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**ABSTRACT**

Responses of approximately 5,000 disabled freshmen who, when they entered college as first-time, full-time students in 1978, completed the Student Information Form (SIF) comprise this longitudinal study of the disabled student in higher education. Contents are as follows: (1) Introduction (overview, methodology, and sample); (2) Comparisons by Disability Status, Gender, and by Disability Area (demographic characteristics, family background, high school background, college choice and freshman residence, college finances, college plans and expectations, and attitudes and values); (3) Comparisons by Disability Status, and by Level and Control of Institution (demographic characteristics and family background, high school background, college choice and freshman residence, college finances, college plans and expectations, and attitudes and values); (4) Summary of Findings (disabled and nondisabled freshmen, profiles of the eight disability groups; and profiles of disabled and nondisabled entrants to the six institutional types, and implications). Among the findings are: disabled freshmen were somewhat more likely to register at 2 year colleges, but were represented at all types of higher education institutions; men slightly outnumbered women in the disabled group; disabled students were at a slight disadvantage vis-a-vis nondisabled students with respect to educational preparation; disabled students were more likely to possess the characteristics of "nontraditional college students" and to evidence less financial dependence on their parents; politically, the disabled were less likely than the nondisabled to characterize themselves as middle-of-the-road; the disabled were more likely to live in private housing; and the disabled, despite their slight socioeconomic and educational disadvantages, had high aspirations, and tended to prefer more traditional academic fields. Appendices include: 1978 Student Information Form; father's occupation; mother's occupation; major; student occupation; region categories; and 1981 follow-up survey of 1978 disabled freshmen. References are provided. (LC)

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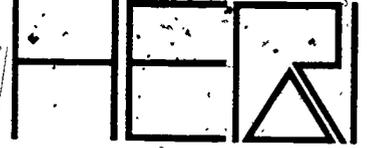
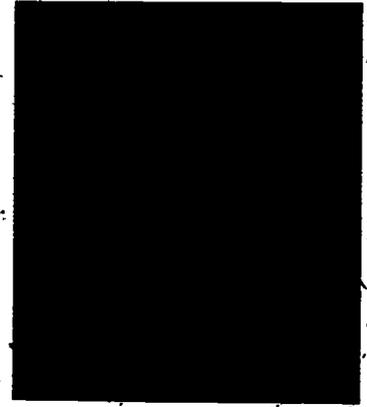
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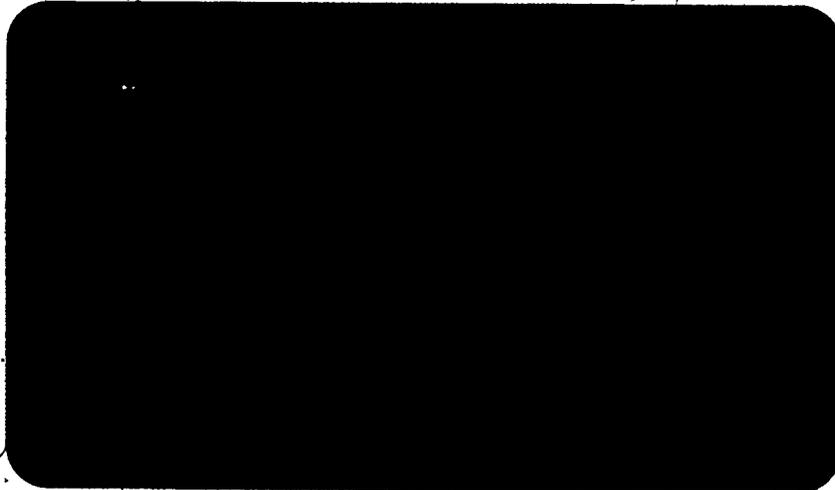
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The Handicapped Student in America's Colleges:  
A Longitudinal Analysis

Part 1

Disabled 1978 College Freshmen

by

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## Executive Summary

This report is one product of a national longitudinal study of the disabled student in higher education, funded by the Office of Special Education of the U.S. Department of Education and conducted by the Higher Education Research Institute (HERI) in Los Angeles. The analyses are based on the weighted responses of approximately 5,000 disabled freshmen who, when they entered college as first-time, full-time students in 1978, completed the Student Information Form (SIF); the instrument used in the Cooperative Institutional Research Program (CIRP), which since 1965 has annually surveyed the entire entering freshman classes of a representative sample of the nation's colleges and universities. The material presented here not only gives the first comprehensive national view of the disabled college freshman but also constitutes baseline information to be used in interpreting the responses of these same students to a follow-up questionnaire mailed out in 1981.

Section I (Chapters 1 and 2) of the report describes the data base, sample, and methodology of the study. Section II (Chapters 3-9) compares the weighted responses of the disabled group (N=50,797) with those of a 15 percent random sample of nondisabled freshmen (N=1,626,569) who also entered college in 1978; compares men and women in the two groups; and examines similarities and differences among eight categories of disabled freshmen, classified on the basis of their disability, as self-identified on the 1978 SIF. These eight categories, and their proportionate share of the total disabled group, were as follows:

- o hearing disability, 7 percent
- o speech disability, 2 percent

- o orthopedic disability, 14 percent
- o visual disability, 29 percent
- o learning disability, 3 percent
- o other disability, 13 percent
- o multiple disabilities (i.e., those freshmen indicating that they had more than one of the above disabilities), 4 percent.
- o unknown disability (i.e., those freshmen who indicated that they considered themselves to be physically handicapped but who did not specify a disability area), 27 percent

The topics covered in Section II are demographic characteristics, family background, high school background, college choice and freshman residence, college finances, college plans and expectations, and attitudes and values.

Section III (Chapters 10-16) follows the same topical sequence, using the freshman institution as the unit of analysis. That is, comparisons are made between and among disabled and nondisabled entrants to six types of higher education institution, classified by control and level: public university, private university, public four-year college, private four-year college, public two-year college, private two-year college.

Section IV (Chapters 17-20) summarizes the major findings for the total disabled and nondisabled freshman groups; for freshmen in each of the eight disability areas; and entrants to each of the six institutional types. The policy implications of the findings are discussed in the final chapter.

#### Major Findings

Perhaps the most important insight to be gained from the comparisons of the disabled and the nondisabled samples is that, as a group, disabled 1978 freshmen differed very little from their nondisabled counterparts. That is, they are not a breed apart from "typical" freshmen; they entered college with much the same background, attitudes, plans, and expectations.

More specific findings were as follows:

- o Disabled freshmen from all eight disability areas were represented at all types of higher education institutions. They were somewhat more likely than were nondisabled freshmen to enroll at two-year colleges and somewhat less likely to enroll at universities and at public four-year colleges.
- o Men slightly outnumbered women in the disabled sample, although women slightly outnumbered men in the nondisabled sample, suggesting that greater efforts should be made to encourage disabled women to attend college. Disabled men were especially likely to outnumber disabled women at the most selective institutions (private universities) and at the least selective (public two-year colleges).
- o Despite their similarity to nondisabled freshmen, disabled 1978 freshmen were somewhat more likely to possess the characteristics of "nontraditional" college students. That is, larger proportions were age 21 or older at college entry, were married, had served in the military, were nonwhite, and came from lower socioeconomic backgrounds.
- o Disabled freshmen were at a slight disadvantage vis-a-vis nondisabled freshmen with respect to educational preparation. That is, they were somewhat less likely to have taken a college preparatory program in high school, they tended to make somewhat lower grade averages and to rank slightly lower in their graduating classes, and they were less confident of the adequacy of their high school preparation in academic subjects and of their ability to excel in college.
- o Close to one-fourth of the disabled freshmen, compared with one-fifth of the nondisabled, had been accepted by no college other than the

one they were attending.

- o As reasons for attending college, the disabled were more likely than the nondisabled to mention such "push" factors as being unable to find a job, having nothing better to do, and wanting to get away from home, but they were also slightly more likely to mention such "pull" factors as wanting to become more cultured and to prepare for graduate or professional school.
- o In choosing their particular institutions, the disabled were more likely than the nondisabled to have been influenced by the offer of financial assistance, by special educational programs provided at the institution, and by other people (teachers, guidance counselors, alumni, friends).
- o Disabled freshmen evidenced less financial dependence on their parents (e.g., were less likely to be claimed as tax exemptions or to receive at least \$600 worth of assistance) than the nondisabled. Consistent with their slightly lower socioeconomic origins, they were less likely to mention parental aid as a source of financial support for college.
- o Fewer disabled than nondisabled freshmen expected to be self-supporting (i.e., to draw on earnings or savings from employment), but larger proportions of the disabled than of the nondisabled got grants or scholarships, took loans, or received support from their spouses to help finance their college education. Nonetheless, a larger proportion expressed major concern about their ability to pay for their college education.
- o The disabled were somewhat more likely than the nondisabled to live in private housing and less likely to live in college dormitories or

at home with parents or relatives. Many of these differences are probably attributable to the higher proportions of older, married, nonwhite, low-income students in the disabled group.

- o Despite their slight socioeconomic and educational disadvantages, the disabled had high aspirations. Though they were twice as likely as the nondisabled to say they planned to get no degree, they were also more likely to aspire to a doctorate or an advanced professional degree.
- o Somewhat surprising, given the fact that they were less likely to have taken college preparatory programs in high school, is their preference for the more traditional "academic" fields: biological science, physical science, social science, education, fine arts, "other" humanities, and "other nontechnical" fields. By way of contrast, slightly larger proportions of the nondisabled planned to major in agriculture, engineering, health professions, and "other technical" fields.
- o Consistent with these differences in major field preferences, more of the disabled planned on careers as artists, teachers, and research scientists; whereas more of the nondisabled planned on careers as engineers, farmers, and health professionals.
- o Perhaps because of the larger proportion of older students in the disabled group, disabled freshmen were more likely than the nondisabled to say they had no current religious preference and less likely to say they had attended religious services frequently during the previous year. (On the other hand, slightly more of the disabled considered themselves to be reborn Christians.)

- o The disabled were more likely to say they smoked cigarettes; took vitamins, sleeping pills, and tranquilizers; and stayed up all night. A larger proportion had participated in organized demonstrations and worked in political campaigns. Consistent with their past behavior, the disabled were more likely than the nondisabled to anticipate participating in protests or demonstrations during college.
- o Politically, the disabled were less likely than the nondisabled to characterize themselves as middle-of-the-road.
- o Liberalism is manifested in their greater tendency to believe that the disadvantaged should be given preferential treatment in admissions, that all public colleges should have open admissions, and that busing to achieve racial balance in the schools is an acceptable policy. In addition, slightly larger proportions of disabled than of nondisabled freshmen agreed that marijuana should be legalized, that couples should live together before marriage, that a national health care program should be established, that sports should be given less emphasis in college, that college grades should be abolished, and that people should not obey laws that violate their personal values.
- o On the conservative side, more of the disabled than the nondisabled felt that college officials have the right to regulate the off-campus behavior of students.
- o Somewhat larger proportions of the disabled regarded participating in community action programs, promoting racial understanding, and achieving in the arts (performing arts, writing, the graphic arts) as very important or essential life goals, and fewer gave high priority to the goal of raising a family.

### Summary Profiles by Disability Area

Perhaps the most important insight to emerge from the comparisons by disability area is that freshmen with different kinds of disabilities do indeed differ from one another. The profiles of the eight groups are summarized below:

- o Those 1978 freshmen indicating they had a visual disability were the largest group, accounting for 29 percent of the total disabled sample. Their general similarity to the nondisabled suggests that many members of this group were not truly disabled, according to any legal or clinical definition. Thus, the group is not representative of college students with serious visual impairments.
- o Those 1978 freshmen who indicated that they considered themselves to be physically handicapped but then failed to check a specific disability area were classified as having an unknown disability. Accounting for 27 percent of the total disabled sample, they give the overall impression of being a practical-minded, upwardly mobile group who have many of the characteristics of nondisabled freshmen.
- o Those 1978 freshmen indicating they had an orthopedic disability constituted 14 percent of the total disabled sample. This group was predominantly white and included higher-than-average proportions of older students, married students, and veterans. Thus, the orthopedically disabled were somewhat more likely than average to have delayed college entry, to be financially independent of their parents, and to attend a public two-year college.
- o The follow-up survey should help to clarify the nature of the handicapped group comprising respondents who indicated they had some "other" disability (13 percent of the total disabled sample). Men

outnumbered women by three to two. The group included relatively large proportions of "nontraditional" students from disadvantaged backgrounds who had little confidence in their own academic abilities. They were more likely than average to enter community colleges and to aspire to no more than an associate degree.

- o. Freshmen with a hearing disability only (many with a hearing disability also marked some other disability area and so are classified as multiply disabled) constituted 7 percent of the total disabled sample and tended to come from relatively high socioeconomic backgrounds, to have good high school records, and to be confident of their preparation in academic subjects.
- o. All those freshmen who marked more than one disability area on the SIF were classified as having multiple disabilities (4 percent of the total sample). Of these, about two-fifths were speech-impaired; one-fifth, hearing-impaired; one-fifth, learning-disabled; 11 percent had some "other" disability; 8 percent were orthopedically disabled; and 8 percent were visually impaired. Men slightly outnumbered women in this group, which included slightly higher-than-average proportions of "nontraditional" students (i.e., older, married, veterans). Of the 5 percent of these freshmen who were married, three-fifths were not living with their spouses. The implication is that being multiply disabled places considerable stress on a marriage; the fact that so many of these freshmen had a speech or hearing impairment suggests further that communication difficulties may negatively affect a marriage. The multiply disabled tended to come from low socioeconomic backgrounds with respect to parental income, education, and occupations; but a sizable minority had well-educated

parents who held high-status (but somewhat low-paying) jobs. Larger-than-average proportions felt their high school preparation was poor.

Larger-than-average proportions seemed to have musical interests and talents and to manifest a puritanical streak in their activities and attitudes.

- o Those 1978 freshmen with a learning disability constituted 3 percent of the total disabled sample. The group was male-dominated and included few "nontraditional" students but three times as many Jews as average. The learning-disabled were distinguished by their poor high school records, a lack of confidence in their ability to perform at the college level, the impressive educational credentials of their parents, and their extreme political positions and opinions. Over half (53 percent) enrolled at public two-year colleges.
- o Two percent of the 1978 disabled freshmen were classified as having a speech disability only (though many of the speech-impaired also marked some other disability area and thus are categorized as having multiple disabilities). Men outnumbered women by about two to one. The speech-impaired tended to be disadvantaged both socioeconomically and educationally, perhaps because a large proportion were nonwhite. Hispanics, Asians, and those from "other" racial/ethnic backgrounds (especially women from this last group) were overrepresented among the speech-disabled, suggesting that many of these freshmen may identify themselves in this way simply because they have difficulty with English. The follow-up survey should help to clarify which actually have speech impairments.

### Summary Profiles by Type of Freshman Institution

Mirroring U.S. society, U.S. higher education can be characterized as both egalitarian and elitist: egalitarian in that virtually any high school graduate has access to some type of postsecondary institution; elitist in that institutions are arranged hierarchically, with those at the apex (private universities and, to a lesser extent, public universities and some private four-year colleges) admitting only the "best" students and those at the bottom (public two-year colleges, most public four-year colleges) admitting a diverse range of students. In short, different types of institutions enroll different types of students, and these differences tend to be systematic and consistent whether students are disabled or not. The following profiles summarize the major findings for disabled and nondisabled 1978 entrants to each of the six institutional types, categorized by control (public, private) and by level (university, four-year college, two-year college).

- o Public universities enrolled 18 percent of the nondisabled sample and 15 percent of the disabled sample; women constituted 48 percent of both groups. Relative to their proportions in the total disabled sample, those with visual and with unknown disabilities were somewhat overrepresented, and those with hearing, orthopedic, learning, and "other" disabilities were somewhat underrepresented. Five percent (compared with 6 percent of all disabled freshmen) indicated that they required architectural accommodations. Disabled freshmen entering public universities differed very little from their nondisabled counterparts; indeed, the two groups seemed more similar to one another than did the "average" disabled and nondisabled freshman (i.e., as represented by the figures for the total disabled and nondisabled samples).

- o Generally the most selective and elite of institutional types, private universities enrolled 6 percent of the total nondisabled sample and 5 percent of the total disabled sample in 1978, with men outnumbering women by about three to two in both groups. Those with visual and unknown disabilities were somewhat overrepresented at these institutions, and those with learning and "other" disabilities were somewhat underrepresented. As at public universities, 5 percent of the disabled freshmen indicated that they required architectural accommodations. As was also true among public university entrants, disabled freshmen at private universities were remarkably similar to their nondisabled counterparts. Both groups tended to have outstanding high school records, to come from affluent backgrounds, and to have high aspirations and expectations.
- o The second most popular institutional type (after public two-year colleges), public four-year colleges enrolled 22 percent of the nondisabled sample and 20 percent of the disabled sample in 1978. Women accounted for 53 percent of the former group and 50 percent of the latter. Of the various disability groups, those with visual and unknown disabilities were somewhat overrepresented, and those with orthopedic, learning, and "other" disabilities somewhat underrepresented. Six percent of the disabled freshmen said they required architectural accommodations. These institutions had larger minority enrollments than any other institutional type. In addition to including a larger proportion of "nontraditional" (older, married, nonwhite) students than the nondisabled group, the disabled group at public four-year colleges tended to come from lower socioeconomic backgrounds, to have poorer high school records, and to be less

confident of their academic skills. In other respects, the two groups were highly similar.

- o. Private four-year colleges enrolled 17 percent of both the disabled and the nondisabled samples, with women predominating (52-53 percent). Those disabled freshmen requiring architectural accommodations were somewhat less inclined to attend these institutions than other types, making up only 4 percent of the disabled enrollments. Those with visual, hearing, and multiple disabilities were somewhat overrepresented, and those with unknown disabilities were somewhat underrepresented. This category encompasses a diverse group of institutions, ranging from highly selective liberal arts colleges with a national reputation to "invisible" nonselective sectarian institutions. This heterogeneity may account for some of the anomalies in the characteristics of freshmen enrolling in private four-year colleges, who in some ways resembled the highly able and affluent freshmen at universities but at the same time shared certain characteristics with two-year college entrants.

There were few differences between disabled and nondisabled entrants to private four-year colleges, other than those general differences--such as the greater proportions of older, married freshmen who have not taken a college preparatory program and who have delayed entry to college--that characterize the total samples.

- o. In 1978, public two-year colleges were the predominant institutional type, enrolling 34 percent of the nondisabled sample and 38 percent of the disabled sample, with those having learning, orthopedic, "other," multiple, and hearing disabilities being overrepresented and those with visual and unknown disabilities being underrepresented. Over

half (53 percent) of all those disabled freshmen requiring architectural accommodations entered these institutions; thus, they constituted 8 percent of all disabled entrants. The gender composition of the two groups differed: Women made up 51 percent of the non-disabled group (exactly their figure in the total nondisabled sample) but only 46 percent of the disabled group (compared with 49 percent among all disabled freshmen). Public two-year colleges enrolled larger proportions of "nontraditional" freshmen and of first-generation college students than any other institutional type. Perhaps the most important understanding to be gained from these analyses is that public two-year colleges have played a crucial role in opening access to disabled people who at the same time are at risk.

o Like private four-year colleges, private two-year colleges are a diverse group of institutions: military academies, business schools, technical institutes, finishing schools, and sectarian colleges. Despite this diversity, these colleges make up the smallest segment of American higher education, enrolling 4 percent of the total non-disabled group and 5 percent of the total disabled group in 1978; 4 percent of the disabled entrants required architectural accommodations. Those with learning, hearing, speech, other, and multiple disabilities were overrepresented, and those with orthopedic, visual, and unknown disabilities were underrepresented. One noteworthy feature of these institutions is that they are female-dominated: 62 percent of the nondisabled freshmen and 59 percent of the disabled freshmen at private two-year colleges were women. Differences between the disabled and the nondisabled were more marked among private two-year college freshmen than among freshmen at other institutional types. The disabled group included a much larger proportion of minority students

and of students from disadvantaged backgrounds (as measured by parental income and father's education). Perhaps these background differences account for the strong differences in aspirations, expectations, opinions, and life goals.

#### Implications of the Study

For the U.S. higher education system and for the handicapped of the nation, this is a pioneering era. At long last, the law requires that colleges and universities receiving federal funds make their facilities and programs accessible to the handicapped. At long last, the disabled are being extended the opportunity to pursue higher education. Responsibility for their success as college students is shared by the disabled themselves and by the academic institutions that enroll them.

The findings from this study provide the first nationally representative, data-based information on disabled freshmen as they enter college. The results of the follow-up survey should permit us to draw an even more comprehensive and detailed picture of these students as they progress through college and to define more precisely their needs. For instance, the freshman data indicate that, even though only 6 percent of all handicapped freshmen require architectural accommodations, this group is fairly evenly distributed among institutional types; thus, every type of higher education institution has an obligation to provide such facilities. The follow-up survey should yield information on the nature of the accommodations required by the remaining 94 percent of the handicapped group. Since the additional costs of complying with federal law accrue to colleges and universities at a time when they are already hard-pressed by financial constraints, it is imperative that academic administrators have a clear idea of which accommodations are most useful, and to whom.

The findings already produced by this study of the disabled college student have important implications not only for academic institutions but for other agencies and segments of U.S. society as well. These implications, and the empirical evidence on which they rest, are summarized in the remainder of this executive summary.

1. Since comparisons of disabled and nondisabled 1978 freshmen show that the two groups do not differ markedly in their backgrounds, previous academic performance, values and attitudes, or educational and career aspirations, it follows that the institution bears as great a responsibility for the ultimate success or failure of the disabled student as it does for the educational development of all its students. This means that colleges and universities must marshal their human and material resources to facilitate, rather than hinder, the progress of the disabled.

2. Differences among groups according to their disability area(s) underscore the need for policymakers to address the question of whether they should formulate general provisions and policies for all handicapped students or should instead consider special provisions and policies that take these differences into account.

3. Typically, disabled freshmen enter college feeling less confident of their academic ability and high school preparation than do nondisabled freshmen. Thus, institutional policymakers who are committed to offering the handicapped access to more than a revolving door face questions not covered by federal law: Having admitted the disabled, to what extent are institutions responsible for providing them with remediation in subjects

where they are weak? At the very least, academic institutions could provide their freshmen with lists of private tutors, community-based options for remediation, and so forth. Such a service, while costing the institutions very little, could go a long way toward meeting the special needs of the disabled.

4. Since so many disabled freshmen seemed to lack confidence in the adequacy of their academic preparation, elementary and secondary schools need to reassess the quality of the education they are providing to their handicapped students. Since a relatively large proportion of disabled freshmen had not taken a college preparatory program in high school, the lower schools also need to evaluate their counseling and guidance programs to ascertain whether disabled students are being discouraged by their teachers and counselors from considering college as an option.

5. Although the disabled 1978 freshmen were just as career-oriented as their nondisabled counterparts, evidence indicates that they had a harder time finding jobs. For instance, they were less likely to mention savings or earnings from employment and College Work-Study as sources of support, less likely to expect they would work during college to help meet college costs, but more likely to say they were attending college because they could not find a job or because they had nothing better to do. Clearly, U.S. society needs to improve its record for employing the handicapped. Higher education institutions should lead the way, not only by offering on-campus jobs to their disabled students but also by making direct appeals to the employers in their communities.

6. These analyses indicate that disabled 1978 freshmen tended to come from slightly lower socioeconomic backgrounds than their nondisabled counterparts and were somewhat more likely to express major concern about their ability to pay for college. In addition, a larger proportion relied on grants and scholarships. At a time when federal support for higher education is being reduced, it is important that financial aid programs that benefit disabled students be maintained. Cutbacks in such programs will ultimately work to the detriment of U.S. society as a whole.

7. That men slightly outnumbered women among disabled 1978 freshmen, whereas women slightly outnumbered men among the nondisabled, suggests that many disabled women who have the potential for college are failing to realize this potential, perhaps because they receive little encouragement to do so from their parents, teachers, and counselors. Whatever the explanation, the implication is that colleges and universities should develop outreach programs to recruit these women; it may also be necessary to provide them with special support services once they have enrolled in college.

8. The differential enrollment patterns of freshmen from different disability groups suggest that some types of institutions need to do more to reach a wider range of disabled students. For instance, relative to their proportion among all entering freshmen, the orthopedically disabled were underrepresented at all types of institutions except public two-year colleges. Among disabled entrants to private universities--generally the most selective and elite of institutional types--those with orthopedic, learning, "other," and multiple disabilities were underrepresented. College officials concerned with opening access to the disabled may want to

examine the record of their own institutions and to take steps toward recruiting specific groups of disabled students.

9. In 1978, 38 percent of the disabled freshmen (compared with 34 percent of the nondisabled) entered public two-year colleges, as did 53 percent of those disabled freshmen requiring architectural accommodations. Community colleges are to be commended for opening access to the disabled, as well as to other "nontraditional," "high-risk" groups such as older students, married students, veterans, the economically disadvantaged, and the educationally underprepared. Nonetheless, research evidence shows that public two-year colleges have negative effects on student persistence; that is, a student is more likely to drop out of higher education if he/she enrolls in a community college than if the same students enrolls in some other type of institution. Obviously, it is frivolous to recommend that students avoid enrolling in community colleges. A more realistic suggestion is that reforms be initiated within community colleges to increase student persistence. For example, community colleges might revitalize their transfer function by establishing as one option a "transfer-college-within-a-college," wherein students aspiring to a baccalaureate can be brought together.

10. The overrepresentation of the disabled at two-year colleges does not let four-year colleges and universities off the hook. Three-fourths of the 1978 disabled freshmen enrolling at community colleges aspired to at least a baccalaureate. If they are to realize these aspirations, they must be seen as an important group in articulation/transfer efforts.

11. One specific feature of community colleges that may in part explain their negative effect on persistence is that most of them are commuter institutions and do not provide residential facilities for their students. A body

of research indicates that students who live in on-campus housing (e.g., college dormitories) are more likely than those who live off campus (e.g., with parents or other relatives; in private apartments) to persist in college, probably because they have a greater opportunity to become deeply involved in college life. Many disabled freshmen--especially those with speech and learning disabilities--miss this opportunity because they do not live in campus residential facilities. Thus, community colleges and other institutions where dormitory facilities are scarce should seek other ways of involving commuter students in campus life: for instance, by providing centers--similar to the women's centers and international houses that now exist on many campuses--where students can meet together informally.

12. Finally, some effort should be made to develop funding formulas that allocate resources in such a way that academic institutions serving the handicapped receive more funds to accommodate them.

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Section I

Introduction to the Study

## Chapter 1

### Overview

A major impetus for this study of the disabled college student is the urgent need of higher education institutions for information that will facilitate their compliance with federal legislation. Prohibiting discrimination against "otherwise qualified" handicapped persons in any program or activity that receives federal funds, Section 504 of the Rehabilitation Act of 1973 (Public Law 93-112) led to the delineation of program requirements--covering admissions and recruitment, treatment of students, academic adjustments, housing, financial aid, employment assistance, and nonacademic services--that colleges and universities were to have met by June 3, 1980.

If these long-overdue and comprehensive regulations are to be effectively translated into practice, however, academic institutions must have a better understanding: about who, among the potential college-going disabled population, actually goes to college, which colleges they attend, and why; about which accommodations and services are found by the disabled themselves to be most valuable; about what further changes and improvements are needed if the disabled are to be given meaningful access to--hence a reasonable chance for success in--higher education. Only with such understanding can the nation's colleges adequately serve their currently enrolled handicapped students and provide for the increasing number of handicapped students anticipated in the decades ahead.

According to data from the Survey of Income and Education (National Center for Education Statistics, 1978), in 1976 slightly over one-third (36 percent) of the total U.S. population were of college age (18-25 years old). Of this group, an estimated 7 percent were disabled, with one or more of the following

specific handicaps: mental retardation, hearing impairment/deafness, speech impairment, sight impairment/blindness, serious emotional disturbance, mobility impairment, heart trouble, respiratory disorder, other handicap. Twenty-nine percent of the handicapped college-age population, compared to 36 percent of their nonhandicapped counterparts, were enrolled in college in 1976. Unfortunately, these data do not report the proportion of college attenders from each disability group. However, using data from an NCES-sponsored study of 700 higher education facilities, Wulfsberg and Petersen (1979) found that fewer than half of three groups of disabled 18-25 year olds--the mobility-impaired, the visually impaired, and the acoustically impaired--were enrolled in college in 1978.

National efforts directed at giving the disabled access to and within post-secondary education are of recent origin, and much remains to be learned. The study reported here, which was funded by the Office of Special Education of the U.S. Department of Education and conducted by the Higher Education Research Institute (HERI) represents a giant step toward that end. On the basis of survey data collected by the Cooperative Institutional Research Program (CIRP) from a nationally representative sample of freshmen, who entered some 400 higher education institutions in 1978, this report describes disabled freshmen, comparing them with nondisabled freshmen. The findings reported here will also serve as baseline data for a longitudinal study of approximately 5,000 disabled college freshmen followed up in the spring of 1981 by means of a mailed survey questionnaire designed to elicit information on their experiences in higher education during the intervening three years.

Chapter 2 describes the data base, sample selection, and other methodological matters. The body of the report, presenting the results of the data analyses,

is divided into two sections. Section II compares 1978 disabled and nondisabled freshmen, in total and by gender, and disabled freshmen by disability area. Section III compares the total disabled and nondisabled groups according to the types of institutions they entered in 1978. The two sections are roughly parallel in structure, treating topics chronologically as they occurred in the lives of the freshmen. Thus, demographic and family background factors are discussed first, then high school factors, then college choice factors, and so forth. Section IV summarizes the findings and draws out their implications.

In this report, we use the terms "handicapped" and "disabled" interchangeably, recognizing that a controversy over terminology exists. While federal and state legislation employs the term "handicapped," many people object to its negative connotations, pointing out that it presupposes a limitation that may or may not exist or that may operate in some life areas but not others. Thus, they prefer the term "disabled." Indeed, this study suggests that many college freshmen who said they considered themselves to be "handicapped" were actually revealing a lack of self-confidence in their ability to learn and function at the college level; they were not handicapped as that term is generally understood.

Clearly, finding a satisfactory definition of so ambiguous and complex a concept as "handicapped" poses a challenge. Herbert Rusalem offers a formulation in the context of higher education that may prove useful:

A handicapped college student is one having activity limitations ascertainable by a physician or other professional personnel which may affect his functioning on the campus to such a degree that one or more special services not offered to other students and/or intensified existing services are required for his continued successful functioning, academically and/or socially.

This definition excludes students with (for example) routine vision problems, who ought not be considered in addressing issues connected with students who are

truly disabled. On the other hand, the finding that a number of 1978 freshmen may have perceived themselves as "handicapped" has some important implications. This report attempts to promote understanding of these freshmen, as well as of those freshmen who are handicapped according to Rusalem's definition of the term.

## Chapter 2

### Methodology and Sample

This chapter describes the data base used in the study, discusses how the sample of disabled students was identified and categorized, and gives a brief preliminary sketch of this sample.

