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### ABSTRACT

This monograph presents information on college freshmen with disabilities based on data collected by the Cooperative Institutional Research Program, a longitudinal study of the American higher education system that includes 469 institutions and 275,811 students. Section 1 presents highlights of the 1998 freshman survey and includes personal and family background, high school preparation and matriculation to college, college and career expectations, self-perceptions, and opinions. Section 2 provides data on differences by gender among full-time freshmen with disabilities. Section 3 highlights the types of disabilities, including learning disability, partial sight or blindness, health-related disability, orthopedic impairment, hearing impairments, and speech impairments. A summary identifies trends such as: (1) the proportion of freshmen reporting disabilities remained at 9 percent between 1991 and 1998; (2) students with learning disabilities continued to be the fastest growing group, with two in five freshmen with disabilities reporting a learning disability; and (3) although freshmen with disabilities were still more likely than nondisabled peers to enroll in two-year colleges, a higher proportion of 1994 students with disabilities was enrolling in four-year institutions, compared to 7 years earlier. Three tables in the appendix provide additional data on freshmen characteristics. (Contains 13 tables and 4 figures.) (CR)



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## A Biennial Statistical Profile

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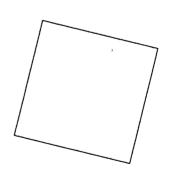


American Council on Education



Statistical Year 1998

by Cathy Henderson





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# Introduction and Sources of Data

-hen prospective college students consider applying to a particular two- or four-year institution, they examine a variety of factors including size, cost, location, academic programs, and level of selectivity. Many of these applicants also visit campuses to see first-hand the classroom

buildings, laboratories, libraries, dormitories, cafeterias, and athletic facilities. These tangible symbols of institutions appear on many brochures and admission catalogs to entice students to apply. However, some potential students need to move past these architectural symbols to find out if particular institutions are well-suited to meet their individual concerns. This is because about one in 11 first-time, full-time college freshmen are self-reporting a disability. Although many of these students may not need daily assistance, others may require people to take notes, sign lectures, provide tutoring, or assist in a variety of ways.

This report describes students who reported disabilities and were enrolled in the fall of 1998 as full-time freshmen at public and private, nonprofit colleges and universities. Since 1966, a national survey of college students has been administered to a large sample of freshmen each year. This survey is conducted by the Cooperative Institutional Research Program (CIRP) and is cosponsored by the American Council on Education (ACE) and the Graduate School of Education of the University of California at Los Angeles (UCLA). The purpose of this survey is to provide a profile of first-time, full-time freshmen at the beginning of their college experiences. Sometimes follow-up surveys are administered to some of these students to see how they are progressing through college or in their careers.



[In 1998] there were
154,520 freshmen with
disabilities, which
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students enrolled
that fall.

Typically, the survey of freshmen is administered in the early fall of each year and gathers data on students' personal background, high school experiences, educational and career goals, and opinions. Survey responses are collected from a stratified sample of accredited institutions across the United States and are weighted to reflect the national cohort of freshmen for each specific year of the survey. For example, in 1998, questionnaires were tabulated from 275,811 students attending a cross section of 469 universities, four-year colleges, and two-year colleges. The responses were weighted to represent the national enrollment patterns of the total 1.6 million first-time, full-time freshmen attending more than 3,100 institutions of higher education in 1998.

The CIRP provided the HEATH Resource Center with a special set of tabulations based on fall 1998 freshman student answers to the following question:

Do :	you have a disability?	(Mark all that apply.)*
	None	
	Speech	
	Orthopedic	
	Learning disability	
	Health-related	
	Partially sighted or blin	d
	Other	

Students who respond to the CIRP question are self-reporting their disabilities in the fall of their freshman year. It is unknown how long the students have lived with their conditions or whether they have ever been through a formal diagnostic process. When the responses were weighted to reflect the 1998 national cohort of entering freshmen across the United States, the survey results indicated that there were 154,520 freshmen with disabilities, which represents about 9 percent of all first-time, full-time students enrolled that fall.

\*Unfortunately, the option "hearing" was unintentionally omitted from the 1998 questionnaire. It is possible that some students may have checked the option "other" if they had hearing impairments, or they may have chosen not to record any disability. Because reliable data are available from the CIRP 1996 analysis of freshman characteristics, the data from the students who responded that they had a hearing impairment in that year will be incorporated into this 1998 analysis in order to maintain consistency in the historical series of studies dating back to 1978.



Section 504 of the Rehabilitation Act of 1973, which went into effect in late 1977, prohibits discrimination on the basis of disability in all institutions that receive federal funds; this includes nearly all colleges and universities. The Americans with Disabilities Act of 1990 reaffirmed the Rehabilitation Act and extended the protection of civil rights of people with disabilities to include public and private entities. In 1978, the first year the CIRP survey included a question on disabilities, slightly less than 3 percent of freshmen reported a disability. By 1998, the percentage had more than tripled to 9 percent. This meant that one in every 11 freshmen enrolled full time reported at least one disability (see Table 1).

Table 1

Percentage of Full-Time College Freshmen Reporting Disabilities:
Selected Years

Disability						
	1988	1991	1994	1996	1998	
Speech	0.3%	0.5%	0.3%	0.3%	0.5%	
Orthopedic	1.0%	1.2%	0.9%	0.9%	0.8%	
Learning disability	1.2%	2.2%	3.0%	3.1%	3.5%	
Health-related	1.2%	1.3%	1.5%	1.6%	1.7%	
Partially sighted or blind	1.9%	2.2%	2.0%	2.0%	1.1%	
Hearing*	0.8%	0.9%	0.9%	0.9%	0.9%	
Other	1.4%	1.6%	1.7%	1.8%	1.9%	
Total	7.0%	8.8%	9.2%	9.2%	9.4%	

<sup>\*</sup>Hearing data were not collected in 1998. The 1998 figure reflects 1996 data.

Note: Figures in columns do not necessarily equal the totals at the bottom, because individuals were allowed to identify more than one disability.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the Cooperative Institutional Research Program, UCLA, selected years.

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# Highlights of the 1998 Freshman Survey

etween 1988 and 1998, the fastest-growing category of reported disability among students was "learning disability." By 1998, about two in five freshmen with disabilities (41 percent) cited a learning disability (see Table 2). The comparable figure in 1988 was only 15 percent. The actual number of freshmen with learning disabilities also rose substantially during this eight-year period (see Figure 1).

Ten years ago, "partially sighted or blind" was the most common disability cited, but it was the fourth most frequently reported in 1998 (after "health-related"). The actual number of students with impaired sight declined during this period, with the percentage of partially sighted or blind students falling from 32 percent to 13 percent among those freshmen reporting disabilities.

