

Archived Information

GETTING THERE

**A Report for
National College Week**

**U.S. Department of Education
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“For too long public education in America and higher education have gone their separate ways, each dedicated to its own vision of excellence and learning. This 19th-century model is outdated. We need a new model appropriate for the 21st century, an ongoing dialogue at every level of education to raise standards and achieve high standards.”

Richard W. Riley
U.S. Secretary of Education
*Fourth Annual State of
American Education Address*
Atlanta, Georgia
February 18, 1997

HIGHLIGHTS

More Americans Are in College Now Than Ever Before: Enrollment Is Expected to Surge

- Total college enrollment is expected to reach a record 14.9 million students in 1999. Between 1999 and 2009, full-time enrollment is projected to increase by close to 14 percent, and part-time enrollment is projected to increase by 4 percent.
- Undergraduate enrollment is expected to rise from 12.8 million to 14.3 million between 1999 and 2009, an increase of 11 percent.
- The number of high school graduates is expected to reach 2.9 million by the year 2009, an increase of 19 percent over 1998. About 66 percent of all 1998 high school graduates went directly on to college in fall 1998.
- About 37 percent of all 18- to 24-year-olds enrolled in a 2- or 4-year college or university in 1998.
- About 1.2 million degrees are expected to be awarded at the bachelor's degree level in 1999-2000, up 11 percent from 1989-90.

"Getting There" Starts With Taking the Tough Courses

- The percentage of students taking chemistry rose from 40 percent of students in 1986 to 56 percent in 1996, a rise of 16 percentage points.
- The percentage of 17-year-olds who completed higher-level math courses—algebra II and precalculus or calculus—rose between 1978 and 1996.
- Black and Hispanic students who had high school curriculums of rigorous intensity and high quality and completed a high-level math course were more likely to complete a bachelor's degree program than their peers who pursued a less rigorous curriculum.
- Between 1984 and 1996, the number of students who took Advanced Placement exams increased markedly, rising from 50 to 131 per 1,000 12th-graders.

More Women and Minorities Are in College

- Women have outnumbered men on college campuses since 1979. In 1997, about 56 percent of all college students were women.
- In 1999-2000, it is expected that women will receive 56 percent of all bachelor's degrees and 58 percent of all master's degrees.
- The proportion of minority students attending college has been rising steadily, from 20 percent of all college students in 1990 to 27 percent in 1997.
- Colleges offer diverse programs of study and learning opportunities to help students meet personal goals. For example, in 1997 about 14 percent of black students chose to attend Historically Black Colleges and Universities, a total of 222,000 students.

College Is Affordable

- More than half of the students attending 4-year institutions pay less than \$4,000 in tuition and fees, and almost three-quarters pay less than \$8,000. The average cost in tuition, fees, room and board at a 4-year public institution in 1998 was \$7,769.

Student Aid Is on the Rise

- Average aid per full-time equivalent student has increased from \$3,614 in 1990 to \$6,085 in 1999, a 68 percent increase. In part, this increase reflects larger Pell Grant awards for needy students. Since 1993, the maximum award has increased 36 percent to \$3,125, and now covers about 92 percent of tuition and fees at a public 4-year college.
- In 1999, approximately 13 million Americans are eligible for the Hope and Lifetime Learning tax credits for postsecondary training and education, totaling \$7 billion in aid.

Getting a College Education Pays High Dividends

- People with college degrees earn more money than those with high school diplomas or the equivalent. In 1998, 25- to 34-year-olds with a bachelor's degree earned \$14,000 more (\$36,720 compared to \$22,624) than high school graduates, on average. The bachelor's degree recipients earned more than twice as much as high school dropouts who earned an average of less than \$16,000.
- There is a significant difference—45 percent—between the earnings of 25- to-34-year-old men and women, despite some closure of the gap over the past quarter century. In 1998, males with bachelor's degrees had an annual average income of \$43,447. Females with bachelor's degrees saw their income rise, but in 1998 their average income stood at only \$30,026—\$13,400 less than that of their male counterparts.

GETTING THERE
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November 15–19,1999

College Enrollment to Surge: 1999–2009

Here in the fall of 1999, as Americans prepare for the new millennium, one thing is very clear: more Americans than ever before believe that getting a college degree is vitally important to their future prosperity and their opportunity to be part of the American Dream. For the second year in a row, this nation is setting a national enrollment record, with 14.9 million Americans in college. Enrollment is expected to increase by 1.5 million between 1999 and 2009, with full-time enrollment projected to increase by close to 14 percent.

This surge in enrollment is not unexpected. The real question is whether America's colleges and universities are up to the challenge. America's middle schools and high schools are already bursting at their seams and will be for years to come as they seek to educate a record number of young Americans, the majority of whom will seek to obtain a college degree.

In some states, colleges and universities are already feeling enrollment pressures, and in California, experts describe the coming surge of college students as a "tidal wave."

California is confronted with the daunting task of educating an additional 700,000 students by 2010, a 36 percent rise from 1998. California State University Chancellor Charles B. Reed, in a recent *Los Angeles Times* interview, expressed his worries about the projected 42 percent increase in undergraduates there—a total of 117,000 students; "We're talking about adding 12,000 students a year, every year. That's like adding a complete new university a year for the next ten years."

The majority of students will be enrolled in California's community colleges—1.5 million in 1999 and 2.0 million in 2010. The increase at the community colleges accounts for approximately 74 percent of the new student enrollment. California State University (CSU) will experience a 37 percent increase and the University of California (UC) will see a 32 percent increase.

California is not the only state having to prepare for many more new students. The state university system in Florida expects up to 100,000 additional students by 2010. By 2005, Texas expects to have one million college students on campuses throughout the state, an increase of 73,000 students over 1998.

All total, Texas higher education experts estimate that 110,000 additional students will seek to gain a higher education between 1999 and 2010. States like Maryland, Georgia, North Carolina and Massachusetts are also feeling their own enrollment pressures. Newspaper accounts of campus housing shortages already suggest that college campuses are rapidly filling up.

This crush of new students comes at a time when many of our nation's colleges and universities are already at full capacity and becoming more selective in their admissions process. The combination of these two factors—more students and greater selectivity—will make the increasing pressure that high school graduates already feel to get into college even more intense in the years ahead. This comes at time when a record number of America's high school students—80 percent, according to a recent

Shell Poll—expect to go on to a 4-year college or university, a 2-year college or a technical school after they graduate from high school.

Taking the Right Courses Makes a Difference

At the same time, we know that some young people who may have the capacity to do college-level work are not even thinking about going to college. Research tells us that some young people start thinking about college too late, take the wrong sequence of courses, and sometimes shy away from taking the tough college prep courses. We also know that expectations can be set too low for some students, and in the process these students are steered away from thinking about themselves as college material.

Gene Bottom's Six-Year Plan

One of the most promising efforts to encourage young people to take the right courses to prepare for college is one initiated by Gene Bottoms at the Southern Regional Education Board (SREB). Working with over 500 high schools across the South that are part of SREB's High Schools That Work program, Bottoms encourages high school freshmen to sit down with their parents and a high school advisor and chart out a six-year plan. In doing so, young people get the message that they have a new and higher goal and that going to high school has a larger purpose.

The good news, as this report suggests, is that an increasing number of young people are getting the message that they must take rigorous college prep courses to lay a foundation for doing college-level work. A growing percentage of high school students—males and females—are taking higher-level math and science courses. One of the most encouraging signs of progress, for example, is the growing number of females and minority students who are now taking chemistry and algebra II.

Another indication that students are up to the challenge of increased academic rigor is the marked increase in the number of young people taking Advanced Placement (AP) courses. Between 1984 and 1996, the number of students who took AP courses increased markedly, rising from 50 to 131 per 1,000 12th graders. Young women led the way. In 1996, 144 female 12th graders compared to 117 male 12th graders took AP exams.

Adlai Stevenson High School, Lincolnshire, Illinois

The curriculum at Adlai Stevenson High School is a model of challenge for its 3,300 plus students. In 1998, *Newsweek* magazine rated Adlai Stevenson as the number one high school in Illinois, and among the top 20 schools in the United States for giving as many students as possible the opportunity to take AP tests. The result has been remarkable. The College Board (1997) ranked Stevenson first in the Midwest and among the top 10 schools in the world in the AP program. Stevenson is one of a select group of high schools that are part of the U.S. Department of Education's New American High Schools project, which seeks to support high schools that are at the leading edge of reform.

One of the most important research findings about the value of taking a rigorous academic program comes from a recent U.S. Department of Education study entitled *Answers in the Tool Box*. This report notes that the “impact of a high school curriculum of high academic intensity and quality on degree completion is far more pronounced—and positively—for African-American and Latino

students than any other pre-college indicator of academic resources. The impact for African-American and Latino students is also much greater than it is for white students.”

What does this mean in real terms? About 45 percent of African-American students who finished high school on time and went directly to college graduated with a bachelor’s degree. However, this rates rises to 73 percent for those African-American students who completed a high-level mathematics course, such as trigonometry or pre-calculus.

Creating New Pathways to College

The effort to get many more young people to think about their long-term goals earlier, including going to college, has increasingly gained the attention of many colleges and universities. Research indicates that young people start assessing themselves as “college material,” or not, as early as the 8th grade. As a result, many colleges, universities and other institutions are “reaching in” to work with middle schools and high schools on expanding the pipeline to college by creating strong mentoring and tutoring programs.

The Gavin Partnership; Boston, Massachusetts

Located in South Boston, the Patrick Gavin Middle School has a high concentration of low-income students—82 percent qualify for free and reduced-price lunch. Gavin students will benefit from a partnership created and organized by the University of Massachusetts (Boston) as part of the federal government’s new GEAR UP program. Joined by Thompson’s Island Outward Bound, the New England Home for Little Wanderers, the MJT Dance Company, and Boston Public Schools, the University of Massachusetts will provide a comprehensive set of services beginning in the 6th and 7th grades through high school graduation, including mentoring, tutoring, counseling, after-school and summer academic and enrichment programs, and college visits.

Creating new pathways to America’s colleges and universities can have a profound impact on people in this country who have historically been underrepresented in our higher education system. While women now make up the majority of students receiving bachelor’s and master’s degrees, minority Americans still lack equal access to college. About 41 percent of white 18- to-24 year olds were enrolled in college compared to 30 percent of African-Americans and 20 percent of Hispanic Americans. Progress is being made. The proportion of minority students going to college has risen from 20 percent in 1990 to 27 percent in 1997. One of the key elements sustaining this progress is the ongoing effort to create a new dialogue and partnership between America’s middle and secondary schools and our nation’s system of higher education.

GEAR UP

GEAR UP is a new federal effort to provide multi-year competitive grants to states and to local partnerships between colleges, low-income middle school and high schools, and at least two other organizations, such as businesses, community-based, religious, or parent organizations, and student groups.

GEAR UP is based on proven models of success, both large and small. Existing programs, such as I Have a Dream, Project GRAD and the Berkeley Pledge, demonstrate the success of incorporating the concepts of partnerships, school reform and scholarships into early intervention. These programs have helped to significantly improve low-income students' test scores and high school graduation and college enrollment rates.

In August of 1999, President Clinton announced \$120 million in GEAR UP grants to 21 states and 164 partnerships of colleges and middle schools across the country. These grants will serve more than 200,000 disadvantaged children, encouraging them to have high expectations, stay in school, study hard, and take the right courses to go to college. Forty states and Puerto Rico, Guam and Micronesia received either a state or partnership grant.

Interest in the first year of GEAR UP far exceeded available funding. The numbers of grant applications in the first round were extraordinary—678 partnership and state grant applications, covering all 50 states, more than 4,500 organizations, and 1 out of 5 colleges in the nation. Only 1 out of 4 partnership applications could be funded with the current funding, and only half of the state applications.

GEAR UP differs from, but complements, established federal programs like TRIO in several significant ways. GEAR UP partnerships start earlier—no later than the 7th grade—to ensure that more students reach high school having taken algebra and other courses needed for college, and follows students through high school. GEAR UP works with entire grades of students to transform their schools and school feeder systems rather than with individual students like the very successful TRIO program.

Getting Beyond Sticker Shock: College Is Affordable

One of the greatest concerns that parents in America have is whether or not they will be able to pay for their children's college education. Endless accounts about the rising cost of college tuition leave many parents with the mistaken impression that they may not be able to send their children to a first-rate college. This increasing anxiety about paying for a college education has found a permanent place on America's worry list.

