	1,756,854	930,783	826,071	1,361,942	394,912	1,342,536	414,318
PROJECTED³							
1974	1,784,000	947,000	837,000	1,378,000	406,000	1,362,000	422,000
1975	1,801,000	956,000	845,000	1,386,000	415,000	1,376,000	425,000
1976	1,807,000	959,000	848,000	1,386,000	421,000	1,381,000	426,000
1977	1,819,000	965,000	854,000	1,392,000	427,000	1,390,000	429,000
1978	1,809,000	961,000	848,000	1,380,000	429,000	1,382,000	427,000
1979	1,776,000	943,000	833,000	1,353,000	423,000	1,357,000	419,000
1980	1,751,000	929,000	822,000	1,330,000	421,000	1,337,000	414,000
1981	1,724,000	915,000	809,000	1,306,000	418,000	1,317,000	407,000
1982	1,664,000	883,000	781,000	1,260,000	404,000	1,271,000	393,000
1983	1,584,000	840,000	744,000	1,196,000	388,000	1,210,000	374,000

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 1973 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 distribution of first-time degree-credit enrollment by type and control of institution will remain consistent at the 1973 percentages through 1983.

The projection of first-time degree-credit enrollment by attendance status is based on the assumption that, for men and women separately, full-time first-time degree-credit enrollment, expressed as a percentage of total first-time degree-credit enrollment, will remain constant at the 1973 level through 1983.

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, details may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (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).

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

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 1963 to 1983

[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)
1963	714,744	441,220	333,524	687,000	88,000	452,104	322,640
1964	907,599	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	484,534	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	693,283	371,845
1973	1,076,140	562,324	513,816	968,185	107,955	706,029	370,111
PROJECTED³							
1974	1,095,000	573,000	522,000	984,000	111,000	716,000	379,000
1975	1,105,000	579,000	526,000	993,000	112,000	723,000	382,000
1976	1,108,000	580,000	528,000	996,000	112,000	725,000	383,000
1977	1,116,000	584,000	532,000	1,004,000	112,000	730,000	386,000
1978	1,110,000	582,000	528,000	998,000	112,000	726,000	384,000
1979	1,090,000	571,000	519,000	981,000	109,000	713,000	377,000
1980	1,074,000	562,000	512,000	966,000	108,000	702,000	372,000
1981	1,058,000	554,000	504,000	951,000	107,000	692,000	366,000
1982	1,021,000	534,000	487,000	919,000	102,000	668,000	353,000
1983	971,000	508,000	463,000	872,000	99,000	635,000	336,000

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 14. 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, details may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, and (3) data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished).

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 1963 to 1983

[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)	(2)	(4)	(5)	(6)	(7)	(8)
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	374,974	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
1973	680,714	368,459	312,255	393,757	286,957	636,507	44,207
PROJECTED³							
1974	690,000	374,000	316,000	394,000	296,000	647,000	43,000
1975	697,000	378,000	319,000	393,000	304,000	654,000	43,000
1976	699,000	379,000	320,000	390,000	309,000	656,000	43,000
1977	703,000	381,000	322,000	388,000	315,000	660,000	43,000
1978	699,000	379,000	320,000	382,000	317,000	656,000	43,000
1979	687,000	373,000	314,000	372,000	315,000	645,000	42,000
1980	677,000	367,000	310,000	364,000	313,000	635,000	42,000
1981	666,000	361,000	305,000	355,000	311,000	625,000	41,000
1982	643,000	349,000	294,000	341,000	302,000	603,000	40,000
1983	612,000	332,000	280,000	323,000	289,000	574,000	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 14. For methodological details, see appendix A, table A-1.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970, and (3) data from *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished).

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

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

Table 17.—Graduate enrollment in 4-year institutions of higher education, by sex, by attendance status, and by institutional control: United States, fall 1963 to 1983¹

[In thousands]

Year (fall)	Total graduate degree- credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1963 ²	521	359	162	188	333	319	202
1964 ²	608	410	198	221	387	378	230
1965 ²	697	465	232	256	441	440	257
1966 ²	768	503	265	285	483	489	279
1967 ²	849	547	302	317	532	550	299
1968 ²	885	558	327	337	548	584	301
1969	955	590	366	364	591	666	289
1970	1,031	632	399	379	652	724	307
1971	1,012	615	397	388	624	712	300
1972	1,066	627	439	393	673	757	308
1973	1,123	647	476	409	714	799	324
PROJECTED³							
1974	1,141	653	488	417	724	810	331
1975	1,163	660	503	424	739	826	337
1976	1,200	678	522	437	763	852	348
1977	1,232	695	537	449	783	875	357
1978	1,257	707	550	457	800	892	365
1979	1,273	714	559	463	810	904	369
1980	1,290	719	571	468	822	916	374
1981	1,301	726	575	473	828	924	377
1982	1,297	721	576	471	826	921	376
1983	1,280	710	570	464	816	909	371

¹ Includes resident and extension graduate degree-credit enrollment. The estimates, 1963-1968, and data, 1969-1973, differ from figures in previous editions of *Projections of Educational Statistics* because they include extension graduate enrollment, which previously was included in undergraduate and first-professional degree-credit enrollment figures.

² For method of estimating total graduate enrollment, 1963 to 1968, see appendix A, "Estimation Methods," secs. 3a, 3b, 3h, 3i, 3k, and 3l.

³ The projection of graduate enrollment is based primarily on the assumption that, for each sex, graduate enrollment expressed as a percentage of postbaccalaureate enrollment will follow the 1968-1973 trend through 1983. Post-baccalaureate enrollment was computed as the difference between total degree-credit enrollment and total undergraduate and unclassified degree-credit enrollment. For methods and assumptions used to project total degree-credit enrollment and total undergraduate and unclassified degree-credit enrollment, see footnote 2, table 6.

The projection of total graduate enrollment by attendance status is based on the assumption that, for each sex, full-time graduate enrollment expressed as a percentage of total graduate enrollment will remain constant at the 1973 level through 1983.

The projection of total graduate enrollment by control of institution is based on the assumption that public graduate enrollment expressed as a percentage of total graduate enrollment will remain constant at the 1973 level through 1983.

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

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (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 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 1963 to 1983¹

[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)
1963 ²	3,974	2,414	1,560	2,881	1,093	2,529	1,444
1964 ²	4,342	2,623	1,719	3,196	1,145	2,802	1,541
1965 ²	4,829	2,910	1,919	3,654	1,175	3,184	1,645
1966 ²	5,160	3,074	2,086	3,940	1,220	3,451	1,709
1967 ²	5,557	3,275	2,282	4,239	1,318	3,810	1,747
1968 ²	6,043	3,561	2,482	4,600	1,443	4,308	1,735
1969	6,529	3,829	2,700	4,890	1,639	4,749	1,780
1970	6,889	4,005	2,884	5,110	1,779	5,076	1,813
1971	7,104	4,102	3,002	5,289	1,816	5,302	1,802
1972	7,199	4,074	3,125	5,253	1,946	5,401	1,798
1973	7,397	4,125	3,271	5,275	2,122	5,589	1,807
PROJECTED							
1974	7,419	4,100	3,319	5,233	2,186	5,624	1,795
1975	7,502	4,122	3,380	5,230	2,272	5,706	1,796
1976	7,624	4,179	3,445	5,254	2,370	5,819	1,805
1977	7,762	4,249	3,513	5,290	2,470	5,944	1,818
1978	7,861	4,300	3,561	5,295	2,566	6,034	1,827
1979	7,902	4,315	3,587	5,260	2,642	6,074	1,828
1980	7,920	4,319	3,601	5,207	2,713	6,094	1,826
1981	7,900	4,300	3,600	5,132	2,768	6,080	1,820
1982	7,821	4,248	3,573	5,018	2,803	6,021	1,800
1983	7,660	4,155	3,505	4,856	2,804	5,897	1,763

¹ The estimates for 1963 through 1968 and projections of undergraduate degree-credit enrollment in all institutions, by sex, attendance status, and institutional control, were 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). The estimates, 1963 through 1968, and data, 1969 through 1973, differ from figures in previous editions of *Projections of Educational Statistics* because they exclude extension graduate enrollment, which previously was included in undergraduate and first-professional degree-credit enrollment figures.

² Estimated.

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, details may not add to totals.

SOURCES.—Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973; (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 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 1963 to 1983¹

[Resident and extension opening fall enrollment—in thousands]

Year (fall)	Total under- graduate degree-credit enrollment	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1963	3,349	2,027	1,322	2,553	796	1,978	1,371
1964 ²	3,631	2,183	1,448	2,800	831	2,181	1,451
1965 ²	3,988	2,388	1,600	3,159	829	2,447	1,541
1966 ²	4,216	2,497	1,719	3,377	839	2,611	1,604
1967 ²	4,476	2,623	1,853	3,623	853	2,843	1,634
1968 ²	4,754	2,779	1,975	3,861	893	3,139	1,615
1969	5,000	2,919	2,081	4,041	959	3,336	1,664
1970	5,259	3,051	2,208	4,234	1,025	3,556	1,703
1971	5,379	3,099	2,280	4,358	1,021	3,679	1,700
1972	5,407	3,075	2,333	4,350	1,058	3,707	1,700
1973	5,475	3,077	2,398	4,351	1,124	3,760	1,714
PROJECTED							
1974	5,474	3,059	2,415	4,317	1,157	3,767	1,707
1975	5,517	3,075	2,442	4,311	1,206	3,809	1,708
1976	5,583	3,115	2,468	4,324	1,259	3,867	1,716
1977	5,665	3,167	2,498	4,349	1,316	3,936	1,729
1978	5,722	3,204	2,518	4,347	1,375	3,985	1,737
1979	5,739	3,211	2,528	4,314	1,425	4,001	1,738
1980	5,746	3,216	2,530	4,266	1,480	4,010	1,736
1981	5,728	3,200	2,528	4,201	1,527	3,998	1,730
1982	5,667	3,160	2,507	4,104	1,563	3,957	1,710
1983	5,547	3,089	2,458	3,967	1,580	3,873	1,674

¹ The estimates for 1963 through 1968 and projections of undergraduate degree-credit enrollment in 4-year institutions, by sex, attendance status, and institutional control, were calculated by subtracting graduate enrollment in the above categories (table 17) from corresponding categories of degree-credit enrollment in 4-year institutions (table 7). The estimates, 1963–1968, and data, 1969–1973, differ from figures in previous editions of *Projections of Educational Statistics* because they exclude extension graduate enrollment, which previously was included in undergraduate and first-professional degree-credit enrollment figures.

² Estimated.

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, details may not add to totals.

SOURCES: Enrollment data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Opening (Fall) Enrollment in Higher Education*, annually, 1963 through 1968, 1971 through 1973, (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1959 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 1963, and (5) *Residence and Migration of College Students*, fall 1968.

CHAPTER III

High School Graduates and Earned Degrees

Martin M. Frankel and Delton L. Moore

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 1973-74 and is expected to decrease to 2.7 million in 1983-84. 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 one percent of all high school graduates.

Two main sources form the basis for the aforementioned figures. Graduates of regular public schools are reported each fall by the State departments of education. 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 National Center for Education Statistics (NCES). Other graduates 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 1983-84 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 remain constant at the 1972-73 rate through 1983-84.

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

High school graduates, as a percent of the population averaging 18 years old (table B-2) increased greatly from 1962-63 to 1966-67 (66 to 74 percent for men and 70 to 77 percent for women). However, from 1966-67 to 1972-73 this percent has remained about the same, and is projected to remain constant at the 1972-73 rate through 1983-84 for both men and women.

Since the bulk of 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 (1974 to 1983).

Earned Degrees

Earned degrees reports from individual degree-granting institutions of higher education are received each fall by the National Center for Education Statistics. These 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.

The 1972 edition of *Projections of Educational Statistics* reflected two major reporting changes. One change came about because the survey of earned degrees covered in the 1972 edition was based on a new taxonomy. The breakdown of earned degrees into fields shown in tables 22-26 differs from the breakdown used 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 National Center for Education Statistics. However, for this edition the 1972-73 data for earned degrees were not processed in time to be used in making the new earned degree projections. Data on doctor's degrees, by sex, for 1972-73 were provided by the National Research Council.

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	Estimated	Projected
	1963-64	1973-74	1983-84
Bachelor's	466,500	977,000	1,022,000
First-professional	27,700	54,100	64,400
Master's	105,600	270,100	319,100
Doctorate	14,500	33,700	44,600

Bachelor's degrees projections by sex are based on the assumption that the percentage that bachelor's degrees were of first-time degree-credit enrollment 4 years earlier will follow the 1961-62 to 1971-72 trend through 1983-84.

Master's degree projections by sex are based on the assumption that the 1971-72 percentage that master's degrees were of the average first-year enrollment for advanced degrees 1 and 2 years earlier will remain constant through 1983-84.

Doctor's degree projections by sex are based primarily on the assumption that the percentage that doctor's degrees were of the average first-year enrollment for advanced degrees

7 and 8 years earlier will remain constant at approximately the 1973-74 estimated rate through 1983-84.

Projections of total first-professional degrees for 1971-72 to 1973-74 were obtained by summing the projected degrees in all the individual fields.

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

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

The fields presented are divided into three main groups at each level except first professional. These groups are (a) social sciences, (b) humanities, and (c) natural sciences and miscellaneous fields. The fields included in the three groups and the percentage distribution of degrees by level and field for the years 1963-64, 1973-74, and 1983-84 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.

Past projections of earned degrees by field have been primarily based on the assumption that the percentage distribution of degrees by field for each sex will continue the trend of the past 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 three editions the number of trend line equations used has decreased greatly—due mainly to the changes in the new taxonomy as mentioned earlier. This 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 1971-72 percentage that earned degrees in each of these fields was of total degrees was held constant throughout the projected period. The 1970-71 and 1971-72 data are the only years of data collected using the new taxonomy.

Related data from independent sources were taken into consideration in making these projections. These are: survey data collected by the Engineering Joint Council for use in projecting engineering degrees; survey data from the American Institute of Certified Public Accountants for bachelor's degree projections in accounting; data from the Resource Analysis Staff, Bureau of Health Resource Development, for making health projections; and data from the American Bar Association for making law degree projections.

Bachelor's degrees, by field (tables 21-23)

Bachelor's degrees in all fields more than doubled from 1963-64 to 1973-74. However, over the next 10 years, 1973-74 to 1983-84, only a 5 percent increase in the total number of bachelor's degrees is anticipated. Social science degrees are expected to increase from 247,000 degrees in 1973-74 to 280,000 in 1983-84 and humanities degrees are expected to increase from 164,000 degrees in 1973-74 to 175,000 in 1983-84, while degrees in natural sciences and miscellaneous fields are predicted to remain about the same at 567,000 in 1973-74 and 566,000 in 1983-84.

Social science degrees as a percent of total degrees increased from 19 percent in 1963-64 to 25 percent in 1973-74 and are expected to reach 27 percent in 1983-84. Psychology degrees accounted for a good portion of the social science growth, increasing from 3 percent of total degrees in 1963-64 to 5 percent in 1973-74. They are expected to be 8 percent in 1983-84.

Humanities degrees as a percent of total degrees are expected to show only slight growth over the 1963-64 to 1983-84 period.

Since social sciences and humanities degrees as percents of total degrees have been increasing and are expected to continue doing so, it is necessary for the remaining category, natural sciences and miscellaneous fields, to decrease. Degrees in natural sciences and miscellaneous fields fell from 65 percent of total degrees in 1963-64 to 58 percent in 1973-74 and are expected to be 55 percent in 1983-84. Engineering and physical science degrees accounted for most of this drop over the past 10 years. Engineering degrees moved downward from 8 percent of total degrees in 1963-64 to 5 percent in 1973-74 while physical science declined from

4 percent to 2 percent during the same time period. However, over the next 10 years, 1974-74 to 1983-84, education degrees are expected to account for most of the drop in the percent that natural sciences and miscellaneous fields are of total degrees. Education degrees as a percent of total degrees are expected to decrease from 21 percent in 1973-74 to 19 percent in 1983-84.

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

Projections of master's degrees in the three areas (social sciences, humanities, and natural sciences and miscellaneous fields) show increases over the 1973-74 estimated amounts.

From 1963-64 to 1973-74 master's degrees in mathematics and statistics, physical sciences, engineering, and biological sciences as a percent of total degrees have shown significant decreases. However from 1973-74 to 1983-84 degrees in all fields as percents of total degrees are expected to remain fairly stable.

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

Projections of doctor's degrees in the three areas (social sciences, humanities, and natural science and miscellaneous fields) show increases over the 1973-74 estimated amounts.

Education degrees have increased from 2,330 degrees (16 percent of total degrees) in 1963-64 to an estimated 7,490 degrees (22 percent of total degrees) in 1973-74 and are expected to increase to 10,680 degrees (24 percent of total degrees) in 1983-84.

Although the numbers of degrees in engineering and physical science have increased by 95 percent and 65 percent respectively, from 1963-64 to 1973-74, as a percent of total degrees they have decreased sharply. Engineering degrees as a percent of total degrees dropped from 12 percent to 10 percent and physical science degrees as a percent of total degrees dropped from 17 percent to 12 percent. During the next 10 years, 1974-75 to 1983-84, the number of degrees in both fields are expected to remain at about their 1973-74 levels. But as a percent of total degrees they are both expected to decrease further, from 10 percent in 1973-74 to 8 percent in 1983-84 for engineering, and from 12 percent in 1973-74 to 10 percent in 1983-84.

First-professional degrees, by field (table 26)

Data from independent sources were used extensively in making projections of first-professional degrees by field of study. The following method was used to project these degrees: Medicine, dentistry, and other health professions were projected by the Resource Analysis Staff, Bureau of Health Resources Development. The projections are based on output resulting from support in the Comprehensive Manpower Training Act of 1971. Law degree projections for 1973-74 and 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 projections of theology and other degrees for 1972-73 through 1983-84 are based on the assumption that the number of degrees in this field will increase by 100 degrees per year through 1983-84.

Law degrees, which have increased from 10,808 degrees in 1963-64 to 29,000 in 1973-74 are expected to increase much more slowly during the next 10 years, reaching 33,300 degrees in 1983-84.

Degrees in medicine increased from 7,303 degrees in 1963-64 to 11,400 degrees in 1973-74 and are expected to continue increasing, reaching 14,400 in 1983-84.

Table 20.—High school graduates, by sex and by institutional control: United States, 1962–63 to 1983–84

(In thousands)

Year	Total high school graduates ¹	Sex		Control	
		Boys	Girls	Public	Private (estimated)
(1)	(2)	(3)	(4)	(5)	(6)
1962–63 ...	1,950	959	991	1,717	223
1963–64 ...	2,290	1,123	1,167	2,015	275
1964–65 ...	2,665	1,314	1,351	2,366	299
1965–66 ...	2,632	1,308	1,325	2,334	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 ...	3,006	1,490	1,516	2,706	300
1972–73 ...	3,037	1,501	1,536	2,737	300
1973–74 ³ ...	3,095	1,537	1,558	2,795	300
PROJECTED ⁴					
1974–75 ...	3,119	1,549	1,570	2,819	300
1975–76 ...	3,130	1,554	1,576	2,830	300
1976–77 ...	3,148	1,563	1,585	2,848	300
1977–78 ...	3,133	1,557	1,576	2,833	300
1978–79 ...	3,086	1,536	1,550	2,786	300
1979–80 ...	3,043	1,511	1,532	2,743	300
1980–81 ...	3,001	1,490	1,511	2,701	300
1981–82 ...	2,908	1,443	1,465	2,608	300
1982–83 ...	2,783	1,381	1,402	2,483	300
1983–84 ...	2,679	1,329	1,350	2,379	300

¹ Includes regular public and nonpublic schools, residential schools for exceptional children, sub-collegiate 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 assumption that, for boys and girls separately, the number of high school graduates expressed as a percentage of the population averaging 18 years of age will remain constant at the average of the rates for 1966 to 1973.

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 (42.1 percent in 1964–65) will remain constant to 1983–84.

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, details may not add to totals.

SOURCES: High school graduate data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Statistics of Public Schools*, annually, fall 1963 through 1973, (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 1983-84

Year (1)	Bachelor's degrees ¹			First-professional degrees ²			Master's degrees ³			Doctor's degrees (except first-professional) ⁴		
	Total (2)	Men (3)	Women (4)	Total (5)	Men (6)	Women (7)	Total (8)	Men (9)	Women (10)	Total (11)	Men (12)	Women (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	103,052	54,615	20,574	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	883,460	497,210	386,240	43,410	40,720	2,690	250,080	148,100	101,970	33,330	28,060	5,270
1972-73 ⁶	954,000	533,000	421,000	50,700	46,570	4,130	256,300	148,000	108,300	34,100	28,000	6,100
1973-74 ⁶	977,000	534,000	443,000	54,100	48,870	5,230	270,100	151,800	118,300	33,700	27,200	6,500
PROJECTED ⁷												
1974-75	975,000	528,000	447,000	53,900	47,400	6,500	279,600	155,100	124,500	34,900	27,500	7,400
1975-76	967,000	509,000	458,000	57,100	49,780	7,320	284,900	156,600	128,300	36,900	28,800	8,100
1976-77	983,000	513,000	470,000	58,700	50,720	7,980	292,500	159,900	132,600	39,200	30,600	8,600
1977-78	1,005,000	525,000	480,000	60,100	51,560	8,540	300,600	163,700	136,900	40,100	31,300	8,800
1978-79	1,015,000	527,000	488,000	60,900	51,950	8,950	307,700	167,000	140,700	40,200	31,300	8,900
1979-80	1,029,000	536,000	493,000	61,800	52,420	9,380	312,900	169,300	143,600	41,200	32,100	9,100
1980-81	1,042,000	542,000	500,000	62,400	52,600	9,800	316,800	170,800	146,000	42,200	32,800	9,400
1981-82	1,043,000	543,000	500,000	63,100	52,900	10,200	320,500	172,200	148,300	42,700	33,100	9,600
1982-83	1,030,000	535,000	495,000	63,700	53,190	10,510	321,400	172,600	148,800	43,600	33,800	9,800
1983-84	1,022,000	530,000	492,000	64,400	53,560	10,840	319,100	170,800	148,300	44,600	34,600	10,000

4 In the 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 (L.L.B. or J.D.), medicine (M.D.), theology, veterinary medicine (D.V.M.), chiropody or podiatry (D.S.C. or D.P.), 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," section 1. Master's degrees also differ from those published in the 1969 through 1971 editions because of discrepancies among 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 Preliminary data rounded to 10's.

6 Estimated.

7 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 1972-73 and 1973-74 and the projections of these degrees through 1983-84 are based on the assumption that the percentage that degrees in these years were of first-time degree-credit enrollment 4 years earlier would follow the 1961-62 to 1971-72 trend through 1983-84. The projections for 1977-78 through 1983-84 are based on the projected first-time degree-credit enrollment figures in table 14.

(B) The estimates of total first-professional degrees for 1972-73 and 1973-74 and the projections of these degrees through 1983-84 were obtained by summing the number of degrees in the individual fields. For methods of projecting first-professional degrees in individual fields, see footnotes to table 26, footnote 8. The estimates of first-professional degrees by sex for 1972-73 and 1973-74 and the projections of these degrees through 1983-84 are based on the assumption that the percentage of degrees conferred on women in each field of study would follow the 1961-62 to 1974-75 trend to 1983-84. For 1972-73 through 1974-75, the estimate of the percentage of degrees conferred on women in each field was assumed to be the same as the percentage of women enrolled in the first year of first-professional programs in the same field either 3 or 4 years earlier. For law and theology and other a 3-year time lag was used. For medicine, dentistry, and other health professions a 4-year time lag was used.

(C) The estimates of master's degrees by sex for 1972-73 and 1973-74 and projections through 1983-84 are based on the assumption that the percentage that master's degrees were of the average of first-year enrollment for advanced degrees 1 and 2 years earlier would follow the 1961-62 to 1971-72 trend through 1983-84. The estimates of first-year enrollment for

advanced degrees by sex for 1972 and 1973 and projections through 1983 are based on the assumption that the 1971 percentage that first-year enrollment for advanced degrees was of graduate enrollment will remain constant through 1983-84 (50.4 percent for men and 54.2 percent for women).

(D) The estimates of doctor's degrees by sex for 1972-73 are based on data from the National Research Council. The estimates for 1973-74 are based on the assumptions that the total number of doctor's degrees would remain about the same and that degrees earned by women would increase by 400 over the 1972-73 amount, representing half of the increase from 1971-72 to 1972-73. For doctor's degrees earned by men, the projections for 1973-74 through 1983-84 are based on the assumption that the estimated percentage in 1973-74 that doctor's degrees were of the average of first-year enrollment for advanced degrees 7 and 8 years earlier would remain constant through 1983-84. For doctor's degrees earned by women, the projections for 1974-75 through 1977-78 are based on the assumption that the percentage that doctor's degrees were of the average of first-year enrollment for advanced degrees 7 and 8 years earlier would decrease slightly from the estimated 1973-74 level. The projections of doctor's degrees earned by women for 1973-79 through 1983-84 are based on the assumption that the percentage that degrees were of the composite population 7 years earlier would remain constant at the projected 1977-78 rate.

(E) A composite population, representative of the age of bachelor's degree recipients, was used with a 7-year timing for projecting doctor's degrees earned by women. For population used, see appendix B, table B-2; and for estimation details, see appendix A, "Estimation Methods," section 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, details may not add to totals.