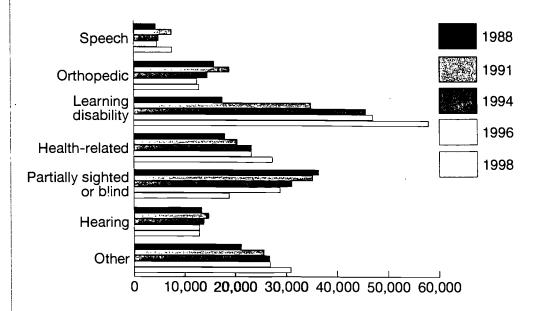
In general, freshmen with disabilities in 1998 were more likely to enroll in two-year colleges (46 percent) than were their peers who did not report disabilities (34 percent) (see Table 3). A smaller share of students with disabilities attended universities (17 percent) compared to freshmen without disabilities (26 percent). The same underrepresentation was true for four-year colleges, where a smaller proportion of students with disabilities (34 percent) than without (37 percent) were enrolled. The proportions enrolling in Historically Black Colleges and Universities (HBCUs) were similar (3 percent to 4 percent) regardless of disability status.



Up until 1998, the proportion of students with disabilities who enrolled in public two-year colleges had declined steadily, while the percentage choosing four-year colleges and universities had steadily increased. However, the recent figures indicate that there was a shift among all freshmen, regardless of disability status, toward more enrollment in community colleges in 1998.

Figure 1

Full-Time College Freshmen with Disabilities: Selected Years



Note: Hearing data were not collected in 1998. The 1998 figures reflect 1996 data.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the Cooperative Institutional Research Program, UCLA, selected years.

Up until 1998, the proportion of students with disabilities who enrolled in public two-year colleges had declined steadily, while the percentage choosing four-year colleges and universities had steadily increased. However, the recent figures indicate that there was a shift among all freshmen, regardless of disability status, toward more enrollment in community colleges in 1998. At this time, there are no figures available from the National Center for Education Statistics to verify whether this enrollment shift also occurred for all undergraduates entering their first two years of post-secondary study, or whether it occurred just among first-time, full-time freshmen. However, there has been a surge in the number of high school graduates, and it is possible that the community colleges were better able to accommodate the additional students who were seeking to enroll in the fall of 1998. Four-year institutions may have cut back on facilities during the past few years while the country was experiencing a decline in the number of high school graduates seeking to attend college.



Table 2

Types of Disabilities Among Full-Time College Freshmen with Disabilities,\*

by Percentage: Selected Years

Disability	1988	1991	1994	1996	1998
Speech	3.8%	5.4%	3.5%	4.8%	5.3%
Orthopedic	13.8%	13.5%	10.2%	10.4%	9.1%
Learning disability	15.3%	24.9%	32.2%	35.3%	41.0%
Health-related	15.7%	14.6%	16.4%	19.0%	19.3%
Partially sighted or blind	31.7%	25.2%	21.9%	22.0%	13.3%
Hearing**	11.6%	10.5%	9.7%	11.6%	11.6%
Other	18.5%	18.3%	18.8%	21.0%	21.8%

<sup>\*</sup>To read, for example, in 1998 41 percent of students with disabilities reported a learning disability.

Note: The detail exceeds 100.0 percent because students could report multiple disabilities.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the Cooperative Institutional Research Program, UCLA, selected years.



<sup>\*\*</sup>Hearing data were not collected in 1998. The 1998 figure reflects 1996 data.

Table 3

Disabilities Reported by Full-Time College Freshmen,
by Type of Institution: 1998

Disability	University	Four-Year College	Two-Year College	HBCU*	Total
None reported	379,717	553,114	496,126	51,609	1,480,566
Speech	1,602	2,462	3,089	418	7,571
Orthopedic	2,314	4,405	5,787	336	12,842
Learning disability	7,870	19,029	30,111	989	57,999
Health-related	5,277	9,346	11,390	1,335	27,348
Partially sighted or blind	4,375	6,754	7,031	702	18,862
Hearing**	2,493	4,589	5,502	300	12,884
Other	5,079	10,919	14,030	854	30,882
Total reporting a disability	29,010	57,504	76,940	4,934	168,388
	Percer	ntage Distri	bution		
None reported	25.6%	37.4%	33.5%	3.5%	100.0%
Speech	21.2%	32.5%	40.8%	5.5%	100.0%
Orthopedic	18.0%	34.3%	45.1%	2.6%	100.0%
Learning disability	13.6%	32.8%	51.9%	1.7%	100.0%
Health-related	19.3%	34.2%	41.6%	4.9%	100.0%
Partially sighted or blind	23.2%	35.8%	<b>3</b> 7.3%	3.7%	100.0%
Hearing**	19.4%	35.6%	42.7%	2.3%	100.0%
Other	16.4%	35.4%	45.4%	2.8%	100.0%
Total reporting a disability	17.2%	34.2%	45.7%	2.9%	100.0%

<sup>\*</sup>Historically Black Colleges and Universities

Note: This table shows the distribution of 168,388 disabilities reported by 154,520 freshmen. Figures in columns do not necessarily equal the totals at the bottom, because individuals were allowed to identify with more than one disability.

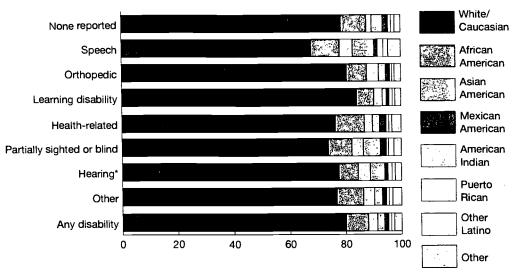
Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.



<sup>\*\*</sup>Hearing data were not collected in 1998. The 1998 figures reflect 1996 data.

Figure 2

Full-Time College Freshmen with Disabilities, by Race/Ethnicity: 1998



<sup>\*</sup>Hearing data were not collected in 1998. The 1998 figures reflect 1996 data.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the Cooperative Institutional Research Program, UCLA, 1999.

Table 4

Race/Ethnicity of Full-Time College Freshmen, by Disability Status: 1998

Race/Ethnicity	Any Disability	None Reported
White/Caucasian	80%	79%
African American	8%	9%
Asian American	3%	4%
Mexican American	2%	2%
American Indian	3%	2%
Puerto Rican	1%	1%
Other Latino	1%	1%
Other	3%	2%

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

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Students with disabilities were more likely than other students to be male (53 percent vs. 46 percent). In addition, compared to students without disabilities, white men were overrepresented among freshmen with disabilities (42 percent vs. 36 percent).