Too Little Knowledge Is a Dangerous Thing

According to a recent survey sponsored by the American Council on Education for a new report entitled *Too Little Knowledge Is a Dangerous Thing*, a "huge majority—71 percent"—of those surveyed believe that "a four-year college education is not affordable for most Americans." The central finding of the report is that "the public places an incredibly high value on higher education and plans to do whatever it takes to help their children obtain it, but that they are worried, poorly informed and not well equipped to make thoughtful choices." According to the report, the "most troubling news was the finding that first-generation college families, minority group members, and those with low incomes are the most uninformed and fearful."

There is no doubt that college tuition has been rising steadily over the last twenty years. According to the 1999 College Board report *Trends in Student Aid*, "Average tuition at both public and private four-year institutions more than doubled from 1980 to 1998." However, during the same period "median income for families most likely to have children in college (parents 45-54) has been relatively stagnant, rising 22% since 1980."

Misunderstandings about the true cost of college can have a profound impact on the lives of some of our most promising students. For example, according to the 1998 report *Factors Related to College Enrollment*, a disproportionate number of students from low-income families, who scored high on a test administered as part of a national study (National Education Longitudinal Study), did not go on to college. Students from low-income families, according to the study, were "fives times as likely to forgo college as students from high-income families." Nearly 60 percent of low-income students who had high test scores cited the inability to afford college as a reason in their decision.

Because of this and many other instances of similar misunderstandings, one of the central purposes of National College Week is to help overcome the mistaken impression of so many families that college may be out of their financial reach. As this report notes, more than half of the students attending 4-year institutions pay less than \$4,000 in tuition and fees, and almost three-quarters pay less than \$8,000. In 1998, the average cost of tuition, fees, room and board at a 4-year public institution was \$7,769. The average cost at a 4-year private institution was \$14,709.

Expanding Federal Student Financial Aid

Significant progress has been made in the last seven years to expand federal financial aid for college. Average aid per full-time equivalent student rose from \$3,614 in 1990 to \$6,085 in 1999, a 68 percent increase. In 1998-99, the total amount of aid through federally funded sources topped \$64 billion.

When President Clinton took office in 1993, for example, the Pell Grant maximum award was \$2,300, the same as it was when President Bush took office in 1989. The maximum award has since increased by 36 percent to \$3,125. In 1995, the maximum Pell Grant paid for 86 percent of tuition and fees at a 4-year public institution of higher learning; today, it pays for 92 percent.

In 1999, approximately 13 million Americans are eligible for the Hope and Lifetime Learning tax credits for postsecondary training and education, totaling \$7 billion in aid. In addition, the restored tax deduction for student loan interest costs during the first five years of repayment will save borrowers \$245 million.

Spending for Federal Work-Study increased by 41 percent from 1993 to 1999. The president has requested a \$64 million increase in fiscal year 2000 to allow one million students to work their way through college. Since 1994, over 150,000 AmeriCorps volunteers can earn a total of \$4,725 for college while serving local communities.

Under the new Direct Loan program, students receive loans directly from the Education Department rather than through government-guaranteed lenders. Because the Direct Loan program is substantially less expensive for taxpayers than the guaranteed loan program, taxpayers have saved over \$4 billion during the past five years. The program has pioneered the use of new technology, streamlined loan processing and disbursement, and improved customer service in both programs through competition.

Student loans have also become more affordable. Since 1993, borrowers save \$100 annually for each \$10,000 in outstanding loans, and a total of \$5 billion due to a lower interest rate formula. In addition, significant progress has been made since 1993 in reducing loan origination fees: to date, these fees have been reduced from a maximum of 7 percent to 4 percent, saving students nearly \$3.7 billion to date. In 1999, in recognition of widespread discounts available on guaranteed student loans, the administration reduced direct loan fees to 3 percent.

Repayment options have also become more flexible. Repayment flexibility allows graduates to pursue jobs that pay lower salaries even though they acquired a significant amount of student debt. The income-contingent repayment plan allows direct loan borrowers to repay their loans based upon their incomes; after 25 years, any remaining loan balance is forgiven.

Getting a Higher Education Pays Off

Is a college education worth the cost and trouble? The answer is a resounding yes. In 1998, for example, the average annual income for a person with a high school diploma or an equivalent credential was \$22,624, while the average for a person with a bachelor's degree was \$36,720. Over the course of their working years, college graduates can earn well over \$500,000 more than those who did not attend college.

Those with only a high school diploma may be hard pressed financially in the years ahead. For example, the earnings of females with a high school diploma have not seen a significant increase over the past two decades. In 1974, the average was \$13,891, increasing to just \$16,538 in 1998. The average annual earnings for males with a high school diploma or the equivalent have actually dropped from 1974 to 1998, from \$32,570 to \$27,333. The economic message should be very clear: deciding not to go ahead and seek some form of college education can place an individual in a precarious economic situation for the rest of his or her life.

More importantly, many more people have come to the conclusion in this new education era that a college education opens new career opportunities and will give them the skills they need to keep on learning. Many of those in the workforce, at all levels, will change jobs and even careers several times during the course of their working years.

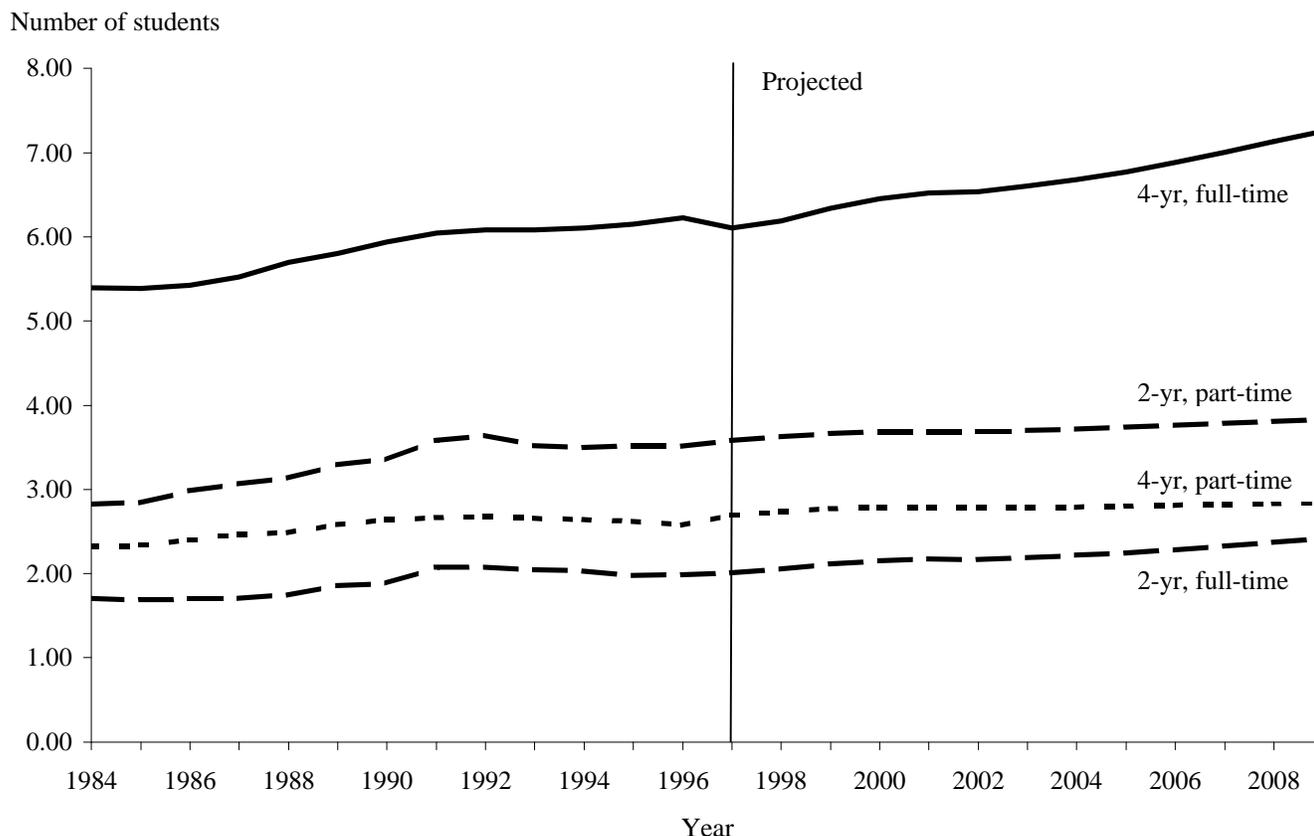
Conclusion

The message that a college education is the open door in to long-term economic success has been heard in all segments of the population around the country. This report seeks to alert the American public to the coming reality that many more people will be seeking a college education in the near future and that the vast majority of these students will attend full-time. At the same time, many colleges and universities are becoming more selective in their admissions process. The result will be increased competition for high school seniors as they seek to go to the college of their choice.

Preparation for college has to begin earlier, and one of the most promising developments in American education today is the growing dialogue and partnership between K-12 educators and our nation's system of higher education for creating new pathways to college. Despite the concerns of many families, a college education is affordable and a great deal of financial assistance is available. The immediate task of leaders at all levels of American education is to do much better at helping parents and students understand what they must do, both academically and financially, in order to take full advantage of the many accessible opportunities to gain a college education.

Figure 1.—Enrollment in public and private colleges, by attendance status and type of institution: 1984 to 2009

(in millions)



Total college enrollment reached a record 14.9 million students in 1999. From 1989 to 1999, full-time and part-time enrollment increased at fairly similar rates, 10 and 9 percent, respectively. That situation is projected to change as large numbers of high school graduates enter college during the early 2000s. **Between 1999 and 2009, full-time enrollment is projected to increase by close to 14 percent, and part-time enrollment is projected to increase by 4 percent.**

Both 2-year institutions and 4-year institutions are expected to experience increases in enrollment in the next ten years. Four-year institutions are expected to see an 11 percent increase in enrollment from 1999 to 2009, while 2-year institutions are expected to see an 8 percent increase during the same time span.

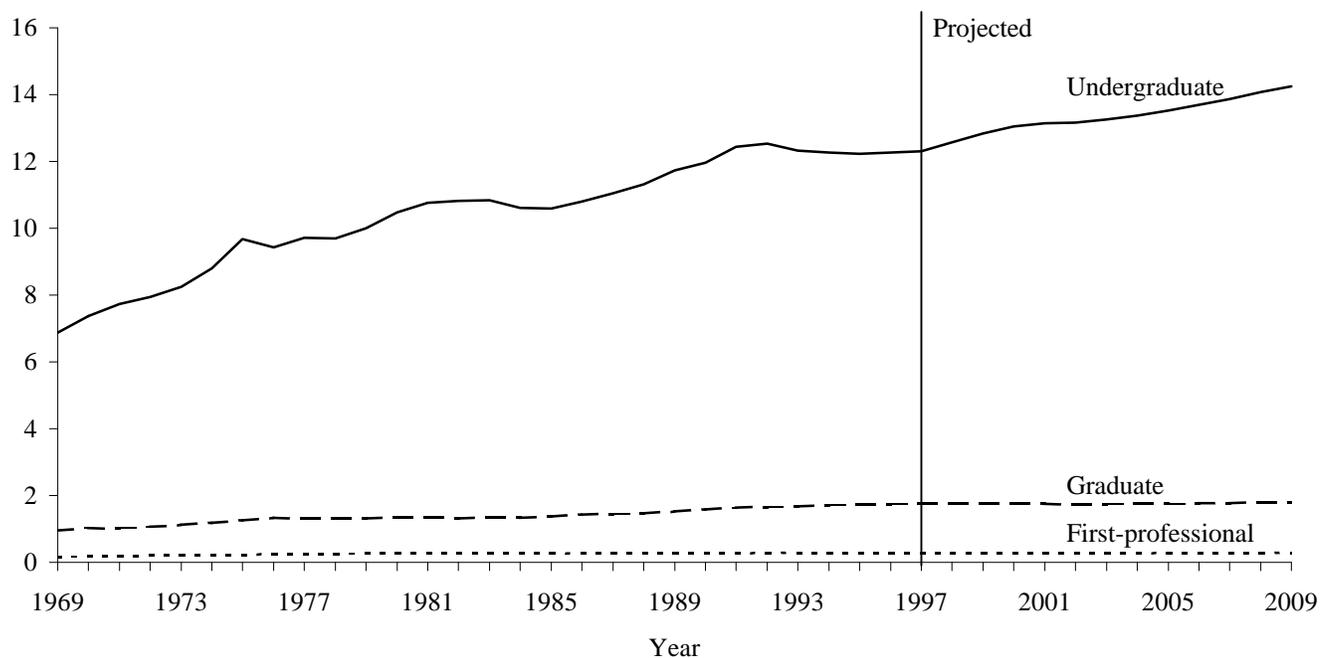
In 1998, more than 75 percent of students going to college were projected to attend public colleges. An estimated 14,608,000 students were enrolled in college. Of these, 5,937,000 attended 4-year public institutions, 5,453,000 attended 2-year public institutions, 2,990,000 attended 4-year private institutions, and 227,000 attended 2-year private institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1998*; and *Projections of Education Statistics to 2009*.