SOURCES: Degree and enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics publications: (a) *Earned Degrees Conferred by Institutions of Higher Education, 1961-62 through 1971-72*; (b) *Opening (Fall) Enrollment in Higher Education, 1961 through 1968 and 1971 through 1973*; (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*; and (g) *Fall enrollment in Higher Education, Supplementary Information, 1969 and 1970*; (2) American Bar Association publication: Millard H. Ruud, "That Burgeoning Law School Enrollment Slows," American Bar Association Journal, 59: 150-153, February, 1973; and (3) National Research Council publication: *Summary Report 1973, Doctorate Recipients from United States Universities, May 1973*.

Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1963-64 to 1983-84

Year	A. Social Sciences							B. Humanities				
	Total social sciences (2)	Social science (3)	Psychology (4)	Public affairs and services (5)	Library sciences (6)	Total humanities (7)	Architecture and environmental design (8)	Fine and applied arts (9)	Foreign languages (10)	Communications (11)	Letters (12)	
	Bachelor's											
1963-64	19.3	16.1	2.8	0.5	0.1	15.6	0.4	3.5	2.6	0.5	8.6	
1973-74	25.2	18.1	5.4	1.6	.1	16.7	.8	3.9	2.2	1.5	8.4	
1983-84	27.4	17.5	7.5	2.3	.1	17.2	.8	3.9	2.2	1.8	8.4	
	Master's											
1963-64	15.7	8.1	2.0	3.1	2.6	11.5	0.4	3.5	2.1	0.3	5.3	
1973-74	16.3	7.3	2.1	3.9	3.1	11.9	.8	3.0	1.9	1.0	5.2	
1983-84	16.8	7.1	2.1	4.4	3.2	12.6	1.2	3.0	1.9	1.4	5.2	
	Doctor's											
1963-64	18.5	11.4	6.7	0.5	0.1	11.2	0.0	2.9	2.2	0.1	5.9	
1973-74	19.6	12.9	5.8	.7	.2	13.2	.2	1.8	2.9	.3	7.9	
1983-84	21.8	13.5	7.4	.7	.2	13.2	.3	2.2	2.4	.4	8.0	

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Table 22.—Percentage distribution of earned degrees, by field of study and level: United States, 1963-64 to 1983-84—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												
1963-64 ..	65.0	4.0	0.0	7.9	3.7	4.8	1.5	2.9	2.9	9.8	23.7	3.8
1973-74 ..	58.0	2.6	.5	4.8	2.2	4.2	1.5	3.3	3.1	10.8	21.3	3.7
1983-84 ..	55.4	2.4	.9	4.8	1.8	4.0	1.4	4.1	3.5	10.0	18.9	3.6
Master's												
1963-64 ..	72.8	3.4	0.0	10.3	4.3	3.1	1.6	2.2	0.5	5.7	38.3	3.5
1973-74 ..	71.8	2.0	.7	6.2	2.3	2.4	1.0	2.9	.5	11.1	39.8	2.8
1983-84 ..	70.6	1.8	.8	5.3	1.9	2.2	1.0	3.5	.5	11.1	40.0	2.5
Doctor's												
1963-64 ..	70.3	4.1	0.0	11.8	16.9	11.5	4.6	1.3	0.1	1.8	16.1	2.3
1973-74 ..	67.2	3.0	.8	9.9	12.2	9.9	2.5	1.4	.2	3.1	22.2	2.2
1983-84 ..	64.9	2.3	1.3	7.5	10.2	9.5	2.5	2.1	.2	3.4	23.9	2.2

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

Table 23.—Earned bachelor's degrees, by field of study: United States, 1961–62 to 1983–84¹—Continued

Year	C. Natural sciences and miscellaneous fields											
	Total natural sciences and miscellaneous fields (2)	Mathematics and statistics (3)	Computer and information sciences (4)	Engineering ² (5)	Physical sciences (6)	Biological sciences (7)	Agriculture and natural resources (8)	Health professions (9)	Accounting (10)	Other business and management (11)	Education (12)	Other ³ (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	15,944	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	24,872	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	132,067	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	521,650	23,630	3,370	50,310	20,400	37,230	13,640	28,420	24,800	97,030	190,850	31,980
1972–73	557,210	25,470	4,130	48,740	21,650	40,300	14,730	30,830	27,530	104,800	204,250	34,780
1973–74	566,810	25,800	4,610	47,180	21,400	40,840	14,710	32,610	30,250	105,110	208,530	35,770
PROJECTED ⁶												
1974–75	561,030	25,670	5,060	39,970	20,990	40,750	14,640	35,690	32,270	104,710	205,480	35,800
1975–76	552,320	25,190	5,350	36,180	20,080	39,960	14,110	36,640	33,750	101,380	203,960	35,720
1976–77	558,390	25,420	5,840	35,940	19,900	40,350	14,150	37,660	35,810	101,900	205,100	36,320
1977–78	568,950	25,730	6,380	40,060	19,930	40,990	14,340	38,750	36,340	103,400	206,060	36,970
1978–79	572,380	25,710	6,780	43,130	19,640	41,070	14,280	39,500	36,240	103,210	205,540	37,280
1979–80	577,950	25,890	7,320	44,840	19,670	41,540	14,450	40,180	36,670	104,570	205,120	37,700
1980–81	583,240	26,040	7,900	46,700	19,560	41,910	14,560	41,180	36,940	105,420	204,930	38,100
1981–82	582,160	25,870	8,340	48,550	19,290	41,780	14,500	41,620	36,820	105,200	202,170	38,020
1982–83	572,860	25,370	8,650	48,540	18,760	41,120	14,240	41,790	36,170	103,460	197,270	37,490
1983–84	566,470	25,010	9,050	48,720	18,680	40,660	14,070	42,020	35,730	102,330	193,360	37,120

1 The breakdown of earned degrees into fields shown in this table differs from the breakdown in 1971 and earlier editions. 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 Includes engineering technology degrees. Engineering technology degrees, estimated at 5,700 degrees in 1972-73, are expected to increase by 100 additional degrees per year, growing to 6,800 degrees in 1983-84.

3 Includes home economics, law, military sciences, theology, and interdisciplinary studies.

4 Preliminary data rounded to tens.

5 Estimated.

6 The projections are based mainly on the assumption that the percentage distribution of degrees by field for each sex will continue the 1961-72 to 1971-72 trends through 1983-84 or else remain at approximately the 1972-73 rates through 1983-84. The 1970-71 and 1971-72 earned degrees data were collected under a new taxonomy of fields of study. As a result, in some fields, the 1970-71 and 1971-72 earned degree data are not comparable with past years, making trend line analysis meaningless. Therefore, for these fields, the percentage that bachelor's degrees in each field was of all bachelor's degrees in 1971-72 was held constant through 1983-84.

The following are exceptions to the above assumptions: (1) In health professions, projections of women nursing graduates were made by the Resource Analysis Staff, Bureau of Health Resources Development; (2) in engineering, data on freshman enrollment in engineering programs, from the Engineering Manpower Commission of Engineers Joint Council were used in making projections; (3) in accounting, data from the American Institute of Certified Public Accountants were used to make estimates for 1972-73 and 1973-74 and projections for 1974-75 through 1977-78.

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

SOURCES: (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics publication: (a) *Earned Degrees Conferred by Institutions of Higher Education*, annually, 1961-62 through 1971-72; (b) *A Taxonomy of Instructional Programs in Higher Education*; (2) Engineering Manpower Commission of Engineers Joint Council publications: (a) *Engineering and Technology Enrollments Fall 1973*; (b) *Engineering and Technology Graduates, 1973*; (3) American Institute of Certified Public Accountants publication: *The Supply of Accounting Graduates and the Demand for Public Accounting Recruits*, Spring 1974.

Table 24.—Earned master's degrees, by field of study: United States, 1961-62 to 1983-84¹

Year	A. Social sciences										B. Humanities				
	Total social sciences (2)	Social sciences (3)	Psychology (4)	Public affairs and services (5)	Library sciences (6)	Total humanities (7)	Architecture and environmental design (8)	Fine and applied arts (9)	Foreign languages (10)	Communications (11)	Letters (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	4,866	3,916	17,667	702	5,019	3,393	523	8,030				
1966-67	25,919	13,676	2,598	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	7,849	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 ³	40,520	18,480	5,290	9,360	7,380	28,960	1,900	7,540	4,620	2,200	12,710				
1972-73 ⁴	41,720	18,800	5,410	9,780	7,730	30,060	2,010	7,740	4,790	2,380	13,140				
1973-74 ⁵	44,160	19,650	5,690	10,480	8,340	32,070	2,180	8,170	5,120	2,610	13,990				
PROJECTED ⁵															
1974-75	45,860	20,260	5,870	11,020	8,710	33,510	2,360	8,470	5,330	2,810	14,540				
1975-76	46,870	20,570	5,980	11,390	8,930	34,410	2,500	8,640	5,450	2,980	14,840				
1976-77	48,240	21,080	6,130	11,840	9,190	35,540	2,660	8,860	5,600	3,170	15,250				
1977-78	49,690	21,610	6,290	12,320	9,470	36,730	2,830	9,100	5,760	3,370	15,670				
1978-79	50,980	22,090	6,430	12,770	9,690	37,820	3,000	9,310	5,900	3,570	16,040				
1979-80	51,950	22,430	6,530	13,160	9,830	38,690	3,180	9,450	6,000	3,750	16,310				
1980-81	52,740	22,660	6,610	13,470	10,000	39,390	3,320	9,560	6,070	3,930	16,510				
1981-82	53,490	22,890	6,680	13,800	10,120	40,070	3,470	9,670	6,150	4,090	16,690				
1982-83	53,740	22,930	6,690	13,990	10,130	40,380	3,590	9,680	6,150	4,240	16,720				
1983-84	53,460	22,720	6,640	14,040	10,060	40,290	3,670	9,600	6,110	4,320	16,590				

See footnotes at end of table.

Table 24.—Earned master's degrees, by field of study: United States, 1961—62 to 1983—84¹—Continued

Year	C. Natural sciences, and miscellaneous fields											
	Total natural sciences and miscellaneous fields (2)	Mathematics and statistics (3)	Computer and information sciences (4)	Engineering (5)	Physical sciences (6)	Biological sciences (7)	Agriculture and natural resources (8)	Health professions (9)	Accounting (10)	Other business and management (11)	Education (12)	Other ² (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	4,396	2,119	3,436	1,024	14,086	55,195	5,206
1967-68 ..	125,185	5,527	.....	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	1,083	20,516	78,275	6,996
1970-71 ..	165,608	5,191	1,588	16,443	6,367	5,772	2,457	5,749	1,097	25,447	88,716	6,825
1971-72 ³ ..	180,600	5,190	1,860	16,650	6,160	6,100	2,660	7,120	1,380	28,580	97,730	7,180
1972-73 ⁴ ..	184,520	5,210	1,900	16,420	6,080	6,190	2,670	7,450	1,390	28,840	101,080	7,290
1973-74 ⁴ ..	193,870	5,410	2,000	16,640	6,160	6,450	2,750	7,960	1,440	29,930	107,530	7,600
PROJECTED ⁵												
1974-75 ..	200,230	5,510	2,080	16,800	6,210	6,610	2,810	8,360	1,470	30,840	111,750	7,790
1975-76 ..	203,620	5,550	2,140	16,780	6,170	6,680	2,850	8,680	1,490	31,370	114,070	7,840
1976-77 ..	208,720	5,640	2,230	16,940	6,210	6,800	2,910	9,060	1,520	32,240	117,210	7,960
1977-78 ..	214,180	5,740	2,330	17,160	6,270	6,940	2,970	9,450	1,560	33,240	120,440	8,080
1978-79 ..	218,900	5,820	2,420	17,350	6,300	7,040	3,040	9,830	1,590	34,050	123,270	8,190
1979-80 ..	222,260	5,870	2,500	17,400	6,300	7,100	3,080	10,170	1,620	34,660	125,330	8,230
1980-81 ..	224,670	5,880	2,550	17,430	6,270	7,130	3,110	10,490	1,630	35,110	126,850	8,220
1981-82 ..	226,940	5,910	2,620	17,400	6,260	7,160	3,140	10,800	1,640	35,490	128,290	8,230
1982-83 ..	227,280	5,890	2,670	17,300	6,190	7,130	3,140	11,020	1,640	35,680	128,480	8,140
1983-84 ..	225,350	5,780	2,690	17,000	6,060	7,010	3,110	11,170	1,630	35,410	127,500	7,990

1 The breakdown of earned degrees into fields shown in this table differs from the breakdown in 1971 and earlier editions. 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 Includes home economics, law, military sciences, theology, and interdisciplinary studies.

3 Preliminary data rounded to tens.

4 Estimated.

5 The estimates of earned degrees for most fields for 1972-73 and 1973-74 and projections through 1983-84 are based on the assumption that the percentage distribution of degrees by field for each sex will continue the 1961-62 to 1971-72 trends through 1983-84 or else remain at approximately the 1971-72 rate through 1983-84.

The 1970-71 and 1971-72 earned degrees data were collected under a new taxonomy of fields of study. As a result, in some fields, the 1970-71 and 1971-72 earned degree 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 1971-72 was held constant through 1983-84.

For 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, details may not add to totals.

SOURCES: Degree and enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics publications: (a) *Earned Degrees Conferred by Institutions of Higher Education, 1960-61 through 1970-71*; (b) *A Taxonomy of Instructional Programs in Higher Education*; (2) Engineering Manpower Commission of Engineers Joint Council publications: *Engineering and Technology Graduates, 1973*.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1961-62 to 1983-84

Year	A. Social sciences										B. Humanities				
	Total social sciences (2)	Social science (3)	Psychology (4)	Public affairs and services (5)	Library sciences (6)	Total humanities (7)	Architecture and environmental design (8)	Fine and applied arts (9)	Foreign languages (10)	Communications (11)	Letters (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 ³	6,390	4,240	1,880	210	60	4,160	50	570	840	110	2,590				
1972-73 ⁴	6,690	4,540	1,860	220	70	4,360	50	610	950	110	2,640				
1973-74 ⁴	6,610	4,350	1,970	220	70	4,440	60	620	990	110	2,660				
PROJECTED ⁵															
1974-75	7,040	4,600	2,150	220	70	4,630	60	690	1,030	120	2,730				
1975-76	7,830	4,950	2,560	240	80	4,840	70	720	1,000	130	2,920				
1976-77	8,440	5,270	2,830	260	80	5,150	90	790	1,030	130	3,110				
1977-78	8,640	5,360	2,940	260	80	5,240	90	860	990	130	3,170				
1978-79	8,670	5,380	2,950	260	80	5,210	100	860	940	130	3,180				
1979-80	8,890	5,510	3,030	270	80	5,350	100	880	970	140	3,260				
1980-81	9,210	5,720	3,140	270	80	5,560	110	920	1,010	140	3,380				
1981-82	9,320	5,780	3,180	280	80	5,630	120	920	1,020	140	3,430				
1982-83	9,510	5,900	3,250	280	80	5,770	120	950	1,040	150	3,510				
1983-84	9,740	6,040	3,320	290	90	5,900	130	960	1,060	160	3,590				

See footnotes at end of table.

Table 25.—Earned doctor's degrees (except first-professional), by field of study: United States, 1961-62 to 1983-84¹—Continued

Year	C. Natural sciences and miscellaneous fields											
	Total natural sciences and miscellaneous fields (2)	Mathematics and statistics (3)	Computer and information sciences (4)	Engineering (5)	Physical sciences (6)	Biological sciences (7)	Agriculture and natural resources (8)	Health professions (9)	Accounting (10)	Other business and management (11)	Education (12)	Other ² (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	3,051	886	283	40	506	4,793	495
1969-70	21,037	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 ³	22,780	1,130	170	3,660	4,090	3,650	970	440	50	850	7,040	730
1972-73 ⁴	23,060	1,040	220	3,380	4,330	3,600	930	390	60	950	7,420	740
1973-74 ⁴	22,650	1,000	270	3,320	4,040	3,350	830	470	60	1,050	7,500	750
PROJECTED ⁵												
1974-75	23,230	970	340	3,340	3,820	3,400	850	470	60	1,180	8,040	760
1975-76	24,230	980	410	3,330	4,040	3,580	910	510	60	1,220	8,390	800
1976-77	25,610	880	500	2,940	3,980	3,720	960	710	60	1,320	9,680	860
1977-78	26,220	890	490	2,980	4,030	3,770	960	720	70	1,330	10,100	880
1978-79	26,320	890	490	2,980	4,040	3,780	970	730	70	1,330	10,160	880
1979-80	26,960	920	500	3,060	4,140	3,870	1,000	740	70	1,370	10,400	890
1980-81	27,430	950	520	3,170	4,300	4,010	1,040	760	70	1,420	10,260	930
1981-82	27,750	960	530	3,200	4,350	4,060	1,060	780	70	1,440	10,350	950
1982-83	28,310	990	540	3,270	4,430	4,150	1,080	790	70	1,470	10,560	960
1983-84	28,960	1,010	560	3,350	4,530	4,240	1,120	810	70	1,500	10,790	980

1 The breakdown of earned degrees into fields shown in this table differs from the breakdown in 1971 and earlier editions. 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 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.

2 Includes home economics, law, military science, theology, and interdisciplinary studies.

3 Preliminary data rounded to tens.

4 Estimated.

5 The fall 1971 enrollment for advanced degrees data and the 1970-71 and 1971-72 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 degree data and the 1970-71 and 1971-72 earned degree 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 1971-72 would remain constant through 1983-84.

In other fields, where it seems that the most recent data are comparable to 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 primarily assumed 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 1971-72 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 primarily assumed that the percentage that degrees in a particular field were 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.

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

SOURCES: Degree and enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics publications: (a) *Earned Degrees Conferred by Institutions of Higher Education 1961-62 through 1971-72*; (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: *Engineering and Technology Graduates, 1973*.

Table 26.—Earned first-professional degrees, by field of study:
United States, 1961–62 to 1983–84

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	4,554
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	5,975
1970–71	37,946	8,919	3,745	2,495	17,421	5,366
1971–72 ⁶	43,410	9,250	3,860	2,680	21,760	5,850
1972–73 ⁷	50,700	10,200	4,100	2,700	27,700	6,000
1973–74 ⁷	54,100	11,400	4,600	3,000	29,000	6,100
PROJECTED ⁸						
1974–75	53,900	11,600	4,700	3,100	28,300	6,200
1975–76	57,100	12,600	5,000	3,300	29,900	6,300
1976–77	58,700	13,100	5,100	3,400	30,700	6,400
1977–78	60,100	13,600	5,100	3,500	31,400	6,500
1978–79	60,900	13,800	5,200	3,500	31,700	6,600
1979–80	61,800	14,000	5,300	3,700	32,100	6,700
1980–81	62,400	14,100	5,300	3,800	32,400	6,800
1981–82	63,100	14,200	5,400	3,900	32,700	6,900
1982–83	63,700	14,300	5,400	4,000	33,000	7,000
1983–84	64,400	14,400	5,500	4,100	33,300	7,100

¹ M.D. degrees only.

² D.D.S. or D.M.D. degrees.

³ Includes degrees in chiropractic 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 Preliminary data rounded to tens.

⁷ Estimated.

⁸ First-professional degrees by field were projected by means of the following methods: (1) Medicine, dentistry, and other health professions were projected by the Resource Analysis Staff, Bureau of Health Resources Development. These projections are based on output resulting from support in the Comprehensive Manpower Training Act of 1971. (2) The projections of "theology and other" first-professional degrees are based on the following assumptions: It was arbitrarily estimated that "theology and other" degrees will increase 100 degrees per year, from an estimated 6,000 degrees in 1972–73 to 7,100 degrees in 1983–84. (3) Projected law degrees are based

primarily on the assumption that the percentage that law degrees were of first year law students 3 years earlier, would follow the 1961–62 to 1971–72 trend to 1983–84 with the restriction that it cannot exceed 85 percent. The estimates for 1972–73 and 1973–74 and the projections of degrees for 1974–75 are based on first-year enrollments for 1970 to 1972 provided by the American Bar Association. Degrees projections for 1975–76 to 1983–84 are based on unpublished information on first-year enrollments for 1973 to 1981 from the American Bar Association.

SOURCES: Degree data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics publications: (a) *Earned Degrees Conferred by Institutions of Higher Education, 1961–62 through 1971–72*; and (2) American Bar Association publication: Millard H. Rudd, "That Burgeoning Law School Enrollment Slows," *American Bar Association Journal*, 59: 150-153, February 1973.

CHAPTER IV

Teachers

Martin M. Frankel and Delton L. Moore

Elementary and Secondary Schools

There were 2.6 million professional persons employed in the public and private elementary and secondary day schools in fall 1973. These included principals, supervisors, librarians, guidance and psychological personnel, and classroom teachers. Of the total number, 91 percent were classroom teachers. The numbers of professional persons employed in the regular public school systems were reported to the National Center for Education Statistics 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 National Center for Education Statistics surveys.

Classroom teachers (table 27) and pupil-teacher ratios (table 28)

Classroom teachers are projected separately for public elementary, public secondary, nonpublic elementary, and nonpublic secondary schools. For each category, pupil-teacher ratios are projected, based primarily on the assumption that 1963 to 1973 trends will continue through 1983 with lower limits applied. To obtain projections of classroom teachers, the projected enrollment (table 4) is divided by the aforementioned projected pupil-teacher ratios.

The number of classroom teachers in public elementary schools increased from 908,000 in 1963 to over 1.1 million in 1973 primarily as a result of decreased pupil-teacher ratios, from 28.4 in 1963 to 23.3 in 1973. Although enrollments in public elementary schools are expected to decrease by about 2 million students by 1980, corresponding decreases in the pupil-teacher ratios are expected to offset the enrollment decreases, resulting in the 1973 level of 1.1 million teachers being maintained through 1980. By 1983 the pupil-teacher ratio is expected to have decreased to 20.7, which along with increased enrollments will account for an increase to 1.2 million classroom teachers in public elementary schools.

The number of classroom teachers in public secondary schools increased from 669,000 in 1963 to 991,000 in 1973 as a result of large enrollment increases (14.4 million in 1963 to 19.0 million in 1973) and significant reductions in the pupil-teacher ratio, from 21.5 in 1963 to 19.2 in 1973. About two-thirds of the 322,000 increase in the number of classroom teachers between 1963 and 1973 was due to enrollment increases. For the next few years, the number of teachers in public secondary schools is expected to increase slightly to over 1 million as enrollment remains fairly stable and pupil-teacher ratios continue to decrease. However, the sharp enrollment drops expected in the late 1970's and early 1980's will be too large to be offset by decreasing pupil-teacher ratios. As a result the expected number of teachers in public secondary schools for 1983 is 906,000, 85,000 fewer teachers than in 1973.

The number of classroom teachers¹ in nonpublic elementary schools has remained at about 150,000 during the past 10 years, even though enrollment ... these schools have decreased by an estimated 1.4 million. This stability in the number of teachers occurred because the large decreases in enrollment were offset by sharp reduction in the pupil-teacher ratio, from 35.3 in 1963 to 23.4 in 1973. The bulk of the decrease in enrollment and the corresponding reductions in the pupil-teacher ratios occurred in Catholic elementary schools, which made up 91 percent of nonpublic elementary enrollment in 1963 and 76 percent in 1973. It is expected that both enrollment and pupil-teacher ratios will continue to decrease, resulting in continued relative stability of the number of teachers in nonpublic elementary schools.

The number of classroom teachers in nonpublic secondary schools ranged between 70,000 and 80,000 during 1963-1973. It is expected to increase to 85,000 by 1983 as a result of estimated small reductions in the pupil-teacher ratio and stable enrollment.

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 1969 to fall 1973, 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 851,000 from 1974 to 1978 and then to 828,000 from 1979 to 1983. This means that 1.7 million new teachers or returnees to the profession are expected to be employed by the public schools during the next 10 years, 1974 through 1983.

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 would leave the profession temporarily or permanently each year.¹

The total demand for additional nonpublic school teachers was estimated to be 51,000 from 1969 to 1973. It is expected to decrease slightly to 40,000 from 1973 to 1977 and then increase to 53,000 from 1979 to 1983.

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 is based on the assumption that 4 percent (one-half the public school rate) of the nonpublic school teachers would 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.²

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 1.7 million in 1963 to nearly 2.4 million in 1973 and is expected to remain at about the 2.4 million level through 1983.

¹ U.S. Department of Health, Education, and Welfare, Office of Education, "Teacher Turnover in Public Schools, Fall 1968 to Fall 1969," by A. Stafford Metz and Howard L. Fleischman. U.S. Government Printing Office, Washington, D.C., 1974.

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 1973 level through 1983. The ratio of total public school instructional staff to classroom teachers increased from 1.09 in 1963 to 1.12 in 1973 and is expected to remain at that level through 1983. 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 to 34 are from: (1) Reports in 1966 through 1968, and in 1970 on the number of persons by primary position and (2) estimates from the 1963-64 biennial report 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 1963-64 on positions were converted to persons 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 331,000 in 1963 to 620,000 in 1973, and is expected to be 637,000 in 1983. These figures include full-time and part-time instructors and above, and full-time and part-time junior instructional staff for 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 and privately controlled institutions and then summed to obtain the total for all institutions. The projections are based on the assumption that student-staff ratios (number of full-time-equivalent enrollment divided by the number of staff) by institutional control will remain approximately constant at the 1970 level to 1983. To obtain projections, the projected full-time-equivalent enrollment, by institutional control (table 12), was divided by the projected student-staff ratio in the corresponding category.

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

Full-time-equivalent instructional staff for resident courses in all institutions increased from 242,000 in 1963 to 488,000 in 1973, and is expected to be 502,000 in 1983. These figures include full-time staff and full-time equivalent of part-time staff for instructor or above and junior instructional staff. In 1973, for all institutions, 92 percent of the full-time-equivalent instructional staff members with the rank of instructor or above were employed full time, and 29 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, 1969 through 1973, the total demand for additional full-time-equivalent instructional staff was 209,000. The totals are expected to be 176,000 in 1974 through 1978, and 142,000 in 1979 through 1983.