The following sections examine how two groups of 1998 freshmen at all institutions - those who reported disabilities and those who did not compared on a wide range of descriptors: personal and family background, high school performance, preparation for college, college and career expectations, self-perceptions, and opinions. Later sections compare women and men with disabilities and specific types of disabilities reported by freshmen.

For many characteristics, there were no substantial differences between students with disabilities and those who reported none. Therefore, a single number, such as 4 percent, may be used to describe both groups. If two different numbers are used, such as 35 percent vs. 51 percent, the first number refers to students with disabilities and the second relates to other students. Detailed statistics by type of disability appear in the Appendix in Table A-1.

### Personal and Family Background

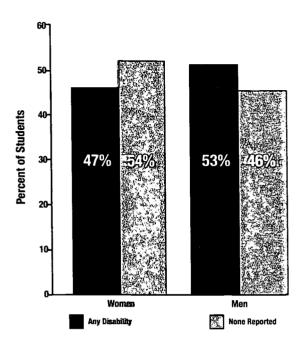
There were more similarities than differences in the personal and family characteristics of students, regardless of their disability status. The percentages of students who were individuals of color in 1991 and 1998 were similar: 18 percent vs. 19 percent in 1991, and 20 percent vs. 21 percent seven years later. Likewise, the proportions of freshmen by race/ethnicity in 1998 were similar regardless of their disability status (see Table 4 and Figure 2).

Striking differences pertained to the gender and age of the freshmen. First, students with disabilities were more likely than other students to be male (53 percent vs. 46 percent, see Figure 3). In addition, compared to students without disabilities, white men were overrepresented among freshmen with disabilities (42 percent vs. 36 percent, see Table A-2 in the Appendix). By contrast, white women were underrepresented (38 percent vs. 43 percent). Second, although the median age of both groups averaged 18 years, there were more older freshmen with disabilities. About 10 percent of those with disabilities, but only 4 percent of other students, were entering college as full-time freshmen at age 20 or above.

Regardless of their disability status, nearly all students were currently U.S. citizens (98 percent vs. 97 percent) and spoke English as their native language (97 percent vs. 95 percent). At least two in three students of each group (67 percent vs. 70 percent) were living with both parents. About one in four students (28 percent vs. 25 percent) was living with a divorced or

Figure 3

Difference Between Female and Male Full-Time College Freshmen, by Disability Status: 1998



Note: To read, 53 percent of students with disabilities but only 46 percent of total students were male. Data for students with hearing impairments from 1996 were included in the 1998 total for students with any disability.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the Cooperative Institutional Research Program, UCLA, 1999.

separated parent; a small proportion (5 percent vs. 4 percent) had parents who were deceased. Although there was no significant difference in the percentage of students who had been adopted (4 percent vs. 2 percent), students with disabilities were more likely to have spent time in foster care (4 percent vs. 1 percent).

The demographic characteristics of the parents of students with disabilities and other students were also similar. For each group, about nine in ten mothers and fathers were at least high school graduates, and at least two in five had completed a college degree. Likewise, the careers of parents were similar for students with and without disabilities. The four most frequently cited occupations listed for the students' mothers were professional business employee (14 percent), full-time homemaker (12 percent vs. 11 percent), elementary education teacher (11 percent vs. 10 percent) and nurse (10 percent vs. 9 percent). Among the fathers, the three most popular types of employment included business management (27 percent vs. 26 percent), skilled worker (9 percent vs. 10 percent), and engineer (8 percent).

For each group, about nine in ten mothers and fathers were at least high school graduates, and at least two in five had completed a college degree.



For both types of freshmen [with and without disabilities], the vast majority (72 percent) were attending the college that had been their first choice. In fact, the majority of students (64 percent vs. 63 percent) had applied to only two schools.

Freshmen with disabilities were a little more likely to come from lower income families. The median income of families of freshmen with disabilities was \$50,294, while the comparable figure for other students' families was \$53,033.

### High School Preparation and Matriculation to College

Students with and without disabilities had many common experiences during their high school years. For both groups, the most typical amount of time spent on homework per week was four hours, and at least four in five students had attended public high school (83 percent vs. 86 percent). However, students with disabilities had demonstrated a different level of academic performance. A smaller share of students with disabilities than other students had earned A averages (20 percent vs. 34 percent), and a larger proportion had earned C and D averages (22 percent vs. 13 percent). Students reporting disabilities were less likely to have studied with friends (78 percent vs. 84 percent) and more inclined to have asked their high school teachers for advice (28 percent vs. 21 percent). In addition, students reporting disabilities were more likely to have participated in community service projects (26 percent vs. 21 percent), but there was no significant difference in the average amount of time spent working for pay, performing chores around the house, watching television, volunteering, or participating in sports.

A smaller share of freshmen with disabilities (compared to other freshmen) had met or exceeded the recommended years of high school study in the fields of math, foreign languages, physical science, and biological science; however, there were no substantial differences in the two groups of students in the subject areas of history/American government, English, arts/music, and computer science (see Table 5).

Typically, students with disabilities had been out of high school longer than their nondisabled peers. Only 91 percent of students with disabilities, but 95 percent of other students, had both graduated from high school and enrolled in college during calendar year 1998. Few students (7 percent vs. 6 percent) had accumulated any prior credits from earlier courses taken at their colleges. For both types of freshmen, the vast majority (72 percent) were attending the college that had been their first choice. In fact, the majority of students (64 percent vs. 63 percent) had applied to only two schools.



Table 5

Comparison of Subjects Taken in High School,
by Disability Status of Full-Time College Freshmen: 1998

Subject and Recommended Years	Any Disability	None Reported
Math (three years)	91%	95%
Foreign languages (two years)	70%	86%
Physical science (two years)	43%	47%
Biological science (two years)	33%	39%
History/American government (one year)	98%	98%
English (four years)	95%	97%
Arts and/or music (one year)	76%	76%
Computer science (one-half year)	58%	59%

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

Table 6

Major Reasons for Attending College,
by Disability Status of Full-Time College Freshmen: 1998

Reason	Any Disability	None Reported
To get a better job	76%	77%
To make more money	72%	75%
To gain a general education	61%	62%
To prepare for graduate/professional school	47%	49%
To become a more cultured person	46%	45%
My parents wanted me to go	40%	39%

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.



When asked specifically why
they chose their particular
colleges, both groups of
students gave many similar
responses; the top three in
importance were (1) the good
academic reputation,
(2) the fact that graduates
traditionally got good jobs,
and (3) the size of the college.

When freshmen students were asked to list important factors that had influenced their decisions to attend college, the answers were generally similar. Major reasons cited by both groups are listed in Table 6.

