

Section IV. Social Support for Learning

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Early reading activities in the home

Family participation in reading activities provides valuable developmental experiences for young children. In addition to developing an interest in reading, children who are read to, told stories, and visit the library may start school better prepared to learn than other students. Engaging young children in reading activities at home also enables parents and other family members to become actively involved in their children's education at an early age.

- In 1996, at least 80 percent of children ages 3–5 were read to or told a story in the past week by a parent or family member, while 38 percent had visited a library in the past month. The percentage of children who were read to or told a story was higher in 1996 than in 1991.
- Children ages 3–5 who were not enrolled in preprimary education were usually as likely to have been read to or told a story by a parent or family member in the past week as those 3- to 5-year-olds who were enrolled in kindergarten or center-based care in 1996. However, children ages 3–5 who were not enrolled in preprimary education were less likely to have visited a library in the past month than children who were enrolled in kindergarten or a center-based program.
- In 1996, white children ages 3–5 were more likely than their black and Hispanic peers to have been read to in the past week and were more likely than their black peers to have been told a story in the past week. In addition, white children were more likely to have visited a library in the past month than their black and Hispanic peers.
- In 1996, children ages 3–5 whose parents had completed a bachelor's degree or more education were more likely to have been read to in the past week or to have visited a library in the past month than children whose parents' highest education level was a high school diploma or less.

Percentage of children ages 3–5 who participated in various reading activities with a parent or family member, by selected characteristics: 1991, 1993, 1995, and 1996

Selected characteristics	Read to three or more times in the past week				Told a story at least once in the past week				Visited a library in the past month			
	1991	1993	1995	1996	1991	1993	1995	1996	1991	1993	1995	1996
Total	71.4	77.7	83.1	82.9	72.0	74.7	81.4	82.0	36.6	38.8	41.2	38.2
School enrollment status and level ¹												
Not enrolled	68.9	75.5	81.3	80.0	72.7	73.6	79.7	80.2	29.3	32.8	32.9	31.8
Center-based programs ²	73.9	80.8	85.6	84.6	73.4	77.3	82.9	83.4	40.0	42.4	44.2	41.1
Kindergarten ²	71.3	75.9	80.8	83.8	69.1	72.2	80.9	81.9	40.8	41.6	46.0	42.1
Race-ethnicity												
White	77.7	84.0	89.0	88.9	73.8	75.6	83.9	83.9	40.7	42.1	45.1	42.5
Black	59.0	66.8	73.7	75.9	66.0	72.2	74.4	76.6	27.8	32.0	34.1	34.1
Hispanic	53.0	60.2	61.5	65.3	68.4	71.5	75.1	79.3	24.5	27.9	28.0	25.9
Other	65.8	70.8	85.2	87.4	74.2	78.5	80.8	84.3	34.8	43.3	41.5	37.1
Parents' highest education level												
Less than high school diploma	53.8	54.5	64.4	58.8	67.4	65.3	71.9	72.8	18.3	24.6	18.3	19.4
High school diploma or GED	63.5	73.1	77.9	77.4	68.2	73.6	77.6	79.9	26.0	28.2	31.5	30.1
Some college/vocational/technical	74.0	80.4	85.3	86.5	74.2	74.7	82.9	84.6	38.5	39.6	40.9	37.1
Bachelor's degree	82.1	87.7	89.7	90.9	74.7	77.4	85.0	83.2	52.0	53.9	53.5	51.9
Graduate/professional school	88.3	88.4	94.0	96.1	78.4	81.1	88.2	85.8	59.1	59.5	62.8	59.5

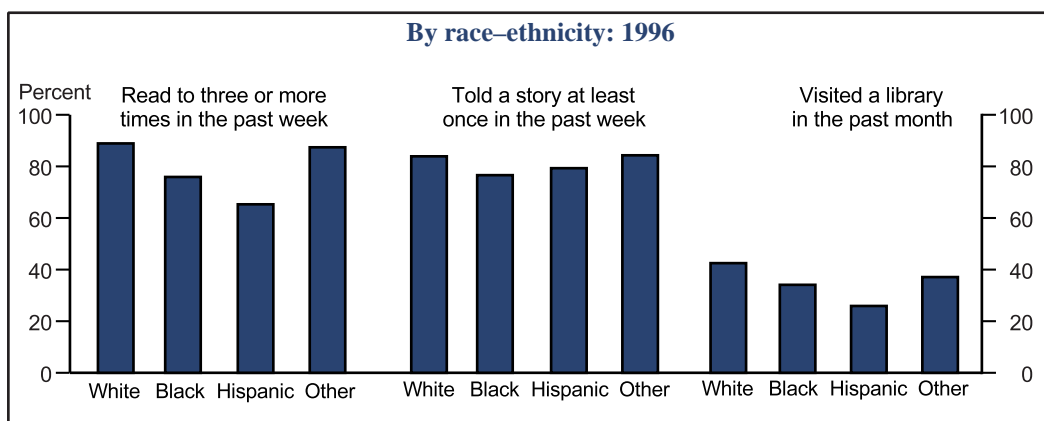
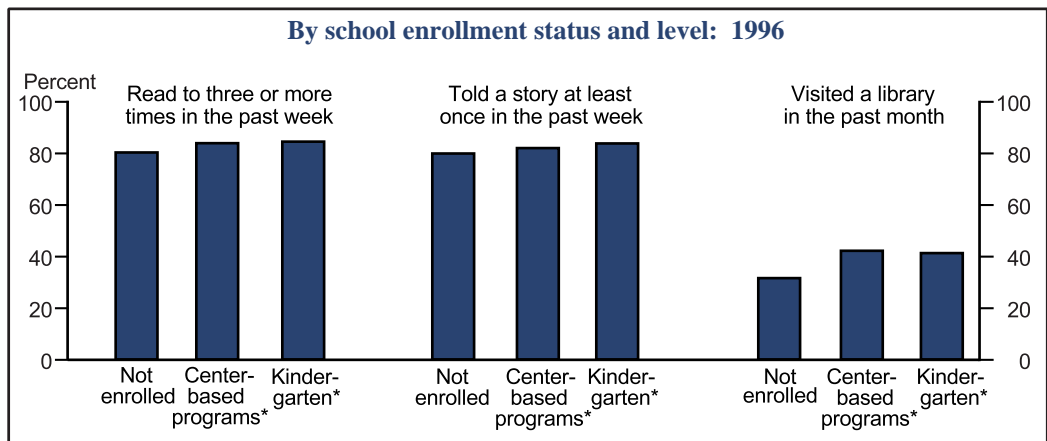
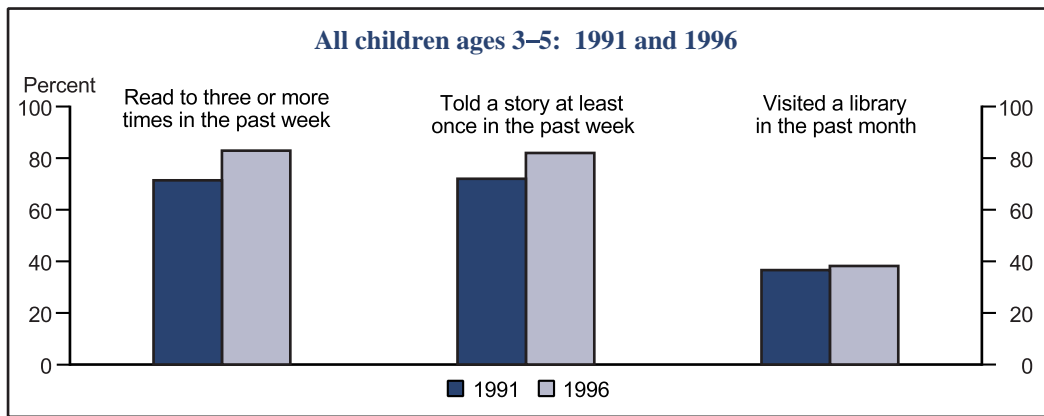
¹ Data are revised from previously published figures.

² See the glossary for definitions of center-based programs and kindergarten.

NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade. Included in the total but not shown separately are children from other types of enrollment levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Percentage of children ages 3–5 who participated in various reading activities with a parent or family member



* See the glossary for definitions of center-based programs and kindergarten.

NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File) and 1996 (Parent and Family Involvement in Education File).

Fathers' involvement in their children's education

Although most research on parental involvement has focused on mothers' roles in their children's education, current research indicates that fathers' involvement in their children's education also has a positive effect on student achievement and success in school. The role fathers assume in their children's education has become the subject of increasing interest to researchers and policymakers because single and nonresident fathers have become more common and higher proportions of mothers have entered the labor force.

- Fathers in two-parent families, single fathers, and nonresident fathers were all more likely to attend a class event, a parent-teacher conference, or a general school meeting in 1996 than they were to volunteer in their children's schools.
- Fathers in single-parent families were more likely to have a high level of involvement in their children's schools than were fathers in two-parent families and nonresident fathers. Nearly half of fathers in two-parent families had a low level of involvement in their children's schools, as did a large majority of nonresident fathers.
- Children of fathers with high levels of involvement in their schools were generally more likely than children of fathers with low levels of involvement to have positive school outcomes. For example, children of fathers with high levels of involvement were more likely to enjoy school and less likely to be expelled or suspended than were children of fathers with low levels of involvement.