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 National Center for Education Statistics 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 an additional 1 percent is estimated 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 1963 to 1983¹

[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)
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	81
1965	1,933	1,112	822	1,710	965	746	223	147	81
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	147	78
1969	2,233	1,253	980	2,013	1,108	906	219	145	74
1970	2,288	1,281	1,007	2,055	1,128	927	233	153	80
1971	2,291	1,261	1,030	2,063	1,111	952	228	150	78
1972	2,332	1,291	1,041	2,103	1,140	963	229	151	78
1973	2,356	1,286	1,070	2,125	1,134	991	231	152	79
PROJECTED⁵									
1974	2,362	1,276	1,086	2,131	1,123	1,008	231	153	78
1975	2,370	1,272	1,098	2,141	1,121	1,020	229	151	78
1976	2,375	1,270	1,105	2,147	1,121	1,026	228	149	79
1977	2,364	1,266	1,098	2,136	1,119	1,017	228	147	81
1978	2,348	1,262	1,086	2,122	1,117	1,005	226	145	81
1979	2,321	1,261	1,060	2,097	1,119	978	224	142	82
1980	2,316	1,281	1,035	2,090	1,137	953	226	144	82
1981	2,313	1,302	1,011	2,084	1,156	928	229	146	83
1982	2,320	1,326	994	2,089	1,179	910	231	147	84
1983	2,345	1,354	991	2,111	1,205	906	234	149	85

¹ Includes full-time and the full-time equivalent of part-time classroom teachers* (in 1973, 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, sub-collegiate 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 spring 1968 on basis of 1965 Office of Education survey.

³ Reported data from Office of Education surveys.

⁴ Estimated on the basis of 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, details may not add to totals.

SOURCES: Classroom teacher data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (a) *Statistics of Public Schools*, fall 1964 through 1973, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1963, (c) *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*; and (2) National Education Association publications: Research Reports, *Estimates of School Statistics, 1972-73 and 1973-74*.

Table 28.—Pupil-teacher ratios in regular elementary and secondary day schools, by institutional control and organizational level: United States, fall 1963 to 1983¹

Year (fall)	Public		Nonpublic (estimated) ²	
	Elementary	Secondary	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)
1963	28.4	21.5	35.3	18.5
1964	27.9	21.5	34.3	18.3
1965	27.6	20.8	³ 33.5	³ 18.1
1966	27.0	20.4	32.3	18.1
1967	26.3	20.3	31.1	18.1
1968	25.4	20.5	³ 29.8	³ 17.3
1969	24.8	20.0	27.9	17.1
1970	24.3	19.8	³ 26.5	³ 16.4
1971	⁴ 24.9	⁴ 19.3	25.5	16.3
1972	⁴ 24.0	⁴ 19.1	24.3	15.9
1973	⁴ 23.3	⁴ 19.2	23.4	15.6
PROJECTED⁵				
1974	23.0	19.0	22.9	15.4
1975	22.7	18.8	22.5	15.3
1976	22.4	18.6	22.1	15.1
1977	22.1	18.5	21.8	14.9
1978	21.8	18.3	21.4	14.8
1979	21.6	18.2	21.2	14.7
1980	21.3	18.0	20.9	14.6
1981	21.1	17.9	20.6	14.4
1982	20.9	17.8	20.4	14.3
1983	20.7	17.7	20.2	14.2

¹ Includes full-time and the full-time equivalent of part-time classroom teachers (in 1973, 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 on the basis of data from the National Education Association. See appendix A, "Estimation Methods," sec. 4.

⁵ The projections of pupil-teacher ratios are based on the assumption that the ratio of enrollment to the number of teachers will follow the 1963-1973 trend to 1983.

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.

SOURCES: Classroom teacher data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (a) *Statistics of Public Schools*, fall 1964 through 1973, (b) *Enrollment, Teachers, and Schoolhousing*, 1963, (c) *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*; and (2) National Education Association publications: *Research Reports, Estimates of School Statistics, 1972-73 and 1973-74*.

Table 29.—Estimated demand for classroom teachers in regular public elementary and secondary day schools: United States, fall 1968 to 1983¹

[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)
1968	1,936	...	...	...	...
1969	2,013	233	35	43	155
1970	2,055	202	15	26	161
1971	2,063	172	9	-1	164
1972	2,103	205	-12	52	165
1973	2,125	190	-8	30	168
1969-73 ...	...	1,002	39	150	813
PROJECTED ³					
1974	2,131	176	-18	24	170
1975	2,141	180	-16	26	170
1976	2,147	177	-18	24	171
1977	2,136	161	-32	21	172
1978	2,122	157	-40	26	171
1974-78 ...	...	851	-124	121	854
1979	2,097	145	-42	17	170
1980	2,090	161	-33	26	168
1981	2,084	161	-22	16	167
1982	2,089	172	-11	16	167
1983	2,111	189	6	16	167
1979-83 ...	...	828	-102	91	839

¹ Includes full-time and the full-time equivalent of part-time classroom teachers (in 1973, 99 percent of teachers in the public schools were full time). The 1968 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 the Office of Education study *Teacher Turnover in Public Schools, Fall 1968 to Fall 1969*.

The projected demand makes no allowance for replacement of teachers who hold substandard certificates (less than 2 percent of employed teachers in 1972).

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 1963-73 trend to 1983.

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, details may not add to totals.

SOURCE: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publication: (1) *Statistics of Public Schools*, fall 1968 through 1973.

Table 30.—Estimated demand for classroom teachers in regular nonpublic elementary and secondary day schools: United States, fall 1968 to 1983

[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)
1968	225	...	...	...	...
1969	229	13	-7	11	9
1970	233	13	-7	11	9
1971	228	4	-12	7	9
1972	229	10	-8	9	9
1973	231	11	-4	6	9
1969-73 ...	...	51	-38	44	45
PROJECTED					
1974	231	9	-4	4	9
1975	229	7	-5	3	9
1976	228	8	-4	3	9
1977	227	8	-4	3	9
1978	226	8	-5	4	9
1974-78 ...	...	40	-22	17	45
1979	224	7	-5	3	9
1980	226	-11	0	2	9
1981	229	12	0	3	9
1982	231	11	0	2	9
1983	234	12	0	3	9
1979-83 ...	...	53	-5	13	45

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, details may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *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 1963 to 1983¹

[In thousands]

Year (fall)	Total	Public schools	Nonpublic schools ²
(1)	(2)	(3)	(4)
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	2,529	2,296	233
1971	2,516	2,288	228
1972	2,562	2,333	229
1973	2,600	2,369	231
PROJECTED³			
1974	2,607	2,376	231
1975	2,616	2,387	229
1976	2,622	2,394	228
1977	2,610	2,382	228
1978	2,592	2,366	226
1979	2,562	2,330	224
1980	2,556	2,330	226
1981	2,553	2,324	229
1982	2,560	2,329	231
1983	2,588	2,354	234

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 1973, 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 1973 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, details may not add to totals.

SOURCES: Instructional staff data and estimates are based on U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Statistics of Public Schools*, fall 1971 through 1973, (2) *Statistics of State School Systems*, biennial publications 1963-64 through 1969-70, (3) *Statistics of Nonpublic Elementary and Secondary Schools, 1970-71*, (4) *Statistics of Public and Nonpublic Elementary and Secondary Day Schools, 1968-69*, and (5) *Statistics of Nonpublic Elementary and Secondary Schools, 1965-66*.

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 1963 to 1983¹

[In thousands]

Year (fall)	Instructor or above				Junior Instructor		
	Total	Total	Full time	Part time	Total	Full time	Part time
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
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	596	490	382	108	106	16	90
1972	603	496	387	109	107	16	91
1973	620	510	398	112	110	16	94
PROJECTED³							
1974	622	511	399	112	111	16	95
1975	630	518	404	114	112	17	95
1976	639	525	410	115	114	17	97
1977	650	534	417	117	116	17	99
1978	656	539	420	119	117	17	100
1979	660	542	423	119	118	17	101
1980	660	542	423	119	118	17	101
1981	658	541	422	119	117	17	100
1982	651	535	417	118	116	17	99
1983	637	524	409	115	113	17	96

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 control, the projection is based primarily on the assumption that the ratio of total full-time-equivalent enrollment to total instructional staff for resident courses will remain constant at the 1970 level through 1983.

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 through 1983.

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

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

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, first term 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 1963 to 1983¹

[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)
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.....	469	416	382	34	53	16	37
1972.....	474	421	387	34	53	16	37
1973.....	488	433	398	35	55	16	39
PROJECTED³							
1974.....	489	434	399	35	55	16	39
1975.....	496	440	404	36	56	17	39
1976.....	503	446	410	36	57	17	40
1977.....	512	454	417	37	58	17	41
1978.....	515	457	420	37	58	17	41
1979.....	519	460	423	37	59	17	42
1980.....	519	460	423	37	59	17	42
1981.....	517	459	422	37	58	17	41
1982.....	512	454	417	37	58	17	41
1983.....	502	445	409	36	57	17	40

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 1983 at the 1970 level of 31.5 percent; and (2) full-time equivalent of junior instructional staff will remain constant through 1983 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, details may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, first term 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 1968 to 1983

[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)
1968	413	...	...	...
1969	431	43	18	25
1970	452	47	21	26
1971	469	44	17	27
1972	474	33	5	28
1973	488	42	14	28
1969-1973 .....	...	209	75	134
PROJECTED²				
1974	489	30	1	29
1975	496	36	7	29
1976	503	37	7	30
1977	512	39	9	30
1978	515	34	3	31
1974-1978 .....	...	176	27	149
1979	519	35	4	31
1980	519	31	0	31
1981	517	29	-2	31
1982	512	26	-5	31
1983	502	21	-10	31
1979-1983 .....	...	142	-13	155

¹ For method of estimating and projecting full-time-equivalent instructional staff, see table 32, footnote 3 and table B3, footnote 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 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, National Center for Education Statistics publications: (1) *Faculty and Other Professional Staff in Institutions of Higher Education*, first term 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 pertain only to expenditures of regular public and nonpublic elementary and secondary schools and institutions of higher education in the 50 States and the District of Columbia. Data on "other" and "special" institutions are not included, except for the references to "other" schools in the discussion on page 74 and the table on pages 75 through 80.

"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 1973-74, estimated expenditures were about \$200 million for public and \$100 million for nonpublic "other" schools. 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 they spend an estimated \$1.3 billion per year. The U.S. Bureau of the Census estimates that approximately 1.2 million persons aged 5 through 34 years were enrolled in "special" schools in October, 1973.¹ If an average expenditure per student of about \$1,100 is assumed, the total expenditures for these schools would be about \$1.3 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 are primarily technical training institutions or offer both academic and vocational courses.

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 1971-72, an estimated 84 percent of the capital

¹ U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, School Enrollment October, 1973*, Series P 20, No. 261, 1974.

outlay for public elementary and secondary schools was for land and buildings, the remaining 16 percent, for new buses and other equipment. About 82 percent of the capital outlay by institutions of higher education during 1971-72 was for land and buildings; the remaining 18 percent was for equipment.

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 60 percent of current expenditures. The remaining 40 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 years, 1963-64 through 1971-72. 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 continuation of the 1963-64 through 1971-72 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 1974-75, \$31 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 following 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 educational institutions (in 1973-74 dollars) increased from \$57.2 billion in 1963-64 to \$98.5 billion in 1973-74 and are expected to be \$127.1 billion in 1983-84. 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

Estimated expenditures by regular and "other" educational institutions,
by source of funds: United States, 1963-64 to 1974-75¹

Source of funds, by control and level (1)	1963-64 (2)	1965-66 (3)	1967-68 (4)	1969-70 (5)	1971-72 (6)	1972-73 (7)	1973-74 (8)	1974-75 (9)
AMOUNT, in billions of current dollars								
All levels:								
Total, public and nonpublic	\$35.9	\$45.2	\$57.2	\$70.2	\$83.1	\$89.1	\$98.8	\$110.4
Federal	3.3	5.0	6.8	7.4	9.4	9.7	11.1	12.1
State	10.6	13.1	16.9	22.7	26.3	29.3	32.8	36.9
Local	12.7	15.1	18.6	22.2	26.4	27.9	30.0	33.6
All other	9.3	12.0	15.0	17.9	21.0	22.2	24.9	27.8
Total, public	28.0	35.3	45.5	56.8	67.4	72.6	80.5	90.1
Federal	2.2	3.6	5.1	5.7	7.5	7.7	8.9	9.8
State	10.5	13.0	16.7	22.6	26.1	29.1	32.5	36.6
Local	12.7	15.1	18.6	22.1	26.3	27.8	29.9	33.5
All other	2.6	3.6	5.1	6.4	7.5	8.0	9.2	10.2
Total, nonpublic	7.9	9.9	11.7	13.4	15.7	16.5	18.3	20.3
Federal	1.1	1.4	1.7	1.7	1.9	2.0	2.2	2.3
State .....	.1	.1	.1	.1	.2	.2	.3	.3
Local	(2)	(2)	(2)	.1	.1	.1	-.1	.1
All other	6.7	8.4	9.9	11.5	13.5	14.2	15.7	17.6

See footnotes at end of table.

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Estimated expenditures by regular and "other" educational institutions,
by source of funds: United States, 1963-64 to 1974-75¹ -Continued

Source of funds, by control and level	1963-64	1965-66	1967-68	1969-70	1971-72	1972-73	1973-74	1974-75
(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	\$53.9	\$57.7	\$63.4	\$70.9
Federal	1.1	2.1	3.0	3.3	4.6	4.6	5.4	5.9
State	8.0	9.6	12.1	16.3	18.4	20.7	23.0	25.9
Local	12.4	14.7	18.0	21.3	25.2	26.6	28.6	32.1
All other	3.1	3.6	4.2	4.6	5.7	5.8	6.4	7.0
Total, public³	21.6	26.5	33.2	41.0	48.3	52.0	57.1	64.0
Federal	1.1	2.1	3.0	3.3	4.6	4.6	5.4	5.9
State	8.0	9.6	12.1	16.3	18.4	20.7	23.0	25.9
Local	2.4	14.7	18.0	21.3	25.2	26.6	28.6	32.1
All other .....	.1	.1	.1	.1	.1	.1	.1	.1
Total, nonpublic	3.0	3.5	4.1	4.5	5.6	5.7	6.3	6.9
Federal
State
Local
All other	3.0	3.5	4.1	4.5	5.6	5.7	6.3	6.9

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Institutions of higher education:

Total, public and nonpublic	\$11.3	\$15.2	\$19.9	\$24.7	\$29.2	\$31.4	\$35.4	\$39.5
Federal	2.2	2.9	3.8	4.1	4.8	5.1	5.7	6.2
State	2.6	3.5	4.7	6.4	7.9	8.6	9.8	11.0
Local .....	.3	.4	.6	.9	1.2	1.3	1.4	1.5
All other	6.2	8.4	10.8	13.3	15.3	16.4	18.5	20.8
Total, public ³	6.4	8.8	12.3	15.8	19.1	20.6	23.4	26.1
Federal	1.1	1.5	2.1	2.4	2.9	3.1	3.5	3.9
State	2.5	3.4	4.6	6.3	7.7	8.4	9.5	10.7
Local .....	.3	.4	.6	.8	1.1	1.2	1.3	1.4
All other	2.5	3.5	5.0	6.3	7.4	7.9	9.1	10.1
Total, nonpublic ³	4.9	6.4	7.6	8.9	10.1	10.8	12.0	13.4
Federal	1.1	1.4	1.7	1.7	1.9	2.0	2.2	2.3
State1	.1	.1	.1	.2	.2	.3	.3
Local	(2)	(2)	(2)	.1	.1	.1	.1	.1
All other	3.7	4.9	5.8	7.0	7.9	8.5	9.4	10.7

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Estimated expenditures by regular and "other" educational institutions,
by source of funds: United States, 1963-64 to 1974-75¹—Continued

Source of funds, by control and level	1963-64	1965-66	1967-68	1969-70	1971-72	1972-73	1973-74	1974-75
(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	11.3	10.9	11.2	11.0
State	29.5	29.0	29.4	32.3	31.6	32.9	33.2	33.4
Local	35.4	33.4	32.5	31.6	31.8	31.3	30.4	30.4
All other	25.9	26.5	26.2	25.5	25.3	24.9	25.2	25.2
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	11.1	10.6	11.1	10.9
State	37.5	36.8	36.7	39.8	38.8	40.1	40.4	40.6
Local	45.3	42.8	40.9	38.9	39.0	38.3	37.1	37.2
All other	9.3	10.2	11.2	11.3	11.1	11.0	11.4	11.3
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	12.0	12.0	12.0	11.3
State	1.3	1.0	.9	7	1.3	1.2	1.6	1.5
Local	(4)	(4)	(4)	.7	.6	.6	.6	.5
All other	84.8	84.9	84.6	85.9	86.1	86.2	85.8	86.7

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Elementary and secondary schools:

Total, public and nonpublic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal	4.5	7.0	8.0	7.3	8.5	8.0	8.5	8.3
State	32.5	32.0	32.4	35.8	34.1	35.9	36.3	36.5
Local	50.4	49.0	48.3	46.8	46.8	46.1	45.1	45.3
All other	12.6	12.0	11.3	10.1	10.6	10.0	10.1	9.9
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	9.5	8.8	9.5	9.2
State	36.9	36.3	36.5	39.8	38.1	39.8	40.2	40.5
Local	57.6	55.3	54.2	51.9	52.2	51.2	50.1	50.1
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

ppp

Estimated expenditures by regular and "other" educational institutions,
by source of funds: United States, 1963-64 to 1974-75¹—Continued

Source of funds, by control and level	1963-64	1965-66	1967-68	1969-70	1971-72	1972-73	1973-74	1974-75
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PERCENT								
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	16.4	16.3	16.1	15.7
State	23.0	23.0	23.6	25.9	27.1	27.4	27.7	27.9
Local	2.6	2.6	3.0	3.6	4.1	4.1	4.0	3.8
All other	54.9	55.3	54.3	53.9	52.4	52.2	52.2	52.6
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	15.0	15.0	15.0	15.0
State	39.7	39.4	37.7	40.0	40.8	40.8	40.8	40.8
Local	4.3	4.1	4.5	5.1	5.5	5.7	5.5	5.5
All other	39.1	39.9	40.7	39.9	38.7	38.5	38.7	38.7
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	18.6	18.6	18.6	18.6
State	1.3	1.5	1.2	1.6	2.0	2.1	2.2	2.2
Local .....	.2	.1	.3	.7	.5	.7	.8	.8
All other	75.4	76.3	76.7	78.9	78.9	78.6	78.4	78.4

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 1974-75; nonpublic, \$100 million annually, 1963-64 to 1974-75.

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, National Center of Education Statistics, publications: (1) *Statistics of State School Systems*, biennially, 1963-64 through 1971-72, (2) *Statistics of Public Schools*, annually, fall 1964 through fall 1973, (3) *Financial Statistics of Higher Education*, annually 1955-66 through 1971-72, (4) *Selected Summary and Trend Data*, and (5) unpublished data in the National Center for Education Statistics and the National Education Association.

providing education. The projected total expenditures are shown in table 35. They are based mainly on the assumption that the 1963-64 to 1973-74 trend will continue through 1983-84.

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

Current Expenditures

Annual current expenditures for public elementary and secondary schools (in 1973-74 dollars) increased from \$27.1 billion in 1963-64 to \$50.2 billion in 1973-74, an increase of 85 percent. They are expected to increase 33 percent to \$67.0 billion by 1983-84.

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 1973-74 dollars) increased from \$696 in 1963-64 to \$1,147 in 1973-74 and are expected to increase to \$1,696 by 1983-84.

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 1963-64 through 1973-74 were converted to 1973-74 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 1963-64 through 1973-74 were used in deriving a formula (by least squares) for projecting trend figures for 1973-74 through 1983-84. This formula was $Y = \$636 + \$49(t)$ ($t =$ time in years, $t = 1$ in 1963-64).

3. Average daily attendance was calculated for 1973-74 through 1983-84 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 1983-84, 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 (1973-74 dollars) were projected to 1983-84 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 1983-84 by assuming that current expenditures for all programs will remain constant at the rate of 104 percent of current expenditures for all programs 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 1983-84 by assuming that the trend of 1963-64 through 1973-74 will continue through 1983-84.

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 58 percent in 1971-72). Total expenditures for

9/ these salaries (in 1973-74 dollars) increased from \$16.3 billion in 1963-64 to \$26.7 billion in 1973-74 and are expected to be \$32.5 billion in 1983-84. These increases are due to changes in the numbers of instructional staff and to higher average annual salaries.

The average annual salary of instructional staff (in 1973-74 dollars) increased from \$9,490 in 1963-64 to an estimated \$11,253 in 1973-74 and is expected to be \$13,800 in 1983-84. During the past 10 years, 1963-1974, the average annual salary has been increasing about \$206 per year in 1973-74 dollars. The projected figure for 1983-84 (\$13,800) is based on the assumption that 1963-64 to 1973-74 trend will continue through 1983-84.

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 1963-64 to 1972-73 trend: $Y' = \$9,407 + \$206(t)$; (t = time in years, t = 1 in 1963-64).

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 1973-74 dollars) by regular public elementary and secondary schools, including the expenditures of State and local school building authorities, was \$35.4 billion for the 5-year period 1964-65 through 1968-69, and \$28.0 billion for the following 5-year period, 1969-70 through 1973-74. It is expected to be \$22.2 billion for 1974-75 through 1978-79 and \$20.0 billion for 1979-80 through 1983-84.

Projected expenditures for capital outlay are shown in table 39. They are not projections of need but are simply projections of the capital outlay expected in the light of the 1963-64 through 1973-74 trend and other factors.

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 1971-72, 16 percent of capital outlay was for equipment, and 84 percent for land and buildings.

A sharp decrease is expected in the number of rooms to be completed on account of enrollment increases, however, school buildings will continue to be constructed for other reasons, including, (1) Replacements (abandonments), (2) migration factors (including school district reorganization), and (3) reduction of crowded and unsatisfactory rooms:

Interest Expenditures (table 40)

Annual expenditures (in 1973-74 dollars) for interest by public elementary and secondary schools increased from \$1.1 billion in 1963-64 to \$1.7 billion in 1973-74 and are expected to be \$2.3 billion in 1983-84. Projected interest is shown in table 40. The projections are based on the assumption that the 1963-64 to 1973-74 trend will continue through 1983-84. Although capital outlay is expected to level off or decline 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 1973-74 dollars was as follows: $Y' = \$1,005 + \$64(t)$; (t = time in years, t = 1 in 1963-64).

Nonpublic Elementary and Secondary Schools (tables 35, 36)

Expenditure data for nonpublic elementary and secondary schools comparable with those for public schools are nonexistent. 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 1970-71, nearly 70 percent of the over 216,000 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 estimates published by the National Center for Education Statistics 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. Neither of these hypotheses allows for including nonpublic pupils in public schools where capacity is already available.

Institutions of Higher Education

Current Expenditures (tables 35, 41)

Annual current expenditures of institutions of higher education (in 1973-74 dollars) increased from \$13.4 billion in 1963-64 to \$31.3 billion in 1973-74. They are expected to reach \$42.4 billion by 1983-84. The projected data are based largely upon projections of 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 \$17.9 billion over the past 10 years, 1963-73 (table 35). When expressed in terms of current expenditures per full-time-equivalent student, the data in constant 1973-74 dollars are as follows:

Item	1963-64	1973-74	1983-84
Total current expenditures	\$3,602	\$4,300	\$5,626
Publicly controlled institutions	3,261	3,724	4,883
Nonpublicly controlled institutions	4,442	6,061	7,980

Current expenditures are divided into six functional components: Student education, organized research, related activities, auxiliary enterprises, student aid, and major public services.

Student education encompasses general administration, instruction and departmental research, sponsored programs (excluding sponsored research), libraries, and operation and maintenance. Extension and nonmajor public services are not included under student education, having been shifted to related activities in conformity with reporting change requirements. 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 1973-74 dollars are as follows:

Item	1963-64	1973-74	1983-84
Total expenditures for student education	\$1,915	\$2,699	\$3,648
Publicly controlled institutions	1,716	2,461	3,319
Nonpublicly controlled institutions	2,262	3,427	4,688

Current expenditures for major public services were reported as a component of education and general expenditures until 1968-69. All data for education and general expenditures for the base years of 1963-64 through 1967-68 now reflect an adjustment beginning in 1968-69 which excludes major public services from educational and general items. The series for major public services, with 1963-64 data estimated, in billions of 1973-74 constant dollars, are as follows:

Item	1963-64	1973-74	1983-84
Total current expenditures for major public services	\$1.3	\$2.4	\$2.9
Publicly controlled institutions .....	.6	1.3	1.7
Nonpublicly controlled institutions .....	.7	1.1	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 as a portion of major public services prior to 1968-69 was deleted. The trend was frozen at the 1978-79 level. The data in billions of 1973-74 constant dollars, are as follows:

Item	1963-64	1973-74	1983-84
Total expenditures for organized research	\$2.1	\$2.7	\$3.0
Publicly controlled institutions	1.1	1.7	2.0
Nonpublicly controlled institutions	1.0	1.0	1.0

The projections of related activities (including extension and nonmajor public services), auxiliary enterprises, and student aid were 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 as a portion of major public services prior to 1968-69 was deleted. The trend for related activities and student aid as a percentage of student education was frozen at the 1978-79 level. The data, in terms of percentage of student education, are as follows.