However, three other reasons seemed more important to freshmen with disabilities than to nondisabled freshmen:

- To prove to others that I could succeed (45 percent vs. 36 percent).
- The desire to improve reading/study skills (45 percent vs. 41 percent).
- The encouragement of a role model/mentor (20 percent vs. 15 percent).

When asked specifically why they chose their particular colleges, both groups of students gave many similar responses; the top three in importance were (1) the good academic reputation, (2) the fact that graduates traditionally got good jobs, and (3) the size of the college (see Table 7). However, two reasons that were more important for students with disabilities than for their nondisabled classmates were (1) special programs offered by the college, and (2) advice from guidance counselors or teachers.

Table 7

Reasons Why Full-Time Freshmen Chose Particular Colleges,
by Disability Status: 1998

Reason	Any Disability	None Reported
Good academic reputation	46%	49%
Graduates get good jobs	44%	46%
Size of the college	33%	32%
The offer of financial assistance	30%	32%
Low tuition	29%	29%
Graduates go to top schools	26%	28%
Good social reputation	24%	24%
Wanted to live near home	23%	21%
Special programs offered by the college	28%	18%
Advice from guidance counselors or teacher	s 22%	13%

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

There was no important difference between the average distance from each of the group's homes to their colleges. Almost half (48 percent) of each group traveled 50 miles or less to enroll. Students with disabilities were as likely as their peers to be living on campus (61 percent vs. 63 percent) or to be living either with parents, with relatives, or in a private apartment (39 percent vs. 37 percent).

Regardless of their disability status, two in three freshmen reported at least some level of concern about their ability to finance their college educations. In general, both types of students were as likely to have received help from major sources such as parents/family, savings, and loans/grants/work-study subsidies from the federal government (see Table 8). However, freshmen with disabilities received fewer college-based grants (23 percent vs. 30 percent), and 6 percent of freshmen with disabilities used vocational rehabilitation funds.

Table 8

Sources of Financial Support of Full-Time Freshmen,
by Disability Status: 1998

Source of Financial Support	Any Disability	None Reported
Parents or family	75%	77%
Savings from summer work	46%	48%
Stafford/Guaranteed Student Loans	23%	25%
College grants	23%	30%
Pell grants	21%	21%
College work-study subsidies	11%	12%
Private grants	11%	11%
Institutionally-financed college loans	10%	10%
Perkins loans	9%	9%
Supplemental Educational Opportunity Gran	ts 6%	6%
Vocational rehabilitation funds	6%	0%

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

Regardless of their disability status, two in three freshmen reported at least some level of concern about their ability to finance their college educations. In general, both types of students were as likely to have received help from major sources such as parents/family, savings, and loans/grants/ work-study subsidies from the federal government.

Both groups [students with disabilities and those without] were equally interested in achieving doctoral or first-professional degrees (25 percent vs. 26 percent).

### **College and Career Expectations**

Freshmen survey respondents were asked to describe their educational and career goals, including their major field of study while in college, their highest expected degree, and their preferred occupation.

The top field of study chosen by both groups of students was business (14 percent vs. 17 percent). In general, more students with disabilities than other students predicted that they would need extra time to complete their educational goals (12 percent vs. 6 percent). Interest in obtaining specific academic degrees by the different student groups varied with the level of study:

- Freshmen with disabilities were more likely to aspire toward a vocational certificate or associate degree (13 percent vs. 6 percent) than were other students.
- Freshmen with disabilities were less inclined to expect to receive bachelor's or master's degrees (59 percent vs. 67 percent).
- Both groups were equally interested in achieving doctoral or first-professional degrees (25 percent vs. 26 percent).

A long list of possible occupations (more than 40) was presented to the freshmen. Regardless of disability status, the top three career occupations chosen were "business executive," "engineer," and "elementary teacher/administrator" (6 percent to 8 percent each).

### **Self-Perceptions**

Students who completed this questionnaire already had achieved one measure of educational success: They had enrolled as first-time, full-time college students. A certain level of intellectual competence and emotional maturity was necessary for each of these students to have accomplished this important step. However, the successful completion of educational and career goals may be tied to students' perceptions about their strengths and weaknesses.

One series of questions asked the students to compare themselves with average persons who were of similar ages. About three-fifths of the students, with and without disabilities, considered themselves to be "above average or in the top 10 percent of all people" on the ability to be understanding of others.



However, on most of these self-rated comparisons, a smaller share of students with disabilities than other students ranked themselves at this high level of ability. For example, a smaller share of freshmen with disabilities than other students rated themselves as "above average or in the top 10 percent of people" on measures of self-esteem, academic ability, and physical strength (see Table 9). However, on two ability measures – artistic and creative – a larger share of students with disabilities than nondisabled students rated themselves high.

Table 9
Self-Perceptions of Full-Time College Freshmen, by Disability Status: 1998

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Ability	Any Disability	None Reported
Cooperativeness	62%	69%
Drive to achieve	61%	66%
Leadership ability	51%	55%
Competitiveness	49%	54%
Self-understanding	48%	54%
Intellectual self-confidence	48%	55%
Social self-confidence	43%	49%
Emotional health	43%	53%
Popularity	32%	38%
Overall academic ability	43%	58%
Writing ability	36%	42%
Mathematical ability	31%	40%
Physical health	43%	56%
Artistic ability	30%	26%
Creative ability	56%	51%

Note: Students were asked to rate themselves as "above average or in the top 10 percent of people" on these measures of ability. These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

On two ability measures —
artistic and creative — a
larger share of students
with disabilities than
nondisabled students
rated themselves high.

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Generally, the results of the 1998 survey did not reveal important distinctions in the political opinions expressed by students based on disability status.

### **Opinions**

The freshman surveys serve as annual barometers of the attitudes and political opinions of college students. Similar proportions of those with and without disabilities agreed on the importance of life objectives such as being successful, helping others, and obtaining recognition from colleagues (see Table 10). However, freshmen with disabilities placed a higher priority than their peers on social concerns such as promoting racial understanding and being involved in environmental clean-up efforts.

Table 10

Life Objectives of Full-Time College Freshmen, by Disability Status: 1998

Life Objective	Any Disability	None Reported
Be very well off financially	71%	74%
Help others in difficulty	60%	60%
Become an authority in one's field	57%	60%
Obtain recognition from colleagues	49%	50%
Develop a philosophy of life	42%	41%
Be successful in one's own business	41%	39%
Promote racial understanding	36%	29%
Participate in community action	25%	21%
Be involved in environmental clean-up efforts	23%	18%
Create artistic works	18%	13%
Write original works	18%	13%
Achieve recognition in a performing art	16%	12%

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

Generally, the results of the 1998 survey did not reveal important distinctions in the political opinions expressed by students based on disability status (see Table 11). For example, at least half of each group of students felt that the federal government could do more to control handguns, that there was too much concern for criminals, that the wealthy should pay more taxes, and that abortion should be legal. In addition, both groups of freshmen characterized their political views across the political spectrum in a similar manner.