Figure 2.—Enrollment in institutions of higher education, by level of degree: 1969 to 1999

(in millions)

Number of students



Total college enrollment has been increasing in recent years, reaching a record 14.9 million in fall 1999. Further increases are expected at all levels of higher education. **Undergraduate enrollment is expected to rise from 12.8 million to 14.3 million between 1999 and 2009, an increase of 11 percent.** Graduate enrollment is expected to rise by about 2 percent to 1.8 million in 2009, and first-professional enrollment is expected to rise about 4 percent to about .3 million.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 1998, and *Projections of Education Statistics to 2009*, 1999.

Table 1—Total enrollment in institutions of higher education, by level of student, gender, and attendance status: Fall 1969 to fall 2009

Year	Enrollment				Percent full-time			Percent female		
	Total	Under-graduate	Graduate	First-professional	Under-graduate	Graduate	First-professional	Under-graduate	Graduate	First-professional
1969	8,004	6,884	955	165	72.5	38.0	86.9	41.8	38.3	9.6
1970	8,580	7,376	1,031	173	71.6	36.8	90.8	42.3	38.8	8.5
1971	8,948	7,743	1,012	193	71.2	38.3	91.5	42.9	38.9	9.7
1972	9,214	7,941	1,066	207	69.1	37.0	92.0	44.2	41.2	11.2
1973	9,603	8,261	1,123	219	67.5	36.5	92.1	45.1	42.5	14.9
1974	10,223	8,798	1,190	235	65.1	35.9	91.9	45.8	44.2	17.6
1975	11,184	9,679	1,263	242	63.7	35.9	90.8	45.7	44.6	20.7
1976	11,006	9,429	1,333	244	64.0	34.7	90.1	48.0	46.4	22.3
1977	11,287	9,717	1,319	251	62.7	35.8	90.0	49.6	46.8	23.8
1978	11,260	9,691	1,312	257	61.6	35.7	90.5	50.8	48.0	25.2
1979	11,570	9,998	1,309	263	60.8	36.4	90.7	51.8	48.9	26.6
1980	12,095	10,475	1,343	278	60.7	36.1	90.5	52.3	49.9	28.2
1981	12,372	10,755	1,343	275	60.0	36.0	90.4	52.5	49.8	29.7
1982	12,426	10,825	1,322	278	59.9	36.7	90.5	52.2	49.4	31.3
1983	12,465	10,846	1,340	279	60.1	37.1	89.6	52.4	49.5	32.5
1984	12,242	10,618	1,345	279	59.8	37.2	89.6	52.8	50.1	33.6
1985	12,247	10,597	1,376	274	59.6	37.0	89.9	53.2	50.8	34.4
1986	12,504	10,798	1,435	270	58.8	36.4	90.8	53.5	51.7	35.7
1987	12,767	11,046	1,452	268	58.5	36.3	90.1	54.1	52.2	36.6
1988	13,055	11,317	1,472	267	58.7	37.6	90.3	54.6	52.6	37.5
1989	13,539	11,743	1,522	274	58.3	37.6	90.3	54.8	53.3	38.5
1990	13,819	11,959	1,586	273	58.3	37.8	89.9	55.0	53.5	39.0
1991	14,359	12,439	1,639	281	58.1	39.2	89.8	55.2	53.6	39.4
1992	14,487	12,538	1,669	281	57.8	39.9	89.8	55.5	53.7	40.0
1993	14,305	12,324	1,688	292	58.3	40.8	88.8	55.5	54.3	40.9
1994	14,279	12,263	1,721	295	58.5	41.0	89.3	55.8	54.9	41.0
1995	14,261	12,232	1,731	298	58.4	41.4	89.5	55.8	55.7	41.6
1996	14,300	12,259	1,743	298	58.8	42.2	89.6	55.9	56.4	42.1
1997	14,345	12,298	1,751	297	59.4	42.9	89.7	56.0	56.8	43.2
Projected										
1998	14,608	12,577	1,750	280	58.2	38.2	88.2	57.1	57.4	43.2
1999	14,881	12,842	1,760	279	58.7	37.8	88.2	57.4	57.8	43.7
2000	15,072	13,037	1,758	277	59.0	37.6	88.1	57.5	58.1	44.0
2001	15,158	13,137	1,747	275	59.3	37.6	87.6	57.5	58.2	44.0
2002	15,168	13,154	1,740	274	59.4	37.6	88.0	57.4	58.2	44.2
2003	15,262	13,247	1,740	275	59.5	37.7	88.0	57.4	58.3	44.4
2004	15,400	13,374	1,749	277	59.7	38.0	88.1	57.4	58.3	44.4
2005	15,556	13,515	1,760	281	59.9	38.2	87.9	57.5	58.5	44.5
2006	15,739	13,686	1,770	283	60.2	38.4	88.3	57.6	58.5	44.9
2007	15,929	13,862	1,780	286	60.5	38.7	88.8	57.7	58.5	45.1
2008	16,144	14,067	1,787	289	60.8	39.0	88.6	57.7	58.6	45.0
2009	16,336	14,253	1,792	291	61.1	39.2	88.7	57.7	58.5	45.0

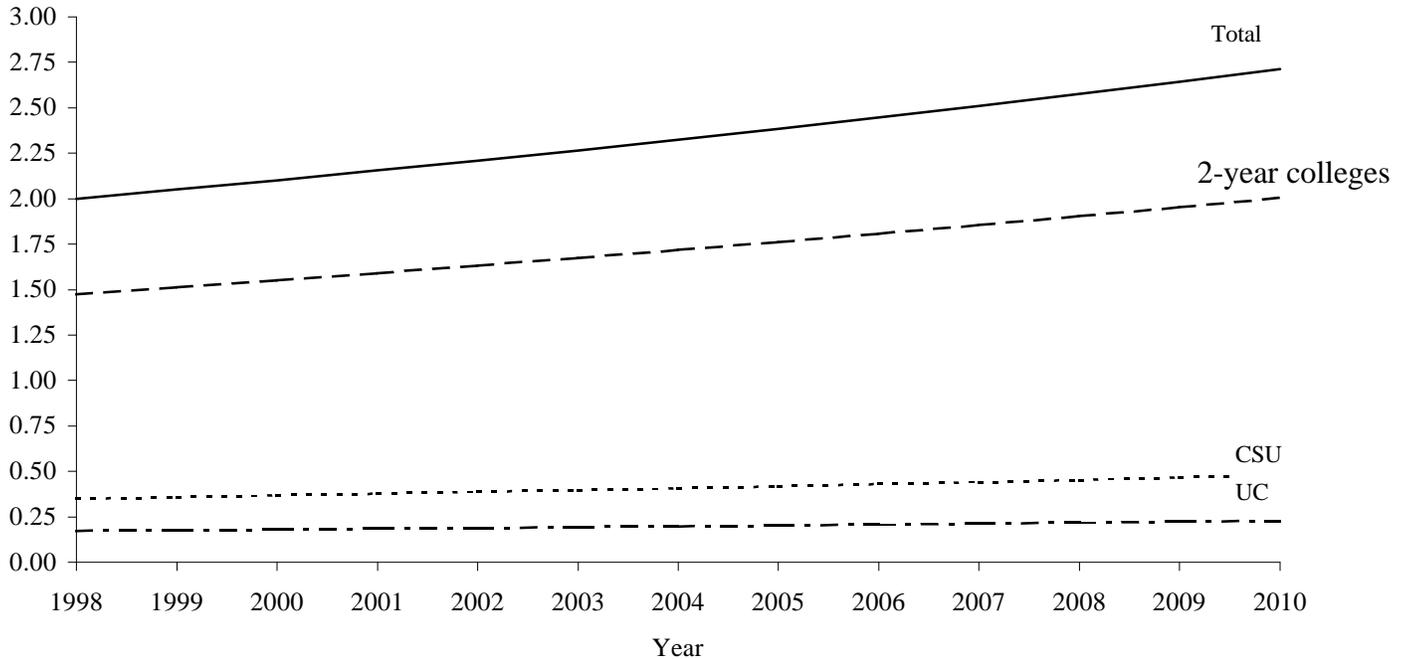
NOTE.--Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*; and *Projections of Education Statistics to 2009*.

Figure 3--Projected enrollment in California's public colleges and universities, by type of institution: 1998 to 2010

(in millions)

Enrollment



CSU=California State University
UC=University of California

Total enrollment in California's public colleges and universities was 2.0 million in 1998. **College enrollment in California is expected to increase an additional .7 million students by 2010, for a total of 2.7 million, a 36 percent rise from 1998.** It is expected that population growth will account for most (72 percent) of the increase in student enrollment.

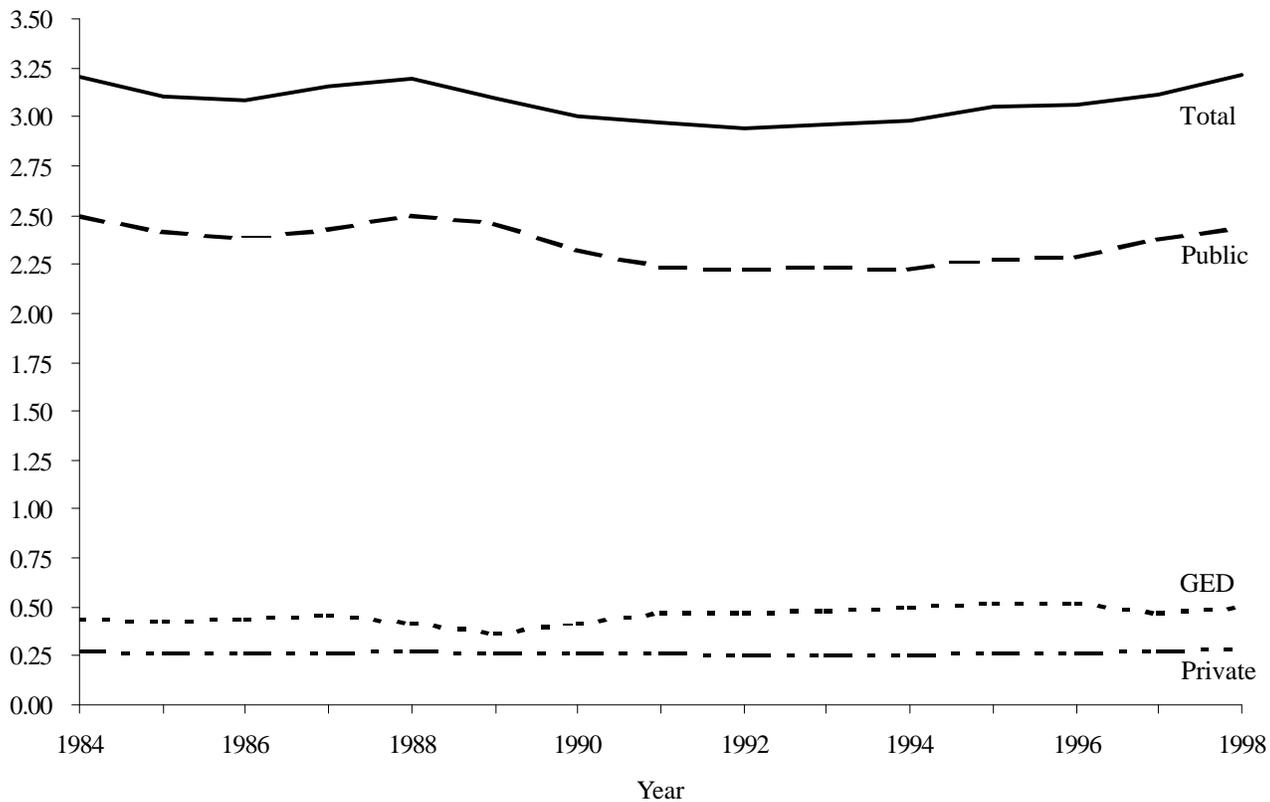
The majority of students will be enrolled in California's community colleges, 1.5 million in 1999 and 2.0 million in 2010. The increase at the community colleges accounts for approximately 74 percent of the new student enrollment. California State University (CSU) will experience a 37 percent increase and the University of California (UC) will see a 32 percent increase. Warren Fox, Executive Director of the California Postsecondary Education Commission (CPEC), stated, "This will be the largest number of students, anywhere, at any time, in any state, seeking public college enrollment."