Item	Percentage of student education		
	1963-64	1973-74	1983-84
Total current expenditures for related activities (including extension and nonmajor public service)			
Publicly controlled institutions	15.41	9.12	8.18
Nonpublicly controlled institutions	5.53	7.71	8.45

Item	Percentage of student education:		
	1963-64	1973-74	1983-84
Total current expenditures for auxiliary enterprises:			
Publicly controlled institutions	30.06	16.81	13.70
Nonpublicly controlled institutions	32.29	24.34	22.01
Total current expenditures for student aid:			
Publicly controlled institutions	4.04	6.37	7.56
Nonpublicly controlled institutions	9.57	13.17	15.11

Capital Outlay (tables 35, 43)

Annual capital outlay of institutions of higher education (in 1973-74 dollars) peaked at \$6.9 billion in 1966-67 and 1967-68 during the decade beginning 1963-64, but is estimated at \$4.1 billion for 1973-74 and \$3.3 billion for 1983-84. Capital outlay over the entire 10-year base period of 1963-64 to 1973-74 amounted to an estimated total of \$57.4 billion (in 1973-74 dollars) and is expected to total \$34.0 billion (in 1973-74 dollars) over the 10-year projected period of 1974-75. Estimates and projections through 1975-76 are based on the declines shown in actual capital outlay from 1969-70 through 1971-72. In view of relatively stabilized enrollment projections from 1975-76 to 1983-84, capital outlay, in constant 1973-74 dollars, was frozen at the 1975-76 level.



Table 35.—Expenditures (1973–74 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1963–64 to 1983–84

(In billions of 1973–74 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)
1963–64:								
Total	\$57.2	\$38.9	\$30.7	\$7.0	\$1.2	\$18.3	\$13.4	\$4.9
Public	44.8	34.4	27.1	6.2	1.1	10.4	7.4	3.0
Nonpublic	12.4	4.5	3.6	.8	.1	7.9	6.0	1.9
1964–65:								
Total	62.6	42.0	32.8	8.0	1.2	20.6	15.1	5.5
Public	48.7	37.2	29.0	7.1	1.1	11.5	8.4	3.1
Nonpublic	13.9	4.8	3.8	.9	.1	9.1	6.7	2.4
1965–66:								
Total	68.9	45.4	36.1	7.9	1.4	23.5	17.5	6.0
Public	53.7	40.1	31.9	7.0	1.2	13.6	9.8	3.8
Nonpublic	15.2	5.3	4.2	.9	.2	9.9	7.7	2.2
1966–67:								
Total	74.3	48.1	38.7	7.9	1.5	26.2	19.3	6.9
Public	58.3	42.6	34.3	7.0	1.3	15.7	11.2	4.5
Nonpublic	16.0	5.5	4.4	.9	.2	10.5	8.1	2.4
1967–68:								
Total	81.2	52.6	43.1	8.0	1.5	28.6	21.7	6.9
Public	64.5	46.8	38.4	7.1	1.3	17.7	13.2	4.5
Nonpublic	16.7	5.8	4.7	.9	.2	10.9	8.5	2.4
1968–69:								
Total	82.7	53.0	43.5	8.0	1.5	29.7	23.4	6.3
Public	66.5	47.5	39.0	7.2	1.3	19.0	14.4	4.6
Nonpublic	16.2	5.5	4.5	.8	.2	10.7	9.0	1.7
1969–70:								
Total	89.1	57.8	48.8	7.4	1.6	31.3	25.1	6.2
Public	72.2	52.1	44.0	6.7	1.4	20.1	15.7	4.4
Nonpublic	16.9	5.7	4.8	.7	.2	11.2	9.4	1.8
1970–71:								
Total	91.0	58.6	49.6	7.3	1.7	32.4	26.7	5.7
Public	73.9	52.7	44.6	6.6	1.5	21.2	17.1	4.1
Nonpublic	17.1	5.9	5.0	.7	.2	11.2	9.6	1.6
1971–72:								
Total	94.3	60.9	53.2	5.9	1.8	33.4	28.3	5.1
Public	76.7	54.8	47.9	5.3	1.6	21.9	18.2	3.7
Nonpublic	17.6	6.1	5.3	.6	.2	11.5	10.1	1.4

See footnotes at end of table.

Table 35.—Expenditures (1973–74 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1963–64 to 1983–84—Continued

(In billions of 1973–74 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) ¹	(7)	(8)	(9)
1972–73:								
Total	\$96.9	\$62.7	\$55.9	\$4.9	\$1.9	\$34.2	\$29.5	\$4.7
Public	79.0	56.5	50.4	4.4	1.7	22.5	19.1	3.4
Nonpublic	17.9	6.2	5.5	.5	.2	11.7	10.4	1.3
1973–74:								
Total	98.5	63.1	55.7	5.5	1.9	35.4	31.3	4.1
Public	80.3	56.9	50.2	5.0	1.7	23.4	20.4	3.0
Nonpublic	18.2	6.2	5.5	.5	.2	12.0	10.9	1.1
PROJECTED								
1974–75:								
Total	101.1	64.8	57.6	5.3	1.9	36.3	32.6	3.7
Public	82.5	58.5	52.0	4.8	1.7	24.0	21.3	2.7
Nonpublic	18.6	6.3	5.6	.5	.2	12.3	11.3	1.0
1975–76:								
Total	104.2	66.9	59.8	5.1	2.0	37.3	34.0	3.3
Public	85.1	60.4	54.0	4.6	1.8	24.7	22.3	2.4
Nonpublic	19.1	6.5	5.8	.5	.2	12.6	11.7	.9
1976–77:								
Total	107.6	68.7	61.7	4.9	2.1	38.9	35.6	3.3
Public	87.9	62.1	55.8	4.4	1.9	25.8	23.4	2.5
Nonpublic	19.7	6.6	5.9	.5	.2	13.1	12.2	.9
1977–78								
Total	111.0	70.4	63.4	4.8	2.2	40.6	37.3	3.3
Public	90.6	63.6	57.3	4.3	2.0	27.0	24.6	2.4
Nonpublic	20.4	6.8	6.1	.5	.2	13.6	12.7	.9
1978–79:								
Total	113.5	71.5	64.7	4.5	2.3	42.0	38.7	3.3
Public	92.6	64.6	58.4	4.1	2.1	28.0	25.6	2.4
Nonpublic	20.9	6.9	6.3	.4	.2	14.0	13.1	.9
1979–80:								
Total	117.5	74.3	67.6	4.4	2.3	43.2	39.9	3.3
Public	96.0	67.2	61.1	4.0	2.1	28.8	26.4	2.4
Nonpublic	21.5	7.1	6.5	.4	.2	14.4	13.5	.9
1980–81:								
Total	118.5	74.4	67.6	4.4	2.4	44.1	40.8	3.3
Public	96.6	67.2	61.0	4.0	2.2	29.4	27.0	2.4
Nonpublic	21.9	7.2	6.6	.4	.2	14.7	13.8	.9

Table 35.—Expenditures (1973–74 dollars) of regular educational institutions, by instructional level and institutional control: United States, 1963–64 to 1983–84—Continued

(In billions of 1973–74 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	121.5	76.6	69.6	4.4	2.6	44.9	41.6	3.3
Public	98.9	69.0	62.7	4.0	2.3	29.9	27.5	2.4
Nonpublic	22.6	7.6	6.9	.4	.3	15.0	14.1	.9
1982–83:								
Total	\$124.2	\$78.7	\$71.7	\$4.4	\$2.6	\$45.5	\$42.2	\$3.3
Public	101.1	70.8	64.5	4.0	2.3	30.3	27.9	2.4
Nonpublic	23.1	7.9	7.2	.4	.3	15.2	14.3	.9
1983–84:								
Total	127.1	81.4	74.4	4.4	2.6	45.7	42.4	3.3
Public	103.7	73.3	67.0	4.0	2.3	30.4	28.0	2.4
Nonpublic	23.4	8.1	7.4	.4	.3	15.3	14.4	.9

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 \$95 million in 1973–74. Includes expenditures for interest paid from plant funds. (An estimated \$400 million was expended for total interest in 1973–74.)

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, 1963–64 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)
1963–64:								
Total	\$35.6	\$24.3	\$20.0	\$3.5	\$.8	\$11.3	\$8.8	\$2.5
Public	27.8	21.4	17.6	3.1	.7	6.4	4.9	1.5
Nonpublic ..	7.8	2.9	2.4	.4	.1	4.9	3.9	1.0
1964–65:								
Total	39.6	26.7	21.6	4.2	.9	12.9	10.1	2.8
Public	30.8	23.6	19.1	3.7	.8	7.2	5.6	1.6
Nonpublic ..	8.8	3.1	2.5	.5	.1	5.7	4.5	1.2
1965–66:								
Total	44.9	29.7	24.5	4.3	.9	15.2	11.9	3.3
Public	35.1	26.3	21.7	3.8	.8	8.8	6.7	2.1
Nonpublic ..	9.8	3.4	2.8	.5	.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	.9	10.4	7.9	2.5
Nonpublic ..	10.7	3.6	3.0	.5	.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	.5	.1	7.6	6.2	1.4
1968–69:								
Total	61.6	39.6	33.3	5.2	1.1	22.0	17.9	4.1
Public	49.5	35.5	29.8	4.7	1.0	14.0	11.0	3.0
Nonpublic ..	12.1	4.1	3.5	.5	.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	.5	.1	8.9	7.6	1.3
1970–71:								
Total	76.4	49.3	42.2	5.7	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 ..	14.4	5.0	4.3	.6	.1	9.4	8.2	1.2

See footnotes at end of table.

Table 36.—Expenditures (current dollars) of regular educational institutions, by instructional level and institutional control: United States, 1963–64 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)
1971–72:								
Total	\$82.8	\$53.6	\$47.0	\$5.0	\$1.6	\$29.2	\$24.9	\$4.3
Public	67.2	48.1	42.2	4.5	1.4	19.1	16.0	3.1
Nonpublic ..	15.6	5.5	4.8	.5	.2	10.1	8.9	1.2
1972–73:								
Total	88.8	57.4	51.2	4.5	1.7	31.4	27.1	4.3
Public	72.4	51.8	46.2	4.1	1.5	20.6	17.5	3.1
Nonpublic ..	16.4	5.6	5.0	.4	.2	10.8	9.6	1.2
1973–74:								
Total	98.5	63.1	55.7	5.5	1.9	35.4	31.3	4.1
Public	80.3	56.9	50.2	5.0	1.7	23.4	20.4	3.0
Nonpublic ..	18.2	6.2	5.5	.5	.2	12.0	10.9	1.1
1974–75:								
Total	110.1	70.6	62.8	5.7	2.1	39.5	35.5	4.0
Public	89.9	63.8	56.7	5.2	1.9	26.1	23.2	2.9
Nonpublic ..	20.2	6.8	6.1	.5	.2	13.4	12.3	1.1

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 \$95 million in 1973–74. Includes expenditures for interest from current funds and excludes interest paid from current funds and excluded interest paid from plant funds. (An estimated \$400 million was expended for total interest in 1973–74.)

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, 1963–64 to 1983–84

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	1973–74 dollars	Current dollars	1973–74 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1963–64	37,405	\$460.24	\$696	\$17.2	\$26.0	\$17.6	\$27.1
1964–65 ³	38,600	484.00	722	18.6	27.9	19.1	29.0
1965–66	39,154	537.35	785	21.1	30.7	21.7	31.9
1966–67 ³	40,962	569.00	806	22.6	33.0	23.4	34.3
1967–68	40,828	658.26	903	26.9	36.9	27.7	38.4
1968–69 ³	41,157	696.00	911	28.6	37.5	29.8	39.0
1969–70	41,934	815.98	1,008	34.2	42.3	34.9	44.0
1970–71 ³	42,428	860.00	1,010	36.5	42.9	37.9	44.6
1971–72 ³	42,254	989.67	1,122	41.8	47.4	42.2	47.9
1972–73 ³	42,170	1,074.00	1,173	45.4	49.5	46.2	50.4
1973–74 ⁴	42,000	1,147.00	1,147	48.1	48.1	49.1	49.1
PROJECTED⁵							
1974–75	41,600	61,310	1,202	654.5	50.0	656.7	52.0
1975–76	41,300	.....	1,257	...	51.9	...	54.0
1976–77	40,900	.....	1,312	...	53.7	...	55.8
1977–78	40,300	.....	1,367	...	55.1	...	57.3
1978–79	39,500	.....	1,422	...	56.2	...	58.4
1979–80	38,900	.....	1,476	...	58.7	...	61.1
1980–81	38,300	.....	1,531	...	58.6	...	61.0
1981–82	38,000	.....	1,586	...	60.3	...	62.7
1982–83	37,800	.....	1,641	...	62.0	...	64.5
1983–84	38,000	.....	1,696	...	64.4	...	67.0

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 Derived from estimates furnished by States.

⁴ Expenditures based on unpublished estimates of the National Education Association.

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 1983–84. (b) Current expenditures allocated to costs per pupil in average daily attendance will follow the 1963–64 through 1973–74 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 1973–74 rate of inflation will continue 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, National Center for Education Statistics, publications: (1) *Statistics of State School Systems*, 1963–64 through 1971–72 and (2) *Statistics of Public Schools*, fall 1964 through 1973. Current expenditures were converted to 1973–74 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 8, table 9.)

Table 38.—Current expenditures for salaries of instructional staff in regular public elementary and secondary schools: United States, 1963–64 to 1983–84

Year	Number of instructional staff ¹ (in thousands)	Salaries of instructional staff ²			
		Average annual salary		Total (in billions)	
		Current dollars	1973–74 dollars	Current dollars	1973–74 dollars
(1)	(2)	(3)	(4)	(5)	(6)
1963–64	1,717	\$6,277	\$9,490	\$11.1	\$16.3
1964–65 ³	1,813	6,400	9,553	11.6	17.3
1965–66	1,885	6,935	10,131	13.1	19.1
1966–67 ³	1,984	7,110	10,076	14.1	20.0
1967–68	2,071	7,905	10,840	16.4	22.4
1968–69 ³	2,164	8,200	10,728	17.7	23.2
1969–70	2,253	8,840	10,919	19.9	24.6
1970–71 ³	2,296	9,570	11,241	22.0	25.8
1971–72	2,288	10,100	11,450	23.1	26.2
1972–73	2,333	10,608	11,560	24.7	27.0
1973–74	2,369	⁴ 11,253	11,253	26.7	26.7
PROJECTED⁵					
1974–75	2,376	12,531	11,500	29.8	27.3
1975–76	2,387	....	11,800	....	28.2
1976–77	2,394	....	12,000	....	28.7
1977–78	2,382	....	12,300	....	29.3
1978–79	2,366	....	12,500	....	29.6
1979–80	2,338	....	12,800	....	29.9
1980–81	2,330	....	13,100	....	30.5
1981–82	2,324	....	13,300	....	30.9
1982–83	2,329	....	13,600	....	31.7
1983–84	2,354	....	13,800	....	32.5

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 Estimates of salaries furnished by State education departments.

⁴ Salary estimate from unpublished data by the National Education Association.

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 1963–64 through 1973–74 trend. (b) The ratio of instructional staff to classroom teachers in regular public schools will follow the 1963–64 through 1973–74 trend.

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, National Center for Education Statistics, publications: (1) *Statistics of State School Systems*, 1963–64 through 1971–72, and (2) *Statistics of Public Schools*, fall 1965 through 1973. Conversion to 1973–74 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.—Capital outlay of public elementary and secondary school systems:
United States, 1963–64 through 1983–84

(In millions)

Year (1)	Total capital outlay including construction, equipment, etc.	
	Current dollars (2)	1973–74 dollars (3)
1963–64	\$3,135	\$6,200
1964–65 ¹	3,700	7,100
1965–66	3,755	7,000
1966–67 ¹	4,000	7,000
1967–68	4,256	7,100
1968–69 ¹	4,654	7,200
1964–65 to 1968–69	30,955	35,400
1969–70	4,659	6,700
1970–71 ¹	5,061	6,600
1971–72	4,459	5,300
1972–73 ¹	4,091	4,400
1973–74 ²	34,989	4,989
1969–70 to 1973–74	23,259	27,989
PROJECTED⁴		
1974–75	5,209	4,807
1975–76 .....	....	4,625
1976–77 .....	....	4,443
1977–78 .....	....	4,261
1978–79 .....	....	4,079
1974–75 to 1978–79 .....	....	22,215
1979–80 .....	....	4,000
1980–81 .....	....	4,000
1981–82 .....	....	4,000
1982–83 .....	....	4,000
1983–84 .....	....	4,000
1979–80 to 1983–84 .....	....	20,000

¹ Estimates furnished by State education department.

² Estimated by National Center for Education Statistics.

³ Based on unpublished data from the National Education Association.

⁴ Projections of capital outlay of public elementary and secondary school systems are based on the assumption that these expenditures will follow the 1963–64 through 1973–74 trend through 1978–79 and remain constant at \$4 billion through 1983–84.

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, National Center for Education Statistics, publications: (1) *Statistics of State School Systems, 1963–64 through 1971–72*; (2) *Statistics of Public Schools, fall 1965 through fall 1973*; and (3) *Expenditures and Revenues for Public Elementary and Secondary Education, 1970–71 and 1972–73*. Conversion to 1973–74 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 40.—Expenditures for interest by public elementary and secondary school systems: United States, 1963–64 to 1983–84

(In millions)

Year (1)	Total interest including payments to schoolhousing authorities or similar agencies	
	Current dollars (2)	1973–74 dollars (3)
1963–64	\$701	\$1,060
1964–65 ¹	761	1,136
1975–66	792	1,157
1966–67 ¹	949	1,345
1967–68	978	1,341
1968–69 ¹	1,015	1,328
1969–70	1,171	1,446
1970–71 ¹	1,318	1,548
1971–72	1,378	1,562
1972–73 ²	1,547	1,686
1973–74 ³	1,672	1,672
PROJECTED⁴		
1974–75	1,895	1,739
1975–76 .....	.....	1,806
1976–77 .....	.....	1,873
1977–78 .....	.....	1,940
1978–79 .....	.....	2,007
1979–80 .....	.....	2,074
1980–81 .....	.....	2,141
1981–82 .....	.....	2,208
1982–83 .....	.....	2,275
1983–84 .....	.....	2,342

¹ Estimates furnished by State education departments

² Data from special study of expenditures and revenues for public elementary and secondary school systems.

³ Estimated by National Education Association.

⁴ Projections of expenditures for interest are based on the assumption that these expenditures will follow the 1963–64 through 1973–74 trend.

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, National Center for Education Statistics, publications: (1) *Statistics of State School Systems, 1963–64 through 1971–72*; (2) *Statistics of Public Schools, fall 1965 through fall 1973*; and (3) *Expenditures and Revenues for Public Elementary and Secondary Education, 1970–71 and 1972–73*. Conversion to 1973–74 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
(1973–74 dollars), by institutions of higher education:
United States, 1963–64 to 1983–84**

(In billions of 1973–74 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)
1963–64:									
Total	\$7.0	\$2.1	\$0.8	\$2.2	\$0.5	\$1.3	\$13.9	\$0.5	\$13.4
Public	4.0	1.1	.6	1.2	.2	.6	7.7	.3	7.4
Nonpublic ..	3.0	1.0	.2	1.0	.3	.7	6.2	.2	6.0
1964–65:⁸									
Total	8.1	2.4	.9	2.6	.5	1.3	15.8	.7	15.1
Public	4.7	1.2	.7	1.4	.2	.6	8.8	.4	8.4
Nonpublic ..	3.4	1.2	.2	1.2	.3	.7	7.0	.3	6.7
1965–66:									
Total	9.3	2.6	1.2	3.1	.6	1.5	18.3	.8	17.5
Public	5.5	1.3	.9	1.7	.2	.7	10.3	.5	9.8
Nonpublic ..	3.8	1.3	.2	1.4	.4	.8	8.0	.3	7.7
1966–67:									
Total	10.7	2.5	1.2	3.3	.9	1.6	20.2	.9	19.3
Public	6.5	1.3	.9	1.9	.4	.8	11.8	.6	11.2
Nonpublic ..	4.2	1.2	.3	1.4	.5	.8	8.4	.3	8.1
1967–68:									
Total	12.3	2.7	1.4	3.5	1.0	1.7	22.6	.9	21.7
Public	7.8	1.5	1.6	2.1	.5	.9	13.8	.6	13.2
Nonpublic ..	4.5	1.2	.4	1.4	.5	.8	8.8	.3	8.5
1968–69:									
Total	14.1	2.6	1.3	3.3	1.1	1.7	24.1	.7	23.4
Public	9.1	1.5	1.0	1.9	.5	.9	14.9	.5	14.4
Nonpublic ..	5.0	1.1	.3	1.4	.6	.8	9.2	.2	9.0
1969–70:									
Total	15.4	2.7	1.4	3.4	1.2	1.9	26.0	.9	25.1
Public	10.1	1.6	1.1	2.0	.6	1.0	16.4	.7	15.7
Nonpublic ..	5.3	1.1	.3	1.4	.6	.9	9.6	.2	9.4
1970–71:									
Total	16.6	2.6	1.5	3.5	1.3	1.9	27.4	.7	26.7
Public	11.1	1.6	1.1	2.1	.6	1.1	17.6	.5	17.1
Nonpublic ..	5.5	1.0	.4	1.4	.7	.8	9.8	.2	9.6

See footnotes at end of table.

**Table 41.—Expenditures from current funds and total current expenditures
(1973–74 dollars), by institutions of higher education:
United States, 1963–64 to 1983–84—Continued**

(In billions of 1973–74 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)
1971–72:									
Total	\$17.6	\$2.6	\$1.6	\$3.6	\$1.4	\$2.2	\$29.0	\$0.7	\$28.3
Public	11.9	1.5	1.2	2.2	.7	1.2	18.7	.5	18.2
Nonpublic .	5.7	1.1	.4	1.4	.7	1.0	10.3	.2	10.1
1972–73⁹									
Total	18.5	2.6	1.6	3.7	1.6	2.2	30.2	.7	29.5
Public	12.6	1.6	1.2	2.2	.8	1.2	19.6	.5	19.1
Nonpublic .	5.9	1.0	.4	1.5	.8	1.0	10.6	.2	10.4
1973–74⁹									
Total	19.7	2.7	1.7	3.7	1.7	2.4	31.9	.6	31.3
Public	13.5	1.7	1.2	2.2	.9	1.3	20.8	.4	20.4
Nonpublic .	6.2	1.0	.5	1.5	.8	1.1	11.1	.2	10.9
PROJECTED¹⁰									
1974–75:									
Total	20.5	2.7	1.8	3.8	1.8	2.5	33.1	.5	32.6
Public	14.1	1.7	1.3	2.3	.9	1.4	21.7	.4	21.3
Nonpublic .	6.4	1.0	.5	1.5	.9	1.1	11.4	.1	11.3
1975–76:									
Total	21.3	2.8	1.9	3.9	1.9	2.6	34.4	.4	34.0
Public	14.7	1.8	1.3	2.3	1.0	1.5	22.6	.3	22.3
Nonpublic .	6.6	1.0	.6	1.6	.9	1.1	11.8	.1	11.7
1976–77:									
Total	22.4	2.9	1.9	4.0	2.1	2.7	36.0	.4	35.6
Public	15.5	1.9	1.3	2.4	1.1	1.5	23.7	.3	23.4
Nonpublic .	6.9	1.0	.6	1.6	1.0	1.2	12.3	.1	12.2
1977–78:									
Total	23.5	2.9	2.0	4.2	2.3	2.8	37.7	.4	37.3
Public	16.3	1.9	1.4	2.5	1.2	1.6	24.9	.3	24.6
Nonpublic .	7.2	1.0	.6	1.7	1.1	1.2	12.8	.1	12.7
1978–79:									
Total	24.6	3.0	2.0	4.2	2.4	2.9	39.1	.4	38.7
Public	17.0	2.0	1.4	2.5	1.3	1.7	25.9	.3	25.6
Nonpublic .	7.6	1.0	.6	1.7	1.1	1.2	13.2	.1	13.1
1979–80:									
Total	25.4	3.0	2.1	4.4	2.5	2.9	40.3	.4	39.9
Public	17.7	2.0	1.4	2.6	1.3	1.7	26.7	.3	26.4
Nonpublic .	7.7	1.0	.7	1.8	1.2	1.2	13.6	.1	13.5

Table 41.—Expenditures from current funds and total current expenditures (1973–74 dollars), by institutions of higher education: United States, 1963–64 to 1983–84—Continued

(In billions of 1973–74 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)
1980–81:									
Total	\$26.1	\$3.0	\$2.2	\$4.4	\$2.6	\$2.9	\$41.2	\$0.4	\$40.8
Public	18.1	2.0	1.5	2.6	1.4	1.7	27.3	.3	27.0
Nonpublic	8.0	1.0	.7	1.8	1.2	1.2	13.9	.1	13.8
1981–82:									
Total	26.8	3.0	2.2	4.4	2.7	2.9	42.0	.4	41.6
Public	18.6	2.0	1.5	2.6	1.4	1.7	27.8	.3	27.5
Nonpublic	8.2	1.0	.7	1.8	1.3	1.2	14.2	.1	14.1
1982–83:									
Total	27.3	3.0	2.3	4.4	2.7	2.9	42.6	.4	42.2
Public	18.9	2.0	1.6	2.6	1.4	1.7	28.2	.3	27.9
Nonpublic	8.4	1.0	.7	1.8	1.3	1.2	14.4	.1	14.3
1983–84:									
Total	27.5	3.0	2.3	4.4	2.7	2.9	42.8	.4	42.4
Public	19.0	2.0	1.6	2.6	1.4	1.7	28.3	.3	28.0
Nonpublic	8.5	1.0	.7	1.8	1.3	1.2	14.5	.1	14.4

¹ Includes general administration, instruction and departmental research, 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. "Extension and nonmajor public services", included under "student education" in previous issues, are included now under "related activities".