#### The Data Base

The analyses presented in the body of this report are based upon data collected in the fall of 1978 through the Cooperative Institutional Research Program (CIRP), an ongoing longitudinal study of the American higher educational system. Initiated by Alexander W. Astin at the American Council on Education in 1966, the CIRP is currently conducted by the Laboratory for Research in Higher Education at the University of California at Los Angeles under Dr. Astin's direction. In the 15 years since its inception, the CIRP has involved more than 1,000 academic institutions and more than four million students.

#### The Freshman Survey

The CIRP's major activity is its annual freshman survey. Each fall, the entire entering freshman classes of participating institutions are administered the Student Information Form (SIF) during registration, freshman orientation, or the first few weeks of classes. This survey instrument is designed to serve two functions: first, to collect student input data for longitudinal research; and second, to collect descriptive and normative data for the purposes of providing general information to interested groups and agencies. The SIF thus contains standard biographical and demographic items that are included each year, as well as research-oriented items that are either new or modified from previous

years. This mix of items represents a compromise between two mutually exclusive objectives: (1) comparability of information from year to year, as is required for assessing trends; and (2) flexibility in item content to meet changing research and information needs. The SIF is designed for self-administration under proctored conditions and for processing onto magnetic tape with an optical mark reader. The 1978 Student Information Form, on which these analyses are based, is presented in Appendix A.

### The National Norms Report

Each year, the results of the freshman survey are published in a national norms report. These national norms are based only on data from institutions where the coverage of entering freshmen is judged to be representative. This judgment is based on the proportion of first-time freshmen who completed the SIF and on the procedures used in administering it. Four-year colleges are included in the national norms if over 85 percent of their first-time, full-time freshmen completed the SIF, universities must have over 75 percent participation, and two-year colleges must have at least 50 percent participation. The data meeting these minimal quality requirements for inclusion in the norms are weighted to represent the population of entering freshmen at all higher educational institutions in the United States.<sup>1</sup>

Part-time students and those who are not first-time college students (i.e., transfer and former enrollees) are excluded from the normative sample. All students who do not identify themselves as being enrolled on a part-time basis are included in the norms sample if they either graduated from high school in the year of the survey or have never attended any collegiate institution for credit.

<sup>1</sup> A distinction should be made between higher education and postsecondary education. The normative data exclude students attending most proprietary, special vocational, and semiprofessional institutions; they include those attending two-year colleges with terminal occupational as well as transfer programs.

Institutional Stratification Design

The institutions participating in the annual freshman survey are classified according to a set of stratifying variables that comprise the following: institutional race (predominantly black, predominantly white), level (two-year college, four-year college, university), control (public, private-nonsectarian, Roman Catholic, Protestant), and "selectivity" (an estimate of the average academic ability of the entering freshman class).

Selectivity was made an integral part of the CIRP stratification design in 1968 because of its substantial correlations with most measures of institutional "quality" (Astin, 1968). Since 1975, a revised and updated selectivity measure has been used (Astin & Henson, 1977). These estimates of selectivity are based on data provided in several published college guides and on data reported previously by Astin (1971). Most estimates were originally in the form of mean Verbal (V) plus Mathematical (M) scores of entering freshmen on the Scholastic Aptitude Test (SAT). Mean composite scores on the American College Testing Program (ACT) test are converted into comparable mean SAT V+M scores (see Astin, 1971, Table 3-1).

The dividing lines between selectivity levels are as follows:

Dividing Line Between:	Universities				Four-Year Colleges							
	Public		Private		Public		Private Nonsectarian		Roman Catholic		Protestant Private	
	SAT V+M	ACT	SAT V+M	ACT	SAT V+M	ACT	SAT V+M	ACT	SAT V+M	ACT	SAT V+M	ACT
low and medium	1,000	22.5	1,050	24	935	21	950	21.5	950	21.5	875	19.5
medium and high	1,100	25	1,175	27	1,025	23	1,025	23	1,025	23	974	22
high and very high	---	---	---	---	---	---	1,175	27	---	---	1,050	24

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### The 1978 Data

Figure A shows the stratification design for the 1978 survey. The rationale for this particular design is given in the 1971 national norms report (Staff of the Office of Research, 1971).

The population consisted of all eligible higher education institutions listed in the annual United States Office of Education (USOE) Education Directory (1977). An institution was considered eligible if it was functioning at the time of the survey and if it had a freshman class of at least 30 students. Thus, institutions requiring undergraduate credits for admission to their first class (e.g., some professional schools) and a few very small institutions were excluded. In addition, some institutions or their branches for which separate 1977 enrollment data were not available from USOE were included in the population because they were part of prior universes in these surveys and because they were known to be functioning with freshman classes at the time of the survey. With these exceptions, the defined population comprised all accredited and nonaccredited institutions listed by USOE, whether university, four-year college, or two-year college. For the 1978 survey, the institutional population numbered 2,688.

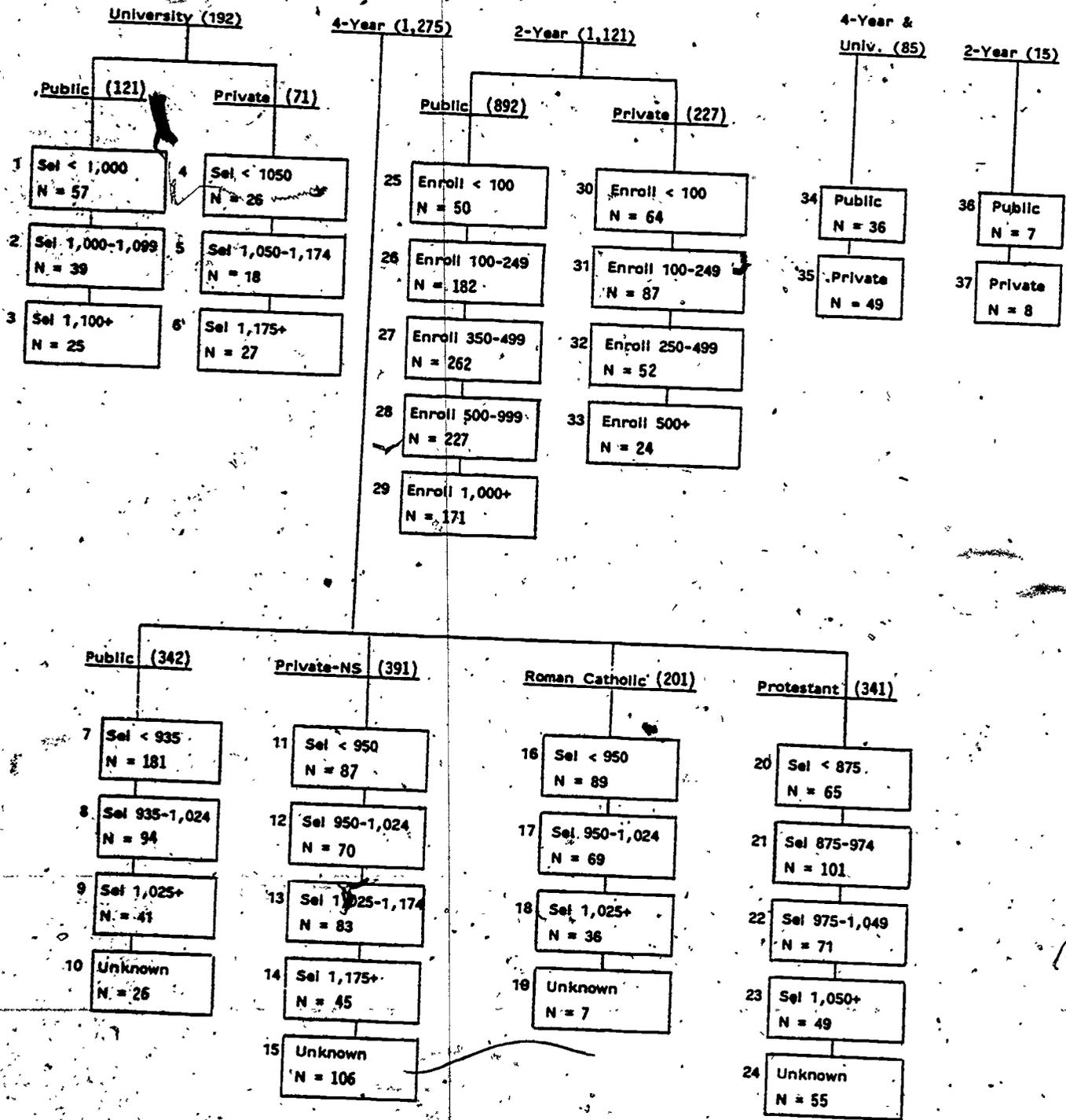
Because institutions usually make budgetary decisions and plan their orientation and registration early in the year, and because these matters affect participation in the freshman survey, institutions must be invited to participate several months before information is available to define the final survey population. A total of 2,668 institutions were invited to participate in the 1978 survey. Of these, 1,053 (39.5 percent) had participated in one or more of the earlier surveys, and 1,615 (60.5 percent) were new invitees. A total of 604 (22.6 percent) accepted the invitation. Of the 548 institutions that had participated in the 1977 survey, 510 (93.1 percent) accepted again in 1978.

Figure A

1978 Data Bank Population (N=2,688)

Predominantly White Institutions (N = 2,588)

Predominantly Black Institutions (N = 100)



\*Selectivity (Sel), used to define strata for four-year colleges and universities, is an estimate of the mean for entering freshmen of the Verbal + Mathematical scores on the Scholastic Aptitude Test (or American College Test Composite converted to equivalent SAT V+M). The method of estimation is described in detail in Astin and Henson (1977) and on page 9 of the current report. Enrollment (Enroll), used to define strata for two-year colleges, is based on the total number of first-time, full-time entrants.

Thirty-eight of the institutions that agreed to participate were unable, because of administrative and logistical problems, to return the completed Student Information Forms in time for their data to be included in the national norms. Thus, data were obtained from 566 (93.7 percent) of the institutions that had accepted the invitation to participate in the 1978 survey.

### Weighting Procedures

The data collected by means of the SIF were differentially weighted because of disproportionate sampling of institutions within each stratification cell and because not all students at each college completed the SIF. Table 1 shows the number of participating institutions in each stratification cell and the cell weights applied to each institution's data in computing the national norms. The cell weight in the last two columns are the ratios between the number of first-time, full-time freshmen in the eligible population within a given cell and the total number of freshmen entering sample institutions in that cell, computed separately for men and for women. Since population data for 1978 enrollments were not available at the time of the 1978 survey, these weights were derived from 1977 data. In effect, this procedure assumes that the sample institutions within a cell account for the same proportion of students in that cell in 1978 as in 1977.

These cell weights were further adjusted within each institution, by sex, according to the proportion of the institution's 1978 first-time, full-time freshmen who completed the SIF. These total counts of 1978 freshmen are provided by each participating institution at the time of the freshman survey. Typically, this second weight was between 1.0 and 2.0; in the case of an institution that administered the form to its entire entering freshman class,

the weight was exactly 1.0. The final weight applied to the data from each student was the product of this within-institution participation weight and the appropriate cell weight shown in Table 1.<sup>2</sup>

These weighting procedures generated summary data representative of all first-time, full-time freshmen entering higher education institutions in the fall of 1978. As Table 2 indicates, the analyses reported here are based on the responses of 187,603 participants in the 1978 freshman survey at 383 institutions. Table 2 also gives estimates, derived through weighting procedures, of the total entering freshman population and of the number entering each institutional type. (These counts are the product of the 1978 enrollments reported by the institutions and the cell weights shown in Table 1.)

#### The Sample: General Description

Of the approximately 1.7 million freshmen who entered college in 1978, an estimated 50,797 were disabled (Table 2). This section discusses the identification of the sample of disabled freshmen; their classification into disability areas; the types of institutions they entered; and the extent to which they required "architectural accommodations" on the part of the institution. Where appropriate, comparisons are made with a 15 percent random sample of nondisabled freshmen.

#### Identification of the Disabled Sample

The Rehabilitation Act of 1973, as amended, defined a "handicapped individual" as any person who (a) has a physical or mental impairment which substantially limits

<sup>2</sup> Cell weight in Table 1 is a sex-specific constant for each sample institution in a given cell, whereas the within-institution weight is a sex-specific constant for a given institution but varies from one institution to another, depending on how adequately the institution "covered" its entering freshman class.

Table 1

1978 ACE/UCLA Sample and Weights Used in Computing National Norms

Stratification Cell for Sampling	Popu- lation	Number of Institutions Participants		Cell Weights <sup>a</sup> Applied to Data Collected From	
		Total	Used in Norms	Men	Women
<b>Public University</b>					
SATV+SATM:					
1. Less than 1,000	57	12	7	6.0	5.6
2. 1,000-1,099	39	11	6	6.8	5.2
3. 1,100 or more	25	14	8	3.8	3.7
<b>Private University</b>					
SATV+SATM:					
4. Less than 1,050	26	15	10	3.5	3.1
5. 1,050-1,174	18	8	4	7.0	6.7
6. 1,175 or more	27	13	11	2.6	2.3
<b>4-Year Public College</b>					
SATV+SATM:					
7,10. Less than 935 & unknown	207	27	16	14.3	15.7
8. 935-1,024	94	21	12	10.6	10.0
9. 1,025 or more	41	12	8	4.4	14.2
<b>4-Year Private Nonsectarian</b>					
SATV+SATM:					
11,15. Less than 950 & unknown	193	29	18	8.3	9.3
12. 950-1,024	70	30	16	4.8	3.7
13. 1,035-1,174	83	38	26	4.2	2.7
14. 1,175 or more	45	33	26	1.6	1.6
<b>4-Year Catholic</b>					
SATV+SATM:					
16,19. Less than 950 and unknown	96	24	15	6.0	7.7
17. 950-1,024	69	27	18	5.1	3.3
18. 1,025 or more	36	18	11	3.3	3.7
<b>4-Year Protestant</b>					
SATV+SATM:					
20,24. Less than 875 and unknown	120	14	11	7.4	7.9
21. 875-974	101	29	20	5.2	5.7
22. 975-1,049	71	29	20	2.9	3.1
23. 1,050 or more	49	25	22	2.4	2.3
<b>2-Year Public</b>					
Enrollment:					
25,26. Less than 249	232	18	12	16.1	22.0
27. 250-499	262	24	19	12.4	15.4
28. 500-999	227	15	10	21.6	22.9
29. 1,000 or more	171	14	7	27.2	29.7
<b>2-Year Private</b>					
Enrollment					
30. Less than 100	64	10	8	4.9	8.4
31. 100-249	87	18	17	6.5	4.7
32. 250-499	52	3	3	13.3	22.1
33. 500 or more	24	2	2	11.7	30.1
<b>Predominantly Black</b>					
34. Public 4-year	36	15	8	4.1	4.1
35. Private 4-year	49	16	9	3.7	2.9
36,37. Public & private 2-year	15	2	2	8.0	5.1

<sup>a</sup>Ratio between the number of 1977 first-time, full-time students enrolled in all colleges and the number of first-time, full-time students at colleges in the CIRP sample.

Table 2  
Number of Institutions and Students Used in Computing Weighted Total and Disabled Norms for 1978

Norm Group	Number of Institutions Used in Norms <sup>a</sup>	Number of Participants	Number of 1978 Entering Freshmen <sup>b</sup> Weighted Totals			Disabled		
			Number	% Men	% Women	Number	% Men	% Women
All institutions	383	187,603	1,681,418	48.9	51.1	50,797	51.4	48.6
All 2-year colleges	80	22,432	628,926	48.3	51.7	21,704	52.4	47.6
All 4-year colleges	255	92,300	639,821	47.6	52.4	17,555	49.3	50.7
All universities	48	72,871	412,678	51.4	48.2	10,053	52.1	47.9
Predominantly black colleges	19	8,539	42,418	44.5	55.5	1,482	43.5	56.5
2-year public colleges	50	18,058	566,711	49.7	50.3	19,201	53.9	46.1
2-year private colleges	30	4,374	62,215	35.0	65.0	2,504	41.1	58.9
4-year public colleges	44	29,726	363,197	47.8	52.2	4,722	50.2	49.8
4-year private nonsectarian colleges	89	29,212	122,734	50.4	49.6	3,742	50.7	49.3
4-year Protestant colleges	77	22,009	96,998	46.2	53.8	2,789	46.9	53.1
4-year Catholic colleges	45	11,353	56,907	41.9	58.1	1,616	45.0	55.0
Public universities	22	50,811	317,814	50.7	49.3	7,767	51.3	48.7
Private universities	26	22,060	94,868	55.5	44.5	2,285	60.9	39.1
4-year public-low selectivity <sup>c</sup>	24	14,725	203,110	47.4	52.6	5,183	50.8	49.2
4-year public-medium selectivity	12	9,438	115,982	46.3	53.7	3,241	50.1	49.9
4-year public-high selectivity	8	5,563	44,109	54.1	45.9	987	47.3	52.7
4-year private nonsectarian-low selectivity <sup>c</sup>	21	5,830	52,747	51.7	48.3	1,705	50.4	49.6
4-year private nonsectarian-medium selectivity	16	4,820	22,406	46.8	53.2	657	47.8	52.2
4-year private nonsectarian-high selectivity	26	7,771	28,224	52.3	47.7	865	53.3	46.7
4-year private nonsectarian-very high selectivity	26	10,791	19,356	48.6	51.4	514	51.2	48.8
4-year Protestant colleges-low selectivity <sup>c</sup>	15	3,757	28,072	46.3	53.7	639	50.3	49.7
4-year Protestant colleges-medium selectivity	40	10,674	49,370	45.8	54.2	1,596	46.1	53.9
4-year Protestant colleges-high selectivity	22	7,578	19,556	47.3	52.7	556	44.7	55.3
4-year Catholic colleges-low selectivity <sup>c</sup>	16	2,620	20,180	34.7	65.3	646	40.7	59.3
4-year Catholic colleges-medium selectivity	18	4,487	19,951	44.1	55.9	511	43.0	57.0
4-year Catholic colleges-high selectivity	11	4,246	16,776	48.2	51.8	459	53.1	46.9
Public universities-low selectivity	7	18,781	127,533	51.1	48.9	3,216	46.8	53.2
Public universities-medium selectivity	7	15,642	119,928	50.0	50.0	2,816	57.0	43.0
Public universities-high selectivity	8	16,388	70,353	51.1	48.9	1,735	53.8	46.2
Private universities-low selectivity	11	9,926	42,268	52.0	48.0	1,003	58.6	41.4
Private universities-medium selectivity	4	3,165	24,616	54.6	45.4	547	60.5	39.5
Private universities-high selectivity	11	8,969	27,985	61.7	38.3	735	64.4	35.6
Public predominantly black colleges	10	4,754	27,500	45.1	54.9	1,239	41.1	58.9
Private predominantly black colleges	9	3,785	14,919	43.4	56.6	243	56.8	43.2
Region of institution:								
East	149	77,163	868,920	49.8	50.2	26,796	52.7	47.3
Midwest	105	50,844	312,389	47.8	52.2	8,517	48.9	51.1
South	88	42,106	345,074	47.3	52.7	10,960	48.8	51.2
West	41	17,490	155,047	49.6	50.4	4,522	54.7	45.3

<sup>a</sup>For the comparison group of nondisabled freshmen in this study, a 15 percent random sample of these participants was selected.

<sup>b</sup>First-time, full-time.

<sup>c</sup>Includes those with unknown selectivity.

Note: The weighted counts may not always sum to identical totals because of rounding errors.

one or more of the person's life activities; (b) has a record of such impairment; or (c) is regarded as having such an impairment. The disabled freshmen described in this study do not necessarily meet this broad definition. Rather, they are self-identified, on the basis of their responses to two items that first appeared on the Student Information Form (SIF) in 1978.

Item 24a asked freshmen to answer yes or no to the question "Do you consider yourself physically handicapped?" Item 24b read, "If yes, what type of handicap do you have? (mark all that apply)" and listed the following disability areas: hearing, speech, orthopedic, visual, learning, and other.

Responses to these two items were in some instances inconsistent and presented us with some difficulties in selecting the sample. Thus, a number of respondents answered "no" to the stem question (24a) but then marked one or more disability areas. The probable explanation for this apparent discrepancy lies in the use of the adverb "physically" in the first item. Conversely, some respondents indicated that they considered themselves physically handicapped but then failed to mark a specific disability area. Therefore, for purposes of this study, all 1978 freshmen who either indicated that they considered themselves physically handicapped or marked a specific disability area (or areas) were defined as disabled, as were all those who did both. In this way, a total of 5,401 disabled individuals among the 187,603 participants in the 1978 freshman survey were identified; thus, the disabled constituted 2.9 percent of the total freshman cohort.

To limit computation costs, we selected a 15 percent random sample (27,330 students) from the remaining 182,202 (nondisabled) participants in the freshman survey; this group was used for purposes of making comparisons between disabled and nondisabled freshmen.

Classification into Disability Areas (Tables 3, 4, 5)

To further our understanding of the nature and effects of different types of disability, we subdivided the total group of disabled freshmen as follows. All those who marked only one of the six disability areas listed on the SIF were classified accordingly. All those who marked more than one disability area were classified as having "multiple" disabilities. All those who responded affirmatively to the question "Do you consider yourself physically handicapped?" but failed to indicate a specific disability area were classified as having an "unknown" disability. Thus, eight categories of disability were defined: hearing, speech, orthopedic, visual, learning, other, multiple, and unknown.

Table 3 shows the distribution of the total 1978 disabled group among these eight categories. The greatest proportion--about three in ten--said their handicap was visual. This finding raises the possibility that some of the freshmen who checked this alternative had very slight visual defects--i.e., that their sight was not perfect and required correction by glasses or contact lenses--and thus would not ordinarily be regarded as "disabled" or "handicapped." In this connection, it is worth noting that 85 percent of the freshmen classified as having a visual disability indicated, in response to another item on the SIF, that they wore glasses or contact lenses, compared with 51 percent of the total disabled group and 35 percent of their nondisabled counterparts.

Almost as many (27 percent) were classified as having an "unknown" handicap, suggesting that the disability areas listed on the SIF were too limited. The next most common types of disability were orthopedic (14 percent), "other" (13 percent), and hearing (7 percent). Relatively few of the disabled 1978 freshmen had multiple disabilities (4 percent), learning disabilities (3 percent), or speech impairments (2 percent).



Table 3

Distribution by Disability Area and Gender Composition  
of 1978 Disabled Freshman Group

Disability Area	Percentage of Group	Percentage Men	Percentage Women	N
Hearing	7	55	45	3,774
Speech	2	66	34	1,072
Orthopedic	14	51	49	7,300
Visual	29	49	51	14,765
Learning	3	57	43	1,592
Other	13	59	41	6,427
Multiple	4	54	46	2,146
Unknown	27	47	53	13,720
Total	100	51	49	50,796

Table 3 also indicates the proportions of men and women in each of the disability categories. Men slightly outnumbered women in the total disabled group (51 percent versus 49 percent), whereas women constituted 51 percent of the nondisabled group. Men were substantially overrepresented among those having a speech disability (66 percent), some "other" disability (59 percent), or a learning disability (57 percent), and were somewhat overrepresented among those having a hearing disability (55 percent) or multiple disabilities (54 percent). Women, on the other hand, were somewhat overrepresented among those having unknown (53 percent) or visual (51 percent) disabilities. These gender differences are difficult to interpret, especially since we do not know whether these same gender differences occur in the total college-age disabled population. It may be that men with certain types of disabilities (e.g., speech defects) are more likely than are their female counterparts to take the risk of going to college; or it may be that male freshmen are less confident (e.g., about their learning ability) than are female freshmen.

Table 4 shows the proportions of disabled 1978 freshmen in each of the eight categories responding "yes" or "no" to the question "Do you consider yourself physically handicapped?" The "unknown" category represents those freshmen who answered this question affirmatively but then failed to specify their disability area. The vast majority of the total group (87 percent) said they regarded themselves as "physically handicapped." Only 13 percent of those who checked a specific disability area did not regard themselves as physically handicapped, and the proportion varied by disability area: from fewer than 10 percent of those with orthopedic or multiple handicaps to more than one-quarter of the speech-impaired and about one-fifth of those having visual, learning, or "other" disabilities.

Table A

"Physically Handicapped" Disabled 1978 Freshmen by Disability Area  
(percentages)

"Do you consider yourself to be physically handicapped?"	Disability Area								Total
	Hearing	Speech	Orthopedic	Visual	Learning	Other	Multiple	Unknown	
No	16	27	6	20	19	21	9	0	13
Yes	84	73	94	80	81	79	91	100	87
N	3,774	1,072	7,300	14,765	1,592	6,427	2,146	13,719	50,794

Table 5 indicates the proportion in each disability area who said that the specific disability was their only handicap, and the proportion indicating that it was one of multiple handicaps. Clearly, those with orthopedic, visual, and "other" disabilities were least likely to have some other handicap, whereas those with speech defects were most likely (39 percent) to have other disabilities as well. This last finding raises the possibility that many of those who indicated that a speech impairment was their only handicap were also among the respondents who felt that they were not "physically handicapped" (see Table 4). That about one in five of the hearing-impaired had some other disability is not surprising, considering that severe hearing impairment usually affects speech to some degree. Similarly, one-fifth of the learning-disabled checked some other disability area as well; this also seems logical, since having a handicap may interfere with learning. Some question arises about those freshmen who indicated that a learning disability was their only handicap. Rather than being "learning-disabled" in any clinical or diagnostic sense, many of these respondents may simply be expressing a lack of confidence in their own academic ability and a fear that they will not perform well in college. The follow-up survey may help to answer this and similar questions.

#### Distribution Among Institutional Types

In anticipation of Part III of this report, this section examines the types of institutions that disabled students attend, comparing their enrollment patterns with those of their nondisabled counterparts. Institutions are differentiated on the basis of control (public or private) and level (two-year college, four-year college, university).

Using data from the National Center for Education Statistics (NCES), Wulfsberg and Petersen (1979) reported that, in 1978, disabled students were more likely than

Table 5  
Separate and Multiple Disability Areas Reported by  
1978 Disabled Freshman Group  
(percentages)

Disability Area	Separate Category	Multiple Category	N
Hearing	79	21	4,755
Speech	61	39	1,746
Orthopedic	92	8	7,909
Visual	92	8	16,013
Learning	79	21	2,009
Other	89	11	7,222

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were nondisabled students to be enrolled in public institutions and in two-year colleges. Thus, 91 percent of the mobility-impaired, 87 percent of the acoustically impaired, and 84 percent of the visually impaired attended public institutions, compared with 78 percent of all college students. Whereas slightly over one-third of all undergraduates were enrolled in two-year institutions, the proportions were 57 percent of the acoustically impaired, half of the mobility-impaired, and 44 percent of the visually impaired. Conversely, Wulfsberg and Petersen found that these three groups were underrepresented at private universities and private four-year colleges. They concluded: "Public two-year institutions, then, are the predominant choice of handicapped students today" (p. 34).

In comparing CIRP figures with the NCES figures just cited, one should bear in mind certain differences between the two data bases. First, the CIRP data refer only to first-time, full-time freshmen, whereas NCES data from the higher education facilities study refer to both full-time and part-time students enrolled in all four undergraduate years. Second, the CIRP identified the disabled through freshman self-reports, whereas the NCES study relied on the reports of officials at the 700 institutions surveyed. Finally, the disability categories used in the CIRP data differ from those used in the NCES data, and the Wulfsberg and Petersen report is limited to the mobility-impaired, the acoustically impaired, and the visually impaired.

These differences may account for the slight differences between the Wulfsberg-Petersen figures and the CIRP figures, which are shown in Table 6. Whereas disabled freshmen had a slightly greater tendency than did the nondisabled to enroll in two-year colleges (38 percent versus 34 percent), the distribution between public and private institutions was about the same for the two groups: three-quarters enrolled in public institutions and one-quarter

Table 6

Distribution of Disabled and Nondisabled 1978 Freshman Groups  
at Public and Private Universities, Four-Year Colleges,  
and Two-Year Colleges  
(percentage)

Level and Control of Institution		Nondisabled Group	Disabled Group
Universities	Public	19	15
	Private	6	5
Four-Year Colleges	Public	22	20
	Private	17	17
Two-Year Colleges	Public	34	38
	Private	4	5
N		1,626,569	50,796

in private institutions. This finding, then, does not confirm the much heavier concentration of the disabled in public institutions reported by Wulfsberg and Petersen. Moreover, the disabled were not notably underrepresented at private universities and private four-year colleges (as the NCES data suggested). They were, however, somewhat less likely than the nondisabled to enter public universities (15 percent versus 19 percent) and public four-year colleges (20 percent versus 22 percent). The CIRP data, then, indicate that public two-year colleges are the "predominant choice" not only of handicapped freshmen but of all freshmen.

Table 7 shows the institutional distribution of disabled 1978 freshmen by disability group. Whereas 38 percent of the total group entered community colleges in 1978, the proportions were significantly higher among the learning-disabled (53 percent), those with multiple handicaps (47 percent), and the orthopedically disabled (46 percent). The overrepresentation of the learning-disabled in both public and private two-year colleges, and their underrepresentation in both public and private universities, tend to support the conjecture that many of the respondents who indicated that they had a learning disability were actually freshmen who felt that they were not academically well-prepared for college work; two-year colleges, especially those in states with hierarchical higher education systems, tend to be less selective (that is, to enroll students with relatively low high school grades and test scores), and universities to be more selective. In addition, the underrepresentation of the visually disabled in public two-year colleges (32 percent, as compared with 38 percent of the total disabled group) and their overrepresentation at public universities (19 percent, compared with 15 percent of the total disabled group) underscores the ambiguity of this category, suggesting that many of the freshmen who checked this disability area actually have only minor visual defects.

Table 7

Type of Institution Entered by Disabled 1978 Freshmen,  
by Disability Area  
(percentages)

Level and Control of Institution		Hearing	Speech	Orthopedic	Visual	Learning	Other	Multiple	Unknown	Total
Universities	Public	13	13	13	19	6	11	12	17	15
	Private	4	4	4	5	2	3	4	5	5
Four-Year	Public	21	24	18	21	13	17	13	22	20
	Private	18	15	15	18	16	19	19	16	17
Two-Year	Public	40	38	46	32	53	43	47	35	38
	Private	4	6	4	4	9	5	6	5	5
N		3,774	1,072	7,300	14,766	1,592	6,427	2,146	13,720	50,797

Table 8 shows the gender composition of the disabled and the nondisabled groups enrolling at different types of institutions. The patterns are roughly the same for the two groups. Men were more likely than women to enter public and private universities, and women were more likely than men to enter private two-year and four-year colleges. Among the disabled, men were more likely than women to enter public two-year colleges, though no such gender difference occurs among the nondisabled.

The greater tendency of disabled men to enroll in private universities and public two-year colleges is particularly interesting when one considers that these two institutional types occupy such different positions in the status hierarchy of higher education, with private universities being regarded as the most elite and community colleges ranking at the bottom. Perhaps disabled men entering college in 1978 represented a greater range of academic aptitude than did their female counterparts. Or perhaps disabled men tended to be greater risk-takers. That is, those disabled men who would normally be expected to go to college were more likely than were their female counterparts to apply to the elite institutions, whereas those who might not be expected to attend college at all opted to attend public two-year colleges. After all, there are no obvious reasons to explain why proportionately fewer disabled women than men entered community colleges, since in 1978 these institutions were already making efforts to accommodate disabled students. But perhaps these efforts were insufficient to attract disabled women or to reassure them that access to higher education was a real option for them.