SOURCE: California Postsecondary Education Commission, *Higher Education Enrollment Demand, 1999*.

Figure 4.—Number of high school diplomas or equivalent credentials awarded, by control of institution: 1984 to 1998

(in millions)

Number of diplomas issued



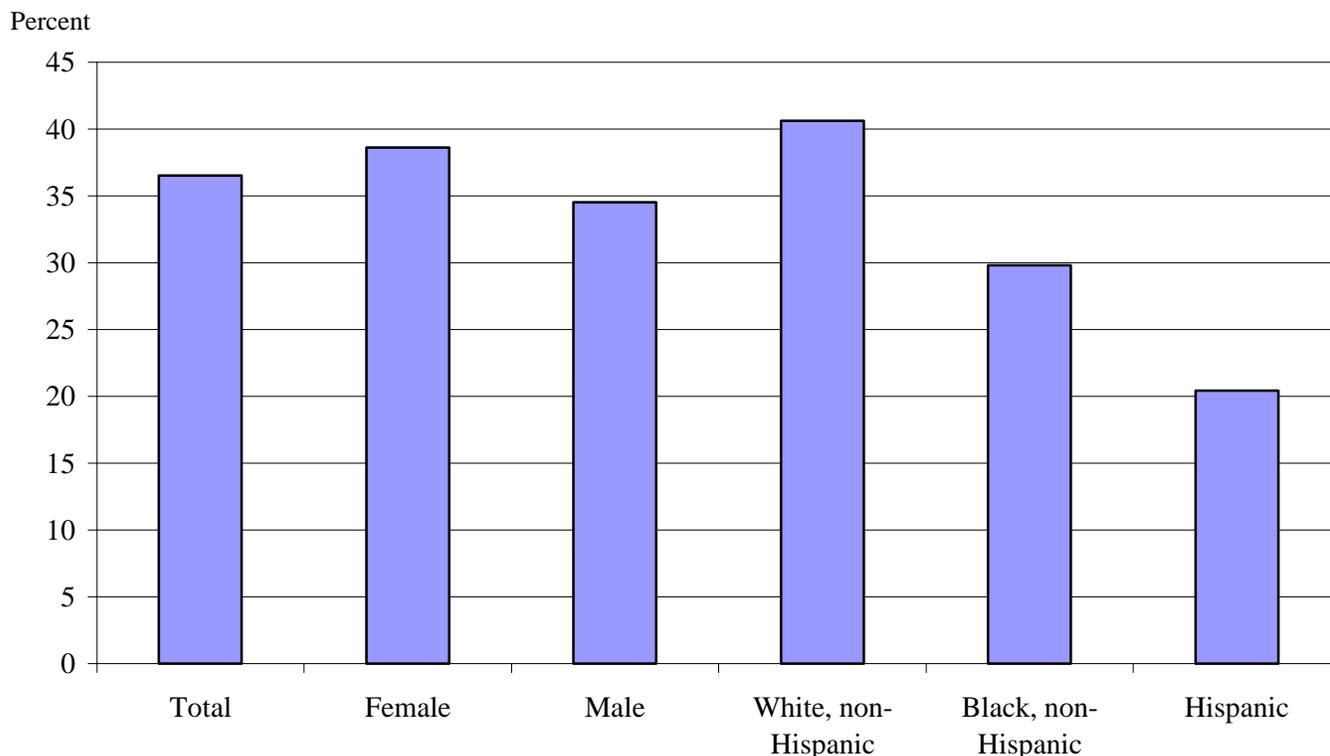
The annual number of graduates is expected to increase for the next 10 years because of rising enrollments in high schools. The number of public high school graduates grew from 2.2 million in 1994 to 2.4 million in 1998, an increase of 10 percent. **The number of graduates is expected to reach 2.9 million by the year 2009, an increase of another 19 percent compared to 1998.**

The number of graduates from private schools has increased at a rate similar to public schools. In 1998, about 284,000 students graduated from private schools, and this figure is expected to reach about 338,000 graduates in 2009.

The number of students receiving General Educational Development (GED) credentials was 496,000 in 1998, about the same as in 1994. However, the proportion of GED test takers who were age 19 or under rose from 34 percent in 1994 to 43 percent in 1998.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*; American Council on Education, General Educational Development Testing Service, *Who took the GED? Statistical Report*, various years.

Figure 5.—Percentage of 18- to 24-year-olds enrolled in institutions of higher education, by gender and race/ethnicity: 1998



About 37 percent of all 18- to 24-year-olds were enrolled in a 2- or 4-year college or university in 1998. Females were more likely to be enrolled in college than males. The college enrollment rate for white 18- to 24-year-olds was higher than the rate for black or Hispanic 18- to 24-year-olds. About 41 percent of white 18- to 24-year-olds were enrolled in college, compared to 30 percent for black persons and 20 percent for Hispanic persons.

Young people at the traditional ages for college enrollment, 18 to 24 years old, remained more likely to be enrolled in college than older persons. However, large numbers of older persons also attended college. About 12 percent of 25- to 29-year-olds, 6 percent of 30- to 34-year-olds, and 4 percent of 35- to 39-year-olds attended college in 1998. Altogether, about two-fifths of all college students were over age 24.

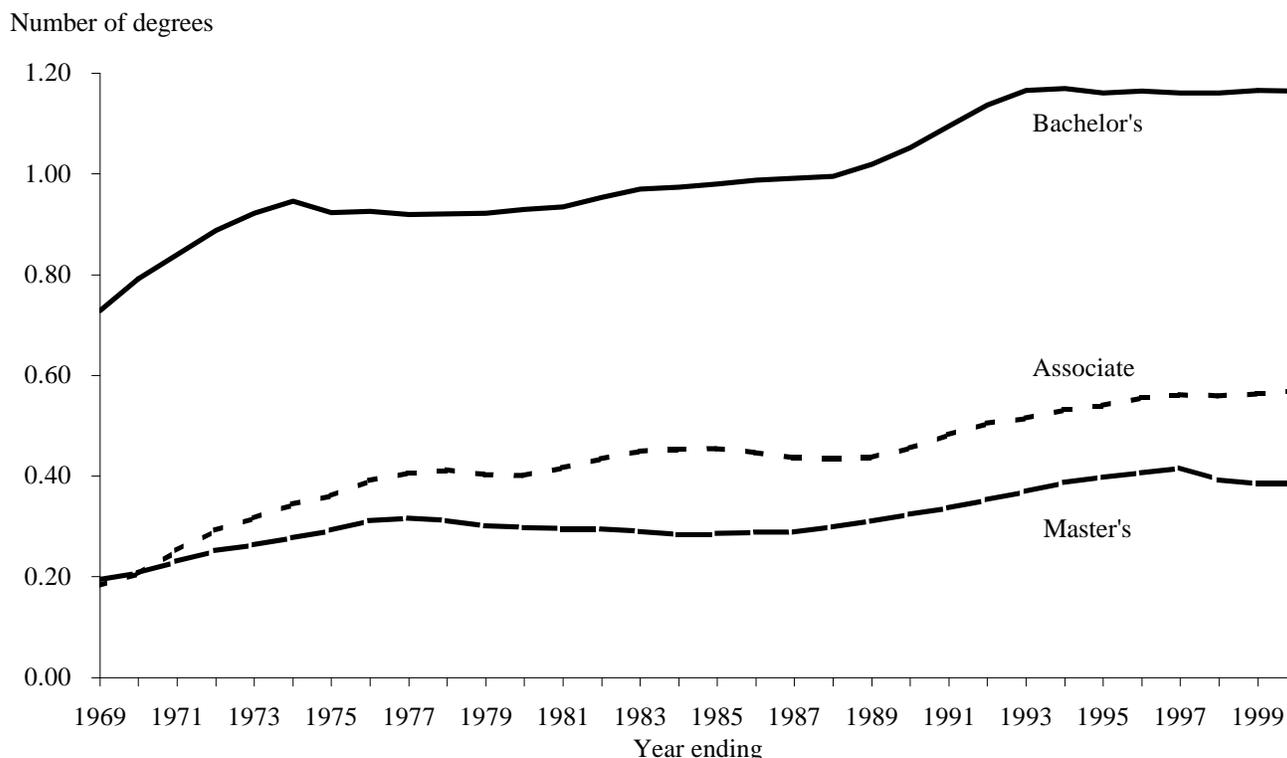
As an alternative or addition to further education, many young people enter the labor force after high school. The challenges in entering the job market for high school dropouts, and youth in general, are highlighted by their labor force and unemployment experiences. About 61 percent of the 1997-98 high school dropouts were in the labor force (employed or looking for work) in 1998, and about 28 percent of them were unemployed. Of the 1998 high school graduates who were not in college, 80 percent were in the labor force, and 18 percent of those in the labor force were unemployed.

High school graduates enrolled in college were employed at about the same rates as high school dropouts who were not attending school. About 50 percent of the 1998 high school graduates attending college also were in the labor force. Their unemployment rate was 11 percent.

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

Figure 6.—Degrees conferred by institutions of higher education, by level of degree: 1968-69 to 1999-2000

(in millions)



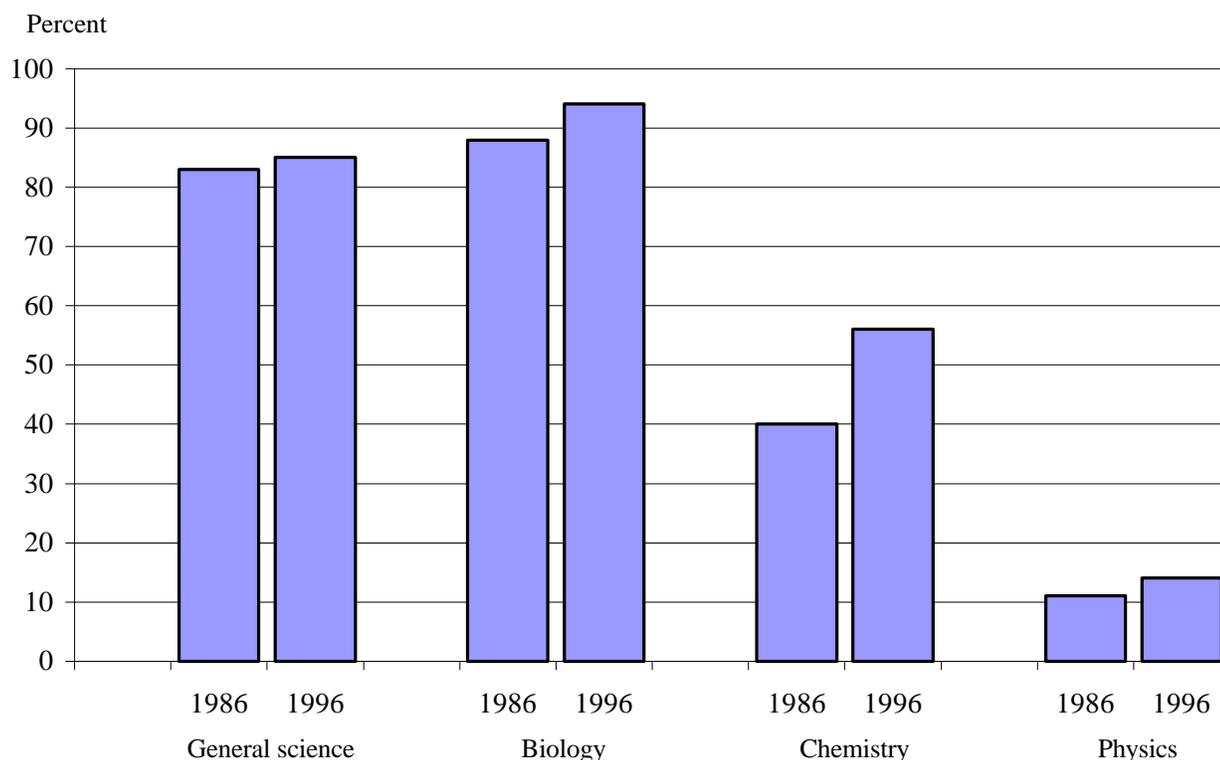
NOTE: Data for 1997-98 to 1999-2000 are projections.