² Includes all sponsored research and other separately budgeted research with the exception of expenditures for federally funded research and development centers which are included under "major public services".

³ Includes expenditures for extension and nonmajor public services, laboratory schools, medical school hospitals, dental clinics, home economic, 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." Expenditures for "major public services" which were listed under "related activities" prior to 1968–69 are

estimated and reported under "major public services".

⁴ "Auxiliary enterprises" includes 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. For 1963–64 through 1967–68, the data represent expenditures for federally funded research and development centers which were previously reported under "organized research", and for other major public services previously reported under "student education" and "related activities".

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

⁸ Interpolated.

⁹ Estimated.

¹⁰ 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" are projected on the percentage this item was of "student education" during the base period. (c) "Related activities" and "student aid" are projected on the percentage of these items to "student education" during the base period, with the trend frozen at the 1978-79 level for the remainder of the projection. (d) "Organized research" and "major public services" are projected on the base years trend in dollar amounts. (e) The 1972-73 to 1983-84 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: Expenditure data from U.S. Department of Health, Education, and Welfare, National Center for Education Statistics publications: *Financial Statistics of Institutions of Higher Education*, 1963-64 1965-66 through 1970-71, and unpublished data for 1971-72. Conversion to 1973-74 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, 1963–64 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)
1963–64:									
Total	\$4.7	\$1.4	\$0.5	\$1.5	\$0.3	\$0.8	\$9.2	\$0.4	\$8.8
Public	2.7	.7	.4	.8	.1	.4	5.1	.2	4.9
Nonpublic .	2.0	.7	.1	.7	.2	.4	4.1	.2	3.9
1964–65:⁸									
Total	5.4	1.6	.6	1.8	.3	.9	10.6	.5	10.1
Public	3.1	.8	.5	1.0	.1	.4	5.9	.3	5.6
Nonpublic .	2.3	.8	.1	.8	.2	.5	4.7	.2	4.5
1965–66:									
Total	6.4	1.8	.8	2.1	.4	1.0	12.5	.6	11.9
Public	3.8	.9	.6	1.2	.1	.5	7.1	.4	6.7
Nonpublic .	2.6	.9	.2	.9	.3	.5	5.4	.2	5.2
1966–67:									
Total	7.5	1.8	.9	2.3	.5	1.2	14.2	.6	13.6
Public	4.6	.9	.7	1.3	.2	.6	8.3	.4	7.9
Nonpublic .	2.9	.9	.2	1.0	.3	.6	5.9	.2	5.7
1967–68:									
Total	9.0	2.0	1.0	2.6	.7	1.2	16.5	.7	15.8
Public	5.7	1.1	.8	1.5	.3	.6	10.0	.4	9.6
Nonpublic .	3.3	.9	.2	1.1	.4	.6	6.5	.3	6.2
1968–69:									
Total	10.7	2.1	1.0	2.5	.9	1.3	18.5	.6	17.9
Public	6.9	1.2	.8	1.4	.4	.7	11.4	.4	11.0
Nonpublic .	3.8	.9	.2	1.1	.5	.6	7.1	.2	6.9
1969–70:									
Total	12.4	2.2	1.2	2.8	1.0	1.5	21.1	.8	20.3
Public	8.2	1.3	.9	1.6	.5	.8	13.3	.6	12.7
Nonpublic .	4.2	.9	.3	1.2	.5	.7	7.8	.2	7.6
1970–71:									
Total	14.2	2.2	1.3	3.0	1.1	1.6	23.4	.6	22.8
Public	9.5	1.3	1.0	1.8	.5	.9	15.0	.4	14.6
Nonpublic .	4.7	.9	.3	1.2	.6	.7	8.4	.2	8.2
1971–72:									
Total	15.5	2.3	1.4	3.2	1.2	1.9	25.5	.6	24.9
Public	10.5	1.4	1.0	1.9	.6	1.0	16.4	.4	16.0
Nonpublic .	5.0	.9	.4	1.3	.6	.9	9.1	.2	8.9
1972–73:⁹									
Total	16.9	2.5	1.5	3.3	1.4	2.1	27.7	.6	27.1
Public	11.5	1.5	1.1	2.0	.7	1.1	17.9	.4	17.5
Nonpublic .	5.4	1.0	.4	1.3	.7	1.0	9.8	.2	9.6

Table 42.—Expenditures from current funds and total current expenditures (current dollars), by institutions of higher education: United States, 1963–64 to 1974–75—Continued

(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)
1973–74:⁹									
Total	19.7	2.7	1.7	3.7	1.7	2.4	31.9	.6	31.3
Public	13.5	1.7	1.2	2.2	.9	1.3	20.8	.4	20.4
Nonpublic	6.2	1.0	.5	1.5	.8	1.1	11.1	.2	10.9
PROJECTED¹⁰									
1974–75:									
Total	22.3	3.0	2.0	4.2	1.9	2.7	36.1	.6	35.5
Public	15.3	1.9	1.4	2.5	1.0	1.5	23.6	.4	23.2
Nonpublic	7.0	1.1	.6	1.7	.9	1.2	12.5	.2	12.3

¹ Includes general administration, instruction and departmental research, 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. "Extension and nonmajor public services," included under "student education" in previous issues, are included now under "related activities."

² Includes all sponsored research and other separately budgeted research with the exception of expenditures for federally funded research and development centers which are included under "major public services".

³ Includes expenditures for extension and nonmajor public services, 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." Expenditures for "major public services" which were listed under "related activities" prior to 1968–69 are estimated and reported under "major public services".

⁴ "Auxiliary enterprises" includes 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. For 1963–64 through 1967–68 the data represent expenditures for federally funded research and development centers which were previously reported under "organized research", and for other major public services previously reported under "student education" and "related activities".

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

⁸ Interpolated.

⁹ Estimated.

¹⁰ Projected by applying Consumer Price Index estimates 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, National Center for Education Statistics publications: *Financial Statistics of Institutions of Higher Education*, 1963–64, 1965–66 through 1970–71, and unpublished data 1971–72.

Table 43.—Capital outlay of institutions of higher education:
United States, 1963–64 to 1983–84

Year	Total		Public		Nonpublic	
	Millions of current dollars	Millions of 1973–74 dollars	Millions of current dollars	Millions of 1973–74 dollars	Millions of current dollars	Millions of 1973–74 dollars
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1963–64	\$2,466	\$4,873	\$1,518	\$2,999	\$948	\$1,874
1964–65 ¹	2,825	5,443	1,595	3,073	1,230	2,370
1965–66	3,253	6,041	2,064	3,833	1,189	2,208
1966–67	3,943	6,928	2,573	4,520	1,370	2,408
1967–68	4,175	6,962	2,732	4,556	1,443	2,406
1968–69 ¹	4,057	6,250	2,978	4,587	1,079	1,663
1964–65 to 1968–69	18,253	31,624	11,942	20,569	6,311	11,055
1969–70	4,332	6,241	3,066	4,417	1,266	1,824
1970–71	4,344	5,695	3,147	4,126	1,197	1,569
1971–72	4,336	5,119	3,156	3,726	1,180	1,393
1972–73 ²	4,251	4,607	3,094	3,353	1,157	1,254
1973–74 ²	4,146	4,146	3,018	3,018	1,128	1,128
1969–70 to 1973–74	21,409	25,808	15,481	18,640	5,928	7,168
PROJECTED³						
1974–75	4,043	3,732	2,943	2,716	1,100	1,016
1975–76 .....	.....	3,358	.....	2,444	.....	914
1976–77 .....	.....	3,358	.....	2,444	.....	914
1977–78 .....	.....	3,358	.....	2,444	.....	914
1978–79 .....	.....	3,358	.....	2,444	.....	914
1974–75 to 1978–79 ....	.....	17,164	.....	12,492	.....	4,672
1979–80 .....	.....	3,358	.....	2,444	.....	914
1980–81 .....	.....	3,358	.....	2,444	.....	914
1981–82 .....	.....	3,358	.....	2,444	.....	914
1983–84 .....	.....	3,358	.....	2,444	.....	914
1979–80 to 1983–84 ....	.....	16,790	.....	12,220	.....	4,570

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

² Estimated.

³ Estimates and projections through 1975–76 are based on the declines shown in actual capital outlay since 1969–70 (in constant dollars) and then frozen at that level for the remainder of the projection.

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, National Center for Education Statistics publications: *Financial Statistics of Institutions of Higher Education*, 1963–64 through 1969–70; and unpublished data for 1970–71 and 1971–72.

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 1963-64, 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 1963-64, 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 1973-74 constant dollars, increased from \$1,401 in 1963-64 to \$1,569 in 1973-74 and are expected to reach \$1,763 by 1983-84 (table 44). Estimated average student charges by nonpublicly controlled institutions of higher education were \$2,744 in 1963-64, \$3,436 in 1973-74, and are expected to reach \$4,147 by 1983-84.

Tuition and required fees are largely responsible for the increases in student charges. Tuition and fees, in constant 1973-74 dollars, charged by publicly controlled institutions rose from \$354 in 1963-64 to \$442 in 1973-74, and are expected to reach \$523 by 1983-84.

Nonpublicly controlled institutions charged estimated average tuition and fees of \$1,530 in 1963-64, \$2,185 in 1973-74, and are projected to be charging \$2,796 by 1983-84. 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 1973-74 dollars (table 44), had declined slightly in all but public 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 1973-1983 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 (1973–74 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1963–64 to 1983–84

(Charges are for the academic year and in constant 1973–74 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)
1963–64:1																	
Public	\$1,401	\$1,552	\$1,279	\$953	\$354	\$425	\$325	\$147	\$658	\$708	\$603	\$546	\$389	\$419	\$351	\$260	
Nonpublic ..	2,744	3,182	2,570	1,986	1,530	1,838	1,414	971	736	780	718	646	478	564	438	369	
1964–65:1																	
Public	1,419	1,569	1,294	953	363	445	334	148	651	690	600	539	405	434	360	266	
Nonpublic ..	2,846	3,287	2,702	2,172	1,624	1,936	1,527	1,048	728	769	715	693	494	582	460	431	
1965–66:2																	
Public	1,436	1,614	1,318	980	376	478	350	160	649	692	596	536	411	444	372	284	
Nonpublic ..	2,928	3,385	2,773	2,276	1,686	2,000	1,587	1,122	722	773	704	692	520	612	482	462	
1966–67:1																	
Public	1,455	1,659	1,342	1,006	390	510	367	171	648	694	591	533	417	455	384	302	
Nonpublic ..	3,010	3,481	2,844	2,379	1,747	2,063	1,647	1,197	717	777	694	690	546	641	503	492	
1967–68:2																	
Public	1,458	1,644	1,367	1,052	388	502	368	197	641	679	599	552	429	463	400	333	
Nonpublic ..	3,024	3,489	2,886	2,417	1,778	2,103	1,697	1,224	708	762	687	691	538	624	502	502	
1968–69:1																	
Public	1,462	1,629	1,391	1,155	386	493	368	222	635	666	607	569	441	470	416	364	
Nonpublic ..	3,037	3,497	2,927	2,455	1,809	2,143	1,747	1,251	699	748	680	692	529	606	500	512	
1969–70:2																	
Public	1,488	1,684	1,405	1,175	400	528	379	220	631	667	597	574	457	489	429	381	
Nonpublic ..	3,128	3,530	2,990	2,463	1,894	2,235	1,815	1,277	694	751	670	675	540	621	505	511	
1970–71:2																	
Public	1,513	1,737	1,418	1,196	413	562	390	219	628	668	587	579	472	507	441	398	
Nonpublic ..	3,218	3,679	3,053	2,471	1,979	2,327	1,883	1,303	689	753	660	658	550	636	510	510	
1971–72:1																	
Public	1,538	1,790	1,431	1,217	426	596	401	218	625	669	577	584	487	525	453	415	
Nonpublic ..	3,307	3,826	3,116	2,479	2,063	2,418	1,951	1,329	684	755	650	641	560	653	515	509	

See footnotes at end of table.

Table 44.—Estimated average charges (1973-74 dollars) per full-time undergraduate resident degree-credit student in institutions of higher education, by institutional type and control: United States, 1963-64 to 1983-84—Continued

(Charges are for the academic year and in constant 1973-74 dollars)

Year and control	Total tuition, board, and room					Tuition and required fees				Board (7-day basis)				Dormitory rooms					
	All		Other 4-year		(5)	All		Other 4-year		(8)	All		Other 4-year		(12)	All		Other 4-year	
	(1)	(2)	(3)	(4)		(6)	(7)	(9)	(10)		(11)	(13)	(14)	(15)		(16)	(17)		
PROJECTED⁴																			
1972-73:³																			
Public	\$1,553	\$1,816	\$1,451	\$1,255	\$434	\$615	\$410	\$230	\$621	\$664	\$575	\$589	\$498	\$537	\$466	\$436			
Nonpublic ..	3,371	3,899	3,181	2,545	2,124	2,485	2,015	1,376	677	751	641	641	570	663	525	528			
1973-74:³																			
Public	1,569	1,841	1,472	1,292	442	634	420	241	617	658	573	595	510	549	479	456			
Nonpublic ..	3,436	3,972	3,251	2,611	2,185	2,552	2,079	1,423	671	747	641	641	580	673	534	547			
1974-75:																			
Public	1,588	1,871	1,494	1,330	450	652	429	253	617	658	573	600	521	561	492	477			
Nonpublic ..	3,507	4,049	3,329	2,676	2,246	2,619	2,143	1,470	671	747	641	641	590	683	545	565			
1975-76:																			
Public	1,607	1,902	1,516	1,367	458	671	438	264	617	658	573	605	532	573	505	498			
Nonpublic ..	3,578	4,124	3,403	2,742	2,307	2,685	2,207	1,517	671	747	641	641	600	692	555	584			
1976-77:																			
Public	1,628	1,933	1,538	1,405	467	690	447	276	617	658	573	611	544	585	518	518			
Nonpublic ..	3,650	4,201	3,478	2,808	2,369	2,752	2,272	1,564	671	747	641	641	610	702	565	603			
1977-78:																			
Public	1,647	1,964	1,561	1,442	475	709	457	287	617	658	573	616	555	597	531	539			
Nonpublic ..	3,721	4,278	3,552	2,874	2,430	2,819	2,336	1,611	671	747	641	641	620	712	575	622			
1978-79:																			
Public	1,666	1,995	1,583	1,481	483	728	466	299	617	658	573	622	566	609	544	560			
Nonpublic ..	3,792	4,355	3,625	2,940	2,491	2,886	2,400	1,658	671	747	641	641	630	722	584	641			
1979-80:																			
Public	1,686	2,025	1,605	1,517	491	746	475	310	617	658	573	627	578	621	557	580			
Nonpublic ..	3,863	4,432	3,699	3,005	2,552	2,953	2,464	1,705	671	747	641	641	640	732	594	659			
1980-81:																			
Public	1,705	2,056	1,628	1,555	499	765	484	322	617	658	573	632	589	633	571	601			
Nonpublic ..	3,934	4,509	3,773	3,071	2,613	3,020	2,528	1,752	671	747	641	641	650	742	604	678			

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, 1963-64 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)
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	982	1,105	903	671	257	327	240	110	444	474	408	367	281	304	255	194	
Nonpublic ..	2,004	2,317	1,898	1,558	1,154	1,369	1,086	768	494	529	482	474	356	419	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	790	283	366	268	144	467	495	437	403	313	338	292	243	
Nonpublic ..	2,205	2,545	2,104	1,763	1,297	1,534	1,237	893	516	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	1,205	1,363	1,137	951	324	427	307	178	511	540	483	465	370	396	347	308	
Nonpublic ..	2,532	2,920	2,420	1,994	1,533	1,809	1,469	1,034	562	608	542	546	437	503	409	414	
1970-71:¹																	
Public	1,288	1,479	1,207	1,018	351	478	332	186	535	569	500	493	402	432	375	339	
Nonpublic ..	2,740	3,163	2,599	2,087	1,685	1,981	1,603	1,093	587	641	562	560	468	541	434	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	1,425	1,666	1,332	1,151	398	564	376	211	570	609	528	540	457	493	428	400
Nonpublic ..	3,093	3,577	2,919	2,336	1,949	2,280	1,849	1,263	621	689	588	588	523	608	482	485
1973-74:1																
Public	1,569	1,841	1,472	1,292	442	634	420	241	617	658	573	595	510	549	479	456
Nonpublic ..	3,436	3,972	3,254	2,611	2,185	2,552	2,079	1,423	671	747	641	641	580	673	534	547

PROJECTED

1974-75i

Public	1,710	2,115	1,604	1,408	482	691	458	263	672	717	624	648	556	707	522	497
Nonpublic ..	3,744	4,328	3,547	2,846	2,381	781	2,266	1,551	731	814	699	699	632	733	582	596

i 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.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Higher Education Basic Student Charges*, 1963-64, 1964-65, 1966-67, 1968-69, and 1971-72; and (2) *Opening Fall Enrollment in Higher Education*, 1963, 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 1974 projections of educational data by the National Center for Education Statistics 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, 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 other projections, except the 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 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, respectively, were used.

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

For estimating and projecting degrees, enrollments were primarily used. Bachelor's degrees are based on first-time degree-credit enrollment 4 years earlier. Master's degrees are based on the average first-year enrollment for advanced degrees 1 and 2 years earlier. Doctor's degrees are based on the average first-year enrollment for advanced degrees 7 and 8 years earlier. The estimate of a 7- and 8-year average time lapse between first-year enrollment for advanced degrees 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

¹ U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, *Education Directory, 1973 - 74, Higher Education*, U.S. Government Printing Office, Washington, D.C., 1974.

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

trend, a constant based on the latest observation or an average of the last two or three observations was used.

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 which are required by educators for decisionmaking.

For the trend, 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 the rapid changes in economic and social conditions and the improvement in the 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 primarily used for projecting.

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. In many cases, the selection of an asymptote is limited by the nature of the statistic itself (no more than 100 percent of the 5-year-olds can be enrolled) or by consideration of external factors (it is extremely unlikely that the money required to support a 1-to-1 pupil-teacher ratio nationally will be available during the next 10 years). However, in some cases the selection of an asymptote is somewhat arbitrary.

Logistic growth curves are fitted by making the transformation

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

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 National Center for Education Statistics in requesting data, and outline the classification of summarized degree data.

Table A.1.—Methodology (Chapter II)

Item	Text table number	Projection method					
		Constant(s)	Least squares equation (y=percent; t=year; 1953=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	$Y' = -0.50 + 0.38t$	0.96	0.36	$Y' = -0.15 + 0.41t$	.....
4 years old ⁶	$Y' = 2.17 + 0.88t$	.94	.69	$Y' = 5.42 + 0.97t$	.....
5 years old ⁷	$Y' = 85 / (1 + e^{-(0.16 + 0.11t)})$	.97	.056	$Y' = 85 / (1 + e^{-(0.014 + 0.112t)})$	.....
6 years old ⁸	$Y' = 2.37 + 0.23t$	.78	.39	$Y' = 1.90 + 0.25t$	.....
Fall enrollment (independent nonpublic kindergarten and nursery schools) ³	2	.....	.....	.....	.....	.....	(9)
3 years old ¹⁰	$Y' = 1.89 + 0.97t$	.....	.72	$Y' = 0.61 + 1.03t$	.....
4 years old ¹¹	$Y' = 5.30 + 1.34t$	.99	.52	$Y' = 6.29 + 1.29t$	.....
5 years old ¹²	10.9	.....	.....	.....	.....	.....
6 years old ¹³	0.5	.....	.....	.....	.....	.....
Fall enrollment (regular public day schools)	3	.....	$Y' = 100 / (1 + e^{-(0.121 - 0.115t)})$	.98	.062	$Y' = 100 / (1 + e^{-(0.139 - 0.103t)})$	.....
Kindergarten ¹⁴
Grade 1 ¹⁵	94.1	.....	.....	.....	.....	.....
Grade 2 ¹⁶	94.7	.....	.....	.....	.....	.....
Grade 3 ¹⁷	98.7	.....	.....	.....	.....	.....
Grade 4 ¹⁸	98.8	.....	.....	.....	.....	.....
Grade 5 ¹⁹	99.4	.....	.....	.....	.....	.....
Grade 6 ²⁰	99.6	.....	.....	.....	.....	.....
Grade 7 ²¹	$Y' 7(t) = Y' 6(t-1) + 0.032C(t-1)$	.....	.....	.....	.....
Grade 8 ²²	98.8	.....	.....	.....	.....	.....
Grade 9 ²³	$Y' 9(t) = Y' 8(t-1) + 0.051C(t-1)$	.....	.....	.....	.....
Grade 10 ²⁴	97.0	.....	.....	.....	.....	.....
Grade 11 ²⁵	91.6	.....	.....	.....	.....	.....
Grade 12 ²⁶	90.5	.....	.....	.....	.....	.....
Elementary ungraded ²⁷	$Y' = 0.63 + 0.17t$	.95	.14	$Y' = 0.64 + 0.17t$	.....
Secondary ungraded ²⁸	$Y' = 0.92 + 0.12t$	.88	.16	$Y' = 0.90 + 0.12t$	.....
Postgraduate ²⁹	14 000	.....	.....	.....	.....	.....
Organizational level ³⁰	4	85.3	.....	.....	.....	.....	.....
Fall enrollment (regular nonpublic day schools)	3, 4	.....	.....	.....	.....	.....	(31)
Grades kindergarten to 8	(32)
Grades 9 to 12

See footnotes at end of table.

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

Item	Text table number	Projection method					
		Constant(s)	Least squares equation (y-percent, t-year, (1963-1))	Index of determination	Standard error	Adjusted equation ²	Other
Degree-credit fall enrollment	6.8, 13, 17-19						
Men							
Full-time undergraduate and unclassified ³³		129.2	$y' = 77.99 - 0.85t$	0.92	0.51	$y' = 77.19 - 0.80t$	
Undergraduate and unclassified ³⁴			$y' = 83.44 - 0.14t$	.54	.27	$y' = 83.12 - 0.12t$	
Graduate ³⁵		77.6					
Part-time first-professional ³⁶		15,000					
Full-time graduate ³⁷		42.3					
Public 4-year institutions ³⁸		52.9					
Private 4-year institutions ³⁸		25.2					
Public 2-year institutions ³⁸		21.0					
Private 2-year institutions ³⁸		0.9					
2-year institutions, full-time ³⁹		69	$y' = 40 / (1 - e^{-1.038 + 0.061t})$		.086	$y' = 40 / (1 - e^{-1.119 + 0.056t})$	
Private institutions, full-time ⁴⁰		74.6					
Women							
Full-time undergraduate and unclassified ³³		121.9	$y' = 74.85 - 0.94t$	88	.71	$y' = 74.01 - 0.88t$	
Undergraduate and unclassified ³⁴			$y' = 88.24 - 0.25t$	.68	.34	$y' = 87.74 - 0.22t$	(41)
First-professional		90.9					
Full-time first-professional ⁴²		28.8					
Full-time graduate ³⁷		54.2					
Public 4-year institutions ³⁸		840,000					
Private 4-year institutions ⁴³		20.1					
Public 2-year institutions							(44)
Private 2-year institutions ⁴³		45,000					
2-year institutions, full-time ³⁹			$y' = 35 / (1 - e^{-10.998 + 0.098t})$	85	.086	$y' = 35 / (1 - e^{-11.155 + 0.088t})$	
Private institutions, full-time ⁴⁵			$y' = 76.73 - 0.46t$	.70	.61	$y' = 75.63 - 0.39t$	
Non-degree-credit fall enrollment	9-11		$y' = 2.63 + 0.40t$	.91	.42	$y' = 3.67 + 0.35t$	
Men ⁴⁶							
Public 4-year institutions ⁴⁷		5.4					
Private 4-year institutions ⁴⁷		2.3					
Public 2-year institutions ⁴⁷		90.1					
Private 2-year institutions ⁴⁷		2.2					

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

Item	Text table number	Projection method			
		Least squares equation (y=percent, t ² year, 1963-1) ¹	Index of determination	Standard error	Other
Public 4-year institutions ⁵⁵	..	41.3			
Private 4-year institutions ⁵⁵	..	21.0			
Public 2-year institutions ⁵⁵	..	35.0			
Private 2-year institutions ⁵⁵	..	2.7			
Full-time first-time degree-credit fall enrollment	14-16				
Men, public 4-year institutions ⁵⁶	..	90.6			
Women, public 4-year institutions ⁵⁶	..	89.9			
Men, private 4-year institutions ⁵⁶	..	89.9			
Women, private 4-year institutions ⁵⁶	..	90.6			
Men, public 2-year institutions ⁵⁷	0.88	0.06	$Y^2=50/(1-e^{-(1.339+0.077t)})$
Women, public 2-year institutions ⁵⁷	82	05	$Y^2=40/(1-e^{-(1.211+0.051t)})$
Men, private 2-year institutions ⁵⁶	..	83.4			
Women, private 2-year institutions ⁵⁶	..	87.5			
Graduate enrollment, public ⁵⁸	17	71.0			

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 logistic growth curves.

² Unless otherwise noted, adjusted by relocating curve through last observed point and 1983 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 1973 that 5-year olds enrolled in private kindergartens and nursery schools was of population aged 5 years.

¹³ Constant=percent in 1973 that 6-year olds enrolled in private kindergartens and nursery schools was of population aged 6 years.

