

## Definition of program areas in the National Study of Postsecondary Faculty

The data on program areas were obtained from the National Study of Postsecondary Faculty. The list below shows how related fields were grouped into program areas.

*Agriculture/home economics:* agriculture-unspecified, agribusiness, agricultural sciences, renewable resources, other agriculture and home economics.

*Business:* business-unspecified, accounting, banking and finance, business administration and management, business administrative support, human resources development, organizational behavior, marketing and distribution and other business.

*Education:* education-unspecified, general education, basic skills, bilingual and cross-cultural education, curriculum and instruction, education administration, education evaluation and research, educational psychology, special education, student counseling and personnel, other education, teacher education-unspecified, pre-elementary, elementary, secondary, adult and continuing, other general teacher education programs, and teacher education in specific subjects.

*Engineering:* engineering-unspecified, general, civil, mechanical, chemical and other engineering and engineering-related technologies.

*Fine arts:* art-unspecified, art history and appreciation, crafts, dance, design, dramatic arts, film arts, fine arts, music, music history and appreciation, and other visual or performing arts.

*Health sciences:* health sciences-unspecified, allied health technologies, dentistry, health services administration, medicine, nursing, pharmacy, public health, veterinary medicine, and other health sciences.

*Humanities:* English and literature-unspecified, general English, composition, American literature, English literature, linguistics, speech, English as second language, other English, foreign languages-unspecified, Chinese, French, German, Italian, Latin, Japanese, other Asian, Russian, Spanish, other foreign languages, philosophy and religion, and history.

*Natural sciences:* computer science-unspecified, computer and information sciences, computer programming, data processing, systems analysis, other computer science, biological sciences-unspecified, biochemistry, biology, botany, genetics, immunology, microbiology, physiology, zoology, other biological sciences, physical sciences-unspecified, astronomy, chemistry, physics, geological sciences, other physical sciences, mathematics, and statistics.

*Social sciences:* social sciences-unspecified, psychology, general social sciences, anthropology, archeology, area and ethnic studies, demography, economics, geography, international relations, political science, sociology, and other social sciences.

*Other:* architecture, communications, industrial arts, law, library and archival sciences, military studies, multi-interdisciplinary studies, parks and recreation, theology, protective services, public affairs, science technologies, vocational training-unspecified, construction trades, consumer services, mechanics and repairers, precision production, transportation, and other.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

**Table 31-1 Total number and percentage distribution of students formally enrolled in distance education courses, by selected institutional characteristics: 1995**

Selected institutional characteristics	Number of students	Percentage distribution
<b>All institutions</b>	<b>753,640</b>	<b>100</b>
Institution type*		
Private 4-year	104,960	14
Public 2-year	414,160	55
Public 4-year	234,020	31
Region		
Northeast	72,960	10
Southeast	200,230	27
Central	205,030	27
West	275,420	37
Enrollment		
Less than 3,000	116,320	15
3,000 to 9,999	232,750	31
10,000 or more	404,570	54

\* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 to make reliable estimates. Data for private 2-year institutions are included in the totals and in analyses by other institutional characteristics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

NOTE: The numbers of degrees and certificates have been rounded to the nearest 10. Details may not add to total due to rounding.

**Table 31-2 Percentage of higher education institutions offering degrees or certificates to students taking only distance education courses, total number of degrees or certificates offered, by selected institutional characteristics: 1995**

Selected institutional characteristics	Percentage of institutions offering		Total number of degrees or certificates offered		Total number of recipients	
	Degrees	Certificates	Degrees	Certificates	Degrees	Certificates
<b>All institutions</b>	<b>23</b>	<b>7</b>	<b>690</b>	<b>170</b>	<b>3,430</b>	<b>1,970</b>
Institution type*						
Private 4-year	29	14	160	60	1,080	160
Public 2-year	12	3	130	20	170	50
Public 4-year	35	9	390	90	2,180	1,770
Region						
Northeast	14	5	50	30	90	10
Southeast	24	6	180	30	1,080	240
Central	26	7	270	30	560	1,260
West	23	8	200	80	1,700	460
Enrollment						
Less than 3,000	17	5	160	30	1,080	100
3,000 to 9,999	19	7	210	50	710	160
10,000 or more	34	10	320	90	1,640	1,720

\* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 to make reliable estimates. Data for private 2-year institutions are included in the totals and in analyses by other institutional characteristics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

NOTE: The numbers of degrees and certificates have been rounded to the nearest 10. Details may not add to total due to rounding.

**Table 31-3 Percentage of higher education institutions currently offering or planning to offer distance education courses, by types of delivery technologies: 1995**

Delivery technology	Currently use the technology <sup>1</sup>	Percentage planning to start or increase use of technology	
		Institutions currently offering distance education courses <sup>1</sup>	Institutions that plan to start offering distance education courses <sup>2</sup>
Two-way interactive video	57	81	77
Two-way audio, one-way video	24	33	38
One-way live video	9	27	31
One-way prerecorded video	52	52	44
Audiographics	3	9	7
Two-way audio (e.g., audio/phone conferencing)	11	18	21
One-way audio (e.g., radio, audiotapes)	10	11	11
Two-way online (computer-based) interactions during instruction	14	75	64
Other computer-based technology (e.g., Internet)	22	84	74

<sup>1</sup> Based on institutions that currently offer distance education courses.

<sup>2</sup> Based on institutions that do not currently offer but plan to offer distance education courses in the next 3 years.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

## Part-time instructional faculty at postsecondary institutions

The faculty universe for the National Study of Postsecondary Faculty (NSOPF-93) included anyone who was designated as faculty, whether or not their responsibilities included instruction, as well as other (non-faculty) personnel with instructional responsibilities.

The analyses for this indicator include all those who had any instructional duties in the fall of 1992, as long as the faculty member has some instructional responsibilities for credit. Therefore, it includes those faculty whose principal activity that semester was research-oriented, technical, clinical, service-oriented, or administrative, as long as the faculty member taught at least one class for credit. In fact, in fall 1992, 15 percent of all faculty who taught at least one class for credit had a principal activity other than teaching.

The analysis for the indicators using NSOPF categorizes institutions of higher education into six types, as shown below. Remaining institutions, such as religious or specialized institutions, were included in the totals but are not shown separately.

### Types of institutions

*Research university:* Institution among the 100 leading universities that receives federal research funds. Each of these universities awards a substantial number of doctor's degrees in many fields.

*Doctor's university:* Institution that offers a full range of bachelor's degree and doctor's degree programs in at least three disciplines, but tends to be less focused on research and receives fewer federal research dollars than the research universities.

*Comprehensive institution:* Institution that offers liberal arts and professional programs. The master's degree is the highest degree typically offered.

*Liberal arts institution:* Institution that is smaller and generally more selective than comprehensive colleges and universities. A liberal arts institution primarily offers bachelor's degrees, although some offer master's degrees.

*2-year institution:* Institution that offers certificate or degree programs through the associate of arts level. Two-year institutions, with few exceptions, offer no bachelor's degrees.

*Other:* Institutions that offer degrees ranging from the bachelor's to the doctor's, with at least 50 percent of the degrees awarded in a single discipline (including institutions whose primary purpose is to offer religious instruction or train members of the clergy; other separate health professional schools that award most of their degrees in fields such as chiropractic, nursing, pharmacy or podiatry; schools of engineering and technology; schools of business and management; schools of art, music, and design; schools of law; teachers colleges; other specialized institutions such as graduate centers, maritime academies, military institutions, and institutions that do not fit other classifications; and tribal colleges and universities, primarily tribally contracted and located on reservations).

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Profiles of Faculty in Higher Education Institutions*, 1988.

**Table 33-1 Mean classroom hours per week, mean student contact hours per week, and average class size for full-time postsecondary faculty, by academic rank, type and control of institution, and academic discipline of class taught: Fall 1987 and fall 1992**

Characteristics	Mean classroom hours per week	Mean student contact hours per week	Average class size
		<b>Fall 1987</b>	
<b>Total*</b>	<b>9.8</b>	<b>300.4</b>	<b>30.0</b>
Academic rank			
Full professor	8.6	277.9	32.8
Associate professor	9.1	314.5	33.6
Assistant professor	9.3	262.2	28.0
Instructor	13.4	371.2	26.9
Lecturer	9.2	424.2	41.6
Type of institution			
Research	6.5	252.5	38.5
Doctor's	8.4	279.0	33.8
Comprehensive	10.5	305.5	29.0
Liberal arts	10.6	235.7	21.4
2-year	15.0	416.6	26.5
Control of institution			
Public	10.2	324.1	31.5
Private	8.8	247.4	28.3
Academic discipline of class taught			
Agriculture	8.8	247.0	29.6
Business	10.6	327.5	29.9
Education	9.8	259.7	24.5
Engineering	9.5	256.4	27.2
Fine arts	12.1	279.5	22.1
Humanities	10.1	276.9	26.6
Natural sciences	9.4	352.9	36.0
Social sciences	8.7	328.5	37.0
		<b>Fall 1992</b>	
<b>Total*</b>	<b>11.0</b>	<b>337.4</b>	<b>30.6</b>
Academic rank			
Full professor	9.6	323.7	33.6
Associate professor	10.1	324.9	31.5
Assistant professor	10.6	312.5	30.1
Instructor	15.9	434.0	26.3
Lecturer	9.0	301.8	34.8
Type of institution			
Research	6.9	270.3	38.9
Doctor's	9.2	356.7	39.7
Comprehensive	10.8	318.5	29.1
Liberal arts	11.0	242.2	21.4
2-year	16.2	451.9	27.3
Control of institution			
Public	11.4	358.5	31.8
Private	10.0	286.2	27.8
Academic discipline of class taught			
Agriculture	11.0	311.1	28.3
Business	11.0	317.9	29.2
Education	10.2	276.9	25.8
Engineering	9.6	243.9	25.3
Fine arts	12.4	269.3	21.5
Humanities	10.9	296.0	26.8
Natural sciences	10.2	376.4	36.4
Social sciences	9.5	357.9	36.0

\* Included in the total but not shown separately are other types of academic ranks, institutions, and academic disciplines.

NOTE: See the supplemental note to this indicator for definitions of classroom and student contact hours.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1988 and 1993.

## Teaching workload and research production of full-time postsecondary faculty

The 1988 National Study of Postsecondary Faculty (NSOPF) was a survey of faculty who had at least some instructional duties (such as teaching one or more classes for credit or advising or supervising students' academic activities) during the fall 1987 term.

Unlike NSOPF-88, which was limited to faculty whose regular assignments included instruction, the faculty universe for NSOPF-93 was expanded to include anyone who was designated as faculty, whether or not their responsibilities included instruction, as well as other (non-faculty) personnel with instructional responsibilities.

The analyses for this indicator include all those who had any instructional duties in the fall of 1987 and 1992. Therefore, it includes those faculty whose principal activity that semester was research, technical, clinical, service, or administration, as long as the faculty member has some instructional responsibilities for credit. In fact, in fall 1992, 15 percent of all faculty who taught at least one class for credit had a principal activity other than teaching.

The analysis for the indicators using NSOPF categorizes institutions of higher education into five types, as shown below. Remaining institutions, such as religious or specialized institutions, were included in the totals but are not shown separately.

### Types of institutions

*Research university:* Institution among the 100 leading universities that receives federal research funds. Each of these universities awards substantial numbers of doctorates across many fields.

*Doctor's university:* Institution that offers a full range of baccalaureate programs and PhD degrees in at least three disciplines, but tends to be less focused on research and receives fewer federal research dollars than the research universities.

*Comprehensive institution:* Institution that offers liberal arts and professional programs. The master's degree is the highest degree offered.

*Liberal arts institution:* Institution that is smaller and generally more selective than comprehensive colleges and universities. A liberal arts institution primarily offers bachelor's degrees, although some offer master's degrees.

*2-year institution:* Institution that offers certificate or degree programs through the associate of arts level.

Two-year institutions, with few exceptions, offer no bachelor's degrees, although some offer master's degrees.

### Time allocation

NSOPF survey respondents were asked to estimate the percentage of total working hours they spent on each of the activities below:

*Teaching:* Includes teaching; grading papers; preparing courses; developing new curricula; advising or supervising students; or working with student organizations or intramural sports.

*Research/scholarship:* Includes conducting research; reviewing or preparing articles or books; attending or preparing for professional meetings or conferences; reviewing proposals; seeking outside funding; giving performances or exhibitions in the fine or applied arts; or giving speeches.

*Professional growth:* Includes taking courses or pursuing an advanced degree or other professional development activities to remain current in their field of practice.

*Administration:* Performing administrative activities.

*Outside consulting or freelance work:* Conducting outside consulting or other employment.

*Service/other:* Includes providing legal or medical service or psychological counseling to clients or patients; providing paid or unpaid community or public service, or service to professional societies/associations; or participating in other activities or work not listed above.

### Classroom and student contact hours

*Classroom hours:* The number of hours per week faculty members spent teaching.

*Student contact hours:* The sum of the number of hours per week faculty members spent teaching over all classes, multiplied by the number of students in each class.

*Class size:* The total number of student contact hours divided by the mean number of classroom hours faculty spent per week.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Profiles of Faculty in Higher Education Institutions*, 1988.

## Urbanicity variable in the National Household Education Survey

The National Household Education Survey (NHES) urbanicity variable is a linked-derived variable that categorizes the respondent's ZIP code as "urban" or "rural." The variable was created using the respondent's ZIP code to extract data from the 1990 Census of Population Summary Tape File 3B. "Urban" is further broken down into "inside urbanized area" (UA) and "outside UA." Definitions for these categories were taken directly from the 1990 Census of the Population. A UA comprises a place and the adjacent densely surrounding territory that together have a minimum population of 50,000. The term "place" in the UA definition includes both incorporated places, such as cities and villages, and census-designated places, which are unincorporated

areas designated by the Census Bureau in cooperation with state and local agencies in order to permit tabulation of data for Census Bureau products. The "densely settled surrounding territory" adjacent to places consists of contiguous and non-contiguous territories of relative high population density within short distances. "Urban outside of UA" generally includes incorporated or unincorporated places outside of UA with a minimum population of 2,500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), *Adult Education Data File User's Manual, 1996*.

**Table 36-1 Percentage distribution of 6- to 12-year-olds, by selected family characteristics: 1972–97**

Selected family characteristics	1972	1977	1982	1987	1992	1997
Race-ethnicity of child						
White	79.4	77.0	74.2	71.0	70.0	66.3
Black	12.7	13.9	13.8	14.6	14.5	14.9
Hispanic	6.5	7.3	8.9	10.8	11.2	13.9
Other	1.4	1.7	3.0	3.7	4.4	5.0
Mother's highest education level						
Less than high school diploma	34.3	29.5	23.6	20.4	18.0	15.8
High school diploma or GED	47.6	47.4	48.0	45.9	38.8	34.8
Some college	10.8	13.4	16.5	18.9	26.1	28.8
Bachelor's degree or higher	7.2	9.8	12.0	14.8	17.2	20.5
Father's highest education level						
Less than high school diploma	34.9	28.7	21.4	18.0	14.9	15.3
High school diploma or GED	36.9	36.7	37.9	37.4	35.2	31.4
Some college	12.0	14.6	17.7	20.2	23.8	25.1
Bachelor's degree or higher	16.2	20.0	23.1	24.4	26.1	28.2
Mother's employment status						
Employed	38.5	45.5	52.1	58.1	61.2	66.4
Unemployed, looking for work	2.7	4.1	5.9	5.2	5.0	3.9
Not in labor force	58.8	50.4	42.1	36.7	33.8	29.7
Father's employment status						
Employed	93.1	91.0	88.9	90.3	89.1	91.2
Unemployed, looking for work	3.5	4.2	6.8	5.1	5.9	3.7
Not in labor force	3.5	4.8	4.3	4.6	5.0	5.1
Family type						
Two-parent household	86.8	81.2	77.1	74.9	72.8	71.4
Father as head of household	1.0	1.2	1.8	2.4	3.0	4.2
Mother as head of household	12.3	17.6	21.1	22.7	24.1	24.4
Number of other children in household						
0–1	28.8	46.4	50.1	52.3	53.5	54.5
2–3	46.7	40.8	41.0	40.8	39.8	39.5
4 or more	24.4	12.8	8.9	7.0	6.7	6.1
Age of mother at child's birth						
Under 20	10.6	12.1	13.7	12.6	10.8	9.1
20–24	33.2	35.2	35.0	32.3	30.7	25.1
25–29	26.8	27.8	30.1	33.0	31.3	32.2
30 or older	29.5	24.9	21.1	22.1	27.2	33.6
Median family income (in constant 1997 dollars)						
	\$41,449	\$41,014	\$37,671	\$39,715	\$39,733	\$40,598

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to *Indicator 59* for further discussion. Information on parents' educational attainment, employment status, or age of mother at child's birth is available only for those parents who live in the same household with their child. See the supplemental note to this indicator for further discussion on how the data were calculated.

In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Percentages for employment status were based on the total population, not just those in the labor force. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

## Family characteristics of 6- to 12-year-olds

Data on family characteristics of 6- to 12-year-olds were taken from the March Current Population Surveys (CPS). Information about parents was obtained by linking parents' records with their children's records using common variables, such as household ID, parent ID, spouse ID, and person IDs at various steps.

The March CPS is a hierarchical data file with three levels of information: household, family, and person level. Some information used in this indicator, such as family income or family type, was obtained from family level and then retained/passed on to the person level. Before the merging process began, an extract file which included information from both household and family levels was created for each individual (at the person level). In the merging process, three temporary data sets were created using the extract file: heads of household, spouses of the head, and children in the household. Records for head of household were first linked to records of spouses of heads of household to create one file of parents' records containing information for both parents. Finally, the children's records were merged with the parents' records using common codes between the files, such as household ID, parent ID and person ID. This merging process allowed information such as parents' education level and parents' employment status to be linked to children's files.

### Family type

Information on family type, which originated at the family level, was taken from the parents' records and was then linked to the children's records. The original family type categories were "husband and wife family," "male head," and "female head." When the parents' information was merged with the children's records, these categories changed to "both parents," "father as head of household," and "mother as head of household," so that family type was in reference to the child rather than the parent.

### Age of mother at child's birth

For this analysis, the age of the mother at her child's birth was computed by subtracting the child's age from its mother's age. Only children whose mother was in the household were included in the analysis.

### Number of other children in the family

Number of other children in the family was calculated by adding the total number of children in each family, and then subtracting one (for the child in reference) from the total.

### Mother's or father's highest education level

A parent's highest education level was obtained by merging the information from parents' records with the children's records. The percentage distribution of mother's and father's highest education level was calculated based only on children who live with their parents. For example, the percentage distribution for mother's highest education level was calculated based on children who live with "both parents" and who live with "mother only." For children who live with only their father, their mother's education level was unknown; therefore, this "unknown" group was excluded for this particular section.

### Employment status of parents

Information on the employment status of parents was computed similarly as that for the parents' highest education level.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys, unpublished tabulations.

**Table 37-1 National index of public effort to fund higher education (public revenues per student in relation to per capita personal income): School years ending 1930–96**

School year ending	National effort index <sup>1</sup>	Public higher education revenues <sup>2</sup> (billions)	Total higher education enrollment (millions)	Public higher education revenues per student <sup>2</sup>	Total personal income <sup>2</sup> (billions)	Total population <sup>3</sup> (millions)	Per capita personal income <sup>2</sup>
1930 <sup>4</sup>	22.5	\$1.6	1.1	\$1,490	\$805.5	121.9	\$6,609
1940 <sup>4</sup>	24.0	2.5	1.5	1,671	911.6	131.0	6,958
1950	28.8	7.3	4 <sup>2</sup> 2.7	2,745	1,422.7	149.2	9,536
1960	30.4	14.1	3.6	3,881	2,273.5	177.8	12,784
1966	31.3	29.1	5.9	4,923	3,051.1	194.3	15,703
1968	29.7	34.6	6.9	5,004	3,348.3	198.7	16,850
1970	31.1	43.1	8.0	5,390	3,514.4	202.7	17,340
1971	28.6	43.4	8.6	5,052	3,623.8	205.1	17,672
1972	27.6	45.9	8.9	5,128	3,854.3	207.7	18,561
1973	26.9	47.9	9.2	5,201	4,065.8	209.9	19,371
1974	26.5	48.3	9.6	5,034	4,019.4	211.9	18,968
1975	27.4	52.3	10.2	5,117	3,995.0	213.9	18,681
1976	25.5	55.3	11.2	4,940	4,180.1	216.0	19,355
1977	25.3	55.5	11.0	5,041	4,346.3	218.0	19,934
1978	24.2	56.5	11.3	5,004	4,562.4	220.2	20,716
1979	23.8	55.7	11.3	4,943	4,617.2	222.6	20,744
1980	23.5	54.9	11.6	4,742	4,535.5	225.1	20,153
1981	22.3	54.5	12.1	4,501	4,604.5	227.7	20,220
1982	21.9	54.2	12.4	4,384	4,601.3	230.0	20,009
1983	21.5	54.5	12.4	4,383	4,736.8	232.2	20,401
1984	20.9	56.0	12.5	4,492	5,038.9	234.3	21,506
1985	22.2	60.0	12.2	4,900	5,214.1	236.3	22,061
1986	23.0	63.8	12.2	5,212	5,412.5	238.5	22,697
1987	22.5	65.0	12.5	5,201	5,562.9	240.6	23,119
1988	21.5	66.7	12.8	5,225	5,897.8	242.8	24,290
1989	21.8	68.7	13.1	5,261	5,912.2	245.0	24,129
1990	21.3	69.9	13.5	5,161	5,983.4	247.3	24,191
1991	21.2	69.7	13.8	5,040	5,942.7	249.9	23,776
1992	20.4	70.8	14.4	4,929	6,106.1	<sup>1</sup> 252.6	24,169
1993	20.3	71.1	14.5	4,911	6,182.7	255.4	24,210
1994	20.6	72.1	14.3	5,043	6,332.9	258.1	24,538
1995	20.8	74.0	14.3	5,184	6,494.4	260.6	24,921
1996	20.6	74.5	14.3	5,223	6,675.0	263.0	25,376

<sup>1</sup> Revised from previously published figures.

<sup>2</sup> In constant 1998 dollars, adjusted by the Consumer Price Index.

<sup>3</sup> For the calendar year in which the school year ended.

<sup>4</sup> As of July 1, the year in which the school year began.

<sup>5</sup> Income or population is for the calendar year in which the school year began.

NOTE: Public higher education revenues are the portion of educational and general revenue from federal, state, and local

sources at both public and private institutions. Pell Grants and other direct student aid are excluded from this time series, understating public higher education revenues between 2 and 4 percent. Enrollment includes all institutions, public and private.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1998*, tables 3, 37, and 324; *120 Years of American Education: A Statistical Portrait, 1993*, table 33.

## Calculation of national index of public effort to fund education

There are many indices of public investment in education available. Choosing the most appropriate measure has been an issue in international comparisons as well as in national trends. The national index of public effort provides a measure of public investment in each student compared with available societal resources.

Public education revenues per student are the ratio of total public education revenues to public and private enrollment. Per capita income is the ratio of total personal income to total population. The index can be expressed algebraically, therefore, as a function of four variables:

$$\text{National effort index} = \frac{\text{Public education revenues per student}}{\text{Per capita income}} \times 100$$

or

$$\text{National effort index} = \frac{\text{Public education revenues} / \text{Total personal income}}{\text{Total enrollment} / \text{Total population}} \times 100$$

Revenue data from elementary/secondary and higher education are based on different accounting systems and are not entirely comparable. For example, elementary and secondary public revenues represent additions to assets (cash) from taxes, appropriations, and other funds, which do not incur an obligation that must be met at some future date (loans) in all public schools. Included are revenues that are spent on construction of buildings and other investments in the physical plant. Because of the difficulty in constructing a comparable time series, public funds going to private schools (for Head Start, disabled children, etc.) have been excluded.

For higher education, educational and general public revenues are those available from public sources at both public and private institutions for the regular or customary activities of an institution that are part of, and contributory to, or necessary to its instructional or research program. These include salaries and travel of faculty and administrative or other employees; purchase of supplies or materials for current use in classrooms, libraries, laboratories, or offices; and operation and maintenance of the educational plant. In contrast to elementary/secondary public revenues, higher education public revenues, as defined in this indicator, do not include public funds that would be used for expansion of the physical plant. As a result, the reader should focus on the changes over time in the elementary/secondary and higher education measures rather than on comparisons across levels.

Enrollment is in all institutions, regardless of control. No adjustments were made for part-time enrollment.

Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad for the calendar year in which the school year began.

Total education revenues are in 1998 dollars, based on the Consumer Price Index (CPI), prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school-year basis. Personal income is in constant 1998 dollars, adjusted by CPI for the calendar year.