Percentage of students in grades K-12 whose fathers were involved in their schools during the current school year, by type of activity and family type: 1996

Family type	Level of involvement ¹		Type of activity			
	High	Low	Volunteered	Attended		
				class event	parent-teacher conference	general school meeting
Fathers in two-parent families	26.8	47.8	15.4	52.9	38.7	55.3
Fathers in single-parent families	46.1	28.4	23.3	64.8	63.9	68.3
Nonresident fathers ²	8.7	82.5	4.0	22.0	15.0	18.0

Percentage of students in grades K-12 with selected school outcomes during the current school year, by family type and level of fathers' involvement in child's school: 1996

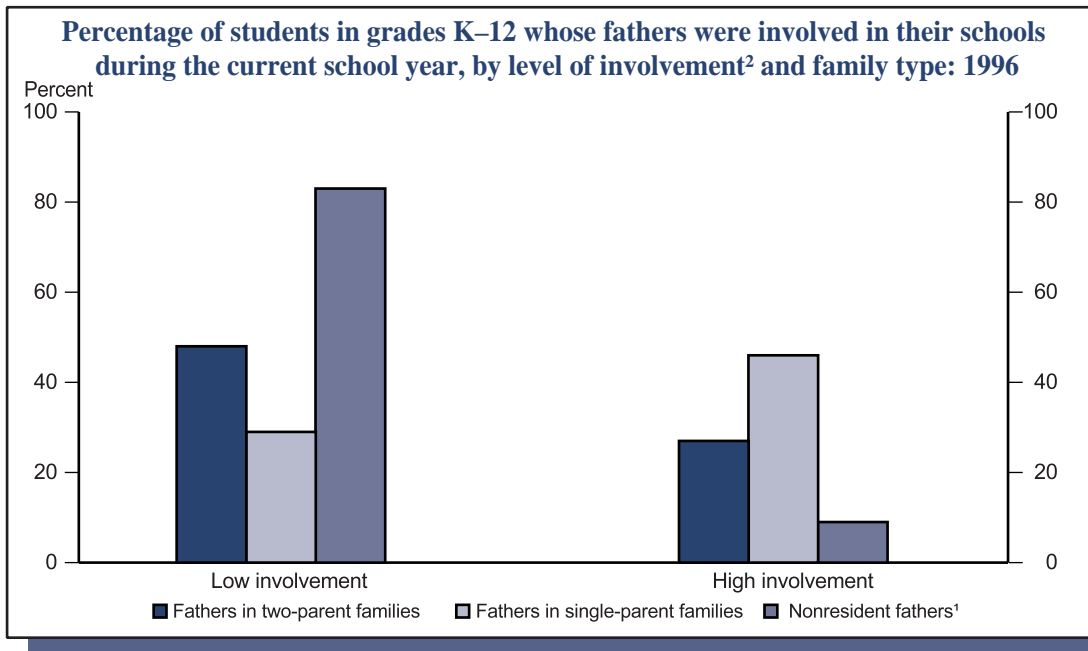
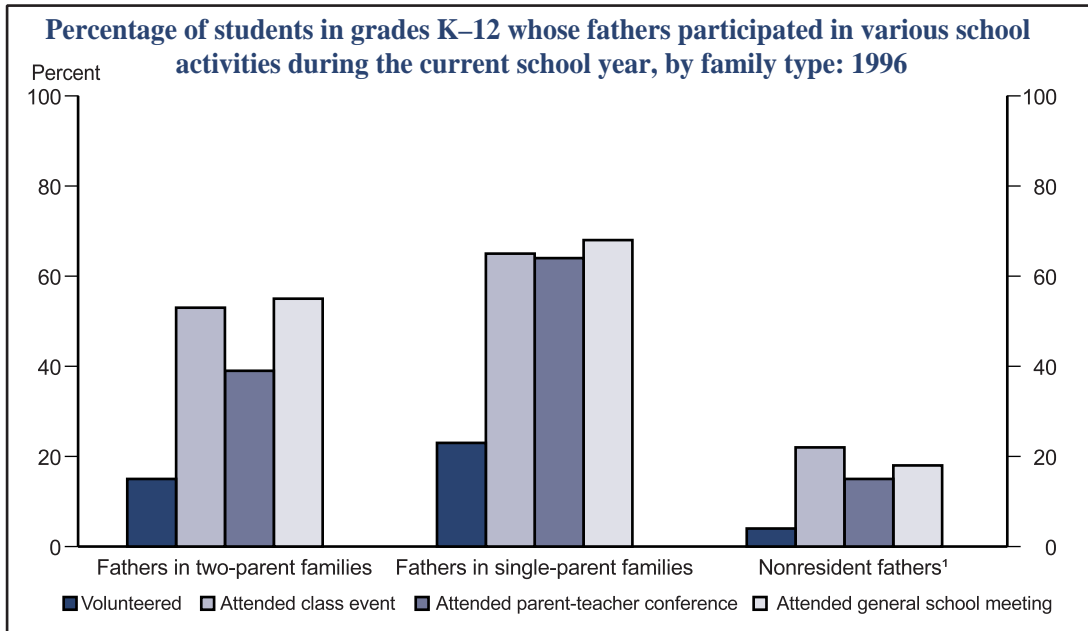
Family type and level of fathers' involvement ¹	Child gets mostly A's (Grades 1-12)	Child enjoys school (Grades 1-12)	Child participated in extracurricular activities		Child has repeated a grade (Grades K-12)	Child has ever been expelled/suspended (Grades 6-12)
			Child participated in			
			Grades K-5	Grades 6-12		
Fathers in two-parent families						
Low involvement	34.1	33.0	73.7	79.3	14.8	17.7
High involvement	50.4	49.8	90.6	94.5	6.7	9.8
Fathers in single-parent families						
Low involvement	16.6	29.8	60.7	68.6	17.9	34.5
High involvement	31.7	43.9	79.1	86.3	13.3	11.4
Nonresident fathers ²						
Low involvement	29.1	34.7	73.5	75.5	18.1	27.8
High involvement	35.2	44.8	86.6	92.0	7.2	14.4

¹ Low involvement is defined as participation in none or only one activity out of four; high involvement is defined as participation in three or four activities.

² These percentages represent the 75 percent of all nonresident fathers who were reported to have had contact with their children within the past year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Parent and Family Involvement in Education and Civic Involvement Components).

Fathers' involvement in their children's education: 1996



¹ These percentages represent the 75 percent of all nonresident fathers who were reported to have had contact with their children within the past year.

² Low involvement is defined as participation in none or only one activity out of four; high involvement is defined as participation in three or four activities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Parent and Family Involvement in Education and Civic Involvement Components).

Family characteristics of 6- to 12-year-olds

The family environment in which a child lives affects many aspects of that child's life, including school performance. For example, research has shown that family characteristics, such as parents' educational attainment, number of children in the family, family income, and mother's employment status, are related to student achievement. Data on such family characteristics may help policymakers and educators to apply resources efficiently and to develop programs designed to increase learning.

- The educational attainment of parents of 6- to 12-year-olds increased substantially between 1972 and 1997. For example, the percentage whose mothers completed at least high school increased from 66 to 84 percent, while the percentage whose fathers completed at least high school rose from 65 to 85 percent (see supplemental table 36-1).
- The employment rate of mothers of 6- to 12-year-olds increased between 1972 and 1997, rising from 39 percent in 1972 to 66 percent in 1997. The employment rate of fathers decreased slightly from 93 percent in 1972 to 91 percent in 1997. Despite the increase in mothers' employment, median family income (in constant 1997 dollars) remained relatively stable between 1972 and 1992 and increased between 1992 and 1997 (see supplemental table 36-1).
- The percentage of 6- to 12-year-olds who lived with only their mother doubled between 1972 and 1997, increasing from 12 to 24 percent. Conversely, the percentage who lived with two parents decreased from 87 to 71 percent during the same period.
- In 1997, 6- to 12-year-olds had fewer other children in their household than their peers in 1972. For example, in 1972, 71 percent of 6- to 12-year-olds had two or more brothers or sisters, compared with 46 percent in 1997.

Percentage distribution of 6- to 12-year-olds, by selected family characteristics: 1972-97

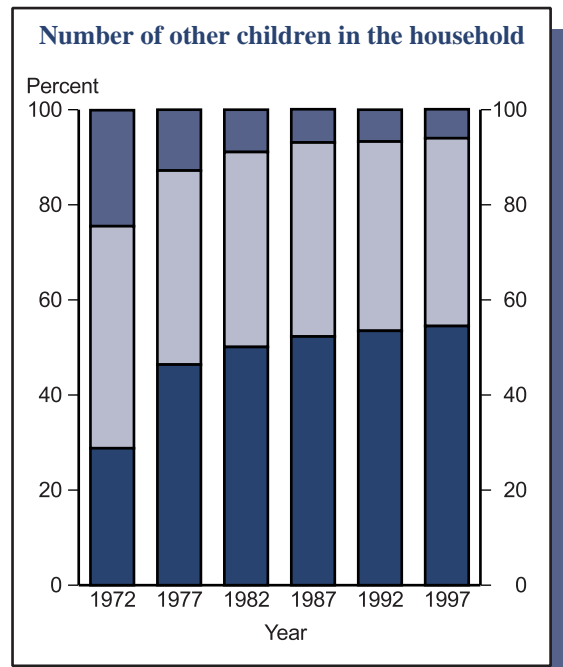
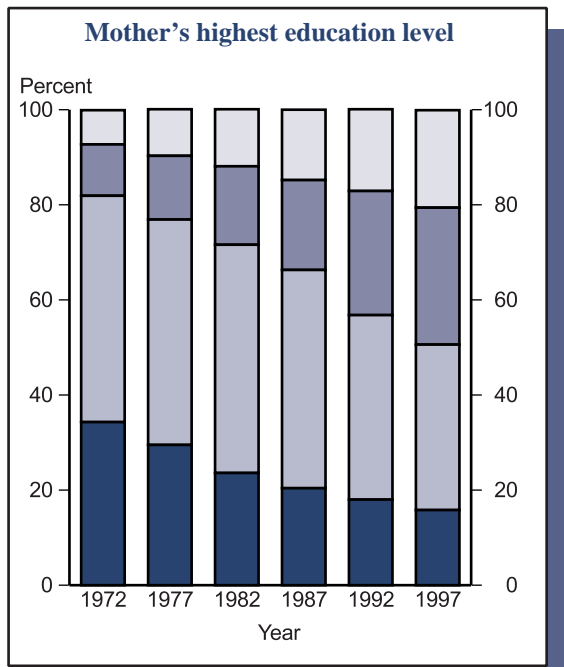
Selected family characteristics	1972	1977	1982	1987	1992	1997
Mother's highest education level						
Less than high school diploma	34.3	29.5	23.6	20.4	18.0	15.8
High school diploma or GED	47.6	47.4	48.0	45.9	38.8	34.8
Some college	10.8	13.4	16.5	18.9	26.1	28.8
Bachelor's degree or higher	7.2	9.8	12.0	14.8	17.2	20.5
Percentage of children						
whose mothers were employed	38.5	45.5	52.1	58.1	61.2	66.4
whose fathers were employed	93.1	91.0	88.9	90.3	89.1	91.2
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

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.