Table 11

Political Opinions of Full-Time College Fre	shmen, by Disability S	Status: 1998
Political Opinion Reported	Any Disability	None
Federal government should do more to control handguns	80%	83%
There is too much concern for criminals	70%	73%
The wealthy should pay more taxes	60%	59%
Abortion should be legal	52%	51%
Political Orientation Reported		
Far right	2%	1%
Conservative	18%	19%
Middle-of-the road	56%	56%
Liberal	21%	21%
Far left	3%	3%

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.



# Differences by Gender Among Full-Time College Freshmen with Disabilities: 1998

n response to many questions in the freshman survey, women with disabilities expressed more similarities with nondisabled women than with men who reported disabilities. For example, women (regardless of their disability status) were more likely than men to have the following characteristics in common (see Table A-3 in the Appendix):

- To come from a lower income family.
- To have a single parent.
- To have earned better high school grades.
- To have taken more years of foreign languages, arts and/or music, and biological science, but fewer years of physical science and computer science in high school.
- To have more interest in majoring in education, professional fields, and the social sciences and less interest in engineering and technical fields.
- To choose a college closer to home.
- To have major concerns about financing their college educations.
- To receive federal financial assistance.



Women were more likely to report health-related disabilities, while men reported higher incidences of learning disabilities. When only the freshmen with disabilities were considered, important differences between men and women still emerged. First, the types of disabilities reported varied (see Table 12). Women were more likely to report health-related disabilities, while men reported higher incidences of learning disabilities. In addition, men were more likely to list multiple disabilities.

Table 12

Differences Between Female and Male Full-Time College Freshmen with Disabilities, by Type of Disability: 1998

Type of Disability	Women	Men
Speech	3.5%	7.0%
Orthopedic	8.8%	9.3%
Learning disability	36.4%	45.0%
Health-related	23.7%	15.3%
Partially sighted or blind	14.0%	12.7%
Hearing*	10.8%	12.4%
Other	22.6%	21.1%

<sup>\*1996</sup> data for hearing-impaired students have been included.

Note: To read, for example, in 1998 36.4 percent of women with disabilities reported having a learning disability.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

In the process of choosing a college, more women than men (each with disabilities) were influenced by the academic reputation, size of the college, low tuition, proximity to home, availability of special programs, and financial assistance packages. Expectations also varied by gender. A higher proportion of women than men thought it was likely that they would get a job to help offset college expenses, would receive a bachelor's degree, would volunteer for community service, would seek personal counseling, and would be satisfied with their college experiences.

On measures of emotional stability and competence, a smaller proportion of women than men, regardless of disability status, rated themselves above average. Among freshmen with disabilities, fewer women than men thought that they ranked high on measures of emotional and social skills. For example, women were more likely to report that they often felt depressed or overwhelmed. However, a higher proportion of women than men felt that they were above average on three measures of self-esteem and competence: understanding, spirituality, and writing skills.



# Highlights of Full-Time College Freshmen, by Type of Disability: 1998

nteresting differences among students with specific types of disabilities become evident when one analyzes the responses of students with each disability. For example, half of freshmen with learning disabilities but only two in five freshmen with other disabilities attended two-year colleges (see Figure 4). In addition, students with certain disabilities were more likely to report more than one condition (see Table 13). College students with each type of disability, as well as those who teach, advise, or administer postsecondary support services for them, may be especially interested in the following section.

### **Learning Disability**

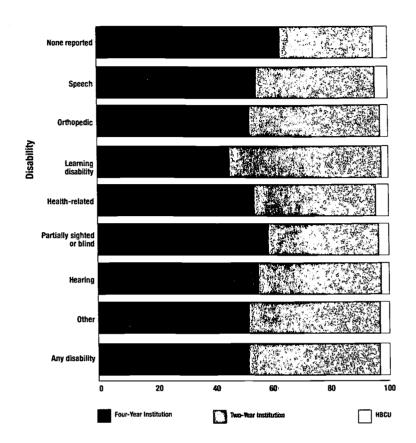
Among freshmen with disabilities, about two in five (41 percent) reported a learning disability. In 1988, the comparable proportion was 15 percent. In 1998, 42 percent of those reporting a learning disability were women and 16 percent were students of color. Half (52 percent) attended two-year campuses, while another 46 percent were enrolled at universities or four-year colleges. Only 2 percent were attending HBCUs.

A few changes from the 1991 profile are evident. A larger share of students with learning disabilities were enrolled at four-year institutions in 1998 than in 1991. The share of students at two-year colleges had decreased (from 59 percent to 52 percent), and the proportion enrolled at four-year institutions had grown (from 40 percent to 46 percent). The HBCUs dou-



Compared to other freshmen with disabilities, students with learning disabilities were the least likely to have completed two years of a foreign language (57 percent vs. 70 percent).

Figure 4 Full-Time College Freshmen with Disabilities, by Type of Disability and Type of Institution: 1998



Note: Data for this figure are included in Table 3. HBCUs are Historically Black Colleges and Universities. Data from 1996 are included for students with hearing impairments.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

bled their share, from 1 percent to 2 percent of the students between 1991 and 1998.

Compared to other freshmen with disabilities, students with learning disabilities were the most likely to:

- Be from white families (84 percent vs. 80 percent).
- Be from families whose income exceeded \$100,000 (24 percent vs. 18 percent).
- Not have completed two years of a foreign language (57 percent vs. 70 percent).
- Have earned C or D averages in high school (29 percent vs. 22 percent).



■ Rank themselves lowest on math ability (26 percent vs. 32 percent), intellectual self-confidence (41 percent vs. 48 percent), academic ability (28 percent vs. 43 percent), or writing ability (28 percent vs. 37 percent).

Special programs offered by colleges were particularly important to freshmen with learning disabilities (36 percent vs. 28 percent). Among students with disabilities, those with learning disabilities were the least likely to have been offered financial assistance as an incentive to enroll (24 percent vs. 30 percent).

**Partial Sight or Blindness** 

About one in eight freshmen with disabilities (13 percent) reported being partially sighted or blind. This figure is well below the 1988 proportion, when 32 percent listed a sight impairment. In 1998, half (50 percent) of the freshmen who were partially sighted or blind were women, and about one in four (26 percent) was a student of color.