More people are completing college. The number of associate degrees conferred this year is expected to be about .6 million, representing an increase of 25 percent compared to 1989-90. **About 1.2 million degrees are expected to be awarded at the bachelor's level in 1999-2000, up 11 percent from 1989-90.** The number of degrees conferred at the postbaccalaureate level has also increased. The number of master's degrees is expected to be about 385,000 in 1999-2000, an increase of 19 percent since 1989-90. The number of doctor's degrees is estimated at 44,000 for 1999-2000, a rise of 14 percent compared to 10 years earlier. About 74,000 degrees are expected at the first-professional level for the same year in fields as dentistry, law, and medicine, reflecting an increase of about 5 percent compared to 1989-90.

Many students who embark on college programs do not receive degrees. About half (53 percent) of the students who enrolled in a 4-year college in 1989-90 had completed their degree by spring 1994. About 7 percent of the students had completed an associate degree or other certificate below the bachelor's degree, 15 percent of the students were still enrolled in a bachelor's degree program, and 24 percent had left college.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2009*; Higher Education General Information (HEGIS) survey, Fall Enrollment in Colleges and Universities surveys; and Integrated Postsecondary Education Data System (IPEDS), Completions surveys, various years; *Digest of Education Statistics 1998*.

Figure 7.—Percentage of 17-year-olds who have completed or are taking science courses: 1986 and 1996



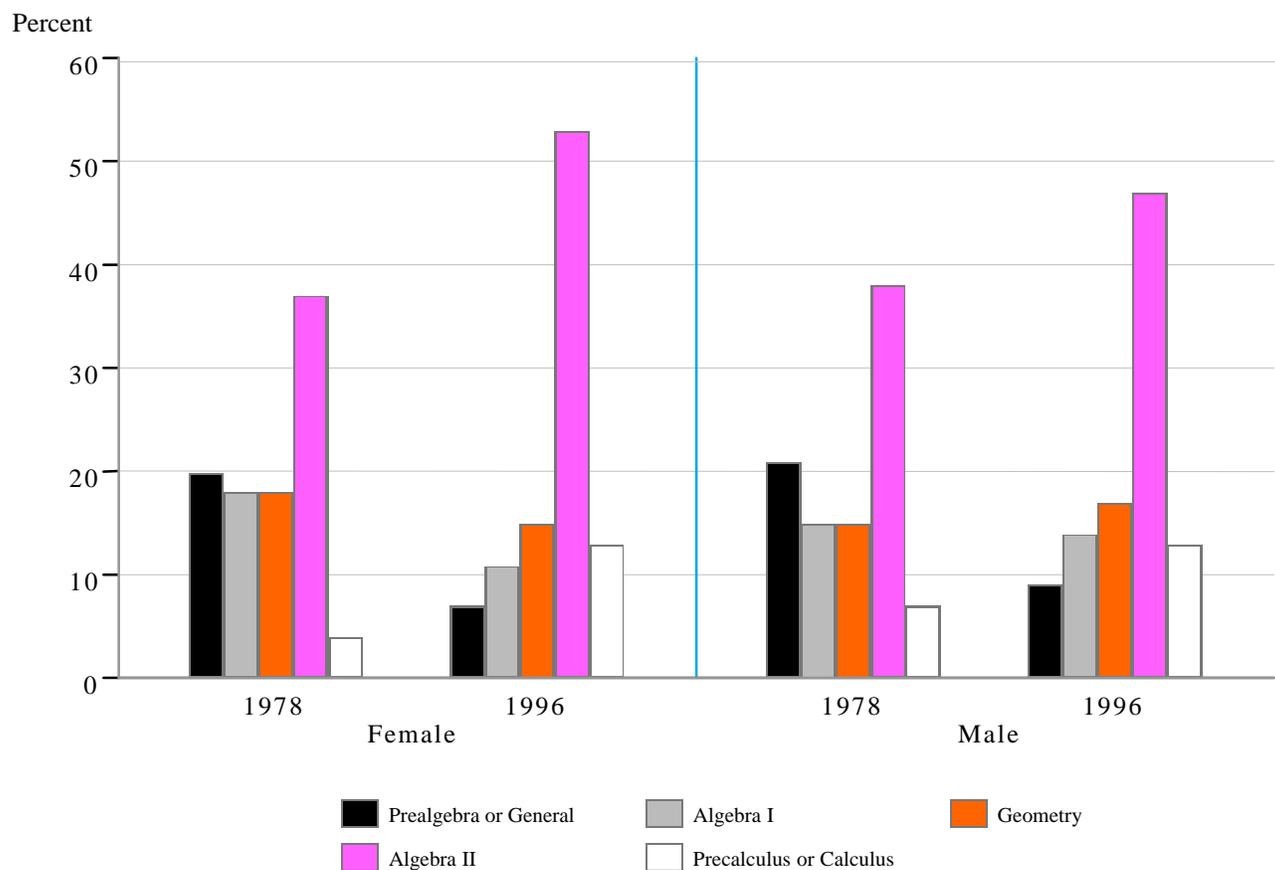
In 1996, a greater proportion of 17-year-olds had completed or was taking general science, biology, chemistry, and physics courses compared to students in 1986. **The percentage of students taking chemistry rose from 40 percent of students in 1986 to 56 percent in 1996, a rise of 16 percentage points.** Almost all students took biology (94 percent), while a much smaller percentage took physics (14 percent).

Over the ten-year span, the percentage of both males and females taking science courses increased. However, the proportion of females taking the four science courses rose at a more rapid rate than the proportion of males. The percentage of females taking chemistry increased by 19 percentage points (39 to 58 percent), while the percentage of males showed an 11 point increase (42 to 53 percent).

The proportion of students taking science courses rose for minority groups between 1986 and 1996. The increase was most notable for students taking chemistry, with both Hispanic and black students showing sizeable increases. The proportion of Hispanic students taking chemistry rose 22 percentage points (24 to 46 percent of students) and the proportion of black students rose 20 percentage points (29 to 49 percent). Also, a greater percentage of Hispanic and black students took physics in 1996 compared to white students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), *1996 Trends in Academic Progress*, 1997.

Figure 8.—Percentage distribution of 17-year-olds, by highest level of mathematics course taken, by gender: 1978 and 1996



The percentage of 17-year-olds who completed higher-level math courses—algebra II and precalculus or calculus—rose from 1978 to 1996. In 1996, 50 percent of all students completed algebra II, an increase of 13 percentage points from 1978. In 1996, 13 percent of students completed precalculus or calculus, nearly double the percentage in 1978. In 1996, more students completed their high school math program at the more advanced levels of geometry, algebra II, precalculus or calculus, than those who completed work only through the prealgebra/general or algebra I levels.

The proportion of both males and females taking higher-level math courses increased over the 18-year span. The percentage of females completing algebra II increased by 16 points (37 to 53 percent of students), and the percentage of males completing algebra II increased by 9 points (38 to 47 percent).

The proportion of minority students taking higher-level math courses also rose from 1978 to 1996. The percentage of Hispanic students completing algebra II increased by 18 points, from 23 to 41 percent. The percentage of black students completing algebra II rose 17 points, from 28 to 45 percent.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), *1996 Trends in Academic Progress*, 1997.

Figure 9.—High school courses recommended for college

English-4years

Types of classes:

- composition
- American literature
- English literature
- world literature

Mathematics-3 to 4 years

Types of classes:

- algebra I
- geometry
- algebra II
- trigonometry
- precalculus
- calculus

History and Geography-2 to 3 years

Types of classes:

- geography
- U.S. history
- U.S. government
- world history
- world cultures
- civics

Laboratory Science-2 to 3 years

Types of classes:

- biology
- earth science
- chemistry
- physics

Visual and Performing Arts-1 year

Types of classes:

- art
- dance
- drama
- music

Challenging Electives-1 to 3 years

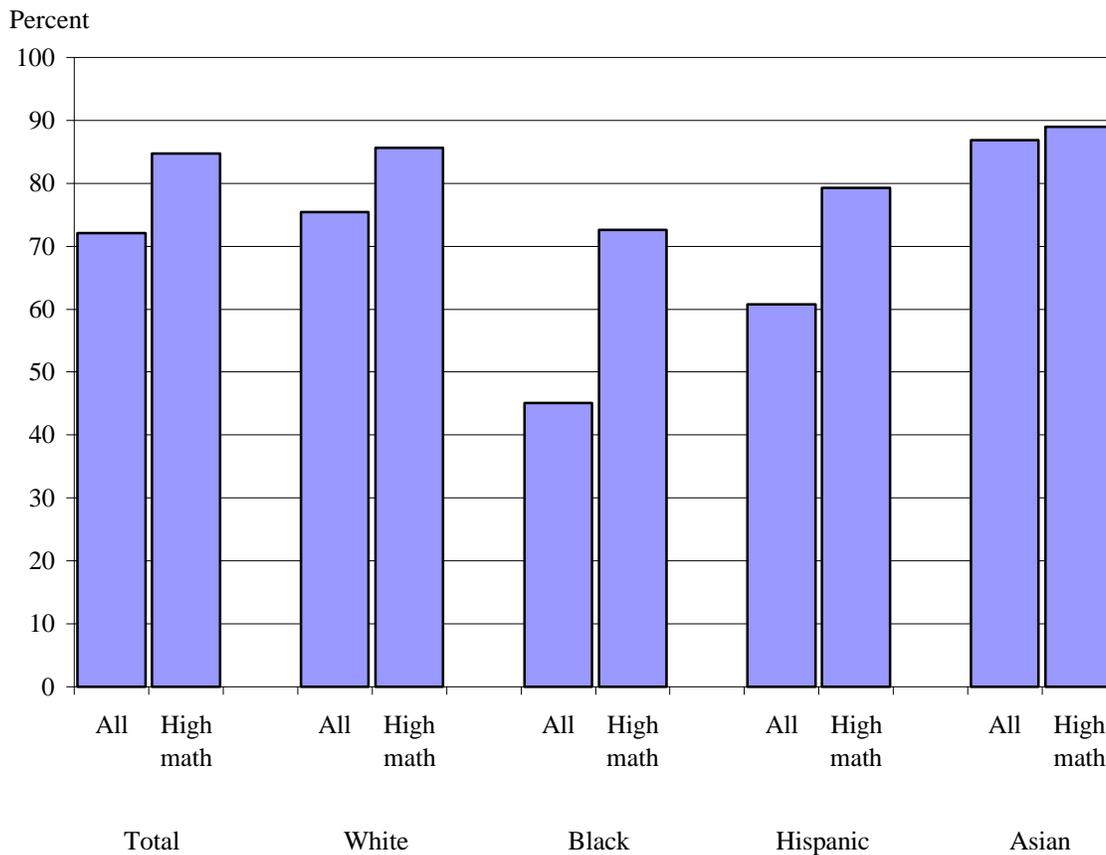
Types of classes:

- economics
- psychology
- computer science
- statistics
- communications

Foreign Language-2 to 3 years

The number of courses typically completed by public high school graduates has increased substantially. As a result of the increased academic course load, **the proportion of students completing the recommendations of the National Commission on Excellence in Education (4 years of English, and 3 years each in social studies, science, and mathematics) rose from 14 percent in 1982 to 50 percent in 1994.**

Figure 10.—Bachelor's degree completion rates for students who entered 4-year colleges directly from on-time high school graduation in 1982, by high school mathematics course-taking and race: 1993