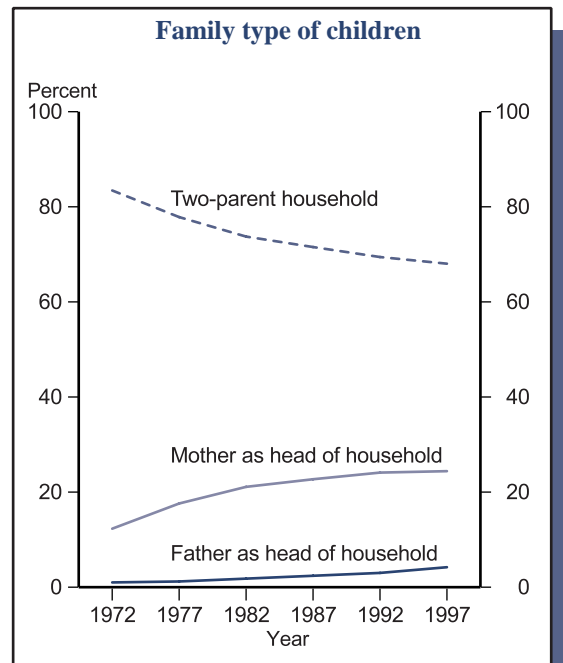
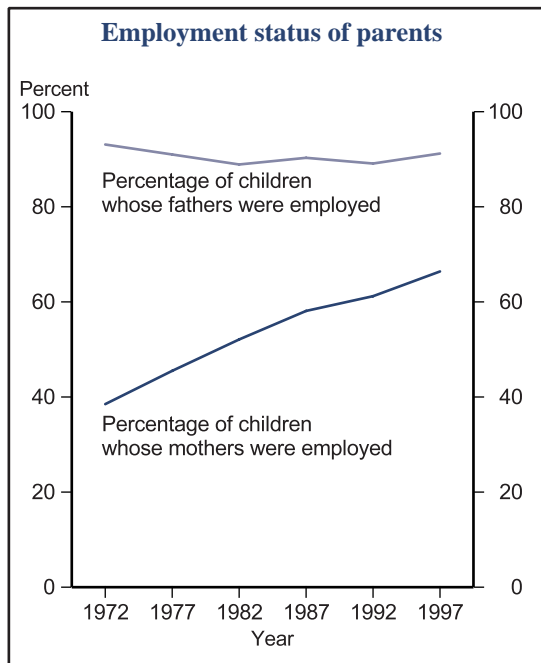
SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Percentage distribution of 6- to 12-year-olds, by family characteristics: 1972-97



Legend for Mother's highest education level:
 ■ Less than high school diploma
 ■ High school diploma or GED
 ■ Some college
 ■ Bachelor's degree or higher

Legend for Number of other children in the household:
 ■ 0-1
 ■ 2-3
 ■ 4 or more



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.

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

National indicators of public investment in education

The level of public investment in education can be measured in several ways. The national index of public effort is revenue raised for the education of students relative to the income of taxpayers adjusted for the number of students and the total population. The numerator measures average financial resources available for the education of each student. The denominator measures the taxpayer's average ability to pay. The index is the number of dollars of revenue raised for each student from each \$100 of income received by each member of the population.

- In 1996, the national effort index for elementary and secondary education was 23.5, a slight decrease after a 3.2 point increase between 1982 and 1994.
- The national effort index for higher education was 20.6 in 1996, 10.7 points below the high in 1966 (see supplemental table 37-1). However, higher education public revenues per student have been relatively stable since 1970, except for a drop in the early 1980s.
- After remaining relatively stable during the 1980s, elementary and secondary public education revenue as a percentage of Gross Domestic Product (GDP) rose between 1988 and 1992, but did not rebound to the level of the early to mid-1970s. Higher education revenue as a percentage of GDP has remained about 1 percent since 1970.

National effort index and other indicators of public effort to fund education (in constant 1998 dollars), by level: School years ending 1930–96

School year ending	National effort index ¹		Revenues per student ²		Per capita personal income ²	Revenues as a percentage of			
						GDP ³		Personal income	
	Elementary/secondary	Higher education	Elementary/secondary	Higher education		Elementary/secondary	Higher education	Elementary/secondary	Higher education
1930 ⁴	10.5	22.5	\$696	\$1,490	\$6,609	2.0	0.2	2.4	0.2
1940 ⁴	13.4	24.0	933	1,671	6,958	2.2	0.2	2.9	0.3
1950	13.7	28.8	1,303	2,745	9,536	2.0	0.4	2.6	0.5
1960	15.5	30.4	1,986	3,881	12,784	2.9	0.5	3.6	0.6
1970	19.5	31.1	3,376	5,390	17,340	4.1	1.0	4.5	1.0
1972	20.6	27.6	3,832	5,128	18,561	4.4	1.0	4.9	1.2
1974	21.1	26.5	4,003	5,034	18,968	4.2	1.1	5.0	1.2
1976	22.0	25.5	4,253	4,940	19,355	4.4	1.2	5.1	1.2
1978	20.8	24.2	4,316	5,004	20,716	4.0	1.1	4.8	1.2
1980	21.5	23.5	4,326	4,742	20,153	3.8	1.1	5.0	1.2
1982	20.8	21.9	4,157	4,384	20,009	3.5	1.0	5.0	1.3
1984	20.7	20.9	4,453	4,492	21,506	3.6	1.0	5.0	1.3
1986	21.7	23.0	4,927	5,212	22,697	3.6	1.0	4.8	1.3
1988	21.4	21.5	5,203	5,225	24,290	3.6	1.0	4.6	1.2
1990	23.9	21.3	5,786	5,161	24,191	3.8	1.0	4.5	1.2
1992	24.0	20.4	5,809	4,929	24,169	4.0	1.0	4.4	1.2
1994	24.0	20.6	5,880	5,043	24,538	4.0	1.0	4.3	1.2
1996	23.5	20.6	5,968	5,223	25,376	4.0	1.0	4.1	1.2

¹ Revenues per student divided by per capita personal income. Revised from previously published figures.

² For the calendar year in which the school year ended. In constant 1998 dollars, adjusted by the Consumer Price Index (CPI).

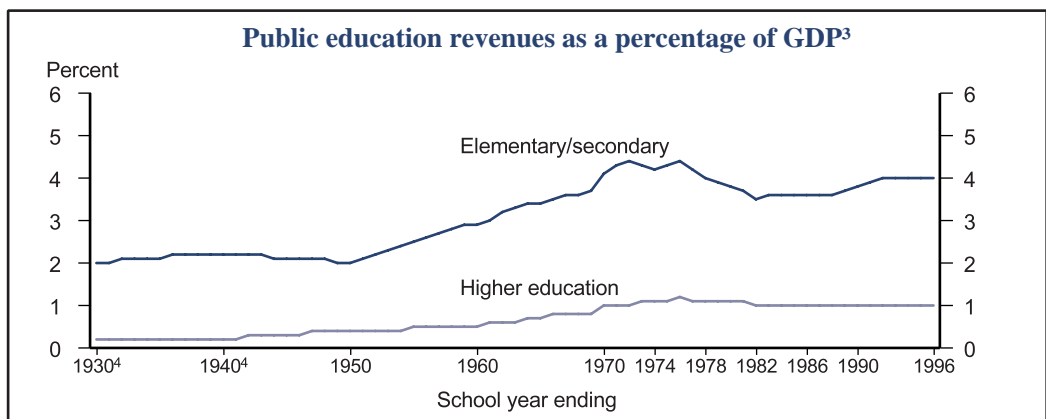
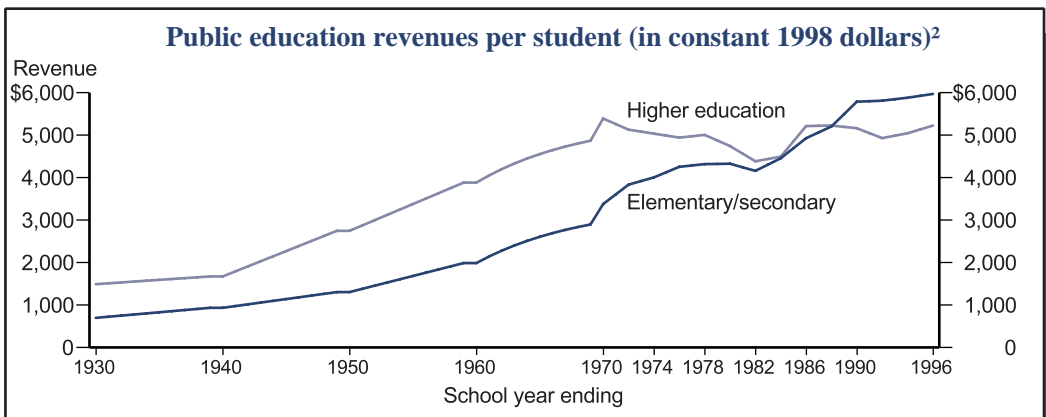
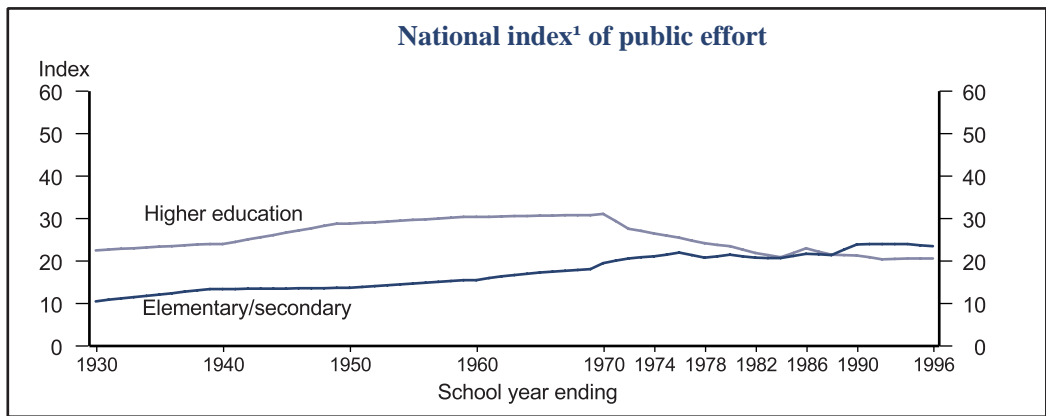
³ Gross Domestic Product (GDP) is Gross National Product (GNP) less net property income from abroad for the calendar year in which the school year began.