About one in eight freshmen with disabilities (13 percent) reported being partially sighted or blind. This figure is well below the 1988 proportion, when 32 percent listed a sight impairment.

Table 13

Percent of Full-Time College Freshmen with Multiple Disabilities, by Type of Disability: 1998

					!	Partially-sighted	Ė
Disability	Hearing	Speech	Orthopedic	Learning	<b>Health-related</b>	or blind	Other
Speech	4.7%	100.0%	6.3%	3.2%	2.6%	4.6%	4.1%
Orthopedic	3.8%	10.7%	100.0%	2.4%	5.8%	4.2%	3.9%
Learning disability	10.9%	24.3%	10.9%	100.0%	8.4%	5.8%	8.1%
Health-related	6.4%	9.4%	12.5%	4.0%	100.0%	6.5%	5.2%
Partially sighted or blind	9.5%	11.4%	6.1%	1.9%	4.5%	100.0%	3.6%
Hearing*	100.0%	13.1%	3.9%	3.0%	3.6%	4.2%	2.2%
Other	4.7%	16.6%	9.3%	4.3%	5.9%	5.9%	100.0%

<sup>\*</sup>Hearing data are from the 1996 survey.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.



The proportion of freshmen with disabilities citing health-related conditions has remained relatively stable at 15 percent to 19 percent since 1988.

The majority (59 percent) of 1998 freshmen who were partially sighted or blind attended four-year institutions; the remaining students enrolled in two-year schools (37 percent) or HBCUs (4 percent).

On average, students who were partially sighted or blind were more likely than other students with disabilities to have:

- Had an A average in high school (37 percent vs. 20 percent).
- Met or exceeded the requirements in English, foreign languages, mathematics, physical science, arts, and music (82 percent vs. 75 percent).
- Lower median family incomes (\$44,691 vs. \$50,294).
- Received financial aid from federal loans (39 percent vs. 32 percent), state scholarships or grants (24 percent vs. 15 percent), or other college scholarships (34 percent vs. 23 percent).
- Projected that they will make at least a B average in college (52 percent vs. 42 percent) and earn a bachelor's degree (68 percent vs. 55 percent).
- Rated themselves above average or higher on measures of the desire to succeed (67 percent vs. 61 percent), academic ability (63 percent vs. 43 percent), intellectual self-confidence (60 percent vs. 48 percent), and mathematical ability (45 percent vs. 32 percent).

### Health-Related Disability

Almost one in five students (19 percent) described his or her disability as "health-related." These students may have conditions such as severe allergies, cystic fibrosis, epilepsy, cancer, lupus, multiple sclerosis, or other health-related disabilities. The proportion of freshmen with disabilities citing health-related conditions has remained relatively stable at 15 percent to 19 percent since 1988. In 1998, about three in five students reporting a health-related disability (58 percent) were women, and about one in four (24 percent) was a student of color.

Slightly more than half (53 percent) of the freshmen with health-related conditions were enrolled in four-year institutions, while about two in five (42 percent) attended two-year colleges. Five percent attended HBCUs.



Compared to other students with disabilities, students who reported health-related disabilities were the most likely to:

- Be women (58 percent vs. 47 percent).
- Have tutored other high school students (51 percent vs. 42 percent).
- Have used the Internet for research/homework (85 percent vs. 79 percent).
- Rank themselves lowest on a comparison of physical health (26 percent vs. 43 percent).

Orthopedic

In 1998, almost one in ten freshmen with disabilities (9 percent) reported having an orthopedic condition, versus the 1988 figure of 14 percent. In 1998, fewer than half were women (46 percent), and 19 percent were persons of color.

About half (52 percent) were enrolled at four-year institutions, and another 45 percent attended two-year schools. Students at HBCUs accounted for the remaining 3 percent.

Compared to their peers with other disabilities, freshmen with orthopedic disabilities were the most likely to:

- Have a single parent (43 percent vs. 33 percent).
- Have taken more than a few months between high school graduation and entry into college (16 percent vs. 8 percent).
- Live in an apartment or private home (17 percent vs. 8 percent).

ÁL.

- Admit that difficulty in finding a job influenced their decision to enroll in college (15 percent vs. 10 percent).
- Have chosen this college because they wanted to live near home (33 percent vs. 23 percent) and because of an offer of financial aid (41 percent vs. 30 percent).

In 1998, almost one in ten freshmen with disabilities (9 percent) reported having an orthopedic condition, versus the 1988 figure of 14 percent. In 1998, fewer than half were women (46 percent), and 19 percent were persons of color.



In 1998, relatively few freshmen with disabilities (5 percent) reported that they had a speech impairment. In 1988, the proportion was about the same (4 percent).

### Hearing

One in eight freshmen reported having a hearing impairment. This is about the same as the 1991 figure of 12 percent. In 1996, 50 percent were women and 22 percent were persons of color.

Just over half (55 percent) were enrolled at four-year institutions; about two in five (43 percent) attended two-year schools; and another 2 percent were at HBCUs. The distribution of freshmen with hearing impairments across types of institutions did not change between 1991 and 1996.

Generally, the characteristics of freshmen with hearing impairments paralleled those of other students with disabilities. However, among students with disabilities, they were the most likely to live with parents or relatives while enrolled (34 percent vs. 29 percent).

### Speech

In 1998, relatively few freshmen with disabilities (5 percent) reported that they had a speech impairment. In 1988, the proportion was about the same (4 percent). Because the number of cases is small, caution should be used when comparing the characteristics of these freshmen with others who reported disabilities.

Slightly more than half (54 percent) of the students were at four-year institutions, while 41 percent and 5 percent attended two-year colleges and HBCUs, respectively. The proportion attending four-year institutions is increasing. The 1991 figures for four-year institutions, two-year institutions, and HBCUs were 43 percent, 53 percent, and 4 percent, respectively.

Compared to any other group of freshmen with disabilities, those with speech impairments were the most likely to:

- Be men (69 percent vs. 53 percent).
- Be students of color (32 percent vs. 20 percent).
- Be citizens of other countries (9 percent vs. 2 percent).
- Speak a language other than English at home (11 percent vs. 3 percent).
- List additional disabilities (see Table 13).
- Rate themselves less capable on measures of leadership (46 percent vs. 51 percent), understanding of others (52 percent vs. 60 percent), and social self-confidence (32 percent vs. 43 percent).



# Summary: Recent Trends, Likely Future

enerally, the characteristics of the freshmen who participated in the most recent CIRP survey were similar to those of students surveyed seven years earlier. There are, however, several changes worth noting. The 1998 freshmen, regardless of their disability status, were more likely to have reported:

- Being individuals of color.
- Higher high school grades and interest in improving reading and study skills.
- Parents with higher levels of education.
- Lower ratings on measures of emotional health and popularity.