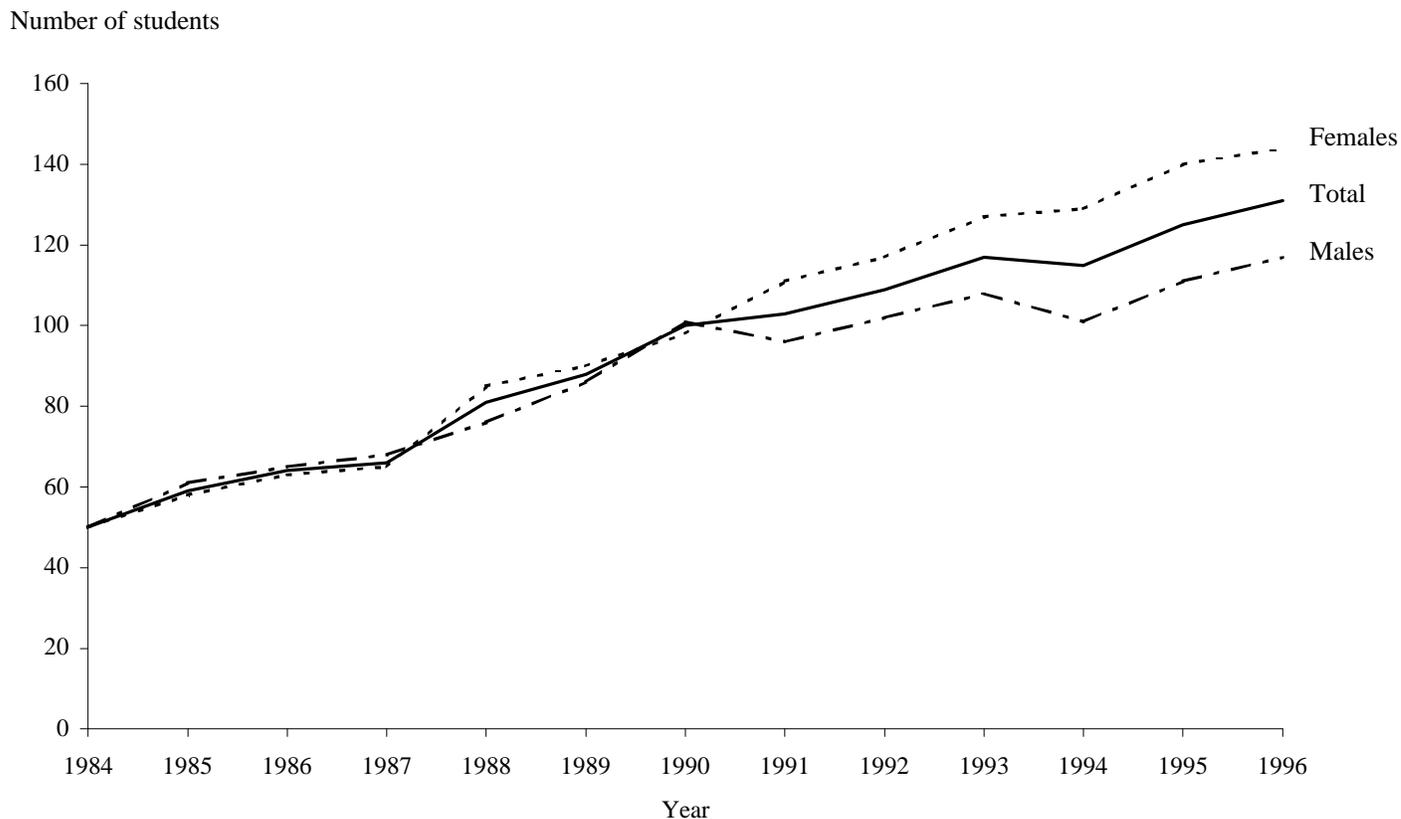


Students who completed a high-level mathematics course (beyond algebra II) and who ranked in the top 40 percent of academic curriculum* have a higher college completion rate than other students who also completed high school on time and directly entered a 4-year college. In particular, **black and Hispanic students who had high school curriculums of rigorous intensity and high quality and completed a high-level math course were more likely to complete a bachelor's degree program than their peers who pursued a less rigorous curriculum.** For example, 45 percent of all black students who finished high school on time and went directly to college graduated with a bachelor's degree. However, this percentage was 73 percent for those black students who completed a high-level mathematics course and a rigorous curriculum.

*Academic curriculum refers to a constructed variable consisting of a measure of academic intensity and quality.

SOURCE: U.S. Department of Education, Office of Educational Research and Improvement, *Answers in the Tool Box*, 1999.

Figure 11.—Number of students who took Advanced Placement (AP) examinations per 1,000 12th-graders, by gender: 1984 to 1996

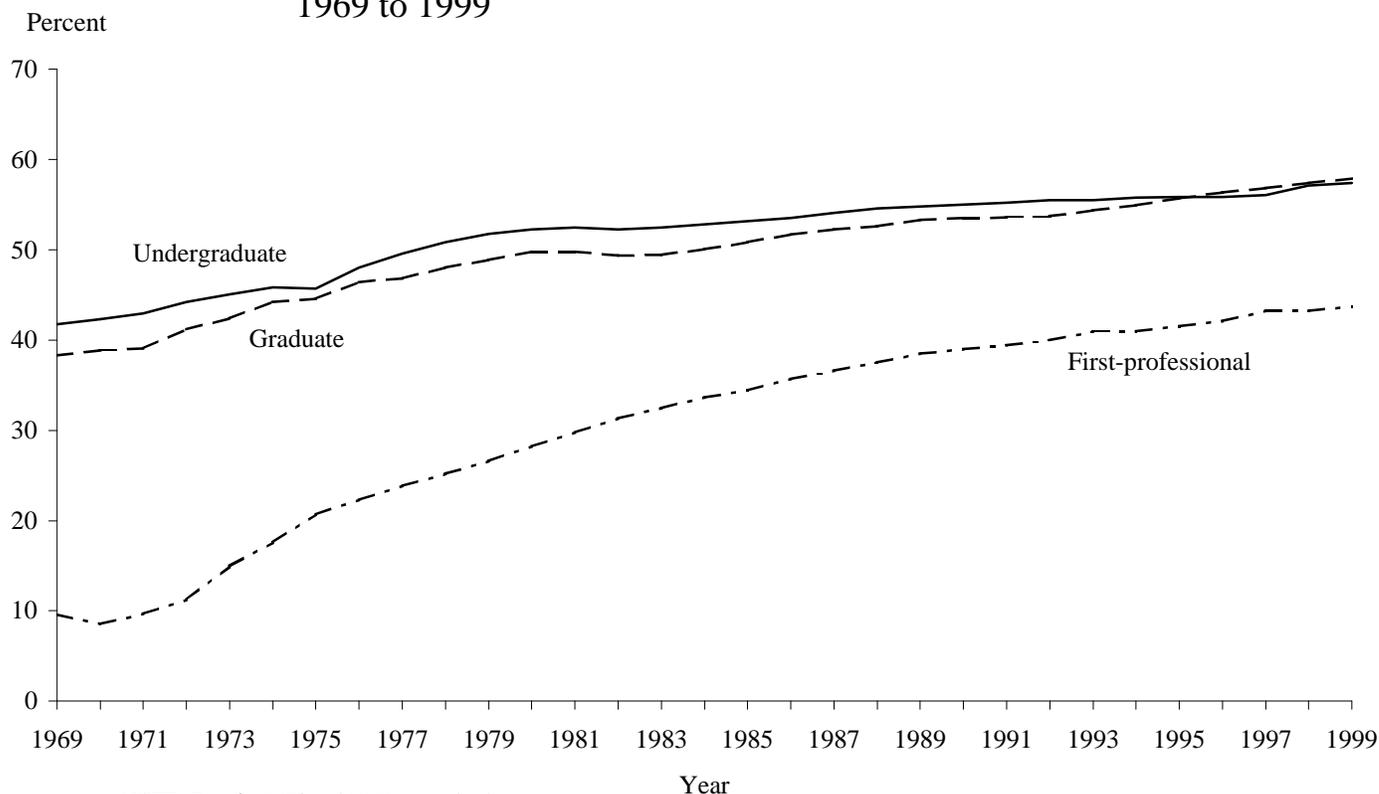


Between 1984 and 1996, the number of students who took AP exams increased markedly, rising from 50 to 131 per 1,000 12th-graders. While the number increased for both males and females, the number of females who took examinations rose at a faster rate than did the number of males who took examinations. In 1996, 144 females compared to 117 males per 1,000 12th-graders took AP examinations.

Most institutions of higher education will give students credit for an AP examination score of three or higher. In 1996, 63 percent of the AP examinations taken received a score of 3 or higher.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education, 1998*.

Figure 12.—Percentage of college students who are women, by level:
1969 to 1999



The proportion of women enrolled in higher education has increased steadily over the past 30 years. In 1969, there were 3.3 million women in colleges representing about 41 percent of total college enrollment. By 1999, the total number of women had increased to an estimated 8.5 million, and they made up 57 percent of total college enrollment.

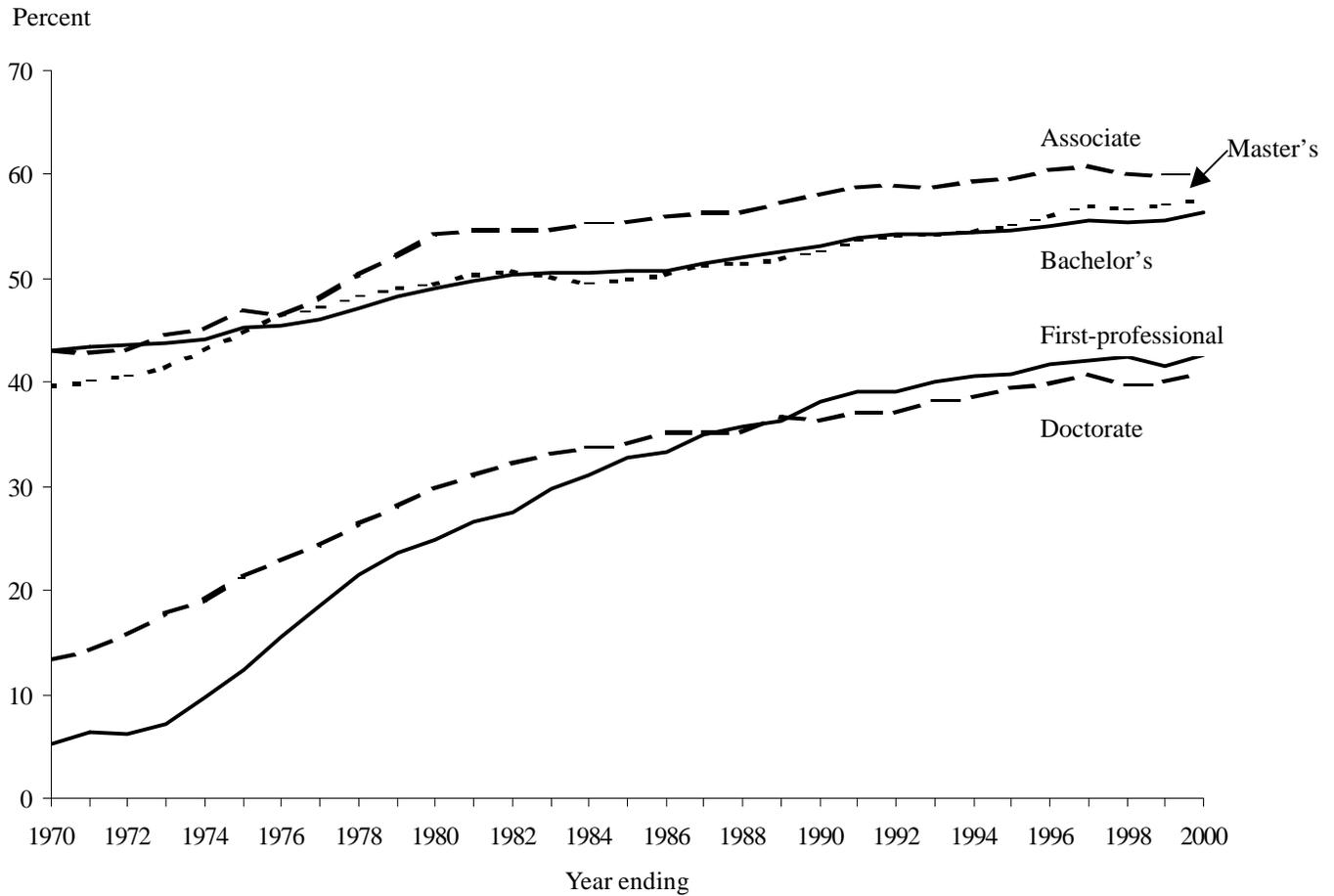
The numbers of women enrolling have increased at all levels of higher education. **At the undergraduate level, the number of women rose by 156 percent between 1969 and 1999, from 2.9 million to 7.4 million.** In contrast, the total number of men enrolled rose from 4.0 million in 1969 to 5.5 million in 1999, a 37 percent increase.