⁴ Income or population is for the calendar year in which the school year began.

NOTE: Public education revenues at the elementary and secondary level are revenues at public schools. Public funds for higher education may be used at many types of institutions, both publicly and privately controlled. Enrollment in both publicly and privately controlled institutions is included. For more information about the calculation of these statistics, see the supplemental note to this indicator.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998; 120 Years of American Education: A Statistical Portrait, 1993.*

National indicators of public investment in education, by level: School years ending 1930-96



¹ Revenues per student divided by per capita personal income. Revised from previously published figures.

² For the calendar year in which the school year ended. In constant 1998 dollars, adjusted by the Consumer Price Index (CPI).

³ 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.

⁴ Income or population is for the calendar year in which the school year began.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*; *120 Years of American Education: A Statistical Portrait*, 1993.

Public elementary and secondary expenditures per student

Public elementary and secondary spending can be divided into three main functional areas: instruction, support services, and capital outlay. How school districts spend the funds they receive is influenced by many factors, such as the overall level of funding; the differences in student needs (e.g., demand for special education services and programs for limited-English-proficient students); and the relative cost of educational resources (e.g., teacher salaries, building maintenance, and construction costs for new schools). The distribution of expenditures across functional areas is an indication of how public school systems allocate funds to meet their specific needs.

- In the 1995–96 school year, public schools spent, on average, \$6,855 per pupil (in constant 1998 dollars). Of that amount, more than half (\$3,677) was spent on instruction, which includes teacher salaries and benefits, supplies, and purchased instructional services.
- Between the 1989–90 and 1995–96 school years, the percentages of total expenditures per pupil that public schools spent on instruction and capital outlay increased slightly, whereas the percentage spent on support services decreased.
- In the 1994–95 school year, relatively high wealth school districts (those with a median household income of \$35,000 or more) spent more per pupil than school districts with less wealth. The distribution of expenditures across functional areas was slightly different according to the wealth of school districts. For example, wealthy school districts spent slightly less proportionally than poorer school districts (those with a median household income of less than \$20,000) in instruction (53 versus 55 percent) and more in capital outlay (9 versus 7 percent; see supplemental table 38-1).

Public school expenditures per pupil (in constant 1998 dollars) and percentage distribution, by function: School years 1989–90 to 1995–96

School year	Total	Instruc- tion	Support services	Capital outlay	Other	Percentage distribution				
						Total	Instruc- tion	Support services	Capital outlay	Other
1989–90	\$6,684	\$3,567	\$2,346	\$559	\$212	100.0	53.4	35.1	8.4	3.2
1991–92	6,710	3,576	2,303	565	266	100.0	53.3	34.3	8.4	4.0
1993–94	6,753	3,605	2,289	604	255	100.0	53.4	33.9	9.0	3.8
1994–95	6,802	3,670	2,275	596	260	100.0	54.0	33.4	8.8	3.8
1995–96	6,855	3,677	2,279	643	256	100.0	53.6	33.2	9.4	3.7

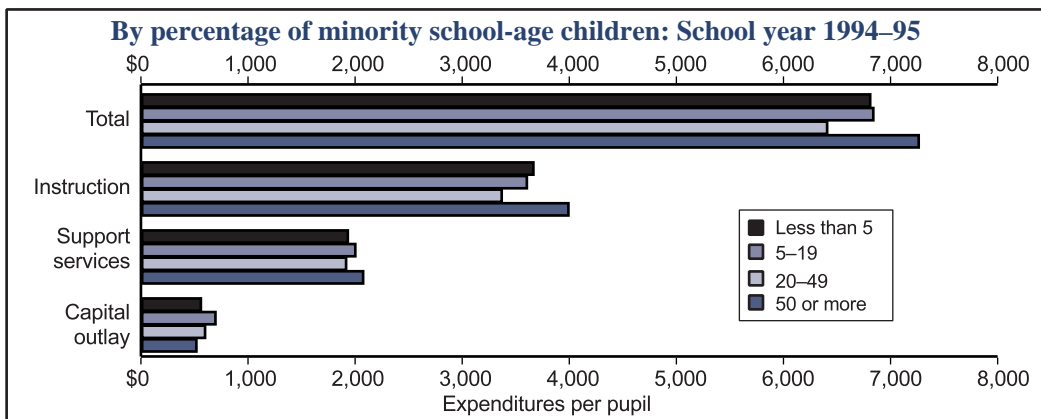
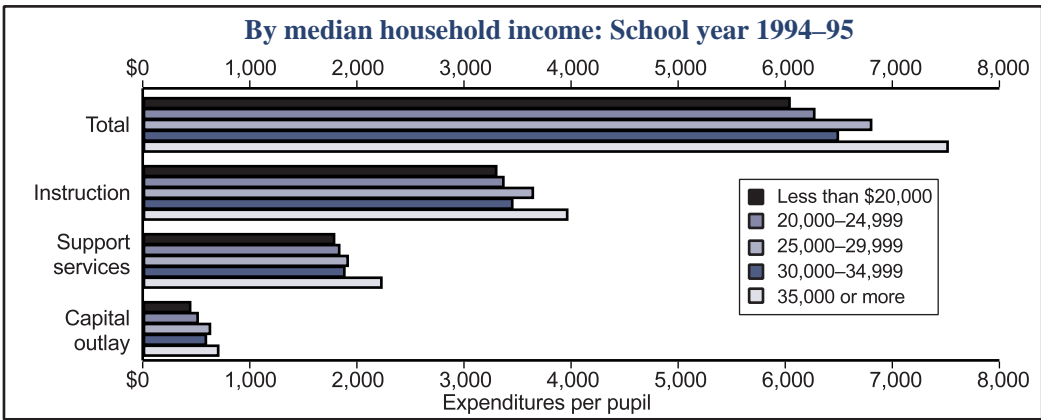
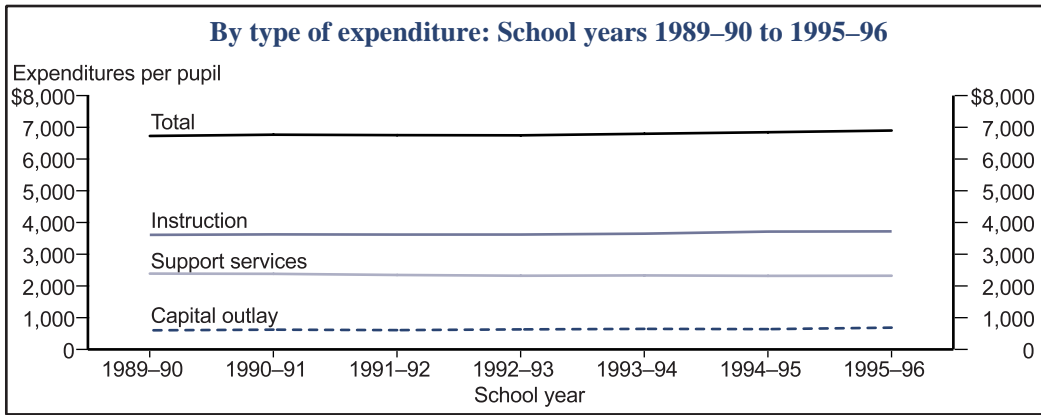
Public school expenditures per pupil (in constant 1998 dollars), by function and selected district characteristics: School year 1994–95

Selected district characteristics	Total	Instruction	Support services	Capital outlay	Other
Median household income					
Less than \$20,000	\$6,028	\$3,289	\$1,775	\$431	\$534
20,000–24,999	6,259	3,356	1,823	501	580
25,000–29,999	6,790	3,631	1,902	616	642
30,000–34,999	6,479	3,439	1,871	578	591
35,000 or more	7,504	3,952	2,217	693	642
Percentage of minority school-age children					
Less than 5	6,798	3,653	1,920	548	678
5–19	6,827	3,592	1,990	684	561
20–49	6,396	3,357	1,904	587	548
50 or more	7,251	3,980	2,063	506	702

NOTE: See the glossary for definitions of specific expenditure functions. The district characteristics are from the U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations." The school year Consumer Price Index (CPI) was used to adjust expenditures to constant 1998 dollars. 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, various years, and "School District Finance File," 1994–95. U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations."

Public school expenditures per pupil (in constant 1998 dollars), by function



NOTE: See the glossary for definitions of specific expenditure functions. The district characteristics are from the U.S. Department of Commerce, Bureau of the Census, "1990 Census School District Special Tabulations." The school year Consumer Price Index (CPI) was used to adjust expenditures to constant 1998 dollars.

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

Higher education revenues per student

Tuition and fees, government appropriations, and gifts and endowments provide most of the revenues for institutions of higher education. The proportion of total revenues from each source can vary from year to year, thus requiring administrators of U.S. colleges and universities to be alert to changes in the overall availability of funds. The availability of funds and their sources affect decisions about rates for tuition and fees and, in turn, the cost of providing and completing a higher education degree.

- The primary source of revenue for all public institutions is government appropriations. Between 1986 and 1996, government appropriations per full-time-equivalent (FTE) student fell both in constant 1995–96 dollars and as a share of all revenue at public universities from \$8,980 to \$7,994 and from 53 to 40 percent as a share of all revenue (see supplemental tables 39-1 and 39-2).
- Between 1986 and 1996, tuition and fees per FTE student increased both in constant dollars and as a share of all revenue at public institutions. At public universities, for example, tuition and fees rose from \$3,186 to \$4,825 in constant 1995–96 dollars and from 19 to 25 percent as a share of all revenue between 1986 and 1996 (see supplemental table 39-1).
- Between 1986 and 1996, average tuition and fee revenue per FTE student increased at private universities, rising from \$12,000 to \$16,299 in constant 1995–96 dollars. In addition, revenue from private gifts and endowment income per FTE student climbed by 37 percent (from \$6,014 to \$8,227), compared with an increase of 12 percent at private 4-year colleges (from \$2,794 to \$3,134).