**Table 38-1 Percentage distribution of public school expenditures, by function and selected district characteristics: School year 1994–95**

Selected district characteristics	Percentage distribution of school districts	Total	Instruction	Support services	Capital outlay	Other
Median household income						
Less than \$20,000	20.6	100.0	54.6	29.4	7.1	8.9
20,000–24,999	26.6	100.0	53.6	29.1	8.0	9.3
25,000–29,999	19.5	100.0	53.5	28.0	9.1	9.5
30,000–34,999	12.3	100.0	53.1	28.9	8.9	9.1
35,000 or more	21.0	100.0	52.7	29.5	9.2	8.6
Percentage of school-age children in poverty						
0–5	16.0	100.0	53.0	30.1	8.3	8.6
6–20	51.3	100.0	52.7	28.8	9.6	8.9
21–40	26.6	100.0	54.1	28.6	7.8	9.4
41 or more	6.1	100.0	54.4	29.9	6.9	8.7
Percentage of limited-English-proficient school-age children						
None	42.4	100.0	52.9	28.7	7.8	10.7
1–4	52.9	100.0	53.0	29.4	8.8	8.7
5 or more	4.7	100.0	54.7	26.9	8.9	9.5
Percentage of minority school-age children						
Less than 5	57.0	100.0	53.7	28.2	8.1	10.0
5–19	23.6	100.0	52.6	29.1	10.0	8.2
20–49	14.2	100.0	52.5	29.8	9.2	8.6
50 or more	5.2	100.0	54.9	28.5	7.0	9.7

NOTE: See the glossary for definitions of specific expenditure functions. Information on district characteristics are from the U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations." Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys, "School District Finance File," 1994–95. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

**Table 39-1 Percentage distribution of general education revenues of higher education institutions per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–96**

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
<b>Private, not-for-profit universities</b>									
1977	100.0	40.3	2.2	1.8	27.7	2.5	12.9	8.0	4.6
1978	100.0	40.6	2.0	1.6	27.4	2.2	13.4	7.7	5.1
1979	100.0	40.8	2.0	1.5	27.4	2.2	12.9	8.2	4.9
1980	100.0	40.1	1.9	1.4	27.8	2.6	12.4	8.3	5.4
1981	100.0	40.8	1.8	1.5	27.4	2.1	12.8	8.4	5.2
1982	100.0	42.5	1.7	1.4	25.6	1.9	12.7	8.7	5.3
1983	100.0	45.0	1.8	1.4	23.2	2.2	12.9	7.7	5.7
1984	100.0	44.2	1.6	1.3	22.8	2.2	13.4	8.4	6.1
1985	100.0	44.4	1.5	1.2	22.8	2.1	13.5	8.7	5.7
1986	100.0	44.2	1.4	1.2	23.2	2.2	13.6	8.6	5.7
1987	100.0	43.8	1.1	1.1	23.9	2.8	13.3	8.2	5.7
1988	100.0	44.0	1.1	1.0	22.3	3.6	13.5	8.5	6.0
1989	100.0	44.0	1.1	0.9	21.9	3.7	13.2	8.6	6.5
1990	100.0	43.9	1.1	0.9	21.9	3.7	13.4	8.6	6.4
1991	100.0	45.1	0.9	0.8	21.1	3.2	13.6	8.5	6.8
1992	100.0	45.2	0.9	0.5	21.0	3.4	13.5	8.1	7.4
1993	100.0	44.9	0.8	0.4	21.0	3.4	14.0	8.1	7.4
1994	100.0	45.1	0.8	0.4	21.5	2.6	14.1	7.9	7.6
1995	100.0	45.2	0.7	0.4	21.1	2.7	14.0	8.1	7.8
1996	100.0	45.4	0.7	0.4	20.8	2.4	14.2	8.7	7.4
<b>Public universities</b>									
1977	100.0	16.4	2.9	52.4	17.0	2.1	4.7	0.7	3.7
1978	100.0	16.3	3.0	52.5	16.7	2.1	4.8	1.0	3.5
1979	100.0	15.9	3.0	52.1	16.9	2.3	4.7	1.0	4.0
1980	100.0	15.9	2.6	51.8	17.4	2.1	5.0	1.1	4.1
1981	100.0	16.4	2.3	51.3	17.3	2.3	5.0	1.1	4.3
1982	100.0	17.6	2.1	51.4	15.8	2.2	5.3	1.1	4.4
1983	100.0	19.0	2.0	50.3	15.0	2.1	5.9	1.2	4.5
1984	100.0	19.1	2.0	50.6	14.9	1.9	5.8	1.3	4.4
1985	100.0	18.3	2.1	51.2	14.8	2.0	5.9	1.3	4.4
1986	100.0	18.6	2.1	50.5	14.8	2.0	6.2	1.4	4.4
1987	100.0	19.5	1.9	49.3	15.0	2.4	6.4	1.0	4.5
1988	100.0	19.8	1.5	48.7	15.4	2.4	6.6	1.0	4.5
1989	100.0	20.0	1.5	47.7	15.6	2.6	7.0	1.0	4.6
1990	100.0	20.4	1.4	46.8	15.6	2.9	7.4	1.0	4.6
1991	100.0	21.1	1.4	45.6	16.0	3.0	7.2	1.1	4.8
1992	100.0	22.3	1.3	43.0	16.7	2.8	7.5	1.2	5.0
1993	100.0	23.3	1.3	41.3	17.2	2.7	7.7	1.3	5.1
1994	100.0	23.8	1.3	40.4	17.7	3.0	7.7	1.2	4.8
1995	100.0	24.0	1.2	40.3	17.7	3.1	7.6	1.3	4.9
1996	100.0	24.6	1.1	39.6	17.2	3.2	7.9	1.4	4.9

**Table 39-1 Percentage distribution of general education revenues of higher education institutions per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977–96—Continued**

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
<b>Private, not-for-profit 4-year colleges</b>									
1977	100.0	61.7	0.9	2.1	10.8	2.0	15.6	5.8	1.0
1978	100.0	62.5	1.0	2.0	10.5	2.0	15.2	5.8	1.0
1979	100.0	62.2	1.0	1.9	11.0	2.0	14.7	6.2	1.0
1980	100.0	61.0	1.0	1.9	11.5	2.3	14.5	6.6	1.1
1981	100.0	61.6	1.1	1.9	10.7	2.3	14.3	6.9	1.2
1982	100.0	63.0	0.8	1.7	9.2	2.3	14.2	7.6	1.0
1983	100.0	64.6	0.6	1.7	7.7	2.4	14.4	7.5	1.0
1984	100.0	65.0	0.5	1.7	7.7	2.4	14.2	7.4	1.1
1985	100.0	64.8	0.5	1.6	7.7	2.5	14.3	7.5	1.0
1986	100.0	64.9	0.5	1.6	7.8	2.6	14.1	7.4	1.1
1987	100.0	65.2	0.6	1.6	7.4	2.9	14.1	7.2	1.1
1988	100.0	65.5	0.5	1.6	7.4	3.1	13.4	7.3	1.1
1989	100.0	66.0	0.4	1.4	7.1	3.6	13.0	7.5	1.1
1990	100.0	66.9	0.4	1.2	7.1	3.8	12.4	7.3	1.0
1991	100.0	68.1	0.4	1.1	6.8	3.5	12.1	7.1	0.9
1992	100.0	68.9	0.4	0.8	7.0	4.1	11.5	6.5	0.9
1993	100.0	69.2	0.3	0.7	7.1	3.8	11.3	6.1	1.5
1994	100.0	69.6	0.2	0.7	7.0	4.0	11.2	5.8	1.5
1995	100.0	69.9	0.2	0.5	7.2	3.7	11.6	5.9	1.0
1996	100.0	68.9	0.2	0.5	6.6	3.7	12.5	6.5	1.0
<b>Public 4-year colleges</b>									
1977	100.0	16.4	4.9	60.7	11.6	2.1	2.4	0.3	1.7
1978	100.0	16.0	4.9	61.4	10.9	2.2	2.5	0.2	1.8
1979	100.0	15.2	4.9	61.6	11.2	2.3	2.5	0.3	1.9
1980	100.0	14.9	5.0	61.5	11.3	2.2	2.6	0.3	2.1
1981	100.0	15.4	5.3	60.8	10.9	2.2	2.7	0.4	2.3
1982	100.0	16.1	4.7	61.5	9.7	2.1	2.9	0.4	2.5
1983	100.0	17.0	4.8	61.2	8.7	2.1	3.2	0.4	2.5
1984	100.0	18.2	4.7	59.8	8.5	2.3	3.3	0.4	2.7
1985	100.0	17.6	4.6	60.7	8.3	2.1	3.4	0.4	2.8
1986	100.0	17.7	4.3	60.0	8.4	2.6	3.6	0.4	3.0
1987	100.0	18.0	4.3	58.8	8.4	3.0	3.8	0.5	3.3
1988	100.0	18.4	4.3	58.4	8.3	2.9	3.7	0.5	3.5
1989	100.0	19.2	2.8	58.1	8.6	3.0	4.1	0.6	3.7
1990	100.0	19.7	4.2	55.6	8.6	3.2	4.3	0.6	3.8
1991	100.0	20.7	3.8	53.8	8.9	3.4	4.8	0.3	4.2
1992	100.0	22.3	3.6	51.3	9.4	3.7	4.9	0.6	4.2
1993	100.0	23.8	3.4	48.9	9.8	4.0	4.9	0.7	4.4
1994	100.0	24.4	3.6	47.6	10.1	4.2	5.0	0.6	4.6
1995	100.0	24.1	3.4	46.9	10.4	4.9	5.0	0.6	4.7
1996	100.0	24.8	3.5	45.9	10.7	5.5	5.1	0.4	4.1

**Table 39-1 Percentage distribution of general education revenues of higher education institutions per full-time-equivalent (FTE) student, by revenue source and control and type of institution: Academic years ending 1977-96—Continued**

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
<b>Public 2-year colleges</b>									
1977	100.0	16.8	2.0	72.5	5.8	2.0	0.5	0.1	0.4
1978	100.0	16.1	1.8	73.3	5.5	2.3	0.5	0.1	0.4
1979	100.0	15.8	1.9	72.7	6.0	2.5	0.5	0.1	0.5
1980	100.0	16.1	1.3	72.6	6.3	2.6	0.5	0.1	0.5
1981	100.0	16.8	1.2	71.7	6.3	2.8	0.5	0.1	0.6
1982	100.0	18.0	1.1	71.7	5.2	2.9	0.5	0.1	0.5
1983	100.0	19.3	0.8	71.4	4.3	2.9	0.6	0.1	0.5
1984	100.0	19.5	0.9	71.0	4.4	2.9	0.6	0.1	0.5
1985	100.0	19.1	0.7	70.9	4.6	3.4	0.6	0.1	0.5
1986	100.0	18.6	0.6	71.4	4.5	3.7	0.6	0.1	0.6
1987	100.0	18.5	0.7	70.4	4.1	4.8	0.6	0.1	0.6
1988	100.0	18.7	0.7	70.5	4.1	4.7	0.7	0.1	0.5
1989	100.0	19.1	0.7	68.7	4.2	6.0	0.8	0.1	0.5
1990	100.0	19.6	0.7	67.7	4.2	6.3	0.9	0.1	0.5
1991	100.0	20.4	0.7	67.4	4.2	5.7	0.9	0.1	0.5
1992	100.0	22.1	0.8	65.2	4.5	5.8	1.0	0.1	0.5
1993	100.0	23.4	0.6	63.7	5.0	5.4	1.0	0.1	0.7
1994	100.0	23.8	0.6	63.0	5.3	5.4	1.0	0.1	0.8
1995	100.0	23.4	0.5	63.0	5.5	5.7	1.1	0.1	0.7
1996	100.0	23.2	0.4	61.5	5.6	7.4	1.1	0.1	0.7

\* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

NOTE: Data for academic years 1976-77 through 1985-86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students. Data for 1989 to 1995 were revised from previously published figures. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

**Table 39-2 General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by revenue source and control and type of institution: Academic years ending 1977–96**

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
<b>Private, not-for-profit universities</b>									
1977	\$22,779	\$9,172	\$499	\$402	\$6,315	\$564	\$2,950	\$1,829	\$1,049
1978	22,511	9,141	447	360	6,169	506	3,007	1,724	1,157
1979	22,615	9,232	446	347	6,187	506	2,928	1,852	1,116
1980	23,119	9,267	451	327	6,436	611	2,869	1,913	1,244
1981	23,313	9,512	418	353	6,394	489	2,974	1,964	1,209
1982	23,204	9,866	394	334	5,947	452	2,950	2,021	1,240
1983	23,404	10,537	422	334	5,435	504	3,023	1,813	1,336
1984	25,363	11,219	409	325	5,790	548	3,410	2,122	1,541
1985	26,130	11,601	404	324	5,958	556	3,526	2,283	1,479
1986	27,150	12,000	371	330	6,291	587	3,686	2,328	1,556
1987	29,342	12,848	337	325	7,017	814	3,899	2,417	1,684
1988	29,973	13,198	332	301	6,684	1,090	4,034	2,538	1,796
1989	30,708	13,502	343	287	6,738	1,143	4,055	2,654	1,986
1990	31,013	13,628	351	282	6,800	1,138	4,166	2,655	1,992
1991	31,508	14,210	295	250	6,650	999	4,276	2,682	2,145
1992	32,206	14,557	284	173	6,767	1,095	4,353	2,606	2,370
1993	33,298	14,963	263	140	6,996	1,120	4,645	2,692	2,478
1994	34,289	15,469	264	143	7,376	884	4,832	2,706	2,615
1995	35,193	15,900	261	153	7,442	945	4,921	2,839	2,731
1996	35,901	16,299	242	154	7,467	858	5,109	3,118	2,654
<b>Public universities</b>									
1977	\$15,155	\$2,487	\$439	\$7,948	\$2,581	\$322	\$714	\$107	\$557
1978	15,410	2,514	463	8,095	2,567	331	747	151	540
1979	16,025	2,556	474	8,355	2,710	364	758	167	643
1980	15,898	2,525	406	8,240	2,760	341	790	179	656
1981	15,479	2,543	355	7,945	2,675	349	778	170	663
1982	15,141	2,659	321	7,789	2,391	327	810	173	671
1983	15,163	2,877	310	7,624	2,276	319	890	187	679
1984	15,662	2,997	311	7,929	2,326	297	903	207	692
1985	16,463	3,012	351	8,427	2,434	327	976	217	719
1986	17,099	3,186	351	8,629	2,530	345	1,062	243	754
1987	17,113	3,330	321	8,438	2,567	419	1,092	178	768
1988	17,597	3,492	263	8,578	2,712	430	1,164	175	784
1989	17,924	3,584	268	8,553	2,790	463	1,253	186	827
1990	18,014	3,668	252	8,426	2,808	515	1,325	189	831
1991	17,989	3,794	248	8,194	2,875	532	1,296	192	858
1992	18,173	4,050	245	7,811	3,042	513	1,367	227	918
1993	18,661	4,340	248	7,716	3,218	511	1,445	238	944
1994	18,039	4,526	248	7,681	3,358	572	1,466	234	909
1995	19,424	4,668	239	7,823	3,430	594	1,471	246	952
1996	19,629	4,825	225	7,768	3,379	637	1,551	279	964

**Table 39-2 General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by revenue source and control and type of institution: Academic years ending 1977–96—Continued**

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
<b>Private, not-profit 4-year colleges</b>									
1977	\$11,258	\$6,945	\$105	\$235	\$1,218	\$228	\$1,758	\$658	\$110
1978	11,166	6,978	109	220	1,176	225	1,698	644	116
1979	11,292	7,021	114	213	1,243	224	1,661	697	118
1980	11,612	7,087	121	215	1,340	264	1,684	770	130
1981	11,583	7,137	125	217	1,238	263	1,662	804	137
1982	11,663	7,353	99	204	1,076	266	1,657	889	120
1983	11,868	7,672	73	205	915	280	1,714	888	122
1984	12,175	7,918	67	205	932	288	1,733	896	136
1985	12,599	8,170	68	201	964	315	1,801	948	132
1986	12,953	8,402	63	206	1,015	337	1,830	964	137
1987	13,725	8,947	76	222	1,009	399	1,930	994	147
1988	14,026	9,193	76	230	1,038	429	1,884	1,025	150
1989	14,216	9,383	61	192	1,013	515	1,843	1,060	150
1990	14,477	9,684	54	179	1,026	545	1,788	1,056	144
1991	14,573	9,919	54	167	992	513	1,756	1,034	138
1992	14,889	10,255	55	124	1,039	609	1,706	961	141
1993	15,126	10,474	40	108	1,069	574	1,712	922	226
1994	15,495	10,786	34	110	1,092	618	1,729	891	236
1995	15,894	11,111	34	85	1,137	593	1,844	932	158
1996	16,458	11,337	32	86	1,084	613	2,057	1,076	171
<b>Public 4-year colleges</b>									
1977	\$11,384	\$1,865	\$559	\$6,907	\$1,322	\$236	\$270	\$36	\$188
1978	11,497	1,838	560	7,061	1,257	254	288	28	210
1979	11,863	1,806	584	7,313	1,327	276	294	34	230
1980	11,990	1,785	604	7,372	1,353	267	311	41	256
1981	11,780	1,808	628	7,168	1,289	262	314	46	265
1982	11,725	1,892	546	7,212	1,137	251	344	50	293
1983	11,406	1,943	545	6,983	988	245	369	46	287
1984	11,559	2,104	542	6,911	987	266	385	49	316
1985	12,274	2,161	563	7,451	1,015	263	420	50	349
1986	12,702	2,243	542	7,627	1,071	326	459	54	379
1987	12,478	2,245	539	7,333	1,045	373	470	60	414
1988	12,684	2,336	539	7,412	1,056	363	467	62	449
1989	12,511	2,401	352	7,264	1,075	375	513	69	461
1990	12,422	2,443	526	6,910	1,068	392	537	69	478
1991	11,891	2,458	455	6,401	1,061	406	569	40	499
1992	12,122	2,703	439	6,220	1,136	444	598	73	508
1993	12,483	2,968	428	6,105	1,224	503	615	89	553
1994	12,642	3,083	457	6,013	1,277	533	629	74	576
1995	13,098	3,163	445	6,147	1,358	639	651	76	620
1996	13,133	3,263	459	6,021	1,399	726	668	57	540

**Table 39-2 General education revenues of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by revenue source and control and type of institution: Academic years ending 1977–96—Continued**

Academic year ending	Total	Tuition and fees*	Federal appropriations	State and local appropriations	Federal grants and contracts	State and local grants and contracts	Private gifts	Endowment	Sales and services of educational activities
<b>Public 2-year colleges</b>									
1977	\$6,057	\$1,018	\$120	\$4,393	\$349	\$119	\$31	\$4	\$24
1978	6,065	977	108	4,447	335	139	30	4	25
1979	6,191	979	120	4,500	372	154	29	4	32
1980	6,104	983	82	4,429	385	159	29	5	31
1981	5,822	979	72	4,176	364	163	29	6	32
1982	5,756	1,034	63	4,127	301	165	31	7	28
1983	5,386	1,039	44	3,847	233	156	30	8	29
1984	5,522	1,077	47	3,923	242	162	33	8	29
1985	6,012	1,147	45	4,264	278	204	37	8	30
1986	6,267	1,165	38	4,472	281	229	39	8	35
1987	6,361	1,177	47	4,481	264	307	40	9	36
1988	6,210	1,162	45	4,378	252	290	44	6	33
1989	6,394	1,220	42	4,394	268	381	50	6	31
1990	6,244	1,221	41	4,230	262	395	53	7	34
1991	6,230	1,274	43	4,202	260	356	56	6	33
1992	6,062	1,337	50	3,953	274	349	59	6	33
1993	6,145	1,438	37	3,916	309	334	60	6	45
1994	6,389	1,522	38	4,028	337	346	63	6	49
1995	6,560	1,534	33	4,134	359	372	72	8	47
1996	6,782	1,574	30	4,169	378	502	73	8	49

\* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

NOTE: The Higher Education Price Index (HEPI) was used to calculate constant dollars. Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students. Data for 1989 to 1995 were revised from previously published figures. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS) "Financial Statistics of Institutions of Higher Education" survey and Integrated Postsecondary Education Data System (IPEDS) "Institutional Characteristics," "Financial Statistics," and "Fall Enrollment" surveys.

**Table 40-1 Percentage distribution of educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–96**

Academic year ending	Total	Instruction	Administration <sup>1</sup>	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
<b>Private universities</b>										
1977	100.0	38.0	13.2	3.3	21.1	4.2	2.2	8.8	8.1	1.1
1978	100.0	37.9	13.4	3.4	20.8	4.2	2.1	8.7	8.4	1.1
1979	100.0	37.4	14.0	3.4	20.7	3.9	2.1	9.0	8.1	1.3
1980	100.0	37.9	14.2	3.4	20.5	3.7	2.3	8.9	7.9	1.3
1981	100.0	38.1	13.9	3.5	19.8	3.7	2.1	9.1	8.2	1.5
1982	100.0	39.1	13.8	3.6	18.9	3.7	2.0	9.5	8.2	1.2
1983	100.0	39.4	14.8	3.7	17.9	3.6	2.1	9.2	8.2	1.2
1984	100.0	38.6	15.2	3.7	17.7	3.8	2.0	9.1	8.8	1.2
1985	100.0	38.0	14.9	3.8	18.1	3.5	2.4	8.9	8.9	1.4
1986	100.0	37.8	15.0	3.8	18.5	3.5	2.4	8.6	9.1	1.3
1987	100.0	38.4	15.2	3.9	18.4	3.1	2.6	7.7	9.4	1.4
1988	100.0	37.5	15.2	3.8	18.7	3.5	2.5	7.7	9.6	1.5
1989	100.0	38.0	15.2	3.7	18.4	3.4	2.5	7.5	9.7	1.6
1990	100.0	37.8	14.7	3.7	18.6	3.4	2.5	7.5	9.9	1.8
1991	100.0	38.3	14.8	3.8	17.8	3.2	2.6	7.8	10.3	1.6
1992	100.0	38.2	14.8	3.7	17.4	3.2	2.5	7.5	11.1	1.6
1993	100.0	38.4	14.1	3.5	17.9	3.2	2.7	7.3	11.4	1.7
1994	100.0	38.5	13.9	3.6	17.7	3.2	2.8	7.3	11.4	1.8
1995	100.0	38.3	13.7	3.6	17.9	3.3	2.7	7.1	11.6	1.9
1996 <sup>2</sup>	100.0	37.4	15.3	3.8	17.6	3.2	2.6	6.9	11.4	1.8
<b>Public universities</b>										
1977	100.0	39.0	13.0	3.7	18.4	3.5	8.1	9.1	4.0	1.2
1978	100.0	39.2	13.2	3.8	18.6	3.4	7.9	9.2	3.8	1.0
1979	100.0	39.1	13.1	3.7	18.9	3.2	8.2	9.3	3.5	1.0
1980	100.0	38.8	12.5	3.8	19.5	3.7	8.1	9.2	3.5	1.0
1981	100.0	38.5	12.9	3.8	19.7	3.2	8.3	9.1	3.5	1.0
1982	100.0	38.8	13.1	3.8	19.3	3.2	8.1	9.4	3.5	0.9
1983	100.0	38.8	13.1	3.8	19.2	3.3	8.1	9.4	3.5	0.9
1984	100.0	38.6	13.1	3.7	19.1	3.3	8.0	9.4	3.6	1.0
1985	100.0	38.3	13.7	3.7	19.4	3.2	8.0	9.2	3.6	0.9
1986	100.0	37.7	13.9	3.7	19.7	3.2	8.0	8.8	3.8	1.2
1987	100.0	38.0	14.0	3.7	20.0	3.1	7.8	8.3	3.8	1.2
1988	100.0	37.3	13.9	3.7	20.6	3.2	7.8	8.1	4.0	1.4
1989	100.0	36.8	13.9	3.7	21.0	3.1	8.0	7.9	4.2	1.3
1990	100.0	36.6	13.8	3.7	21.4	3.1	8.1	7.8	4.3	1.4
1991	100.0	36.3	13.7	3.6	21.7	3.0	8.2	7.6	4.5	1.4
1992	100.0	36.0	13.3	3.7	22.0	3.0	8.3	7.4	4.9	1.5
1993	100.0	35.7	13.1	3.7	22.3	2.9	8.3	7.2	5.3	1.5
1994	100.0	35.3	13.3	3.7	22.4	2.9	8.1	7.2	5.6	1.5
1995	100.0	35.4	13.3	3.7	22.3	3.0	8.1	7.0	5.7	1.5
1996 <sup>2</sup>	100.0	35.3	13.7	3.8	21.8	3.0	8.2	6.9	5.9	1.5