Perhaps the most important point to emerge from this analysis of distribution among institutional types is that the disabled differ only slightly from the nondisabled in their enrollment patterns; they are represented in all types of higher education institutions.

Table 8

Gender Composition of Disabled and Nondisabled Freshman Groups  
at Public and Private Universities, Four-Year Colleges,  
and Two-Year Colleges, 1978

Level and Control of Institution		Percentage Men		Percentage Women	
		Non- disabled	Disabled	Non- disabled	Disabled
Universities	Public	52	52	48	48
	Private	57	60	43	40
Four-year colleges	Public	47	50	53	50
	Private	47	48	53	52
Two-year colleges	Public	49	54	51	46
	Private	38	41	62	59
	Total	49	51	51	49

Need for "Architectural Accommodations"

Section 504 of the Rehabilitation Act of 1973 emphasizes "program accessibility" to the handicapped as a condition for receiving federal funds. Physical accessibility is, obviously, an important component of program accessibility. Federal-fund recipients (including colleges and universities) were to have made any necessary structural modifications by June 3, 1980.

In the 1978 NCES survey of 700 higher education facilities, Wulfsberg and Petersen (1979) found that, overall, only about 40 percent of the total assignable space was accessible to the mobility-impaired, whereas they deemed that an average of at least 75 percent was necessary in order to accommodate the mobility-impaired.

Their estimates of the proportion of total assignable space that was accessible at different institutional types were as follows:

Public two-year colleges	66%
Public universities	48%
Public four-year colleges	42%
Private universities	40%
Private four-year colleges	20%
Private two-year colleges	20%

Clearly, public two-year colleges (where the largest proportion of the disabled enroll) came closest to achieving the minimal requirement. The institutional types most drastically affected by Section 504 are private two-year and four-year colleges, in that only about one-fifth of their total assignable space was physically accessible in 1978.

The 1978 SIF included one item (24c) relating to physical accessibility: "Does your handicap require architectural accommodations (wheelchair ramps, elevators, etc.)?" Table 9 shows the responses of the disabled 1978 freshmen to this question, by sex

Table 9

Disabled 1978 Freshmen Requiring Architectural Accommodations,  
by Gender and Disability Area  
(percentages)

	Gender			Disability Areas								
	Men	Women	Total	Hearing	Speech	Orthopedic	Visual	Learning	Other	Multiple	Unknown	Total
Yes	7	5	6	6	0	15	1	4	4	6	24	6
No	93	95	94	94	100	85	99	96	96	94	76	94
N	19,403	17,623	37,025	3,581	853	7,135	13,999	1,428	6,248	1,957	1,825	37,027

and by disability area. About one-quarter of those with "unknown" disabilities indicated a need for architectural accommodations. This figure is, however, a distortion, since many freshmen in this group simply failed to answer this item on the SIF, just as they had failed to answer the preceding item asking them to specify their physical disability; thus, the number responding either affirmatively or negatively to this item (1,825) was much smaller than the total number in this disability group (13,720). Fifteen percent of those with orthopedic disabilities answered this question affirmatively. No more than 6 percent of those in any other disability group said they needed architectural accommodations.

As Table 10 indicates, disabled freshmen requiring architectural accommodations were distributed fairly evenly across the higher education system in 1978. The proportion was highest (8 percent) at community colleges and lowest (4 percent) at private two-year and four-year colleges. It would seem, then, that those disabled students who need architectural accommodations are likely to attend those types of institutions with the highest proportion of physically accessible space and relatively unlikely to attend those institutional types that have the poorest record in this regard.

Unfortunately, the SIF item was phrased in such a way that the data do not reflect disabled freshmen's needs for a range of other accommodations that might facilitate their success in college (e.g., braille for the blind, taped information in libraries for the deaf). The follow-up survey should provide useful data on such needs, as well as on the extent to which colleges and universities are providing for these needs.

#### Summary and Discussion

Using data from the annual freshman survey of the Cooperative Institutional Research Program (CIRP), this report looks at disabled 1978 college freshmen and compares them with their nondisabled counterparts. In this chapter, we have

Table 10

Disabled 1978 Freshmen Requiring Architectural  
Accommodations, by Level and Control of Institution  
(percentages)

	Level and Control of Institution						Total
	Universities		4-Year Colleges		2-Year Colleges		
	Public	Private	Public	Private	Public	Private	
Yes	5	5	6	4	8	4	6
No	95	95	94	96	92	96	94
N	5,363	1,666	7,241	6,586	14,356	1,816	37,027

described the CIRP, with particular attention to the 1978 data, and presented a brief general profile of the disabled sample.

The disabled sample comprises all 1978 freshmen who, in responding to the Student Information Form (SIF), said they considered themselves to be physically handicapped or indicated one or more disability area or did both. Where appropriate, they are compared with a 15 percent random sample of nondisabled 1978 freshmen. The weighted number of respondents in the disabled group is 50,797; in the nondisabled group, it is 1,626,569.

The disabled sample was then subdivided into eight categories, based on their responses to an item asking them to indicate their disability area. The largest group (29 percent) said they had a visual handicap. The next largest group (27 percent) consists of those respondents who said they were physically handicapped but did not specify a disability; they were classified as having an "unknown" handicap. Fourteen percent said they had an orthopedic handicap; 13 percent checked the "other" category on the SIF; 7 percent said they had a hearing handicap. Four percent checked more than one disability area on the SIF and were therefore classified as having "multiple" handicaps; 3 percent had a learning disability and 2 percent had a speech disability.

A follow-up survey should enable us to clarify the nature of these categories. For instance, the incidence of visual impairment seems unduly high. Similarly, the learning-disability group may include freshmen who simply lack confidence in their own academic abilities. Finally, we need to know more about those freshmen with "unknown" and with "other" disabilities.

Although the gender composition of the disabled and the nondisabled groups was roughly the same (50 percent male, 50 percent female), men were more likely than women to report speech, "other," learning, hearing, and multiple disabilities,

whereas women were more likely to have visual or unknown disabilities.

The 1978 college enrollment patterns of disabled and nondisabled freshmen were roughly similar, with the largest proportions of both groups entering community colleges. The disabled were slightly more likely than the nondisabled, however, to enroll in two-year colleges and slightly less likely to enroll in universities.

Only 6 percent of the total group of 1978 freshmen said they required architectural accommodations. This need was most apparent among those with orthopedic disabilities. Moreover, 8 percent of the disabled entering community colleges needed architectural accommodations. An NCES study (Wulfsberg and Petersen, 1979) indicated that this type of institution came closest to achieving standards of physical accessibility: Two-thirds of the total assignable space at such institutions was found to be accessible to the mobility-impaired. The NCES study commented that, to achieve "program accessibility" (the key term in Section 504 compliance), public two-year colleges would have to become "almost 'barrier free,' with an estimated 95.5 percent of the space needed to be physically accessible in order to achieve program accessibility" (p. 12). The nonresidential nature of most community colleges, along with the diversity of their program offerings, are cited as the major reasons why they attract disabled students and consequently must strive even more to improve their physical accessibility.

Section II

Comparisons by Disability Status,  
Gender, and by Disability Area

## Chapter 3

### Demographic Characteristics

This chapter presents some basic demographic data on 1978 freshmen: age, race/ethnicity, religious background and preference, marital status, and veteran status. Comparisons are made between the disabled and the nondisabled, between men and women, and among the eight disability areas.

#### Age (Tables 11, 12)

Table 11 shows the ages of the total disabled and nondisabled groups, by gender and by disability area, as of December 31, 1978. The majority of both groups (79 percent of the nondisabled, 68 percent of the disabled) were between 17 and 18 years of age at college entry, with more women than men in both groups at this age level: An additional 18 percent of the nondisabled and 25 percent of the disabled were between the ages of 19 and 20.

The most noteworthy point to emerge from this analysis is that larger proportions of the disabled--7 percent of the men and 5 percent of the women--were age 21 or over when they entered college; the comparable figures for the nondisabled were 2 percent of the men and 3 percent of the women. Thus, disabled freshmen tended to be somewhat older than "traditional" freshmen. Recent data from the Bureau of the Census (Grant and Eiden, 1980) and from the National Center for Education Statistics (NCES) (Dearman and Pliskob, 1980) reveal that "nontraditional" types of students (including older students, especially older women) have been enrolling in college in increasing numbers over the last decade or so, a trend that has important implications for the higher education system (see Solomon and Gordon, 1981). That many disabled students are also older students is a point that institutional decision-makers would do well to bear in mind.

Table 11  
 Age of 1978 Freshmen, by Disability Status  
 and Gender and by Disability Area  
 (percentages)

Age	Nondisabled			Disabled			Disability Area							
	Men	Women	Total	Men	Women	Total	Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	16 or younger	0	0	0	0	0	0	0	0	0	0	0	0	0
17 - 18	76	83	79	63	74	68	60	55	58	77	48	60	60	75
19 - 20	22	15	18	30	20	25	34	38	28	20	49	25	31	22
21 - 22	1	1	1	3	2	2	4	2	5	1	1	3	3	2
23 - 25	1	1	1	2	1	1	1	0	3	0	0	4	2	0
26 - 29	0	0	0	0	1	0	0	1	1	0	0	1	1	0
30 or older	0	1	0	2	2	2	1	5	4	1	1	6	3	1
N	788,370	824,380	1,612,750	26,262	24,977	51,239	3,811	1,039	7,386	15,182	1,636	6,465	1,587	13,587

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By disability group, the largest proportions of older (age 21 and over) freshmen were found among the orthopedically disabled (14 percent), those with "other" disabilities (14 percent), and those with multiple disabilities (9 percent). Indeed, 5 percent of those with orthopedic disabilities and 6 percent of those with "other" disabilities were age 30 or over at college entry. By way of contrast, only 2 percent of the visually disabled, 2 percent of the learning-disabled, and 3 percent of those with unknown disabilities were 21 or over at college entry. This resemblance to nondisabled freshmen gives further weight to the suspicion that, for many respondents in these three categories, the self-reported status of "handicapped" is questionable.

Overall, 5 percent of the nondisabled men, but only 3 percent of the disabled women, were between the ages of 21 and 29; the proportion age 30 or over was the same for both sexes, 2 percent. Table 12 compares the ages of men and women in each disability area. The most striking differences were found with respect to speech, learning, "other," and multiple disabilities. Thus, virtually all the age-30-or-over freshmen with speech and learning disabilities were male. There were proportionately more men than women 21-29 in the "other" disability area (11 percent versus 3 percent) and the multiple disability area (8 percent versus 1 percent), but proportionately more women than men in both these disability groups who were age 30 or over.

#### Race/Ethnicity (Tables 13, 14)

The 1978 SIF asked respondents to identify their race/ethnicity, specifying seven response alternatives. Because the proportions of some racial/ethnic groups among 1978 entering freshmen were so small, certain categories were combined, with Mexican-Americans/Chicanos and Puerto Ricans grouped together as "Hispanics" and American Indians included in the "other" category. Table 13 shows the results of this analysis.

Table 12

Gender Composition of Each Age Group in Each Disability Area  
(percentages)

Age	<u>Hearing</u>		<u>Speech</u>		<u>Orthopedic</u>		<u>Visual</u>		<u>Learning</u>		<u>Other</u>		<u>Multiple</u>		<u>Unknown</u>	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
16 or younger	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
17-18	57	64	46	73	53	64	74	80	35	69	56	66	51	72	71	79
19-20	38	29	48	19	33	23	24	17	61	30	28	22	40	22	26	18
21-22	2	5	0	5	6	5	1	1	1	1	5	1	3	0	2	1
23-25	2	0	0	0	2	3	0	0	0	0	4	2	4	0	1	0
26-29	0	0	0	2	1	1	0	1	0	0	2	0	1	1	0	1
30 or older	1	2	7	0	4	4	1	1	2	0	5	8	2	4	0	0
Total	55	45	66	34	51	49	49	51	57	43	59	41	54	46	47	53
N	2082	1644	697	337	3730	3533	7216	7423	907	685	3726	2598	1120	965	6350	7238

Whites accounted for 87 percent of the nondisabled group and 83 percent of the disabled group. Thus, there were more nonwhites among disabled freshmen, though the proportions varied considerably by disability area, ranging from only 9 percent of the orthopedically handicapped to 27 percent of the learning-disabled and 31 percent of the speech-disabled. In the nondisabled group, men and women were about equally represented among Whites. Men slightly outnumbered women among Asians (52 percent) and "others" (54 percent), whereas women outnumbered men among Hispanics (55 percent) and Blacks (56 percent). This latter gender difference is confirmed by NCES data showing that, in the total undergraduate population in 1978, black women outnumbered black men by about three to two (Dearman and Plisko, 1978). Relative to their proportions among the nondisabled, black and Asian women and both men and women in the "other" racial/ethnic category were overrepresented among the disabled.

Table 14 gives a different perspective on these data, showing the incidence of each type of disability within each racial/ethnic group, as well as the gender composition of each racial/ethnic group with each disability area. Whites were somewhat more likely than were other racial/ethnic groups to have orthopedic disabilities. Over one-third of the Blacks (compared with 27 percent of the total disabled group) had unknown disabilities; that is, they indicated on the SIF that they were physically handicapped but did not specify a disability area. Further, 6 percent of the Blacks (compared with 3 percent of the overall disabled group) were in the learning disability category; but here there was a marked gender difference, with black men being much more likely than black women to indicate such a disability.

A larger-than-average proportion of Hispanics had a speech disability (5 percent, compared with only 2 percent of the total disabled group). In addition, Hispanic men were more likely to indicate hearing and unknown disabilities, whereas Hispanic women were more likely to indicate learning and visual disabilities.



Table 13

Racial/Ethnic Identity of 1978 Freshmen by Disability Status  
and Gender and by Disability Area  
(percentages)

Racial/Ethnic Identity	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
White	88	87	87	84	82	83	84	69	91	82	73	83	81	82
Black/Negro/Afro- American	7	9	8	7	12	10	8	11	3	10	18	9	9	12
Hispanic <sup>a</sup>	2	2	2	2	1	2	2	5	1	2	3	1	1	2
Asian <sup>b</sup>	1	1	1	1	1	1	4	5	1	1	2	1	2	1
Other <sup>c</sup>	3	2	3	6	4	5	3	10	4	5	4	6	8	3
N	783,625	819,501	1,603,124	26,116	24,924	51,040	3,783	1,056	7,265	15,076	1,623	6,487	2,184	13,569

<sup>a</sup> Includes Mexican-Americans/Chicanos and Puerto Rican Americans but not other Hispanic groups such as Cubans

<sup>b</sup> Includes Pacific Islanders

<sup>c</sup> Includes American Indians and "others"

Table 14

Proportion and Gender Composition of Each Racial/Ethnic Group in Each Disability Area, 1978

Disability Area	White			Black			Hispanic <sup>a</sup>			Asian <sup>b</sup>			Other <sup>c</sup>		
	Total	% Men	% Women	Total	% Men	% Women	Total	% Men	% Women	Total	% Men	% Women	Total	% Men	% Women
Hearing	8	55	44	6	67	33	11	97	3	19	19	81	4	47	53
Speech	2	74	26	2	55	44	7	57	43	8	54	46	5	45	55
Orthopedic	16	50	50	5	37	63	8	94	6	7	14	86	13	75	25
Visual	29	52	48	30	29	71	34	30	70	26	48	52	33	59	41
Learning	3	56	44	6	60	40	6	39	61	5	60	40	3	56	44
Other	13	58	42	12	46	54	5	30	70	10	81	19	16	85	15
Multiple	4	58	42	4	39	61	1	0	100	6	75	25	7	27	73
Unknown	27	47	53	35	36	64	30	76	24	21	57	43	19	54	46
Total		52	48		39	61		58	42		48	52		61	39

a. Includes Mexican-Americans/Chicanos, and Puerto Rican Americans but not other Hispanic groups such as Cubans.

b. Includes Pacific Islanders.

c. Includes American Indians and "others".

Close to one in five Asians (compared with only 7 percent of the total disabled group) was hearing-impaired; however, this disability was much more frequent among Asian women than among Asian men. Asians were also more likely than any other racial/ethnic group to be speech impaired. Finally, larger-than-average proportions of Asians were found in the learning and multiple disability categories, with men being more likely than women to indicate such handicaps.

Those in the "other" racial/ethnic category were the most likely of any minority group to be orthopedically disabled, as well as the most likely of any racial/ethnic group to indicate "other" disabilities (especially the men) and multiple disabilities (especially the women). Somewhat larger-than-average proportions were visually impaired, and 5 percent (compared with 2 percent of all disabled freshmen) were speech-impaired, with women outnumbering men in the latter category.

These racial/ethnic and gender differences with respect to disability raise some interesting questions. For instance, the integrity of the speech disability category is rendered suspect by its inclusion of relatively large proportions of Hispanic, Asian and "other" freshmen, many of whom probably came from homes where English was not the dominant language. Indeed, some students from these minority groups may have arrived in the United States only recently. Thus, in many instances, "speech disability" may appropriately be regarded as lack of proficiency in English or difficulty with English pronunciation. This interpretation receives some confirmation from the fact that Blacks were no more likely than Whites to indicate a speech disability, as well as from the fact that 27 percent of those categorized as speech-disabled indicated on the SIF that they did not consider themselves physically handicapped. Among Whites, Blacks, and Asians, men were more likely than women to indicate a speech disability; among "others," more women than men were in this category; and among Hispanics, the proportions of speech-disabled men and women were similar to their proportions among all disabled freshmen.

That relatively large proportions of disabled minority students (with the exception of those in the "other" racial/ethnic group) said they had a learning disability is further evidence that this category also includes many respondents who were not "handicapped" in the sense intended by Section 504. (About one in five of the respondents in the learning disability group indicated on the SIF that they did not consider themselves physically handicapped.) Rather, a self-reported "learning disability" seems, in some cases, to reflect a lack of confidence in one's academic skills and in one's ability to succeed in college. Because many minority students (particularly Blacks and Hispanics) come from low-income families, attend inner-city or rural high schools where they receive an inadequate education, and score low on standard aptitude and achievement tests, they may be much more likely than are white students to suffer from a negative self-assessment which gets translated into a "learning disability." This seems to be especially true of black men and of Hispanic women. However, this explanation does not account for the relatively large proportions of Asians (especially men) among the learning-disabled, since this particular minority group closely resembles the white majority on most socioeconomic and achievement measures. Nor is it clear why so many Asian women indicate a hearing impairment, why such a relatively large proportion of Hispanic women are visually impaired, or why so many Blacks have unknown disabilities (i.e., indicate that they are physically handicapped but then fail to specify a disability area).

Nonetheless, even though not all racial/ethnic and gender differences with respect to specific disabilities are easy to explain, one general conclusion can be drawn: The slightly greater representation of nonwhites among the disabled 1978 freshmen is in part attributable to their being socioeconomically and educationally disadvantaged or culturally and linguistically "deviant" from the majority. To be sure, these factors are relevant to the "hidden curriculum".

as well as to the academic demands of college. Thus, these students may in a very real sense be handicapped, although not as that term is legally defined.

#### Religious Background and Preference (Tables 15, 16)

The 1978 Student Information Form asked respondents to indicate the religious preferences of their mothers and fathers, as well as their own current religious preference. They were also asked: "Do you consider yourself a reborn Christian?" The religious preference of the mother was taken as an indication of the respondent's religious background, on the theory that religion is transmitted through the mother rather than through the father.

As Table 15 shows, the disabled and the nondisabled were highly similar in their religious backgrounds. About half of both groups came from Protestant backgrounds, and 37-38 percent came from Roman Catholic backgrounds. The disabled were slightly more likely than were the nondisabled to come from "other" religious backgrounds (e.g., Eastern Orthodox, Muslim); and disabled men were slightly more likely than others to come from Jewish backgrounds or to indicate that they were not raised in a religion (i.e., that their mothers had no religious preference).

Table 16 shows the current religious preference of the respondents. Comparing these figures with the figures in Table 15, one finds slightly larger proportions of respondents--both disabled and nondisabled, both men and women--in the "other" and the "none" religious categories. Most of these "defections" were accounted for by those who had been raised as Protestants, although some were attributable to disabled freshmen, especially women, who had been raised as Roman Catholics. Disabled men were more likely than others to say they had no current religious preference, whereas disabled women were more likely to consider themselves reborn Christians.

Table 15

Religious Background of 1978 Freshmen,  
by Disability Status and Gender  
(percentages)

Religious Background	Nondisabled			Disabled		
	Men	Women	Total	Men	Women	Total
Protestant <sup>a</sup>	50	52	51	49	53	51
Roman Catholic	38	37	38	38	36	37
Jewish	4	4	4	5	4	5
Other <sup>b</sup>	4	4	4	5	5	5
None	3	3	3	4	3	3
N	730920	777260	1508180	23236	22289	45525

<sup>a</sup> Includes: Baptist; Congregational (UCC); Episcopal; Lutheran; Methodist; Presbyterian; Quaker (Society of Friends); Unitarian-Universalist.

<sup>b</sup> Includes: Eastern Orthodox; Muslim; Mormon (Latter Day Saints) and "other" religions.

Table 16

Religious Preferences of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Religious Preference	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Protestant <sup>a</sup>	45	48	46	42	49	46	41	34	44	49	52	46	51	44
Roman Catholic	38	37	38	37	33	35	42	40	38	30	24	29	34	40
Jewish	4	4	4	4	3	4	4	3	3	4	12	3	2	4
Other <sup>b</sup>	5	5	5	6	7	6	6	14	2	8	4	11	6	5
None	8	7	8	11	8	9	8	8	13	10	8	11	8	7
N	741410	784120	1525530	23795	22913	46708	3477	982	6942	13948	1286	5718	1782	12575
Do you consider yourself a reborn Christian?														
Yes	28	32	30	28	35	32	26	35	30	33	26	42	35	29
N	584560	643778	1228338	19409	18931	38339	2907	939	5858	11452	795	4684	1520	10187

a. Includes: Baptist; Congregational (UCC); Episcopal; Lutheran; Methodist; Presbyterian; Quaker (Society of Friends); Unitarian-Universalist

b. Includes: Eastern Orthodox; Muslim; Mormon (Latter Day Saints) and "other" religions

Those disability groups with a relatively large proportion of older freshmen--namely, the orthopedically handicapped and those with "other" disabilities--also had a relatively large proportion with no current religious preference. The hearing-impaired and the speech-impaired were more likely than average to be Catholic and less likely to be Protestant. In addition, 14 percent of the speech-impaired, compared with only 6 percent of the total disabled group, named some "other" religion as their current preference, as did 11 percent of those in the "other" disability group, who also had a marked tendency to consider themselves reborn Christians (42 percent) or to say they had no religious preference (11 percent).

The learning disability group presents an unusual profile with respect to current religious preference: The proportions of Roman Catholics, reborn Christians, and those naming "other" religions were smaller than for most other disability groups; but 52 percent of the learning-disabled (compared with 46 percent of the total disabled group) said they were Protestants, and 12 percent (compared with 4 percent of the total disabled group) said they were Jewish. This latter finding is difficult to explain when one considers that Jewish tradition emphasizes scholarship and that, generally speaking, Jews are high academic achievers. Two explanations--not necessarily mutually exclusive--are possible. The first is that some Jews have a marked tendency to feel anxious about how well they will do in college and to lack confidence in their own academic ability, perhaps because other Jews are their primary reference group. Thus, they tend to regard themselves as having a learning disability. The second explanation is that Jews who are actually learning-disabled, in the clinical and legal sense, have a greater tendency to enter college (perhaps because of family expectations) than do non-Jews with learning disabilities, who choose rather to avoid the difficulties that a college education would pose for them.

Marital Status (Table 17)

As Table 17 indicates, the vast majority of 1978 freshmen--regardless of disability status and gender--were not married. Only 1 percent of the nondisabled group and 4 percent of the disabled group were married at the time of college entry. The slightly higher figure among the disabled is probably attributable to the greater proportion who were age 21 or older at college entry. That higher proportions of married students are found among the orthopedically disabled (7 percent), those with "other" disabilities (7 percent), and those with multiple disabilities (5 percent)--the categories with the highest proportions of older students as well--supports this interpretation.

Of those disabled freshmen who were married, about one-fifth were not living with their spouses. The proportions were highest among the multiply disabled (60 percent), the learning-disabled (33 percent), the hearing-impaired (33 percent), and those with "other" disabilities (29 percent). On the other hand, only 14 percent of the married freshmen with orthopedic disabilities indicated that they were not living with their spouses. Perhaps marriage to an orthopedically impaired person involves a deeper--and a more direct and explicit--commitment than does marriage to a person with less visible disabilities (e.g., hearing impairment). Conversely, marriage to a person with more than one impaired function (e.g., hearing and speech disability)--especially when those disabilities affect communication--may involve strains and difficulties that were not anticipated prior to the marriage. This explanation would account for why such a high proportion of the married students with multiple disabilities were not living with their spouses. (It should be remembered that two in five of the multiply disabled indicated a speech impairment, and one in five indicated a hearing impairment.)

Table 17

Marital Status of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Marital Status	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Not presently married	99	98	99	97	96	97	97	98	93	99	97	93	94	98
Married, living with spouse	1	2	1	3	3	3	2	2	6	1	2	5	2	1
Married, not living with spouse	0	0	0	0	1	1	1	0	1	0	1	2	3	0
N	780,636	819,172	1,599,806	25,327	24,164	49,491	3,686	966	7,236	14,467	1,445	6,242	2,010	13,442

Veteran Status (Tables 18, 19)

Very few of the 1978 freshmen had served in the military before entering college: 2 percent of the nondisabled men, 4 percent of the disabled men, 1 percent of the women in both groups. (Table 18). Table 19 compares the proportions of disabled nonveterans and disabled veterans with respect to disability area. While veterans were no more likely than nonveterans to have learning, "other," multiple, and unknown disabilities, and were less likely to have speech and visual disabilities, they were slightly more likely to have hearing disabilities (12 percent of the veterans, 7 percent of the nonveterans) and over twice as likely to be orthopedically impaired (31 percent of the veterans, 14 percent of the nonveterans). It seems safe to conclude that the orthopedically disabled veterans were wounded while serving in the armed forces, probably in the Vietnam war. Indeed, those veterans with severe visual, "other," multiple and "unknown" disabilities probably received their impairments while in military service, since any prior severe impairment would have made them ineligible.

Summary

The majority of 1978 freshmen, regardless of disability status or gender, were 17-18 years old, white, unmarried, and had not served in the military. About half were Protestant, and slightly more than one-third were Roman Catholic. However, the disabled group as a whole included larger proportions of students who were older (age 21 or over at college entry), nonwhite, married, and veterans of military service than did the nondisabled group. In addition, the disabled were slightly more likely to come from "other" or Jewish religious backgrounds and to express "other" religious preferences or say they had no religious preference.

Table 18

Veteran Status of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Veteran Status	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Yes, Veteran	2	1	1	4	1	3	4	0	6	1	2	3	3	3
No	782,956	814,533	1,597,489	25,611	23,952	49,563	3,703	1,000	7,233	14,367	1,537	6,228	2,013	13,484

Table 19  
Disability Area of Disabled Freshmen, by Veteran Status, 1978  
(percentages)

Disability Area	Nonveteran	Veteran
Hearing	7	12
Speech	2	0
Orthopedic	14	31
Visual	30	12
Learning	3	3
Other	13	13
Multiple	4	4
Unknown	27	26
N	48,225	1,341

The outstanding demographic characteristics of each disability category, may be summarized as follows:

Hearing Disability. An unexpectedly large number of Hispanic men and Asian women were hearing-impaired. The current religious preference of over two-fifths of this category (as compared with about one-third of all disabled freshmen) was Roman Catholic. A relatively large proportion were veterans.

Speech Disability. This group included fewer Whites than any other and relatively large proportions of Asians, Hispanics, and those from "other" racial/ethnic backgrounds. The proportion of Protestants was lower, and the proportion of those with "other" religious preferences was higher, than for any other disability area. Only 2 percent (compared with 4 percent of the total disabled group) were married, and virtually none had served in the military.

Orthopedic Disability. This category had higher proportions of Whites, of students having no religious preference, of married people living with their spouses, and of veterans than any other disability area. In addition, 14 percent of the orthopedically disabled were age 21 or older at college entry.

Visual Disability. Only 2 percent of the visually impaired freshmen were age 21 or older, only 2 percent were married, and only 1 percent were veterans. To some extent, then, this disability group resembles the nondisabled group. Hispanic women and both men and women from "other" racial/ethnic categories had a somewhat greater tendency than others to indicate a visual disability.

Learning Disability. Like the speech disability category, this category included a large proportion of honwhites (27 percent), especially black and Asian men and Hispanic women. In addition, 12 percent of the learning-disabled were Jewish (compared with 4 percent of all disabled freshmen). This category also had a higher proportion of Protestants and a lower proportion of Catholics, in terms of religious preference, than any other disability group. But relatively few were "older" freshmen, married, or veterans.

"Other" Disability. Like the orthopedic disability group, this category included a fairly high proportion of older freshmen (14 percent) and married students (7 percent). Men from the "other" racial/ethnic group were particularly likely to indicate "other" disabilities. Students in the category were more likely than average to come from "other" religious backgrounds, to say they were reborn Christians, or to say they had no religious preference.

Multiple Disabilities. Freshmen with multiple disabilities were more likely than average to be age 21 or over at college entry, to be Protestant, and to be married but not living with their spouses. This category included relatively large proportions of women from "other" racial/ethnic backgrounds and Asian men.

Unknown Disability. Black and Hispanic men were especially likely to say that they considered themselves physically handicapped but not to specify a handicap. Only 3 percent of this group were age 21 or over, and only 1 percent were married. Two-fifths (compared with about one-third of the total disabled group) were Roman Catholic.

As the data reported in this chapter make clear, freshman self-reports of specific disabilities are not always accurate or consistent with legal and clinical definitions of the term "handicapped." Thus, Hispanics, Asians, and those from "other" racial/ethnic groups--many of whom come from families in which English is not the dominant language--seem prone to regard themselves as speech-impaired; this self-assessment probably reflects their perceived difficulties with the English language. Similarly, Blacks and Hispanics--who often come from socioeconomically and educationally disadvantaged backgrounds--tend to consider themselves learning-disabled, a self-definition attributable to lack of confidence in their own academic abilities and anxiety over their chances of success in college.

## Chapter 4

### Family Background

The relationship between family background (particularly socioeconomic status) and college attendance has received much attention in the literature on college access. This chapter presents information on three factors generally regarded as indicators of socioeconomic status: parents' educational attainment, occupations, and income level.

#### Parents' Education (Tables 20,21)

The fathers of 1978 freshmen tended to be better educated than the mothers: About half the fathers, but only 37-38 percent of the mothers, had at least some college education (Tables 20 and 21). Differences between the disabled and non-disabled, and between men and women, with respect to parental education were slight.