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

Academic year ending	Universities				Colleges					
	Private		Public		Private 4-year		Public 4-year		Public 2-year	
	Tuition and fees*	Gifts and endowment	Tuition and fees*	Government appropriations	Tuition and fees*	Gifts and endowment	Tuition and fees*	Government appropriations	Tuition and fees*	Government appropriations
1977	\$9,172	\$4,779	\$2,487	\$8,386	\$6,945	\$2,417	\$1,865	\$7,466	\$1,018	\$4,513
1978	9,141	4,731	2,514	8,558	6,978	2,343	1,838	7,621	977	4,555
1979	9,232	4,779	2,556	8,829	7,021	2,358	1,806	7,897	979	4,620
1980	9,267	4,782	2,525	8,646	7,087	2,454	1,785	7,976	983	4,511
1981	9,512	4,937	2,543	8,301	7,137	2,466	1,808	7,795	979	4,248
1982	9,866	4,971	2,659	8,110	7,353	2,546	1,892	7,758	1,034	4,190
1983	10,537	4,836	2,877	7,935	7,672	2,602	1,943	7,528	1,039	3,891
1984	11,219	5,532	2,997	8,240	7,918	2,629	2,104	7,453	1,077	3,970
1985	11,601	5,809	3,012	8,779	8,170	2,749	2,161	8,014	1,147	4,309
1986	12,000	6,014	3,186	8,980	8,402	2,794	2,243	8,169	1,165	4,510
1987	12,848	6,317	3,330	8,759	8,947	2,924	2,245	7,871	1,177	4,528
1988	13,198	6,573	3,492	8,841	9,193	2,909	2,336	7,952	1,162	4,423
1989	13,502	6,709	3,584	8,821	9,383	2,902	2,401	7,616	1,220	4,436
1990	13,628	6,822	3,668	8,678	9,684	2,845	2,443	7,436	1,221	4,271
1991	14,210	6,958	3,794	8,442	9,919	2,790	2,458	6,856	1,274	4,245
1992	14,557	6,960	4,050	8,056	10,255	2,667	2,703	6,659	1,337	4,004
1993	14,963	7,337	4,340	7,964	10,474	2,634	2,968	6,532	1,438	3,953
1994	15,469	7,538	4,526	7,929	10,786	2,621	3,083	6,470	1,522	4,066
1995	15,900	7,761	4,668	8,062	11,111	2,775	3,163	6,592	1,534	4,167
1996	16,299	8,227	4,825	7,994	11,337	3,134	3,263	6,481	1,574	4,199

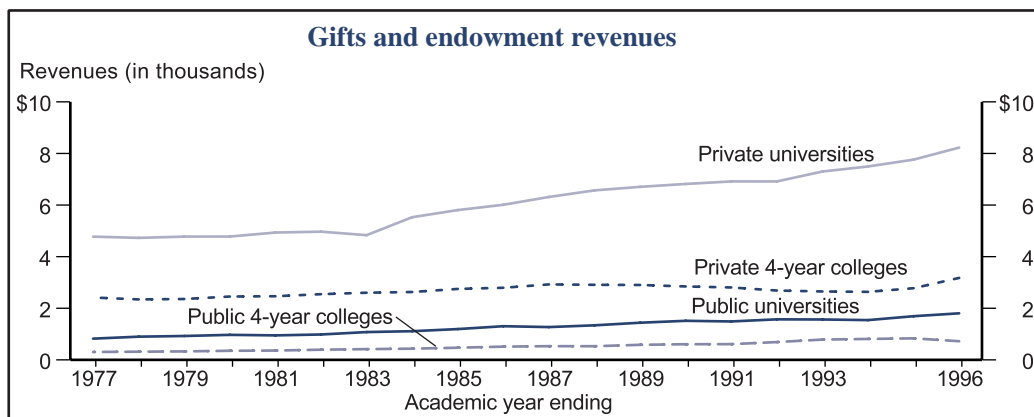
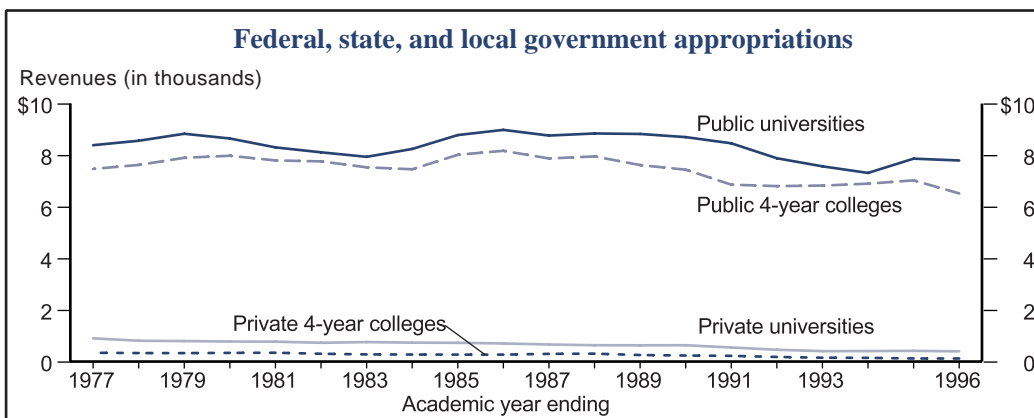
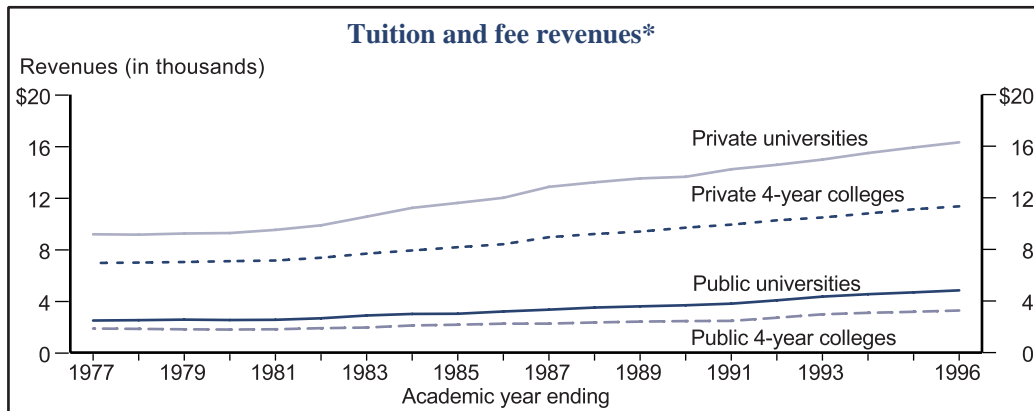
* Federally supported student aid received through students (e.g., Federal Student Loan Programs) is included under tuition and fees.

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. Data for "Gifts and endowment" and "Federal appropriations" do not always match individual categories presented in table 39-2 due to rounding. FTE students include both undergraduate and

graduate students. Data from academic years ending 1989 to 1995 were revised from previously published figures.

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.

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



* 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. Data for "Gifts and endowment" and "Federal appropriations" do not always match individual categories presented in table 39-2 due to rounding. FTE students include both undergraduate and

graduate students. Data from academic years 1989 to 1995 were revised from previously published figures.

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.

Higher education expenditures per student

Faculty and staff salaries and institutionally supported research account for a large share of higher education expenditures. Since differences in institutional spending can affect the quality and nature of instruction and learning experiences, understanding variations in expenditures can provide insight into the organization and operation of higher education.

- Overall spending per full-time-equivalent (FTE) student increased at all types of higher education institutions between 1986 and 1996. In constant 1995–96 dollars, increases ranged from 7 percent at public 2-year colleges (from \$6,292 to \$6,733 per FTE student) to 33 percent at private universities (from \$27,983 to \$37,200 per FTE student).
- Although instructional expenditures per FTE student increased between 1986 and 1996, instructional spending as a percentage of total expenditures fell at public universities, public 4-year colleges, private 4-year colleges, and public 2-year colleges (by 2, 4, 3, and 2 percentage points, respectively). At private universities, instructional spending as a percentage of total expenditures remained similar during this period (see supplemental table 40-1).
- In 1996, total expenditures per FTE student were higher at private universities than at public universities (\$37,200 versus \$19,700). Likewise, total expenditures at private 4-year colleges were higher than expenditures at public 4- and 2-year colleges (\$17,177 versus \$13,403 and \$6,733, respectively).
- Between 1986 and 1996, research expenditures increased by 27 percent in private universities (from \$5,173 to \$6,551 per FTE student) and by 29 percent in public universities (from \$3,319 to \$4,292 per FTE student). Over the decade, research spending accounted for roughly 18 percent of total institutional expenditures in private universities, and rose from 20 to 22 percent of total spending in public universities (see supplemental table 40-1).

Educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student (in constant 1995–96 dollars), by selected expenditure categories and control and type of institution: Academic years ending 1977–96

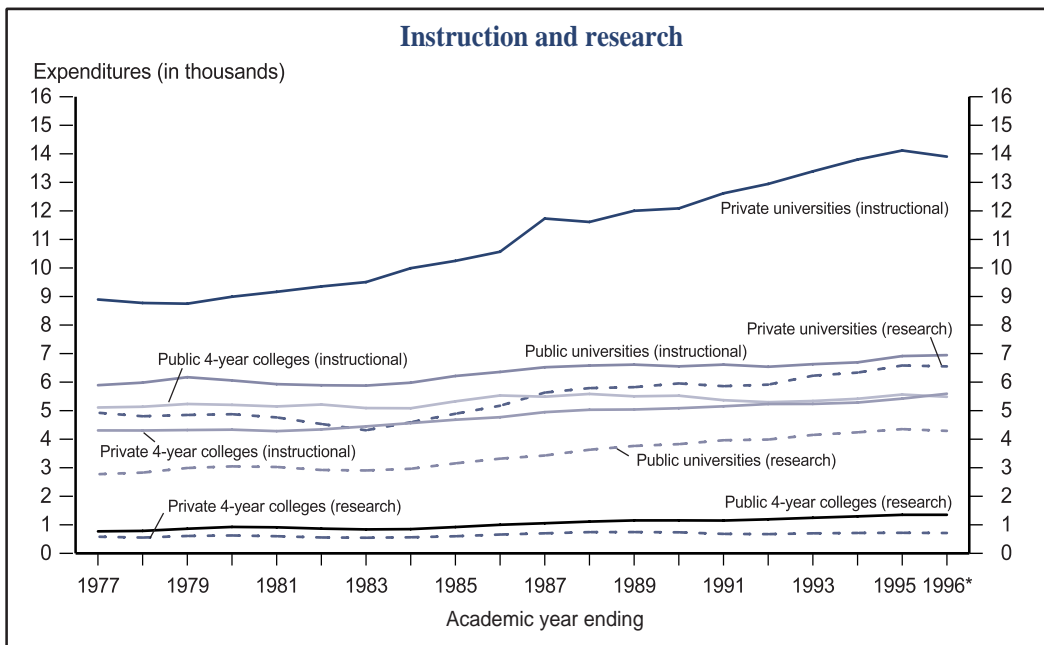
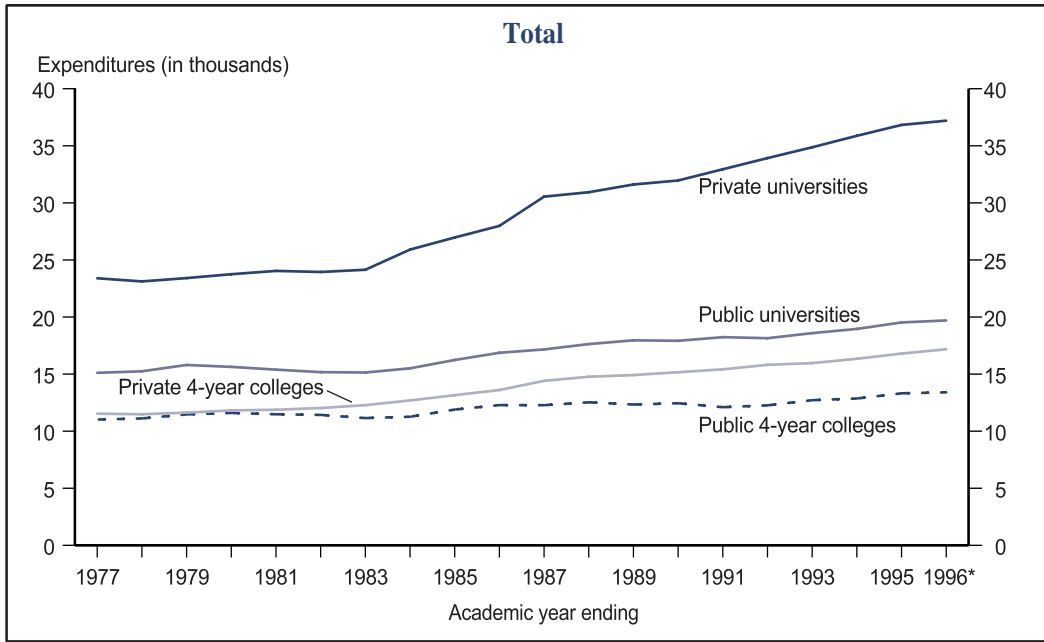
Academic year ending	Universities						Colleges					
	Private			Public			Private 4-year		Public 4-year		Public 2-year	
	Total	Instruction	Research	Total	Instruction	Research	Total	Instruction	Total	Instruction	Total	Instruction
1977	\$23,395	\$8,895	\$4,927	\$15,112	\$5,893	\$2,774	\$11,533	\$4,307	\$11,020	\$5,111	\$5,939	\$3,033
1980	23,750	8,992	4,875	15,633	6,059	3,047	11,821	4,334	11,598	5,203	6,071	3,053
1983	24,140	9,505	4,313	15,139	5,878	2,905	12,279	4,449	11,148	5,091	5,499	2,797
1986	27,983	10,569	5,173	16,868	6,357	3,319	13,605	4,770	12,283	5,532	6,292	3,140
1987	30,544	11,732	5,633	17,162	6,521	3,428	14,409	4,947	12,278	5,489	6,394	3,173
1988	30,934	11,612	5,790	17,628	6,581	3,631	14,768	5,032	12,527	5,586	6,309	3,104
1989	31,609	12,004	5,823	17,961	6,613	3,764	14,916	5,041	12,335	5,502	6,379	3,162
1990	31,961	12,087	5,954	17,915	6,552	3,827	15,167	5,085	12,447	5,525	6,206	3,090
1991	32,945	12,616	5,858	18,237	6,613	3,963	15,417	5,153	12,102	5,367	6,276	3,129
1992	33,923	12,945	5,912	18,145	6,538	3,988	15,812	5,232	12,262	5,297	5,992	3,014
1993	34,870	13,386	6,225	18,588	6,628	4,150	15,964	5,236	12,714	5,338	6,082	3,047
1994	35,876	13,799	6,334	18,957	6,693	4,241	16,340	5,284	12,862	5,416	6,390	3,154
1995	36,828	14,117	6,583	19,525	6,913	4,353	16,799	5,422	13,317	5,566	6,538	3,205
1996*	37,200	13,902	6,551	19,700	6,946	4,292	17,177	5,593	13,403	5,486	6,733	3,240

* Preliminary data.

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.

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

**Educational and general expenditures of higher education institutions per full-time-equivalent (FTE) student (in constant 1995-96 dollars), by control and type of institution:
Academic years ending 1977-96**



* Preliminary data.

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.

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

International comparisons of expenditures for education

The proportion of total financial resources that countries invest in education indicate the relative importance that they place on education. The public and private shares indicate where the responsibility lies for funding education in that country. International comparisons of expenditures for education vary considerably in the share of national resources devoted to education, the sources (public or private) of funds spent on education, and the levels of education to which funds are allocated.

- Total expenditures for elementary and secondary education represented 3.9 percent of the U.S. Gross Domestic Product (GDP) in 1995; expenditures for higher education represented 2.3 percent of the GDP in the same year. Total expenditures for all education levels, including preprimary, and all sources combined made up 6.7 percent of the GDP of the United States. Of the G-7 countries, only Canada spent a larger fraction of its GDP on elementary–secondary and higher education than the United States, and France also spent a larger percentage of its GDP than did the United States on elementary–secondary education.
- Some countries rely more heavily than others on expenditures from private sources to finance education. For example, in both the United States and Japan, the percentage of GDP spent on higher education from private sources (1.2 and 0.6, respectively) was higher than the percentage from public sources (1.1 and 0.4, respectively). In other G-7 countries, the percentage from private sources was much smaller than the percentage from public sources. A number of G-7 countries had private funding levels for elementary–secondary schools that were similar to those of the United States, including Canada, France, and Japan.
- Among the G-7 countries, expenditures per student at the elementary and secondary levels in 1995 ranged from \$3,328 and \$4,246 in the United Kingdom to \$5,371 and \$6,812 in the United States, respectively. For higher education, however, expenditures per student varied widely. The United States spent more per higher education student than any other G-7 country and spent more than twice the amount spent in France, Italy, and the United Kingdom.

Public and private expenditures on educational institutions¹ in G-7 countries as a percentage of GDP, by level of education, funding source, and country: 1995

G-7 country	As a percent of GDP					Per student ²		
	Elementary–secondary		Higher education		All levels and sources combined ⁶	Constant 1995 U.S. dollars ³		
	Public sources ⁴	Private sources ⁵	Public sources ⁴	Private sources ⁵		Elementary	Secondary	Higher education
Canada	4.0	0.3	2.0	0.5	7.0	—	—	\$11,471
France	4.1	0.3	1.0	0.2	6.3	\$3,379	\$6,182	6,569
Germany	2.9	0.9	1.0	0.1	5.8	3,361	6,254	8,897
Italy	3.2	(⁷)	0.8	0.1	4.7	4,673	5,348	5,013
Japan	2.8	0.3	0.4	0.6	4.7	4,065	4,465	8,768
United Kingdom	3.8	—	0.9	0.1	—	3,328	4,246	7,225
United States	3.5	0.4	1.1	1.2	6.7	5,371	6,812	16,262

— Not available.

¹ Includes all institutions, public and private, with the exception of Germany and Italy, which include only public institutions, and the United Kingdom, which includes public and government-dependent private institutions.

² Per student expenditures are calculated based on public and private Full-Time-Equivalent (FTE) enrollment figures and expenditures from both public and private sources, where data are available.

³ Purchasing Power Parity (PPP) indices were used to convert other currencies to U.S. dollars. Because the fiscal year has a different starting date in different countries, within-country Consumer Price Indices (CPIs) were used to adjust the PPP indices to account for inflation. See the supplemental note to this indicator for further explanation.

⁴ Public expenditures are defined as direct public expenditures on education institutions plus public subsidies to households and other private entities for education (e.g., tuition and fees), excluding other education-related public aid to students and households (e.g., subsidies for student living costs).