**Table 40-1 Percentage distribution of educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–96—Continued**

Academic year ending	Total	Instruction	Administration <sup>1</sup>	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
<b>Private 4-year colleges</b>										
1977	100.0	37.3	20.4	7.4	5.0	3.9	2.4	11.2	10.0	2.3
1978	100.0	37.5	20.6	7.6	4.8	3.9	2.2	11.3	9.8	2.3
1979	100.0	37.2	20.7	7.7	5.2	3.8	2.2	11.2	9.6	2.3
1980	100.0	36.7	20.8	7.8	5.3	3.7	2.2	11.4	9.8	2.4
1981	100.0	36.1	21.1	7.9	5.1	3.6	2.3	11.5	10.1	2.3
1982	100.0	36.1	21.4	8.0	4.6	3.6	2.5	11.4	10.1	2.2
1983	100.0	36.2	21.7	8.2	4.5	3.6	2.4	11.1	10.0	2.2
1984	100.0	36.0	21.6	8.2	4.4	3.6	2.4	10.9	10.6	2.2
1985	100.0	35.6	21.7	8.3	4.6	3.5	2.4	10.6	11.1	2.3
1986	100.0	35.1	21.7	8.3	4.8	3.5	2.6	10.2	11.5	2.3
1987	100.0	34.3	22.8	8.3	4.9	2.9	2.7	9.7	12.1	2.2
1988	100.0	34.1	22.1	8.4	5.0	3.2	3.0	9.5	12.8	2.0
1989	100.0	33.8	22.2	8.5	5.0	3.1	2.9	9.4	12.9	2.2
1990	100.0	33.5	21.9	8.5	4.9	3.1	3.1	9.1	13.6	2.2
1991	100.0	33.4	22.2	8.7	4.4	2.9	3.1	8.9	14.2	2.2
1992	100.0	33.1	21.4	8.7	4.3	3.0	3.2	8.6	15.7	2.1
1993	100.0	32.8	20.7	8.7	4.4	2.9	3.5	8.5	16.5	2.1
1994	100.0	32.3	20.6	8.7	4.4	2.9	3.5	8.4	17.1	2.1
1995	100.0	32.3	20.1	8.7	4.3	2.8	3.9	8.1	17.6	2.2
1996 <sup>2</sup>	100.0	32.6	20.3	8.8	4.2	2.8	3.8	8.1	17.7	1.9
<b>Public 4-year colleges</b>										
1977	100.0	46.4	16.7	5.8	7.0	3.9	2.9	11.5	3.9	2.0
1978	100.0	46.2	16.7	6.0	7.1	3.9	2.9	11.7	3.5	2.1
1979	100.0	45.6	17.1	6.2	7.5	3.8	2.9	11.6	3.2	2.0
1980	100.0	44.9	17.3	6.2	8.0	3.8	3.1	11.7	3.3	1.8
1981	100.0	44.8	17.2	6.1	7.9	3.9	3.1	11.9	3.1	1.8
1982	100.0	45.7	17.6	5.8	7.6	3.7	3.1	12.1	2.8	1.6
1983	100.0	45.7	17.4	5.9	7.5	3.7	3.1	12.1	2.9	1.7
1984	100.0	45.1	18.2	6.3	7.5	3.8	3.1	11.3	2.9	1.7
1985	100.0	44.8	18.4	6.2	7.7	3.7	3.3	11.7	2.7	1.6
1986	100.0	45.0	18.4	6.2	8.2	3.6	3.3	10.7	2.9	1.8
1987	100.0	44.7	18.7	6.1	8.6	3.2	3.6	10.4	3.1	1.6
1988	100.0	44.6	18.4	6.2	8.9	3.3	3.7	10.1	3.1	1.6
1989	100.0	44.6	18.2	6.1	9.4	3.3	3.8	9.9	3.1	1.6
1990	100.0	44.4	18.7	6.1	9.3	3.3	4.0	9.6	3.2	1.6
1991	100.0	44.3	18.6	6.2	9.5	3.1	4.0	9.4	3.3	1.5
1992	100.0	43.2	18.9	6.1	9.7	3.1	4.3	9.1	4.1	1.6
1993	100.0	42.0	19.4	6.5	9.8	3.0	4.4	8.9	4.4	1.6
1994	100.0	42.1	18.8	6.2	10.1	3.0	4.4	8.9	4.9	1.6
1995	100.0	41.8	18.8	6.1	10.1	3.0	4.5	8.7	5.1	1.9
1996 <sup>2</sup>	100.0	40.9	19.7	5.8	10.1	2.9	4.6	8.7	5.4	1.8

**Table 40-1 Percentage distribution of educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student, by expenditure categories and control and type of institution: Academic years ending 1977–96—Continued**

Academic year ending	Total	Instruction	Administration <sup>1</sup>	Student services	Research	Libraries	Public service	Operation and maintenance of plant	Scholarships and fellowships	Mandatory transfers
<b>Public 2-year colleges</b>										
1977	100.0	51.1	18.1	8.4	0.3	3.5	2.0	11.2	2.9	2.4
1978	100.0	50.6	19.4	8.2	0.2	3.5	2.1	11.3	2.2	2.4
1979	100.0	50.2	19.5	8.4	0.4	3.4	1.9	11.3	2.2	2.6
1980	100.0	50.3	19.0	8.6	0.4	3.2	2.2	11.7	2.3	2.2
1981	100.0	50.6	19.1	8.7	0.4	3.1	2.2	12.0	2.3	1.7
1982	100.0	50.9	19.0	8.8	0.2	3.4	1.9	12.3	2.1	1.5
1983	100.0	50.9	19.5	8.9	0.2	3.0	1.5	12.3	2.1	1.6
1984	100.0	50.8	19.8	8.8	0.2	3.0	1.7	12.2	2.0	1.5
1985	100.0	50.3	20.2	8.8	0.2	2.9	2.0	12.1	2.2	1.4
1986	100.0	49.9	20.7	9.0	0.1	2.9	2.0	11.9	2.2	1.4
1987	100.0	49.6	21.8	9.4	0.1	2.3	2.2	11.5	2.2	0.8
1988	100.0	49.2	21.3	9.9	0.1	2.7	2.3	11.4	2.4	0.8
1989	100.0	49.6	21.5	9.5	0.1	2.6	2.5	11.2	2.4	0.7
1990	100.0	49.8	21.5	9.7	0.1	2.5	2.4	11.0	2.3	0.7
1991	100.0	49.9	21.6	9.9	0.1	2.5	2.4	10.7	2.4	0.6
1992	100.0	50.3	20.9	10.2	0.2	2.4	2.2	10.4	2.8	0.6
1993	100.0	50.1	20.9	10.4	0.2	2.3	2.3	10.1	3.1	0.6
1994	100.0	49.4	21.0	10.4	0.2	2.3	2.4	10.3	3.4	0.7
1995	100.0	49.0	21.0	10.5	0.2	2.2	2.3	10.2	3.7	0.7
1996 <sup>2</sup>	100.0	48.1	21.6	10.7	0.1	2.2	2.3	10.3	3.9	0.8

<sup>1</sup> Includes institutional and academic support. Libraries were excluded.

<sup>2</sup> Preliminary data.

NOTE: Data for academic years 1976–77 through 1985–86 include only institutions that provided both enrollment and finance data. FTE students include both undergraduate and graduate students. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*, tables 338–342, (based on the IPEDS “Institutional Characteristics,” “Financial Statistics,” and “Fall Enrollment” surveys).

## International comparisons of education expenditures

The purpose of this indicator is to compare expenditures for education in public and private institutions to Gross Domestic Product (GDP).

### Definitions

*Public education expenditures* include funds provided both to public and private schools by federal, state, and local governments either directly or through students. This includes expenditures at public schools funded by public sources and subsidies from government agencies to students at private schools from government agencies.

*Private education expenditures* are expenditures financed by private sources—households, private nonprofit institutions, businesses, and corporations. This includes expenditures supported by public and private school tuition and fees, such as student expenses for books and materials.

*Gross Domestic Product (GDP)* is an aggregate measure of the value of goods and services produced in a country.

### Expenditures in the United States

#### *Elementary and secondary education*

For the United States, *public expenditures for primary and secondary education* include expenditures in local public school districts and private schools; schools administered by religious organizations, funded by state and local taxes, federal programs administered by the U.S. Department of Education (ED); and federal programs operated outside of ED that are not administered by state or local education agencies (e.g., Head Start, Department of Defense Schools, and schools operated by the Bureau of Indian Affairs).

Also included in public expenditures for primary and secondary education are federal expenditures to operate ED and activities such as research, statistics, assessment, and school improvement, and state expenditures to operate state departments of education and other direct state expenditures, including state schools for the deaf and blind and reform schools.

For the United States, elementary education includes education provided to students in grades 1–6; secondary education covers grades 7–12.

Some expenditures, such as those for federal or state agency administration and those for non-graded special education programs, cannot be assigned to particular grade levels, because the expenditures defy strict grade-level categorizations. The United States, like some other countries, has chosen to prorate these expenditures over the grade levels based on the relative size of enrollments, staffing, and teacher salaries. However, other countries have chosen not to allocate such expenditures, classifying them, instead, as “undistributed.”

#### *Higher education*

*Public expenditures for higher education* in the United States include expenditures at both public and private colleges and universities funded by federal, state, and local governments. The Integrated Postsecondary Education Data System (IPEDS), the core postsecondary education data collection program for the National Center for Education Statistics (NCES), gathers institutional reports for revenue received by both public and private institutions from both public and private sources. Expenditures by public and private nonprofit institutions are separated into public and private expenditures based on their relative shares of current fund revenues.

Most federal aid goes to students who then spend it on education (e.g., tuition) and noneducation (room and board) services. For the purposes of calculating public expenditures for higher education in the United States, it was assumed that students spent 60 percent of federally administered Pell grants on education.

With the exception of Pell grant money, public expenditures for less-than-2-year public and private institutions, often called “proprietary” schools, were not available; therefore, the amount for *public expenditures for higher education* in the United States are biased downward. However, since the students participating in these institutions are also excluded from higher education enrollments, the estimate of *public expenditures per student* would be biased upward if the per-student public expenditures in less-than-2-year institutions were less than those in other higher education institutions.

*Private expenditures*

For the United States, as in other Organisation for Economic Co-operation and Development (OECD) countries, *private expenditures* refer to expenditures funded by private sources—mainly households, private nonprofit institutions, and firms and businesses. These include school fees; materials such as textbooks and teaching equipment; transport to school (if organized by the school); meals (if provided by the school); boarding fees; and expenditures by employers for initial vocational training.

**How expenditures are compared across countries**

To compare expenditures per student in the United States to expenditures per student in other countries, expenditures must be denominated in a common currency. Conversion of other countries' expenditures to U.S. dollars facilitates comparison with expenditures in the United States. There are at least two methods of conversion: 1) market exchange rates, and 2) Purchasing Power Parity (PPP) indices.

The market exchange rate is the rate at which an individual can exchange the currencies of two countries. It is determined by relative confidence in the governments, their monetary systems, and the economies of the two countries and by the relative demand for the goods and services that the two countries trade. Market exchange rates can be highly volatile.

PPP indices are calculated by comparing the cost of a fixed market basket of goods in each country. Changes over time in a PPP index are determined by the rates of inflation in each country. Since PPP indices are less volatile than market exchange rates, they were used here to adjust expenditures and GDP figures.

Because the fiscal year has a different starting month in different countries, within-country GDP consumer price deflators from the OECD National Accounts database were used to adjust education expenditures when the national fiscal year did not coincide with the calendar year 1994.

Even when expenditures are expressed in common currencies, comparing national expenditures can be difficult because the data are dependent on numerous factors, including the size of the economy, the population, and enrollment rates. In addition, the coverage and character of the education expenditure data that countries submit to the OECD vary. For a detailed examination of some of the problems that exist in comparing education expenditures across countries, see *Education at a Glance: OECD Indicators*, 1998, published by the OECD Center for Educational Research and Innovation.

SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance: OECD Indicators*, 1998.

**Table 42-1** Percentage distribution of full-time, full-year undergraduates in each academic year according to loan package, by dependency status: 1992-93 and 1995-96\*

Type of loan	Dependency status					
	Total		Dependent		Independent	
	1992-93	1995-96	1992-93	1995-96	1992-93	1995-96
Subsidized only	26.1	26.2	25.0	27.7	29.1	22.0
Subsidized and unsubsidized	3.5	10.6	0.7	5.8	10.7	24.3
Unsubsidized only	0.3	5.5	0.1	6.4	0.8	2.8
No federal student loan	70.0	57.8	74.3	60.2	59.4	50.9

\* In 1992-93, subsidized federal student loans were offered through the Stafford Loan Program and unsubsidized federal student loans through the Supplemental Loans for Students (SLS) program. In 1995-96, both subsidized and unsubsidized federal student loans were offered through the Stafford Federal Loan Program.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1992-93 and 1995-96.

## Trends in student borrowing: Subsidized and unsubsidized Stafford Loans

Prior to the 1992 Reauthorization of the Higher Education Act, the Student Loan Program consisted only of subsidized loans, in which the federal government paid the interest while the students were enrolled in a postsecondary institution. Independent undergraduates could receive unsubsidized loans (which accrued interest while the students were enrolled) through the federal Supplemental Loans for Students (SLS) program, which was available to dependent students only on an exceptional basis. Before 1993–94, however, the percentage of students borrowing from the SLS program was small. In 1993–94, SLS was replaced by unsubsidized Stafford loans, whose target population was expanded to include dependent as well as independent students. Both types of Stafford loans are offered through the Federal Family Education Loan Program (administered by banks and other lending institutions), and the Direct Student Loan Program (administered by postsecondary institutions).

The maximum amounts of unsubsidized federal student loans that may be borrowed vary with dependency status and class level. In 1995–96, dependent undergraduates could borrow up to

\$2,625 in the first year, \$3,500 in the second year, and \$5,500 in the third and following years. The limits were higher for independent undergraduates, who could borrow up to \$4,000 in the first and second years, and \$5,000 in the third and following years.

The data in this indicator are for full-time, full-year undergraduates. Thirty-five percent of undergraduates attended full time, full year in 1992–93, while 38 percent did so in 1995–96.

Income quartiles are based on the distribution of all dependent or independent students, while the tables are limited to a subset of full-time, full-year students. In 1993, the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles for all dependent students corresponded to family incomes of \$26,976, \$44,246, and \$59,839. The values for all independent students in 1993 were \$9,920, \$20,735, and \$35,510.

In 1996, the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles for all dependent students corresponded to family incomes of \$25,100, \$46,838, and \$71,134. The values for all independent students in 1996 were \$8,252, \$19,125, and \$34,975.

**Table 43-1 Percentage of full-time, full-year graduate and first-professional students with various types of aid, percentage who worked while enrolled, and average hours worked per week while enrolled, by degree program and type of institution: Academic year 1995–96**

Degree program and type of institution	Any aid	Any grants <sup>1</sup>	Tuition waiver <sup>2</sup>	Any loans	Any assistant-ships	Worked while enrolled	Average hours worked per week <sup>3</sup>
<b>Total<sup>4</sup></b>	<b>76.1</b>	<b>40.4</b>	<b>11.7</b>	<b>48.7</b>	<b>19.5</b>	<b>63.7</b>	<b>26.1</b>
Master's degree <sup>4</sup>	72.2	39.9	13.1	43.1	19.6	71.6	27.7
Public	74.7	39.2	17.8	39.5	28.9	74.3	26.5
Private, not-for-profit	69.4	42.1	6.7	48.6	6.6	66.3	28.0
Doctor's degree <sup>4</sup>	81.5	48.0	22.8	27.2	48.7	70.2	28.6
Public	85.9	48.5	30.9	26.7	59.9	82.3	26.6
Private, not-for-profit	77.5	54.9	12.4	22.6	37.3	53.0	33.0
First-professional degree <sup>4,5</sup>	83.2	38.7	3.0	74.4	4.0	44.1	20.7
Public	85.7	42.8	3.8	79.0	4.1	37.5	20.2
Private, not-for-profit	81.0	35.2	2.4	70.6	3.8	49.0	20.9

<sup>1</sup> Grants include scholarships, fellowships, tuition waivers, and employer aid (forms of aid that do not have to be repaid).

<sup>2</sup> Also included in the "Any grants" column.

<sup>3</sup> For students who worked.

<sup>4</sup> Total includes students in graduate programs other than master's, doctor's, and first-professional. Total and degree program totals include students in private, for-profit institutions.

<sup>5</sup> First-professional programs include medicine, chiropractic, dentistry, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology.

NOTE: Twenty-six percent of master's students, 46 percent of doctor's students, and 81 percent of first-professional students were enrolled full time, full year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

**Table 43-2 Average amount of aid received by graduate and first-professional students with various types of aid, by type of aid, degree program, and type of institution: Academic year 1995–96**

Degree program and type of institution	Any aid	Any grants <sup>1</sup>	Tuition waiver <sup>2</sup>	Any loans	Any assistantships
<b>All students</b>					
<b>Total<sup>3</sup></b>	<b>\$9,814</b>	<b>\$3,931</b>	<b>\$3,187</b>	<b>\$11,946</b>	<b>\$7,002</b>
Master's degree <sup>3</sup>	7,825	3,476	2,901	9,902	6,106
Public	7,007	2,931	2,724	8,174	6,243
Private, not-for-profit	9,140	4,222	3,326	11,990	5,289
Doctor's degree <sup>3</sup>	11,483	6,055	3,426	9,870	8,554
Public	10,116	4,241	3,154	8,449	8,195
Private, not-for-profit	14,070	9,393	—	11,186	9,725
First-professional degree <sup>3,4</sup>	17,357	4,611	3,745	16,500	6,118
Public	16,157	4,427	3,144	14,497	5,231
Private, not-for-profit	18,287	4,772	4,471	18,207	7,152
<b>Full-time, full-year students</b>					
<b>Total<sup>3</sup></b>	<b>\$14,362</b>	<b>\$5,968</b>	<b>\$4,220</b>	<b>\$13,748</b>	<b>\$7,334</b>
Master's degree <sup>3</sup>	12,143	5,738	3,991	11,511	6,242
Public	10,391	4,974	3,675	9,431	6,273
Private, not-for-profit	15,277	6,947	—	14,242	—
Doctor's degree <sup>3</sup>	13,690	7,825	3,622	10,346	8,749
Public	11,862	5,527	3,142	8,712	8,143
Private, not-for-profit	17,333	11,487	—	12,495	10,483
First-professional degree <sup>3,4</sup>	18,285	4,813	4,219	16,929	5,766
Public	16,262	4,413	3,503	14,642	—
Private, not-for-profit	20,067	5,218	—	19,059	—

— Too few sample observations for a reliable estimate.

<sup>1</sup> Grants include scholarships, fellowships, tuition waivers, and employer aid (forms of aid that do not have to be repaid).

<sup>2</sup> Also included in the "Any grants" column.

<sup>3</sup> Total includes students in graduate programs other than master's, doctor's, and first-professional. Total and degree program totals include students in private, for-profit institutions.

<sup>4</sup> First-professional programs include medicine, chiropractic, dentistry, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology.

NOTE: Twenty-six percent of master's students, 46 percent of doctoral students, and 81 percent of first-professional students were enrolled full time, full year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995–96, Graduate Data Analysis System.

**Table 44-1 Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs, kindergarten, or center-based programs and kindergarten,<sup>1</sup> by selected student characteristics: 1995**

Selected student characteristics	3-year-olds			4-year-olds			5-year-olds					
	Total <sup>2</sup>	Center-based programs	Kin-der-garten	Center-based and kinder-garten <sup>3</sup>	Total	Center-based programs	Kin-der-garten	Center-based and kinder-garten <sup>3</sup>	Total	Center-based programs	Kin-der-garten	Center-based and kinder-garten <sup>3</sup>
<b>Total</b>	<b>41.0</b>	<b>40.5</b>	—	—	<b>65.4</b>	<b>63.7</b>	<b>1.2</b>	<b>0.5</b>	<b>93.2</b>	<b>19.8</b>	<b>61.3</b>	<b>12.2</b>
Sex												
Male	39.6	39.3	—	—	65.1	63.5	0.9	0.7	92.8	21.8	58.1	12.9
Female	42.4	41.7	—	—	65.6	63.9	1.5	0.2	93.8	17.5	64.9	11.4
Race-ethnicity												
White	44.0	43.7	—	—	65.8	64.4	1.0	0.3	92.6	21.8	58.5	12.3
Black	44.6	43.7	—	—	72.9	70.8	2.0	0.0	94.5	18.0	62.7	13.8
Hispanic	22.4	21.3	—	—	50.1	46.6	1.6	1.9	93.2	13.0	74.1	6.1
Other	<sup>4</sup> 32.9	<sup>4</sup> 32.9	—	—	<sup>4</sup> 71.6	<sup>4</sup> 70.2	0.7	0.7	98.4	<sup>4</sup> 16.5	<sup>4</sup> 60.9	<sup>4</sup> 21.1
Household income												
\$10,000 or less	31.7	31.3	—	—	61.5	60.8	0.4	0.3	94.5	20.3	66.5	7.7
10,001–20,000	31.6	31.6	—	—	57.0	54.7	1.5	0.7	90.7	13.7	66.7	10.3
20,001–35,000	32.7	32.2	—	—	52.9	51.7	0.5	0.8	92.2	16.8	63.6	11.8
35,001–50,000	40.7	39.4	—	—	63.5	60.5	2.8	0.2	89.1	17.1	60.5	11.5
50,001 or more	62.1	62.0	—	—	84.5	83.1	1.1	0.4	97.3	26.6	53.6	17.0
Parents' highest education level												
Less than high school diploma	19.9	18.6	—	—	<sup>4</sup> 44.9	<sup>4</sup> 44.1	0.8	0.0	93.8	13.1	74.6	6.1
High school diploma or GED	29.3	28.7	—	—	56.7	55.6	0.5	0.6	91.7	16.9	64.6	10.2
Some college/vocational/technical	40.6	40.3	—	—	65.6	63.7	1.6	0.4	92.3	18.3	62.0	12.0
Bachelor's degree	55.1	55.0	—	—	76.6	74.4	2.2	0.0	96.2	23.6	55.8	16.9
Graduate/professional school	<sup>4</sup> 62.6	<sup>4</sup> 62.2	—	—	83.3	81.0	1.1	1.2	94.8	29.5	49.6	15.7
Family structure												
Two biological or adoptive parents	41.1	40.5	—	—	65.5	63.8	1.3	0.4	92.1	20.9	60.6	10.6
One biological or adoptive parent	43.6	43.6	—	—	65.8	64.4	0.9	0.5	95.4	17.2	60.6	17.6
One biological/adoptive and one stepparent	<sup>4</sup> 23.1	<sup>4</sup> 20.4	—	—	<sup>4</sup> 60.7	<sup>4</sup> 57.7	2.1	0.9	94.3	17.1	69.6	7.6
Other relatives	<sup>4</sup> 18.9	<sup>4</sup> 18.9	—	—	<sup>4</sup> 66.9	<sup>4</sup> 66.9	0.0	0.0	97.0	<sup>4</sup> 29.7	<sup>4</sup> 61.9	5.4
Mother's first language												
English	43.3	42.9	—	—	66.9	65.7	0.9	0.3	93.4	20.7	60.3	12.4
Spanish	16.5	15.8	—	—	44.9	39.7	2.5	2.8	93.1	10.7	77.1	5.3
Other	<sup>4</sup> 40.0	<sup>4</sup> 37.0	—	—	<sup>4</sup> 68.0	<sup>4</sup> 62.7	5.3	0.0	88.8	21.0	<sup>4</sup> 57.1	10.7
Poverty status <sup>5</sup>												
Poor	29.7	29.4	—	—	56.5	55.7	0.6	0.2	93.6	18.0	68.1	7.5
Nonpoor	45.5	45.0	—	—	68.5	66.5	1.4	0.6	93.1	20.4	58.9	13.9
Mother's employment status												
35 hours or more per week	48.2	47.5	—	—	<sup>4</sup> 69.5	67.3	1.1	1.2	93.7	19.9	51.7	22.1
Less than 35 hours per week	44.2	44.2	—	—	74.6	72.5	1.8	0.2	94.5	23.1	59.8	11.6
Looking for work	<sup>4</sup> 44.7	<sup>4</sup> 43.3	—	—	57.8	<sup>4</sup> 56.8	1.0	0.0	88.1	<sup>4</sup> 18.7	<sup>4</sup> 61.4	8.0
Not in labor force	31.7	31.4	—	—	<sup>4</sup> 56.7	55.6	1.1	0.0	92.8	18.4	71.7	2.7

— Too few observations for a reliable estimate.

<sup>1</sup> See the glossary for definitions of center-based programs and kindergarten.