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

¹⁵ Constant=percent in 1973 that 1st grade enrollment was of population aged 6 years.

¹⁶ Constant=percent in 1973 that grade 2 was of grade 1 in 1972.

¹⁷ Constant=percent in 1973 that grade 3 was of grade 2 in 1972.

¹⁸ Constant=percent grade 4 in 1973 was of grade 3 in 1972.

- 19 Constant-percent grade 5 in 1973 was of grade 4 in 1972.
- 20 Constant-percent grade 6 in 1973 was of grade 5 in 1972.
- 21 Y7(t)-enrollment in grade 7 in year t, Y6(t-1)=enrollment in grade 6 in year t-1. C1(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 1973 was of grade 7 in 1972
- 23 Y8(t)-enrollment in grade 9 in year t, Y8(t-1)=enrollment in grade 8 in year t-1. C1(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 1973 was of grade 9 in 1972
- 25 Constant-percent grade 11 in 1973 was of grade 10 in 1972.
- 26 Constant-percent grade 12 in 1973 was of grade 11 in 1972.
- 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 1973
- 30 Constant=1973 percent that 7th and 8th grades organized as secondary schools was of total 7th and 8th grades
- 31 Approximations based on the 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 the assumption that the number of enrollments in grades 9-12 in nonpublic schools will remain at the 1972 level through 1983.
- 33 Constant-percent in 1973 that full-time degree-credit undergraduate and unclassified enrollment was of the full-time first-time degree-credit enrollment base, described in footnote 2 of table 6, Y-percent that full-time degree-credit undergraduate and unclassified enrollment is of total degree-credit undergraduate and unclassified enrollment.
- 34 Y-percent that degree-credit undergraduate and unclassified enrollment is of total degree-credit enrollment.
- 35 Constant-percent in 1973 that graduate enrollment was of postbaccalaureate (graduate and first-professional) enrollment.
- 36 Constant-number in 1973 of part-time first-professional enrollment.
- 37 Constant-percent in 1973 that full-time graduate enrollment was of total graduate enrollment.
- 38 Constant-percent in 1973 that degree-credit enrollment in this category was of total degree-credit enrollment
- 39 Y-percent that full-time degree-credit enrollment in 2-year institutions is of total degree-credit enrollment in 2-year institutions.
- 40 Constant-average of the percentages in 1968-1973 that full-time degree-credit enrollment in private institutions was of total degree-credit enrollment in private institutions.
- 41 It was assumed that the 1973 percentage that first-professional enrollment was of postbaccalaureate (graduate and first-professional) enrollment would increase at the rate of 0.5 percent per year through 1983

- 42 Constant-percent in 1973 that full-time first-professional enrollment was of total first-professional enrollment.
- 43 First constant-opening fall degree-credit enrollment in this category in 1973 Second constant-percent in 1981 that projected degree-credit enrollment in this category would be of projected total degree-credit enrollment
- 44 Degree credit enrollment in this category was projected as the difference between its projected total degree-credit enrollment and the projected degree-credit enrollment in the other three categories, for each year 1974-1981 The percentage in 1981 that projected degree credit enrollment in this category would be of projected total degree-credit enrollment is held constant at 24.6 percent through 1983
- 45 Y-percent that full-time degree-credit enrollment in private institutions is of total degree-credit enrollment in private institutions
- 46 Y-percent opening fall non-degree-credit enrollment is of population aged 18-21 years
- 47 Constant-percent in 1973 that non-degree-credit enrollment in this category was of total non-degree-credit enrollment
- 48 Constant-average of the percents in 1968-1973 that full-time non-degree-credit enrollment were of total non-degree-credit enrollment.
- 49 Constant-percent in 1973 that full-time non-degree-credit enrollment in 4-year institutions was of total non-degree-credit enrollment in 4-year institutions.
- 50 Constant-percent in 1973 that full-time non-degree-credit enrollment in private institutions was of total non-degree-credit enrollment in private institutions
- 51 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).
- 52 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).
- 53 Constant-percent in 1973 that first-time opening fall degree-credit enrollment was of population aged 18 at nearest birthday.
- 54 Y-percent that first-time opening fall degree-credit enrollment is of population aged 18 at nearest birthday.
- 55 Constant-percent in 1973 that first-time degree-credit enrollment in this category was of total first-time degree-credit enrollment.
- 56 Constant-percent in 1973 that full-time first-time degree-credit enrollment in this category was of total first-time degree-credit enrollment in this category.
- 57 Y-percent that full-time first-time degree-credit enrollment in this category is of total first-time degree-credit enrollment in this category
- 58 Constant-percent in 1973 that graduate enrollment in public institutions was of total graduate enrollment

Table A-2.—Methodology (Chapter III)

Item	Text table number	Constant(s) (percent)	Projection method			Other
			Least squares equation (y=percent, t=year; 1961-62=1)	Trend	Standard error	
High school graduates:						
Public ³	20					
Men		65.7				
Women		68.5				
Nonpublic ⁴		548.1	0.45	1.37	$y' = 50.83 + 0.27t$	
Bachelor's degrees conferred on men ⁶	21					
Selected fields ⁷	23					
Social sciences ⁸		20.50	.99	0.062	$y' = 2.13 + 0.23t$	(10)
Psychology ⁹						
Public affairs and services ⁸						
Library sciences ⁸		0.01				
Architecture and environmental design						(11)
Fine and applied arts ⁸		2.73				
Foreign languages ⁸		0.95				
Communications						(12)
Letters ⁸		5.89				
Mathematics and Statistics ⁹						
Computer and information sciences ⁹			64	.123	$y' = 2/[1 - e^{-(0.929 + 0.023t)}]$	
Engineering						
Physical science ⁹			.91	.068	$y' = 0.015 + 0.072t$	
Biological sciences ⁸						(13)
Agriculture and natural resources ⁸		5.28	.90	.046	$y' = 2/[1 - e^{-(0.535 + 0.029t)}]$	
Health professions ⁸		2.59				
Accounting ¹⁴		1.38				
Other business and management ⁸		6.10				
Education ⁸		17.68				
Other ⁸		9.95				
Other ⁸		2.86				

Bachelor's degrees conferred on women ⁶								
Selected fields ⁷	21							
Social sciences ⁸	23							
Psychology ⁹	..							
Public affairs and services	..							
Library sciences ⁸	..							
Architectural and environmental design ⁸	..							
Fine and applied arts ⁸	..							
Foreign languages ⁸	..							
Communications	..							
Letters ⁸	..							
Mathematics and statistics ⁸	..							
Computer and information sciences ⁹	..							
Engineering	..							
Physical sciences ⁸	..							
Biological sciences ⁸	..							
Agriculture and natural resources ⁸	..							
Health professions ¹⁷	..							
Accounting	..							
Other business and management ¹⁹	..							
Education ⁹	..							
Other	..							
Master's degrees conferred on men ¹⁹	21							
Selected fields ⁷	24							
Social sciences ²⁰	..							
Psychology ²⁰	..							

See footnotes at end of table

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

Item	Text table number	Constant(s) (percent)	Projection method			Other
			Least squares equation (y=percent; t=year, 1961-62=1)	Index of determination	Standard		Adjusted equation^{2}
Public affairs and services ²¹	..	1.00	$Y' = 1.61 + 0.13t$	0.84	0.20	$Y' = 2.26 + 0.10t$
Library sciences ²⁰	..	1.00				
Architecture and environmental design	..	2.73				(22)
Fine and applied arts ²⁰	..	1.09				
Foreign languages ²⁰	..	3.63				(22)
Communications	..					
Letters ²⁰	..					
Mathematics and Statistics ²¹	..		$Y' = 1.5 / [1 - e^{-0.328 + 0.041t}]$	.65	.104	$Y' = 1.5 / [1 - e^{-0.670 + 0.025t}]$
Computer and information sciences ²⁰	..	1.10				
Engineering ²¹	..					
Physical sciences ²¹	..		$Y' = 8 / [1 - e^{-0.603 + 0.052t}]$	.86	.072	$Y' = 8 / [1 - e^{-0.835 + 0.041t}]$
Biological sciences ²⁰	..		$Y' = 2 / [1 - e^{-0.326 + 0.040t}]$	.94	.036	$Y' = 2 / [1 - e^{-0.444 + 0.034t}]$
Agriculture and natural resources ²⁰	..	2.76				
Health professions ²⁰	..	1.67				
Accounting ²⁰	..	2.08				
Other business and management	..	0.86				
Education ²⁰	..	28.12				
Other ²¹	..	47.7, 54.2				
Master's degrees conferred on women ¹⁹	21		$Y' = 3.858 - 0.076t$	0.60	0.219	$Y' = 3.378 - 0.054t$
Selected fields ⁷	24					
Social sciences ²⁰	..	5.22				
Psychology ²⁰	..	1.99				
Public affairs and services ²⁰	..	4.28				
Library sciences ²⁰	..	5.78				
Architecture and environmental design ²¹	..		$Y' = -0.019 + 0.024t$	.88	.032	$Y' = 0.29 + 0.022t$

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

Item	Text table number	Constant(s) (percent)	Projection method			
			Least squares equation (y=percent; t=year, 1961-62=1)	Index of determination	Standard error	Other
Mathematics and statistics ²⁸		10.00, 2.50				
Computer and information sciences ²⁸		11.00, 1.40				
Engineering ³³		10.46, 9.50				
Physical sciences ²⁸		27.50, 11.90				
Biological sciences ³⁴		9.30				
Agriculture and natural resources ³⁴		2.90				
Health professions ²⁸		11.00, 1.90				
Accounting ²⁹		0.18				
Other business and management ²⁸		2.30, 4.10				
Education ³⁵		22.00				
Other ³⁰		2.19				
Doctor's (except first professional) degrees conferred on women ³⁶	21	.50				
Selected fields ⁷	25					
Social sciences ²⁷		7.30, 11.86				
Psychology ²⁷		17.53, 11.50				
Public affairs and services ²⁹		87				
Library sciences ²⁷		.50, .45				
Architecture and environmental design						
Fine and applied arts ²⁹		2.73				
Foreign languages ³⁶		5.06				
Communications ²⁹		.35				
Letters ²⁹		12.55				
Mathematics and statistics ²⁸		3.09, 1.40				
Computer and information sciences ²⁸		9.82, .69				
Engineering ²⁸		8.53, .55				
Physical sciences ²⁸		14.89, 4.12				(37)

- 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 1983-84 point of fitted curve.
- 3 Constant=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 1983-84.
- 5 Constant=percent that boys were of nonpublic high school graduates in 1964-65.
- 6 Y=percent that bachelor's degrees are of first-time degree-credit enrollment 4-years earlier.
- 7 Projections of degrees by field of study are primarily based 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 that are obtained from the methods detailed in this table are prorated so that they add to 100 percent. Also, due to the new taxonomy now in use (1970-71 and 1971-72 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 somewhat arbitrary decisions had to be made from general knowledge obtained through various sources.
- 8 Constant=percent in 1971-72 that bachelor's degrees in this field were of all bachelor's degrees.
- 9 Y=percent that bachelor's degrees in the field are of all bachelor's degrees.
- 10 The percentage that degrees in this field are of all bachelor's degrees was estimated to increase by 0.1 percent per year until it reached 2.00 percent in 1978-79 and then was held constant.
- 11 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 1.50 percent in 1978-79 and then was held constant.
- 12 The percentage that degrees in this field are of all bachelor's degrees was estimated to increase 0.05 percent per year until it reached 2.00 percent in 1979-80.
- 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 assumed to increase to 5,700 in 1973-74 and then increase 100 degrees each year to 6,700 degrees in 1983-84. (B) The

- projections of engineering degrees (excluding engineering technology degrees) for 1972-73 through 1976-77 are based on the assumption that the percentage that engineering graduates are of freshmen enrollment in engineering programs 4 years earlier will remain constant at the 1971-72 percentage of 58 percent. The projection for 1972-73 is based on survey data collected by the Engineering Joint Council. (C) The projections of engineering degrees (excluding engineering technology degrees) for 1977-78 to 1981-82 are based on the assumption that freshmen enrollment in engineering will increase by 15 percent from 1973 to 1974, 10 percent from 1974 to 1975, and 5 percent per year 1975 to 1978. (D) The projections of engineering degrees (excluding engineering technology degrees) for 1982-83 and 1983-84 are based on the assumption that the number of men earning engineering degrees will hold constant at the 1981-82 level and that degrees earned by women will continue to make up an increasing percentage of all engineering degrees, from about 1.1 percent in 1971-72 to a projected 4.7 percent in 1983-84. (E) Engineering technology degrees and engineering degrees are added together to obtain total engineering degrees.
- 14 Constant=percent in 1977-78 that projected accounting degrees are of all degrees. The 1978-79 through 1983-84 projections are based on this constant. Projections for 1972-73 through 1977-78 are based on data from the American Institute of Certified Public Accountants.
- 15 The percentage that degrees in this field are of all bachelor's degrees was estimated to increase 0.1 percent per year through 1983-84.
- 16 The percentage that degrees in this field are of all bachelor's degrees was estimated to increase 0.05 percent per year through 1983-84.
- 17 Y=the percent that degrees in health professions (less nursing degrees) are of total degrees. Projections of nursing degrees are supplied by the Resource Analysis Staff, Bureau of Health Resources Development.
- 18 Projections of accounting degrees conferred on women for 1972-73 through 1977-78 are based on the assumption that the percentage that women's accounting degrees were of all accounting degrees in 1971-72 will increase 0.5 percent per year through 1977-78. Projections for 1978-79 through 1983-84 are based on the assumption that the percentage that women's accounting degrees are of all degrees conferred on women will remain at the projected 1977-78 rate.
- 19 First constant=percent that master's degrees in 1971-72 were of the estimated average first-year enrollment for advanced degrees, 1 and 2 years earlier. Second constant=percent that first-year enrollment for advanced degrees was of graduate enrollment in 1971. This constant was used to estimate and project first-year enrollment for advanced degrees for 1972 through 1983.

- 20 Constant=percent in 1971-72 that master's degrees in this field were of all master's degrees.
- 21 Y=percent that master's degrees in this field are of all master's degrees.
- 22 The percentage that degrees in this field are of all master's degrees was estimated to increase by 0.05 percent per year through 1983-84.
- 23 For each year, 1972-73 through 1983-84, the percentage that master's degrees in this field are of all master's degrees was projected as the difference between 100 percent and the sum of the percentages for all other fields.
- 24 The percentage that degrees in this field are of all master's degrees was estimated to increase 0.03 percent per year through 1983-84.
- 25 The percentage that degrees in this field (less nursing degrees) are of all master's degrees was projected to increase 0.1 percent per year through 1983-84. Projections of nursing degrees were supplied by the Resource Analysis Staff, Bureau of Health Resources Development.
- 26 Constant=percent that doctor's degrees were of the average first-year enrollment for advanced degrees 7 and 8 years earlier. This constant was estimated on the basis of National Research Council data for 1972-73 and on the basis of the assumptions that the total number of doctor's degrees for both men and women would not increase from 1972-73 to 1973-74, and that the number of degrees conferred on women would increase by 400, half of the increase in degrees conferred on women from 1971-72 to 1972-73.
- 27 First constant=percent or approximate percent that earned degrees in this field in 1971-72 were of first-year enrollment for advanced degrees in the same field 7 years earlier. This constant was used to determine the 1972-73 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 1983-84 projections.
- 28 First constant=percent or approximate percent that earned degrees in this field in 1971-72 were of first-year enrollment for advanced degrees in the same field 6 years earlier. This constant was used to determine the 1972-73 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 1983-84 projections.
- 29 Constant=percent in 1971-72 that doctor's degrees in this field were of all doctor's degrees.
- 30 Y=percent that doctor's degrees in this field are of total doctor's degrees.
- 31 First constant=percent or approximate percent that earned degrees in this field in 1971-72 were of first-year enrollment for advanced degrees in the same field 8 years earlier. This constant was used to determine the 1972-73 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 1983-84 projections.

32 Constant=percent that projected degrees in this field in 1979-80 are of total doctor's degrees in 1979-80. The projections for 1972-73 through 1978-79 are based on the assumption that the 1971-72 percentage that earned degrees in this field were of advanced degrees in the same field 8 years earlier will decrease 0.5 percent per year through 1976-77 and then remain constant through 1978-79.

33 First constant=percent that estimated engineering degrees (based on data from the Engineers Joint Council) in 1972-73 were of first-year engineering enrollment for advanced degrees 6 years earlier. Second constant=percent that projected earned degrees in engineering in 1976-77 are of total doctor's degrees. This constant was held constant through 1983-84.

34 Constant=percent that projected degrees in this field in 1976-77 are of total doctor's degrees in 1976-77. The projections for 1972-73 through 1976-77 are based on the assumption that the 1971-72 percentage that earned degrees in this field were of first-year enrollment for advanced degrees in the same field 6 years earlier will decrease 1.0 percent per year through 1976-77.

35 Constant=percent that projected degrees in the field in 1980-81 are of total doctor's degrees. The projections for 1972-73 through 1980-81 are based on the assumption that the 1971-72 percentage that earned degrees in this field was of first-year enrollment for advanced degrees in the same field 10 years earlier will decrease 0.3 percent per year through 1980-81.

36 Constant=percent that projected doctor's degrees conferred on women in 1977-78 are of the composite population 7 years earlier. The estimate of women's doctor's degrees for 1972-73 is based on National Research Council data. The estimate for 1973-74 is based on the assumptions that the total number of doctor's degrees (men and women) will not increase from 1972-73 to 1973-74 but that the number of degrees conferred on women will increase by 400, half of the increase for women's degrees from 1971-72 to 1972-73. It was assumed that the estimated percentage that women's doctor's degrees were of the average of first-year enrollment for advanced degrees 7 and 8 years earlier will decrease 0.1 percent per year through 1977-78.

37 The percentage that degrees in this field are of all doctors degrees in 1971-72 was projected to increase by 0.01 percent through 1983-84.

38 Constant=percent that projected doctor's degrees in this field in 1978-79 are of total doctor's degrees. The projections for 1972-73 through 1978-79 are based on the assumption that the 1971-72 percentage that earned degrees in

this field were of first-year enrollment for advanced degrees in the same field 8 years earlier will decrease 0.20 percent per year through 1978-79.

39 Constant-percent that degrees in this field are of first-year enrollment for advanced degrees 7 years earlier. This constant was used to make projections through 1977-78. Projections for 1978-79 through 1983-84 are based on the assumption that the projected percentage that 1977-78 degrees in this field are of all doctor's degrees will increase 0.05 percent per year.

40 For each year, 1972-73 through 1983-84, the percentage that doctor's degrees in this field are of all doctor's degrees was projected as the difference between 100 percent and the sum of the percentages for all other fields.

41 For 1972-73 through 1983-84 projections of total first-professional degrees were obtained by summing the individual fields.

42 Projections were supplied by the Resource Analysis Staff, Bureau of Health Resources Development and are based on output resulting from support in the Comprehensive Health Manpower Training Act of 1971.

43 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 1961-62 to 1971-72 trend to 1983-84 with the restriction that it cannot exceed 85 percent. The estimates for 1972-73 and 1973-74 and projections of degrees for 1974-75 are based on first-year enrollments for 1970 to 1972 provided by the American Bar Association. Degrees projections for 1975-76 to 1983-84 are based on unpublished information on first-year law enrollments for 1973 to 1981 from the American Bar Association.

44 The number of degrees in this field was assumed to increase 100 degrees per year through 1983-84.

45 The total number of first-professional degrees granted to women was projected by summing the projected degrees for women in the individual fields.

46 Y-percent that earned degrees conferred on women in this field are of all degrees in this field. This equation was used for projections for 1975-76 through 1983-84 and is based on data from 1961-62 to 1971-72 and projections for 1972-73 through 1974-75. The projections for 1972-73 through 1974-75 are based on the percentages that women made up of first-year first-professional enrollment in this field 4 years earlier.

47 Projections for 1972-73 through 1974-75 are based on the percentage that women made up of first-year first-professional enrollment in this field through 4 years earlier. The projections for 1975-76 through 1983-84 are based on the assumption that the percentage of degrees in this field conferred on women will increase 0.3 percent per year through 1983-84.

48 Y-percent that earned degrees conferred on women in this field are of all degrees in this field. This equation was used for projections for 1975-76 through 1973-74 and is based on data from 1961-62 through 1971-72 and projections for 1972-73 through 1974-75. The projections for 1972-73 through 1974-75 are based on the percentage that women made up of first-year enrollment in this program 3 years earlier.

49 Constant=average of the percentages of degrees in this field conferred on women in 1970-71 and 1971-72.

50 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	Constant (percent)	Projection method				Other
			Least squares equation (y=percent, (t-year, 1963=1))	Index of determination	Standard error	Adjusted equation ^a	
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			$y = 15/(1 - e^{-(0.714 + 0.028t)})$	0.96	0.020	$y = 15/(1 - e^{-(0.744 + 0.028t)})$	
Public secondary ⁴			$y = 15/(1 - e^{-(1.154 + 0.035t)})$	95	.030	$y = 15/(1 - e^{-(1.108 + 0.037t)})$	
Nonpublic elementary ⁴			$y = 15/(1 - e^{-(0.534 + 0.070t)})$	95	.054	$y = 15/(1 - e^{-(0.684 + 0.063t)})$	
Nonpublic secondary ⁴			$y = 15/(1 - e^{-(0.948 + 0.043t)})$	93	.043	$y = 15/(1 - e^{-(1.034 + 0.039t)})$	
Demand for classroom teachers in public regular day schools	29						
For enrollment increase		8.0					(5)
For teacher turnover ⁶							(7)
For reduction of pupil-teacher ratio							
Demand for classroom teachers in nonpublic regular day schools	30						
For enrollment increase		4.0					(5)
For teacher turnover ⁸							(7)
For reduction of pupil-teacher ratio							
Instructional staff in regular elementary and secondary day schools	31	111.5					(10)
Public ⁹							
Nonpublic							
Total instructional staff for resident courts ⁵	32	12.9					
Public institutions ¹¹		9.1					
Private institutions ¹¹		82.3					
Instructor or above ¹²		78.0					
Full-time ¹³		17.7					
Junior instructional staff ¹⁴		14.8					
Full-time ¹⁵							

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

Item	Text table number	Constant (percent)	Projection method			Other
			Least squares equation by percent 1-year, 1963-1971	Standard error	Adjusted equation ²	
Trend						
			Index of determination			
Full-time-equivalent instructional staff for resident courses	33					
Full time equivalent of part time instructor or above ¹⁶		31.5				
Junior instructional staff ¹⁷		4.1				
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						
For replacement ¹⁹		6.0				(18)

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 logarithical growth curves

2 Adjusted by relocating curve through last observed point and 1983 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 γ ratio of number of pupils to number of teachers

5 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

6 8 percent of total teacher demand in previous year

7 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

8 4 percent of total teacher demand in each previous year

9 Constant ratio that instructional staff was to classroom teachers (staff-teacher ratio times projected classroom teachers) projected instructional staff in 1973

10 Number of instructional staff assumed same as number of classroom teachers

11 Constant-1970 ratio of full time-equivalent enrollment to instructional staff for resident courses.

12 Constant-percent instructor or above was of the entire instructional staff in 1970

13 Constant-percent full-time instructor or above was of total instructor or above in 1970.

14 Constant-percent junior instructional staff was of the entire instructional staff in 1970.

15 Constant-percent full-time junior instructional staff was of total junior instructional staff in 1970.

16 Constant-percent full time equivalent of part-time instructor or above was of part-time instructor or above in 1970 in all institutions

17 Constant-percent full-time-equivalent junior instructional staff was of part-time junior instructional staff in 1970 in all institutions

18 Increase in total full-time equivalents employed over each previous year.

19 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(s)	Least squares equation (t=years; 1963-64=1)	Trend			
				Index of determination	Standard error	Adjusted equation	
Other							
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		922.5, 92.6					
Current expenditure allocated to pupil costs							
Per pupil in average daily attendance							
Total			$y' = \$615 + \$55(t)^{10}$	0.98	\$27.18	$y' = \$676 + \$52(t)$	(11)
Current expenditures for all programs		121.04					
Expenditures for salaries of instructional staff in public elementary and secondary day schools	38		$y' = \$9,270 + \$242(t)$	.95	\$171	$y' = \$9,028 + \$253(t)$	(14)
Average annual salary: 13							
Total salary			$y' = \$7,513 - \$192(t)$	(15)	(15)		(16)
Capital outlay (school year)	39						
Expenditures for interest by public elementary and secondary schools	40		$y' = \$999 + \$66(t)^{17}$	0.96	\$44	$y' = \$1,054 + \$63(t)$	
Expenditures from current funds and total expenditures by institutions of higher education	41, 43						
Public			$y' = \$1,615 + \$81(t)$	.94	\$58	$y' = \$1,518 + \$86(t)^{18}$	
Nonpublic			$y' = \$2,074 + \$124(t)$	.97	\$66	$y' = \$2,040 + \$126(t)^{19}$	
Expenditures for educational and general purposes: Student education (per student).							
Public							
Nonpublic							
Organized research (000's dollars) excluding federal funded R&D:		\$1,998,936	$y' = \$1,110,049 - \$6.618(t)^{20}$	.80	\$84,977	$y' = \$904,223 + \$68,420(t)^{21}$	
Public		\$1,025,918	$y' = 1,000,000 / [1 - e^{-(1.839+0.110t)^{22}}$	.21	0.62	$y' = 1,000,000 / [1 - e^{-(2.403+0.085t)^{21}}$	
Nonpublic							

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

Item	Text table number	Projection method			
		Constant(s)	Least squares equation (t=years; 1963-64=1)	Index of determination	Trend
Related activities (percent) excluding major public service					
Public	8.18%	$Y^* = 7/[1 - e^{-(0.366 + 0.098t)}]$ 23	.89	$Y^* = 7/[1 - e^{-(0.512 + 0.095t)}]$ 21
Nonpublic	8.45%	$Y^* = 6.0 + 0.2(t)$ 24	.35	$Y^* = 6.1 + 0.12^4$
Expenditures for auxiliary enterprises (percent of student education):					
Public	$Y^* = 12/[1 - e^{-(0.29 + 0.086t)}]$	.89	$Y^* = 12/[1 - e^{-(0.414 + 0.084t)}]$
Nonpublic	$Y^* = 21/[1 - e^{-(0.654 + 0.116t)}]$	.79	$Y^* = 21/[1 - e^{-(0.591 + 0.109t)}]$
Expenditures for student aid (percent of student education)					
Public	7.56%	$Y^* = 4.0 + 0.2(t)$	.71	$Y^* = 3.7 + 0.2(t)$ 21
Nonpublic	15.11%	$Y^* = 9.6 + 0.4(t)$	.90	$Y^* = 8.9 + 0.4(t)$ 21
Expenditures for major public service (000's dollars):					
Public	\$1,701,595	$Y^* = \$481,780 + \$75,692(t)$	.99	$Y^* = \$518,520 + \$73,942(t)$ 21
Nonpublic	\$1,189,114	$Y^* = \$665,696 + \$30,847(t)$	.72	$Y^* = \$791,139 + 24,874(t)$ 21
Capital outlay from current funds only (percent of total capital outlay):					
Public	2514.0	.....	.....	.....
Nonpublic	2514.0	.....	.....	.....
Capital outlay of institutions of higher education (millions of dollars)					
Public	\$2,444	NA	.....	(26)
Nonpublic	\$ 914	NA	.....	(26)

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.
 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 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^o=expenditures for organized research in publicly controlled institutions of higher education, excluding federally funded R.&D. centers.
21 Percentage of student education frozen at the projected 1978-79 level.
22 y^o=expenditures for organized research in nonpublicly controlled institutions of higher education, excluding federally funded R.&D. centers.
23 y^o=expenditures for related activities as a percent of expenditures for student education in publicly controlled institutions of higher education.