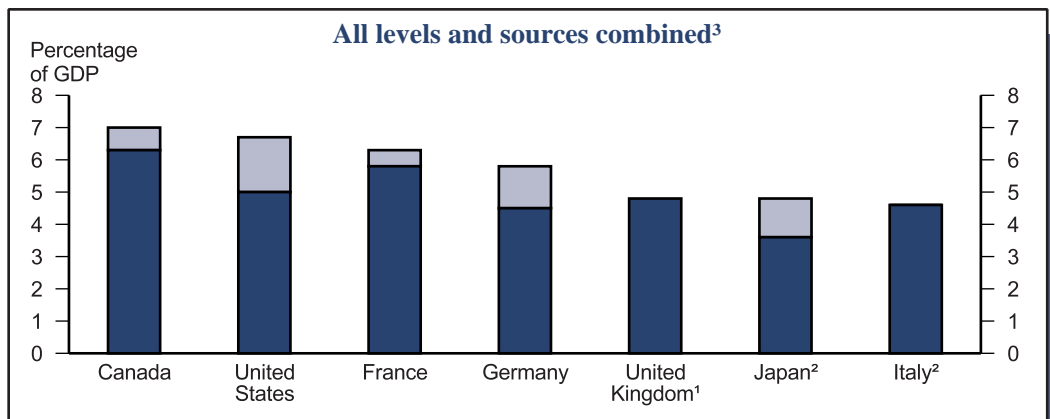
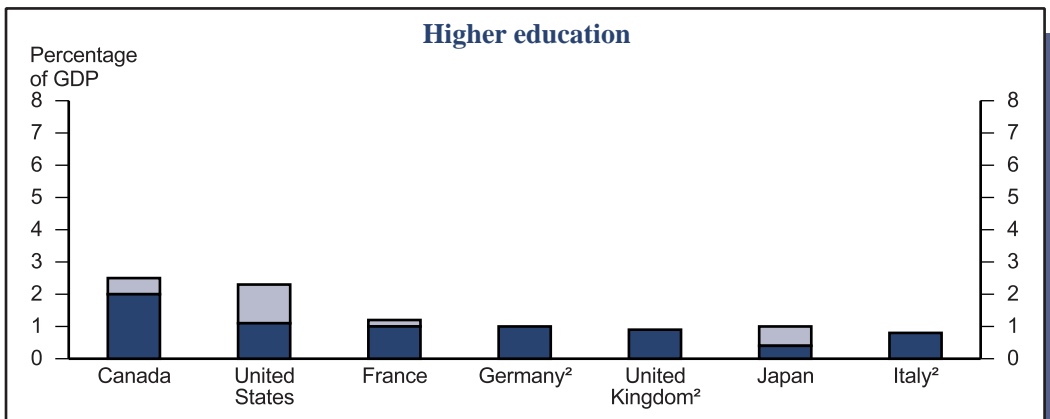
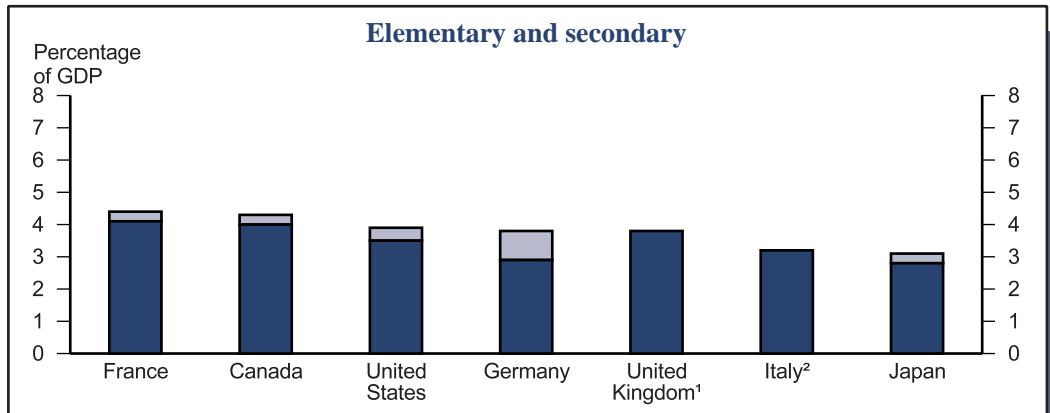
⁵ Private expenditures are defined as private payments from households and other private entities to education institutions, minus any portion derived from public subsidies.

⁶ "All levels combined" includes expenditures on preprimary education and funds classified as "undistributed," a classification reserved for enrollments, expenditures, or programs that cannot be classified by level (e.g., nongraded special education).

⁷ Percentage is less than 0.05.

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

Public and private expenditures on educational institutions in G-7 countries as a percentage of Gross Domestic Product (GDP), by level of education and funding source: 1995



■ Public sources □ Private sources

¹ Sources of funds for the United Kingdom were not available.

² Private sources of funds for some countries are less than 1 percent; therefore, percentages may not be discernable in the graphs.

³ "All levels combined" includes expenditures on preprimary education and funds classified as "undistributed," a classification

reserved for enrollments, expenditures, or programs that cannot be classified by level (e.g., nongraded special education).

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

Trends in student borrowing: Subsidized and unsubsidized loans

The 1992 Reauthorization of the Higher Education Act expressed the desire of Congress to improve access to postsecondary education by allowing students from all income levels to receive unsubsidized Stafford federal student loans. In addition, students who qualify can also receive a subsidized federal student loan, with the federal government paying the interest while the students are enrolled. With unsubsidized federal loans, students are charged interest while enrolled, so there is some concern about the effect of this burden. Prior to 1993–94, unsubsidized federal loans were available only to independent students and to dependent students with exceptional need.

- The percentage of full-time, full-year undergraduates with subsidized federal student loans increased from 30 to 37 percent between 1992–93 and 1995–96. During the same period, the percentage with unsubsidized loans increased from 4 to 16 percent.
- While 1 percent of dependent undergraduates received an unsubsidized federal student loan in 1992–93, 12 percent did so by 1995–96.
- The percentage of independent students with unsubsidized federal student loans increased from 12 to 27 percent between 1992–93 and 1995–96, and increased in every income group.
- The percentage of independent students who received only subsidized federal loans decreased from 29 percent to 22 percent between 1992–93 and 1995–96 (see supplemental table 42-1).

Percentage of full-time, full-year undergraduates with subsidized and unsubsidized federal student loans, and for those with loans, the average amount borrowed in each academic year: 1992–93 and 1995–96¹

Selected institutional and student characteristics	1992–93				1995–96			
	Subsidized loans		Unsubsidized loans		Subsidized loans		Unsubsidized loans	
	Percent	Average amount	Percent	Average amount	Percent	Average amount	Percent	Average amount
Total	29.7	\$2,837	3.8	\$3,044	36.8	\$3,373	16.0	\$3,103
Control and type of institution ²								
Public 4-year	28.6	2,771	2.8	2,848	36.9	3,502	17.1	3,029
Private, not-for-profit 4-year	42.0	2,983	4.3	3,438	49.6	3,662	15.4	3,337
Public 2-year	10.1	2,107	1.2	—	12.1	2,312	6.4	2,637
Private, for-profit	51.5	3,096	15.5	2,936	59.5	2,899	38.7	3,413
Dependency status								
Dependent	25.6	2,741	0.8	2,792	33.4	3,251	12.1	2,904
Independent	39.8	2,990	11.5	3,086	46.3	3,621	27.1	3,355
Dependent family income								
Low quartile	45.0	2,664	1.4	2,546	44.8	3,272	5.5	2,718
Lower middle quartile	36.4	2,753	1.1	2,788	46.7	3,390	8.2	2,277
Upper middle quartile	21.6	2,761	0.5	3,075	32.3	3,155	16.6	2,741
High quartile	12.9	2,869	0.4	—	13.4	2,989	16.8	3,377
Independent family income								
Low quartile	45.7	2,901	10.6	2,796	52.9	3,672	27.3	3,043
Lower middle quartile	37.7	3,028	13.0	3,285	51.1	3,613	28.7	3,377
Upper middle quartile	34.1	3,121	12.0	3,233	42.6	3,556	25.3	3,508
High quartile	29.7	3,205	11.2	3,394	24.7	3,514	26.1	3,972

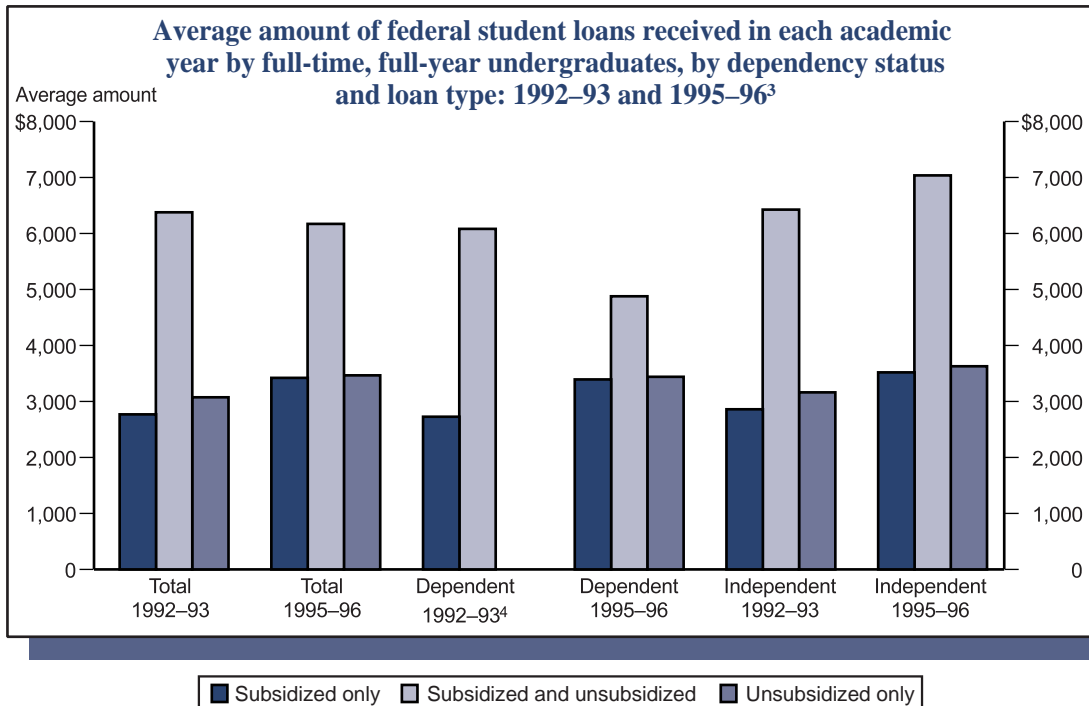
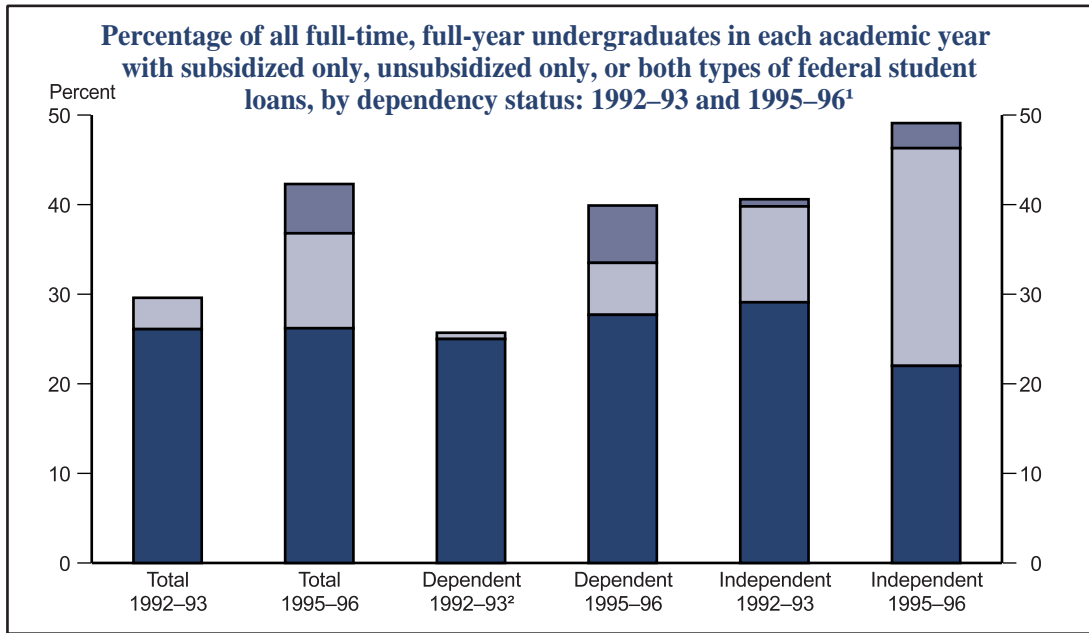
— Too few sample observations for a reliable estimate.