Comparing disability groups, we find that the learning-disabled were far more likely than were those with other types of handicaps to say that their parents were college-educated: 54 percent of the fathers (compared with 34 percent for the total disabled group) and 42 percent of the mothers (compared with 28 percent for the total disabled group) had attained a baccalaureate or higher. This finding is somewhat surprising in view of the relatively large proportions of Blacks (18 percent) and Hispanics (3 percent) in this disability area. On the other hand, 12 percent of the freshmen in this category were Jewish. The implication seems to be that, whatever their race/ethnicity, most of the learning-disabled came from high socioeconomic backgrounds, at least with respect to parental education.

Ranking at the bottom on this factor were the speech-impaired: Over half the respondents said their fathers had no more than a high school education. Their mothers were also unlikely to have gone to college. Indeed, over one-third

Table 20

Educational Level Attained by Fathers of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Educational Level	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknow n
	Men	Women	Total	Men	Women	Total								
Grammar school or less	5	6	5	7	9	8	8	15	7	7	9	11	15	6
Some high school	10	11	11	13	13	13	8	13	16	13	6	13	13	14
High school graduate	29	29	29	27	29	28	33	25	26	25	21	29	26	31
Postsecondary school other than college	4	4	4	4	4	4	2	3	3	5	0	5	4	3
Some college	13	12	13	14	12	13	10	10	15	14	9	14	16	12
College degree	21	20	20	18	17	17	23	23	19	17	22	14	7	18
Some graduate school	3	3	3	3	2	3	2	4	3	3	6	1	2	2
Graduate degree	15	14	14	14	14	14	13	6	11	15	26	14	17	14
N	769,078	798,769	1,567,844	24,627	23,572	48,199	3,655	942	6,919	14,287	1,402	6,038	1,926	13,030

Table 21

Educational Level Attained by Mothers of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Educational Level	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Grammar school or less	4	4	4	4	6	5	4	12	7	4	2	8	10	4
Some high school	8	10	9	11	12	12	11	24	13	11	11	9	14	12
High school graduate	44	42	43	41	36	39	40	36	40	39	20	41	38	39
Postsecondary school other than college	7	8	7	7	8	7	7	4	5	9	6	8	4	7
Some college	14	15	14	14	14	14	17	13	14	13	19	13	7	15
College degree	16	15	16	14	14	14	15	6	13	14	24	13	13	15
Some graduate school	2	2	2	2	2	2	1	3	2	2	5	1	0	2
Graduate degree	6	5	6	7	7	7	5	3	6	8	13	6	14	6
N	771,624	807,921	1,579,541	24,719	23,792	48,511	3,622	946	7,033	14,337	1,376	5,966	1,970	13,263

said their mothers had not even completed high school. It should be recalled that the speech disability group includes a relatively large proportion of Hispanics (5 percent), Asians (5 percent), and those from "other" racial/ethnic backgrounds; thus, the lack of formal education on the part of the mothers may reflect cultural traditions in which education for women is given low value. The proportion of the multiply disabled students reporting that their parents had no more than a high school education was similarly higher than average; however, the proportion reporting that their parents had attained a graduate degree was also unusually high.

### Parents' Occupations (Tables 22, 23)

Freshmen were asked to indicate their parents' occupations from a list of 48 specific jobs. Certain categories were then collapsed (see Appendix B for father's occupation and Appendix C for mother's occupation). The results are presented in Tables 22 and 23.

The most common occupation for fathers was businessman (reported by 30 percent of the nondisabled and 27 percent of the disabled), an occupational category that includes a wide range of jobs, from executive and manager to small-business proprietor and salesman. Discounting the "other" occupational category, the next most common occupation was skilled worker (11 percent of both the disabled and the nondisabled groups), followed by engineer (9 percent of the nondisabled, 8 percent of the disabled). Only 5 percent of both groups indicated that their fathers were in other high-level professions (college teaching, medicine, law, scientific research), and 4 percent had fathers who were elementary or secondary school teachers. One-tenth of the disabled students and 7 percent of the nondisabled students indicated that their fathers worked in low-status occupations (semiskilled worker, laborer), 3 percent of the disabled students and 2 percent of the nondisabled students said their fathers were unemployed, and 4 percent of both groups said their fathers were farmers or ranchers.

Table 22

Occupation of Fathers of 1978 Freshmen by Disability Status  
and Gender and by Disability Area  
(percentages)

Occupation <sup>a</sup>	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Artist	1	1	1	1	1	1	1	0	0	1	4	1	3	0
Businessman	31	28	30	30	24	27	30	24	26	25	44	32	21	26
Clergy	1	2	1	1	1	1	0	0	2	1	0	1	1	1
College Teacher	1	1	1	1	1	1	2	0	1	1	0	1	1	1
Doctor	2	2	2	2	2	2	2	0	2	3	2	2	2	2
Educator (secondary)	3	3	3	3	3	3	7	4	2	3	1	3	4	3
Elementary Teacher	1	1	1	1	1	1	1	0	1	1	0	1	1	1
Engineer	8	10	9	9	8	8	8	10	12	8	4	7	14	8
Farmer-Rancher	3	4	4	4	4	4	3	1	2	4	4	5	6	4
Health Professional	2	1	1	2	1	2	1	1	2	1	0	2	1	2
Lawyer	2	1	1	1	1	1	1	3	1	1	1	0	2	1
Military	2	2	2	2	2	2	1	7	2	2	2	2	1	2

Table 22 (Concluded)  
(percentages)

Occupation <sup>a</sup>	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Research Scientist	1	1	1	1	0	1	0	0	1	1	0	0	0	
Skilled Worker	12	9	11	11	12	11	10	7	11	13	10	10	12	11
Semiskilled Worker	4	5	4	7	6	6	5	6	6	6	0	7	5	6
Laborer	3	3	3	4	4	4	4	6	4	4	2	4	7	4
Unemployed	2	3	2	3	4	3	4	6	4	4	2	4	7	4
Other	20	24	22	19	25	22	20	28	22	22	23	18	17	24
N	738,450	776,240	1,514,680	23,128	22,321	45,449	3,399	949	6,656	13,614	1,092	5,741	1,653	12,347

<sup>a</sup> See Appendix B for derivation of these occupational categories

There were some variations by disability group with respect to father's occupation. The proportions with fathers in business were especially high among the learning-disabled (44 percent) and those with "other" disabilities (32 percent) but low among those with multiple disabilities (21 percent), who were much more likely than average to say their fathers were engineers (14 percent). Low-status jobs (semiskilled worker, laborer) were most common among the fathers of the speech-disabled (12 percent) and the multiply disabled (12 percent); unemployment was highest for these groups as well. An unusually large proportion of the speech-impaired (7 percent, compared with only 2 percent of all disabled freshmen) said their fathers were career military personnel.

Excluding the "other" category, those mothers who worked outside the home were most likely to be employed in clerical jobs (reported by 11 percent of the nondisabled and 9 percent of the disabled), in business (8 percent for the nondisabled, 7 percent for the disabled), in elementary or secondary school teaching (8 percent for both groups), and in nursing (7 percent of both groups) (Table 23). Virtually none of the mothers were high-level professionals (e.g., physicians, lawyers, engineers), although a few worked as health professionals or social welfare personnel. On the other hand, 5 percent of the nondisabled and 6 percent of the disabled said their mothers were semiskilled or unskilled workers. Most commonly, however, the mothers of freshmen were homemakers (reported by 32 percent of the nondisabled, 31 percent of the disabled). Unemployment rates were higher among mothers (8-11 percent) than among fathers (2-3 percent).

Most likely to say that their mothers were unemployed were the learning-disabled (22 percent) and the speech-impaired (15 percent). The proportions reporting that their mothers were full-time homemakers were highest among those in the orthopedic, visual, and unknown disability categories.

Table 23

Occupations of Mothers of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Occupation <sup>a</sup>	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Artist	1	1	1	1	1	1	1	1	1	3	1	3	1	
Business	8	7	8	7	7	7	5	10	9	6	6	8	3	8
Business (clerical)	10	12	11	8	10	9	14	6	12	8	2	10	8	8
Clergy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
College Teacher	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Doctor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education (Secondary)	3	2	3	2	3	2	2	1	2	3	5	2	4	3
Elementary Teacher	5	6	5	6	5	6	4	2	4	6	8	6	9	6
Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Farmer/Forester	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Health Professional	1	1	1	2	1	2	2	1	2	1	8	1	0	2
Homemaker (Full-time)	31	32	32	31	30	31	27	25	33	32	20	28	26	32

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Table 23 (Concluded)

(percentages)

Occupation <sup>a</sup>	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Lawyer	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Social, Welfare or Recreation worker	1	1	1	1	1	1	3	0	1	0	0	1	0	2
Nurse	7	6	7	7	7	7	9	7	6	8	5	6	6	7
Research Scientist	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Skilled Worker	2	2	2	2	2	2	3	1	2	3	2	2	4	3
Semiskilled worker	3	2	3	3	4	4	3	6	3	4	2	2	8	4
Laborer	2	2	2	2	2	2	3	2	2	3	1	2	3	1
Unemployed	9	8	8	11	9	10	8	15	9	8	22	13	12	10
Other	14	17	15	15	15	15	16	21	14	16	13	18	13	13
N	745390	787450	1532830	23397	22808	46205	3411	903	6774	13805	1099	5871	1773	12569

a. See Appendix C for derivation of these occupational categories

Elementary and secondary school teachers were most frequently found among the mothers of the learning-disabled and those with multiple disabilities. The latter group was also most likely to say that their mothers were skilled, semiskilled or unskilled workers.

Estimated Parental Income (Table 24)

The 1978 Student Information Form asked respondents to estimate their parents' total 1977 income (before taxes). As Table 24 indicates, nondisabled freshmen tended to report slightly higher parental incomes than did disabled freshmen. Thus, 31 percent of the disabled, but only 25 percent of the nondisabled, estimated their parents' income to be under \$12,500; one quarter of both groups said it was \$12,500-\$19,999; and 51 percent of the nondisabled but only 44 percent of the disabled, said it was \$20,000 or higher. The parental incomes reported by women in both groups tended to be lower than the parental incomes reported by men.

Table 24 also shows considerable variation among disability groups with respect to parental income. Consistent with the findings for parental education and occupations, parental incomes were highest for the learning disability category: Close to one in five (compared with only 11 percent of all disabled freshmen) came from families with incomes of \$40,000 or more in 1977. Those with hearing disabilities reported slightly higher-than-average parental incomes. The distribution for the orthopedic, visual, and unknown disability categories were highly similar to the distribution for all disabled freshmen, indicating that these groups may be regarded as typical on this variable. Ranking at the bottom were those with "other" and multiple disabilities: Over one-fourth of the latter group, and 19 percent of the former, said their parents' income was less than \$8,000. Similarly, 24 percent of the speech-disabled freshmen estimated their parents' income at this level. However, 14 percent of the speech-disabled, compared with 11 percent of the total disabled group, said that their parents' income was

Table 24

Estimated Annual Income of Parents of 1978 Freshmen, by  
Disability Status and Gender and by Disability Area  
(percentages)

Annual Parental Income	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Less than \$8,000	10	14	12	14	17	15	16	24	14	13	15	19	26	15
\$8,000 - \$12,499	12	14	13	14	17	16	11	15	16	17	10	21	11	13
\$12,500 - \$19,999	25	24	25	26	24	25	27	25	26	26	18	22	22	26
\$20,000 - \$29,999	28	25	27	23	21	22	25	17	23	22	30	14	22	23
\$30,000 - \$39,999	12	12	12	11	11	11	10	4	10	10	8	12	12	13
\$40,000 - more	12	12	12	12	10	11	11	14	10	11	19	12	7	11
N	719,820	702,100	1,421,920	23,383	20,463	43,846	3,417	916	6,321	13,139	1,144	5,324	1,789	11,796

\$40,000 or more in 1977. Thus, this disability area represents something of an anomaly.

### Summary

This chapter has presented data on family background factors commonly used to measure socioeconomic status: namely, parental education, occupation, and income. In general, the socioeconomic status of disabled freshmen tended to be slightly lower than that of nondisabled freshmen. For instance, their fathers were somewhat more likely to be semiskilled workers and laborers and less likely to be businessmen, and the median estimated income of their parents was somewhat lower.

The following is a summary of the family background characteristics that typify each disability group:

Hearing Disability. With respect to parents' educational attainment, this group closely resembled the total disabled group; with respect to parents' income, they came out slightly higher than average. The proportion reporting that their fathers were elementary or secondary school teachers was twice as high as average (8 percent, compared with 4 percent of the total disabled group). Their mothers were especially likely to be clerical workers, nurses, and social welfare workers.

Speech Disability. The parents of freshmen in this group were relatively uneducated, especially the mothers: For instance, only 12 percent (compared with 23 percent of all disabled freshmen) said their mothers had attained a baccalaureate degree or higher. The pattern with respect to parental occupation and income was somewhat mixed. Relatively large proportions of the fathers were in the military, in low-status occupations (semiskilled worker, laborer), or unemployed; similarly, relatively large proportions of the mothers were unemployed. On the other hand, 10 percent of the speech-disabled students said their mothers were in business (compared with 7 percent of all disabled freshmen). They were also more likely than any other group to say that their parents were lawyers. Although parental

incomes tended to be low (with 64 percent estimating it to be under \$20,000), a fairly large proportion (14 percent) came from families with incomes of \$40,000 or more.

Orthopedic Disability. The distribution of the orthopedically disabled with respect to parental education and income was very similar to that of the total disabled group. Their fathers were especially likely to be engineers (12 percent, compared with 8 percent for the total disabled group) and their mothers to be businesswomen or clerical workers.

Visual Disability. Like the orthopedically disabled, the visually disabled resembled the mode for all disabled freshmen with respect to parental education and income. Their fathers were especially likely to be skilled workers. In addition 3 percent indicated that their fathers were physicians. One-third of the mothers were homemakers.

Learning Disability. This group ranked highest of all disability groups on parental education and income. For instance, 26 percent (compared with 14 percent of the total disabled group) said their fathers had graduate degrees; and 13 percent (compared with 7 percent of all disabled freshmen) said their mothers had graduate degrees. Their fathers were particularly likely to be businessmen but unlikely to be engineers, semiskilled workers and laborers, or unemployed. Consistent with their high educational attainment, only 20 percent of the mothers (compared with 31 percent for the total disabled group) were full-time homemakers. A relatively large proportion worked as school teachers and health professionals. In addition, however, 22 percent of the mothers (compared with 10 percent for the total disabled group) were unemployed. In view of the high proportion of nonwhites in this disability category, one may speculate that many of these unemployed mothers were the heads of single-parent households, whereas the homemaker mothers were married to prosperous businessmen. Finally, a relatively large proportion of the learning-disabled said their mothers and fathers were artists by profession.

"Other" Disability. The educational attainment of the parents of freshmen with "other" disabilities was rather low: Only 29 percent of the fathers and 20 percent of the mothers had a baccalaureate or better. Similarly, two in five (compared with 31 percent of all disabled freshmen) estimated their parents' income to be under \$12,500. Their fathers were somewhat more likely than average to be businessmen.

Multiple Disabilities. Like the speech-disabled, about one-quarter of the freshmen with multiple disabilities said their parents' income was under \$8,000 in 1977. The picture with respect to parents' educational attainment was mixed: Freshmen in this category were twice as likely as average to say that their fathers and mothers had no more than a grammar school education; on the other hand, 17 percent of the fathers (compared with 14 percent for all disabled freshmen) and 14 percent of the mothers (compared with 7 percent for all disabled freshmen) had a graduate degree. Parental occupations reflect this split. Their fathers were more likely than average to be engineers, lawyers, or artists; they were also more likely, however, to be farmers, semiskilled workers and laborers, and unemployed. Only one-fifth were businessmen. Mothers were more likely than average to be artists, school teachers, and skilled, semiskilled, or unskilled workers.

Unknown Disability. The distribution of freshmen with unknown disabilities on all three measures of socioeconomic status--parents' education, occupations, and income--was almost identical with the distribution of all disabled freshmen.

### A Final Word

One point that emerges from this analysis is that about half of the 1978 freshmen--both disabled and nondisabled--were first-generation college students (i.e., their parents had not gone beyond high school), whose entry into the higher education system speaks well for recent efforts to extend access and opportunity to a greater number and a more diverse range of the college-age population. At the same time, in view of the socioeconomic profiles of those disability groups that include relatively large numbers of nonwhite students

(especially Blacks, Hispanics, and "others"), it is clear that socioeconomic status remains closely tied to race/ethnicity and that most racial/ethnic minority groups are still disadvantaged with respect to educational attainment, occupational level, and income.

## Chapter 5.

### High School Background

An individual's experiences and performance in high school usually have profound effects on his/her subsequent life. Research has consistently shown that one of the best predictors of educational and occupational achievement during and beyond the undergraduate years is achievement in high school as measured, for instance, by grades and rank in graduating class. The adequacy of preparation a student receives in various subjects during the high school years often determines not only the quality of the student's college work but also the length of time the student takes to complete a baccalaureate program.

In this chapter, then, we look at a number of factors connected with high school background: year of graduation, high school program, grade average and class rank, remedial work taken in various subjects, perceived adequacy of the preparation received in various subjects and skills and frequency of various behaviors and activities.

#### High School Graduation (Table 25)

As Table 25 shows, 94 percent of the nondisabled freshmen, and 90 percent of the disabled freshmen, had graduated from high school in 1978, in the spring directly preceding their fall enrollment in college. Thus, a larger proportion of the disabled (8 percent) than of the nondisabled (6 percent) had delayed entry to college by a year or more following their high school graduation. The disabled were also more likely to say that they had not graduated from high school but rather had passed the G.E.D. test. Finally, one percent of the disabled men indicated that they had never completed high school.

Over 90 percent of those with learning, visual, hearing, unknown, and multiple disabilities had graduated from high school in 1978. By way of contrast, only about

Table 25

High School Graduation of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

High School Graduation	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unkno wn
	Men	Women	Total	Men	Women	Total								
1978	94	94	94	89	90	90	93	83	80	94	96	81	92	93
1977	3	2	3	4	4	4	1	6	8	3	3	5	2	4
1976	1	1	1	1	2	1	3	0	0	1	0	3	0	1
1975 or earlier	1	2	2	3	3	3	3	6	7	1	0	7	4	2
Passed GED test	1	1	1	2	1	2	0	2	4	1	0	4	2	0
Never completed high school	0	0	0	1	0	0	1	2	1	0	0	1	0	0
N	783,015	820,062	1,603,075	25,518	24,101	49,619	3,681	1,032	7,077	14,493	1,561	6,224	2,062	13,492

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four in five of those with orthopedic and "other" disabilities--the categories with the largest proportions of older (age 21 and over) freshmen--had graduated from high school the previous spring; 15 percent in each of these two groups had delayed entry to college by a year or more, and 4 percent had passed the G.E.D. test. The speech-impaired were also more likely than average to have graduated from high school earlier than 1978; in addition, 2 percent said they had never completed high school.

High School Program (Table 26)

As Table 26 shows, 88 percent of the nondisabled, but only 81 percent of the disabled, took college preparatory programs in high school. Those with visual and unknown disabilities were more likely to have been enrolled in such programs; their resemblance to the nondisabled in this respect suggests that many of the respondents included in these groups were not in fact handicapped.

Most likely to have taken other types of programs in high school (e.g., vocational, secretarial) were those with multiple disabilities (32 percent), speech disabilities (30 percent), "other" disabilities (29 percent), and learning disabilities (26 percent). These disability groups also included fairly large proportions of minority students, who--according to the literature--are often discouraged from taking college preparatory programs by high school counselors. Another possibility is that some disabled students were enrolled in special programs related to or because of their disability that did not fall under the rubric of "college preparatory." The follow-up survey should yield further information on this point.

High School Grades and Rank (Tables 27, 28)

The nondisabled tended to make slightly better grades in high school than did the disabled: 23 percent of the former, but only 17 percent of the latter



Table 26.

High School Program of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

High School Program	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
College preparatory	89	87	88	82	81	81	81	70	77	86	74	71	68	87
Other (e.g., vocational)	11	13	12	18	19	19	19	30	23	14	26	29	32	13
N	783,765	816,049	1,599,812	25,603	24,039	49,642	3,645	1,024	7,164	14,517	1,485	6,245	2,118	13,446

reported A averages; about three in five students in both groups reported B averages; and 23 percent of the disabled, but only 16 percent of the nondisabled, reported high school grade averages of C or D (Table 27). Women in both groups made better grades in high school than did their male counterparts--as is consistently reported in the higher education literature.

By disability area, those with visual and hearing impairments tended to make the best grades. Ranking at the bottom with respect to high school grades were the learning-disabled: Only 44 percent, compared with 77 percent of the total disabled group, earned grade averages of A or B in high school. Those with speech, "other," and multiple disabilities also tended to make rather low grades in high school.

The findings with respect to academic rank in high school graduating class were virtually identical (Table 28). Thus, 46 percent of the nondisabled, compared with 37 percent of the disabled, were in the top quarter of their class academically. Again, women in both groups tended to rank higher than men. Four in five of the visually disabled were in the top half of the class; the comparable figure for the total group of disabled freshmen was 73 percent. But close to two-thirds of those with "other" disabilities, 63 percent of the learning-disabled, 47 percent of the speech-impaired, and 44 percent of those with multiple disabilities (compared with 27 percent of all disabled freshmen) were in the bottom half of their graduating class. In both grades and rank, the distribution of those with orthopedic and unknown disabilities closely resembled the overall distribution of disabled students.

#### Remedial Work (Table 29)

The 1978 SIF asked respondents to indicate whether they had had special tutoring or remedial work in six subjects: English, reading, mathematics,

Table 27

High School Grade Average of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Grade Average	Nondisabled			Disabled			Disability Area							
	Men	Women	Total	Men	Women	Total	Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	A- to A+	18	27	23	15	19	17	14	8	16	21	4	16	12
B- to B+	59	62	61	56	64	60	70	60	61	60	40	53	55	62
C- to C+	22	11	16	27	17	22	15	32	22	18	55	29	30	20
D	1	0	0	2	0	1	1	0	1	0	1	2	2	1
N	786,236	822,028	1,608,262	25,621	24,329	49,949	3,738	1,072	7,052	14,628	1,592	6,242	2,055	13,572

Table 28

High School Class Rank of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Rank	Nondisabled			Disabled			Disability Area							
	Men	Women	Total	Men	Women	Total	Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Top Quarter	42	50	46	36	39	37	35	22	37	44	12	33	28
2nd Quarter	34	33	34	34	38	36	42	31	37	37	25	33	28	37
3rd Quarter	21	15	18	24	21	23	19	37	21	18	43	28	35	23
Lowest Quarter	3	2	2	6	3	4	5	10	5	2	20	6	9	3
N	770,779	803,318	1,574,096	25,150	23,924	49,073	3,676	1,050	6,900	14,423	1,362	6,144	2,091	13,431

social studies, science, and foreign languages. As Table 29 shows, 1978 freshmen were most likely to have taken remedial work in reading and least likely to have taken such work in foreign languages. This difference is probably attributable to the kinds of remedial programs offered by high schools, and the declining tendency of American students to study foreign languages. Larger proportions of the disabled than of the nondisabled reported having remediation in each of the subjects listed, but the differences between the two groups were slight.

Most likely to have taken remedial work in English were the learning-disabled (35 percent), the hearing-impaired (14 percent), and those with unknown disabilities (14 percent). It is noteworthy that only 9 percent of the speech-impaired reported having remediation in English. Earlier we conjectured that some students perceived themselves to be speech-impaired because they came from homes where English (or "standard" English) is not the dominant language. Thus it is likely that they did not qualify for special education services on the basis of being categorically "labeled" in high school. It is anticipated that our follow-up survey will reveal who, among 1978 disabled freshmen, were officially identified as handicapped, and when, in their earlier schooling.

The learning-impaired and the hearing-impaired were also more likely than other groups to have taken remedial work in reading. Remediation in mathematics was most common among the speech-impaired, the hearing-impaired, and the learning-impaired; remediation in social studies was most common among the hearing-impaired. Those with unknown disabilities were more likely than other groups to have had remedial work in science and in foreign language; a higher-than-average proportion of the hearing-impaired also reported remedial work in foreign languages. In summary, those with learning, hearing, and unknown disabilities were more likely than others to have had academic remediation, whereas the orthopedically and visually disabled rarely received such remediation.

Table 29

Remediation Taken in High School, by Disability Status  
and Gender and by Disability Area of 1978 Freshmen  
(percentages)

Subject Area	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
English	11	9	10	13	12	12	14	9	10	10	35	11	11	14
Reading	12	10	11	14	13	14	19	15	10	11	30	14	14	15
Mathematics	11	9	10	12	12	12	16	17	11	11	16	9	13	14
Social Studies	11	9	10	13	11	12	18	12	10	10	14	12	8	14
Science	10	8	9	11	10	10	11	11	10	9	7	11	7	13
Foreign Language	7	6	6	7	7	7	9	5	6	6	6	8	7	9
N	795,334	831,050	1,626,383	26,106	24,686	50,792	3,774	1,072	7,300	14,764	1,592	6,427	2,146	13,719

Adequacy of High School Preparation (Table 30)

Respondents to the 1978 SIF were asked to indicate the adequacy of their high school preparation in eight broad subject or skill areas. Table 30 shows the proportions indicating they were "very well prepared" and "poorly prepared" in each of these areas. (A middle response alternative, "fairly well" prepared, was omitted from the table.) About two in five 1978 freshmen indicated that they were very well prepared in history and the social sciences; about one-third felt very well prepared in reading and composition and in science. The areas in which they were most likely to feel poorly prepared were foreign languages, vocational skills, and musical and artistic skills.

The disabled and the nondisabled were similar in their perceptions of the adequacy of their high school training, although the nondisabled were somewhat more likely to feel very well prepared in mathematical skills and in science and less likely to feel poorly prepared in foreign languages than were the disabled. There were, however, some marked differences between the sexes: More men than women felt very well prepared in mathematical skills and in science, whereas more women than men felt very well prepared in reading and composition, in foreign languages, and in musical and artistic skills.

There were also differences in perceived preparation by disability area, with the range generally being greater among those saying they were poorly prepared than among those saying they were very well prepared. Thus, over three times as many of the learning-disabled (14 percent) and the multiply disabled (15 percent) as of those with unknown disabilities (4 percent) felt poorly prepared in history and social science. Of particular interest are those who regarded themselves as having inadequate preparation in certain basics: mathematical skills (which are probably essential to success in a scientific field), reading and composition,

Table 30

Adequacy of High School Preparation, by Disability Status and Gender and by Disability Area, 1978

(percentages)

Subject	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Mathematical skills														
Very well prepared	36	28	32	29	24	26	24	31	22	31	20	22	22	28
Poorly prepared	12	18	15	17	23	20	19	14	22	18	30	26	24	16
Reading and composition														
Very well prepared	30	40	35	27	39	33	27	31	33	34	30	29	26	35
Poorly prepared	12	9	10	15	12	13	16	25	12	11	23	20	27	9
Foreign languages														
Very well prepared	13	20	17	13	18	16	15	16	14	15	9	16	14	17
Poorly prepared	42	32	37	48	39	44	44	34	45	41	65	50	57	40
Science														
Very well prepared	38	32	35	43	29	31	30	33	32	31	26	26	32	34
Poorly prepared	8	13	10	11	16	14	17	11	15	13	24	14	15	11
History, social science														
Very well prepared	43	38	40	44	39	41	39	35	38	46	33	33	39	44
Poorly prepared	5	7	6	6	8	7	7	7	8	7	14	8	15	4
Vocational skills														
Very well prepared	18	19	19	22	22	22	24	29	26	18	28	26	22	20
Poorly prepared	34	35	34	33	34	34	35	29	34	38	31	34	32	29
Musical and artistic skills														
Very well prepared	20	28	24	22	30	26	20	28	26	29	26	25	38	23
Poorly prepared	40	29	34	39	29	34	32	22	38	34	52	34	29	32
Study habits														
Very well prepared	16	22	19	16	21	19	16	22	16	18	22	18	19	21
Poorly prepared	26	24	25	28	26	27	22	26	30	28	40	35	32	20

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and study habits. About one quarter or more of those with learning, "other," and multiple disabilities said their math preparation was poor; about one-fifth or more of those with speech, learning, "other," and multiple disabilities said they were poorly prepared in reading and composition; and at least three in ten of those with orthopedic, learning, "other," and multiple disabilities felt that their high school preparation had not enabled them to develop good study habits. Their weakness in these areas may well work against them in college.

On the other hand, 28 percent of the learning-disabled and 29 percent of the speech-impaired (compared with 22 percent of the total disabled group) said their high schools had prepared them well in vocational skills; many of these students may have been enrolled in vocational, rather than college preparatory programs in high school. Similarly, 38 percent of the multiply disabled (compared with 26 percent of all disabled freshmen) felt very well prepared in musical and artistic skills. Of course, neither vocational skills nor musical and artistic skills are associated with success in college.

Generally, then, those with unknown disabilities were more likely than others to feel well prepared, and those with learning, "other," and multiple disabilities were more likely to feel poorly prepared, in "academic" subjects.

#### Activities and Behaviors (Table 31)

Other aspects of high school background besides academic performance and preparation were also explored. When they entered college in 1978, freshmen were asked to indicate the frequency with which they engaged in each of thirteen activities or behaviors during the previous year (which, for most of the group, meant the last year of high school). Table 31 shows the proportions who reported engaging in a given activity "frequently," with four exceptions; Because taking tranquilizing pills and sleeping pills, participating in organized demonstrations,

and working in a political campaign are such relatively rare occurrences, the table shows the summed proportions who reported engaging in these activities "occasionally" or "frequently."

The most striking difference between the disabled and the nondisabled groups was found for the item "Wore glasses or contact lenses": About one-third of the nondisabled, but over half of the disabled (and 85 percent of those in the visual disability category) indicated that they usually wore glasses or contact lenses. As was pointed out in Chapter 2, this may mean that many of the freshmen in the visually-impaired group (which constitutes the largest of the disability categories) may not be handicapped in the sense intended by Section 504.

Otherwise, the disabled and the nondisabled differed very little with respect to their activities and behaviors. Somewhat larger proportions of the disabled said they smoked, took tranquilizers, and stayed up all night; somewhat larger proportions of the nondisabled attended religious services frequently. Men in both groups were more likely than were their female counterparts to jog and to drink beer frequently. Women were somewhat more likely to play a musical instrument, attend religious services, smoke, take vitamins, and wear glasses.