The growth in the enrollment of women at the graduate level has reflected the large increases at the undergraduate level. The enrollment of women in graduate programs rose by 178 percent between 1969 and 1999, and in 1997, women made up 57 percent of all graduate students. A greater number of women attend graduate school part-time. In 1999, about 66 percent of female graduate school students attend part-time compared to 58 percent of male graduate school students.

The greatest change occurred in the number of women attending first-professional programs such as those at medical, dental, and law schools. The total number of women enrolled in first-professional programs rose from 16,000 in 1969 to 122,000 in 1999. As a result of this large increase in the enrollment of women, the proportion of women among first-professional students rose from 10 percent in 1969 to 44 percent in 1999.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*; and *Projections of Education Statistics to 2009*.

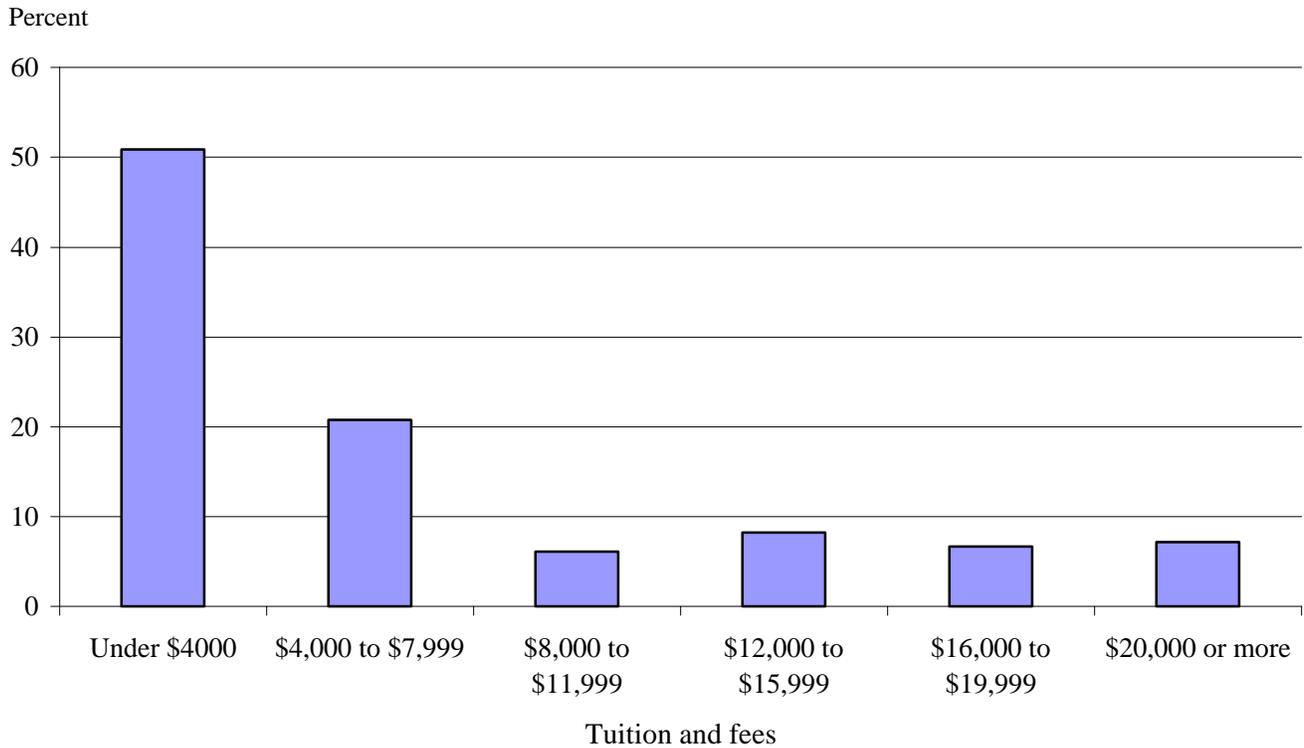
Figure 13.—Percentage of degrees awarded to women, by level of degree:
1969-70 to 1999-2000



The proportion of women in undergraduate and graduate programs increased steadily during the 1970s, 1980s, and 1990s. This enrollment growth has been reflected by increasing numbers and proportions of women earning associate, bachelor's, master's, doctor's, and first-professional degrees. In 1969-70, women received 43 percent of bachelor's degrees and 40 percent of all master's degrees. Women now comprise the majority of college degree recipients. **For the class of 2000, it is expected that women will receive about 56 percent of all bachelor's degrees and 58 percent of all master's degrees.** The proportion of women among recipients of first-professional degrees, including degrees in law, medicine, and dentistry, has risen from 5 percent in 1969-70 to a projected 43 percent in 1999-2000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998*; and *Projections of Education Statistics to 2009*.

Figure 14.—Percentage distribution of full-time undergraduates at all 4-year institutions, by amount of tuition and fees charged: 1999-2000

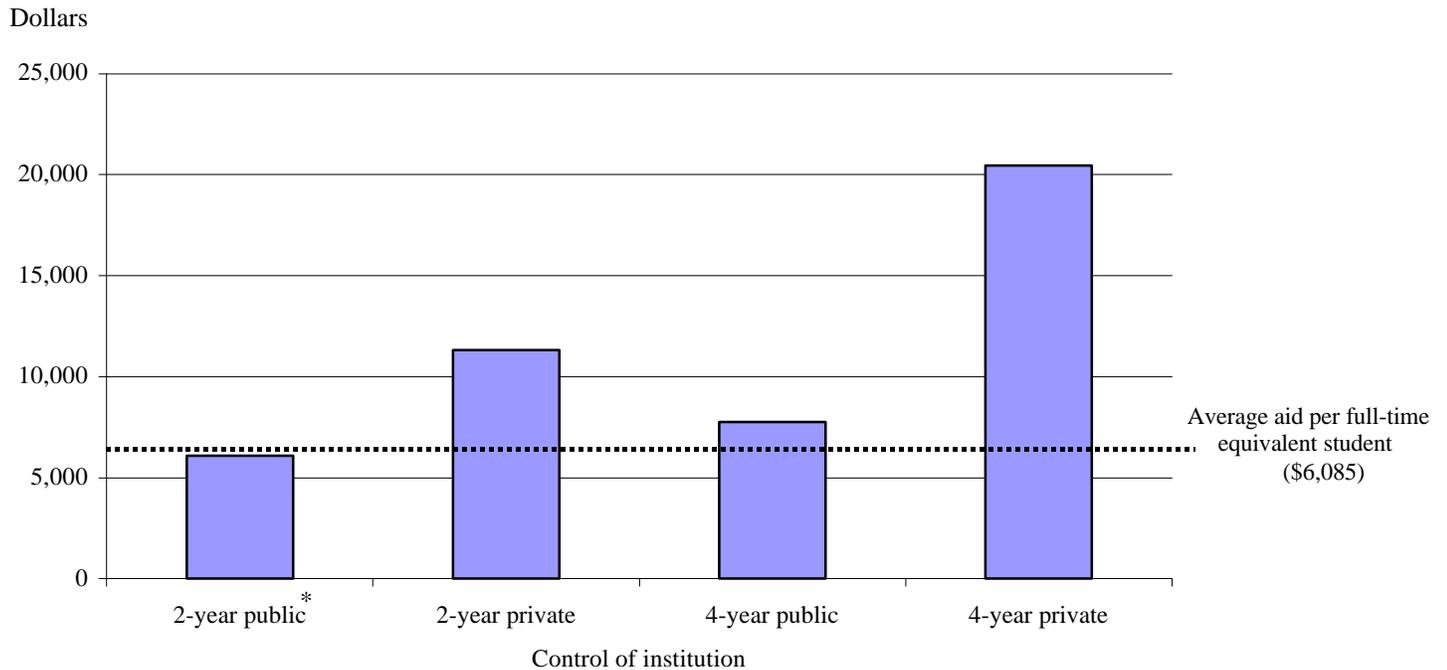


More than half of the students attending four-year institutions pay less than \$4,000 in tuition and fees, and almost three-quarters pay less than \$8,000. Only 8 percent of students attend colleges at which tuition and fees exceed \$20,000.

The average charges, including room and board, for a public 4-year institution are \$8,086 in 1999-2000. The same charges for a private institution are \$21,339. These charges reflect a less than 5 percent increase in tuition, fees, room and board over the previous year (\$7,769 for public 4-year institutions; \$20,463 for private 4-year institutions).

SOURCE: The College Board, *Trends in College Pricing*, 1999.

Figure 15.—Average tuition, fees, room and board costs, by control of institution: 1998



* Room and board cost is estimated.

NOTE: Average aid includes grant and loan aid.

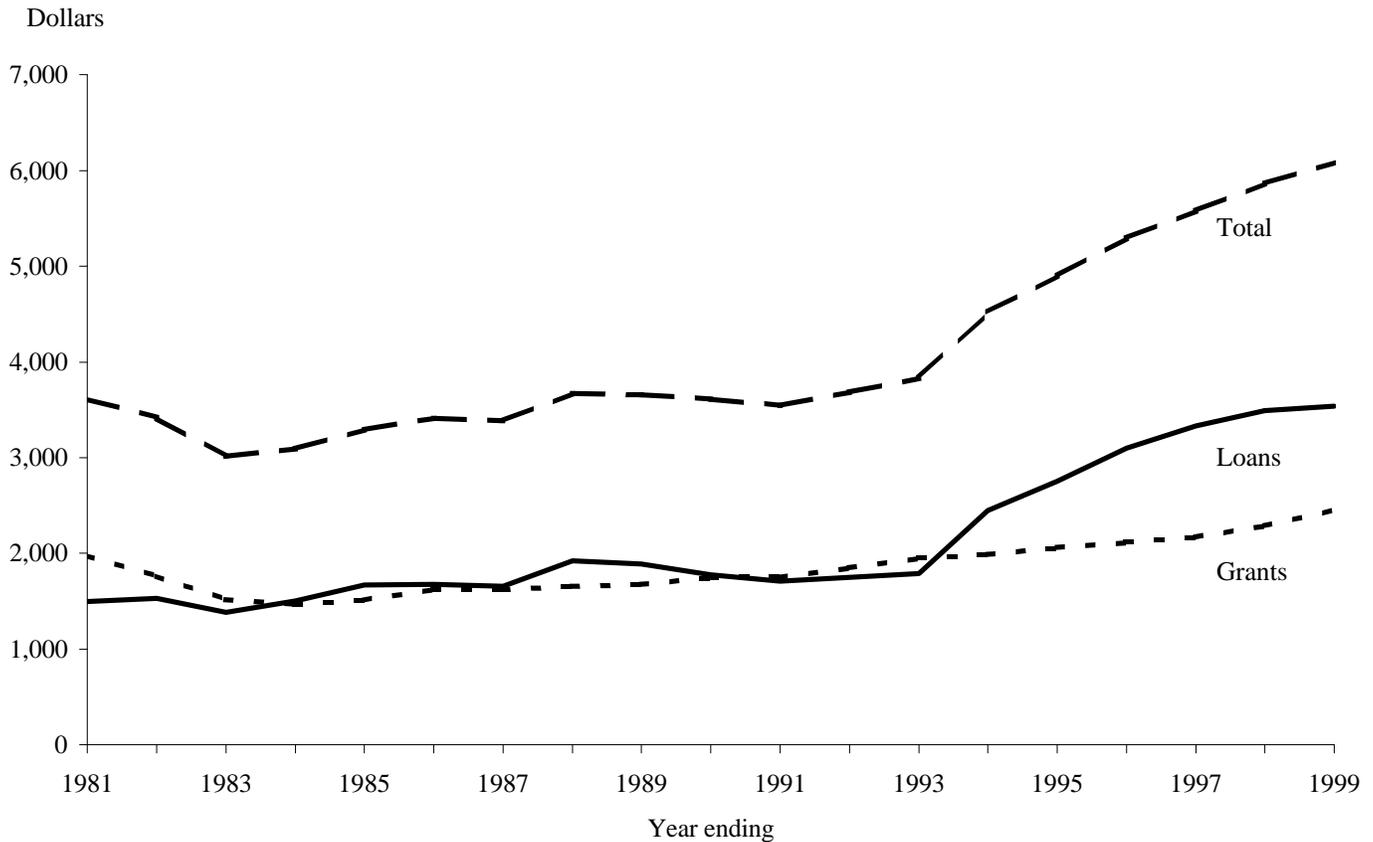
The average cost in tuition, fees, room and board at 4-year public institutions in 1998 was \$7,769. At private 2-year and 4-year institutions, the average was \$11,313 and \$21,339, respectively.