24 y^o=expenditures for related activities as a percent of expenditures for student education in nonpublicly controlled institutions of higher education.
25 Constant percent = estimated average capital outlay from current funds as percent of capital outlay from all sources.
26 10% decline each year, as in 1971-72, continued through 1975-76 and frozen at that dollar level for the remainder of the projection.

Table A-5.—Methodology (Chapter VI)

Item	Text table number	Constant	Least squares equation (y=dollars; t=years, 1963-64=1)	Projection method		
				Index of determination	Standard error	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	44	.....	$Y' = \$346.81 + \$8.41t$	0.93	8.80	$Y' = \$352.97 + \$8.11t$
Universities	$Y' = \$406.93 + \$19.74t$	.90	24.25	$Y' = \$426.85 + \$18.79t$
Other 4-year institutions	$Y' = \$318.42 + \$9.22t$	.95	7.86	$Y' = \$317.67 + \$9.26t$
2-year institutions	$Y' = \$134.79 + \$10.55t$	.85	16.44	$Y' = \$114.27 + \$11.53t$
Nonpublic	$Y' = \$1,478.45 + \$62.76t$	.98	33.36	$Y' = \$1,512.91 + \$61.12t$
Universities	$Y' = \$1,777.28 + \$68.71t$	.98	33.17	$Y' = \$1,816.38 + \$66.85t$
Other 4-year institutions	$Y' = \$1,375.41 + \$64.04t$	.99	23.09	$Y' = \$1,374.61 + \$64.11t$
2-year institutions	$Y' = \$964.87 + \$44.17t$	.93	45.13	$Y' = \$906.50 + \$46.94t$
Board: ²	NA	NA	NA	NA
Public	\$617	NA	NA	NA	NA
Universities	\$658	NA	NA	NA	NA
Other 4-year institutions	\$573	NA	NA	NA	NA
2-year institutions	$Y' = \$529.25 + \$5.67t$	.71	13.30	$Y' = \$535.76 + \$5.36t$
Nonpublic	\$671	NA	NA	NA	NA
Universities	\$747	NA	NA	NA	NA
Other 4-year institutions	\$641	NA	NA	NA	NA
2-year institutions	\$641	NA	NA	NA	NA
Room: ⁴
Public	$Y' = \$376.07 + \$11.76t$	.98	6.47	$Y' = \$385.02 + \$11.33t$
Universities	$Y' = \$405.19 + \$12.59t$	.97	7.58	$Y' = \$416.53 + \$12.05t$
Other 4-year institutions	$Y' = \$335.30 + \$13.07t$	1.00	3.00	$Y' = \$335.45 + \$13.06t$
2-year institutions	$Y' = \$230.82 + \$20.59t$	.98	10.47	$Y' = \$228.89 + \$20.68t$
Nonpublic	$Y' = \$479.41 + \$9.54t$	.78	18.57	$Y' = \$470.13 + \$9.99t$
Universities	$Y' = \$566.20 + \$9.77t$	.69	24.42	$Y' = \$564.19 + \$9.87t$
Other 4-year institutions	$Y' = \$443.19 + \$9.09t$	.80	16.94	$Y' = \$425.65 + \$9.93t$
2-year institutions	$Y' = \$390.53 + \$16.38t$	.73	37.26	$Y' = \$339.89 + \$18.79t$

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 1983-84 with the exception of 2-year publicly controlled institutions.
³ Charges frozen at the projected 1973-74 level. A projected decrease in charge for board is not expected to be valid.
⁴ 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 students:

1. Degrees, bachelor's and master's – total, library science, social work – 1962–63 to 1964–65 (tables 21–24)
2. Enrollment, first-time (tables 14–16)
 - a. Degree-credit, 1966 and 1967
 - b. Attendance status, 1963 to 1967
3. Enrollment, total (tables 6–11, 17–19)
 - a. Graduate (resident), 1963
 - b. Graduate (resident), 1964 to 1966
 - c. Undergraduate, 1963 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. Total graduate, 1963–1967
 - j. Undergraduate and first-professional, 1967
 - k. Total graduate, 1968
 - l. Total graduate, attendance status, 1963–1968
 - m. Undergraduate and first-professional, 1968
 - n. Non-degree-credit attendance status, 1963 to 1967
4. Public elementary teachers and public secondary teachers, separately, 1971–1973.
5. Instructional staff in institutions of higher education (tables 32–34)
 - a. Instructional staff persons, 1963
 - b. Full-time junior instructional staff, 1963–65
 - c. Full-time equivalent of part-time junior instructional staff, 1963–65
 - d. Full-time junior instructional staff, 1968
6. Population (composite), 1963 to 1983 (table B-2)

1. Degrees, bachelor's and master's – total, library science, social work – 1962–63 to 1964–65 (tables 21–24)

From 1962–63 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 degrees and added to bachelor's degrees from 1962–63 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 1962-63 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 1963 to 1967

To estimate degree-credit first-time enrollment by attendance status in 1963 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 1963 to 1967, were applied to 1963 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 1963

To estimate resident graduate opening fall enrollment for 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 1963.

To estimate resident graduate opening fall enrollment by attendance status for 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 enrollment 1957, 1959, 1961, and undergraduate enrollment 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 graduate enrollment was estimated for 1963 by control and sex categories. These percentages were applied to estimated graduate enrollment in 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 were 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 were 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 category (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. Total graduate by sex, unreported in 1963-1967

To estimate total graduate opening fall enrollment for each sex in 1963-1967, the average of the percentages that resident graduate enrollment was of total graduate enrollment in 1968-1972 was applied to the estimates of resident graduate enrollment for 1963-1967.

3j. 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.

3k. Graduate enrollment by sex and attendance status, unreported in 1968

To estimate graduate opening fall enrollment for each sex in 1968, the percentage that graduate enrollment was of postbaccalaureate (graduate and first-professional) enrollment was assumed to be the same as the 1969 percentage. This percentage was applied to the 1968 postbaccalaureate enrollment to estimate 1968 graduate enrollment.

3l. Total graduate by control and attendance status, unreported in 1963-1968

To estimate total graduate opening fall enrollment by control and attendance status in 1963-1968:

(1) The percentage that resident graduate enrollment was of total graduate enrollment in private institutions was held constant at the 1969 level and applied to estimates of private resident graduate enrollment for 1963-1968. Total public graduate enrollment for each year

1963-1968 was estimated as the difference between total graduate enrollment and total private graduate enrollment.

(2) Full-time graduate enrollment was assumed to be the same as full-time resident graduate enrollment in 1963-1967. Part-time graduate enrollment was estimated as the difference between total graduate enrollment and full-time graduate enrollment for each year 1963-1967.

(3) To estimate graduate opening fall enrollment by attendance status in 1968, it was assumed that the number of part-time first-professional students in 1968 was the same small number as in 1969. This number was then subtracted from total part-time postbaccalaureate enrollment to estimate graduate part-time enrollment. Graduate full-time enrollment was estimated as the difference between total graduate enrollment and part-time graduate enrollment.

3m. Undergraduate and first-professional, unreported in 1968

To estimate degree-credit undergraduate and first-professional opening fall enrollment in 1968 (revision because the 1967 comprehensive survey of enrollment was not available until 1970), estimated 1968 graduate enrollment was subtracted from the total of reported 1968 degree-credit enrollment in each sex and attendance-status category.

3n. Enrollment, total non-degree-credit by attendance status, 1963-67 (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 for 1963 and 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 1971-1973 (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 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*, first term 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 1963-65

The percentage in 1966 that full-time junior instructional staff was of total junior instructional staff was assumed to have been the same in 1963 through 1965.

5c. Full-time equivalent of part-time junior instructional staff, unreported in 1963-65

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 1963 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, 1963 to 1983 (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:

Percent of graduates		
Age	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

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

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

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
- Foreign Languages
 - Foreign languages, general (concentration on more than one foreign language without major emphasis on one)
 - 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
- Communications
 - Communications, general
 - Journalism (printed media)
 - Radio/television
 - Advertising
 - Communications media (use of videotape, films, etc. oriented specifically toward radio/television)
 - Other
- 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
- III. Natural Sciences and Miscellaneous Fields
 - Mathematics and Statistics
 - Mathematics, general
 - Statistics, mathematical and theoretical
 - Applied mathematics
 - Other
 - Computer and Information Sciences
 - Computer and information sciences, general
 - Information sciences and systems
 - Data processing
 - Computer programming
 - Systems analysis
 - Other
 - 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
 - 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
Biological Sciences
 Biology, general
 Botany, general
 Bacteriology
 Plant pathology
 Plant pharmacology
 Plant physiology
 Zoology, general
 Pathology, human and animal
 Premedical, pre dental, 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
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
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
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

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
Agriculture education
Home economics education
Other

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
Law
Law, general
Other
Military sciences
Military science (Army)
Naval science (Navy, Marines)
Aerospace science (Air Force)
Other
Theology
Theological professions, general
Religious music
Biblical languages
Religious education
Other
Interdisciplinary studies
General liberal arts and sciences
Biological and physical sciences
Humanities and social sciences
Engineering and other disciplines
Other

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 National Center for Education Statistics 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, National Center for Education Statistics 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 National Center for Education Statistics 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**

Total expenditures 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 are 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 on the 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 included here.

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 under this heading 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, 1963 to 1984¹

[Ages as of October 1, populations in thousands]

Year (fall)	Age 5			Age 6			Age 5–13		
	D	E	F	D	E	F	D	E	F
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1963	...	4,131	...	...	4,120	...	...	34,746	...
1964	...	4,108	...	...	4,118	...	...	35,373	...
1965	...	4,108	...	...	4,098	...	...	35,877	...
1966	...	4,143	...	...	4,106	...	...	36,358	...
1967	...	4,055	...	...	4,142	...	...	36,661	...
1968	...	3,980	...	...	4,058	...	...	36,799	...
1969	...	3,882	...	...	3,986	...	...	36,772	...
1970	...	3,703	...	...	3,896	...	...	36,484	...
1971	...	3,521	...	...	3,718	...	...	35,926	...
1972	...	3,427	...	...	3,534	...	...	35,257	...
1973	...	3,378	...	...	3,441	...	...	34,555	...
PROJECTED									
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
1984	4,532	3,868	3,472	4,403	3,767	3,409	35,862	31,841	29,880

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 1990, with Extensions of Population by Age and Sex to 2015," Series P–25, No. 381, December 18, 1967, pp. 1–49.

SOURCES National Center for Education Statistics estimates are based on unpublished Bureau of the Census population data by age as of July 1. Population estimates for 1963 to 1972 are consistent with estimated data in *Current Population Reports*, "Population Estimates and Projections. Estimates of the Population of the United States, by Age and Sex and Race, April 1, 1960 to July 1, 1973," Series P–25, No. 519, April 1974. Population projections for 1973 to 1984 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, 1963 to 1984¹

[Ages as of October 1, population in thousands]

Year (fall)	Age 14-17	Age 18		Age 18-21		Composite populations ²	
	Total	Men	Women	Men	Women	Men	Women
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1963	13,681	1,456	1,419	5,650	5,549	1,215	1,255
1964	14,229	1,699	1,651	5,827	5,715	1,292	1,350
1965	14,201	1,831	1,777	6,254	6,117	1,368	1,419
1966	14,473	1,784	1,731	6,641	6,479	1,381	1,395
1967	14,829	1,794	1,740	7,049	6,874	1,408	1,415
1968	15,255	1,833	1,780	7,334	7,154	1,501	1,555
1969	15,630	1,891	1,835	7,327	7,151	1,660	1,750
1970	15,992	1,946	1,885	7,476	7,303	1,677	1,726
1971	16,341	1,991	1,934	7,649	7,471	1,723	1,751
1972	16,595	2,032	1,972	7,847	7,666	1,759	1,771
1973	16,770	2,067	2,005	8,027	7,837	1,810	1,817
PROJECTED							
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
1984	14,057	1,797	1,738	7,845	7,611	2,012	2,040

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," sec. 5.

Bureau of the Census population data by age as of July 1. Population estimates for 1963 to 1973 are consistent with estimated data in *Current Population Reports*, "Population Estimates and Projections: Estimates of the Population of the United States, by Age, Sex, and Race: April 1, 1960 to July 1, 1973," Series P-25, No. 519, April 1974. Population projections for 1974 to 1984 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.

SOURCES: National Center for Education Statistics estimates are based on unpublished

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 1963 to 1983¹

[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)
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	41,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	41,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	4,900	41,400
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	41,400
1969	51,119	36,797	14,322	45,619	32,597	13,022	5,500	4,200	51,300
1970	51,309	36,677	14,632	45,909	32,577	13,332	5,400	5,400	51,300
1971	51,281	36,165	15,116	46,081	32,265	13,816	5,200	6,900	61,300
1972	50,644	35,531	15,113	45,744	31,831	13,913	4,900	6,700	61,200
1973	50,209	34,933	15,276	45,409	31,333	14,076	4,800	6,600	61,200
PROJECTED⁷									
1974	49,700	34,200	15,500	45,000	30,700	14,300	4,700	3,500	1,200
1975	49,200	33,600	15,600	44,600	30,200	14,400	4,600	3,400	1,200
1976	48,700	33,100	15,600	44,200	29,800	14,400	4,500	3,300	1,200
1977	48,000	32,500	15,500	43,600	29,300	14,300	4,400	3,200	1,200
1978	47,400	32,100	15,300	43,100	29,000	14,100	4,300	3,100	1,200
1979	47,100	32,200	14,900	42,900	29,200	13,700	4,200	3,000	1,200
1980	47,000	32,600	14,400	42,900	29,600	13,200	4,200	3,000	1,200
1981	47,200	33,300	13,900	43,000	30,300	12,700	4,200	3,000	1,200
1982	47,600	34,300	13,300	43,400	31,300	12,100	4,200	3,000	1,200
1983	48,300	35,200	13,100	44,100	32,200	11,900	4,200	3,000	1,200

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 based on reported data from Office of Education and the National Catholic Educational Association.

⁶ Estimates based on reports from the National Catholic Educational 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 1963-1973 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 3.2 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 5.1 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 100,000 students per year from 2.7 million in 1973 to 2.0 million in 1980 and then remain constant. (6) Enrollments in grades K-8 in all regular nonpublic day schools will decrease 100,000 students per year from 3.6 million in 1973 to 3.0 million in 1979 and then remain constant; grades 9-12 in these schools will remain constant at the 1973 estimated level.

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

SOURCES. Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (a) *Statistics of Public Schools*, fall 1964 through 1973, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1963, (c) *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*, and (2) National Catholic Educational Association publications (a) *A Report on U.S. Catholic Schools, 1970-71*, (b) *U.S. Catholic Schools, 1971-72 through 1973-74*.

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 1963 to 1983¹

[In thousands]

Year (fall)	Total public and nonpublic			Public			Nonpublic (estimated) ²		
	K-12	K-B	9-12	K-12	K-8	9-12	K-12	K-B	9-12 ³
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1963	46,487	34,304	12,183	40,187	29,304	10,883	6,300	5,000	41,300
1964	47,716	35,025	12,691	41,416	30,025	11,391	6,300	5,000	41,300
1965	48,473	35,463	13,010	42,173	30,563	11,610	6,300	4,900	41,400
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	41,400
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	5,100	51,300
1971	51,281	36,165	15,116	46,081	32,265	13,816	5,200	63,900	61,300
1972	50,644	35,531	15,113	45,744	31,831	13,913	4,900	63,700	61,200
1973	50,209	34,933	15,276	45,409	31,333	14,076	4,800	63,600	61,200
PROJECTED⁷									
1974	49,700	34,200	15,500	45,000	30,700	14,300	4,700	3,500	1,200
1975	49,200	33,600	15,600	44,600	30,200	14,400	4,600	3,400	1,200
1976	48,700	33,100	15,600	44,200	29,800	14,400	4,500	3,300	1,200
1977	47,900	32,400	15,500	43,500	29,200	14,300	4,400	3,200	1,200
1978	46,900	31,600	15,300	42,600	28,500	14,100	4,300	3,100	1,200
1979	45,800	30,900	14,900	41,600	27,900	13,700	4,200	3,000	1,200
1980	45,000	30,600	14,400	40,800	27,600	13,200	4,200	3,000	1,200
1981	44,400	30,500	13,900	40,200	27,500	12,700	4,200	3,000	1,200
1982	43,900	30,600	13,300	39,700	27,600	12,100	4,200	3,000	1,200
1983	43,700	30,600	13,100	39,500	27,600	11,900	4,200	3,000	1,200

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 based on reported data from Office of Education and the National Catholic Educational Association.

⁶ Estimates based on reports from the National Catholic Educational 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 1963-1973 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 3.2 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 5.1 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 100,000 students per year from 2.7 million in 1973 to 2.0 million in 1980 and then remain constant. (6) Enrollments in grades K-8 in all regular nonpublic day schools will decrease 100,000 students per year from 3.6 million in 1973 to 3.0 million in 1979 and then remain constant, grades 9-12 in these schools will remain constant at the 1973 estimated level.

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

SOURCES Enrollment data and estimates are based on (1) U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (a) *Statistics of Public Schools*, fall 1964 through 1973, (b) *Enrollment, Teachers, and Schoolhousing*, fall 1963, (c) *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; and (2) National Catholic Educational Association publications (a) A Report on U.S. Catholic Schools, 1970-71, (b) U.S. Catholic Schools, 1971-72 through 1973-74.

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 1963 to 1983¹

[In thousands]

Fall (1)	Total			First-time		
	Total (2)	Men (3)	Women (4)	Total (5)	Men (6)	Women (7)
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
1973	8,520	4,772	3,747	1,757	931	826
PROJECTED¹						
1974	8,591	4,772	3,819	1,803	958	845
1975	8,751	4,833	3,918	1,838	977	861
1976	8,991	4,957	4,034	1,866	993	873
1977	9,260	5,103	4,157	1,897	1,010	887
1978	9,483	5,221	4,262	1,906	1,016	890
1979	9,640	5,303	4,337	1,889	1,008	881
1980	9,775	5,368	4,407	1,882	1,004	878
1981	9,865	5,416	4,449	1,873	1,001	872
1982	9,875	5,417	4,458	1,826	976	850
1983	9,783	5,362	4,421	1,755	938	817

¹ These projections are based primarily on the assumption that by 1983, for each sex, the first-time degree-credit enrollment as a percentage of the average 18-year-old population will have increased to the higher rates reached in 1969 and 1970.

The methodology for making 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 breakdowns between degree-credit and non-degree-credit enrollment in 1966 and 1967 are 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, details may not add to totals.

SOURCES: Enrollment data from U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications (1) *Opening (Fall) Enrollment in Higher Education*, annually 1963 through 1967; 1971 through 1973; (2) *Fall Enrollment in Higher Education, Supplementary Information*, 1969 and 1970; and (3) *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished).

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 1963 to 1983¹

[In thousands]

Fall (1)	Total			First-time		
	Total (2)	Men (3)	Women (4)	Total (5)	Men (6)	Women (7)
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
1973	8,520	4,772	3,747	1,757	931	826
PROJECTED¹						
1974	8,531	4,743	3,783	1,766	941	825
1975	8,578	4,749	3,829	1,761	941	820
1976	8,661	4,795	3,866	1,749	938	811
1977	8,726	4,838	3,888	1,739	935	804
1978	8,744	4,858	3,886	1,710	924	786
1979	8,710	4,849	3,861	1,661	901	760
1980	8,639	4,816	3,823	1,616	879	737
1981	8,530	4,767	3,763	1,574	860	714
1982	8,350	4,674	3,676	1,501	822	679
1983	8,105	4,547	3,558	1,412	777	635

¹ These projections are based primarily on the assumption that by 1983, for each sex, the first-time degree-credit enrollment as a percentage of the average 18-year-old population will have continued to decrease to the lower rates of the mid-1960's.

The methodology for making 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 breakdowns between degree-credit and non-degree-credit enrollment in 1966 and 1967 are 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, details may not add to totals.

SOURCES. Enrollment data from U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, 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; and (3) *Resident and Extension Enrollment in Institutions of Higher Education*, fall 1966 (unpublished).

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

Table B-7.—First-year students enrolled for master's or doctor's degrees and for first-professional degrees, by sex: United States and outlying areas, fall 1960 to 1971¹

[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	63	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, details may not add to totals.

SOURCES. Enrollment data from U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Students Enrolled for Advanced Degrees*, fall 1966 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 sex¹

	Mathematics and statistics (1)	Computer and information sciences (2)	Engineering (3)	Physical sciences (4)	Biological sciences (5)	Agriculture and natural resources (6)	Health professions (7)	Accounting (8)
Men	6	6	6	6	6	6	6	6
Women	6	6	6	6	6	7	6	6

	Other business and management (9)	Education (10)	Architecture and environmental design (11)	Fine and applied arts (12)	Foreign languages (13)	Social science (14)	Psychology (15)	Library sciences (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

[1973-74=100]

July to June	Consumer price index ¹	Construction cost index ²
1963-64	66.148	50.607
1964-65	66.995	51.917
1965-66	68.449	53.857
1966-67	70.567	56.914
1967-68	72.922	59.971
1968-69	76.434	64.920
1969-70	80.960	69.432
1970-71	85.134	76.274
1971-72	88.205	84.716
1972-73	91.765	92.285
1973-74	100.000	100.000
	ESTIMATED ³	
1974-75	108.974	108.360

¹ The monthly indexes were averaged on a July-to-June basis to correspond with the school year and converted to 1973-74=100. The 1967=100 index number for 1973-74 was 139.750.

² The monthly indexes were averaged on a July-to-June basis to correspond with the school year and converted to 1973-74=100. The 1967=100 index number for 1973-74 was 171.750.

³ Estimated on the assumption that the 1973-74 rate of inflation will continue through 1974-75.