<sup>2</sup> Includes children enrolled in kindergarten and center-based programs and kindergarten.

<sup>3</sup> Due to survey format, dual enrollment may be underestimated. See the supplemental note to this indicator for further discussion.

<sup>4</sup> Interpret with caution; standard errors are large due to small sample size.

<sup>5</sup> The poverty measure presented in this analysis was developed by combining information about household composition and household income. See the supplemental note to this indicator for further explanations.

NOTE: Included in the total but not shown separately are children from other types of family structures. This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31, 1994. Data are revised from previously published figures. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1995 (Early Childhood Program Participation File).

## Preprimary enrollment rates

### Age of the child

In this analysis, the age of a child was calculated as of December 31, 1990 for 1991 data; December 31, 1992 for 1993 data; December 31, 1994 for 1995 data; and December 31, 1995 for 1996 data.

### Enrollment rates

The numerator used to calculate the enrollment rates for this analysis is the number of 3-, 4-, and 5-year-olds who were enrolled in center-based programs or kindergarten, or both center-based programs and kindergarten (for the years 1991 and 1995) as of December 31, 1990, 1992, 1994, and 1995. The denominator used is the total number of children who were ages 3, 4, and 5 as of December 31, 1990, 1992, 1994, and 1995. Children who were enrolled in first grade or higher or who were in the “ungraded” category were excluded from this analysis.

In 1991 and 1995, the National Household Education Survey (NHES) allowed respondents to indicate whether a child was enrolled in both a center-based program and kindergarten (i.e., respondents were allowed to indicate whether a child was dually enrolled). For these two years, the supplemental tables to this indicator include center-based enrollment, kindergarten enrollment, and enrollment in both center-based programs and kindergarten.

In 1991 and 1995, respondents were only allowed to indicate if a child was dually enrolled only if the respondent first indicated that the child was enrolled in kindergarten. If a respondent first stated that a child was enrolled in a center-based program, the respondent was not allowed to indicate if the child was also enrolled in kindergarten. Due to this limitation in response options, dual enrollment may be underestimated.

### Race–ethnicity

A child’s race–ethnicity was determined by the composite of the National Household Education Survey (NHES) variables “race” and “Hispanic.” If the child’s ethnicity was Hispanic, he or she was classified as Hispanic, regardless of whether his or her race was classified as white, black, or other.

### Parents’ highest education level

“Parents’ highest education level” is defined as the highest education level of the child’s parents or nonparent guardians who resided in the household. Highest education level is based on the mother or female guardian or the highest education level of the father or male guardian. If only one parent resided in the household, that parent’s highest education level was used.

### Poverty measure

Children can be classified as below the poverty threshold (i.e., “poor”) or above the poverty threshold (i.e., “not poor”) using criteria for household size and income obtained from the Bureau of the Census and data from the NHES on household income and the number of persons living in the household for 1991, 1993, 1995, and 1996. In 1991 and 1993, household income data were collected in broad categories in the NHES. Therefore, it is not possible to determine a poverty threshold for these years with the same precision as in 1995 and 1996. The thresholds used to determine whether a child was “poor” or “not poor” differ by survey year. See table 1 for poverty thresholds for 1991, 1993, 1995, and 1996.

**Table 1** Weighted average poverty thresholds by household size: 1991, 1993, 1995, and 1996

Survey	Household size							
	2	3	4	5	6	7	8	9 or more
NHES:91	\$8,865	\$10,860	\$13,924	\$16,456	\$18,587	\$21,058	\$23,582	\$27,942
NHES:93	9,414	11,522	14,763	17,449	19,718	22,383	24,838	29,529
NHES:95	9,933	12,158	15,569	18,408	20,804	23,552	26,267	31,280
NHES:96	10,233	12,516	16,036	18,952	21,389	24,268	27,091	31,971

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991, 1993, 1995, and 1996.

**Table 45-1 Elementary and secondary school enrollment (in thousands), by control and grade level of school, with projections: Fall 1970–2008**

Fall of year	Total	Public schools			Private schools <sup>1</sup>		
		Grades PreK–12	Grades PreK–8	Grades 9–12	Grades PreK–12	Grades PreK–8	Grades 9–12
1970	51,257	45,894	32,558	13,336	5,363	4,052	1,311
1971	51,271	46,071	32,318	13,753	5,200	3,900	1,300
1972	50,726	45,726	31,879	13,848	5,000	3,700	1,300
1973	50,445	45,445	31,401	14,044	5,000	3,700	1,300
1974	50,073	45,073	30,971	14,103	5,000	3,700	1,300
1975	49,819	44,819	30,515	14,304	5,000	3,700	1,300
1976	49,478	44,311	29,997	14,314	5,167	3,825	1,342
1977	48,717	43,577	29,375	14,203	5,140	3,797	1,343
1978	47,637	42,551	28,463	14,088	5,086	3,732	1,353
1979	46,651	41,651	28,034	13,616	5,000	3,700	1,300
1980	46,208	40,877	27,647	13,231	5,331	3,992	1,339
1981	45,544	40,044	27,280	12,764	5,500	4,100	1,400
1982	45,166	39,566	27,161	12,405	5,600	4,200	1,400
1983	44,967	39,252	26,981	12,271	5,715	4,315	1,400
1984	44,908	39,208	26,905	12,304	5,700	4,300	1,400
1985	44,979	39,422	27,034	12,388	5,557	4,195	1,362
1986	45,205	39,753	27,420	12,333	5,452	4,116	1,336
1987	45,488	40,008	27,933	12,076	5,479	4,232	1,247
1988	45,430	40,189	28,501	11,687	5,241	4,036	1,206
1989	45,898	40,543	29,152	11,390	5,355	4,162	1,193
1990	46,448	41,217	29,878	11,338	5,232	4,095	1,137
1991	47,246	42,047	30,506	11,541	5,199	4,074	1,125
1992	48,198	42,823	31,088	11,735	5,375	4,212	1,163
1993	48,936	43,465	31,504	11,961	5,471	4,280	1,191
1994	49,707	44,111	31,898	12,213	5,596	4,360	1,236
1995	50,540	44,840	32,341	12,500	5,700	4,431	1,269
1996 <sup>2</sup>	51,375	45,592	32,759	12,834	5,783	4,486	1,297
1997 <sup>3</sup>	51,821	45,953	32,951	13,003	5,867	4,545	1,322
1998 <sup>3</sup>	52,718	46,792	33,522	13,270	5,927	4,588	1,339
				<b>Projected<sup>4</sup></b>			
1999	53,112	47,143	33,722	13,420	5,970	4,616	1,354
2000	53,445	47,439	33,903	13,537	6,006	4,640	1,366
2001	53,736	47,698	34,055	13,643	6,038	4,661	1,376
2002	53,987	47,924	34,124	13,800	6,063	4,671	1,392
2003	54,153	48,075	34,124	13,951	6,078	4,671	1,407
2004	54,308	48,221	33,958	14,263	6,087	4,648	1,439
2005	54,426	48,335	33,756	14,579	6,091	4,620	1,471
2006	54,457	48,368	33,584	14,785	6,088	4,597	1,491
2007	54,425	48,342	33,489	14,854	6,082	4,584	1,498
2008	54,268	48,201	33,455	14,746	6,067	4,579	1,488

<sup>1</sup> Beginning in fall 1980, data include estimates for the expanded universe of private schools.

<sup>2</sup> Estimates based on preliminary data.

<sup>3</sup> Projected.

<sup>4</sup> Enrollment includes students in kindergarten through grade 12 and some nursery school students.

NOTE: The private school enrollment figures for years 1971–75, 1979, 1981–82, 1984, and 1986 are estimated. The 1987 private school enrollment numbers are taken from the Private School Survey (PSS).

Private school enrollment figures for grades preK–8 and 9–12 for the years 1988–93 are estimated from the preK–12 totals. Projections are based on data through 1995. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1998*, table 3 (based on Common Core of Data) and *Projections of Education Statistics to 2008*, 1998, table 1.

**Table 45-2 Public elementary and secondary school enrollment (in thousands), by region: Fall 1970–97**

Fall of year	United States		Northeast		Midwest		South		West	
	Total number	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
1970 <sup>1</sup>	45,894	9,860	21.5	12,936	28.2	14,759	32.2	8,339	18.2	
1971 <sup>1</sup>	46,071	9,972	21.6	12,970	28.2	14,777	32.1	8,353	18.1	
1972 <sup>1</sup>	45,726	9,962	21.8	12,869	28.1	14,633	32.0	8,263	18.1	
1973 <sup>1</sup>	45,445	9,849	21.7	12,667	27.9	14,677	32.3	8,252	18.2	
1974 <sup>1</sup>	45,073	9,755	21.6	12,511	27.8	14,627	32.5	8,180	18.1	
1975 <sup>1</sup>	44,819	9,679	21.6	12,295	27.4	14,654	32.7	8,191	18.3	
1976 <sup>1</sup>	44,311	9,465	21.4	12,097	27.3	14,578	32.9	8,171	18.4	
1977 <sup>1</sup>	43,577	9,156	21.0	11,764	27.0	14,561	33.4	8,097	18.6	
1978 <sup>1</sup>	42,551	8,828	20.7	11,321	26.6	14,432	33.9	7,970	18.7	
1979 <sup>1</sup>	41,651	8,480	20.4	11,032	26.5	14,258	34.2	7,881	18.9	
1980 <sup>1</sup>	40,877	8,215	20.1	10,698	26.2	14,134	34.6	7,831	19.2	
1981 <sup>1</sup>	40,044	7,891	19.7	10,372	25.9	13,990	34.9	7,791	19.5	
1982 <sup>1</sup>	39,566	7,674	19.4	10,139	25.6	13,945	35.2	7,807	19.7	
1983 <sup>1</sup>	39,252	7,513	19.1	9,986	25.4	13,914	35.4	7,839	20.0	
1984 <sup>1</sup>	39,208	7,395	18.9	9,889	25.2	13,963	35.6	7,961	20.3	
1985	39,422	7,318	18.6	9,862	25.0	14,117	35.8	8,124	20.6	
1986	39,753	7,294	18.3	9,871	24.8	14,312	36.0	8,276	20.8	
1987	40,008	7,252	18.1	9,870	24.7	14,419	36.0	8,468	21.2	
1988	40,189	7,208	17.9	9,846	24.5	14,491	36.1	8,644	21.5	
1989	40,543	7,200	17.8	9,849	24.3	14,605	36.0	8,889	21.9	
1990	41,217	7,282	17.7	9,944	24.1	14,807	35.9	9,184	22.3	
1991	42,047	7,407	17.6	10,080	24.0	<sup>1</sup> 15,081	<sup>1</sup> 35.9	9,479	22.5	
1992	42,823	7,526	17.6	10,198	23.8	15,357	35.9	9,742	22.7	
1993	43,465	7,654	17.6	10,289	23.7	15,591	35.9	9,931	22.8	
1994	44,111	7,760	17.6	10,386	23.5	15,851	35.9	10,114	22.9	
1995	44,840	7,894	17.6	10,512	23.4	16,118	35.9	10,316	23.0	
1996 <sup>1</sup>	45,592	7,986	17.5	10,564	23.2	16,374	35.9	10,596	23.2	
1997 <sup>2</sup>	45,953	8,037	17.5	10,735	23.4	16,537	36.0	10,641	23.2	

<sup>1</sup> Revised from previously published figures.<sup>2</sup> Data estimated by state education agencies.

NOTE: Details may not add to totals due to rounding. Enrollment includes students in kindergarten through grade 12 and some nursery school students. The regions of the United States used for this analysis were designated by the Bureau of the Census in the Current Population Survey (CPS). The regions and their states follow:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi,

North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years, table 40 (based on Common Core of Data).

**Table 46-1** Percentage distribution of enrollment in public elementary and secondary schools, by race-ethnicity: 1976-96

Race-ethnicity	1976	1984	1986	1988	1990	1992*	1993*	1994*	1995*	1996*	1976-96 Percentage point change
<b>Total</b>	<b>100.0</b>	<b>—</b>									
White	76.0	71.2	70.4	70.7	67.8	66.7	66.1	65.6	64.8	64.2	-11.8
Total minority	24.0	28.8	29.6	29.3	32.1	33.3	34.0	34.4	35.1	35.8	11.8
Black	15.5	16.2	16.1	15.2	16.2	16.5	16.6	16.7	16.8	16.9	1.4
Hispanic	6.4	9.1	9.9	10.1	11.5	12.3	12.7	13.0	13.5	14.0	7.6
Asian/Pacific Islander	1.2	2.5	2.8	3.1	3.4	3.5	3.6	3.6	3.7	3.8	2.5
American Indian/Alaskan Native	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.1	0.3

— Not applicable.

\* Data are from the Common Core of Data (CCD) survey.

NOTE: Data shown in this table are taken from surveys other than the Current Population Survey (CPS) and are not comparable with the data in other tables of this analysis for this indicator. Enrollment includes kindergarten students and a small number of prekindergarten students. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, Office for Civil Rights, Elementary and Secondary School Civil Rights Survey, 1976, 1984, 1986, 1988, and 1990; National Center for Education Statistics, Common Core of Data Survey, 1992; and *Digest of Education Statistics, 1994, 1995, 1996, 1997, and 1998*, table 45.

**Table 47-1** Average percentage of white students in a minority student's school, by race-ethnicity and region:\* Fall 1987-96

Year	Region				
	South	Border states	Northeast	Midwest	West
<b>In a black student's school</b>					
1987	40.0	37.9	27.9	31.3	35.1
1988	39.6	38.0	26.7	31.5	35.7
1989	39.2	37.7	26.6	31.7	35.2
1990	39.0	37.5	26.4	31.6	34.9
1991	38.6	37.3	26.3	31.8	34.7
1992	38.2	36.8	26.2	31.5	34.3
1993	37.6	36.2	26.0	31.3	33.9
1994	37.1	35.7	25.8	31.1	33.5
1995	36.4	35.2	25.6	30.2	32.9
1996	35.9	34.6	25.2	29.6	32.3
Percentage point change	-4.1	-3.3	-2.7	-1.7	-2.8
<b>In a Hispanic student's school</b>					
1987	29.2	58.1	27.2	48.2	35.5
1988	29.0	59.0	26.0	48.1	35.0
1989	28.9	57.7	26.2	47.8	33.7
1990	28.9	56.5	26.4	47.5	32.8
1991	28.7	56.0	26.5	47.3	32.2
1992	28.6	54.9	26.5	47.0	31.7
1993	28.6	54.0	26.4	46.8	31.1
1994	28.6	53.1	26.3	46.7	30.5
1995	28.4	52.4	26.1	46.1	29.8
1996	28.3	51.8	26.1	45.6	29.2
Percentage point change	-0.9	-6.3	-1.1	-2.6	-6.3
<b>In an Asian student's school</b>					
1987	61.4	65.5	57.9	75.5	46.9
1988	61.1	66.2	57.5	75.0	46.0
1989	60.6	65.7	56.9	74.5	44.9
1990	60.1	64.8	56.6	73.8	44.0
1991	59.5	64.4	56.1	73.3	43.3
1992	58.5	63.4	55.1	72.6	42.5
1993	57.9	62.6	54.3	71.8	41.8
1994	57.2	62.2	53.6	70.9	41.2
1995	56.4	61.7	52.5	70.1	40.7
1996	55.6	61.0	51.7	69.4	40.3
Percentage point change	-5.8	-4.5	-6.2	-6.1	-6.6

\* Alaska and Hawaii are not included. See the supplemental note to this indicator for further explanations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

**Table 47-2 Percentage of white students in a black, Hispanic, or Asian student's school, as a ratio to the overall percentage of white students<sup>1</sup>, by region:<sup>2</sup> Fall 1987–96**

Fall	South	Border states	Northeast	Midwest	West
<b>Percentage of white students in a black student's school</b>					
1987	65.8	49.0	37.8	38.4	55.4
1988	65.6	49.1	36.3	38.7	57.5
1989	65.4	49.0	36.5	39.1	57.8
1990	65.4	49.0	36.6	39.1	58.4
1991	65.2	48.9	36.6	39.3	59.1
1992	65.0	48.5	36.8	39.1	59.2
1993	64.7	48.1	36.8	39.0	59.4
1994	64.3	47.8	36.8	39.0	59.4
1995	63.9	47.5	36.7	38.2	59.4
1996	63.6	47.1	36.5	37.6	59.4
Percentage point change	-2.2	-1.9	-1.3	-0.8	4.0
<b>Percentage of white students in a Hispanic student's school</b>					
1987	48.0	75.1	36.8	59.0	56.1
1988	48.0	76.2	35.4	59.1	56.4
1989	48.3	74.9	36.0	58.8	55.2
1990	48.5	73.7	36.6	58.6	54.8
1991	48.5	73.3	37.0	58.5	54.8
1992	48.7	72.4	37.2	58.5	54.6
1993	49.2	71.8	37.4	58.4	54.4
1994	49.6	71.1	37.5	58.6	54.1
1995	49.9	70.7	37.4	58.3	53.9
1996	50.2	70.6	37.7	58.0	53.6
Percentage point change	2.2	-4.5	0.9	-1.0	-2.5
<b>Percentage of white students in an Asian student's school</b>					
1987	101.1	84.6	78.4	92.6	74.0
1988	101.3	85.5	78.3	92.1	74.0
1989	101.1	85.2	78.1	91.7	73.7
1990	100.8	84.6	78.3	91.0	73.6
1991	100.5	84.4	78.2	90.7	73.7
1992	99.6	83.6	77.4	90.2	73.4
1993	99.5	83.3	76.9	89.5	73.1
1994	99.2	83.3	76.3	89.0	73.2
1995	99.0	83.3	75.3	88.5	73.5
1996	98.7	83.1	74.8	88.3	74.1
Percentage point change	-2.4	-1.5	-3.6	-4.3	0.1

<sup>1</sup> The data in this table show the exposure indices (from supplementary table 47-1) as percentages of the values that would be obtained if students were distributed uniformly across schools. For example, in 1987, in the South, the percentage of white students in a typical black student's school (40.0 percent) was 65.8 percent as great as the overall percentage of white students in the South (60.8 percent).

<sup>2</sup> Alaska and Hawaii are not included in any of the regions. See the supplemental note to this indicator for an explanation of regional divisions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

## Racial and ethnic isolation of elementary and secondary students

Regions presented in Indicator 48 were defined according to the U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File, as follows:

South: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia;

Border states: Delaware, District of Columbia, Kentucky, Maryland, Missouri, Oklahoma, West Virginia;

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont;

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin;

West: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming;

Other states: Alaska, Hawaii.

Alaska and Hawaii are not included in any of the national totals used in this indicator because the measures of isolation in these states have different implications than those for other states. The geographic isolation of Alaska and Hawaii limits the mobility of their residents, which affects the extent to which minority students' exposure to students who are white will change with respect to the changing demographics of these states' populations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Longitudinal Research File (School File).

**Table 48-1 Total and full-time-equivalent (FTE) enrollment in higher education, by control and type of institution: Fall 1972–96**

Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year
	<b>Total enrollment</b>				
1972	9,214,820	4,429,696	2,640,939	2,028,938	115,247
1973	9,602,123	4,529,895	2,889,621	2,060,128	122,479
1974	10,223,729	4,703,018	3,285,482	2,116,717	118,512
1975	11,184,859	4,998,142	3,836,366	2,216,598	133,753
1976	11,012,137	4,901,691	3,751,786	2,227,125	131,535
1977	11,285,787	4,945,224	3,901,769	2,297,621	141,173
1978	11,260,092	4,912,203	3,873,690	2,319,422	154,777
1979	11,569,899	4,980,012	4,056,810	2,373,221	159,856
1980	12,096,895	5,128,612	4,328,782	2,441,996	197,505
1981	12,371,672	5,166,324	4,480,708	2,489,137	235,503
1982	12,425,780	5,176,434	4,519,653	2,477,640	252,053
1983	12,464,661	5,223,404	4,459,330	2,517,791	264,136
1984	12,241,940	5,198,273	4,279,097	2,512,894	251,676
1985	12,247,055	5,209,540	4,269,733	2,506,438	261,344
1986	12,503,511	5,300,202	4,413,691	2,523,761	265,857
1987	12,766,642	5,432,200	4,541,054	2,558,220	235,168
1988	13,055,337	5,545,901	4,615,487	2,634,281	259,668
1989	13,538,560	5,694,303	4,883,660	2,693,368	267,229
1990	13,818,637	5,848,242	4,996,475	2,730,312	243,608
1991	14,358,953	5,904,748	5,404,815	2,802,305	247,085
1992	14,487,359	5,900,012	5,484,555	2,864,957	237,835
1993	14,304,803	5,851,760	5,337,328	2,887,176	228,539
1994	14,278,790	5,825,213	5,308,467	2,923,867	221,243
1995	14,261,781	5,814,545	5,277,829	2,954,707	214,700
1996*	14,300,255	5,806,904	5,283,267	2,995,931	214,153

**Table 48-1 Total and full-time-equivalent (FTE) enrollment in higher education, by control and type of institution: Fall 1972–96—Continued**

Fall of year	All institutions	Public 4-year	Public 2-year	Private 4-year	Private 2-year
<b>Full-time-equivalent (FTE) enrollment</b>					
1972	7,253,712	3,706,238	1,746,613	1,700,554	100,308
1973	7,453,467	3,721,035	1,908,533	1,718,191	105,708
1974	7,805,454	3,847,542	2,097,257	1,758,706	101,949
1975	8,479,688	4,056,500	2,465,810	1,843,903	113,475
1976	8,312,502	3,998,450	2,351,453	1,849,551	113,048
1977	8,415,339	4,039,071	2,357,405	1,896,005	122,858
1978	8,348,482	3,996,126	2,283,073	1,936,231	133,052
1979	8,487,317	4,059,304	2,333,313	1,956,768	137,932
1980	8,819,013	4,158,267	2,484,027	2,003,105	173,614
1981	9,014,521	4,208,506	2,572,794	2,041,341	191,880
1982	9,091,648	4,220,648	2,629,941	2,028,275	212,784
1983	9,166,398	4,265,807	2,615,672	2,059,415	225,504
1984	8,951,695	4,237,895	2,446,769	2,054,816	212,215
1985	8,943,433	4,239,622	2,428,159	2,054,717	220,935
1986	9,064,165	4,295,494	2,482,551	2,064,831	221,291
1987	9,229,736	4,395,728	2,541,961	2,090,776	201,269
1988	9,464,271	4,505,774	2,591,131	2,158,372	208,994
1989	9,780,881	4,619,828	2,751,762	2,193,774	215,517
1990	9,983,436	4,740,049	2,817,933	2,227,959	197,495
1991	10,360,606	4,795,704	3,067,141	2,285,750	212,011
1992	10,436,776	4,797,884	3,113,817	2,331,495	193,580
1993	10,351,415	4,765,983	3,046,411	2,354,938	184,083
1994	10,348,072	4,749,524	3,034,872	2,387,817	175,859
1995	10,334,956	4,757,223	2,994,592	2,415,621	167,520
1996*	10,402,260	4,767,248	3,008,050	2,464,432	162,530

\* Preliminary data.

NOTE: Increases in enrollments in private 2-year institutions during 1980 and 1981 reflect the addition of schools accredited by the National Association of Trade and Technical Schools. Due to a revision in data compilation procedures, FTE figures for 1986 and later years are not directly comparable to data for earlier years.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*, tables 173 and 200 (based on the IPEDS "Fall Enrollment" surveys).