The proportion of full-time college freshmen reporting disabilities (9 percent) remained unchanged between 1991 and 1998. Students with learning disabilities continued to be the fastest-growing group; by 1998, two in five freshmen with disabilities reported a learning disability. In addition, a gradual shift became apparent in the enrollment patterns of freshmen with disabilities. Although freshmen with disabilities were still more likely than their nondisabled peers to enroll in two-year colleges, a higher proportion of students with disabilities were enrolling in four-year institutions in 1998 than had seven years earlier.

Although freshmen with disabilities were more likely to report lower high school grades and to be starting college at older ages, their educational and career goals were generally similar to those of students without disabilities. When asked to rate their own talents, fewer students with disabilities than



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nondisabled students ranked themselves above average or higher on a wide range of abilities. Specific programs available at certain colleges, and the advice and support of teachers and guidance counselors, were very important factors in helping students with disabilities decide which college to attend.

The process of enrolling in college remains a series of decisions made by individuals as they try to identify academic programs best equipped to meet their personal, educational, and career goals. Along the way, students will invest their time, financial resources, and energy in pursuit of this experience. With help from their families, college administrators, and faculty members, students with disabilities can successfully realize their educational goals at institutions that meet their special needs.

# Appendix

nfortunately, the option "hearing" was unintentionally omitted from the 1998 questionnaire. It is possible that some students may have checked the option "other" if they had hearing impairments or they may have chosen not to record any disability. Because reliable data are available from the CIRP 1996 analysis of freshmen characteristics, the data from the students who responded that they had a hearing impairment in that year will be incorporated into this 1998 analysis in order to maintain consistency in the historical series of studies dating back to 1978.

The profile on the following pages represents data from the 1998 survey.

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Table A-1
Selected Characteristics of Full-Time College Freshmen, by Type of Disability: 1998

				J	, •		•		
Characteristic	None	Speech		Learning disability	Health- related	Partially sighted or blind	Hearing	Other	Any
GENDER									
Men	46%	69%	54%	58%	42%	50%	50%	51%	53%
Women	54%	31%	46%	42%	58%	50%	50%	49%	47%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
AGE									
17 or younger	2%	1%	1%	1%	2%	2%	1%	1%	1%
18	68%	52%	59%	49%	64%	63%	52%	58%	56%
19	26%	37%	25%	41%	25%	28%	32%	30%	33%
20 or older	4%	10%	15%	9%	9%	7%	15%	11%	10%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
RACE/ETHNICITY									
White/Caucasian	79%	68%	81%	84%	76%	74%	78%	77%	80%
African American	9%	10%	7%	6%	11%	9%	7%	10%	8%
Asian American	4%	8%	2%	2%	3%	6%	5%	3%	3%
Mexican American	2%	11%	2%	1%	2%	2%	1%	1%	1%
American Indian	2%	5%	4%	3%	3%	4%	4%	4%	3%
Puerto Rican	1%	2%	1%	1%	1%	1%	2%	1%	1%
Other Latino	1%	2%	1%	1%	1%	2%	1%	1%	1%
Other	2%	4%	2%	2%	3%	3%	2%	3%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
ESTIMATED PARENTAL INCOME									
Less than \$20,000	12%	16%	14%	11%	17%	17%	21%	18%	15%
\$20,000 - \$49,999	34%	35%	36%	32%	35%	41%	28%	35%	35%
\$50,000 - \$74,999	26%	18%	22%	19%	25%	20%	22%	22%	21%
\$75,000 and above	28%	31%	28%	38%	23%	22%	29%	25%	29%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Median Income	\$53,033	\$49,136	\$50,376	\$56,961	\$47,885	\$44,691	\$50,424	\$47,083	\$50,294
AVERAGE HIGH SCHOOL GRADI	<u>ES</u>								
Α	34%	22%	24%	9%	27%	37%	22%	25%	20%
В	54%	50%	57%	62%	55%	52%	54%	53%	58%
C and D	12%	28%	19%	29%	18%	11%	24%	22%	22%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%



Table A-1 (continued)

Characteristic	None	Speech	Ortho- pedic	Learning disability	Health- related	Partially sighted or blind	Hearing	Other	Any
MET OR EXCEEDED RECOMMEN YEARS OF HIGH SCHOOL STUD	NDED_	Opecon	peulo	uisability	related	or billio	ricaring	Other	Ally
English (4 yrs.)	96%	94%	92%	95%	96%	98%	91%	94%	95%
Mathematics (3 yrs.)	95%	92%	89%	90%	91%	96%	93%	90%	91%
Foreign language (2 yrs.)	86%	70%	68%	57%	81%	85%	71%	75%	70%
Physical science (2 yrs.)	47%	41%	43%	41%	43%	49%	51%	43%	43%
Biological science (2 yrs.)	39%	32%	39%	30%	37%	35%	41%	33%	33%
History/American gov't. (1 yr.)	98%	94%	95%	98%	98%	99%	97%	98%	98%
Computer science (1/2 yr.)	59%	57%	53%	59%	57%	56%	56%	59%	58%
Arts and/or music (1 yr.)	76%	82%	76%	76%	78%	83%	72%	74%	76%
MAJOR FIELD OF STUDY									
Arts and humanities	10%	11%	11%	13%	12%	11%	11%	10%	12%
Biological sciences	6%	7%	7%	4%	7%	5%	8%	5%	5%
Business	17%	12%	14%	15%	12%	11%	13%	14%	14%
Education	11%	13%	8%	13%	11%	11%	14%	9%	11%
Engineering	8%	15%	8%	6%	7%	13%	7%	7%	7%
Physical sciences	2%	2%	4%	2%	2%	3%	2%	2%	3%
Professional*	16%	9%	15%	9%	15%	14%	16%	12%	12%
Social sciences	8%	5%	10%	8%	10%	11%	9%	13%	9%
Technical**	4%	12%	9%	10%	4%	6%	4%	7%	8%
Other fields***	18%	14%	14%	20%	20%	15%	16%	21%	19%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
HIGHEST DEGREE PLANNED									
None	1%	3%	1%	5%	3%	1%	1%	2%	3%
Vocational certificate	1%	4%	0%	3%	0%	1%	1%	2%	2%
Associate (A.A. or equivalent)	5%	7%	15%	13%	6%	8%	10%	10%	10%
Bachelor's (B.A., B.S.)	28%	25%	20%	25%	24%	20%	26%	25%	24%
Master's (M.A., M.S.)	39%	34%	38%	35%	39%	37%	34%	32%	36%
Doctoral (Ph.D. or Ed.D.)	14%	11%	14%	10%	15%	20%	16%	13%	13%
M.D., D.O., D.D.S., or D.V.M	7%	4%	8%	3%	7%	7%	7%	5%	5%
LL.B. or J.D. (law)	3%	2%	2%	2%	3%	2%	3%	3%	2%
B.D. or M.Div. (divinity)	0%	1%	1%	1%	1%	1%	0%	1%	1%
Other	2%	9%	1%	3%	2%	3%	2%	7%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

<sup>\*</sup>Includes architecture or urban planning, home economics, health technology, library or archival science, nursing, pharmacy, pre-dent, pre-med, pre-vet, therapy (occupational, physcial, and speech), and other professional programs.