Many of the differences among disability groups are consistent with common sense: Thus, few of the hearing-impaired frequently attended recitals or concerts, and few of the orthopedically impaired jogged regularly. Other differences suggest distinctive personality patterns: For instance, those with orthopedic and learning disabilities were somewhat more likely than average to smoke and drink beer frequently; in addition, the orthopedically and the multiply disabled were more likely than other to say that they took tranquilizers or sleeping pills at least occasionally. A larger-than-average proportion of the multiply disabled also played a musical instrument; this propensity is consistent with their greater

Table 31

Activities and Behaviors of 1978 Freshmen, by Disability Status and Gender and by Disability Area (percentages)

Activities and Behaviors	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Played a musical instrument <sup>b</sup>	20	25	23	19	24	21	18	17	20	25	9	20	29	20
Attended a religious service <sup>b</sup>	43	57	48	38	49	44	46	38	41	46	32	41	55	43
Smoked cigarettes <sup>b</sup>	11	17	14	16	19	18	16	16	28	15	24	21	14	14
Took vitamins <sup>b</sup>	15	20	18	17	24	21	18	21	21	21	17	22	33	19
Participated in organized demonstrations <sup>a</sup>	16	18	17	19	19	19	20	30	15	16	25	20	32	19
Took a tranquilizing pill <sup>a</sup>	4	5	5	10	11	10	10	10	20	7	15	16	22	4
Wore glasses or contact lenses <sup>b</sup>	30	40	35	46	56	51	37	22	42	85	36	34	59	33
Attended a public recital or concert <sup>b</sup>	20	22	21	22	23	23	15	20	24	25	22	24	23	22
Took sleeping pills <sup>a</sup>	3	3	3	5	5	5	6	2	9	4	6	7	10	2
Jogged <sup>b</sup>	31	18	24	26	18	22	29	19	11	22	21	18	22	28
Stayed up all night <sup>b</sup>	7	7	7	11	11	11	14	9	15	9	19	13	19	9
Drank beer <sup>b</sup>	28	16	22	29	16	23	27	22	28	22	29	22	19	20
Worked in local, state, or national political campaign <sup>a</sup>	9	9	9	12	11	11	14	5	9	11	19	10	15	11

<sup>a</sup> frequently or occasionally

<sup>b</sup> frequently only

tendency to say that they were well prepared in musical and artistic skills. They were also more likely (along with the speech-impaired and the learning-disabled) to say they had participated in an organized demonstration during the previous year.

### Summary

The vast majority (90 percent or more) of the freshmen in our study graduated from high school in the spring and entered college in the fall of 1978, though disabled students were somewhat more likely than the nondisabled to have graduated from high school earlier and thus to have delayed entry to college or to have passed the G.E.D. test rather than getting a diploma. About one in five disabled freshmen, compared with one in eight of nondisabled freshmen, took other than a college preparatory program in high school.

Nondisabled freshmen had slightly better academic records than did disabled freshmen. Although the proportions making B averages in high school were about the same for both groups, nondisabled freshmen were more likely to make A averages, and disabled freshmen to make C averages. Similarly, 80 percent of the nondisabled, compared with 73 percent of the disabled, ranked in the top half of their graduating classes. Slightly larger proportions of disabled freshmen had taken remedial work in various subjects. Given these differences in high school performance, it is not surprising that the nondisabled were slightly more likely, on college entry, to feel they were very well prepared in "academic" subjects--especially mathematical skills and science--while the disabled tended to feel better prepared in vocational skills and in musical and artistic skills.

The only striking difference between the two groups with respect to high school activities and behaviors was that more disabled students (51 percent) than nondisabled students (35 percent) said they wore glasses or contact lenses frequently.

In short, most disabled students enter college with essentially the same achievements and experiences as their nondisabled counterparts. Nonetheless, the disabled group included more freshmen who were "non-traditional" (in the sense that they had delayed entry to college and thus were older than other freshmen), who had not taken college preparatory programs, who had made C grade averages and graduated in the lower half of their classes, who had taken remedial work or received tutoring, and who felt poorly prepared in basic subjects. Thus, some disabled students may require special services--such as tutoring, remediation, and academic counseling--that are not directly related to their disabilities, if they are to persist and achieve in college.

The following summarizes the outstanding features of each disability group with respect to high school background.

Hearing Disability. The hearing-impaired tended to make B averages in high school. Nearly one-fifth had taken remedial work in reading and social studies. They were somewhat more likely than were other disabled students to feel they were poorly prepared in science. About three in ten were joggers. Logically enough, relatively few said they attended public recitals and concerts frequently.

Speech Disability. Many speech-impaired students enter college at a disadvantage: 2 percent said they had never completed high school, 30 percent had not taken a college preparatory program, about one-third had made no higher than a C average, and only 53 percent (compared with 73 percent of all disabled freshmen) ranked in the top half of their graduating class. In addition, 17 percent (compared with 12 percent overall) had taken remedial work in mathematics. Nonetheless, they were more likely than average to feel well-prepared in mathematics, vocational skills, and study habits. They were also more likely to have participated in organized demonstrations, although relatively few had worked in political campaigns.

Orthopedic Disability. As one would expect, given the relatively large proportion of older students in this category, many of the orthopedically disabled (15 percent) had delayed entry to college. Moreover, 4 percent (as compared with 2 percent of all disabled freshmen) had entered college on the basis of passing the G.E.D. test; perhaps this characteristic is connected with the large proportion who had served in the military. With respect to grades and high school rank, they resembled the norm for all disabled students. Relatively few had taken remedial work in basic subjects. Nonetheless, they were likely to feel somewhat weak in mathematical skills and study habits. Relatively large proportions said they smoked, drank beer, and took tranquilizers and sleeping pills.

Visual Disability. The visually impaired resembled nondisabled freshmen in that 94 percent had graduated from high school in the spring of 1978 and 86 percent had taken college preparatory programs. Their academic records were outstanding: Over one-fifth had made A averages in high school, and 44 percent had graduated in the top quarter of their classes. They were less likely than average to have taken remediation and more likely to feel very well prepared in mathematical skills and in history and social studies but poorly prepared in vocational skills. Since 85 percent of this group wore glasses or contact lenses, it seems likely that many of these freshmen are not disabled in the legal sense.

Learning Disability. Virtually all the freshmen in this group had either entered college directly after high school graduation or delayed no more than a year. As one would expect, the learning-disabled had rather poor academic records; Over half had made no more than a C average in high school, and 63 percent had graduated in the bottom half of the class. They were very likely to have taken remedial work, especially in English and reading; relatively few, however, said they had taken remedial work in science. Many of the learning-disabled lacked confidence in the strength of their preparation in high school in virtually all areas except vocational skills. For instance, two-fifths (compared with 27 percent

of all disabled students) said they were poorly prepared in study habits. In their behaviors, the learning-disabled show some signs of rebelliousness and nonconformity. Relatively high proportions said they smoked, drank beer, frequently stayed up all night, participated in organized demonstrations, and worked in political campaigns. But they were less likely than average to play a musical instrument or to attend religious services frequently.

Other Disability. Like the orthopedically disabled, those with "other" disabilities were more likely than average to have delayed entry to college by a year or more or to have passed the G.E.D. test. Three in ten had not taken a college preparatory program in high school, and about the same proportion reported no better than a C average. Although they were no more likely than average to have done remedial work, relatively large proportions regarded themselves as poorly prepared in mathematics, reading and composition, foreign languages and study habits.

Multiple Disabilities. About one in three multiply disabled freshmen had taken an other-than-college-preparatory program in high school, and about one in three had made no better than a C average. Though no more likely than average to have taken remedial work, those with multiple disabilities were likely to say they were poorly prepared in reading, mathematical skills, foreign languages, and history and political science. However, 38 percent felt their high schools had given them good preparation in musical and artistic skills, and 29 percent played a musical instrument frequently. They were also more likely than average to attend religious services; take vitamins, tranquilizers, and sleeping pills; stay up all night; and participate in political demonstrations.

Unknown Disability. Eighty-three percent of those with unknown disabilities had graduated from high school in 1978; 87 percent had taken a college preparatory program. These figures are nearly identical with those for nondisabled freshmen. Their distribution with respect to grades and class rank resembles the distribution of the total

disabled freshman group. Though they were somewhat more likely than average to have taken remedial work, they were also somewhat more likely to feel well prepared in academic subjects. Relatively few smoked, took sleeping pills or tranquilizers, or drank beer.

## College Choice and Freshman Residence

This chapter examines factors related to the college choices of 1978 freshmen: college applications, acceptances, and preferences for the institution attended; reasons for going to college; reasons for selecting a specific institution; and distance between college and permanent home. Information on these factors can help answer such questions as: To what extent are the disabled constrained in their choice of a college by considerations that do not ordinarily trouble the nondisabled? Do students with particular handicaps actually have access to the full range of postsecondary options? Thus, policymakers and educators can get some sense of whether our society is making progress toward the goal of providing equal educational opportunity to all young people.

The chapter also looks in some detail at the planned and preferred freshmen residential arrangements of the sample. A body of research evidence (see, for example, Astin, 1977; Chickering, 1976) indicates that undergraduates who live on campus (for instance, in dormitories, in fraternities and sororities) stand a better chance of completing the baccalaureate and of achieving at a high level than do undergraduates who live off campus (for instance, with their parents, in private apartments). What makes this relationship of particular concern is that a relatively large proportion of disabled students (38 percent, as compared with 34 percent of the nondisabled) initially enrolled in public two-year colleges which are predominantly nonresidential. Moreover, the proportions are higher for some disability categories: 46 percent of the orthopedically disabled, 53 percent of the learning-disabled, and 47 percent of those with multiple disabilities entered community colleges in 1978. The 1978 National Center for Education Statistics (NCES) Facilities Inventory (Wulfsberg and Peterson, 1979) expressed specific concern that so many of the college students it classified as "mobility impaired" attended such institutions, and pointed out that only 8 percent of beds in college dormitories were accessible to the mobility-impaired (e.g., in physically accessible buildings, with accessible bath and toilet facilities).

Options (Tables 32, 33, 34)

The 1978 Student Information Form (SIF) asked respondents to indicate the number of institutions, other than the one they were currently attending, to which they had applied for admission. As Table 32 indicates, 37 percent of both the disabled and nondisabled freshmen said they had applied to no college other than the one they entered, another 18 percent had applied to one other college, 17-18 percent had applied to two other colleges, and the remainder had applied to three or more additional institutions. Men were more likely than women to fall into this last category. By disability area, the multiply handicapped were most likely, and the learning-disabled least likely, to say they had limited their application to the college they were attending. Conversely, the learning-disabled were more likely than any other group to make multiple applications.

Table 33 shows the number of acceptances (from institutions other than the one they were attending) received by 1978 freshmen. One-fifth of the nondisabled, and one-fourth of the disabled, said they had been accepted by no other college. Half of the disabled freshmen and 55 percent of the nondisabled had been accepted by one or two other colleges, and the remaining one-quarter of each group had been accepted by three or more colleges. The speech-impaired were more likely than were others to have received acceptances from no college other than the one they were attending (38 percent, as compared with 24 percent of all disabled freshmen). By way of contrast, over one-third of the learning-disabled (36 percent) had been accepted by three or more other colleges; this is consistent with their tendency to apply to more colleges.

Respondents to the 1978 SIF were asked to indicate whether the college they had entered was their first choice, second choice, third choice, or less than third choice. As Table 34 indicates, about three-fourths of both disabled and nondisabled freshmen were enrolled in their first choice. In short, the great

Table 32

College Applications of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Number of Other Colleges Applications	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
None	36	39	37	35	39	37	39	37	40	35	31	42	45	33
One	17	19	18	17	20	18	19	21	18	18	13	16	16	19
Two	17	18	18	16	18	17	14	19	17	17	13	16	19	17
Three	15	12	14	16	13	15	13	16	15	14	20	13	11	16
Four	7	6	6	8	6	7	9	3	5	8	17	6	5	6
Five	4	3	4	4	3	4	4	1	2	4	2	4	1	4
Six or more	4	3	3	4	2	3	2	4	2	3	4	3	2	4
N	762,732	799,779	1,562,507	25,191	23,677	48,868	3,670	1,042	6,994	14,163	1,498	6,224	2,049	13,229

Table 33

College Acceptances Received by 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Number of Other College Acceptances Received	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
None	22	9	20	27	22	24	22	38	26	22	28	32	30	21
One	29	34	31	27	30	28	29	29	29	30	23	24	33	28
Two	23	24	24	20	24	22	20	18	26	21	15	21	18	24
Three	15	14	15	17	14	16	19	11	14	16	23	15	10	16
Four	6	5	6	5	6	6	6	1	4	6	8	5	5	6
Five	2	2	2	2	2	2	2	1	2	2	1	1	2	3
Six or more	2	2	2	2	2	2	2	2	1	1	2	2	2	2
N	541,336	531,101	1,072,435	18,690	16,104	34,794	2,477	743	4,670	10,216	1,188	4,388	1,369	9,743

(Table 34)

Preference for 1978 Freshman Institution, by Disability Status  
and Gender and by Disability Area  
(percentages)

Preference	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
First choice	74	77	76	72	76	74	71	74	78	72	76	78	82	71
Second choice	19	18	18	19	18	19	25	17	18	20	16	14	10	20
Third choice	4	4	4	5	4	5	3	9	3	4	7	4	6	6
Less than third choice	2	1	2	3	2	2	1	1	1	3	2	4	3	2
N	791,892	827,424	1,619,316	26,035	24,591	50,626	3,770	1,072	7,274	14,739	1,592	6,339	2,134	13,648

majority of freshmen succeed in gaining admission to an institution that ranks high in their preferences. Most likely to be attending an institution that was less than their third choice were those with "other" disabilities (4 percent, as compared with 2 percent of all disabled freshmen). Most likely to be attending their first-choice institution were the multiply disabled (82 percent), who (as pointed out above) were also more likely than those in other disability categories to have applied to no other college. The implication is that many multiply disabled students have limited knowledge of the various collegiate options available to them. When one considers at the same time that about half of the multiply disabled (47 percent, compared with 38 percent of all disabled freshmen) entered public two-year colleges and that relatively high proportions did not take a college preparatory program in high school, came from low-income families, and had rather poor academic records, it seems clear that community colleges play a valuable role in providing access to many young people who might otherwise not have attended college at all.

#### Reasons for Attending College (Table 35)

Freshmen were asked to indicate the importance of each of twelve possible reasons in their decision to go to college. Table 35 shows the proportions citing a given reason as "very important." Ranking at the top was "to be able to get a better job" (cited by 75 percent of the nondisabled and 77 percent of the disabled), followed by "to learn more about things that interest me" (73 percent of the nondisabled, 75 percent of the disabled), "to gain a general education and appreciation of ideas" (68 percent of the nondisabled, 70 percent of the disabled), and "to be able to make more money" (61 percent of both groups). Thus, 1978 freshmen attended college both for practical reasons (viewing education as a means of getting a better job and making more money) and for more traditional "liberal arts" reasons (viewing education as an end in itself).

Table 35

Reasons for Going to College, by Disability Status  
and Gender and by Disability Area, 1978  
(percentage marking "very important")

Reason	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
My parents wanted me to go	28	30	29	28	30	29	25	26	24	29	32	30	24	33
I could not find a job	4	4	4	8	8	8	11	8	10	6	11	14	13	4
I wanted to get away from home	7	8	8	9	12	10	14	9	11	11	9	11	14	8
To be able to get a better job	74	76	75	77	77	77	76	74	77	76	68	80	78	77
To gain a general education and appreciation of ideas	62	74	68	65	76	70	75	68	67	70	75	67	68	72
To improve my reading and study skills	35	39	37	39	44	41	41	43	37	37	56	46	40	44
There was nothing better to do	2	2	2	4	3	4	4	1	3	3	9	6	7	3
To make me a more cultured person	30	38	34	34	42	38	38	36	36	36	44	40	49	38
To be able to make more money	66	56	61	66	56	61	60	55	59	61	61	62	60	63
To learn more about things that interest me	68	78	73	71	79	75	82	71	73	75	82	76	80	73
To meet new and interesting people	48	64	56	50	65	57	61	52	55	57	59	58	57	58
To prepare myself for graduate or professional school	45	44	44	48	48	48	50	53	48	48	53	44	46	49

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Both disabled and nondisabled women were considerably more likely than were their male counterparts to mention intrinsic/expressive reasons: gaining a general education, becoming a more cultured person, learning about interesting things, meeting new and interesting people. Men, on the other hand, were markedly more likely to mention the "instrumental" reason of wanting to make more money.

Although 29 percent of both groups said that a very important factor in their decision to attend college was the "My parents wanted me to go," the proportions citing other "negative" reasons--i.e., what may be regarded as "push" factors rather than "pull" factors--were small. However, the disabled were twice as likely as the nondisabled to say they were attending college because they could not find a job (8 percent versus 4 percent) or because "there was nothing better to do" (4 percent versus 2 percent). In addition, disabled women were much more likely than were disabled men or the nondisabled of both sexes to say that wanting to get away from home motivated them to go to college.

Slightly larger proportions of the disabled than of the nondisabled cited most of the reasons listed, though the differences between the two groups were generally small. Further, 48 percent of the disabled, compared with 44 percent of the nondisabled, said that a very important reason for attending college was to prepare themselves for graduate or professional school.

Differences among the eight disability groups with respect to motivation for attending college often made good sense in light of other findings. For instance, those with "other" and multiple disabilities were most likely to say that not being able to find a job was a very important reason for going to college; these groups also include relatively large numbers of older freshmen, who would be more concerned than would traditional-age freshmen about being unemployed. The proportions reporting that they were attending college to improve their reading and study skills ranged from only 37 percent of the orthopedically and the visually

disabled, (whose past academic performance tended to be relatively high) to 56 percent of the learning-disabled (who tended to regard themselves as poorly prepared in basic skills). Most likely to say they were attending college to become more cultured were the multiply disabled; this emphasis seems consistent with the higher-than-average proportions of this group who said they had good musical and artistic skills and who played a musical instrument.

#### Reasons for Choosing Particular College (Table 36)

Freshmen were also asked about the factors that influenced them in their selection of a particular college. Table 36 shows the proportions endorsing each of twelve reasons as "very important". As has been found in virtually every study of why people choose particular colleges, the top-ranked factor in college choice was the institution's academic reputation, mentioned by about half of all 1978 freshmen, both disabled and nondisabled. Women were more likely than men, and the orthopedically disabled and learning-disabled were more likely than those in other disability categories, to cite this reason.

The next most common factor in college choice was the college's offering special educational programs, mentioned more frequently by the disabled than by the nondisabled and by women than by men. Close to half of the learning disabled, compared with 31 percent of all disabled freshmen, said that special educational programs attracted them to their particular college.

Two closely related factors--low tuition and the offer of financial assistance--also ranked high, with the latter being mentioned more often by the disabled than by the nondisabled. The multiply disabled were more likely than those in other disability categories to mention the institution's low tuition; this is consistent with the relatively large proportion who enrolled in community colleges (47 percent, as compared with 38 percent of all disabled freshmen), which usually have low or

Table 36

Reasons for Attending 1978 Freshman Institution, by Disability Status  
and Gender and by Disability Area  
(percentage marking "very important")

Reason	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
My relatives wanted me to come here	5	7	6	6	7	7	7	7	6	6	6	12	9	6
My teacher advised me	4	4	4	6	6	6	4	6	6	4	14	6	5	6
This college has a very good academic reputation	46	54	50	47	54	51	47	48	54	52	54	51	50	49
I was offered financial assistance	14	15	14	18	18	18	16	10	21	18	9	25	18	16
I was not accepted anywhere else	3	2	3	4	4	4	4	3	4	6	10	3	5	2
Someone who had been here before advised me to go	12	15	14	16	17	16	14	32	17	15	22	18	16	16
This college offers special educational programs	22	30	26	25	38	31	33	32	31	29	48	33	38	30
This college has low tuition	16	18	17	17	18	18	16	17	17	19	16	15	26	17
My guidance counselor advised me	8	8	8	10	10	10	5	9	14	9	23	12	9	9
I wanted to live at home	8	11	10	11	13	12	10	18	14	11	14	13	11	10
A friend suggested attending	6	6	6	9	9	9	7	16	10	7	14	11	5	10
A college representative recruited me	5	4	4	6	5	6	9	4	3	5	9	10	5	4

no tuition. The offer of financial assistance was mentioned by one-fourth of those with "other" disabilities, by 21 percent of the orthopedically disabled, but by only 9 percent of the learning-disabled.

The proportions of 1978 freshmen saying that they relied on the advice or encouragement of others in their choice of a college were relatively low, though the disabled seemed slightly more susceptible to such influences than the nondisabled. The word of alumni was apparently regarded as most trustworthy, in that 14 percent of the nondisabled and 16 percent of the disabled checked "Someone who had been here before advised me to go" as a very important factor in their college choice. Guidance counselors were also mentioned fairly infrequently (by 8 percent of the nondisabled and 10 percent of the disabled), as were friends (by 6 percent of the nondisabled and 9 percent of the disabled). Those with "other" disabilities were more likely than average to say that their relatives wanted them to come to the college or that they had been recruited by a college representative; the learning-disabled were likely to say that guidance counselors, teachers, and alumni had influenced their decision; and the speech-impaired cited alumni and friends.

Very few 1978 freshmen said they had chosen their institution because they had not been accepted anywhere else. Finally, 10 percent of the nondisabled and 12 percent of the disabled said their college choice was influenced by the fact that they wanted to live at home.

#### Distance Between Home and College (Table 37)

The 1978 SIF included an item that read: "How many miles is this college from your permanent home?" For most freshmen, "permanent home" can probably be interpreted to mean their parents' home, although for older freshmen--especially those who are married and living with their spouses--"permanent home" could well mean their own residences.

Table 37

\* Distance of 1978 Freshman Institution from Permanent Home, by Disability Status and Gender and by Disability Area (percentages)

Distance	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
5 or less miles	10	10	10	9	11	10	8	7	11	11	13	14	6	9
6 - 10 miles	13	12	12	13	13	13	11	15	15	11	27	11	18	13
11 - 50 miles	26	28	27	25	26	26	25	37	28	27	13	25	28	24
51 - 100 miles	14	16	15	16	16	16	20	10	15	16	8	17	12	17
101 - 500 miles	28	28	28	27	25	26	27	18	25	27	23	25	26	26
More than 500 miles	9	8	8	9	8	9	9	12	6	8	16	7	9	10
N	789,467	819,604	1,609,069	25,894	24,332	50,226	3,668	1,022	7,243	14,548	1,565	6,425	2,143	13,614

As Table 37 shows, the sample was split about equally between those attending colleges that were 50 miles or less from their homes, and those attending colleges over 50 miles from home. Women were slightly more likely than men to say that home and college were within 50 miles of each other, but the differences were slight. What is more surprising, the distribution was about the same for disabled and for nondisabled freshmen; one would expect the disabled to be less mobile than the nondisabled and thus to attend institutions closer to their homes.

The heterogeneity of the learning-disabled category is once again evidenced by these data: This category includes the largest proportion of students attending colleges within ten miles of their homes (40 percent, as compared with 23 percent of all disabled freshmen) and, at the same time, the largest proportions attending colleges more than 500 miles from their homes (16 percent, compared to 9 percent of all disabled freshmen). Those with speech disabilities were also more likely to say that their colleges and their homes were more than 500 miles apart.

#### Freshman Residence (Tables 38, 39, 40)

Respondents to the 1978 SIF were asked where they planned to live during the fall term and where, given the choice, they would have preferred to live. Table 38 shows responses with respect to planned residence. Since the freshman survey is usually completed during orientation, registration, or the first few weeks of classes, it seems reasonable to assume that most of these plans represent actual residence, at least during the first term of the freshman year.

Over half of the 1978 freshmen (56 percent of the nondisabled, 53 percent of the disabled) lived in college dormitories, with women in both groups being more likely to do so than men. Larger-than-average proportions of the multiply disabled (58 percent) and the visually disabled (55 percent) lived on campus, in dormitories. About one in three freshmen (36 percent of the nondisabled, 34 percent of the disabled) lived at home with parents or relatives. The speech-

Table 38

Planned Residence of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Planned Residence	Disability Area													
	Nondisabled			Disabled										
	Men	Women	Total	Men	Women	Total	Hearing	Speech	Ortho- pedic.	Visual	Learn- ing	Other	Multi- ple	Unknown
With parents or relatives	36	35	36	36	33	34	31	47	32	34	47	33	30	36
Other private home, apartment or room	6	5	6	10	8	9	13	7	13	8	3	10	9	6
College dormitory	53	58	56	50	56	53	53	44	50	55	44	49	58	54
Fraternity or sorority house	1	0	1	1	0	1	1	3	1	0	2	1	0	1
Other campus student housing	2	1	2	2	1	1	0	0	1	1	3	2	1	2
Other	1	1	1	3	1	2	2	0	2	1	1	6	2	2
N	746,956	794,836	1,541,789	23,414	23,133	46,547	3,262	886	6,863	13,828	1,363	5,679	1,945	12,725

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impaired, and the learning-disabled were even more likely to live at home (47 percent) than in college dormitories (44 percent). Disabled freshmen were more likely than the nondisabled (9 percent versus 6 percent) to live in other private homes, apartments, or rooms; this difference is probably attributable to the larger proportions of older students, and of married students, among the disabled. The hearing-impaired and the orthopedically disabled were especially likely to have their own homes or apartments (13 percent), but only 3 percent of the learning-disabled mentioned such arrangements. Relatively few freshmen--disabled or nondisabled--lived in fraternities or sororities, other campus student housing, or "other" housing, although an unusually large proportion of those with "other" disabilities said they lived in "other" types of housing.

Table 39 shows the preferred residential arrangements of 1978 freshmen. A comparison of the Ns (numbers of respondents) in the last row of Tables 38 and 39 indicates that substantially fewer students responded to this question than responded to the question about planned residence. The most likely explanation is that many of the students whose actual residential arrangements were consistent with their preferences felt it unnecessary to answer this part of the item on residential arrangements; their failure to respond can be taken as an indication that they were content with their freshman housing.

As was the case with planned residence, college dormitories headed the list of preferred residential arrangements. Nonetheless, the proportions preferring dormitories were smaller than the proportions actually living in them. On the other hand, the proportions saying they would prefer to live in private housing were much larger than the proportions actually doing so. Indeed, those with orthopedic disabilities tended to prefer private housing (39 percent) over college dormitories (30 percent). Living at home with parents or relatives ranks as a poor third choice for virtually all groups (the speech-impaired are an exception). The

Table 39

Preferred Residence of 1978 Freshmen, by Disability Status  
and Gender and Disability Area  
(percentages)

Preferred Residence	Nondisabled			Disabled			Disability Area							
	Men	Women	Total	Men	Women	Total	Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	With parents or relatives	20	17	19	19	17	18	16	26	18	19	18	20	9
Other private home, apartment or room	24	23	24	29	27	28	29	27	39	25	42	30	28	24
College dormitory	44	50	47	37	45	41	46	28	30	44	36	34	42	46
Fraternity or sorority house	5	4	4	5	5	5	5	6	6	6	2	4	2	5
Other campus student housing	4	4	4	5	3	4	2	1	5	4	2	6	12	3
Other	2	2	2	5	2	3	3	10	2	2	1	7	6	2
N	503,672	521,205	1,024,877	15,923	14,604	30,527	2,488	676	4,293	9,919	736	3,614	1,352	7,449

greatest discrepancies between planned and preferred residential arrangements occur among the learning-disabled: Although 42 percent expressed a preference for private housing, only 3 percent actually lived in private housing; although 47 percent lived with parents or relatives, only 18 percent preferred that arrangement. Finally, the proportions of disabled and nondisabled students saying they would prefer to live in fraternity or sorority houses, other campus student housing, or "other" housing were small but nonetheless larger than the proportions living in these residences. One conclusion to be drawn from these data is that many freshmen are forced to live at home because their institutions do not provide housing (as is the case with public two-year colleges) and because they either cannot afford to take private apartments/rooms or are not allowed to do so by their parents.

Table 40 shows the preferred residential arrangements of disabled and nondisabled freshmen living in each of the six different types of housing. Of those in a given type of housing, the largest proportion also expressed a preference for that type of housing. Most likely to be living in the type of housing they preferred were men in fraternities (as Table 38 showed, virtually no women said they planned to live in sororities); this is not surprising, since membership in a fraternity is, obviously, a matter of personal choice. In addition, 60 percent of the disabled and 51 percent of the nondisabled in private housing were satisfied, as were 63 percent of the nondisabled and 55 percent of the disabled in college dormitories. In contrast, only 39 percent of the nondisabled and 35 percent of the disabled living with their parents or relatives really preferred to do so: 30 percent of both groups would rather live in private housing, and about one-fourth of each group would rather live in college dormitories.

Table 40

Preferred Residence of 1978 Freshmen, by Disability Status and Planned Residence  
(percentages).

Preferred Residence	Planned Residence											
	Nondisabled						Disabled					
	Parents	Private	Dorm	Frat/ Sor	Other Campus	Other	Parents	Private	Dorm	Frat/ Sor	Other Campus	Other
With parents or relatives	39	8	8	9	8	0	35	14	10	0	6	27
Other private house, apartment or room	30	51	19	5	8	21	30	60	23	8	14	16
College dormitory	24	37	63	13	40	33	25	16	55	24	25	6
Fraternity or sorority house	3	2	5	74	4	3	4	6	6	63	15	0
Other campus student housing	2	2	4	0	32	0	3	3	4	0	41	2
Other	1	1	2	0	8	43	4	1	2	5	0	49
N	328,730	41,000	572,360	4,550	16,520	3,590	8,705	2,524	15,626	132	386	347

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Overall, the planned and preferred residential arrangements were congruent for 54 percent of the nondisabled and 48 percent of the disabled. Thus, the disabled seem slightly more constrained with respect to living arrangements. Otherwise, the most notable finding to emerge from this analysis is that the disabled do not differ markedly from the nondisabled in either their housing plans or their housing preferences. One might suppose that those with orthopedic disabilities (15 percent of whom said they required architectural accommodations see Table 9) would be less likely to live, for instance, in college dormitories or in other campus student housing. In fact, however, 50 percent said they planned to live in college dormitories during the freshman year (compared with 53 percent of all disabled freshmen and 56 percent of nondisabled freshmen), and 1 percent planned to live in other campus housing (compared with 1 percent of all disabled freshmen and 2 percent of nondisabled freshmen).

### Summary

Disabled and nondisabled freshmen entering college in 1978 differed very little in their application and acceptance patterns. Slightly less than two in five applied to no college other than the one they were attending, 35-36 percent applied to one or two other colleges and the remaining 29 percent applied to three or more other colleges. The disabled were slightly more likely than the nondisabled to say they had received acceptances from no other college (24 percent versus 20 percent) and slightly less likely to have been accepted by one or two other colleges (50 percent versus 56 percent); about one in four of both groups had been accepted by three or more colleges in addition to the one they were actually attending. About three in four freshmen were enrolled in their first-choice institution, and most of the rest were enrolled in their second-choice institution. In short, the

disabled group, as a whole seemed to have the same options open to them with respect to college choice as the nondisabled. Of course, these data do not tell us the extent to which disabled freshmen were constrained in their choices, or the extent of their prior knowledge of the characteristics of particular institutions: e.g., the accessibility of facilities, special services and accommodations.

The two groups were motivated to attend college by essentially the same considerations: The instrumental reasons of being able to get a better job and to make more money and the intrinsic reasons of gaining a general education and learning about things that interest them were mentioned most frequently by both disabled and nondisabled freshmen. In addition, the disabled were somewhat more likely than the nondisabled to attend college because they wanted to improve their reading and study skills, to become more cultured, and to prepare themselves for graduate or professional schools; because they could not find jobs; and because they had nothing better to do.

In choosing a particular institution, the academic reputation of the college was a prime factor for both groups. Special educational programs offered by the institution attracted 31 percent of the disabled but only 26 percent of the nondisabled; similarly 18 percent of the disabled, but 14 percent of the nondisabled, mentioned the offer of financial assistance as a very important factor in their choice of a college. The disabled also seemed slightly more susceptible to the influence of others (teachers, counselors, friends, alumni of the institution, college representatives).