**Table 49-1** Percentage distribution of total enrollment in institutions of higher education, by control and type of institution and race-ethnicity of student: Fall 1976-96

Control and type of institution and race-ethnicity of student	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996 <sup>1</sup>
<b>All institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	82.6	81.9	81.4	80.7	80.2	79.3	78.8	77.6	76.5	75.1	74.1	73.0	72.3	71.5
Total minority	15.4	15.9	16.1	16.6	17.0	17.9	18.4	19.6	20.6	21.8	22.7	23.8	24.5	25.2
Black	9.4	9.4	9.2	8.9	8.8	8.7	8.7	9.0	9.3	9.6	9.9	10.1	10.3	10.5
Hispanic	3.5	3.7	3.9	4.2	4.4	4.9	5.2	5.7	6.0	6.6	6.9	7.3	7.7	8.1
Asian/Pacific Islander	1.8	2.1	2.4	2.8	3.2	3.6	3.8	4.1	4.4	4.8	5.1	5.4	5.6	5.8
American Indian/Alaskan Native	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9
Nonresident alien	2.0	2.3	2.5	2.7	2.7	2.8	2.8	2.8	2.9	3.1	3.2	3.2	3.2	3.3
<b>Public institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	82.1	81.4	81.0	80.3	79.8	78.8	78.4	77.3	76.2	74.6	73.5	72.4	71.6	70.8
Total minority	16.2	16.7	16.9	17.5	17.9	18.9	19.2	20.3	21.3	22.8	23.8	24.9	25.7	26.5
Black	9.6	9.6	9.3	9.0	8.9	8.8	8.7	9.0	9.3	9.7	10.0	10.3	10.5	10.6
Hispanic	3.9	4.1	4.3	4.6	4.8	5.5	5.8	6.2	6.6	7.2	7.6	8.1	8.4	8.9
Asian/Pacific Islander	1.9	2.2	2.5	3.1	3.4	3.8	4.0	4.3	4.6	5.0	5.2	5.6	5.8	5.9
American Indian/Alaskan Native	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0
Nonresident alien	1.7	1.9	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.6	2.7	2.7	2.7	2.7
<b>Private institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	84.5	83.6	82.8	82.1	81.8	81.3	80.3	78.6	77.6	76.8	76.2	75.4	74.6	74.1
Total minority	12.4	13.0	13.4	13.7	14.0	14.4	15.4	17.0	17.7	18.4	18.9	19.7	20.4	20.9
Black	8.6	8.7	8.8	8.5	8.4	8.2	8.6	9.1	9.2	9.4	9.6	9.7	9.9	10.0
Hispanic	2.0	2.2	2.5	2.7	2.8	3.1	3.2	3.7	4.1	4.3	4.4	4.7	4.9	5.1
Asian/Pacific Islander	1.4	1.6	1.8	2.0	2.4	2.8	3.2	3.8	4.0	4.2	4.4	4.8	5.0	5.2
American Indian/Alaskan Native	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
Nonresident alien	3.1	3.5	3.8	4.2	4.2	4.3	4.3	4.4	4.6	4.8	4.9	4.9	5.0	5.0
<b>All 4-year institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	84.4	83.7	82.9	82.5	81.8	81.0	80.5	78.9	78.0	76.9	76.0	75.0	74.3	73.6
Total minority	13.1	13.5	13.9	14.0	14.6	15.3	15.8	17.3	18.1	19.0	19.8	20.8	21.5	22.1
Black	8.5	8.5	8.4	8.0	8.0	7.9	8.0	8.4	8.7	9.0	9.3	9.5	9.7	9.9
Hispanic	2.4	2.6	2.9	3.0	3.2	3.6	3.6	4.2	4.4	4.7	4.9	5.3	5.5	5.8
Asian/Pacific Islander	1.7	1.9	2.1	2.5	2.9	3.3	3.6	4.2	4.4	4.6	4.9	5.3	5.5	5.7
American Indian/Alaskan Native	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8
Nonresident alien	2.5	2.8	3.2	3.5	3.7	3.7	3.7	3.8	3.9	4.1	4.2	4.2	4.2	4.2
<b>Public 4-year institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	84.2	83.4	82.7	82.3	81.4	80.7	80.4	78.8	77.9	76.8	75.8	74.8	74.0	73.4
Total minority	13.6	14.1	14.5	14.6	15.3	16.0	16.4	17.9	18.7	19.6	20.5	21.6	22.3	22.9
Black	8.6	8.7	8.5	8.1	8.2	8.0	8.1	8.5	8.7	9.1	9.4	9.6	9.8	10.0
Hispanic	2.6	2.9	3.0	3.2	3.4	3.9	3.9	4.5	4.7	5.0	5.3	5.7	6.0	6.2
Asian/Pacific Islander	1.8	2.0	2.3	2.7	3.1	3.5	3.8	4.3	4.5	4.8	5.1	5.4	5.7	5.9
American Indian/Alaskan Native	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
Nonresident alien	2.2	2.5	2.8	3.1	3.3	3.3	3.3	3.4	3.5	3.6	3.7	3.7	3.6	3.7

**Table 49-1 Percentage distribution of total enrollment in institutions of higher education, by control and type of institution and race-ethnicity of student: Fall 1976-96—Continued**

Control and type of institution and race-ethnicity of student	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996 <sup>1</sup>
<b>Private 4-year institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	84.9	84.2	83.3	82.8	82.5	81.7	80.8	79.2	78.3	77.2	76.4	75.6	74.9	74.2
Total minority	11.9	12.3	12.7	12.8	13.1	13.7	14.6	16.1	16.8	17.7	18.4	19.2	19.8	20.5
Black	8.2	8.1	8.0	7.8	7.6	7.6	7.9	8.4	8.6	8.9	9.2	9.3	9.5	9.7
Hispanic	2.0	2.2	2.5	2.6	2.7	2.9	3.0	3.5	3.7	4.0	4.2	4.5	4.7	5.0
Asian/Pacific Islander	1.4	1.7	1.8	2.1	2.5	2.9	3.3	3.9	4.1	4.4	4.6	5.0	5.2	5.3
American Indian/Alaskan Native	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Nonresident alien	3.2	3.5	4.0	4.4	4.5	4.6	4.6	4.7	4.9	5.0	5.2	5.2	5.2	5.3
<b>All 2-year institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	79.3	78.6	78.7	77.9	77.6	76.6	76.0	75.5	74.3	72.2	71.2	69.8	69.1	68.1
Total minority	19.6	20.1	19.9	20.8	21.2	22.3	22.7	23.3	24.4	26.2	27.2	28.5	29.3	30.3
Black	11.1	11.0	10.4	10.3	10.1	10.0	9.7	10.0	10.2	10.5	10.8	11.1	11.3	11.4
Hispanic	5.4	5.6	5.6	6.1	6.4	7.3	7.9	8.1	8.6	9.5	10.0	10.5	11.1	11.7
Asian/Pacific Islander	2.0	2.4	2.8	3.3	3.7	4.0	4.1	4.1	4.5	5.1	5.3	5.7	5.7	5.9
American Indian/Alaskan Native	1.1	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2
Nonresident alien	1.1	1.3	1.4	1.3	1.2	1.1	1.2	1.3	1.3	1.6	1.6	1.7	1.6	1.7
<b>Public 2-year institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	79.3	78.8	78.8	78.0	77.8	76.6	76.1	75.6	74.5	72.2	71.1	69.7	69.0	67.9
Total minority	19.6	20.0	19.8	20.7	21.1	22.3	22.7	23.1	24.2	26.2	27.3	28.6	29.4	30.4
Black	10.9	10.7	10.1	10.0	9.8	9.7	9.4	9.6	9.9	10.3	10.6	11.0	11.1	11.3
Hispanic	5.5	5.7	5.8	6.2	6.5	7.4	8.0	8.2	8.6	9.6	10.1	10.7	11.2	11.9
Asian/Pacific Islander	2.1	2.5	2.8	3.4	3.8	4.1	4.2	4.2	4.6	5.2	5.4	5.8	5.8	6.0
American Indian/Alaskan Native	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2
Nonresident alien	1.0	1.2	1.4	1.3	1.2	1.1	1.2	1.3	1.3	1.6	1.6	1.7	1.6	1.7
<b>Private 2-year institutions</b>	<b>100.0</b>													
U.S. residents <sup>2</sup>														
White	78.6	74.8	75.1	75.0	75.9	77.1	75.4	71.7	70.4	71.5	73.0	72.5	70.8	72.0
Total minority	19.1	22.6	22.8	23.2	22.9	21.4	23.4	27.0	28.0	27.0	25.4	25.9	28.0	26.7
Black	15.3	18.1	18.1	16.8	15.4	13.9	16.0	17.6	16.4	15.4	14.4	14.4	15.5	14.9
Hispanic	2.3	3.2	2.6	4.1	4.5	5.3	5.1	6.1	8.2	7.5	7.5	7.6	8.4	7.7
Asian/Pacific Islander	0.8	0.6	1.0	1.4	1.9	1.5	1.6	2.0	2.3	2.3	2.4	2.6	2.9	2.9
American Indian/Alaskan Native	1.5	1.3	1.0	1.4	1.5	1.1	1.2	1.2	1.2	1.7	1.2	1.3	1.2	1.2
Nonresident alien	2.3	2.6	2.1	1.8	1.5	1.5	1.2	1.6	1.5	1.6	1.6	1.6	1.2	1.3

<sup>1</sup> Estimates based on preliminary data.<sup>2</sup> Includes U.S. citizens and resident aliens.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on the IPEDS "Fall Enrollment" surveys).

**Table 51-1 Event dropout rates<sup>1</sup> for those in grades 10–12, ages 15–24, by parents' highest education level:<sup>2</sup> October 1990–97**

Parents' highest education level	1990	1991	1992	1993	1994 <sup>3</sup>	1995 <sup>3</sup>	1996 <sup>3</sup>	1997 <sup>3</sup>
<b>Total</b>	<b>4.0</b>	<b>4.0</b>	<b>4.4</b>	<b>4.5</b>	<b>5.3</b>	<b>5.7</b>	<b>5.0</b>	<b>4.6</b>
Less than high school completion	9.6	7.4	11.2	9.9	10.9	11.9	10.2	11.7
High school completion	3.4	4.3	4.6	4.7	6.7	7.5	<sup>4</sup> 4.7	5.0
Some college	2.3	2.7	2.2	3.3	2.7	3.8	3.9	2.8
Bachelor's degree or higher	0.8	1.1	0.6	1.2	1.1	1.1	1.4	1.2
Not available <sup>5</sup>	24.9	<sup>5</sup> 22.2	18.9	17.3	24.7	22.7	27.8	19.5

<sup>1</sup> The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not graduated in October of the current year.

<sup>2</sup> Parents' highest education level is defined as either 1) the highest educational attainment of the two parents who reside with the student, or if only one parent is in the residence, the highest educational attainment of that parent; or 2) when neither parent resides with the student, the highest educational attainment of the head of the household and his or her spouse.

<sup>3</sup> In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to this indicator for further discussion.

<sup>4</sup> Revised from previously published figures.

<sup>5</sup> Parents' highest education level is not available for 1) those who do not live with their parents and who are classified as the head of the household (not including those who live in college dormitories); and 2) those whose parents' education level was not reported. In 1996, 23 percent of event dropouts ages 15–24 were in this category.

NOTE: Beginning in 1992, the Current Population Survey (CPS) changed the questions used to obtain the educational attainment of respondents. See the supplemental note to *Indicator 59* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys, various years.

## Recent school dropouts

In this indicator, recent school dropouts are measured using the event dropout rate. The event dropout rate is the percentage of students ages 15–24 enrolled in grades 10–12 in October of a given year who are not enrolled and have not graduated one year later.

Calculating the event dropout rate requires estimating 1) the number of students who left high school before graduating (recent dropouts) and 2) the number of students who were enrolled in grades 10, 11, and 12 the previous October. The event dropout rate for 1997 is calculated by using data from the October Current Population Survey (CPS). The numerator is estimated as the number of persons ages 15–24 who were enrolled in grades 10–12 in October 1996, who were not enrolled in grades 10–12 in October 1997, and who had not completed 12 years of school. The denominator is estimated as the event dropouts and those ages 15–24 who attended grades 10, 11, and 12 in October 1996 and were still enrolled, or who had completed 12 (or more) years of school and who indicated that they had graduated between October 1996 and October 1997. Those enrolled in special schools were counted as “not enrolled in regular school” and may have been classified as recent dropouts if they were enrolled in a regular school the previous October.

### Change in CPS questions used to report educational attainment

From 1972 to 1991, the CPS defined educational attainment as “years of school completed.” Individuals who completed 12 years of school were regarded as high school graduates and those who completed 16 years of school were considered college graduates. The number of years of school completed was based on responses to two questions: 1) “What is the highest grade . . . ever attended?” and 2) “Did . . . complete it?” For example, individuals who responded that the highest grade they ever attended was the first year of college and that they did not complete it were regarded as having completed 12 years of school.

Beginning in 1992, these two questions were combined into a single question: “What is the highest

level of school . . . completed or the highest degree . . . received?” Previously, the earlier high school levels were listed as single summary categories such as “9<sup>th</sup>-grade, 10<sup>th</sup>-grade, or 11<sup>th</sup>-grade.” Then, several new categories were added, including “12<sup>th</sup> grade, no diploma”; “H.S. graduate—diploma or equivalent”; and “Some college—no degree.” Finally, college degrees were listed by type, allowing for a more accurate description of educational attainment. See the supplemental note to *Indicator 60* for further discussion on the effects of this change in measuring educational attainment.

### Procedural changes

In 1994, the Bureau of the Census introduced several changes to the procedures used in the CPS. These changes may affect the comparability of current statistics to those derived from earlier surveys. In 1994, the sample weights were calculated using information from both the 1980 and the 1990 Decennial Censuses, and adjustments for undercounts were included. These adjustments resulted in the assignment of higher weights to any age, sex, or race–ethnicity group that was found to be underrepresented in the 1990 Census. In earlier surveys, 1990 population figures were based on the 1980 Decennial Census and information collected during the 1980s on births, deaths, and migration, and no adjustments for undercounts were made. If, for some groups, the latter produces different population estimates than the former, the sample weights would change, along with the statistics used to calculate them.

Also, the Bureau began using Computer-Aided Personal (and Telephone) Interviews (CAPI and CATI) to administer the survey in 1994. For earlier surveys, interviewers were given printed questionnaires to use. It is well known that the method in which a survey is administered can effect its responses. Although substantial testing was performed to minimize or predict these effects, all questions were not tested. Therefore, some statistics, such as dropout rates, may be affected by the change in survey procedures.

**Table 52-1 Percentage distribution of 16- to 24-year-olds, by recency of migration and race-ethnicity: October 1997**

Recency of migration	Total	Hispanic			Non-Hispanic				
		Total	Puerto Rican	Mexican	Other Hispanic	Total	White	Black	Asian/Pacific Islander
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Born outside 50 states/D.C.	11.2	41.5	26.1	37.0	58.3	6.6	3.1	7.2	59.4
First generation	10.2	34.1	57.7	32.5	29.3	6.3	5.2	4.1	29.8
Later generation	78.5	24.4	16.2	30.5	12.4	87.0	91.7	88.6	10.8

NOTE: Details may not add to 100.0 due to rounding. People born in Puerto Rico and the U.S. territories are grouped with those born in other countries. Individuals are classified as first generation if they were born in one of the 50 states or Washington, D.C., and at least one of their parents was not. Later generation includes those who were born in one of the 50 states or Washington, D.C., as were both of their parents.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, 1997.

**Table 53-1 Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by parents' highest education level: October 1990–97**

Parents' highest education level <sup>1</sup>	1990	1991	1992	1993	1994	1995	1996	1997
<b>Total</b>	<b>60.1</b>	<b>62.5</b>	<b>61.9</b>	<b>61.5</b>	<b>61.9</b>	<b>61.9</b>	<b>65.0</b>	<b>67.0</b>
Less than high school diploma	33.9	42.6	33.1	47.1	43.0	27.3	45.0	51.4
High school diploma or GED	49.0	51.0	55.5	52.3	49.9	47.0	56.1	61.7
Some college	65.6	67.5	67.5	62.7	65.0	70.2	66.6	62.6
Bachelor's degree or higher	83.1	87.2	81.3	87.9	82.5	87.7	85.2	86.1
Not available <sup>2</sup>	47.7	42.1	38.0	42.0	43.1	30.8	45.6	51.3

<sup>1</sup> Parents' highest education level is defined as either 1) the highest educational attainment of the two parents who reside with the student or, if only one parent is in the residence, the highest educational attainment of that parent; or 2) when neither parent resides with the student, the highest educational attainment of the head of the household and his or her spouse.

<sup>2</sup> Parents' highest education level is not available for 1) those who do not live with their parents and who are classified as the head of the household (not including those who live in college dormitories); and 2) those whose parents' educational attainment was not reported. In 1997, approximately 14 percent of high school completers ages 16–24 were in this category.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The category "high school diploma or equivalency certificate" includes those who have a high school diploma or a GED. See the supplemental note to *Indicator 59* for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

**Table 53-2 Percentage of high school completers ages 16–24 who were enrolled in college the October after completing high school, by type of institution, family income, and race-ethnicity: October 1972–97**

October	Total	Type of institution		Family income <sup>1</sup>			Race-ethnicity <sup>2</sup>					
				Low	Middle	High	White	Black	Hispanic			
		2-year	4-year	3-year Annual average	Annual	Annual	Annual	3-year Annual average	3-year Annual average			
1972	49.2	—	—	26.1	( <sup>3</sup> )	45.2	63.8	49.7	44.6	( <sup>3</sup> )	45.0	( <sup>3</sup> )
1973	46.6	14.9	31.7	20.3	( <sup>3</sup> )	40.9	64.4	47.8	32.5	41.4	54.1	48.7
1974	47.6	15.2	32.4	—	—	—	—	47.2	47.2	40.5	46.9	53.0
1975	50.7	18.2	32.6	31.2	( <sup>3</sup> )	46.2	64.5	51.1	41.7	44.4	58.0	52.5
1976	48.8	15.6	33.3	39.1	32.7	40.5	63.0	48.8	44.4	45.2	52.7	53.8
1977	50.6	17.5	33.1	27.7	32.8	44.2	66.3	50.8	49.5	46.8	50.8	48.5
1978	50.1	17.0	33.1	31.4	29.9	44.3	64.0	50.5	46.4	47.5	42.0	45.9
1979	49.3	17.5	31.8	30.5	31.5	43.2	63.2	49.9	46.7	45.3	45.0	46.4
1980	49.3	19.4	29.9	32.5	32.2	42.5	65.2	49.8	42.7	44.0	52.3	49.8
1981	53.9	20.5	33.5	33.6	33.0	49.2	67.6	54.9	42.7	40.4	52.1	49.2
1982	50.6	19.1	31.5	32.8	33.7	41.7	70.9	52.7	35.8	38.9	43.2	49.8
1983	52.7	19.2	33.5	34.6	34.0	45.2	70.3	55.0	38.2	37.9	54.2	47.3
1984	55.2	19.4	35.8	34.5	36.4	48.4	74.0	59.0	39.8	40.0	44.3	49.9
1985	57.7	19.6	38.1	40.2	36.2	50.6	74.6	60.1	42.2	39.6	51.0	46.5
1986	53.8	19.3	34.5	33.9	37.0	48.5	71.0	56.8	36.9	43.8	44.0	42.9
1987	56.8	18.9	37.9	36.9	37.8	50.0	73.8	58.6	52.2	44.5	33.5	44.9
1988	58.9	21.9	37.1	42.5	42.5	54.7	72.8	61.1	44.4	50.0	57.1	48.6
1989	59.6	20.7	38.9	48.1	45.8	55.4	70.7	60.7	53.4	48.2	55.1	51.6
1990	60.1	20.1	40.0	46.7	44.7	54.4	76.6	63.0	46.8	48.9	42.7	51.7
1991	62.5	24.9	37.7	39.5	42.3	58.4	78.2	65.4	46.4	47.2	57.2	51.6
1992	61.9	23.0	38.9	40.9	43.6	57.0	79.0	64.3	48.2	50.1	55.0	58.1
1993	61.5	22.4	39.1	50.4	44.1	56.9	79.3	62.9	55.6	51.5	62.2	55.4
1994	61.9	21.0	40.9	41.0	41.9	57.8	78.4	64.5	50.8	52.5	49.1	55.0
1995	61.9	21.5	40.4	34.2	41.3	56.1	83.4	64.3	51.2	52.6	53.7	51.2
1996	65.0	23.1	41.9	48.6	46.6	62.7	78.0	67.4	56.0	55.2	50.8	56.7
1997	67.0	22.8	44.3	57.0	( <sup>3</sup> )	60.8	82.2	68.2	58.5	( <sup>3</sup> )	65.6	( <sup>3</sup> )

— Not available. Data for type of institution were not collected until 1973, and data on family income were not available in 1974.

<sup>1</sup> Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to this indicator for further discussion.

<sup>2</sup> Included in the total but not shown separately are high school completers from other racial-ethnic groups.

<sup>3</sup> Due to small sample sizes for the low income, black, and Hispanic categories, 3-year averages were also calculated for each category. For example, the 3-year average for blacks in 1973 is the average percentage of black high school completers ages 16–24 who were

enrolled in college the October after completing high school in 1972, 1973, and 1974. Thus, 3-year averages cannot be calculated for 1972 and 1997, and for groups of 3 years in which some data are not available (e.g., 1973–75 for the low income category).

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

## Family income

The Current Population Survey (CPS) includes a family income variable used in many indicators in this publication to measure a student's economic standing. Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. The table that follows shows the real dollar amounts (rounded to the nearest \$100) of the breakpoints between low and

middle income and between middle and high income. For example, in 1997, low income was defined as the range between \$0–12,800; middle income was defined as the range between \$12,801–60,800; and high income was defined as \$60,801 and over. Therefore, the breakpoints between low and middle income and between middle and high income are \$12,800 and \$60,800, respectively.

### Dollar value (in current dollars) at the breakpoint between low and middle income and between middle and high income categories of family income: October 1970–97

October	Breakpoints between:	
	Low and middle	Middle and high
1970	\$3,300	\$11,900
1971	—	—
1972	3,500	13,600
1973	3,900	14,800
1974	—	—
1975	4,300	17,000
1976	4,600	18,300
1977	4,900	20,000
1978	5,300	21,600
1979	5,800	23,700
1980	6,000	25,300
1981	6,500	27,100
1982	7,100	31,300
1983	7,300	32,400
1984	7,400	34,200
1985	7,800	36,400
1986	8,400	38,200
1987	8,800	39,700
1988	9,300	42,100
1989	9,500	44,000
1990	9,600	46,300
1991	10,500	48,400
1992	10,700	49,700
1993	10,800	50,700
1994	11,800	* 55,500
1995	11,700	56,200
1996	12,300	58,200
1997	12,800	60,800

— Not available.

\*Revised from previously published figures.

NOTE: Amounts are rounded to the nearest \$100.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Survey.