The average cost for tuition and fees only at 2-year public institutions of higher education was \$1,554; for a 2-year private school, it was \$6,940. The average cost at 4-year public institutions was \$3,247, while it was \$14,709 at private 4-year institutions.

SOURCE: The College Board, *Trends in College Pricing*, 1999.

Figure 16.—Average federal aid per full-time equivalent student, by type of aid:
1980-81 to 1998-99

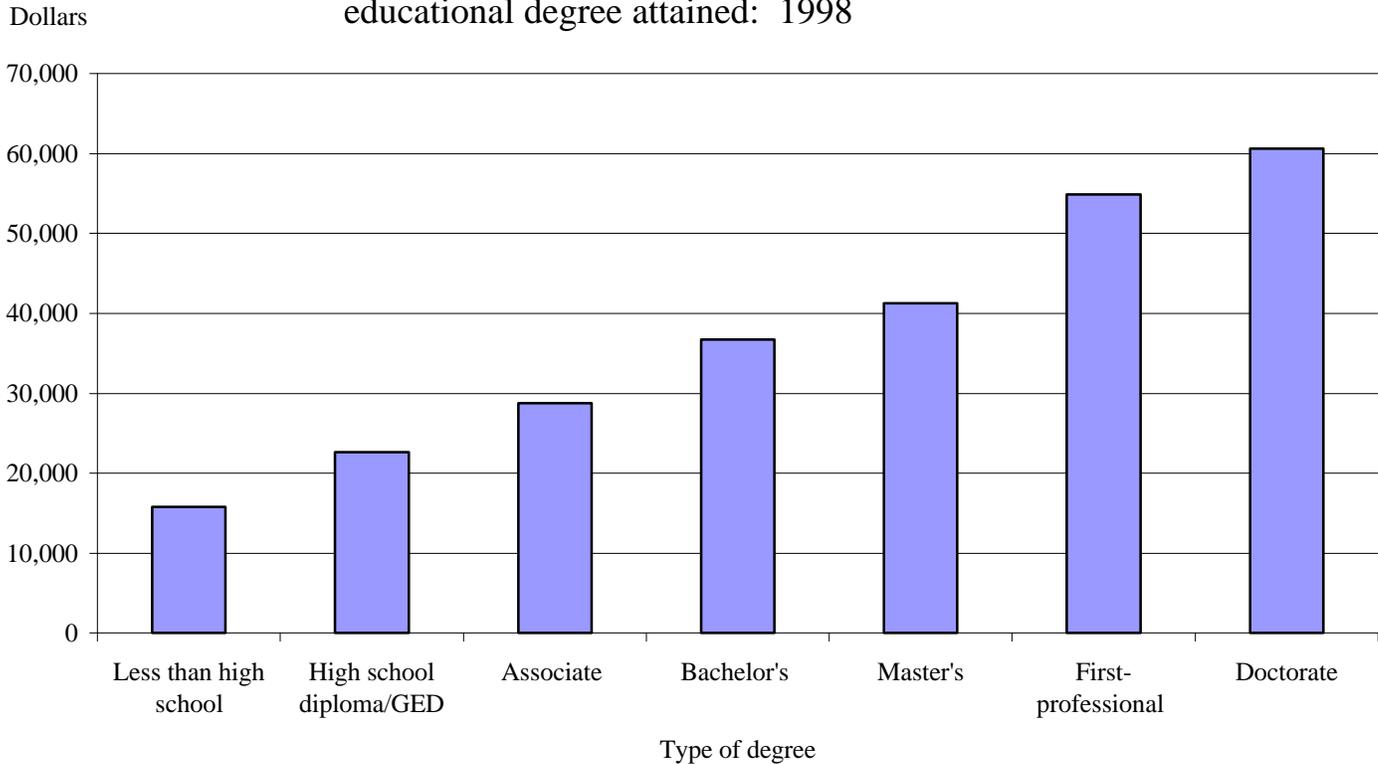
(in constant 1998-99 dollars)



In the 1990s, average aid per full-time equivalent student has increased from \$3,614 in 1990 to \$6,085 in 1999, a 68 percent increase. In 1998-99, the total amount of aid topped \$64 billion, translating into more than \$6,000 on average per full-time equivalent student. Over the six-year period from 1992-93 to 1998-99, the average loan aid almost doubled, from \$1,793 to \$3,535. Grant aid increased during this period by more than 25 percent, from \$1,949 to \$2,455.

SOURCE: The College Board, *Trends in College Pricing*, 1999.

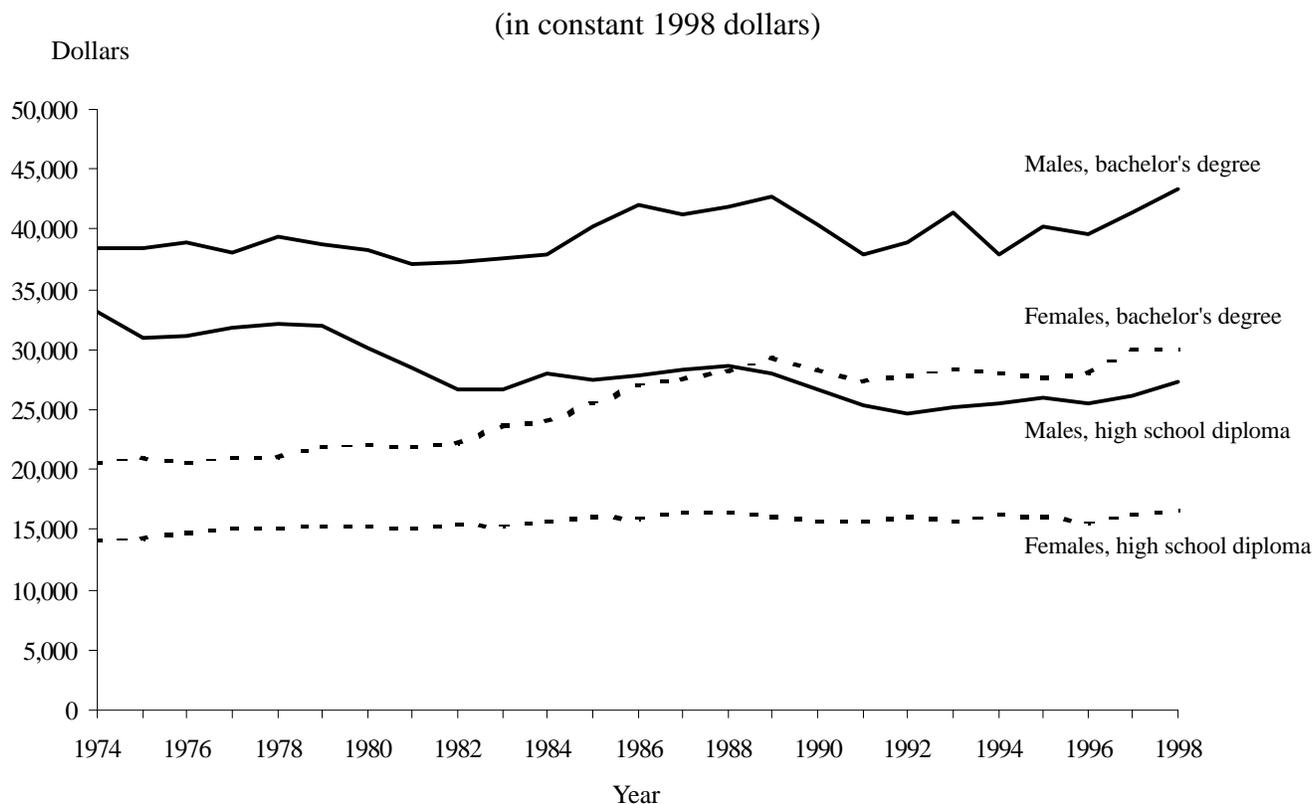
Figure 17.—Average annual earnings for 25- to 34-year-olds, by highest educational degree attained: 1998



People with college degrees earn more money than those with high school diplomas or the equivalent. The average annual earnings for those 25- to 34-years of age increase as the level of education increases. In 1998, those with a bachelor's degree earned over \$14,000 more than high school graduates, on average. Individuals with either a first-professional or a doctorate degree earned more than twice the amount of those with a high school diploma or the equivalent. People without a high school diploma or GED earned, on average, less than \$16,000 in 1998.

SOURCE: U.S. Department of Commerce, Bureau of the Census and Bureau of Labor Statistics, Current Population Survey, 1999.

Figure 18.—Mean annual income of workers 25 to 34 years old, by gender and educational attainment: 1974 to 1998



Workers who have completed a bachelor's degree generally earn more money than workers with a high school diploma. **In 1998, the average annual income for 25- to 34-year-olds with a high school diploma or equivalent credential was \$22,624, while the average for persons with a bachelor's degree was \$36,720, a difference of over \$14,000 or about 62 percent.**

There is a large differential between the earnings of male and female 25- to 34-year-olds. During the 1970s and early 1980s, males with high school diplomas had higher average earnings than females with bachelor's degrees. On average, males with bachelor's degrees earned more than females with bachelor's degrees during the entire period from 1974 to 1998. In 1998, it was more than a \$13,000 difference. Although the difference between the earnings of males and females decreased during most of the period, the rate of increase for males has been higher than that of females in the past few years. Over the past four years, the average annual income for males with a bachelor's degrees rose 15 percent to \$43,447 in 1998, while the average income for females with a bachelor's degree rose 7 percent to \$30,026.

The earnings of female 25- to 34-year-olds, who have completed only high school, have not increased as rapidly as earnings for females with higher levels of education. The earnings of women with high school credentials rose from \$14,107 in 1974 to \$16,538 in 1998, an increase of 17 percent, compared to the increase of 46 percent for women with bachelor's degrees. The gap in the earnings between females and males with only high school credentials narrowed somewhat between 1974 and 1998 because the average annual earnings for males with a high school diploma or equivalent dropped 17 percent from \$33,077 to \$27,333.

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

Additional Information about U.S. Colleges--Web Sites

Carnegie Classification Definitions.

<http://www.educause.edu/memdir/carnegie-def.html#TEACH>

Carnegie Classification of Institutions of Higher Learning.

<http://www.carnegiefoundation.org/cihe/>

College and University Rankings. Comprehensive site on university rankings and controversies.

<http://www.library.uiuc.edu/edx/rankings.htm>

College Prep 101. Free course on college preparation, sponsored by Oklahoma State University.

<http://www2.okstate.edu/lam2717/CollegePrep101.html>

CollegeNet. Online college applications and financial aid search.

<http://www.collegenet.com/>

EASI. U.S. Department of Education information about financial aid.

<http://easi.ed.gov/>

Gradschools.com. Guide to graduate programs in American and foreign universities.

<http://www.gradschools.com/>

Graduate School Survival Links. For Ph.D. students.

<http://www.phds.org/Links/index.cfm?setTopic=42>

National Center for Education Statistics. College Opportunities On-Line (COOL).

<http://nces.ed.gov/ipeds/cool/>

Princeton Review. Guide to colleges and universities.

<http://www.review.com/>

Tours of Colleges.

<http://www.campustours.com> or

<http://www.collegiatechoice.com>

Telecampus. Directory of college courses available on the Internet.

<http://telecampus.edu/>

U.S. and Foreign Colleges and Universities Listed Alphabetically.

<http://www.mit.edu:8001/people/cdemello/univ-full.html> or

<http://www.clas.ufl.edu/CLAS/american-universities.html>

U.S. Two-year colleges.

<http://cset.sp.utoledo.edu/twoyrcol.html>

University Pages. U.S. colleges and universities by state.

http://isl-garnet.uah.edu/Universities_g/

Women's College Links Page.

<http://tln.lib.mi.us/~lpotter/>

Yahoo Links to Financial Aid Information.

http://www.yahoo.com/Education/Financial_Aid/

Black Colleges and Universities. Select by geographic region, state, or alphabetical order.

<http://www.edonline.com/cq/hbcu/>

Native American Schools and Tribal Colleges. Student groups and related programs on the Internet.

<http://hanksville.phast.umass.edu:80/misc/NAschools.html> or

http://dir.yahoo.com/Education/Higher_Education/Colleges_and_Universities/United_States/American_Indian_Tribal_Colleges