Slightly more than half of the 1978 freshmen, whether disabled or not, attended colleges located over 50 miles from their permanent homes. Slightly more than half lived in college dormitories in their freshman year, and about one-third lived with their parents or other relatives. Perhaps because there were more older

freshmen in the disabled group, a higher proportion lived in private housing (9 percent, compared with 6 percent of the nondisabled). With respect to residential preferences, more of the nondisabled (47 percent) than of the disabled (41 percent) named college dormitories, whereas more of the disabled (28 percent) than of the nondisabled (24 percent) named private housing. Approximately equal proportions of both groups (18-19 percent) said they preferred to live with parents or relatives. In short, many of the freshmen, both disabled and nondisabled, who lived at home or in college dormitories would prefer to be on their own.

The following summarizes the highlights for each disability area:

Hearing Disability. / The hearing-impaired were especially likely to attend college for intrinsic/expressive reasons (gaining a general education, learning more about things that interest them, meeting new and interesting people); in addition, 14 percent (compared with 10 percent of all disabled freshmen) said they were going to college to get away from home. Consistent with this motivation, a larger-than-average proportion attended colleges located 51-100 miles from their permanent homes and lived in private housing (though many would have preferred college dormitories), and a smaller-than-average proportion lived at home. Although more likely than average to have been recruited to their institution by a college representative, relatively few had been influenced in their choice by guidance counselors or alumni.

Speech Disability. Close to two-fifths of the speech-impaired had not been accepted by any other college than the one they were attending; for about one-tenth, this college represented their third choice. A higher-than-average proportion attended college to prepare themselves for graduate or professional school. Though few selected their particular college because they were offered financial assistance, one-third said they had been influenced by "someone who had been here before,"

16 percent said that a friend had suggested attending, and 18 percent said that wanting to live at home was a very important factor in their college choice. Thus, it is not surprising that a high proportion lived with parents and relatives (47 percent) and said they preferred that arrangement (26 percent), while relatively few (44 percent) lived in college dorms. In addition, 3 percent (compared with 1 percent of all disabled freshmen) lived in fraternities, and 10 percent (compared with 3 percent of all disabled freshmen) expressed a preference for living in "other" housing.

Orthopedic Disability. Although two-fifths of the orthopedically disabled had applied to no college other than the one they were attending, and though only one-fifth had received more than three acceptances, 78 percent were attending their first-choice institution. Those with orthopedic disabilities were less likely than average to indicate that any given reason was very important in their decision to attend college, except that 10 percent (compared with 8 percent of all disabled freshmen) mentioned being unable to find a job. In choosing a particular college, slightly higher proportions than average mentioned the college's academic reputation, the offer of financial assistance, and the advice of a guidance counselor as very important factors. About one-fourth said the college was within ten miles of their permanent home. Like the speech-impaired, the orthopedically disabled were more likely than average to live in private apartments/rooms (13 percent); moreover, 39 percent expressed a preference for this arrangement, and only 30 percent preferred living in college dormitories (though 50 percent did so).

Visual Disability. The visually impaired resembled the "typical" disabled freshmen on most points, as one would expect since they constitute the largest single disability category. They were slightly less likely than others to say they had chosen their particular college because of its special educational

programs. A relatively large proportion lived in college dormitories (55 percent) and expressed a preference for this residential arrangement (44 percent).

Learning Disability. The learning-disabled tended to make multiple applications and to be accepted by multiple colleges, although a relatively large proportion (28 percent) had not been accepted by any college other than the one they were attending. They were especially likely to say that they attended college to gain a general education, to improve reading and study skills, to learn more about things that interest them, and to prepare for graduate or professional school. In addition, 9 percent (compared with 4 percent of all disabled freshmen) went to college because they had nothing better to do. Only about two-thirds (compared with 75 percent of all disabled freshmen) cited being able to get a better job as a reason for college attendance. They were more likely than others to have been influenced by teachers or guidance counselors in their choice of a college; 10 percent chose the college because they had not been accepted elsewhere; and close to half (compared with 31 percent of all disabled freshmen) mentioned the college's low tuition. Although two-fifths of the learning disability group attended a college within ten miles of their permanent home, 16 percent attended colleges more than 500 miles distant. Like the speech-impaired, the learning-disabled were more likely than others to live with parents or relatives and less likely to live in college dormitories; relatively few lived in private housing, but a relatively high proportion lived in other campus student housing. Two in five expressed a preference for private housing, however.

Other Disability. Over two-fifths of those with "other" disabilities had applied to no other college than the one they were attending; about one-third had been accepted by no other college; 78 percent were in their first-choice institution; but 4 percent (compared with 2 percent of all disabled freshmen) were in

less than their third choice. Freshmen in this group were especially likely to say that they had attended college because they could not find a job and because they wanted to be able to get a better job. One-quarter (compared with 18 percent of all disabled freshmen) chose their college because it offered them financial assistance; relatively large proportions had been influenced by their relatives or recruited by a college representative. Those with "other" disabilities were especially likely to live in "other" housing (6 percent, as compared with 2 percent of all disabled freshmen) and to express a preference for "other" housing (7 percent compared with 3 percent of all disabled students) or for other campus student housing (6 percent, versus 4 percent), and relatively few wanted to live in college dormitories.

Multiple Disabilities. Those with multiple disabilities were less likely than others to make multiple applications; 82 percent were attending their first-choice institution. Almost half said they were attending college to become more cultured; relatively large proportions wanted to get away from home or said they could not find a job. In choosing their particular colleges, they were likely to be attracted by the institution's low tuition and special educational programs. (Almost half entered community colleges.) They were more likely than those in other disability areas to live in college dormitories and less likely to live with parents or relatives. Three times as many as average (12 percent, versus 4 percent of all disabled freshmen) wanted to live in other student housing, and only half as many (9 percent, compared with 18 percent of all disabled freshmen) expressed a preference for living at home.

Unknown Disability. Relatively few of those freshmen with unknown disabilities applied to, or were accepted by, any other college except the one they were attending. Though somewhat more likely than others to say that they were going

to college because their parents wanted them to go or because they wanted to be able to make more money, they were generally less likely than average to indicate specific reasons for their college choice as very important. Higher-than-average proportions said they would prefer to live in a college dormitory, and slightly lower-than-average proportions were living in, or would prefer to live in, private housing.

## Chapter 7

### College Finances

Chapter 4 reported that the disabled tended to come from slightly lower socioeconomic backgrounds--as measured by parents' educational attainment, occupations, and income level--than the nondisabled. This chapter examines the financial situation of 1978 freshmen: their dependence on their parents; their sources of financial support for college; and their degree of concern about their ability to pay for their college education.

#### Dependence on Parents (Tables 41, 42)

The 1978 Student Information Form asked respondents to indicate whether, in the year prior to college entry or in their freshman year, they had lived with their parents for more than two consecutive weeks; they had been listed as an exemption on their parents' Federal Income Tax Return; and they had received assistance worth \$600 or more from their parents. All three questions were aimed at assessing the extent of students' dependence on their parents and at identifying those students who might properly be regarded as legally independent of their parents. Of course, since most of the sample--both disabled and nondisabled--comprised 17-18-year-olds who entered college immediately after graduating from high school in 1978, and since the item covered the year prior to their college entry, one would expect to find relatively few students who did not fulfill at least the first two of these three conditions.

As Table 41 indicates, such is indeed the case. Approximately nine in ten of the 1978 freshmen had lived with their parents for more than two consecutive weeks, or expected to do so; and about eight in ten had been, or expected to be, listed as an exemption on their parents' Federal Income Tax Return.

Table 41

Dependence on Parents of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Type of Dependence	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Lived with parents (for more than two consecutive weeks)	92	92	92	88	88	88	85	82	85	93	79	82	82	89
Listed as an exemption on parents' Federal Income Tax Return	83	84	83	78	79	79	76	76	72	86	61	73	78	80
Received assistance worth \$600 or more from parents	65	67	66	59	60	59	55	57	54	67	60	53	50	60

The nondisabled were slightly more likely than the disabled to answer both these questions affirmatively, but the differences were slight (four percentage points). Moreover, men and women were about equally likely to indicate these forms of dependence. On the third question, 66 percent of the nondisabled and 59 percent of the disabled said they had received assistance worth \$600 or more from their parents during the previous year or expected to receive that amount during their freshman year. By this measure, then, the disabled were somewhat more likely to be independent of their parents, but the difference was still small.

Of more interest are differences among the eight disability categories. For example, only 79 percent of the learning-disabled (compared with 88 percent of all disabled freshmen) said they had lived with their parents during the previous year or expected to live with them in their freshman year. Yet 96 percent of the learning-disabled had graduated from high school in 1978. Similarly, only three-fifths (compared with four-fifths of all disabled freshmen) had been or expected to be claimed as a tax exemption by their parents. On the other hand, the proportion of learning-disabled freshmen receiving at least \$600 worth of support from their parents (60 percent) was almost identical with the figure for all disabled freshmen (59 percent). In view of the relatively high socioeconomic status of the learning-disabled (57 percent reported parental incomes of \$20,000 or more), it is somewhat surprising that more did not receive such support.

By way of contrast, 93 percent of the visually disabled lived with their parents, 86 percent were listed as tax exemptions, and 67 percent received at least \$600 worth of support from their parents. These proportions are closer to those for the nondisabled than for the disabled group and suggest once again that many of the students in the visual disability category were not, in fact, handicapped in the legal sense of the term.

Also relatively unlikely to say they had lived with their parents during the previous year, or expected to live with them during the freshman year, were those in the speech, "other," and multiple disability groups (82 percent of each). The first of these disability groups includes a higher proportion of men than any other disability category, while the latter two include relatively high proportions of older (age 21 or over) students.

The orthopedically disabled and those with other disabilities were less likely than other groups to say that their parents had claimed them as tax exemptions; again, this can probably be explained by the high proportion of older students: 14 percent of the freshmen in each of these disability areas were age 21 or over.

Only half of the multiply handicapped (compared with 59 percent of all disabled freshmen) received at least \$600 worth of assistance from their parents. This low proportion is consistent with findings reported earlier in Chapter 4: About one-fourth of the freshmen in this category said that their parents' income was under \$8,000.

Table 42 shows responses to a question about how many persons dependent on the students' parents (other than the student him/herself) were attending college in fall 1978. Although this question is not directly related to the respondent's being dependent on, or independent from parents, it does throw some light on the family's financial situation that may help to explain the freshman's status vis-a-vis his/her parents.

About two-thirds of the sample, both disabled and nondisabled, said that no dependents in their parental families other than themselves were currently enrolled in college; about one-fourth of both groups said that one other dependent was enrolled in college; and 9 percent of the nondisabled and 11 percent of the disabled said that two or more other dependents were attending college. The orthopedically

Table 42

Number of Other College-Going Dependents of Parents of 1978 Freshmen, by Disability Status and Gender and by Disability Area (percentages)

Number of Other College-Going Dependents	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
None	66	66	66	64	67	66	68	68	71	67	46	66	54	64
One	26	25	26	25	23	24	24	24	21	23	28	22	28	26
Two	6	6	6	8	7	8	5	5	6	7	20	8	13	7
Three or more	2	3	3	3	3	3	3	4	2	3	6	3	5	3
N	764,178	793,458	1,557,631	24,434	23,295	47,729	3,399	992	6,666	14,329	1,456	5,951	1,989	12,949

disabled were most likely, and the learning-disabled and multiply disabled least likely, to say that no other dependents were in college. Indeed, 18 percent of the multiply disabled and 26 percent of the learning-disabled reported that two or more dependents in their parental families, other than themselves, were currently attending college; these high figures may help to explain why only half of the former disability group and two-thirds of the latter reported receiving at least \$600 worth of assistance from their parents; even families in fairly high income brackets may find their financial resources stretched by having three or more dependent family members in college.

Sources of Finance (Table 43)

Longitudinal research (Astin, 1975; 1977) shows that the sources students use to finance a college education affect their persistence and performance. For instance, students who get major financial support from their parents are less likely to drop out, whereas those who rely on loans tend to get low grades.

Entering freshmen were asked to indicate their expected sources of finance during the first year of college. Since the SIF is administered during orientation, registration, or the first few weeks of classes, it seems reasonable to assume that these expectations are fairly realistic. That is, students generally know by that time whether, for example, they have received a grant or scholarship and whether their parents will contribute to their support.

Table 43 shows the results with respect to seven broad categories of support. The most common source--reported by 71 percent of the nondisabled and 66 percent of the disabled--was parental or family aid or gifts. Only half of the speech-impaired, but close to three-fourths of the visually impaired expected to receive some aid from their parents. That fewer of the disabled than the nondisabled get such support is consistent both with their somewhat

Table 43

Expected Sources of Financial Support of 1978 Freshmen, by  
Disability Status and Gender and by Disability Area  
(percentages)

Source	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Grants, Scholarship	39	40	40	45	45	45	48	53	47	46	25	50	53	41
Loans	21	22	22	24	26	25	31	26	26	26	9	25	23	24
Work/Savings	63	61	62	57	56	57	63	57		62	42	52	44	57
Spouse	1	1	1	1	2	2	2	1	3	1	2	3	2	2
GI Benefits	1	0	1	2	0	1	1	2	3	1	2	1	4	1
Other	10	10	10	12	13	12	13	13	13	13	8	14	18	10
Parental Aid	69	73	71	66	66	66	60	50	60	73	59	58	57	69

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lower parental incomes and with the large proportion of older students in the disabled group. Nonetheless, this difference may be cause for concern that attrition rates will be higher among the disabled.

The next most frequently mentioned source of finance--for 62 percent of the nondisabled and 57 percent of the disabled--was work and savings, a category that includes College Work-Study (CWS) program, earnings from full- or part-time employment while attending college, and savings from previous employment or from other sources. Least likely to report this self-support were those with Learning disabilities (42 percent) and with "other" disabilities (44 percent); most likely were the hearing-impaired (63 percent) and the visually disabled (62 percent). Since one would expect the handicapped to have difficulty finding jobs, these proportions are surprisingly high: for instance, 53 percent of the orthopedically disabled expected to pay for their first year of college in this way. The possible effects are difficult to predict, however. Research indicates that participating in CWS contributes to persistence, whereas working more than 20 hours a week while attending college contributes to attrition (Astin, 1975).

Although larger proportions of the nondisabled named parental aid and work/savings as financial sources, larger proportions of the disabled (45 percent, compared with 40 percent of the nondisabled) received scholarships or grants. The range was from 25 percent of the learning-disabled to 59 percent of those with unknown disabilities. For women and for students of average ability, receiving a grant or scholarship is associated with making higher grades in college (Astin, 1975; 1977).

One-quarter of the disabled and 22 percent of the nondisabled said they expect to take some kind of loan to pay for their freshman year. Only

4 percent of the learning-disabled, but 31 percent of the hearing-impaired, named this source. Loans have generally been found to have negative effects on student performance in college.

The other listed sources of finance were less important. Thus, only 1 percent of the nondisabled and 2 percent of the disabled expected to get support from their spouses. Those with orthopedic and with "other" disabilities--who were most likely to be married and living with their spouses--were also most likely to name this source. One percent of both the disabled and nondisabled groups expected GI benefits (either their own or their parents'), with the proportions highest among the multiply disabled or the orthopedically disabled. Finally, 10 percent of the nondisabled and 12 percent of the orthopedically disabled said they would draw on "other" sources of support for college; 18 percent of those with multiple disabilities mentioned such sources.

Once again, the learning-disabled emerge as a distinctive group: They were less likely than were students in any other disability category to name grants/scholarships, loans, work/savings, or "other" sources of support; in addition, only 59 percent (compared with 66 percent of all disabled freshmen) said they would receive parental aid. Nonetheless, they were more likely than any other group to say that they had no concern about their ability to pay for college. The probable explanation for this apparent contradiction is that 53 percent of the learning-disabled (the highest proportion of any disability category) entered public two-year colleges (where costs are negligible) and about half planned to live with their parents. Thus, a substantial proportion of the learning disability group did not have to worry about either tuition or living costs.

Degree of Financial Concern (Table 44)

One item on the 1978 SIF read: "Do you have any concern about your ability to finance your college education?" The response alternatives were: "None (I am confident that I will have sufficient funds)"; "Some concern (but I will probably have enough funds)"; and "Major concern (not sure I will have enough funds to complete college)." Table 44 shows the proportions indicating each of these alternatives.

Half the freshmen--both disabled and nondisabled--said they had some concern; about one-third said they had no concern; and the remainder (14 percent of the nondisabled, 18 percent of the disabled) said they felt major concern over their ability to finance their college education.

More men than women expressed complete confidence in their ability to pay for college; conversely, more women (especially disabled women) than men expressed major concern.

By disability area, one-third of the speech-impaired (compared with 18 percent of all disabled students) expressed major concern, and only one-fourth (compared with 32 percent of all disabled students) said they had no concern. At the other end of the continuum, 43 percent of the learning-disabled said they felt no concern about their ability to pay for college.

Summary

This chapter has discussed various aspects of the financial situation of 1978 freshmen as it relates to their college attendance. The nondisabled were slightly more likely than the disabled to indicate that they were still financially dependent on their parents. Thus, 92 percent (compared with 88 percent of the disabled) said they had lived with their parents for more than two consecutive weeks during the previous year, or expected to live with them during the freshman

Table 44

Degree of Concern about Financing College of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Degree of Concern	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
None (I am confident that I will have sufficient funds)	39	31	35	35	30	32	29	25	32	32	43	34	29	33
Some concern (but I will probably have enough funds)	48	52	50	49	49	49	54	41	50	48	38	45	52	50
Major concern (not sure I will have enough funds to complete college)	12	16	14	16	21	18	17	34	18	20	18	21	18	16
	781,909	818,464	1,600,372	4,259	4,419	8,678	3,652	1,041	7,199	14,600	1,460	6,372	1,983	13,519

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year; 83 percent (compared with 79 percent of the disabled) said that their parents had claimed them as exemptions on Federal Income Tax Returns; and 66 percent (compared with 59 percent of the disabled) had received, or expected to receive, assistance worth \$600 or more from their parents. These differences are consistent with the higher proportions of older students among the disabled.

The disabled and the nondisabled differed very little in their reports of the number of other dependents on their parental families who were currently attending college, except that 11 percent of the disabled (compared with 9 percent of the nondisabled) said there were two or more other dependents in college.

The nondisabled were more likely to name parental aid and work/savings as sources of financial support for college, whereas the disabled were more likely to name grants/scholarships, loans, support from spouse, GI benefits, and "other" sources. Slightly more of the nondisabled expressed no concern about their ability to pay for their college education, and slightly more of the disabled expressed major concern.

The following summarizes the financial situation of disabled freshmen by disability area. In general, the financial status of a given group is consistent with their family background characteristics (see Chapter 4).

Hearing Disability. Although the hearing-impaired came from relatively high socioeconomic backgrounds, they were slightly less likely than average to manifest dependence on their parents. Thus, only 60 percent--compared with 66 percent of all disabled freshmen--named parental aid as a source of support for college finance. However, larger proportions of the hearing-impaired than of any other disability group said they expected to finance their college education through work/savings and loans, and a slightly larger-than-average proportion got grants/loans. In addition, 54 percent (compared with 49 percent of all disabled freshmen) expressed some concern over their ability to pay for college.

Speech Disability. Probably because a substantial proportion of the speech-impaired came from low-income families, this group was less likely than any other to say that parental aid was a source of financial support; they were also relatively unlikely to live with their parents or to be listed as exemptions. Their major source of support was work/savings (though they were no more likely than average to list this source). In addition, 53 percent said they had grants or scholarships; this makes sense in that the largest of the federal grant programs, the BEOG program, is need-based. The speech-impaired were more likely than any other group to express major concern over their ability to pay for college and least likely to say that they had no such concern.

Orthopedic Disability. Since 7 percent of the freshmen in this category were married at the time of college entry, and since 6 percent of this group had served in the military, it is not surprising that they were more likely than most other groups to get financial support from their spouses or from GI benefits. There were slightly less likely than average to be dependent on their parents; for instance, only 60 percent (compared with 66 percent of all disabled freshmen) listed parental aid as a source of finance for their college education; 72 percent (compared with 79 percent of all disabled freshmen) had been listed as an exemption on their parents' Federal Income Tax Return; 85 percent (compared with 88 percent of all disabled freshmen) had lived with their parents the previous year or expected to live with them during the freshman year. These figures are also consistent with the fact the 14 percent of the orthopedically disabled were age 21 or over at college entry. Given the probable nature of their disabilities--and the likelihood that they are most restricted in mobility, their lack of dependence on parents is somewhat surprising. Their distribution with respect to degree of financial concern is virtually identical with the distribution for all disabled freshmen...

Visual Disability. With respect to dependence on parents, the visually impaired more closely resembled nondisabled than disabled freshmen: Thus, higher proportions than of any other disability category lived with their parents, were listed as tax exemptions, received at least \$600 in parental support, and listed their parents as a source of finance for college. They were also more likely than any other disability category to be self-supporting: that is, to name work/savings as a financial source; in this regard, too, they more closely resembled nondisabled freshmen. However, larger proportions of the visually impaired than of the nondisabled expected to pay for their freshman year of college through grants/scholarships and through loans. It is interesting that they were slightly more likely than other disabled students to express major concern over their ability to finance a college education.

Learning Disability. As in previous analyses, the learning disability category presented a distinctive profile, probably because of their relatively high income level and racial/ethnic mix. They were the least likely of any group to have lived or expected to live with their parents or that they had been claimed as tax exemptions as well as least likely to name grants/scholarships, loans, or work/savings as sources of financial support. In addition, somewhat smaller than average proportions expected to get parental aid. On the other hand, the proportion receiving at least \$600 worth of assistance from their parents was about average. However, much larger-than-average proportions (26 percent, compared with 11 percent of all disabled freshmen) said that two or more dependents of their parental families, in addition to themselves, were enrolled in college; and 43 percent, compared with only 32 percent of all disabled freshmen, expressed no concern about their ability to pay for college. As was pointed out earlier, their lack of concern--even given the fact that they seem to lack financial support--may be attributed to their high representation at low-cost public two-year colleges.

"Other" Disability. Consistent with the rather large proportion who were age 21 or over at college entry, lower-than-average proportions of those with "other" disabilities manifested dependence on their parents or named parental aid as a source of finance. On the other hand, larger-than-average proportions got grants/scholarships and support from their spouses; this latter finding is consistent with the fact that 7 percent of this group were married. Those with "other" disabilities were slightly more likely than average to express major concern over their ability to pay for college but also slightly more likely than average to say they had no concern.

Multiple Disabilities. Though no more likely than those with "other" disabilities to say they lived with their parents or received at least \$600 in financial support from their parents or to expect parental aid, 78 percent of the multiply disabled (close to the average of 79 percent for all disabled students) said they had been listed as exemptions on their parents' Federal Tax Return. Moreover, 18 percent (compared with 11 percent of all disabled freshmen) said that at least two other family dependents were currently enrolled in college. Those with multiple disabilities were less likely than average to use self-support (i.e., earnings from employment, savings) as a means of financing their college education but more likely than average to name "other" sources and GI benefits. In addition, 52 percent, compared with 49 percent of all disabled freshmen, expressed some concern about paying for college.

Unknown Disability. The financial status of freshmen who said they were physically handicapped but then failed to specify a disability area was very close to the norm for all disabled freshmen, except that they were the most likely of any disability group to get grants/scholarships (59 percent, compared with 45 percent of all disabled freshmen); in addition, larger-than-average proportions (69 percent, compared with 66 percent of all disabled freshmen) listed parental aid as a source of support for college.

## College Plans and Expectations

This chapter examines the plans and expectations of 1978 freshmen at the time they entered college: their degree aspirations, probable major field of study, career plans, anticipated need for remediation in various subjects, and expectations regarding the likelihood of various college experiences. The proposed follow-up survey of these students will provide information on the extent to which these plans and expectations have been realized.

Degree Aspirations (Table 45)

The 1978 Student Information Form asked freshmen to indicate the highest academic degree they planned to earn. As Table 45 shows, the great majority planned to get at least a baccalaureate, and about half planned to get an advanced degree. Women tended to have slightly lower degree aspirations than men:

Twice as many of the disabled (4 percent) as of the nondisabled (2 percent) did not plan to get any degree, the proportions being highest among the learning-disabled (16 percent) and the multiply disabled (9 percent). About one in twelve freshman aspired to no more than an associate degree, with those in the orthopedic, "other," and multiple disability categories most likely to indicate these plans.

The nondisabled were somewhat more likely to aspire to a baccalaureate (38 percent, versus 34 percent of the disabled) or a master's degree (30 percent versus 27 percent), whereas the disabled were slightly more likely to aspire to a doctorate (11 percent, versus 9 percent of the nondisabled) or a professional degree (12 percent, versus 10 percent), especially in law or divinity.

Table 45

Highest Degree Aspirations of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Degree Aspiration	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
None	2	2	2	3	5	4	3	2	1	4	16	4	9	3
Associate (AA or equivalent)	6	9	8	7	8	8	8	9	11	4	8	14	10	6
Bachelor's degree (BA, BS, etc.)	36	39	38	33	35	34	38	33	36	33	21	34	29	35
Master's Degree (MA, MS, etc.)	30	30	30	28	27	27	27	27	22	30	22	24	22	30
PhD or EdD	10	8	9	12	10	11	11	11	10	13	11	10	12	10
MD, DO, DDS or DVM	8	5	6	6	6	6	7	6	8	7	6	4	9	5
LLB or JD (Law)	5	3	4	6	4	5	3	11	5	5	11	3	6	5
BD or MDiv (Divinity)	1	0	0	1	1	1	3	1	1	1	1	1	1	0
Other	3	2	3	4	4	4	2	1	6	3	3	6	3	4
N	639,093	652,490	1,291,580	20,657	18,396	39,053	2,917	864	5,855	11,816	1,169	4,505	1,481	10,446

With respect to differences among disability groups in advanced-degree aspirations, larger-than-average proportions of those with visual and unknown disabilities aimed for a master's; larger-than-average proportions of the visually and the multiply disabled aimed for a doctorate. Those with orthopedic and multiple disabilities were especially likely to aspire to medical degrees; those with hearing disabilities, to divinity degrees; and those with speech and learning disabilities, to a law degree. Since law is a field that demands verbal--and, often, oral--skills as well as academic ability, and since the speech-impaired and the learning-disabled generally have rather poor high school records, their aspirations seem somewhat unrealistic.

Finally, 6 percent of those with orthopedic and "other" disabilities, compared with 4 percent of all disabled freshmen, indicated that they planned to get some type of degree other than those specified on the survey form. It is, of course, impossible to speculate on just what degrees these students had in mind.

Probable Major Field (Table 46)

Respondents to the 1978 freshman survey were asked to indicate their probable major field from a list of 79 options, which were then collapsed into 16 broad areas, as shown in Table 46. (Appendix D indicates how these categories were derived.)

The most popular field of study among 1978 freshmen, named as a probable major field of study by 24 percent of the nondisabled and 23 percent of the disabled, was business; relatively few of the speech-impaired or the learning-disabled planned to major in business, however. Other popular fields were education (especially among the speech-impaired), engineering (especially among the multiply disabled), and health professions (especially among the

Table 46

Anticipated Majors of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Major <sup>a</sup>	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men.	Women	Total	Men	Women	Total								
Agriculture	5	2	4	4	2	3	1	5	2	4	4	3	3	3
Biological Sciences	4	5	4	5	5	5	4	2	6	6	6	3	3	5
Business	26	23	24	24	22	23	23	15	25	21	17	20	22	26
Education	3	12	8	4	13	9	7	17	10	8	9	10	11	8
Engineering	19	2	10	16	2	9	8	5	8	10	3	9	11	10
English	1	1	1	1	1	1	0	2	0	1	0	1	1	1
Health Professions	5	14	10	4	13	9	12	9	10	8	3	7	6	9
History, Political Science	3	2	3	4	2	3	3	1	3	3	5	2	2	4
Humanities (other)	2	3	2	3	3	3	3	2	3	3	3	5	3	2
Fine Arts	5	5	5	5	6	6	5	11	4	6	8	6	6	5
Mathematics and Statistics	1	1	1	1	1	1	3	0	1	1	0	1	1	1

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Table 46 (Concluded)  
(percentages)

Major <sup>a</sup>	Nondisabled			Disabled			Disability Area							
	Men	Women	Total	Men	Women	Total	Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
Physical Sciences	3	1	2	4	1	3	3	2	2	3	2	4	2	2
Social Sciences	2	8	5	3	8	6	6	3	6	6	5	6	8	4
Other Technical	8	7	8	8	5	6	10	10	5	6	8	8	8	6
Other Nontechnical	9	8	8	10	11	10	10	13	13	8	22	12	11	9
Undecided	4	6	5	3	4	4	3	1	3	4	4	3	3	4
N	708,540	772,500	1,481,030	21,799	21,772	43,571	3,142	840	6,254	12,989	1,115	5,511	1,676	12,045

<sup>a</sup> See Appendix D for the derivation of these categories.

hearing-impaired). The proportions attracted to purely "academic" majors were smaller. Thus, it seems reasonable to conclude that 1978 freshmen, both disabled and nondisabled, tended to be career-oriented and to choose undergraduate majors that would give them relatively direct access to jobs.

Certain stereotypic gender differences were manifested in major field choices. Women were more likely to plan majors in education, health professions, and social sciences. Men, on the other hand, were more likely to plan majors in agriculture, engineering, and the physical sciences. Women were also slightly more likely than men to be undecided as to their probable major, though most freshmen indicated definite choices (which may, of course, have changed before the junior year, when students typically declare a major).

#### Career Plans (Table 47)

Freshmen were asked to indicate their career plans from a list of 44 occupations, which were then collapsed into 15 categories, as shown in Table 43 (see Appendix E). Leaving aside the "other" category (which is, of course, an artifact), business was the most popular career choice among both the disabled and nondisabled. This finding is consistent with the findings for probable major field reported above. However, men were far more likely than women to name business as their probable career; no marked gender difference was found with respect to a business major.

As with probable major, there were some marked gender differences in career choice. Men were much more likely than women to plan on becoming engineers, farmers/ranchers, lawyers, and clergy; they were slightly more likely to plan on becoming research scientists and doctors (though gender differences on the latter choice were greater among the nondisabled than among the disabled). Women were much more likely to plan on becoming elementary school teachers, health professionals, and nurses.