**Table 54-1 Percentage of high school completers enrolled in college, by age, race-ethnicity, and type of institution: October 1973-97**

October	Ages 18-24				Ages 25-34				Age 35 or older			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic	Total	White	Black	Hispanic
<b>2-year institutions</b>												
1973	6.3	6.3	4.6	9.8	2.1	2.0	2.3	3.6	—	—	—	—
1974	7.0	6.4	7.2	14.6	2.4	2.2	3.6	3.3	—	—	—	—
1975	8.1	7.7	9.3	13.6	3.0	2.7	5.2	5.5	—	—	—	—
1976	7.8	7.3	8.6	14.4	3.1	2.7	4.8	6.5	0.9	0.9	1.4	2.1
1977	8.0	7.5	9.8	13.9	3.1	2.8	5.5	4.6	—	—	—	—
1978	8.0	7.6	7.9	11.9	2.7	2.5	4.1	4.6	1.0	0.9	1.7	1.9
1979	7.6	7.1	8.4	13.3	2.6	2.4	3.2	4.4	1.0	0.9	1.1	1.6
1980	8.5	8.1	9.0	11.9	2.8	2.6	3.4	3.8	0.8	0.8	1.4	1.1
1981	9.0	8.6	7.9	14.3	2.7	2.5	3.2	4.2	0.9	0.8	1.5	2.6
1982	9.3	9.0	7.4	14.6	2.8	2.6	3.5	4.0	0.9	0.8	1.0	1.4
1983	8.9	8.8	7.4	12.1	2.8	2.6	3.5	5.3	0.9	0.9	0.7	1.2
1984	8.6	8.2	9.2	10.8	2.7	2.6	2.8	3.5	0.8	0.7	1.0	0.8
1985	8.6	8.3	8.4	10.5	2.8	2.7	2.7	4.1	0.9	0.8	1.1	1.1
1986	9.0	9.0	6.9	12.3	2.7	2.6	2.5	4.1	0.9	0.9	1.3	0.9
1987	9.8	9.5	8.7	12.0	2.5	2.3	2.6	3.8	0.9	0.8	1.0	1.0
1988	10.6	10.6	7.8	13.4	2.5	2.3	3.5	3.3	0.9	0.9	1.4	1.5
1989	9.9	9.5	9.1	13.2	2.5	2.4	2.4	3.3	0.9	0.9	0.9	2.0
1990	10.5	10.2	10.6	13.2	2.8	2.7	2.7	3.5	1.0	0.9	1.1	1.9
1991	11.8	11.3	11.3	14.9	3.2	3.0	3.6	3.8	1.0	1.0	1.3	1.3
1992	12.0	11.2	10.7	17.6	2.9	2.8	2.3	3.8	0.9	0.9	0.9	1.4
1993	11.7	11.5	9.4	16.2	2.7	2.4	3.4	4.2	1.0	0.9	1.4	1.5
1994	11.1	10.8	10.5	13.1	3.1	2.7	3.9	4.4	1.0	0.9	1.2	2.0
1995	10.9	10.2	11.2	13.5	2.7	2.5	3.6	3.0	0.9	0.8	1.1	1.7
1996	11.4	11.0	9.6	13.6	2.9	2.7	4.1	2.6	1.0	0.9	1.2	1.6
1997	11.9	11.7	10.4	13.9	2.7	2.7	3.0	1.9	0.9	0.8	1.1	1.3
<b>4-year institutions</b>												
1973	15.6	15.9	12.5	13.3	1.9	1.8	2.4	2.5	—	—	—	—
1974	15.6	15.9	13.6	11.8	1.8	1.6	3.2	1.8	—	—	—	—
1975	15.7	15.8	15.1	15.9	2.0	1.9	2.6	2.5	—	—	—	—
1976	24.4	24.6	23.9	19.4	6.3	6.2	6.8	3.8	1.3	1.2	2.7	1.8
1977	23.1	23.4	19.9	16.8	6.6	6.4	7.6	7.2	—	—	—	—
1978	22.6	22.9	20.8	14.5	6.1	6.0	6.0	5.4	1.4	1.3	2.0	2.4
1979	22.8	23.5	19.6	15.7	6.2	6.2	5.3	6.6	1.4	1.4	2.1	1.2
1980	22.2	23.0	17.0	16.9	5.6	5.7	5.5	4.6	1.2	1.1	1.7	1.7
1981	22.4	23.1	18.8	15.0	5.8	5.6	6.2	5.7	1.4	1.3	2.2	1.3
1982	22.7	23.4	19.5	13.6	5.8	5.8	5.6	4.5	1.3	1.2	1.7	1.5
1983	22.6	23.4	18.4	17.9	5.9	5.8	4.9	4.4	1.4	1.3	1.9	1.9
1984	23.4	24.5	16.9	17.4	5.6	5.5	4.7	6.2	1.2	1.2	1.6	0.9
1985	23.8	25.3	16.4	14.8	5.6	5.7	4.1	5.3	1.4	1.3	1.8	2.1
1986	24.2	24.7	20.7	16.3	5.3	5.1	5.0	6.0	1.4	1.3	1.9	2.3
1987	26.2	27.7	20.3	16.1	5.6	5.5	5.3	5.0	1.5	1.4	1.6	1.5
1988	26.4	27.8	20.0	17.4	5.4	5.5	3.9	4.5	1.8	1.7	1.9	1.9
1989	28.1	30.1	21.4	15.1	5.8	5.9	3.8	3.8	1.6	1.6	1.2	1.7
1990	28.4	30.2	21.8	15.1	5.8	6.1	3.3	3.5	1.7	1.7	1.8	2.0
1991	29.1	30.9	19.5	19.1	5.8	5.7	4.5	4.8	1.7	1.7	2.1	1.6
1992	29.6	31.3	22.7	18.5	5.7	5.6	4.4	4.7	1.6	1.6	1.7	1.3
1993	29.3	30.6	22.8	18.7	5.8	5.8	4.7	5.2	1.6	1.5	2.0	1.6
1994	31.1	32.8	25.1	19.8	6.5	6.4	5.8	5.7	1.7	1.6	2.3	2.3
1995	31.2	33.5	24.0	21.4	6.7	6.8	5.5	5.0	1.7	1.6	2.5	2.1
1996	31.8	34.0	26.1	20.2	6.8	6.4	6.8	7.1	1.7	1.6	2.4	1.8
1997	33.0	34.7	28.9	21.8	6.7	6.4	6.0	5.7	1.7	1.6	2.5	1.3

— Not available.

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in

the total but not shown separately are high school completers from other racial-ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

**Table 55-1 Percentage distribution of 1989–90 beginning students by their highest degree attained or enrollment status in 1994, by persistence or departure status in 1989–90 and type of first institution attended**

Persistence and departure status and type of first institution	Attained by 1994 (highest degree)				No degree, enrolled in 1994	No degree, not enrolled in 1994
	Total	Certificate	Associate's degree	Bachelor's degree		
<b>All beginning students</b>						
<b>Total<sup>1</sup></b>	<b>48.3</b>	<b>8.0</b>	<b>11.0</b>	<b>29.4</b>	<b>14.9</b>	<b>36.7</b>
Persistence or departure in 1989–90						
Persisted to 1990–91 <sup>2</sup>	60.5	6.9	13.3	40.2	16.5	23.0
Stopped out, returned to same institution	28.6	9.7	10.6	8.3	21.5	49.9
Stopped out, transferred to another institution	42.6	30.5	9.0	3.1	20.2	37.2
<b>All 4-year</b>						
<b>Total</b>	<b>60.3</b>	<b>2.9</b>	<b>4.2</b>	<b>53.3</b>	<b>15.2</b>	<b>24.4</b>
Persistence or departure in 1989–90						
Persisted to 1990–91 <sup>2</sup>	67.8	2.6	3.9	61.3	15.1	17.1
Stopped out, returned to same institution	32.1	1.4	1.6	29.2	26.3	41.7
Stopped out, transferred to another institution	34.0	11.7	14.0	8.3	23.5	42.5
<b>Public 4-year</b>						
<b>Total</b>	<b>54.8</b>	<b>3.2</b>	<b>4.7</b>	<b>46.9</b>	<b>18.4</b>	<b>26.8</b>
Persistence or departure in 1989–90						
Persisted to 1990–91 <sup>2</sup>	62.7	2.8	4.6	55.3	18.8	18.5
Stopped out, returned to same institution	19.7	0.0	1.8	17.9	30.9	49.4
Stopped out, transferred to another institution	34.4	13.6	13.6	7.2	23.3	42.3
<b>Private, not-for-profit 4-year</b>						
<b>Total</b>	<b>71.8</b>	<b>2.3</b>	<b>3.0</b>	<b>66.6</b>	<b>8.6</b>	<b>19.6</b>
Persistence or departure in 1989–90						
Persisted to 1990–91 <sup>2</sup>	77.7	2.1	2.6	73.1	7.9	14.4
Stopped out, returned to same institution	63.1	4.8	0.9	57.5	14.7	22.2
Stopped out, transferred to another institution	32.7	6.3	15.2	11.2	24.1	43.2
<b>Public 2-year</b>						
<b>Total</b>	<b>36.7</b>	<b>12.9</b>	<b>17.5</b>	<b>6.3</b>	<b>14.7</b>	<b>48.6</b>
Persistence or departure in 1989–90						
Persisted to 1990–91 <sup>2</sup>	50.3	13.1	26.5	10.7	18.4	31.3
Stopped out, returned to same institution	27.4	12.5	13.7	1.3	19.9	52.7
Stopped out, transferred to another institution	47.9	42.0	5.9	0.0	18.1	34.0

<sup>1</sup> Does not include students in private, for-profit institutions; public less-than-2-year institutions; or private, not-for-profit less-than-4-year institutions (about 14 percent of beginning students).

<sup>2</sup> Includes a small percentage of students who attained a certificate in 1989–90.

NOTE: Details may not add to 100.0 due to rounding. Note also that totals include stayouts, who are not displayed in the table. Therefore, the total percentage may not be within the range of the row subgroups. Percentages than 0.05 percent are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

**Table 56-1 Percentage distribution of 1989–90 beginning postsecondary students according to selected student characteristics, by parents' highest education level**

Selected student characteristics	Total	First-generation status		
		First generation	Parents have some college	Parents have bachelor's or advanced degree
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Sex				
Male	46.0	42.7	45.6	51.9
Female	54.0	57.3	54.4	48.2
Age in 1989–90				
18 years or younger	61.2	49.4	66.7	79.2
19–24 years	24.3	29.2	25.9	18.2
25–29 years	5.0	8.8	3.1	1.3
30 years or older	9.5	12.6	4.4	1.3
Race–ethnicity				
White	78.8	75.9	79.9	83.1
Black	8.8	9.2	10.7	6.3
Hispanic	7.6	10.5	6.4	4.4
Asian/Pacific Islander	4.0	3.6	2.9	5.3
American Indian/Alaskan Native	0.7	1.0	0.2	0.8
Marital status in 1989–90				
Not married <sup>2</sup>	86.7	80.2	91.5	96.6
Married	12.2	18.0	7.5	3.2
Separated	1.2	1.7	1.0	0.1
Dependency status in 1989–90				
Dependent	74.0	63.0	80.2	91.1
Single independent	10.9	14.9	10.9	4.3
Independent with dependents	15.1	22.1	9.0	4.5
Socioeconomic status in 1989–90 <sup>3</sup>				
Lowest quartile	14.7	23.3	8.2	2.2
Middle quartiles	45.7	58.4	53.6	24.2
Highest quartile	39.7	18.3	38.2	73.7
Educational aspirations in 1989–90				
Trade school	9.1	14.2	8.0	1.9
2-year degree	12.8	18.4	10.6	6.2
Bachelor's degree	35.9	37.7	37.2	33.2
Advanced degree	42.1	29.6	44.2	58.7
SAT total score				
Less than 600	4.6	6.1	4.3	3.8
600–799	21.9	31.2	24.1	15.6
800–999	35.6	36.3	36.7	35.0
1,000–1,199	26.9	22.4	27.8	29.2
1,200–1,399	9.6	3.6	6.1	14.3
1,400 or more	1.4	0.3	1.0	2.1

<sup>1</sup> The highest educational attainment of either parent was no college for 43 percent of students, some college for 23 percent of students, and a bachelor's or advanced degree for 34 percent.

<sup>2</sup> "Not married" includes single, never married; living as married, never married; divorced; widowed; and living as married, previously divorced.

<sup>3</sup> These SES quartiles, defined in the NSPAS:90 data, include not only beginning postsecondary students but also all first-year students. Since students in the BPS:89/90 sample were more likely than other first-year students to be in the highest quartile, the percentage in the highest quartile in the total column is greater than 25.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

**Table 56-2** Percentage distribution of 1989–90 beginning postsecondary students according to type of first institution, by parents' highest education level

Parents' highest education level*	Public	Private,	Public	Other
	4-year	not-for-profit 4-year	2-year	
<b>Total</b>	<b>28.5</b>	<b>13.7</b>	<b>43.7</b>	<b>14.1</b>
High school or less	20.4	8.4	51.2	20.0
Some college	33.9	13.2	40.4	12.6
Bachelor's or advanced degree	37.2	22.1	34.8	6.0

\* The highest educational attainment of either parent was no college for 43 percent of students, some college for 23 percent of students, and a bachelor's degree or higher for 34 percent.

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.

**Table 57-1 Minority field concentration ratio<sup>1</sup> and dissimilarity index<sup>2</sup> at the bachelor's degree level: Academic years ending 1977–96**

Field of study	1977	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
	<b>Black</b>												
Humanities and social/behavioral sciences	1.02	1.03	1.01	0.98	0.94	0.92	0.93	0.93	0.93	0.94	0.96	0.96	0.97
Humanities	0.69	0.78	0.74	0.83	0.83	0.80	0.81	0.78	0.80	0.80	0.82	0.82	0.83
Social and behavioral sciences	1.32	1.27	1.27	1.13	1.06	1.04	1.05	1.07	1.07	1.08	1.09	1.10	1.10
Natural and computer sciences and engineering	0.60	0.61	0.66	0.75	0.90	0.94	0.95	0.96	0.95	0.94	0.91	0.90	0.90
Natural sciences	0.65	0.69	0.74	0.81	0.87	0.91	0.90	0.92	0.92	0.91	0.86	0.83	0.85
Life sciences	0.70	0.77	0.81	0.92	0.92	1.00	0.99	0.96	0.95	0.95	0.87	0.83	0.86
Physical sciences	0.45	0.44	0.57	0.58	0.73	0.72	0.73	0.79	0.77	0.72	0.71	0.72	0.72
Mathematics	0.78	0.85	0.82	0.91	0.93	0.95	0.88	0.96	1.00	1.00	1.00	1.00	0.98
Computer sciences and engineering	0.51	0.51	0.59	0.71	0.92	0.96	0.98	0.98	0.97	0.96	0.96	0.97	0.95
Computer and information sciences	0.91	0.91	0.83	0.98	1.44	1.68	1.71	1.59	1.61	1.67	1.70	1.68	1.55
Engineering	0.45	0.45	0.54	0.48	0.61	0.60	0.63	0.68	0.68	0.70	0.67	0.68	0.69
Engineering technologies	—	—	—	1.04	1.08	1.08	1.14	1.19	1.17	1.01	1.05	1.07	1.12
Technical and professional	1.11	1.11	1.11	1.11	1.07	1.06	1.06	1.06	1.06	1.05	1.06	1.06	1.05
Education	1.42	1.40	1.35	1.01	0.81	0.71	0.66	0.67	0.69	0.70	0.74	0.75	0.78
Business management	1.03	1.01	1.02	1.09	1.07	1.07	1.09	1.12	1.13	1.14	1.19	1.20	1.19
Health sciences	0.84	0.81	0.84	0.99	1.03	1.15	1.20	1.17	1.05	1.02	0.87	0.92	0.91
Other technical/professional	0.97	1.10	1.18	1.29	1.29	1.29	1.29	1.26	1.23	1.21	1.17	1.16	1.14
Dissimilarity Index <sup>2</sup>	12.70	11.20	10.84	7.80	7.85	8.85	9.31	9.48	8.69	8.47	9.19	9.06	8.48
	<b>Hispanic</b>												
Humanities and social/behavioral sciences	1.23	1.22	1.20	1.15	1.11	1.14	1.13	1.10	1.17	1.18	1.21	1.22	1.22
Humanities	1.17	1.15	1.11	1.09	1.10	1.10	1.12	1.06	1.13	1.19	1.22	1.24	1.24
Social and behavioral sciences	1.29	1.28	1.29	1.20	1.13	1.18	1.14	1.13	1.22	1.17	1.20	1.20	1.21
Natural and computer sciences and engineering	0.85	0.88	0.91	0.92	1.05	1.05	1.07	1.07	1.03	0.99	0.96	0.94	0.92
Natural sciences	0.82	0.89	0.94	0.95	0.98	1.01	0.98	0.99	0.98	0.92	0.91	0.84	0.83
Life sciences	0.89	1.04	1.13	1.25	1.26	1.25	1.18	1.20	1.16	1.08	1.03	0.94	0.91
Physical sciences	0.71	0.66	0.70	0.64	0.77	0.77	0.70	0.71	0.63	0.64	0.65	0.55	0.56
Mathematics	0.76	0.76	0.72	0.67	0.62	0.72	0.80	0.80	0.88	0.77	0.87	0.83	0.86
Computer sciences and engineering	0.90	0.86	0.87	0.91	1.09	1.08	1.12	1.13	1.07	1.05	1.00	1.03	1.01
Computer and information sciences	0.73	0.84	0.89	0.84	1.11	1.15	1.18	1.26	1.20	1.09	1.03	1.14	1.02
Engineering	0.92	0.86	0.87	0.93	1.09	1.09	1.07	1.10	1.04	1.05	1.00	1.03	1.01
Engineering technologies	—	—	—	0.97	1.08	0.95	1.21	1.03	0.98	1.00	0.95	0.93	0.98
Technical/professional	0.89	0.91	0.92	0.95	0.92	0.90	0.90	0.92	0.88	0.88	0.87	0.87	0.87
Education	1.05	1.11	1.12	1.04	0.89	0.74	0.81	0.86	0.73	0.64	0.64	0.62	0.64
Business management	0.84	0.85	0.87	0.94	0.97	0.97	0.93	0.94	0.93	0.98	1.00	1.03	1.04
Health sciences	0.72	0.76	0.75	0.89	0.75	0.79	0.87	0.85	0.78	0.74	0.68	0.66	0.65
Other technical/professional	0.84	0.87	0.90	0.96	0.93	0.96	0.94	0.95	0.95	0.97	0.94	0.94	0.94
Dissimilarity Index <sup>2</sup>	8.68	8.46	8.03	5.33	5.29	6.03	5.94	5.07	7.09	7.00	7.39	8.43	8.48

**Table 57-1** Minority field concentration ratio<sup>1</sup> and dissimilarity index<sup>2</sup> at the bachelor's degree level: Academic years ending 1977–96—Continued

Field of study	1977	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
	<b>Asian/Pacific Islander</b>												
Humanities and social/behavioral sciences	0.96	0.92	0.87	0.82	0.86	0.88	0.87	0.86	0.88	0.88	0.90	0.90	0.91
Humanities	0.90	0.88	0.84	0.79	0.82	0.80	0.81	0.80	0.81	0.83	0.85	0.83	0.85
Social and behavioral sciences	1.02	0.96	0.89	0.84	0.90	0.95	0.93	0.93	0.94	0.93	0.96	0.97	0.97
Natural and computer sciences and engineering	1.55	1.69	1.89	2.01	2.13	2.23	2.35	2.38	2.32	2.26	2.15	2.11	2.07
Natural sciences	1.46	1.56	1.56	1.81	1.91	2.01	2.13	2.13	2.16	2.16	2.11	2.14	2.14
Life sciences	1.62	1.78	1.72	1.99	2.16	2.33	2.54	2.55	2.71	2.68	2.64	2.62	2.56
Physical sciences	1.06	1.07	1.21	1.20	1.38	1.47	1.63	1.62	1.46	1.45	1.26	1.36	1.45
Mathematics	1.48	1.65	1.78	2.35	2.00	1.88	1.67	1.64	1.46	1.44	1.41	1.41	1.34
Computer sciences and engineering	1.70	1.85	2.19	2.13	2.25	2.38	2.50	2.57	2.45	2.35	2.18	2.08	2.00
Computer and information sciences	1.74	1.85	2.29	2.12	2.17	2.41	2.58	2.52	2.48	2.56	2.39	2.30	2.22
Engineering	1.70	1.85	2.16	2.39	2.55	2.72	2.86	2.99	2.79	2.63	2.45	2.34	2.22
Engineering technologies	—	—	—	1.12	1.32	1.22	1.18	1.22	1.21	1.10	0.96	0.87	0.87
Technical/professional	0.86	0.83	0.78	0.69	0.65	0.68	0.68	0.69	0.71	0.72	0.73	0.73	0.73
Education	0.42	0.38	0.33	0.32	0.36	0.29	0.22	0.19	0.20	0.21	0.20	0.22	0.23
Business management	1.15	1.08	0.97	0.87	0.76	0.87	0.90	0.96	1.01	1.06	1.10	1.13	1.13
Health sciences	1.16	1.02	0.99	0.77	0.73	0.76	0.86	0.88	0.87	0.82	0.82	0.81	0.82
Other technical/professional	0.87	0.83	0.75	0.58	0.62	0.57	0.55	0.55	0.52	0.52	0.52	0.51	0.50
Dissimilarity Index <sup>2</sup>	13.10	13.80	16.12	21.81	22.93	21.51	21.70	21.30	20.06	20.16	19.80	20.33	19.92
	<b>American Indian/Alaskan Native</b>												
Humanities and social/behavioral sciences	1.02	1.08	1.14	1.09	1.11	1.02	1.05	1.00	1.03	1.08	1.08	1.06	1.06
Humanities	0.94	0.92	1.03	1.05	1.07	1.02	1.07	1.00	1.04	1.03	1.04	1.04	1.03
Social and behavioral sciences	1.10	1.23	1.25	1.14	1.16	1.02	1.03	0.99	1.02	1.13	1.11	1.07	1.09
Natural and computer sciences and engineering	0.76	0.75	0.69	0.87	0.87	0.94	0.83	0.91	0.87	0.89	0.87	0.89	0.85
Natural sciences	0.76	0.81	0.73	0.96	0.94	1.01	0.94	1.04	0.91	0.98	0.93	0.93	0.90
Life sciences	0.80	0.81	0.83	0.98	1.00	1.10	0.91	1.16	1.01	1.00	0.98	0.97	0.94
Physical sciences	0.81	0.72	0.69	0.92	0.91	0.93	1.14	1.04	0.85	1.09	0.86	0.92	0.90
Mathematics	0.50	0.95	0.43	0.94	0.83	0.89	0.81	0.76	0.70	0.79	0.82	0.77	0.70
Computer sciences and engineering	0.77	0.69	0.66	0.82	0.83	0.90	0.75	0.82	0.84	0.81	0.82	0.86	0.81
Computer and information sciences	0.66	0.35	0.38	0.86	0.81	0.86	0.96	0.92	0.85	0.84	0.74	0.98	0.75
Engineering	0.79	0.73	0.72	0.67	0.79	0.74	0.62	0.70	0.73	0.66	0.74	0.70	0.73
Engineering technologies	—	—	—	1.31	1.01	1.46	0.91	1.07	1.22	1.33	1.19	1.28	1.20
Technical/professional	1.06	1.03	1.02	1.00	0.99	1.00	1.02	1.03	1.02	0.98	0.99	1.00	1.01
Education	1.37	1.39	1.36	1.21	1.23	1.31	1.25	1.24	1.21	1.11	1.17	1.26	1.26
Business management	0.79	0.79	0.82	0.91	0.81	0.83	0.81	0.84	0.82	0.86	0.82	0.78	0.84
Health sciences	0.73	0.87	0.83	0.96	1.05	1.02	1.08	1.14	1.15	1.03	0.96	0.97	0.98
Other technical/professional	1.21	1.10	1.16	1.05	1.14	1.08	1.19	1.13	1.14	1.05	1.12	1.11	1.06
Dissimilarity Index <sup>2</sup>	9.98	10.29	10.47	5.75	7.23	6.24	7.32	5.76	6.26	5.32	6.19	6.46	5.70

**Table 57-1 Minority field concentration ratio<sup>1</sup> and dissimilarity index<sup>2</sup> at the bachelor's degree level: Academic years ending 1977–96—Continued**

Field of study	1977	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
	<b>Nonresident alien</b>												
Humanities and social/behavioral sciences	0.73	0.76	0.69	0.69	0.65	0.65	0.68	0.71	0.73	0.74	0.73	0.75	0.76
Humanities	0.71	0.76	0.65	0.66	0.63	0.65	0.67	0.72	0.75	0.76	0.74	0.78	0.77
Social and behavioral sciences	0.75	0.76	0.73	0.71	0.68	0.66	0.69	0.70	0.71	0.73	0.72	0.72	0.75
Natural and computer sciences and engineering	2.32	2.39	2.48	1.96	2.06	2.21	2.32	2.20	2.19	2.07	1.91	1.80	1.71
Natural sciences	1.22	1.19	1.10	1.08	1.02	1.16	1.20	1.24	1.23	1.20	1.03	0.95	0.89
Life sciences	1.11	0.93	0.86	0.81	0.81	0.97	0.98	1.07	0.99	1.00	0.82	0.76	0.73
Physical sciences	1.44	1.50	1.23	1.08	1.09	1.34	1.45	1.40	1.44	1.57	1.31	1.17	1.06
Mathematics	1.30	1.61	1.72	1.77	1.42	1.39	1.44	1.49	1.66	1.35	1.36	1.38	1.34
Computer sciences and engineering	4.19	3.89	3.77	2.50	2.67	2.87	3.07	2.91	2.93	2.78	2.69	2.58	2.51
Computer and information sciences	2.48	2.28	2.21	1.91	2.54	3.14	3.45	3.54	3.81	3.92	3.86	3.56	3.30
Engineering	4.42	4.12	4.09	3.43	3.48	3.64	3.84	3.08	3.06	2.89	2.73	2.66	2.59
Engineering technologies	—	—	—	2.21	1.76	1.27	1.50	1.53	1.28	0.95	1.05	1.06	1.17
Technical/professional	0.77	0.70	0.68	0.78	0.79	0.81	0.80	0.84	0.84	0.87	0.91	0.92	0.94
Education	0.30	0.36	0.35	0.37	0.31	0.23	0.23	0.26	0.20	0.19	0.19	0.19	0.24
Business management	1.28	1.04	0.94	1.07	1.14	1.21	1.21	1.29	1.36	1.45	1.64	1.77	1.83
Health sciences	0.64	0.48	0.37	0.42	0.41	0.47	0.54	0.61	0.55	0.53	0.45	0.38	0.39
Other technical/professional	0.73	0.69	0.73	0.72	0.66	0.67	0.66	0.64	0.61	0.60	0.59	0.56	0.55
Dissimilarity Index <sup>2</sup>	24.88	22.44	22.47	20.38	23.87	25.29	25.73	26.07	27.38	28.11	30.32	31.08	30.94

— Data not available for field of study prior to 1985.

<sup>1</sup> The minority field concentration ratio is calculated as the percentage of a minority group earning bachelor's degrees who majored in a selected field of study divided by the percentage of whites earning bachelor's degrees who majored in the same field. For example, the 1996 black-to-white concentration ratio for education =  $7.8/10.1 = 0.78$ . A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

<sup>2</sup> The dissimilarity index represents the percentage of students in a minority group who would need to change fields in order to make

their percentage distribution across fields the same as the distribution of white students. It is calculated as the sum of the absolute difference between the percentages of minority and white students majoring in each field divided by 2.