<sup>\*\*</sup>Includes building trades, data processing/computer programming, drafting or design, electronics, mechanics, and other technical fields.

<sup>\*\*\*</sup>Includes agriculture, communications, computer science, forestry, law enforcement, military science, other fields, and undecided.

HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Program, UCLA, 1999.

Table A-2

Distribution of Full-Time College Freshmen, by Gender, Race/Ethnicity, and Disability Status: 1998

	Any Di	sability	None Reported		
Characteristic	Number	Percent	Number	Percent	
White men	65,459	42.4%	535,048	36.1%	
White women	57,917	37.5%	628,709	42.5%	
African-American men	5,605	3.6%	54,249	3.7%	
African-American women	6,425	4.1%	79,767	5.4%	
Asian-American men	2,246	1.5%	27,542	1.9%	
Asian-American women	2,073	1.3%	29,796	2.0%	
Mexican-American men	1,291	.8%	14,204	1.0%	
Mexican-American women	1,057	.7%	16,197	1.1%	
American Indian men	2,740	1.8%	11,981	0.8%	
American Indian women	2,360	1.5%	15,966	1.1%	
Puerto Rican men	758	.5%	6,649	0.4%	
Puerto Rican women	763	.5%	8,098	0.5%	
Other Latino men	1,038	.7%	9,392	0.6%	
Other Latino women	689	.4%	10,543	0.7%	
Other men	1,946	1.3%	15,508	1.1%	
Other women	2,152	1.4%	16,919	1.1%	
Total	154,520	100.0%	1,480,566	100.0%	

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.



Table A-3
Selected Characteristics of Full-Time College Freshmen, by Gender and Disability Status: 1998

	Wo	<u>omen</u>	<u>Men</u>		
Characteristic AGE	None Reported	Any Disability	None Reported	Any Disability	
17 or younger	2%	1%	2%	1%	
18	. 72%	62%	63%	52%	
19	22%	29%	30%	36%	
20 or older	4%	8%	5%	11%	
Total	100%	100%	100%	100%	
RACE/ETHNICITY					
White/Caucasian	78%	79%	79%	81%	
African American	10%	9%	8%	7%	
Asian American	2%	3%	2%	3%	
Mexican American	4%	3%	4%	3%	
American Indian	2%	1%	2%	2%	
Puerto Rican	1%	1%	1%	1%	
Other Latino	1%	1%	2%	1%	
Other	2%	3% .	2%	2%	
Total	100%	100%	100%	100%	
ESTIMATED PARENTAL INCOME					
Less than \$20,000	15%	18%	10%	12%	
\$20,000 - \$49,999	35%	36%	32%	34%	
\$50,000 - \$74,999	25%	22%	27%	21%	
\$75,000 and above	25%	24%	31%	33%	
Total	100%	100%	100%	100%	
Median income	\$49,999	\$46,230	\$56,048	\$54,796	
AVERAGE HIGH SCHOOL GRADES					
Α	38%	23%	28%	17%	
В	52%	58%	56%	57%	
. C and D	10%	19%	16%	26%	
Total	100%	100%	100%	100%	



Table A-3 (continued)

	<u>Women</u>			<u>en</u>
Characteristic	None Reported	Any Disability	None Reported	Any Disability
MET OR EXCEEDED RECOMMENDED YEARS OF HIGH SCHOOL STUDY				
English (4 yrs.)	97%	94%	97%	96%
Mathematics (3 yrs.)	95%	91%	94%	90%
Foreign language (2 yrs.)	88%	74%	83%	65%
Physical science (2 yrs.)	44%	41%	52%	44%
Biological science (2 yrs.)	41%	35%	36%	31%
History/American gov't. (1 yr.)	98%	98%	98%	97%
Computer science (1/2 yr.)	<b>5</b> 5%	55%	63%	60%
Arts and/or music (1 yr.)	78%	79%	72%	74%
MAJOR FIELD OF STUDY				
Arts and humanities	10%	13%	9%	10%
Biological sciences	6%	6%	5%	5%
Business	15%	14%	19%	14%
Education	16%	17%	6%	6%
Engineering	2%	2%	16%	12%
Physical sciences	2%	2%	2%	3%
Professional*	21%	17%	9%	8%
Social sciences	11%	13%	5%	6%
Technical**	1%	1%	8%	13%
Other fields***	16%	15%	21%	23%
Total	100%	100%	100%	100%



Table A-3 (continued)

	<u>Women</u>			<u>Men</u>		
Characteristic	None Reported	Any Disability	None Reported	Any Disability		
HIGHEST DEGREE PLANNED						
None	1%	2%	1%	3%		
Vocational certificate	1%	1%	1%	3%		
Associate (A.A. or equivalent)	5%	10%	5%	11%		
Bachelor's (B.A., B.S.)	26%	22%	31%	26%		
Master's (M.A., M.S.)	40%	38%	38%	34%		
Doctoral (Ph.D. or Ed.D.)	14%	15%	13%	12%		
M.D., D.O., D.D.S., or D.V.M	8%	6%	6%	4%		
LL.B. or J.D. (law)	3%	2%	3%	2%		
B.D. or M.Div. (divinity)	0%	1%	0%	1%		
Other	2%	3%	2%	4%		
Total	100%	100%	100%	100%		

<sup>\*</sup>Includes architecture or urban planning, home economics, health technology, library or archival science, nursing, pharmacy, pre-dent, pre-med, pre-vet, therapy (occupational, physical, and speech), and other professional programs.

Note: These data include estimates of students with hearing impairments based on 1996 information.

Source: HEATH Resource Center, American Council on Education. Based on unpublished data from the 1998 Cooperative Institutional Research Program, UCLA, 1999.

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<sup>\*\*</sup>Includes building trades, data processing/computer programming, drafting or design, electronics, mechanics, and other technical fields.

<sup>\*\*\*</sup>Includes agriculture, communications, computer science, forestry, law enforcement, military science, other fields, and undecided.

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