Table 47

Anticipated Occupations of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Occupation <sup>a</sup>	Disability Area														
	Nondisabled			Disabled			Hear- ing	Speech	Disability Area						
	Men	Women	Total	Men	Women	Total			Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown	
Artist	5	8	6	7	10	8	7	8	8	8	14	9	6	8	
Business	24	15	19	21	14	18	18	20	17	16	8	18	19	20	
Clergy	1	0	0	2	0	1	1	1	2	1	0	1	1	0	
College Teacher	0	0	0	1	0	0	1	0	1	0	0	0	1	0	
Doctor	6	3	4	5	4	4	4	4	7	4	2	4	4	4	
Education (Secondary)	2	3	2	2	3	3	4	9	2	2	2	2	4	3	
Elementary Teacher	0	7	4	0	7	4	3	3	3	4	6	4	3	4	
Engineer	16	2	9	14	2	8	9	5	8	9	4	7	10	8	
Farmer-Rancher	4	1	3	4	1	2	3	6	3	2	1	4	1	2	
Health Professional	3	10	7	3	9	6	5	8	7	7	8	5	7	5	
Lawyer	5	3	4	5	3	4	2	4	4	5	3	3	4	5	
Nurse	0	8	4	0	8	4	5	2	3	4	0	6	2	5	
Research Scientist	3	2	2	4	2	3	1	0	4	3	2	2	2	3	
Other	22	26	24	22	26	24	28	25	21	23	35	25	30	22	
Undecided	10	12	11	10	10	10	10	7	9	11	13	11	7	11	
N	733,610	765,030	1,498,640	22,738	21,705	44,443	3,092	874	6,469	13,383	1,233	5,746	1,648	11,997	

<sup>a</sup> See Appendix E for the derivation of these occupational categories

Somewhat surprising in view of the apparent practicalmindedness of 1978 freshmen, 6 percent of the nondisabled and 8 percent of the disabled said they planned to become artists; this career choice was more popular among women than among men. A far larger proportion of the learning-disabled (14 percent) than of any other disability category named artists as their career choice, perhaps because it is an occupation that does not require rigorous or extensive academic training and skills and because many artistic occupations (music, dance, painting) utilize modalities other than language.

Freshmen tended to be more uncertain about their career plans than about their probable majors: 11 percent of the nondisabled and 10 percent of the disabled indicated that they were uncertain as to what their future careers would be.

#### Anticipated Need for Remediation (Table 48)

In Chapter 5, it was pointed out that disabled freshmen were somewhat more likely than were nondisabled freshmen to have taken remedial work in high school and to perceive themselves as being poorly prepared in "academic" subjects and skills, especially mathematics, reading and composition, foreign languages, and science. Similarly, as Table 48 indicates, they were much more likely to feel they would need special tutoring or remediation while in college in all six subjects listed. The discrepancies were greatest with respect to reading (in which 8 percent of the nondisabled, but 14 percent of the disabled, believed they would require remedial work), English (14 percent of the nondisabled, 22 percent of the disabled), and social studies (4 percent of the nondisabled, 7 percent of the disabled). The subject area in which 1978 freshmen felt least self-confidence was mathematics: About one-fourth of the nondisabled, and one-third of the disabled, indicated they would probably need remedial work in mathematics.

Table 48

Anticipated Need for Remediation, by Disability Status  
and Gender and by Disability Area, 1978  
(percentages)

Subject	Disability Area													
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
English	16	12	14	25	18	22	27	35	18	19	34	30	30	17
Reading	9	7	8	16	13	14	18	23	12	12	31	20	25	10
Mathematics	21	28	24	30	36	33	37	38	34	33	40	37	40	29
Social Studies	4	4	4	7	8	7	8	13	6	7	24	10	16	4
Science	10	16	13	15	22	18	23	27	14	19	30	24	22	13
Foreign Language	15	13	14	21	18	20	20	23	14	21	32	23	22	18
N	795,334	831,043	1,626,373	26,106	24,686	50,792	3,274	1,072	7,300	14,765	1,592	6,427	2,146	13,719

Again, gender differences were marked. A larger proportion of men than of women believed they would require remediation in English and reading, whereas a larger proportion of women than men anticipated remedial work in science and mathematics.

Those with unknown and with orthopedic disabilities were generally less likely than other disabled freshmen to feel they would need remediation (except that one-third of the orthopedically handicapped believed they would need remediation in mathematics). The learning-disabled, on the other hand, were far more likely than average to anticipate a need for remediation; in no subject was the proportion lower than 24 percent. The speech-impaired and, to a lesser extent, those with hearing, "other," and multiple disabilities were also inclined to say they would need remediation in most of the subjects listed.

#### Expectations Regarding College Experiences (Table 49)

The 1978 Student Information Form included a list of 24 experiences or behaviors related to college; respondents were asked to indicate the likelihood of occurrence on the basis of four response alternatives: "very good chance," "some chance," "little chance," and "no chance." Table 49 shows the proportions indicating that there was a "very good chance" that the behavior or experience would occur.

The experiences most frequently anticipated were finding a job after college in the field for which the individual was trained (67 percent of the nondisabled, 65 percent of the disabled) and getting a baccalaureate (65 percent of the nondisabled, 61 percent of the disabled). In addition, slightly over half of both groups expected to be satisfied with college, and relatively high proportions thought they would make at least a B average (42 percent of the nondisabled, 37 percent of the disabled) and would get a job to help pay for college expenses (41 percent of the nondisabled, 36 percent of the disabled).

Table 49

Anticipated Likelihood of Particular College Experiences, by Disability Status  
and Gender and by Disability Area  
(percentage marking "very good chance")

College Experience	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Change major field	12	13	12	13	13	13	11	22	11	15	12	15	8	12
Change career choice	11	13	12	12	13	12	8	11	13	14	15	14	7	12
Fail one or more courses	2	1	2	4	4	4	4	5	2	3	7	5	6	3
Graduate with honors	13	10	12	12	9	11	12	11	9	12	9	10	10	11
Be elected to a student office	3	2	3	3	2	3	4	2	3	3	2	2	2	3
Get a job to help pay for college expenses	40	42	41	35	37	36	36	35	32	41	29	30	35	37
Join a social fraternity, sorority or club	16	20	18	15	21	18	20	15	18	19	17	13	21	18
Live in a coeducational dorm	28	25	26	26	24	25	24	23	25	26	25	23	25	25
Be elected to an academic honor society	8	7	8	7	6	6	6	10	7	7	3	4	7	7
Make at least a "B" average	42	41	42	36	38	37	35	27	42	40	25	30	34	37
Need extra time to complete your degree requirements	4	5	5	7	7	7	7	4	5	6	22	9	13	5
Get tutoring help in specific courses	7	10	9	13	16	14	18	18	10	14	43	14	18	13
Have to work at outside job during college	23	24	24	20	24	22	16	19	20	27	22	20	15	21

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Table 49 (Concluded)  
 (percentage marking "very good chance")

College Experience	Disability Area													
	Nondisabled			Disabled			Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
	Men	Women	Total	Men	Women	Total								
Seek vocational counseling	6	8	7	8	10	10	11	10	9	11	13	9	16	6
Seek individual counseling on personal problems	4	5	4	7	7	7	12	13	8	7	8	7	12	5
Get bachelor's degree (BA, BS, etc.)	65	64	65	61	61	61	58	52	63	67	40	51	52	63
Participate in student protests or demonstrations	4	3	3	3	3	4	4	3	5	4	3	3	2	3
Drop out of this college temporarily (exclude transferring)	1	1	1	2	2	2	1	2	2	2	3	2	1	2
Drop out permanently (exclude transferring)	1	1	1	1	1	1	0	2	1	1	2	2	2	1
Transfer to another college before graduating	11	11	11	14	12	12	8	11	14	13	12	14	13	12
Be satisfied with your college	51	60	56	51	59	55	58	51	61	56	58	53	56	51
Find a job after college in the field for which you were trained	65	69	67	63	67	65	62	64	66	65	64	62	61	66
Get married while in college	3	7	5	6	6	6	3	11	4	7	10	7	5	4
Get married within a year after college	13	18	15	14	16	15	16	14	17	14	19	14	12	14

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Besides being somewhat more likely to say there was a very good chance they would get a baccalaureate, make at least a B average, and get a job, the nondisabled were more likely to believe they would be elected to an academic honor society (8 percent, versus 6 percent of the nondisabled). The disabled, on the other hand, were more likely to anticipate failing a course (4 percent, versus 2 percent of the nondisabled), needing extra time to complete their degree requirements (7 percent versus 5 percent), getting tutoring help in specific courses (14 percent, versus 9 percent), seeking vocational counseling (10 percent, versus 7 percent), seeking individual counseling for personal problems (7 percent, versus 4 percent), and dropping out of the freshman institution temporarily (2 percent, versus 1 percent). Generally speaking, then, the disabled had a greater tendency to foresee difficulties with their college work and to anticipate a need for outside help. This was particularly true of the learning-disabled and given their rather poor high school records, probably indicates that they were realistic in assessing the future.

The most striking gender differences were that larger proportions of men than of women expected to graduate with honors and to be elected to student office, whereas larger proportions of women expected to join a social club, get tutoring help, seek vocational counseling, find a job related to their training, and get married within a year after college.

Some of the differences among disability groups raise provocative questions. For instance, the hearing-impaired, the speech-impaired, and those with multiple disabilities (who, as we have seen, are often individuals who have both speech and hearing handicaps) were more likely than others to say there was a very good chance they would seek individual counseling for personal problems. Is it possible that their particular handicaps make communication with other people

difficult for them and thus create interpersonal problems not shared by those in other disability areas? And why did such a relatively large proportion of the multiply disabled feel they would seek vocational counseling, since they are less likely than average to feel they will change their career choice or to indicate they are undecided about their career plans?

### Summary

The disabled were both more and less ambitious than the nondisabled: that is, twice as many planned to get no academic degree (4 percent of the disabled, versus 2 percent of the nondisabled), but at the same time a larger proportion of disabled than of nondisabled freshmen aspired to a doctorate or a professional degree in law or divinity.

The major field and career plans of the disabled and the nondisabled were very similar. About one-fourth of each group planned to major in business, and slightly less than one-fifth of each group planned on a career in business. The proportions of disabled and nondisabled freshmen choosing other specific major fields and careers usually differed by no more than one percentage point. Gender differences were much more marked and followed traditional lines.

Larger proportions of disabled than of nondisabled freshmen anticipated that they would need to take remedial work in various subjects, especially mathematics. With respect to other expectations about college, the disabled were less likely to feel that they had a very good chance of doing well academically and more likely to feel that they would encounter delays and difficulties which might require them to seek outside support (tutoring, counseling).

The distinctive characteristics of each of the disability categories may be summarized as follows:

Hearing Disability. Hearing-impaired freshmen were more likely than others to aspire to a baccalaureate or a degree in divinity and to plan a major in mathematics/statistics or the health professions. The career choices of secondary school teacher, engineer, farmer/rancher, and nurse tended to attract them more than other students. Many expected to need remediation, especially in English, reading, mathematics, and science. The hearing-impaired were more likely than average to believe they would seek counseling for personal problems, be elected to student office, and join a social club but less likely to believe they would change major fields or career choice, have to work at an outside job, drop out of college temporarily or permanently, transfer, or get married while in college.

Speech Disability. Over one in ten speech-impaired freshmen planned to get a law degree. Though relatively uninterested in social science, business, biological sciences, or history/political science, those with speech disabilities were more likely than those in any other group to name a probable major in agriculture, education, fine arts, and English. Somewhat curiously, only 4 percent planned to become lawyers, but relatively large proportions planned to become high school teachers, businesspersons, farmers/ranchers, and health professionals. They were more likely than any other group to believe they would need remedial work in English; this is consistent with the hypothesis advanced earlier that many of the freshmen who indicated that they had a speech disability came from homes where English was not the dominant language and lacked confidence in their English-speaking ability. In addition, relatively large proportions believed they would need remediation in most other subjects. They were more likely than those in other disability groups to say there was a very good chance they would change their major field, seek individual counseling for personal problems, be elected to an honor society,

and get married while in college, but only 4 percent (compared with 7 percent of all disabled freshmen) believed it very likely they would need extra time to complete their degree requirements.

Orthopedic Disability. Though somewhat more likely than other disabled freshmen to plan on getting no more than an associate degree and less likely to aspire to a master's or a doctorate, 8 percent (compared with 6 percent of the total disabled group) aimed for a medical degree; in addition, 6 percent planned to get some "other" degree. The major fields of business and biological sciences were popular with the orthopedically disabled, as were the career choices of doctor, research scientist, and clergy; they were less likely than any other group, however, to plan a major in fine arts or in "other technical" fields. Though one-third anticipated needing remediation in mathematics, the proportions feeling they would need remediation in other subjects were smaller than average. The orthopedically disabled were more likely than any other group to anticipate making at least a B average, being satisfied with their college, and participating in a student protest or demonstration.

Visual Disability. Those with visual disabilities were only half as likely as average to aspire to no more than an associate, but relatively large proportions wanted a master's or a doctorate. The proportions naming agriculture, biological sciences, and engineering as their probable major were slightly larger than average, but the visually disabled were less likely than any other group to plan on majoring in "other nontechnical" fields. Five percent planned to get law degrees, and 5 percent named lawyer as their career choice. Their anticipated need for remediation resembled the norm for disabled freshmen. Larger proportions of the visually disabled than of any other group thought it very likely that they would get a job to help pay for college expenses, work at an outside job during college, and earn the baccalaureate; in addition, two in five expected to make at least a B average.

Learning Disability. Once again, the heterogeneous nature of this disability category is evident: 16 percent said they planned to get no academic degree, only 21 percent aspired to a baccalaureate, and the proportion aiming for master's degree was smaller than average; but 11 percent aspired to a doctorate, and 11 percent to a law degree. Though business, engineering, and the health professions were relatively uncommon major field choices among the learning-disabled, they were more likely than others to plan a major in history/political science or in other "non-technical" fields. Yet only 3 percent planned to become lawyers. They were more likely than any other group to plan on careers as artists and elementary school teachers, to name "other" career choices, and to be undecided about their careers; in addition, a relatively high proportion planned to become health professionals. They were more likely than any other group to anticipate needing remedial work in virtually all subjects, the range being from one-fourth in social studies to two-fifths in mathematics. Their expectations about other college experiences seem to reflect a realistic self-appraisal in that larger proportions than any other group said they would probably change major fields, fail one or more courses, need extra time to get the degree, and get tutoring help in specific courses, whereas relatively few expected to be elected to an academic honor society, make at least a B average, to feel they would seek vocational counseling and get married within a year after college. Compared to other disabled groups, they were less likely to feel they would have to get a job to pay for college expenses.

Other Disability. Those with "other" disabilities were more likely than any other group to aspire to no more than an associate degree; in addition, 6 percent aspired to "other" degrees. The proportions seeking graduate or professional degrees, on the other hand, were relatively small. The major fields of humanities and physical sciences were more popular within this group than with any other. In addition, relatively large proportions planned on

becoming farmers/ranchers, artists, and nurses. Their anticipated need for remediation was high, as were their expectations of changing major field and career choice and of transferring to another institution.

Multiple Disabilities. The multiply disabled were more likely than any other disability group to aspire to a medical degree, but relatively high proportions planned to get no academic degree or no more than an associate degree. The major fields of engineering and social sciences were more attractive to these students than to others, and a relatively large proportion planned to major in "other technical" fields. Somewhat odd is the finding that, although 9 percent aspired to a medical degree, only 4 percent planned to become doctors. Other popular career choices were engineer and high school teacher. A large proportion felt they would need remedial work in college, especially in mathematics. The multiply disabled were more likely than others to anticipate getting vocational counseling and joining a social fraternity, sorority, or club. In addition, relatively large proportions thought they would need extra time to get the degree and seek personal counseling, but relatively few expected to change major fields, work at an outside job, or get married either in college or within a year after college.

Unknown Disability. Like the visually disabled, those with unknown disabilities generally aspired to at least a baccalaureate: a relatively large proportion sought a master's degree. Larger-than-average proportions planned to major in business, biological sciences, engineering, or history/political science, but relatively few named probable majors in the social sciences or fine arts. One-fifth planned to become businesspersons, and 5 percent planned to become lawyers. Their anticipated need for remedial work was even lower than that of the visually disabled. Though two-thirds

thought they would be able to find a job in their field after college, and though relatively large proportions expected to get a baccalaureate and to do well in college, only half expected to be satisfied with college. Like the multiply disabled, those with unknown disabilities were unlikely to anticipate getting married either in college or within a year after college.

## Chapter 9

### Attitudes and Values

This chapter presents data on the attitudes and values of 1978 entering freshmen: their political orientation, their opinions on national, personal, and campus issues, and their life goals. Once again, comparisons are made between men and women, and among the eight disability categories. These findings constitute baseline information that can be used in conjunction with the results of the proposed follow-up survey to explore what changes have occurred in the attitudes and values of 1978 disabled freshmen over time and after exposure to the college environment.

#### Political Orientation, (Table 50)

According to their self-reports, over half of the 1978 freshmen were "middle-of-the-road" in their political orientation, about one-fourth were liberal, and about one-sixth were conservative; the proportions characterizing themselves as either "far left" or "far right" were very small, although the disabled were more likely than the nondisabled to subscribe to extreme views. In addition, they were less likely to be middle-of-the-road (54 percent, compared with 59 percent of the nondisabled) but more likely to be liberal (25 percent, compared with 23 percent of the nondisabled). Sixteen percent of both groups identified themselves as conservative.

Gender differences were more marked: Women had a greater tendency than men to adopt middle-of-the-road positions but were less likely to hold extreme (far left or far right) views. Moreover, only 13 percent of the women in both the disabled and the nondisabled groups, compared with 20 percent of the men, were conservative.

Table 50

Political Orientation of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Political Orientation	Disability Area														
	Nondisabled			Disabled			Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown	
	Men	Women	Total	Men	Women	Total									
Far left	2	1	2	3	2	3	2	1	2	2	10	5	4	2	
Liberal	23	22	23	25	25	25	28	26	29	27	20	26	16	22	
Middle-of-the-road	54	63	59	50	59	54	53	52	55	54	47	50	64	57	
Conservative	20	13	16	20	13	16	16	17	14	16	18	18	15	18	
Far right	1	0	0	2	1	1	1	4	0	1	5	1	1	1	
N	763,011	785,128	1,548,138	24,670	23,361	48,031	3,589	985	7,051	14,072	1,378	5,938	1,904	13,117	

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With respect to differences among disability areas, the learning-disability group continues to present something of an anomaly: 10 percent (compared with 3 percent of all disabled freshmen) said they were on the far left politically, and 5 percent (compared with 1 percent of all disabled freshmen) said they were on the far right. In addition, the learning-disabled were less likely than any other group to characterize themselves as middle-of-the-road; they were also less likely than average to be liberal but slightly more likely to be conservative. Those with "other" and with multiple disabilities were more inclined than average to hold far left views, whereas the speech-impaired were least likely to hold far left views and most likely (after the learning-disabled) to be far right. Close to two-thirds of the multiply disabled (64 percent, compared with 54 percent of all disabled freshmen) were liberal. The hearing, orthopedic, and visual disability groups had higher proportions of liberals than average. Relatively few of the orthopedically disabled were conservative, and virtually none was far right.

A body of research on college impact (see, for example, Astin, 1977) reports that college students tend to become more liberal during the undergraduate years. On the other hand, numerous sources point to the growing conservative trend in the nation, as evidenced in the 1980 presidential election. It will be interesting to see, from the follow-up survey, just how these two opposing forces balance out, as regards changes in the political orientations of disabled freshmen.

#### Opinions on Current Issues, (Table 51)

The 1978 SIF included a list of 30 statements related to political, social, personal, and campus issues of a controversial nature. Table 51 shows the proportions of freshmen agreeing "strongly" or "somewhat" with each of these

Table 51  
 Opinions on Current Issues of 1978 Freshmen, by Disability Status and Gender and by Disability Area  
 (percentages marking "agree somewhat" or "agree strongly")

Issue Statement	Nondisabled		Disabled			Disability Area								
	Men	Women	Total	Men	Women	Total	Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
The Federal government is not doing enough to control environmental pollution	79	84	82	80	84	82	76	84	84	83	86	81	83	81
The Federal government is not doing enough to protect the consumer from faulty goods and services	71	76	73	70	76	73	72	85	74	72	68	75	79	72
The Federal government should do more to discourage energy consumption	80	84	82	81	84	83	84	87	87	82	80	84	80	81
There is too much concern in the courts for the rights of criminals	70	61	66	67	61	64	71	73	61	62	58	68	66	64
Urban problems cannot be solved without huge investments of Federal monies	50	48	49	51	50	50	53	50	50	46	54	48	54	53
People should not obey laws which violate their personal values	34	30	32	37	33	36	38	34	37	33	42	39	33	35
The death penalty should be abolished	27	38	33	28	39	33	31	35	36	30	43	30	34	36
A national health care plan is needed to cover everybody's medical costs	58	63	60	61	66	63	68	77	64	61	59	65	67	63
Energy shortages could cause a major depression or even wars in my lifetime if action is not taken now to prevent them	79	81	80	80	79	79	80	78	80	81	65	80	75	79
Abortion should be legalized	56	58	57	58	56	56	54	62	59	58	51	60	58	56
Grading in the high schools has become too easy	63	64	64	65	66	65	72	67	68	66	66	66	53	61
The activities of married women are best confined to the home and family	35	20	27	36	21	28	31	38	26	25	35	34	33	28
A couple should live together for some time before deciding to get married	51	39	45	55	42	49	54	50	53	46	49	47	39	48
Parents should be discouraged from having large families	54	42	48	54	42	48	52	41	52	50	54	52	39	42
Divorce laws should be liberalized	50	47	49	54	48	51	50	55	50	50	54	53	54	51

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Table 51--(Concluded)

Issue Statement	Nondisabled		Disabled			Disability Area								
	Men	Women	Total	Men	Women	Total	Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
If two people really like each other, it's all right for them to have sex even if they've known each other for only a very short time	64	32	48	65	35	50	56	54	53	50	56	51	49	47
Women should receive the same salary and opportunities for advancement as men in comparable positions	89	96	93	87	96	92	87	91	91	93	86	93	87	92
Wealthy people should pay a larger share of taxes than they do now	75	71	73	78	71	75	73	79	75	77	62	79	68	72
Marijuana should be legalized	52	47	49	54	53	54	54	59	55	52	61	56	46	53
Busing is O.K. if it helps to achieve racial balance in the schools	39	43	41	45	48	47	51	44	43	43	55	50	43	50
It is important to have laws prohibiting homosexual relationships	56	37	46	52	37	45	52	48	44	43	34	47	46	44
College officials have the right to regulate student behavior off campus	15	14	14	21	16	19	24	27	14	17	25	18	19	20
Faculty promotions should be based in part on student evaluations	72	73	72	72	70	71	78	53	72	73	58	74	61	70
College grades should be abolished	18	14	16	20	18	19	17	20	18	16	32	21	30	20
Colleges would be improved if organized sports were de-emphasized	28	26	27	33	30	31	36	36	29	30	49	34	38	28
Student publications should be cleared by college officials	36	36	36	37	37	37	40	56	34	33	34	41	40	39
College officials have the right to ban persons with extreme views from speaking on campus	28	23	26	29	23	26	28	36	25	23	36	36	28	24
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	36	34	35	43	40	41	51	57	41	38	45	44	52	40
Open admissions (admitting anyone who applies) should be adopted by all publicly supported colleges	34	32	33	38	34	36	40	43	31	37	36	41	42	33
Even if it employs open admissions, a college should use the same performance standards in awarding degrees to all students	80	77	78	80	76	78	76	79	82	81	70	80	69	77

statements. (The other two response alternatives were "disagree somewhat" and "disagree strongly.")

On some items, respondents were in substantial accord, in one direction or the other; that is, either a great majority (approximately three-fourths or more) or very few (less than about one-fourth) agreed with the statement. Thus, over nine-tenths of both the disabled and the nondisabled groups agreed that "Women should receive the same salary and opportunities for advancement as men in comparable positions"; about four-fifths of both groups believed "The Federal government should do more to discourage energy consumption"; "The Federal government is not doing enough to control environmental pollution"; and "Energy shortages could cause a major depression or even wars in my lifetime if action is not taken now to prevent them." About three-fourths of 1978 freshmen felt that "Even if it employs open admissions, a college should use the same performance standards in awarding degrees to all students," that "Wealthy people should pay a larger share of taxes than they do now," and that "The Federal government is not doing enough to protect the consumer from faulty goods and services." At the other extreme, only 14 percent of the nondisabled and 19 percent of the disabled agree that "College officials have the right to regulate student behavior off campus"; 16 percent of the nondisabled and 19 percent of the disabled felt that "College grades should be abolished"; 26 percent of both groups agree that "College officials have the right to ban persons with extreme views from speaking on campus"; and 27-28 percent believed that "The activities of married women are best confined to the home and family." In short, the majority of 1978 freshmen--whether disabled or nondisabled--seemed concerned about the environment, the energy crisis, and consumer welfare: they advocated government intervention as a means of solving such problems; they took a



liberal view of the rights and roles of women and of students; and they supported free speech on campus. On the other hand, the majority took what might be regarded as a conservative or an elitist view in wanting to retain some kind of grading system in college and to preserve academic standards for graduation.

Although not shown in the table, the disabled had a more marked tendency than the nondisabled to agree or disagree "strongly" (rather than "somewhat") with a given statement. This response set may indicate that they are more opinionated and less tolerant of ambiguity, perhaps because they have given more thought to many issues or perhaps because their personality style is more emphatic.

Aside from this tendency, the disabled differed very little from the nondisabled in their attitudes; the difference in the proportions saying they agreed with a statement was rarely more than four percentage points. However, 41 percent of the disabled, compared with 35 percent of the nondisabled, agreed that "Students from disadvantaged social backgrounds should be given preferential treatment in college admissions"; especially likely to agree with this statement were the speech-impaired (57 percent), the multiply disabled (52 percent), and the hearing-impaired (51 percent). Similarly, 47 percent of the disabled, compared with 41 percent of the nondisabled, felt that "Busing is O.K. if it helps to achieve racial balance in the schools," with the learning-disabled (55 percent), the hearing-impaired (51 percent), and those with "other" and with unknown disabilities (50 percent) being particularly likely to express agreement. The greater liberalism of the disabled on these two questions may in part reflect the higher proportions of nonwhites and of low-income students among the handicapped. The disabled were also more likely to feel that "Marijuana should be legalized" (54 percent, versus 49 percent of the nondisabled), with higher-than-average proportions of the learning-disabled

and the speech-impaired favoring such legalization. On one question, however, the disabled took the more conservative position: 19 percent (compared with 14 percent of the nondisabled) felt that college officials have the right to regulate the off-campus behavior of students. Indeed, 27 percent of the speech-impaired approved of this exercise of in loco parentis authorization. Disabled men were much more likely than either their female counterparts or the nondisabled of both sexes to subscribe to this view.

Much more striking than differences between the disabled and the nondisabled were differences between men and women in their opinions on controversial issues. Neither sex, however, was unequivocally more liberal than the other; it depended on the nature of the issue. Not surprisingly, women took a more enlightened view on questions related to women's rights and roles: Thus, 96 percent of the women, compared with slightly under 90 percent of the men, believed that employed women should be rewarded equally with men in comparable positions. One-fifth of the women, but slightly more than one-third of the men, thought that married women should confine their activities to the home and family.

Nor is it surprising that men had a more permissive attitude toward sexual matters: For instance, men were almost twice as likely as women to agree that "If two people like each other, it's all right for them to have sex even if they've known each other for only a very short time." Similarly, half the men, but only two-fifths of the women, believed that "A couple should live together for some time before deciding to get married." But the permissive attitude of men did not extend to homosexual conduct: Over half the men, but only 37 percent of the women, believed "It is important to have laws prohibiting homosexual relationships."

Men were also more inclined to take nontraditional positions on questions relating to marriage and the family. Thus, men (especially disabled men) were somewhat more likely than women to feel that divorce laws should be liberalized and much more likely to feel that parents should be discouraged from having large families. On the question of abortion, however, there was no marked gender difference: 56-58 percent agreed that abortion should be legalized.

On many national and campus issues, women seemed more liberal than men. Thus, they were slightly more likely to believe that the Federal government should play a more active role in controlling pollution, protecting the consumer, and discouraging energy consumption; that a national health care plan should be instituted; and that busing to achieve racial balance in the schools was acceptable. They were less likely than men to agree that college officials have the right to ban speakers with extreme views from campus or that "There is too much concern in the courts for the rights of criminals." Finally, 38-39 percent of the women, but only 27-28 percent of the men, advocated abolition of the death penalty. On the other hand, slightly larger proportions of men than women believed that the wealthy should pay more taxes and that "People should not obey laws which violate their personal values."

Just as the learning-disabled were more likely than others to have extreme political leanings (far left or far right), so they were more likely to hold extreme views. For instance, higher proportions of the learning-disabled than of any other disability category agreed that the death penalty should be abolished, and that college sports should be de-emphasized. At the same time, lower proportions of the learning-disabled than of any other disability category agreed that energy shortages could cause depression and war, that wealthy people should pay more taxes, and that laws prohibiting homosexual behavior are necessary.

Those in the speech disability category manifested a mixture of liberal and conservative attitudes. Though more inclined than average to say the federal government should do more to protect the consumer and to promote energy conservation, that there should be a national health care plan, that the disadvantaged should be given preferential treatment in admissions, and that all public colleges should adopt open admissions, they were also more inclined than average to believe that college officials have the right to regulate the off-campus behavior of students and to "clear" student publications and that the activities of married women should be confined to the home and family.

Life Goals (Table 52)

Respondents to the 1978 SIF were asked to indicate the importance to them of each of 18 goals. Table 52 shows the proportions indicating that the goals were "very important" or "essential." (The other response alternatives were "somewhat important" and "not important.")

The top-ranked goal was "becoming an authority in my field" (rated as very important or essential by over seven in ten students), followed by "helping others who are in difficulty" (given high priority by two-thirds):

Again, differences between the disabled and nondisabled were few. The disabled were more likely to aim for artistic achievement (becoming accomplished in a performing art, writing original works, creating artistic works such as painting and sculpture), as well as participation in community action programs and the promotion of racial understanding. The higher proportion of nonwhites among the handicapped may account for their greater tendency to emphasize this last goal. The nondisabled were somewhat more likely to place a high value on raising a family (63 percent, as compared

Table 52

Life Goals of 1978 Freshmen, by Disability Status and Gender and by Disability Area  
(percentages marking "essential" or "very important")

Life Goal	Nondisabled			Disabled			Disability Area							
	Men	Women	Total	Men	Women	Total	Hear- ing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	11	15	13	16	16	16	15	25	14	15	18	20	21	14
Becoming an authority in my field	76	70	73	74	69	72	70	84	74	69	65	70	69	74
Obtaining recognition from my colleagues for contributions to my special field	53	48	51	56	49	52	54	62	51	51	46	50	51	56
Influencing the political structure	19	12	15	21	12	17	16	22	15	16	13	22	17	16
Influencing social values	30	34	32	32	35	33	32	38	33	34	31	33	34	33
Raising a family	63	63	63	58	59	58	52	66	58	59	57	55	60	60
Having administrative responsibility for the work of others	39	33	36	39	33	36	34	49	35	33	44	29	34	42
Being very well-off financially	68	53	60	65	54	60	55	73	58	58	57	57	63	65
Helping others who are in difficulty	58	74	66	60	75	67	69	76	69	69	61	66	62	65
Making a theoretical contribution to science	18	11	15	21	12	16	11	25	17	16	38	17	13	16
Writing original works (poems, novels, short stories, etc.)	11	15	13	15	20	17	17	27	15	16	22	19	19	17
Creating artistic work (painting, sculpture, decorating, etc.)	12	18	14	16	20	18	16	27	14	18	23	22	15	17
Being successful in a business of my own	57	40	49	57	42	50	56	56	49	46	49	53	55	53
Becoming involved in programs to clean up the environment	30	26	28	33	29	31	40	45	31	30	39	33	31	30
Developing a meaningful philosophy of life	55	59	57	56	61	58	57	69	60	61	49	56	61	56
Participating in a community action program	24	31	27	29	34	32	34	35	28	31	38	30	39	32
Helping to promote racial understanding	30	38	34	34	42	38	37	46	36	40	47	38	40	36
Keeping up-to-date with political affairs	41	33	37	43	33	38	37	39	32	40	40	35	38	41

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with 58 percent of the disabled); within each group, there were no gender differences with respect to this goal.