NOTE: Analysis includes only those degree recipients whose race-ethnicity and field of study were known. See the supplemental note to this indicator for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

## Classification of fields of study

The data on the number of bachelor's degrees conferred by specific fields of study were obtained from the Higher Education General Information Survey (HEGIS) "Degrees and Other Formal Awards Conferred" surveys and the Integrated Postsecondary Education Data System (IPEDS) "Completions" surveys. The list below shows how related degree fields were reclassified into consolidated degree fields for this analysis.

In the 1991–92 academic year, a new classification of instructional programs was initiated. When necessary, the figures for earlier years were reclassified to make them conform to the new taxonomy. The classifications for all other fields not shown in the table did not change.

To facilitate trend comparisons, certain aggregations were made of the degree fields as reported in the IPEDS "Completions" surveys: "Agriculture and Natural Resources" includes agricultural business and production, agricultural sciences, and conservation and renewable natural resources; "Business Management and Administrative Services" includes business management and administrative services, marketing operations/marketing and distribution, and consumer and personal services; and "Engineering Technologies" includes engineering-related technologies, mechanics and repairers, and construction trades.

<b>Consolidated degree field</b>	<b>Degree fields</b>
Humanities	Area and ethnic studies English language and literature/letters Foreign languages Liberal/general studies Multi/interdisciplinary studies Philosophy and religion Theology Visual and performing arts
Social/behavioral sciences	Psychology Social sciences and history
Natural sciences	Biological sciences/life sciences Mathematics Physical sciences
Engineering and engineering technologies	Engineering Engineering-related technologies
Construction trades	Mechanics and repairs
Other technical/professional	Agriculture Architecture Communications Communication technology Home economics Law Library/archival sciences Military sciences Parks and recreation Precision production trades Protective sciences Public administration and services Transportation and material moving

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Completions" surveys.

**Table 58-1 Female field concentration ratio<sup>1</sup> and dissimilarity index<sup>2</sup> of master's degrees conferred, by field of study: Academic years ending 1971–96**

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Humanities	1.58	1.52	1.45	1.34	1.32	1.24	1.17	1.16	1.12	1.08	1.03	1.08	1.06
Social and behavioral sciences	0.69	0.69	0.68	0.67	0.69	0.73	0.76	0.77	0.84	0.88	0.91	0.92	0.99
Natural sciences	0.48	0.48	0.44	0.43	0.41	0.41	0.44	0.42	0.44	0.43	0.43	0.45	0.48
Life sciences	0.76	0.72	0.62	0.58	0.53	0.54	0.57	0.59	0.62	0.60	0.63	0.69	0.77
Physical sciences	0.23	0.24	0.22	0.22	0.21	0.20	0.22	0.22	0.23	0.23	0.26	0.27	0.27
Mathematics	0.56	0.58	0.56	0.53	0.54	0.53	0.55	0.50	0.49	0.51	0.45	0.43	0.47
Computer sciences and engineering	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.09	0.09	0.11	0.12	0.14	0.15
Computer and information sciences	0.17	0.19	0.17	0.20	0.21	0.20	0.22	0.25	0.24	0.27	0.30	0.35	0.39
Engineering and engineering technologies	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.10
Technical/professional	1.27	1.25	1.26	1.26	1.24	1.23	1.23	1.24	1.22	1.23	1.24	1.25	1.25
Education	1.92	1.98	1.98	1.99	2.04	2.10	2.18	2.26	2.28	2.42	2.48	2.54	2.64
Business management	0.06	0.06	0.07	0.09	0.11	0.15	0.19	0.22	0.25	0.30	0.33	0.38	0.41
Health professions	1.85	1.90	1.91	2.00	1.99	2.29	2.37	2.53	2.54	2.66	2.80	3.03	3.01
Other technical/professional <sup>3</sup>	1.56	1.46	1.34	1.24	1.15	1.08	1.04	1.07	1.08	1.10	1.14	1.15	1.22
Not classified	—	—	—	—	—	—	—	—	—	—	—	—	—
Dissimilarity index <sup>2</sup>	37.9	38.0	37.2	36.0	35.9	35.8	35.1	35.7	35.3	35.3	35.1	35.0	34.9
Field of study	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Humanities	1.08	1.12	1.12	1.06	1.06	1.07	1.06	1.10	1.08	1.08	1.09	1.07	1.03
Social and behavioral sciences	1.04	1.06	1.08	1.05	1.06	1.07	1.06	1.11	1.05	1.08	1.10	1.12	1.12
Natural sciences	0.52	0.52	0.53	0.55	0.54	0.56	0.55	0.56	0.54	0.55	0.55	0.55	0.57
Life sciences	0.82	0.91	0.91	0.91	0.92	0.92	0.93	0.93	0.91	0.87	0.92	0.87	0.88
Physical sciences	0.31	0.30	0.32	0.32	0.31	0.34	0.32	0.33	0.32	0.35	0.35	0.35	0.37
Mathematics	0.50	0.49	0.50	0.57	0.58	0.57	0.55	0.56	0.54	0.55	0.51	0.53	0.50
Computer sciences and engineering	0.18	0.18	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Computer and information sciences	0.42	0.40	0.42	0.40	0.35	0.36	0.35	0.36	0.33	0.31	0.29	0.29	0.29
Engineering and engineering technologies	0.12	0.12	0.13	0.14	0.13	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.16
Technical/professional	1.25	1.26	1.26	1.28	1.29	1.29	1.27	1.28	1.27	1.27	1.27	1.26	1.24
Education	2.63	2.64	2.66	2.71	2.83	2.84	2.83	2.83	2.85	2.81	2.75	2.65	2.53
Business management	0.44	0.45	0.45	0.47	0.48	0.47	0.46	0.47	0.46	0.47	0.48	0.48	0.47
Health professions	3.16	3.23	3.16	3.58	3.40	3.30	3.14	3.27	3.32	3.31	3.19	2.96	2.96
Other technical/professional <sup>3</sup>	1.25	1.29	1.27	1.28	1.27	1.30	1.32	1.31	1.34	1.35	1.33	1.34	1.28
Not classified	—	—	—	—	1.14	0.71	1.37	0.71	0.68	0.64	1.05	0.18	—
Dissimilarity index <sup>2</sup>	34.25	34.72	34.76	34.36	34.73	35.32	35.09	35.07	35.59	35.83	35.05	34.52	33.59

— Not applicable.

<sup>1</sup> The female field concentration ratio is calculated as the percentage of females earning degrees who majored in a specific field divided by the percentage of males earning degrees who majored in the same field. For example, the 1996 female-to-male concentration ratio for education =  $35.72/14.11 = 2.53$ . A value greater than 1 indicates that females are more likely to earn a graduate degree in that field than males, whereas a value less than 1 indicates that females are less likely to earn a graduate degree in that field than males. Includes degrees conferred to U.S. and non-U.S. citizens.

<sup>2</sup> The dissimilarity index represents the percentage distribution of female students who would need to switch fields of study to match the percentage distribution of male students across fields of study. It

is calculated as the sum of the absolute difference between the percentages of male and female students majoring in each field divided by 2.

<sup>3</sup> Principally composed of public administration at the master's degree level.

NOTE: Data for 1988 through 1995 are revised from previously published figures. See the supplemental note to *Indicator 57* for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Chartbook of Degrees Conferred, 1969–70 to 1993–94, Degrees and Other Awards Conferred by Institutions of Higher Education: 1994–95*, and *Digest of Education Statistics* (based on IPEDS "Completions" surveys).

**Table 58-2** Minority field concentration ratio<sup>1</sup> and dissimilarity index<sup>2</sup> of master's degrees conferred, by field of study: Academic years ending 1979–96

Field of study	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
	<b>Black</b>											
Humanities	0.46	0.51	0.52	0.54	0.55	0.56	0.56	0.64	0.66	0.63	0.67	0.62
Social and behavioral sciences	0.91	0.90	0.93	0.92	0.92	0.96	1.00	0.97	0.92	0.89	0.98	1.02
Natural sciences	0.38	0.43	0.47	0.55	0.46	0.48	0.59	0.55	0.56	0.56	0.61	0.56
Life sciences	0.48	0.46	0.59	0.73	0.56	0.51	0.65	0.68	0.61	0.54	0.55	0.56
Physical sciences	0.25	0.37	0.34	0.34	0.34	0.41	0.38	0.47	0.48	0.53	0.56	0.40
Mathematics	0.39	0.50	0.45	0.59	0.50	0.53	0.78	0.49	0.59	0.61	0.78	0.78
Computer sciences and engineering	0.32	0.36	0.51	0.59	0.55	0.59	0.64	0.69	0.67	0.68	0.69	0.69
Computer and information sciences	0.37	0.35	0.67	0.73	0.68	0.81	0.97	1.06	0.97	1.12	1.00	1.07
Engineering and engineering technologies	0.31	0.36	0.46	0.54	0.50	0.50	0.52	0.57	0.58	0.56	0.60	0.59
Technical/professional	1.17	1.16	1.15	1.15	1.15	1.13	1.12	1.10	1.10	1.11	1.09	1.09
Education	1.48	1.47	1.47	1.34	1.29	1.24	1.21	1.21	1.17	1.14	1.18	1.13
Business management	0.66	0.70	0.76	0.87	0.91	0.90	0.91	0.90	0.95	1.01	0.94	1.01
Health professions	0.77	0.88	0.90	0.90	0.90	0.89	0.94	0.88	0.86	0.85	0.81	0.80
Other technical/professional <sup>3</sup>	1.10	1.16	1.32	1.36	1.39	1.49	1.39	1.36	1.40	1.38	1.33	1.34
Dissimilarity index <sup>2</sup>	28.93	27.14	26.03	22.12	21.41	20.45	17.25	16.30	15.68	15.27	14.54	14.02
	<b>Hispanic</b>											
Humanities	1.06	0.94	1.00	0.90	1.09	1.10	1.05	1.11	1.01	1.07	1.00	0.97
Social and behavioral sciences	1.12	1.06	1.22	1.09	1.21	1.19	1.15	1.10	1.14	1.11	1.10	1.14
Natural sciences	0.52	0.55	0.86	0.83	0.74	0.73	0.87	0.92	0.91	0.76	0.61	0.72
Life sciences	0.52	0.49	0.87	0.71	0.98	0.81	0.87	1.19	1.12	0.84	0.55	0.78
Physical sciences	0.53	0.50	0.84	0.93	0.65	0.68	0.78	0.79	0.86	0.74	0.56	0.59
Mathematics	0.50	0.79	0.85	0.85	0.47	0.66	0.97	0.73	0.71	0.67	0.78	0.78
Computer sciences and engineering	0.81	0.97	0.84	1.14	1.04	0.94	1.00	1.05	1.03	1.02	1.05	0.98
Computer and information sciences	0.48	0.79	0.71	0.85	0.92	0.78	0.84	0.97	0.93	0.92	1.00	0.84
Engineering and engineering technologies	0.88	1.02	0.88	1.25	1.08	1.00	1.06	1.08	1.06	1.05	0.60	1.02
Technical/professional	1.03	1.03	1.01	1.00	0.98	0.99	0.98	0.98	0.99	0.99	0.99	1.01
Education	1.22	1.28	1.30	1.12	1.03	1.09	1.10	1.03	1.02	1.05	1.18	1.09
Business management	0.66	0.68	0.70	0.87	0.91	0.86	0.84	0.85	0.88	0.92	0.94	0.92
Health professions	0.63	0.66	0.66	0.78	0.82	0.85	0.77	0.83	0.78	0.74	0.81	0.76
Other technical/professional <sup>3</sup>	1.09	1.09	1.12	1.08	1.09	1.11	1.13	1.16	1.23	1.14	1.11	1.11
Dissimilarity index <sup>2</sup>	13.67	13.50	12.57	7.57	5.88	7.11	7.13	6.55	5.82	5.76	6.06	6.13

**Table 58-2 Minority field concentration ratio<sup>1</sup> and dissimilarity index<sup>2</sup> of master's degrees conferred, by field of study: Academic years ending 1979–96—Continued**

Field of study	1979	1981	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996
<b>Asian/Pacific Islander</b>												
Humanities	0.75	0.71	0.75	0.78	0.84	0.81	0.79	0.82	0.85	0.85	0.76	0.80
Social and behavioral sciences	0.85	0.74	0.90	0.68	0.69	0.73	0.69	0.70	0.67	0.70	0.63	0.66
Natural sciences	1.69	1.35	1.58	1.67	1.67	1.67	1.76	1.86	1.75	1.78	1.79	1.79
Life sciences	1.59	1.07	1.26	1.34	1.41	1.49	1.57	1.72	1.94	1.81	2.00	2.05
Physical sciences	1.66	1.43	1.48	1.59	1.70	1.62	1.83	2.05	1.62	1.69	1.58	1.51
Mathematics	2.00	1.97	2.52	2.44	2.08	2.05	1.95	1.82	1.69	1.84	1.77	1.73
Computer sciences and engineering	3.70	4.02	3.72	3.69	3.66	3.66	3.90	4.01	3.56	3.59	3.57	3.47
Computer and information sciences	2.99	3.80	4.11	4.41	4.18	4.56	5.00	5.31	4.98	5.40	5.11	4.94
Engineering and engineering technologies	3.86	4.08	3.59	3.42	3.46	3.32	3.51	3.59	3.14	3.07	3.12	3.04
Technical/professional	0.82	0.82	0.72	0.71	0.71	0.72	0.72	0.72	0.76	0.76	0.79	0.80
Education	0.46	0.45	0.36	0.30	0.32	0.33	0.34	0.32	0.34	0.35	0.35	0.34
Business management	1.35	1.32	1.09	1.15	1.19	1.17	1.17	1.18	1.30	1.29	1.29	1.35
Health professions	1.26	1.21	0.94	0.83	0.80	0.89	0.81	0.82	0.81	0.82	1.09	1.11
Other technical/professional <sup>3</sup>	1.01	0.85	0.69	0.73	0.69	0.71	0.69	0.70	0.68	0.67	0.69	0.69
Dissimilarity index <sup>2</sup>	39.10	40.99	47.02	51.47	51.06	49.27	51.03	51.19	47.62	47.40	45.19	44.37
<b>American Indian/Alaskan Native</b>												
Humanities	0.79	0.76	0.83	1.15	0.85	1.04	0.75	1.04	1.02	1.00	0.93	0.97
Social and behavioral sciences	0.94	1.10	0.98	0.86	1.26	1.24	1.28	1.08	1.40	1.12	1.45	1.27
Natural sciences	1.05	0.69	0.81	0.47	0.88	0.72	0.91	0.82	1.05	0.73	1.03	0.56
Life sciences	0.68	0.67	0.79	0.58	0.94	0.87	0.83	0.81	1.63	0.84	1.01	0.67
Physical sciences	1.65	0.62	0.90	0.46	0.96	0.63	0.94	1.22	0.79	0.86	1.23	0.47
Mathematics	0.85	0.86	0.67	0.29	0.63	0.60	0.98	0.33	0.63	0.40	0.79	0.48
Computer sciences and engineering	0.81	0.77	0.95	0.96	0.90	0.58	0.71	0.74	0.74	0.69	0.61	0.75
Computer and information sciences	1.76	0.99	1.70	0.94	1.72	0.29	0.68	0.72	0.63	0.70	0.68	0.95
Engineering and engineering technologies	0.60	0.71	0.69	0.97	0.60	0.69	0.72	0.75	0.77	0.68	0.59	0.69
Technical/professional	1.04	1.06	1.04	1.03	1.01	1.04	1.04	1.02	0.98	1.03	1.00	1.02
Education	1.20	1.28	1.32	1.21	1.20	1.27	1.22	1.22	1.12	1.24	1.11	1.15
Business management	0.81	0.76	0.88	0.66	0.70	0.71	0.74	0.71	0.80	0.75	0.84	0.77
Health professions	1.10	0.89	0.75	0.82	1.08	1.11	1.20	1.03	1.12	1.00	0.94	0.97
Other technical/professional <sup>3</sup>	0.88	1.02	0.89	1.43	1.15	1.07	1.11	1.15	0.94	1.09	1.06	1.19
Dissimilarity index <sup>2</sup>	11.91	13.89	12.43	15.23	12.57	14.91	13.77	11.77	9.63	11.68	8.99	11.15

<sup>1</sup> The minority field concentration ratio is calculated as the percentage of a minority group earning master's degrees who majored in a selected field of study divided by the percentage of whites earning master's degrees who majored in the same field. For example, the 1996 black-to-white concentration ratio for education =  $33.2/29.3 = 1.13$ . A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

<sup>2</sup> The dissimilarity index represents the percentage distribution of students in a minority group who would need to switch fields of study to match the percentage distribution of white students across fields

of study. It is calculated as the sum of the absolute difference between the percentages of minority and white students majoring in each field divided by 2.

<sup>3</sup> Principally composed of public administration at the master's degree level.

NOTE: Analysis includes only those degree recipients whose racial-ethnic group and field of study were known. See the supplemental note to *Indicator 57* for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

**Table 58-3 Female field concentration ratio<sup>1</sup> and dissimilarity index<sup>2</sup> of doctor's degrees conferred, by field of study: Academic years ending 1971–96**

Field of study	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Humanities	1.89	1.87	1.77	1.71	1.59	1.50	1.41	1.32	1.18	1.10	1.15	1.15	1.09
Social and behavioral sciences	1.29	1.22	1.21	1.28	1.26	1.21	1.29	1.23	1.28	1.30	1.26	1.26	1.38
Natural sciences	0.67	0.66	0.65	0.63	0.62	0.57	0.56	0.57	0.59	0.56	0.56	0.57	0.59
Life sciences	1.17	1.09	1.12	1.08	1.04	0.92	0.84	0.89	0.88	0.83	0.87	0.87	0.96
Physical sciences	0.36	0.38	0.33	0.32	0.33	0.32	0.33	0.31	0.33	0.34	0.30	0.34	0.33
Mathematics	0.50	0.45	0.48	0.43	0.44	0.40	0.46	0.49	0.50	0.37	0.40	0.33	0.40
Computer sciences and engineering	0.04	0.05	0.09	0.08	0.09	0.10	0.11	0.08	0.11	0.11	0.11	0.13	0.11
Computer and information sciences	0.14	0.41	0.38	0.20	0.26	0.35	0.30	0.23	0.37	0.30	0.24	0.19	0.30
Engineering and engineering technologies	0.04	0.03	0.07	0.07	0.08	0.08	0.09	0.07	0.09	0.09	0.09	0.12	0.09
Technical/professional	1.27	1.28	1.23	1.21	1.26	1.33	1.32	1.41	1.43	1.51	1.54	1.56	1.50
Education	1.60	1.61	1.48	1.52	1.61	1.66	1.61	1.79	1.84	1.86	1.98	1.99	1.99
Business management	0.17	0.12	0.28	0.24	0.16	0.19	0.21	0.26	0.34	0.41	0.39	0.47	0.41
Health professions	1.19	1.18	1.53	1.24	1.48	1.36	1.46	1.75	1.49	1.91	1.71	1.78	1.57
Other technical/professional <sup>3</sup>	0.76	0.77	0.81	0.70	0.72	0.89	0.88	0.80	0.77	0.87	0.87	0.93	0.83
Not classified	—	—	—	—	—	—	—	—	—	—	—	—	—
Dissimilarity index <sup>2</sup>	28.31	27.20	25.26	25.99	25.49	24.14	24.08	24.59	23.98	24.23	24.95	24.67	25.70
Field of study	1984	1985	1986	1987	1988 <sup>4</sup>	1989 <sup>4</sup>	1990 <sup>4</sup>	1991 <sup>4</sup>	1992 <sup>4</sup>	1993 <sup>4</sup>	1994 <sup>4</sup>	1995 <sup>4</sup>	1996
Humanities	1.08	1.07	1.08	1.08	1.05	1.05	1.06	1.13	1.13	1.13	1.09	1.10	1.16
Social and behavioral sciences	1.37	1.38	1.42	1.43	1.53	1.48	1.58	1.70	1.51	1.57	1.54	1.55	1.62
Natural sciences	0.57	0.60	0.58	0.61	0.63	0.64	0.65	0.63	0.69	0.70	0.68	0.69	0.69
Life sciences	0.88	0.94	0.93	0.99	1.01	1.00	1.06	1.00	1.05	1.08	1.09	1.04	1.09
Physical sciences	0.35	0.37	0.37	0.38	0.41	0.43	0.42	0.42	0.47	0.45	0.44	0.47	0.45
Mathematics	0.42	0.35	0.37	0.38	0.35	0.42	0.38	0.40	0.46	0.51	0.45	0.44	0.39
Computer sciences and engineering	0.12	0.14	0.15	0.15	0.15	0.18	0.19	0.18	0.19	0.18	0.21	0.22	0.22
Computer and information sciences	0.23	0.22	0.28	0.30	0.23	0.32	0.30	0.27	0.26	0.27	0.29	0.34	0.26
Engineering and engineering technologies	0.12	0.13	0.13	0.14	0.14	0.17	0.17	0.17	0.18	0.17	0.20	0.21	0.22
Technical/professional	1.54	1.57	1.61	1.65	1.68	1.73	1.69	1.69	1.77	1.74	1.76	1.73	1.72
Education	1.99	2.09	2.10	2.18	2.24	2.33	2.34	2.33	2.48	2.36	2.48	2.51	2.48
Business management	0.54	0.40	0.52	0.58	0.58	0.65	0.59	0.60	0.51	0.63	0.63	0.57	0.61
Health professions	2.03	2.17	1.94	2.12	2.40	2.36	2.06	2.25	2.33	2.19	2.25	2.13	1.97
Other technical/professional <sup>3</sup>	0.88	0.89	1.00	1.01	1.02	0.98	1.00	0.98	1.01	1.09	1.07	1.05	1.09
Not classified	—	—	—	—	1.33	0.34	1.20	1.30	0.78	0.31	1.14	0.00	—
Dissimilarity index <sup>2</sup>	25.78	26.36	26.41	26.84	27.77	27.71	28.32	29.38	28.89	29.20	28.78	28.07	29.14

— Not applicable.

<sup>1</sup> The female field concentration ratio is calculated as the percentage of females earning degrees who majored in a specific field divided by the percentage of males earning degrees who majored in the same field. Includes degrees conferred to U.S. and non-U.S. citizens.

<sup>2</sup> The dissimilarity index represents the percentage distribution of female students who would need to switch fields of study to match the percentage distribution of male students across fields of study. It is calculated as the sum of the absolute difference between the percentages of male and female students majoring in each field divided by 2.

<sup>3</sup> Principally composed of agriculture and natural resources at the doctor's degree level.

<sup>4</sup> Data for 1988 through 1995 are revised from previously published figures.

NOTE: See the supplemental note to *Indicator 57* for a description of fields of study.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Chartbook of Degrees Conferred, 1969–70 to 1993–94, Degrees and Other Awards Conferred by Institutions of Higher Education: 1994–95*, and *Digest of Education Statistics* (based on IPEDS "Completions" surveys).