¹ In 1992–93, subsidized federal student loans were offered through the Stafford Federal Loan Program and unsubsidized federal student loans through the Supplemental Loans for Students (SLS) program. In 1995–96, both subsidized and unsubsidized loans were offered through the Stafford Federal Loan program. Students may receive both a subsidized and unsubsidized loan in an academic year, and thus may appear in each loan category.

² Excludes public less-than-2-year and private, not-for-profit less-than-4-year institutions.

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 loans



¹ In 1992-93, subsidized federal student loans were offered through the Stafford Federal 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.

² Percentage for unsubsidized only is less than 1 percent; therefore, it may not be discernible on the graph.

³ Among those who received a subsidized or unsubsidized federal student loan in each academic year.

⁴ Too few observations for a reliable estimate for unsubsidized only. SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1992-93 and 1995-96.

Student financing of graduate and first-professional education

Parental income and assets are not considered when determining graduate and first-professional students' eligibility for financial aid. Thus, student financial aid plays a particularly important role in providing access to graduate and first-professional education.

- In 1995–96, 52 percent of all graduate and first-professional students received some type of financial aid, averaging \$9,800. The other 48 percent of all students paid for their education entirely with their own resources or assistance from families and friends. Among those who attended full time, full year, 76 percent received financial aid, averaging \$14,400 (see supplemental tables 43-1 and 43-2).
- Most graduate and first-professional students worked while enrolled (79 percent), even when they were enrolled full time, full year (64 percent; see supplemental table 43-1).
- Students could receive more than one type of aid. At the master's degree level, 51 percent received financial aid: 30 percent received grants; 22 percent took out loans; and 10 percent worked as teaching or research assistants. Students at public institutions were more likely to hold assistantships than those at private, not-for-profit institutions.
- At the doctor's level, 65 percent of students received financial aid. Doctor's students were much more likely than master's students to have tuition waivers (17 percent versus 7 percent) and assistantships (36 percent versus 10 percent). Doctor's students at public institutions were more likely than those at private, not-for-profit institutions to have both these types of aid.
- Compared with master's and doctor's students, first-professional students were less likely to work and more likely to have loans and to have a higher average loan amount. First-professional students with loans borrowed an average of \$16,500, compared with \$9,900 for master's and doctor's students with loans (see supplemental table 43-2).

Percentage of 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 ¹	Tuition waiver ²	Any loans	Any assistantships	Worked while enrolled	Average hours worked per week ³
Total⁴	51.9	29.6	7.8	24.7	11.1	78.9	35.1
Master's degree ⁴	51.3	30.0	7.4	22.1	10.3	84.3	36.6
Public	51.3	28.5	9.1	20.2	15.4	83.2	35.1
Private, not-for-profit	51.1	31.9	5.4	24.8	3.6	85.3	38.1
Doctor's degree ⁴	65.0	37.0	17.1	19.5	35.9	76.4	31.8
Public	67.4	38.0	22.1	16.8	43.9	81.3	29.1
Private, not-for-profit	61.1	37.9	9.4	20.9	24.5	67.8	37.9
First-professional degree ^{4,5}	80.2	37.9	3.4	69.4	4.1	50.4	24.8
Public	84.3	42.4	4.5	76.9	5.2	40.6	21.7
Private, not-for-profit	77.4	34.7	2.6	64.2	3.2	56.7	26.3

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

² Also included in the "Any grants" column.

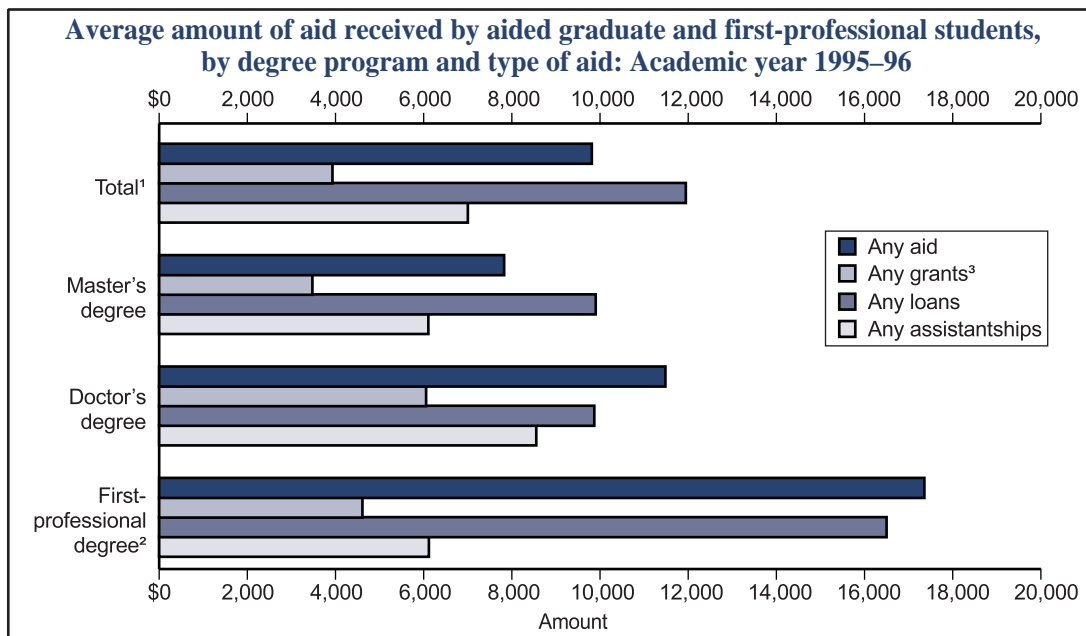
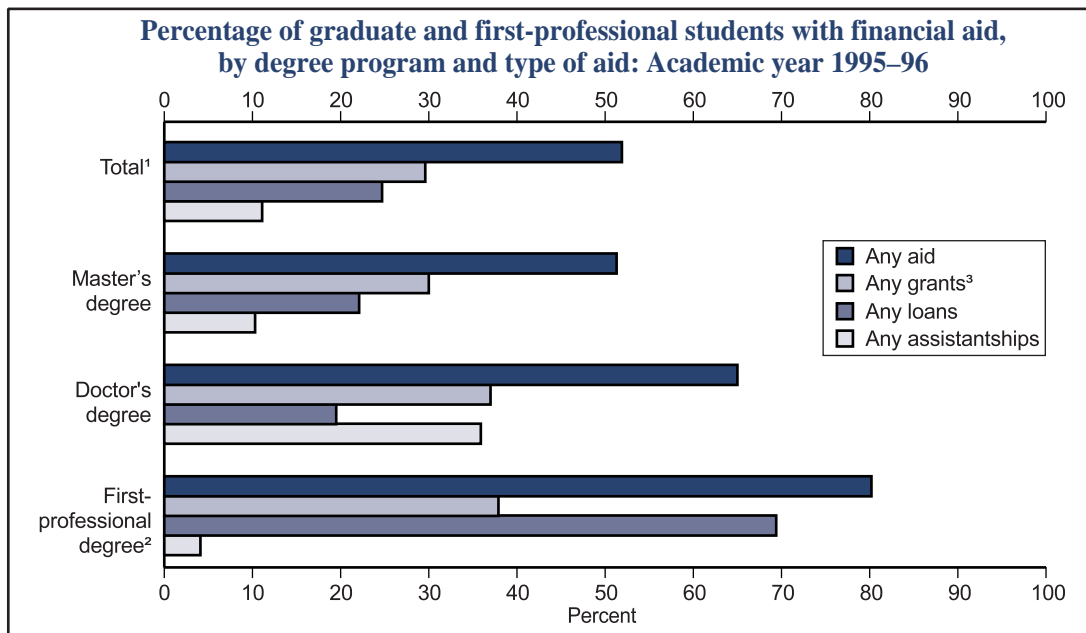
³ For students who worked.

⁴ 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.

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

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

Financial aid received by graduate and first-professional students



¹ Total includes students in graduate programs other than master's, doctor's, and first-professional programs.

² First-professional programs include medicine, chiropractic, dentistry, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology.

³ Grants include scholarships, fellowships, tuition waivers, and employer aid (forms of aid that do not have to be repaid).

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