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 1971-72¹

Source of funds, by control and level	1963-64	1965-66	1967-68	1969-70	1971-72	1963-64	1965-66	1967-68	1969-70	1971-72	1967-68	1969-70	1971-72	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(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	\$86.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Federal	3.4	5.3	6.9	7.5	9.6	9.3	11.3	11.7	10.6	11.1	11.7	10.6	11.1	
State	10.8	13.7	17.3	22.9	27.6	29.5	29.3	29.4	32.3	32.0	29.4	32.3	32.0	
Local	12.8	15.5	18.9	22.0	27.5	35.0	33.1	32.1	31.1	31.9	32.1	31.1	31.9	
All other	9.6	12.3	15.8	18.4	21.6	26.2	26.3	26.8	26.0	25.0	26.8	26.0	25.0	
Total, public	28.5	36.9	46.8	57.3	70.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Federal	2.2	3.9	5.2	5.8	7.7	7.7	10.6	11.1	10.1	11.0	11.1	10.1	11.0	
State	10.7	13.6	17.2	22.8	27.4	37.6	36.8	36.7	39.8	38.9	36.7	39.8	38.9	
Local	12.8	15.5	18.9	21.9	27.4	44.9	42.0	40.4	38.2	38.9	40.4	38.2	38.9	
All other	2.8	3.9	5.5	6.8	7.9	9.8	10.6	11.2	11.9	11.2	11.2	11.9	11.2	
Total, nonpublic	8.1	9.9	12.1	13.5	15.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Federal	1.2	1.4	1.7	1.7	1.9	14.8	14.1	14.1	12.6	11.9	14.1	12.6	11.9	
State	.1	.1	.1	.1	.2	1.2	1.0	.8	.8	1.3	.8	.8	1.3	
Local	(2)	(2)	(2)	(2)	(2)	(3)	(3)	(3)	.7	.6	(3)	.7	.6	
All other	6.8	8.4	10.3	11.6	13.7	84.0	84.9	85.1	85.9	86.2	85.1	85.9	86.2	

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 1971-72¹—Continued

Source of funds, by control and level	1963-64	1965-66	1967-68	1969-70	1971-72	1963-64	1965-66	1967-68	1969-70	1971-72
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	AMOUNT (In billions of current dollars)					PERCENT				
Elementary and secondary										
Total, public and nonpublic ..	\$24.7	\$30.9	\$37.9	\$45.0	\$55.8	100.0	100.0	100.0	100.0	100.0
Federal	1.1	2.2	3.0	3.3	4.7	4.5	7.1	7.9	7.3	8.4
State	8.0	9.9	12.3	16.1	19.1	32.4	32.0	32.5	35.8	34.2
Local	12.5	15.1	18.3	21.0	26.3	50.6	48.9	48.3	46.7	47.2
All other	3.1	3.7	4.3	4.6	5.7	12.5	12.0	11.3	10.2	10.2
Total, public	21.7	27.3	33.7	40.5	50.2	100.0	100.0	100.0	100.0	100.0
Federal	1.1	2.2	3.0	3.3	4.7	5.1	8.0	9.0	8.1	9.3
State	8.0	9.9	12.3	16.1	19.1	36.9	36.3	36.5	39.8	38.1
Local	12.5	15.1	18.3	21.0	26.3	57.6	55.3	54.2	51.9	52.4
All other .....	.1	.1	.1	.1	.1	.4	.4	.3	.2	.2
Total, nonpublic	3.0	3.6	4.2	4.5	5.6	100.0	100.0	100.0	100.0	100.0
Federal .....	...	...	...	...	...	...	...	...	...	...
State .....	...	...	...	...	...	...	...	...	...	...
Local .....	...	...	...	...	...	...	...	...	...	...
All other	3.0	3.6	4.2	4.5	5.6	100.0	100.0	100.0	100.0	100.0

Table B-10.—Estimated receipts by regular and "other" educational institutions, by level, by control, and by source: United States, 1963-64 to 1971-72¹—Continued

Source of funds, by control and level	1963-64	1965-66	1967-68	1969-70	1971-72	1963-64	1965-66	1967-68	1969-70	1971-72
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	AMOUNT (In billions of current dollars)									
	PERCENT									
Institutions of higher education										
Total, public and nonpublic ..	\$11.9	\$15.9	\$21.0	\$25.8	\$30.5	100.0	100.0	100.0	100.0	100.0
Federal	2.3	3.1	3.9	4.2	4.9	19.3	19.5	18.5	16.3	16.3
State ..	2.8	3.8	5.0	6.8	8.5	23.6	23.9	23.8	26.4	27.6
Local .....	.3	.4	.6	1.0	1.2	2.5	2.5	2.9	3.8	3.8
All other ..	6.5	8.6	11.5	13.8	15.9	54.6	54.1	54.8	53.5	52.3
Total, public	6.8	9.6	13.1	16.8	20.2	100.0	100.0	100.0	100.0	100.0
Federal	1.1	1.7	2.2	2.5	3.0	16.9	17.6	17.1	15.0	15.0
State	2.7	3.7	4.9	6.7	8.3	39.7	38.4	37.7	40.0	40.8
Local .....	.3	.4	.6	.9	1.1	4.3	4.1	4.5	5.1	5.5
All other ..	2.7	3.8	5.4	6.7	7.8	39.1	39.9	40.7	39.9	38.7
Total, nonpublic ..	5.1	6.3	7.9	9.0	10.3	100.0	100.0	100.0	100.0	100.0
Federal ..	1.2	1.4	1.7	1.7	1.9	23.1	22.1	21.8	18.8	18.6
State .....	.1	.1	.1	.1	.2	1.3	1.5	1.2	1.6	2.0
Local	(²)	(²)	(²)	1	.1	.2	.1	.3	.7	.5
All other	3.8	4.8	6.1	7.1	8.1	75.4	76.3	76.7	78.9	78.9

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 military posts. The annual receipts of "other" elementary and secondary schools were estimated as follows: Public, \$200 million annually, 1963-64 to 1971-72; nonpublic, \$100 million annually, 1963-64 to 1971-72.

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 1975

[In thousands of dollars]

Type of support level and program area	New obligatory authority							Outlay						
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974 (estimated)	1975 (estimated)
PART I Federal funds supporting education in educational institutions														
Total grants and loans	\$2,173,700	\$2,507,600	\$2,749,200	\$3,908,700	\$5,770,578	\$8,352,866	\$7,782,636	\$8,055,396	\$9,222,139	\$10,977,645	\$11,770,891	\$12,710,633	\$13,953,833	\$14,656,322
Grants total	1,853,200	2,111,700	2,350,500	3,279,600	6,167,878	7,611,283	7,179,355	7,552,116	8,714,173	10,593,204	11,422,265	12,364,901	13,572,679	14,262,241
Elementary and secondary education	555,100	600,400	666,100	947,900	2,480,078	3,037,617	2,967,004	2,838,439	3,212,418	3,724,363	3,856,527	4,084,972	4,599,477	4,896,057
School assistance in federally affected areas	304,900	330,300	323,100	407,600	433,900	469,137	506,372	397,581	656,372	577,043	648,608	580,493	547,051	482,060
Economic opportunity programs ¹	53,000	60,900	67,000	123,500	404,300	721,257	678,533	552,434	534,482	664,355	473,207	718,572	705,965	789,194
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	42,679	36,602	44,692	31,850
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	281,193	368,960	397,016
Assistance for educationally deprived	4,000	6,000	5,100	5,100	959,000	1,057,455	1,056,983	1,096,106	1,207,894	1,575,282	1,613,847	1,560,359	1,839,051	1,859,837
Technical Corps	26,400	26,300	24,900	127,700	18,500	11,374	16,019	19,358	18,191	28,761	23,887	32,092	35,025	43,795
Vocational education	40,500	45,900	61,500	80,500	186,300	194,816	187,316	167,274	191,379	241,461	168,906	190,602	270,116	244,422
Dependent schools abroad	43,500	44,600	48,600	51,500	54,100	50,173	69,274	106,893	82,316	98,843	73,398	90,642	109,146	110,384
Public lands revenue for schools	14,800	17,700	32,600	50,200	68,800	66,969	58,296	71,114	78,992	120,719	156,272	176,372	176,748	123,086
Assistance in special areas ⁴	4,400	5,100	5,400	4,500	5,700	1,294	3,200	4,924	6,233	13,763	16,674	43,835	50,853	44,389
Veterans' education	4,400	5,100	5,400	4,500	5,700	1,294	3,200	4,924	6,233	13,763	16,674	43,835	50,853	44,389
Emergency school assistance	4,400	5,100	5,400	4,500	5,700	1,294	3,200	4,924	6,233	13,763	16,674	43,835	50,853	44,389
Other ⁵	4,400	5,100	5,400	4,500	5,700	1,294	3,200	4,924	6,233	13,763	16,674	43,835	50,853	44,389
Higher education	1,210,300	1,307,800	1,480,400	2,052,600	2,830,400	3,634,494	3,241,170	3,347,124	3,912,662	4,895,588	5,172,443	5,985,960	6,584,689	6,530,844
Basic research in U.S. educational institutions proper ⁶	607,900	691,600	698,600	784,900	940,300	1,032,823	1,040,000	1,020,905	985,784	1,054,385	1,192,167	1,177,838	1,203,537	1,275,000
Research facilities ⁷	121,800	157,900	133,500	191,700	194,000	250,568	199,790	238,516	275,130	227,908	175,747	273,618	1,706,667	1,811,000
Training grants, fellowships, and traineeships	299,900	377,600	443,000	479,300	830,400	713,770	701,419	62,2830	895,960	1,037,202	982,008	1,184,990	1,237,965	1,115,796
Facilities and equipment	37,100	41,000	56,100	38,100	68,900	822,203	548,382	482,387	573,162	518,944	400,147	235,586	145,876	126,097
Other institutional support	33,000	43,400	69,500	53,400	163,800	169,925	139,637	173,066	178,156	266,000	292,291	339,675	408,038	355,718
Other student assistance	103,800	69,300	67,300	109,800	214,200	590,586	608,883	769,445	1,101,924	1,781,581	2,130,083	2,874,303	3,418,706	3,477,233
Other higher education assistance	11,700	16,400	17,400	19,800	18,600	34,619	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	1,589,093	1,973,253	2,303,295	2,293,969	2,388,513	2,835,340
Vocational technical and work training ⁸	34,600	82,700	171,000	364,300	817,900	877,303	851,683	1,163,444	1,269,254	1,515,741	1,829,481	1,474,847	1,539,940	2,055,673
Veterans' education	49,900	29,000	25,100	10,300	6,300	54,000	79,645	123,970	244,634	357,414	429,229	658,424	664,133	606,840
General continuing education ¹⁰	400	400	1,900	1,500	19,200	29,200	28,701	60,264	65,855	88,305	125,715	149,738	169,887	157,795
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	10,520	14,553	15,532
Loans total (higher education)	320,500	395,900	398,800	529,100	611,700	741,563	603,281	503,281	507,966	334,441	348,726	345,732	381,154	394,081
Student loan program, National Defense Education Act ¹¹	74,600	90,700	111,300	160,100	235,900	237,954	226,303	230,694	196,843	231,706	267,163	324,551	383,427	404,123
College facilities loans ¹²	245,900	305,200	287,500	369,000	375,800	503,609	376,978	272,586	311,123	102,735	61,563	21,181	-2,273	-10,042

See footnotes at end of table

Table B-11.-Federal funds for education and related activities. Obligations for fiscal years 1962 to 1967 and outlay for fiscal years 1968 to 1975-Continued

[In thousands of dollars]

Type of support, level, and program area	New obligatory authority							Outlay							
	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974 (estimated)	1975 (estimated)	
1															
Total	\$2,777,264	\$2,936,341	\$3,239,851	\$3,717,232	\$3,903,898	\$3,930,053	\$3,605,629	\$3,339,667	\$3,428,724	\$4,011,245	\$4,526,521	\$4,716,978	\$5,425,222	\$5,722,789	
Applied research and development ¹	754,700	805,700	906,300	952,300	1,026,600	1,088,150	1,142,350	1,237,499	1,236,749	1,318,963	1,470,566	1,470,087	1,599,840	91,651,000	
School lunch and milk programs	366,900	379,300	411,700	421,900	448,000	448,000	543,845	597,700	676,196	928,186	1,213,075	1,298,002	1,674,155	1,789,243	
Training of Federal personnel	1,177,500	1,279,600	1,370,400	1,577,900	1,706,700	1,537,399	1,338,333	639,853	691,694	854,930	961,215	1,061,926	1,153,653	1,217,886	
U.S. academics	59,416	59,069	119,796	130,971	154,593	133,002	141,599	170,468	184,262	218,869	232,047	275,671	279,632	288,507	
Civilian education and training in non-Federal facilities	1,086,564	1,168,601	1,202,604	1,373,229	1,470,507	1,309,948	923,470	375,105	492,040	614,099	718,160	779,934	863,569	900,321	
Library services	31,500	31,900	48,000	73,700	81,600	94,449	73,264	94,280	153,392	21,962	10,988	10,432	10,432	27,858	
Grants to public libraries	22,200	23,900	25,300	82,900	86,300	141,381	136,089	186,124	170,135	186,338	165,096	166,712	225,157	192,643	
National library services ^{1,3}	6,900	7,400	7,500	54,900	55,000	76,000	62,017	62,794	50,235	52,975	56,246	45,782	82,214	35,311	
International education	15,300	16,500	17,800	28,000	31,300	31,300	74,082	123,330	119,900	133,363	106,850	120,930	142,943	157,332	
Educational exchange program	109,100	116,100	130,000	178,700	232,658	326,742	272,008	278,135	193,464	180,668	122,740	77,929	79,712	78,999	
Agency for International Development projects	28,100	35,600	38,000	37,400	53,500	44,712	41,670	38,172	30,850	36,101	37,837	-8,131	30,751	33,859	
Action (previously Peace Corps)	81,000	80,500	84,500	87,800	111,800	203,270	140,000	170,000	111,325	106,608	55,612	22,555	22,238	17,826	
Other international education and training				44,300	57,175	41,944	43,641	44,095	28,150	25,076	25,076	22,013	20,971	22,323	
Other	346,964	330,741	396,151	417,932	429,701	388,376	372,994	400,356	460,486	542,160	593,839	642,322	733,005	793,018	
Agricultural extension services	59,300	63,000	79,400	85,400	90,700	92,874	90,030	97,273	124,526	154,672	169,811	185,803	207,286	206,650	
Educational television facilities ^{1,4}			5,200	5,100	15,200	3,304	6,737	8,756	19,163	26,580	8,000	28,568	35,960	42,197	
Education in Federal correctional institutions	2,100	2,500	2,900	3,500	3,600	6,341	3,662	3,816	5,007	6,333	9,066	9,494	11,013	11,588	
Value of surplus property transferred	244,900	223,800	268,700	277,300	266,400	215,509	199,383	223,503	246,330	255,668	299,805	276,699	314,369	345,805	
Acquisition cost of personal property	21,000	21,000	15,100	17,900	15,100	16,684	26,277	13,254	12,468	25,718	12,200	25,288	26,000	27,000	
Fair value of real property	19,664	20,341	24,851	28,732	38,701	53,714	46,906	53,754	52,992	71,189	94,957	116,470	138,357	159,578	

1 Includes Office of Economic Opportunity, Indian education, Appalachian Regional Development, Department of Labor, New York City, 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.

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 dependencies, 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.

7 Data are from Federal Funds for Research Development and Other Scientific Activities, annual publication, National Science Foundation. Includes university-operated research centers.

8 1975 amounts are estimated by the Office of Education at 5.7 percent increase over 1974 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 Also includes education broadcasting facilities.

15 Includes Office of Education and other education programs and administration expenditures not otherwise included.

NOTE -Because of exclusion of some programs and because data are based on Federal disbursement rather than on the authority to spend, the figures since 1968 are not strictly comparable with those for earlier years.

SOURCE -Compiled by the National Center for Education Statistics, U.S. Department of Health, Education, and Welfare, from information collected by the Office of Management and Budget for its report, Special Analysis Budget of the United States, Fiscal year 1975. Research data are from Federal Funds for Research Development and Other Scientific Activities, Vol. XXII, National Science Foundation.

Table B-12.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1975

[In thousands of dollars]

Legislative program	1960	1962	1964	1966	1968	1970	1971	1972	1973	1974 ¹	1975 ²
1	2	3	4	5	6	7	8	9	10	11	12
Total	\$459,965	\$547,408	\$673,005	\$2,024,428	\$3,613,476	\$4,111,598	\$4,543,641	\$4,903,711	\$4,990,253	\$5,685,669	\$6,221,835
Elementary and Secondary Education Act³											
Act ³	811	1,247	1,648	816,982	1,327,723	1,412,949	1,743,115	1,835,564	1,784,215	2,139,320	698,469
Title I Educationally deprived children				746,904	1,049,116	1,170,355	1,516,210	1,570,388	1,504,642	1,772,100	476,440
Title II Library resources				47,871	91,054	44,670	59,253	74,648	80,835	95,199	55,700
Title III Supplementary education centers				10,938	161,256	158,781	112,071	122,527	128,613	177,149	91,640
Title V Strengthening State departments of education ⁴	811	1,247	1,648	11,269	26,297	29,247	28,545	32,879	31,911	50,428	14,372
Title VII Bilingual education					6,192	20,876	26,010	29,854	34,291	55,221	
Title VIII Dropout prevention					3,704	6,160	9,112	8,360	10,153	5,096	
School assistance in federally affected areas	258,198	282,909	334,289	409,593	506,372	656,372	527,043	648,608	580,493	547,051	482,060
Maintenance and operation	174,850	226,419	283,688	353,851	470,887	620,463	506,851	628,305	560,516	519,268	458,060
Construction	83,348	56,490	50,601	55,742	35,485	35,909	20,192	20,303	19,977	27,783	24,000
Higher Education Act				35,232	365,884	531,090	653,307	772,707	945,729	1,230,018	1,677,828
Title I University community services				3,926	9,897	10,669	10,963	9,518	5,791	14,771	8,883
Title II Library programs ⁶											
College library resources					48,906	34,063	5,596	3,913	6,600	14,660	10,155
Library training					11,381	7,005	4,769	2,469	4,409	4,440	4,319
Acquisition and cataloging by Library of Congress				300	5,478	5,721	7,079		5,805	3,849	979
Title III Strengthening developing institutions					22,428	27,731	35,894	35,766	40,072	60,919	113,300
Title IV Student assistance						103,104	142,577	160,676	167,600	183,197	737,227
Equal opportunity grants											
Work study program and cooperative education				30,634	111,812	172,075	191,665	251,997	360,843	228,229	253,188
Insured loans					28,947	98,330	150,396	201,321	206,498	328,474	315,733
Student loans insurance fund						2,323	11,035	26,589	43,279	83,215	112,598
Title V Teacher Corps				362	16,019	18,191	28,761	23,867	32,092	35,025	43,768
Title VI Undergraduate instructional assistance											
Television and other equipment					5,415	4,968	2,258	5,684	11,841	3,034	11,797
Special programs for disadvantaged											
Talent Search, Special services, Upward Bound				10	2,497	7,437	44,215	43,963	45,302	74,248	69,881
Higher Education Facilities Act				105,526	461,965	437,387	340,033	212,628	168,284	82,980	70,152
Title I Public community colleges and technical institutes and other undergraduate facilities				48,739	317,063	317,227	277,690	180,700	151,088	57,753	38,694
State administration and planning				1,675	5,066	5,961	5,540	7,221			
Major disaster areas					147			200	45		
Title II Graduate facilities				4,220	37,970						
Title III College construction loans				50,892	101,719	114,199	56,802	24,468	8,018	13,462	17,931
Construction loans interest subsidization							1	39	9,133	11,765	13,527
Vocational education⁸	45,179	51,762	54,503	128,468	255,224	285,568	370,954	430,722	518,138	490,527	246,621
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	446,975	404,502	194,103
Smith Hughes Act											
Work study program and cooperative education				10,072	5,027	5,322	16,011	24,256	25,535	28,054	19,040
Innovative programs in vocational education and research						1,593	8,801	13,777	16,376	19,751	12,998

See footnotes at end of table

Table B-12.—Office of Education expenditures, by legislative program: Fiscal years 1960 to 1975—Continued

(In thousands of dollars)

Legislative program	1960	1962	1964	1966	1968	1970	1971	1972	1973	1974 ¹	1975 ^{1,2}
1	2	3	4	5	6	7	8	9	10	11	12
National advisory councils						94	271	321	370	336	
State advisory councils						2,218	2,474	2,658	2,685	3,081	61
Consumer and homemaking education						5,059	15,310	19,091	26,197	34,803	20,419
Education professions development	8,683	13,893	13,969	42,147	60,271	104,671	93,541	93,117	88,240	82,585	62,851
Elementary and secondary teacher training programs ⁹	8,683	13,893	13,969	42,147	58,387	72,924	63,078	69,641	73,445	72,234	56,053
Preschool, elementary, and secondary training grants to States						21,500	22,525	13,552	6,403	2,875	1,438
Higher education training programs					1,884	10,247	7,938	9,924	8,392	7,476	5,360
Public Library Services and Construction Act	6,056	6,932	7,443	40,915	62,017	52,687	52,270	54,086	45,782	82,214	40,311
Public library services	6,056	6,932	7,443	25,000	34,306	33,489	37,637	44,284	37,168	64,042	28,656
Construction				15,915	26,615	17,527	12,788	7,184	5,918	13,149	5,260
Interlibrary cooperation					1,096	1,671	1,845	2,618	2,696	5,023	6,395
Educational improvement for the handicapped	380	1,191	4,982	15,366	40,955	79,065	85,146	93,138	105,356	96,131	120,783
Education for the handicapped						7,867	31,073	29,280	32,657	39,572	16,324
Teacher education and recruitment	308	943	2,466	10,448	24,162	31,219	27,366	25,205	28,187	24,350	46,298
Research and innovation (includes deaf-blind and resource centers)			1,016	3,227	8,277	12,515	20,667	16,883	21,584	16,951	32,159
Captioned films and media services	72	248	1,500	1,691	649	4,258	5,079	11,706	9,781	9,878	13,486
Early childhood education							2,754	6,687	6,732	9,408	12,516
National Defense Education Act	117,965	158,801	216,338	320,172	370,034	332,898	330,783	392,233	362,735	385,928	357,656
Title II Student loans and cancellations	40,326	74,532	111,729	177,394	182,825	194,520	231,706	287,163	287,075	305,220	297,965
Title III Instructional assistance											
Grants and loans ¹⁰	49,848	39,510	56,131	76,175	85,916	58,547	44,647	42,629	36,602	44,692	31,850
Title IV College teacher fellowships	4,620	17,313	19,680	31,974	60,650	63,518	40,884	53,782	¹¹ 26,316	¹¹ 21,788	¹¹ 11,510
Title V Guidance, counseling, and testing	12,870	14,064	13,710	22,017	23,093						
Title VI Language development ¹²											
Language and area centers, fellowships, and research	10,301	13,382	15,088	12,612	17,550	16,313	13,546	8,659	12,742	14,228	16,331
Research and development	6,004	7,461	12,712	31,245	79,955	87,823	114,905	¹² 102,235	¹¹ 104,003	¹³ 57,156	¹³ 48,204
Training and research					4,832	6,736	6,929	4,844			
Construction					333	1,917	3,582	13,085			
Research and development and educational media research and dissemination (includes amounts for research in education renewal proposal) ¹⁴	6,004	7,461	12,712	31,245	74,790	79,170	104,394	¹⁴ 84,306			
Adult basic education ¹⁵				33,616	28,701	43,454	57,018	55,971	57,124	75,557	30,522
Civil rights activities				5,291	7,437	10,608	19,132	22,315	9,721	3,821	
Land grant colleges	5,052	10,744	14,500	14,500	14,500	21,961	12,680	12,600	18,700	12,200	
Consolidated education grants											1,910,400
Drug Abuse								6,916	11,936	8,435	5,616

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Special foreign currency Program training, research and study (grants to American institutions overseas)	6	138	500	857	774	1,749	2,279	1,862	2,677	2,676
Educational broadcasting facilities ¹⁷					4,163	5,580	12,182	10,068	13,980	15,197
Follow Through							2,024	36,995	46,669	45,347
Indian education									16,090	37,005
Emergency school assistance						51,239	69,899	40,956	193,157	232,955
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	101,605	119,173
Miscellaneous expired accounts							17,745	11,049		137,182
Consolidated Working Fund-net advances and reimbursements	+29	-202	-1,768	-1,026	-9,325	+2,404	-769	-207	-1,689	
Expenditures from funds transferred to the Office of Education by other Federal agencies ¹⁸										
ManPower Development and Training Act ¹⁹			64,777	75,532	99,451	121,451	141,529	126,500	128,711	127,925
Educational television facilities			1,962	4,663	6,737					
Mutual exchange activities (foreign currency) ²⁰				1,592	1,434	930	944	873	829	646
Appalachian Regional Development and Training Act ²¹					21,753	27,128	17,906	36,640	45,249	42,972
Cuban Refugee Program	5,195	9,603	9,302	16,990	19,488	19,851	18,110	14,060	11,630	
Office of Economic Opportunity ²²				54,681	686	38,234	47,280	78,096	12,032	
Consolidated Working Fund-gross outlay	62	3,068	2,250	10,515	11,395	6,165	56,000	3,377	2,070	2,381

¹ Estimated

² Changes in program amounts may reflect the proposed "Consolidated education grants" for 1975 (\$1,910,400,000) that include amounts for disadvantaged (\$1,260,800,000), handicapped (\$38,200,000), innovation (\$85,000,000), supporting services (\$88,100,000), vocational education (\$382,000,000), and adults (\$56,300,000)

³ Title VI for education of the handicapped is not included here but is included under "Educational improvement for the handicapped Nutrition and health included in "Research and development"

⁴ Includes some elementary-secondary school expenditures from expired accounts

⁵ Includes title X, National Defense Education Act (NDEA)

⁶ Amounts for "College library improvement" are included under "Research and development"

⁷ Includes Basic Educational Opportunity Grants

⁸ Amounts for vocational research are included under "Research and development"

⁹ Includes funds for teacher training institutes (after 1969) provided under the National Foundation on the Arts and the Humanities Act and NDEA

¹⁰ Includes assistance under the National Foundation on the Arts and the Humanities Act

¹¹ Includes Ellender fellowships

¹² Includes Fullbright Hays Act

¹³ Includes transfers to the National Institute of Education Program detail not available

¹⁴ Includes amounts for college library improvement and vocational research in addition to other research and development funds

¹⁵ Includes Nutrition and health

¹⁶ Includes amounts for adult vocational education and adult vocational education teacher training

¹⁷ Amounts for this activity supported with transferred funds prior to 1969

¹⁸ Amounts listed below are not included in the Office of Education expenditure totals

¹⁹ Includes amounts for Area Redevelopment Act

²⁰ Includes Educational Exchange

²¹ Funds transferred prior to 1967 are included in the Consolidated Working Fund Since 1972, also includes Development Facilities, Economic Development Assistance, Department of Commerce, Regional Development Programs, Regional Action, Planning Commission, and Military Construction, Army

²² Some OEO transfers also included in the Consolidated Working Fund

SOURCE Compiled by the National Center for Education Statistics and the Office of Administration, Office of Education, US Department of Health, Education, and Welfare

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