**Table 59-1 Percentage of 25- to 29-year-olds who completed high school, by race-ethnicity and sex: March 1971-98**

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	77.7	79.1	76.5	81.7	83.0	80.5	58.8	56.7	60.5	48.3	51.3	45.7
1972	79.8	80.5	79.2	83.4	84.1	82.7	64.1	61.7	66.0	47.6	47.1	47.9
1973	80.2	80.6	79.8	84.0	84.2	83.9	64.1	63.2	64.9	52.3	54.2	50.6
1974	81.9	83.1	80.8	85.5	86.0	85.0	68.4	71.5	65.8	54.1	55.9	52.5
1975	83.1	84.5	81.7	86.6	88.0	85.2	71.1	72.3	70.1	53.1	52.2	53.9
1976	84.7	86.0	83.5	87.7	89.0	86.4	74.0	72.8	74.9	58.1	57.6	58.4
1977	85.4	86.6	84.2	88.6	89.2	88.0	74.5	77.5	72.0	58.0	61.9	54.6
1978	85.3	86.0	84.6	88.5	88.8	88.2	77.4	78.7	76.3	56.5	58.5	54.6
1979	85.6	86.3	84.9	89.2	89.8	88.5	74.7	74.0	75.3	57.1	55.5	58.6
1980	85.4	85.4	85.5	89.2	89.1	89.2	76.7	74.8	78.3	57.9	57.0	58.8
1981	86.3	86.5	86.1	89.8	89.7	89.9	77.6	78.8	76.6	59.8	59.1	60.4
1982	86.2	86.3	86.1	89.1	89.1	89.1	81.0	80.4	81.5	61.0	60.6	61.2
1983	86.0	86.0	86.0	89.3	89.3	89.3	79.5	79.0	79.9	58.4	57.8	58.9
1984	85.9	85.6	86.3	89.4	89.4	89.4	79.1	75.9	81.7	58.6	56.7	60.1
1985	86.2	85.9	86.4	89.5	89.2	89.9	80.5	80.6	80.5	61.0	58.6	63.1
1986	86.1	85.9	86.4	89.6	88.7	90.4	83.5	86.4	81.0	59.1	58.2	60.0
1987	86.0	85.5	86.4	89.4	88.9	90.0	83.5	84.5	82.6	59.8	58.6	61.0
1988	85.9	84.7	87.1	89.7	88.4	90.9	80.9	80.9	80.9	62.3	59.9	64.8
1989	85.5	84.4	86.5	89.3	88.2	90.4	82.3	80.5	83.8	61.0	61.0	61.1
1990	85.7	84.4	87.0	90.1	88.6	91.6	81.8	81.4	82.0	58.2	56.6	59.9
1991	85.4	84.9	85.8	89.8	89.2	90.5	81.8	83.6	80.1	56.7	56.4	57.2
1992	86.3	86.1	86.5	90.6	90.3	91.1	80.9	82.7	79.3	60.9	61.1	60.6
1993	86.7	86.0	87.4	91.2	90.7	91.8	82.7	84.8	80.8	60.9	58.2	63.9
1994	86.1	84.5	87.6	91.1	90.0	92.3	84.1	82.8	85.3	60.3	58.0	63.0
1995	86.9	86.3	87.4	92.5	92.0	93.0	86.8	88.4	85.3	57.2	55.7	58.7
1996	87.3	86.5	88.1	92.6	92.0	93.1	86.0	87.9	84.5	61.1	59.7	62.9
1997	87.4	85.8	88.9	92.9	91.7	94.0	86.9	85.8	87.8	61.8	59.2	64.8
1998	88.1	86.6	89.6	93.6	92.5	94.6	88.2	88.4	88.1	62.8	59.9	66.3

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial-ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

**Table 59-2 Percentage of 25- to 29-year-old high school completers with some college, by race-ethnicity and sex: March 1971–98**

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	43.6	48.7	38.4	44.9	50.2	39.5	30.9	29.0	32.2	30.6	38.3	22.8
1972	45.1	50.7	39.5	46.3	52.3	40.2	33.3	31.7	34.6	32.1	37.2	28.3
1973	45.3	51.4	39.4	46.6	53.0	40.2	33.5	33.5	33.5	31.6	39.4	24.5
1974	48.9	53.8	44.1	50.4	55.6	45.2	35.4	36.9	34.1	39.2	44.1	34.5
1975	50.1	56.0	44.1	51.2	57.3	44.9	38.7	41.0	36.8	41.1	50.4	32.6
1976	52.1	58.2	46.0	53.8	60.1	47.4	37.2	40.5	34.7	36.3	42.3	31.2
1977	53.2	58.0	48.5	54.8	59.9	49.7	41.7	44.2	39.6	41.1	42.6	39.5
1978	54.4	59.3	49.6	55.9	61.4	50.3	44.9	45.2	44.4	43.6	47.2	40.1
1979	54.1	57.7	50.6	55.7	59.4	51.9	41.7	40.7	42.5	44.0	50.7	38.0
1980	52.3	55.8	49.0	53.8	57.3	50.3	42.3	43.6	41.3	39.9	45.5	34.7
1981	50.1	52.7	47.5	51.2	54.1	48.3	42.5	43.0	42.2	39.6	41.7	37.7
1982	49.9	51.5	48.3	50.7	52.2	49.1	45.8	47.4	44.6	39.6	40.6	38.7
1983	50.6	52.1	49.0	51.6	53.4	49.7	41.6	42.0	41.2	42.9	41.1	44.6
1984	50.1	50.9	49.3	51.0	51.7	50.3	41.6	41.6	41.7	45.6	47.5	44.0
1985	50.8	51.5	50.1	51.8	52.5	51.2	42.7	42.4	42.9	44.2	45.9	42.9
1986	51.0	51.4	50.8	52.3	52.8	51.8	43.4	41.5	45.2	42.9	42.8	43.0
1987	50.7	50.4	51.0	51.4	51.5	51.4	43.0	38.4	47.0	44.6	46.3	43.1
1988	50.8	51.6	50.1	51.8	52.4	51.2	41.2	42.9	39.7	44.9	44.3	45.6
1989	51.3	52.0	50.5	52.8	53.4	52.2	42.1	42.2	41.9	44.3	44.8	43.9
1990	52.0	51.8	52.1	53.6	53.4	53.8	44.1	43.0	45.0	40.1	40.4	39.8
1991	53.1	52.3	53.8	54.9	54.7	55.1	43.2	38.3	47.7	42.2	40.9	43.4
1992	56.7	56.0	57.4	58.8	58.3	59.2	44.7	42.3	46.9	46.8	44.5	49.6
1993	58.9	57.6	60.1	61.0	60.3	61.6	48.4	43.6	52.5	48.8	46.1	51.9
1994	60.5	58.9	62.0	62.7	61.0	64.3	49.6	48.7	50.3	51.5	48.3	55.0
1995	62.2	60.6	63.9	64.6	62.6	66.7	52.0	51.2	52.5	50.3	48.0	52.7
1996	64.7	63.1	66.3	67.0	65.5	68.4	55.9	54.5	57.1	50.9	47.0	55.6
1997	65.4	64.0	66.8	68.2	66.9	69.5	53.7	50.2	56.5	53.9	51.9	56.1
1998	65.6	63.0	68.1	68.5	66.2	70.8	56.6	52.9	59.7	51.7	48.9	54.7

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial-ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

**Table 59-3 Percentage of 25- to 29-year-old high school completers with a bachelor's degree or higher, by race-ethnicity and sex: March 1971-98**

March	All			White			Black			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	22.0	25.8	18.1	23.1	27.0	19.1	11.5	12.1	10.9	10.5	15.4	5.8
1972	23.7	27.3	20.2	24.9	28.6	21.1	13.1	11.6	14.3	7.8	9.5	6.4
1973	23.6	26.8	20.5	24.8	28.3	21.3	12.7	11.3	13.8	10.8	12.4	9.7
1974	25.3	28.7	21.8	27.2	31.1	23.2	11.5	12.3	11.0	10.1	8.9	11.2
1975	26.3	29.7	22.9	27.5	31.1	23.7	14.7	15.3	14.2	16.6	19.7	13.4
1976	28.0	32.0	24.1	29.3	33.5	25.0	17.6	16.5	18.6	12.7	17.9	8.2
1977	28.1	31.2	25.1	29.8	33.4	26.3	16.9	16.5	17.3	11.5	11.3	11.7
1978	27.3	30.2	24.4	28.9	32.6	25.3	15.2	13.6	16.5	17.1	16.4	17.9
1979	27.0	29.9	24.2	28.6	31.6	25.5	16.6	17.8	15.7	12.9	14.2	11.4
1980	26.3	28.1	24.5	28.0	30.1	26.0	15.0	14.0	15.8	13.2	15.0	11.8
1981	24.7	26.6	22.8	26.3	28.4	24.2	14.9	15.4	14.5	12.5	14.4	10.9
1982	25.2	26.9	23.4	26.7	28.8	24.6	15.6	14.6	16.4	15.9	17.8	14.2
1983	26.2	27.8	24.6	27.4	29.4	25.4	16.2	16.5	15.9	17.8	16.8	18.8
1984	25.5	27.1	24.0	27.0	28.5	25.4	14.8	17.1	13.0	18.1	17.0	19.2
1985	25.7	26.9	24.6	27.3	28.6	26.0	14.4	12.9	15.6	18.2	18.6	17.7
1986	26.0	26.7	25.3	28.1	29.1	27.1	14.2	11.9	16.3	15.3	15.4	15.2
1987	25.6	26.1	25.2	27.6	28.0	27.1	13.8	14.0	13.6	14.5	15.7	13.4
1988	26.4	27.6	25.2	28.0	29.1	26.9	14.8	15.3	14.4	18.1	19.8	16.3
1989	27.3	28.3	26.5	29.5	30.5	28.5	15.4	15.0	15.6	16.5	15.7	17.2
1990	27.1	28.0	26.2	29.3	30.0	28.6	16.4	18.6	14.5	14.0	12.9	15.2
1991	27.2	27.0	27.3	29.7	29.7	29.8	13.4	13.7	13.1	16.3	14.4	18.1
1992	27.3	26.9	27.8	30.0	29.5	30.4	13.7	14.2	13.2	15.6	14.3	17.0
1993	27.3	27.2	27.4	29.8	30.0	29.5	16.1	14.8	17.2	13.6	12.1	15.3
1994	27.0	26.6	27.4	29.7	29.8	29.6	16.2	14.0	17.9	13.3	11.3	15.5
1995	28.4	28.4	28.5	31.2	30.9	31.4	17.8	19.7	16.1	15.5	14.0	17.1
1996	31.1	30.2	32.0	34.1	33.6	34.7	17.0	13.9	19.6	16.4	17.1	15.6
1997	31.8	30.7	32.9	35.2	34.1	36.2	16.4	13.7	18.5	17.8	16.1	19.6
1998	31.0	29.6	32.4	34.5	32.9	36.1	17.9	16.1	19.3	16.5	15.9	17.1

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the supplemental note to this indicator for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 51* for further discussion. Included in totals but not shown separately are other racial-ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

## Educational attainment

The Current Population Survey (CPS) questions on educational attainment, which are used in the analyses for *Indicators 11, 12, 60*, and others, were changed in 1992. Before 1992, the educational attainment questions were 1) “What is the highest grade or year of regular school . . . has ever attended?” and 2) “Did . . . complete the grade?” There were 19 response categories for grades 1–8, first through fourth year of high school, and first through sixth year of college.

For example, if respondents attended, but did not complete, grade 12, it was assumed that they had completed grade 11. If the highest grade respondents had completed was grade 9, 10, or 11, they were classified as high school dropouts. If respondents had completed grade 12 or more, they were considered to have completed high school. If they had completed 4 or more years of college, they were considered to have completed college.

Beginning in 1992, the two questions were changed to a single question: “What is the highest level of school . . . has completed or the highest degree . . . has received?” In the new response categories, several of the lower education levels were collapsed into a single summary category such as “1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> grades.” At the high school level, a new category “12<sup>th</sup> grade, no diploma” was added. Also, the categories for high school completion and beyond were changed as follows:

- High school graduate
- High school diploma or equivalent (e.g., GED)
- Some college but no degree
- Associate degree in college, academic program
- Associate degree in college, occupational or vocational program
- Bachelor’s degree (e.g., B.A., A.B., B.S.)
- Master’s degree (e.g., M.A., M.S., M.Eng., M.Ed., M.S.W., M.B.A.)
- Professional school degree (e.g., M.D., D.D.S., D.V.M., L.L.B., J.D.)
- Doctoral degree (e.g., Ph.D., Ed.D.)

The new question puts more emphasis on credentials received beginning at the high school level and less emphasis on the last grade level attended or completed in college if that attendance did not lead to a credential.

This change created some uncertainty about the comparability of measures, such as high school completion rates and college completion rates over time. Below is a discussion of the possible effects the new question may have on high school and college completion rates.

*High school completion:* The earlier educational attainment question did not explicitly address high school equivalency certificates. Therefore, it is possible that an individual who attended grade 10, dropped out without completing that grade, and later took the GED test and received a high school equivalency credential would not have been counted as completing high school. The new question, however, explicitly treats these individuals as high school graduates. Since 1988, an additional question has been added to the October CPS to explicitly ask respondents whether they had taken the GED. The vast majority of those who responded “yes” were classified as high school graduates based upon the educational attainment question.

The earlier educational attainment question treated individuals who completed grade 12 as high school graduates. However, the new question added a new response category called “12<sup>th</sup> grade, no diploma,” and these respondents were not treated as graduates—historically, the number of individuals in this category has been very small. In summary, it appears that the question change has had minor effects on measured high school completion rates.

*College completion:* With the increasing prevalence of individuals taking more than 4 years to earn a bachelor’s degree, some researchers are concerned that the college completion rate based on the category “4<sup>th</sup> year or higher of college completed” would overstate the bachelor’s degree (or higher) completion rate. However, the college completion rates among those ages 25–29 in 1992 and 1993 using the new CPS question were very similar to the completion rates for those in 1990 and 1991 using the old questions. In summary, it appears that the question change has had very little effect on measured college completion rates.

*Some college:* Based on the new question, an individual who attends college for only a few months would respond “some college,” compared with the old question to which the response would have been “attended first year of college and did not complete it.” In the past, the calculation of the percentage of the population with 1–3 years of college excluded

these individuals. With the new question, the information to exclude them is not available, and those respondents with only a few months of college are included in the "some college" category. In principle, the percentage of individuals with "some college" or an associate degree would be expected to be larger than the percentage with 1–3 years of college. Therefore, it would not be accurate to make comparisons between the percentage of those with "some college or an associate degree" using the new question and the percentage of those who completed "1–3 years of college" using the old question.

Indicators 11 and 12 use labor force statistics for the civilian population and annual median earnings for wage and salary workers with different levels of educational attainment. The discussion above suggests that the "high school graduate with no further education" category based on the new item is larger than before, because it includes all those with an equivalency certificate; however, it is

actually smaller because it excludes those who completed "12<sup>th</sup> grade, no diploma" and those with only a few months of college. The latter group is now included in the "1–3 years of college" category.

Nevertheless, the employment and earnings of the respondents who have been added and dropped from each category are similar; therefore, the net effect of the misclassification on employment rates and average annual earnings is likely to be minor. Thus, it is still useful to compare the employment rates and median annual earnings of recent cohorts with "some college or an associate degree" to older cohorts who completed "1–3 years of college."

For further information on this issue, see Robert Kominski and Paul M. Siegel, "Measuring Education in the Current Population Survey," *Monthly Labor Review*, September 1993.

**Table 60-1 Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996**

Country	Total		Male		Female	
	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education
<b>25-64 years old</b>						
<b>Large, industrialized countries</b>						
Canada	76.4	17.3	75.7	18.6	77.1	16.0
France <sup>2</sup>	60.2	9.7	63.3	10.9	57.2	8.6
Germany	81.5	13.1	87.1	16.2	75.7	9.9
Italy	38.2	8.1	39.8	8.9	36.6	7.3
Japan <sup>3</sup>	69.7	13.3	70.9	21.5	68.5	5.2
United Kingdom	76.3	12.8	81.5	15.4	71.1	10.1
United States	85.7	25.8	85.2	27.4	86.1	24.3
<b>Other countries</b>						
Australia	57.0	14.8	66.3	15.4	47.6	14.3
Austria	71.3	6.1	78.7	7.6	63.9	4.6
Belgium	53.5	10.6	54.3	13.4	52.6	7.9
Czech Republic	84.4	10.4	90.8	12.7	78.1	8.2
Denmark	66.1	15.2	69.9	15.8	62.2	14.7
Finland	66.8	11.9	66.2	13.5	67.4	10.2
Greece	44.2	12.0	46.8	13.4	41.7	10.7
Ireland	50.2	10.7	46.9	12.2	53.5	9.3
Korea	61.1	19.0	70.4	24.6	51.5	13.2
Luxembourg	29.3	11.4	33.5	14.7	25.0	8.1
Netherlands	62.5	22.5	67.7	25.6	57.3	19.4
New Zealand <sup>4</sup>	60.2	11.3	65.8	13.4	54.7	9.3
Norway	81.6	15.6	82.5	15.9	80.6	15.2
Poland <sup>5</sup>	73.7	9.9	76.3	10.1	71.2	9.8
Portugal	20.4	7.5	20.4	7.8	20.5	7.1
Spain	30.2	12.8	32.3	13.0	28.2	12.7
Sweden	74.2	13.4	73.0	14.0	75.5	12.7
Switzerland	80.2	9.5	87.7	12.9	72.6	6.1
Turkey <sup>4</sup>	21.6	7.9	24.6	9.2	17.5	6.2
<b>25-34 years old</b>						
<b>Large, industrialized countries</b>						
Canada	84.9	20.1	82.9	19.4	86.9	20.8
France <sup>2</sup>	74.3	12.4	73.6	11.7	74.9	12.9
Germany	86.4	12.9	88.3	14.1	84.4	11.6
Italy	52.1	8.3	50.0	8.0	54.3	8.7
Japan <sup>3</sup>	90.6	22.9	89.3	34.2	91.8	11.5
United Kingdom	86.6	15.2	87.5	16.5	85.6	13.8
United States	86.9	26.5	85.9	25.9	87.9	27.1

**Table 60-1 Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996—Continued**

Country	Total		Male		Female	
	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education
<b>25–34 years old</b>						
<b>Other countries</b>						
Australia	62.3	15.8	69.7	15.7	55.1	16.0
Austria	82.2	6.9	86.4	7.7	77.9	6.2
Belgium	69.8	14.3	67.4	15.3	72.3	13.3
Czech Republic	92.3	11.2	93.6	12.4	91.0	9.9
Denmark	74.2	15.8	73.9	15.0	74.6	16.6
Finland	83.1	13.1	81.5	13.7	84.7	12.4
Greece	65.9	16.2	65.1	14.5	66.6	17.8
Ireland	66.4	14.4	61.6	14.8	71.1	14.1
Korea	88.4	30.1	90.3	34.0	86.4	25.9
Luxembourg	32.3	11.5	32.8	13.0	31.8	9.9
Netherlands	71.9	25.1	71.6	26.0	72.1	24.2
New Zealand <sup>4</sup>	65.0	13.7	67.6	14.9	62.6	12.5
Norway	91.0	19.4	90.5	17.1	91.6	21.7
Poland <sup>5</sup>	88.2	9.9	87.1	9.1	89.4	10.8
Portugal	32.5	11.2	29.1	9.3	35.7	12.9
Spain	49.8	19.2	47.5	16.0	52.2	22.6
Sweden	87.4	11.3	86.8	11.6	88.1	10.9
Switzerland	86.7	10.7	91.1	12.6	82.2	8.8
Turkey <sup>4</sup>	24.7	7.4	28.9	8.6	20.3	6.1
<b>35–44 years old</b>						
<b>Large, industrialized countries</b>						
Canada	81.2	17.6	79.7	18.5	82.6	16.8
France <sup>2</sup>	64.1	10.0	67.6	11.1	60.8	8.9
Germany	85.3	16.2	88.9	18.9	81.5	13.4
Italy	46.0	10.7	46.8	11.4	45.2	9.9
Japan <sup>3</sup>	77.0	14.5	77.0	23.6	77.0	5.4
United Kingdom	80.7	14.7	85.4	17.6	75.9	11.8
United States	87.9	26.3	87.0	26.3	88.9	26.2
<b>Other countries</b>						
Australia	59.9	18.3	69.8	18.7	50.2	17.8
Austria	75.1	7.4	82.0	8.7	68.0	6.1
Belgium	57.7	11.4	57.5	14.7	57.9	8.1
Czech Republic	86.9	12.3	91.8	15.0	82.0	9.5
Denmark	69.5	17.5	73.7	17.2	65.2	17.8
Finland	75.6	13.4	73.5	14.8	77.7	11.9
Greece	51.7	14.4	53.2	16.2	50.2	12.7
Ireland	54.4	11.2	51.5	12.9	57.2	9.6
Korea	62.6	17.9	72.7	25.2	52.1	10.2
Luxembourg	33.5	14.0	37.8	17.5	29.0	10.4
Netherlands	66.5	24.9	70.1	27.9	62.7	21.9
New Zealand <sup>4</sup>	64.3	13.1	69.8	15.4	59.0	10.8
Norway	86.6	17.4	86.8	16.8	86.4	18.1
Poland <sup>5</sup>	81.7	9.7	82.1	9.5	81.3	9.9
Portugal	24.3	8.9	24.1	9.4	24.5	8.5
Spain	34.2	14.7	36.3	14.9	32.3	14.6
Sweden	80.1	14.7	77.6	15.5	82.6	14.0
Switzerland	81.5	10.5	86.2	13.9	76.6	6.9
Turkey <sup>4</sup>	22.5	8.4	26.5	9.6	17.2	6.8

**Table 60-1 Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996—Continued**

Country	Total		Male		Female	
	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education
<b>45–54 years old</b>						
<b>Large, industrialized countries</b>						
Canada	73.0	17.5	73.2	20.2	72.8	14.7
France <sup>2</sup>	55.9	9.6	60.5	12.0	51.2	7.1
Germany	81.5	14.1	87.4	18.8	75.4	9.3
Italy	31.2	8.4	35.7	9.8	26.8	7.0
Japan <sup>3</sup>	59.6	9.1	62.4	15.8	56.9	2.5
United Kingdom	71.4	11.6	78.6	15.1	64.3	8.1
United States	86.5	28.0	86.7	32.2	86.2	24.0
<b>Other countries</b>						
Australia	53.7	13.8	64.1	15.3	43.0	12.2
Austria	67.1	5.4	75.2	7.5	58.9	3.2
Belgium	47.4	9.6	50.2	13.4	44.5	5.8
Czech Republic	83.6	9.9	91.0	11.7	76.4	8.0
Denmark	65.4	15.6	69.9	17.3	60.8	13.8
Finland	60.3	12.2	59.4	14.3	61.2	10.0
Greece	35.6	10.8	40.2	13.4	31.1	8.3
Ireland	38.3	8.7	35.7	10.6	41.1	6.6
Korea	40.9	11.1	54.9	16.4	26.4	5.7
Luxembourg	27.8	12.4	34.3	17.2	21.2	7.4
Netherlands	57.0	21.5	65.5	26.3	48.2	16.4
New Zealand <sup>4</sup>	56.3	9.6	62.9	12.7	49.5	6.5
Norway	77.6	13.8	78.6	16.2	76.4	11.3
Poland <sup>5</sup>	67.9	11.7	71.7	12.4	64.2	11.1
Portugal	15.5	6.1	16.8	7.2	14.3	5.1
Spain	20.1	9.9	24.5	12.0	15.9	7.8
Sweden	70.3	16.4	68.8	16.9	71.7	15.9
Switzerland	77.7	9.5	87.7	14.5	68.1	4.7
Turkey <sup>4</sup>	13.5	6.9	18.8	9.8	8.0	3.8
<b>55–64 years old</b>						
<b>Large, industrialized countries</b>						
Canada	56.2	11.2	57.9	14.7	54.5	7.7
France <sup>2</sup>	38.3	5.5	44.1	7.5	32.8	3.6
Germany	71.1	8.9	83.1	13.3	59.4	4.6
Italy	16.8	4.6	20.4	6.3	13.4	2.9
Japan <sup>3</sup>	—	—	—	—	—	—
United Kingdom	60.4	7.7	69.8	10.8	51.6	4.9
United States	77.5	20.2	77.6	25.2	77.3	15.6

**Table 60-1** Percentage of the population who completed secondary and higher education, by sex, age, and country: 1996—Continued

Country	Total		Male		Female	
	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education	Secondary education <sup>1</sup>	Higher education
<b>Other countries</b>						
Australia	46.4	8.3	57.1	9.0	35.7	7.5
Austria	52.8	3.8	64.4	6.0	41.8	1.6
Belgium	31.2	5.5	35.3	8.7	27.4	2.6
Czech Republic	70.6	7.5	84.3	11.0	58.5	4.4
Denmark	50.3	10.9	58.4	12.8	42.5	9.2
Finland	40.2	7.4	42.5	9.8	38.1	5.2
Greece	21.8	6.2	27.2	9.1	16.9	3.5
Ireland	30.4	6.0	28.7	8.4	32.2	3.7
Korea	24.6	6.9	40.6	12.3	10.2	1.9
Luxembourg	19.6	6.3	26.9	10.0	12.6	2.8
Netherlands	47.5	15.6	59.5	20.0	35.6	11.3
New Zealand <sup>4</sup>	48.7	6.1	59.2	8.0	38.2	4.1
Norway	62.4	8.3	66.8	11.5	58.3	5.2
Poland <sup>5</sup>	47.1	8.2	55.3	10.0	40.2	6.7
Portugal	9.1	3.5	10.6	5.2	7.7	2.1
Spain	11.1	5.5	15.1	7.6	7.5	3.6
Sweden	52.9	10.1	52.0	11.3	53.7	9.0
Switzerland	71.0	6.2	84.6	9.7	58.2	3.0
Turkey <sup>4</sup>	6.6	2.9	9.8	4.8	3.4	1.0

— Not available.

<sup>1</sup> Includes individuals who have completed at least secondary education.

<sup>2</sup> The allocation for individual education level for France was revised in 1996. The result is a reduction in the number of people with upper secondary level qualification and an increase in the number with lower secondary level qualification.

<sup>3</sup> Data are for 1989.

<sup>4</sup> Data are for 1997.

<sup>5</sup> Data are for 1995.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher.

SOURCE: Organisation for Economic Co-operation and Development, INES Project, International Indicators Project.