Nonetheless, as was the case with opinions on current issues, gender differences were strong. Women were more likely than men to value artistic goals (the exception here was that disabled men were just as likely as disabled women to say that becoming accomplished in a performing art was very important or essential to them). In addition, about three-fourths of the women, but only three-fifths of the men, gave high priority to helping others in difficulty. Slightly higher proportions of women than of men cited developing a meaningful philosophy of life, participating in a community action program, and helping to promote racial understanding as very important or essential. In short, consistent with sex stereotypes, women placed higher value on altruistic and social goals.

For their part, men gave higher priority to goals connected with achievement, status, and influence: becoming an authority in their field, making a theoretical contribution to science, having administrative responsibility over the work of others, influencing the political structure, and keeping up-to-date with political affairs. The most striking differences were that close to two-thirds of the men, but just over half of the women, gave high priority to being very well-off financially and that 57 percent of the men, but only about two-fifths of the women, wanted to be successful in a business of their own. The only inconsistent point in this picture of men as being more success-oriented and more materialistic is that they were more likely than women to value becoming involved in programs to clean up the environment.

With respect to differences among the eight disability categories, the

most striking finding to emerge from Table 52 is that the speech-impaired were much more likely than others to rate virtually all the listed goals as essential or very important; this apparent response set may indicate general enthusiasm and strong achievement motivation, but it also suggests that the speech-impaired have unrealistically high aspirations for themselves. Unusually high (or low) aspirations have frequently been found in students from low socioeconomic backgrounds and for minority groups, and the speech impaired were shown to have disproportionately large representations of poor, nonwhite freshmen.

Once again, the learning-disabled present a somewhat contradictory profile: for instance, 38 percent (compared with only 16 percent of all disabled freshmen) gave high priority to making a theoretical contribution to science, but only 49 percent (compared with 58 percent of all disabled freshmen) were concerned with developing a meaningful philosophy of life.

### Summary

As reported in this chapter on the political orientation, opinions, and long-range goals of 1978 freshmen, differences by gender were more striking than differences between the disabled and the nondisabled. These gender differences followed traditional lines: Men tended to be more conservative in their politics, more "tough-minded" in their attitudes, and more status-oriented in their goals. Women tended to be middle-of-the-road politically, more liberal in their attitudes (except in matters involving heterosexual relations), and more expressive and humanitarian in their goals.

The majority of 1978 freshmen were middle-of-the-road politically; about one in four was liberal or far left; and only one in six was conservative or far right. Most believed that the government should do more to control environmental pollution and discourage energy consumption; that energy shortages could lead to economic depression or even war; that women should get the same salary and opportunities for advancement as men in comparable positions; and that the same performance standards should be applied to everyone in awarding degrees; relatively few thought that college officials have the right to regulate students' off-campus behavior or that college grades should be abolished. The life goals most often rated essential or very important were becoming an authority in one's field and helping others in difficulty; low priority was given to artistic goals (in the performing arts, writing, and the graphic and visual arts) and to making a theoretical contribution to science and influencing the political structure.

The following highlights the distinctive characteristics of each of the eight disability groups:

Hearing Disability. Those with a hearing disability were somewhat more likely than average to identify themselves as liberal and to feel that a national health care plan should be instituted, that faculty promotions should be based in part on student evaluations, and that busing to achieve racial balance in the schools is acceptable. Though permissive in their attitudes towards heterosexual relations, they took a narrow view of homosexuality, being more inclined than any other group to agree that there should be laws prohibiting homosexual relationships. They were also more likely than average to say the courts are too concerned with the rights of the criminal. Larger-than-average proportions.

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endorsed the goals of succeeding in one's own business and participating in programs to clean up the environment, but relatively few were interested in raising a family, being very well-off financially, or making a theoretical contribution to science.

Speech Disability. The most notable characteristic of the speech-impaired was their tendency to endorse a large number of goals as essential or very important. In particular, considerably larger-than-average proportions gave high priority to becoming an authority in their field, winning recognition from colleagues, having administrative responsibility over the work of others, being very well-off financially, writing original works, getting involved in programs to help clean up the environment, and developing a meaningful philosophy of life. As pointed out earlier, this tendency may be an expression of unusual enthusiasm and energy; however, their aspirations seem somewhat unrealistic. Those with speech disabilities were relatively unlikely to be far left in their political orientation, but 4 percent (compared with only 1 percent of all disabled freshmen) were far right. They were more likely than average to favor greater federal action to protect the consumer, and curb energy consumption, a national health care plan, legalization of abortion, liberalization of divorce laws, heavier taxation of the wealthy, legalization of marijuana, preferential treatment in admissions for the disadvantaged, and the adoption of open admissions by all public colleges. But at the same time, larger proportions of the speech-impaired than of any other group believed that the courts are too concerned with the rights of the criminal, that the activities of married women should be confined to home and family, and that college officials have the right to ban extremist speakers, regulate students' off-campus conduct, and control student publications. In short, their values and attitudes seem disparate, even conflicting.

Orthopedic Disability. The orthopedically disabled were most likely of any disability category to identify themselves as liberal and least likely to identify themselves as conservative or far right. This liberal image is generally confirmed by their attitudes. They were more likely than average to believe that the federal government should discourage energy consumption, that the death penalty should be abolished, that a couple should live together before marriage, that abortion should be legalized, that large families should be discouraged, and that college officials do not have the right to control student publication or regulate off-campus behavior. But only 31 percent (compared with 36 percent of all disabled freshmen) believed that all public colleges should have open admissions. The proportions endorsing specific life goals were about the same as the proportions for all disabled freshmen, except that slightly fewer gave high priority to achieving in the arts, to succeeding in their own business, to participating in community action programs, or to keeping up-to-date in political affairs.

Visual Disability. Because the visually disabled constitute the largest of the disability categories (27 percent of the total), it is not surprising that they resemble the norm for all disabled freshmen. They were, however, more likely than average to favor equal treatment in employment for women. Somewhat smaller-than-average proportions agreed that "Urban problems cannot be solved without huge investments of Federal monies," that the married woman's place is in the home, that college grades should be abolished, that student publications should be cleared with college officials, or that the disadvantaged should be given preferential treatment in admissions. The proportions giving high priority to various goals were about the same as the proportions for all disabled freshmen, except that somewhat fewer of the visually impaired aimed

for administrative responsibility over others or success in their own business and slightly more than average aimed to develop a meaningful philosophy of life and to keep up with political affairs.

Learning Disability. As has already been pointed out, the learning-disabled had a somewhat erratic profile; they tended to take extremist positions in their attitudes and values. For instance, they were much more likely than others to identify themselves as far left or far right but much less likely to be middle-of-the-road or liberal. They were more likely than other groups to agree that the government should do more to control pollution, that people should not obey laws that conflict with their personal values, that the death penalty should be abolished, that large families should be discouraged, that marijuana should be legalized, that college grades should be abolished, and that organized sports should be deemphasized in college. But they were less likely than any other disability category to believe that energy shortages could cause economic depression and war, that a national health care program is needed, that abortion should be legalized, that women should get equal treatment in employment, or that the wealthy should pay more taxes. They were generally less likely than others to endorse specific life goals. However, 38 percent, compared with only 16 percent of all disabled freshmen, said that making a theoretical contribution to science was a very important or essential goal.

"Other" Disability. Those with "other" disabilities presented a mixed picture with respect to political orientation: They were less likely than average to be middle-of-the-road but more likely to be far left or conservative. Relatively large proportions took the conservative position that the courts are too concerned with the rights of criminals and that college officials have

the right to ban those with extreme views from speaking on campus; but relatively large proportions also took the liberal view that all public colleges should have open admissions, that wealthy people should pay a larger share of taxes, and that people should not obey laws that violate their personal values. They tended to take a traditionalist position on women's rights and roles and on sexual and family issues but a reformist position on some campus issues: Thus, relatively large proportions favored abolition of grades, deemphasis of organized sports, preferential treatment in admissions for the disadvantaged, and the implementation of open admissions at all public institutions. They also favored federal efforts to protect the consumer and solve urban problems. In addition, they were less likely than any other group to advocate legalization of marijuana. Relatively large proportions gave high priority to becoming accomplished in the performing arts, raising a family, succeeding in their own business, and getting involved in community action programs.

Unknown Disability. Those who indicated they considered themselves physically handicapped but did not specify a disability area were more likely than average to be middle-of-the-road or conservative and less likely to be liberal or far left. The proportions subscribing to the various issue statements did not differ much from the norm. Those with unknown disabilities were slightly more likely than average to value status and achievement goals (becoming an authority in their field, winning colleague recognition, being very well-off financially, keeping up-to-date with political affairs).

Section III

Comparisons by Disability Status, and by  
Level and Control of Institution

Chapter 10

Sample Distribution in Higher Education

A large body of research demonstrates that the U.S. system of higher education is hierarchical in structure--with a few "elite" institutions at the apex, a sizable "middle class," and a large mass of relatively unknown institutions at the bottom--and that financial and other resources are distributed unequally, in accordance with this hierarchy. Thus, those institutions at the top of the hierarchy recruit the most academically able students, spend relatively more money per student for educational purposes, employ highly credentialed faculty, have rich library holdings, provide their students with residential experiences, and so forth. Conversely, those at the bottom--including most two-year colleges--admit students of lower academic ability, have relatively low per-student expenditures, employ less highly credentialed faculty, have poorer library holdings, are commuter institutions, and so forth.

Moreover, these differences in the environments of different types of institutions have been shown to have differential effects on various student outcomes (Astin, 1977; Bowen, 1977; Feldman and Newcomb, 1969; Henson, 1980). For instance, attending a high-quality institution increases a student's chances of completing college, entering a high-level career, being accepted by one of the better graduate or professional schools, and so forth. In short, the student's initial choice of a college may have profound effects on his/her life and achievement. Therefore, it is important to learn how disabled students are distributed among U.S. higher education institutions, how their distribution compares with that of nondisabled students, and how students (disabled and nondisabled) enrolled in different types of institutions differ.

Section III, then, focuses on the type of college entered in 1978, analyzing data by institutional control (public, private) and level (university, four-year college, two-year college). This chapter, in addition to reviewing some of the material on the distribution of 1978 disabled and nondisabled freshmen among institutional types (see Chapter 2), examines the regional distribution patterns of the two groups and discusses disabled students' need for architectural accommodations. The remaining chapters in this section are roughly parallel in sequence to the chapters in Section II, which analyzed the data by disability group. Thus, Chapter 11 deals with the demographic characteristics and high school backgrounds of 1978 disabled and nondisabled freshmen enrolled in different types of institutions; Chapter 12, with their high school backgrounds; Chapter 13, with their choice of institution and residence plans; Chapter 14, with their financial situation; Chapter 15, with their plans and expectations about college; and Chapter 16, with attitudes and values.

#### Sample Distribution Among Institutional Types (Table 53)

As pointed out in Chapter 2, the disabled are represented at all types of higher education institutions, and their distribution across the system is similar to that of the nondisabled (Table 53). Thus, in 1978, approximately three-fourths of both groups entered public institutions, and one-fourth entered private institutions. However, the disabled were slightly more likely than the nondisabled to enter public two-year colleges (38 percent versus 34 percent) and slightly less likely to enter public universities (15 percent versus 19 percent). About one in five freshmen in both groups entered public four-year colleges; slightly fewer (17 percent) entered private four-year colleges; about 5 percent enrolled in private universities, and about 5 percent entered private two-year colleges.

Table 53

Distribution and Gender Composition of 1978 Disabled and Nondisabled Freshman Groups  
at Public and Private Universities, Four-Year Colleges, and Two-Year Colleges  
(percentages)

	Nondisabled							Disabled						
	Level and Control of Institution													
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
Public	Private	Public	Private	Public	Private	Public		Private	Public	Private	Public	Private		
Total	19	6	22	17	34	4	100	15	5	20	17	38	5	100
Percentage Men	52	57	47	47	49	38	49	52	60	50	48	54	41	51
Percentage Women	48	43	53	53	51	62	51	48	40	50	52	46	59	49
N	10,532	89,864	351,068	270,312	546,391	57,864	1,626,569	7,767	2,357	10,114	8,610	19,444	2,504	50,796

Table 53 also shows the gender composition of the 1978 freshman classes at the different institutional types. As was mentioned in Chapter 2, overall enrollment patterns for disabled and nondisabled men and women were similar: Men outnumbered women at universities (both public and private), whereas women outnumbered men at public and private four-year colleges and at private two-year colleges.

Disabled men were especially more likely than were disabled women to enter either the most selective types of institutions (private universities: 60 percent men, 40 percent women) or the least selective (public two-year colleges: 54 percent men, 46 percent women). As was suggested in Chapter 2, this difference may indicate that disabled men are greater risk-takers than are disabled women.

#### Institutional Distribution of the Eight Disability Groups (Tables 54, 55)

Table 54 shows how each disability group was distributed among the various institutional types. As was pointed out in Chapter 2, greater-than-average proportions of the learning-disabled (53 percent), the multiply disabled (47 percent), and the orthopedically disabled (46 percent) entered public two-year colleges. The learning-disabled were also somewhat more likely than average to enroll at private two-year colleges but somewhat less likely than average to enroll at public and private universities, perhaps because their poor high school records disqualified them from entering the more selective institutions. On the other hand, as has been mentioned earlier, many of the respondents in this disability group may be students who lacked confidence in their own academic ability but who were not really "learning-disabled" in the clinical sense.

Table 54

Type of Institution Entered by Disabled, 1978 Freshmen,  
by Disability Area  
(percentages)

Level and Control of Institution		Hearing	Speech	Orthopedic	Visual	Learning	Other	Multiple	Unknown	Total
Universities	Public	13	13	13	19	6	11	12	17	15
	Private	4	4	4	5	2	3	4	5	5
Four-Year	Public	21	24	18	21	13	17	13	22	20
	Private	18	15	15	18	16	19	19	16	17
Two-Year	Public	40	38	46	32	53	43	47	35	38
	Private	4	6	4	4	9	5	6	5	5
N		3,774	1,072	7,300	14,766	1,592	6,427	2,146	13,720	50,797

Table 55

Composition of 1978 Disabled Group at Each Institutional Type, by Disability Area  
(percentages)

Disability Area	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private	
Hearing	6	7	8	8	8	5	7
Speech	2	2	3	2	2	3	2
Orthopedic	12	13	13	13	17	11	14
Visual	36	33	31	31	25	26	29
Learning	1	2	2	3	4	6	3
Other	9	9	11	14	14	14	13
Multiple	3	3	3	5	5	5	4
Unknown	31	32	29	25	24	30	27
N	7,767	2,357	10,114	8,610	19,445	8,504	50,797

In addition, Table 54 reinforces the inference that "visual disability" is an ambiguous category that may include respondents with only slight visual defects (i.e., correctable by glasses or contact lenses), since the institutional distribution of this group more nearly resembles that of the nondisabled than that of the disabled. Like the nondisabled, 19 percent of the visually impaired entered public universities (compared with 15 percent of the total disabled group). Only 32 percent of the visually impaired entered public two-year colleges (compared with 34 percent of the total nondisabled sample and 38 percent of the total disabled sample).

Table 55 shows the composition of the disabled group at each institutional type. Displaying the information in this way should be helpful to policymakers who want to know the extent to which each specific disability group is represented among the disabled at each institutional type. The visually disabled constituted the largest group at every institutional type except private two-year colleges, but their proportion of the total ranged considerably: from one-quarter of all disabled freshmen at public two-year colleges to over one-third (36 percent) of those at public universities. The institutional types which deviate most from the norm, in terms of the composition of the disabled group, were public universities and private two-year colleges.

#### Need for Architectural Accommodations (Tables 56, 57)

Chapter 2 presented an analysis of the distribution of disabled freshmen according to their reported need for "architectural accommodations (e.g., wheelchair ramps). As was indicated in Table 9, 24 percent

Table 56

Disability Areas of Disabled 1978 Freshmen  
Requiring Architectural Accommodations  
(percentages)

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Hearing	9
Speech	0
Orthopedic	46
Visual	7
Learning	3
Other	12
Multiple	5
Unknown	19
N	2,295

Table 57

Proportion of Disabled 1978 Freshmen Requiring  
Architectural Accommodations at Public and Private Universities,  
Four-Year Colleges, and Two-Year Colleges  
(percentages)

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Universities	Public	11
	Private	4
Four-Year Colleges	Public	18
	Private	11
Two-Year Colleges	Public	53
	Private	3

N

2,295

of those with unknown disabilities (i.e., respondents who said that they were physically handicapped but then failed to specify a disability area) and 15 percent of the orthopedically disabled indicated such a need (compared with no more than 6 percent of any other disability group as well as 6 percent of the total disabled sample). Table 56 presents this information in slightly different form, showing the distribution by disability area of all those 1978 disabled freshmen who said that their handicap required architectural accommodations. Close to half of this group (46 percent) were orthopedically disabled, about one-fifth had unknown disabilities, and 12 percent had "other" handicaps. However, it should be pointed out again that the large figure for the "unknown" group is a distortion attributable to the way this group was defined and the fact that large numbers in this group simply skipped the "architectural accommodations" item on the 1978 freshman survey form.

Table 10 (Chapter 2) indicated the disabled freshmen entering two-year colleges were most likely to say that they required architectural accommodations (8 percent), whereas those entering private two-year and four-year colleges were least likely to do so (4 percent). Table 57 shows the institutional distribution of all those 1978 freshmen indicating that they required architectural accommodations. The majority (53 percent, compared with 38 percent of all disabled freshmen) enrolled in public two-year colleges. The group was underrepresented at all other institutional types, but especially at private two-year and four-year colleges. This finding makes sense when one considers that, according to a 1978 NCES survey (Wulfsberg and Petersen, 1979), community colleges had the best record, in that 66 percent of their total assignable space was accessible to the mobility-impaired, whereas private two-year and four-year colleges had

the worst record, with only 20 percent of their total assignable space being accessible to the mobility-impaired.

Of course, as noted in Chapter 2, the SIF item asked only about need for "architectural accommodations" and thus did not allow for a variety of other types of aids and accommodations that the disabled may require. Moreover, physical accessibility is only one component of "program accessibility" as stipulated in Section 504 of the Rehabilitation Act of 1973.

#### Sample Distribution by Region (Tables 58, 59)

Table 58 shows the regional distribution of the disabled and the non-disabled samples, by sex, and of the eight disability groups. (See Appendix F for the states included in each regional category.) Over half enrolled as freshmen at institutions in the East, about one-fifth in the South, slightly under one-fifth in the Midwest, and about one-tenth in the West. Differences by disability status and by gender were slight. The disability groups did not differ much in their regional distribution, except that the learning-disabled were more likely than average to enroll at institutions in the West and in the East and less likely to enroll at midwestern and southern institutions.

Table 59 shows that the proportions of disabled 1978 freshmen saying that they required architectural accommodations were similar across regions, ranging from 5 percent of those entering institutions in the Midwest and South to 7 percent of those entering institutions in the East.

#### Summary

The steady increases over the last several decades in the proportions of high school graduates going on to college is closely connected with the

Table 58

Regional Enrollment of 1978 Freshmen, by Disability Status  
and Gender and by Disability Area  
(percentages)

Region <sup>a</sup>	Nondisabled			Disabled			Disability Area							
	Men	Women	Total	Men	Women	Total	Hearing	Speech	Ortho- pedic	Visual	Learn- ing	Other	Multi- ple	Unknown
East	53	50	52	54	51	53	58	53	57	51	59	52	59	50
Midwest	18	20	19	16	18	17	16	17	16	17	12	20	17	15
South	20	21	20	20	23	22	17	22	17	24	15	18	19	25
West	9	9	9	10	8	9	8	8	9	8	14	11	5	9
N	795,397	831,118	1,626,513	26,107	24,688	50,795	3,774	1,072	7,300	14,766	1,592	6,427	2,146	13,720

<sup>a</sup> See Appendix F for the derivation of these categories

Table 59

Distribution of Disabled 1978 Freshmen Requiring Architectural Accommodations, by Region of Freshman Institution (percentages)

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	<u>East</u>	<u>Midwest</u>	<u>South</u>	<u>West</u>	<u>Total</u>
No	93	95	95	94	94
Yes	7	5	5	6	6
N	19,610	6,361	7,736	3,320	37,027

---

growth of the public sector of higher education and, in particular, the growth of community colleges, which tend to charge low or no tuition and to have open-admissions policies. Thus, about three-fourths of 1978 freshmen, both disabled and nondisabled, entered public institutions; and over one-third of both groups entered public two-year colleges. The greater concentration of academic institutions in the eastern region of the country, and their relative sparsity in the more-recently-settled West, are reflected in enrollment patterns: Slightly over half the 1978 freshmen entered institutions in the East, and only 9 percent entered institutions in the West.

Perhaps the most important point to emerge from these analyses is that disabled students, including those requiring architectural accommodations, are represented in all types of higher education institutions in all regions of the nation; their distribution does not differ drastically from that of nondisabled students. More specific differences, by institutional type, are summarized below:

Public Universities. Nineteen percent of the nondisabled and 15 percent of the disabled 1978 freshmen enrolled at public universities, with the visually impaired being overrepresented (19 percent) and the learning-disabled underrepresented (6 percent). Of those disabled students requiring architectural accommodations, 11 percent entered this institutional type. The gender composition was the same for both the disabled and the nondisabled entrants: 52 percent men, 48 percent women.

Private Universities. Only 6 percent of the nondisabled and 5 percent of the disabled freshmen enrolled in private universities in 1978, with the learning-disabled and those with "other" disabilities being somewhat less likely than those in other disability groups to enter these institutions. In both the disabled and the nondisabled groups, men substantially outnumbered

women. Thus, men constituted 51 percent of all disabled freshmen but 60 percent of the disabled freshmen entering private universities. This gender difference has several possible explanations. First, many private universities were formerly all-male institutions that have only recently become coeducational and that continue to attract more men than women. Second, private universities tend to be expensive; and families may still be more willing to invest in the education of their sons than of their daughters. Finally, many private universities are highly selective and academically competitive; it is possible, then, that men (especially disabled men) are greater risk-takers, more willing to accept the challenge of a demanding and rigorous academic environment, than are their female counterparts.

Public Four-Year Colleges. About one in five 1978 freshmen (22 percent of the nondisabled, 20 percent of the disabled) entered a public four-year college, making it the second most popular institutional choice (after the community college). Of those disabled freshmen requiring architectural accommodations, 18 percent entered these institutions. Women slightly outnumbered men among public four-year college entrants. In addition, the speech-impaired were somewhat overrepresented (24 percent), and the learning-disabled and multiply disabled somewhat underrepresented (13 percent).

Private Four-Year Colleges. Seventeen percent of both disabled and nondisabled freshmen, but only 11 percent of the disabled freshmen requiring architectural accommodations, enrolled in private four-year colleges, with women being somewhat more likely than men to enter these institutions. The speech-impaired and the orthopedically disabled were somewhat underrepresented, and those with multiple and "other" disabilities somewhat overrepresented, among private four-year college entrants.

Public Two-Year Colleges. As was mentioned earlier, the community college has become the dominant institutional type in U.S. higher education, enrolling the largest proportions of first-time freshmen: 34 percent of the nondisabled and 38 percent of the disabled in 1978. Smaller-than-average proportions of the visually impaired (32 percent), and larger-than-average proportions of the learning-disabled (53 percent), the multiply disabled (47 percent), and the orthopedically disabled (46 percent) entered these institutions. Moreover, fully 53 percent of those disabled students requiring architectural accommodations were community college entrants; this figure is consistent with the fact that the orthopedically impaired constitute 46 percent of those handicapped students saying they need some kind of architectural accommodation, as well as with the finding (Wulfsberg and Petersen, 1979) that community colleges had the greatest proportion of assignable space that was accessible to the mobility-impaired in 1978.

One unexpected finding is that, while the gender composition of nondisabled community college entrants is identical to the gender composition of the total nondisabled group (51 percent women, 49 percent men), among the disabled, men were more likely than women to enter these institutions. This difference--coupled with the fact that men slightly outnumber women in the total disabled group (51 percent men, 49 percent women), whereas the opposite is true for the nondisabled--suggests that disabled men may be more willing than their female counterparts to risk attending college at all and thus to take advantage of the greater accessibility and the open access offered by community colleges.

Private Two-Year Colleges. Only 4 percent of the nondisabled and 5 percent of the disabled 1978 freshmen enrolled in private two-year colleges, which are something of a dying breed in U.S. higher education. A larger

proportion of the learning-disabled (9 percent) than of any other disability group chose this type of institution. Only 3 percent of those disabled freshmen requiring architectural accommodations entered private two-year colleges, which is consistent with the finding that only 20 percent of their total assignable space was estimated to be physically accessible to the mobility-impaired (Wulfsberg and Petersen, 1979). Finally, only about half as many disabled private two-year college entrants (12 percent) as their nondisabled counterparts (22 percent) enrolled in junior colleges located in the East, perhaps because such institutions tend to be expensive and because disabled freshmen tend to come from lower-income backgrounds than do the nondisabled.

## Chapter 11

### Demographic Characteristics and Family Background

This chapter (roughly parallel in content and structure to Chapters 3 and 4) describes the demographic characteristics and family background of disabled and nondisabled entrants to the six institutional types in 1978. The demographic items covered are age, race/ethnicity, religious preference, marital status, and veteran status. The family background factors are parents' education, father's occupation, and estimated parental income, all of which are generally regarded as indicators of socioeconomic status.

#### Age (Table 60)

Chapter 3 indicated that the great majority of 1978 freshmen were between 17 and 20 years of age; that the disabled were more likely than the nondisabled to be age 21 or over at college entry; and that relatively large proportions of those with "other," orthopedic, and multiple disabilities were "older" students.

As Table 60 shows, community colleges were much more likely than were other institutional types to enroll older freshmen: 5 percent of the nondisabled entrants and 12 percent of the disabled entrants to public two-year colleges were age 21 or over in 1978; also in this age group were 6 percent of the disabled freshmen and 1 percent of the nondisabled freshmen entering private two-year colleges, 4 percent of the disabled freshmen entering public four-year colleges, and 2 percent of the disabled freshmen entering private four-year colleges. Universities enrolled virtually no "older" freshmen, disabled or nondisabled.

Table 60

Age of 1978 Freshmen, by Disability Status  
and by Level and Control of Institution  
(percentages)

Age	Universities		Nondisabled				Total	Universities		Disabled				Total	
	Public	Private	4-Year Colleges	Public	Private	2-Year Colleges		Public	Private	4-Year Colleges	Public	Private	2-Year Colleges		Public
16 or younger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 - 18	83	88	80	80	75	75	79	80	80	72	72	61	57	69	
19 - 20	16	12	18	20	20	24	18	19	19	23	25	28	38	25	
21 - 22	0	0	0	0	1	0	1	0	0	2	2	4	2	2	
23 - 25	0	0	0	0	2	1	1	0	0	1	0	2	2	1	
26 - 29	0	0	0	0	1	0	0	0	0	0	0	1	2	0	
30 or older	0	0	0	0	1	0	0	0	0	1	1	5	0	2	
N	308,080	89,180	349,440	268,520	540,510	57,110	1,612,930	7,658	2,330	16,073	8,494	19,204	2,490	50,248	

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Race/Ethnicity (Tables 61, 62)

Although the great majority of 1978 freshmen were white, Chapter 3 noted that there were slightly more nonwhites (especially black and Asian women and both men and women from the "other" racial/ethnic category) among the nondisabled (17 percent) than among the disabled (13 percent). Table 61 shows the racial/ethnic distribution of disabled and nondisabled freshmen at each of the six institutional types. Enrolling the largest proportions of minority students among their disabled freshmen were public four-year colleges (25 percent), private two-year colleges (25 percent), private universities (20 percent), and private four-year colleges (18 percent). In contrast, only 12 percent of the disabled freshmen entering public universities and 13 percent of those entering public two-year colleges were nonwhite.

Table 62 shows the institutional distribution of each of the five racial/ethnic groups, by disability status. Overall, Whites were more likely than others to enter public universities; Blacks and Hispanics, to enter public four-year colleges; Asian-Americans, to enter private universities and private four-year colleges; and those from "other" racial/ethnic backgrounds, to enter public two-year colleges.

The college enrollment patterns of disabled and nondisabled freshmen from each racial/ethnic groups were roughly similar, with the following exceptions. A larger proportion of disabled Whites (40 percent) than of nondisabled Whites (34 percent) enrolled in public two-year colleges. Disabled Blacks were more likely than were their nondisabled counterparts to enter private two-year colleges (7 percent versus 4 percent). Two in five disabled Hispanics, but only one in three nondisabled Hispanics, enrolled in public four-year colleges. Disabled Asians were nine times more likely than were nondisabled Asians to attend private two-year colleges (18 percent

Table 61

Racial/ Ethnic Identity of 1978 Freshmen, by Disability Status  
and by Level and Control of Institution  
(percentages)

Racial/Ethnic Identity	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
White	92	83	82	86	89	90	87	88	80	75	82	87	75	83
Black/Negro/ Afro-American	5	9	13	8	6	8	8	7	10	16	10	6	14	10
Hispanic <sup>a</sup>	1	2	2	2	1	0	2	1	1	3	1	1	0	2
Asian <sup>b</sup>	1	2	1	2	1	1	1	2	3	1	2	1	5	1
Other <sup>c</sup>	2	4	2	3	3	1	2	2	6	5	4	5	6	5
N	306,081	87,164	347,166	267,164	538,341	56,869	1,603,228	7,765	2,321	10,246	8,667	19,493	2,549	51,042

- a. Includes Mexican-American/Chicanos and Puerto Rican Americans but not other Hispanic groups such as Cubans.  
b. Includes Pacific Islanders.  
c. Includes American Indians and "others".

Table 62

Proportion of Each Racial/Ethnic Group at Public and Private Universities,  
Four-Year Colleges, and Two-Year Colleges by Disability Status, 1978  
(percentages)

Racial/Ethnic Identity	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		N	Universities		4-Year Colleges		2-Year Colleges		N
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
White	20	5	20	16	34	4	1,399,660	16	4	18	17	40	4	41,542
Black/Negro/ Afro-American	12	6	37	18	24	4	126,590	11	5	34	18	25	7	4,769
Hispanic <sup>a</sup>	10	6	34	17	32	1	23,350	8	3	41	14	34	0	798
Asian <sup>b</sup>	17	12	16	23	30	2	17,440	22	10	7	27	17	18	656
Other <sup>c</sup>	12	8	18	20	40	1	36,350	8	6	22	16	42	6	2,327

a. Includes Mexican-American/Chicanos and Puerto Rican Americans but not other Hispanic groups such as Cubans

b. Includes Pacific Islanders

c. Includes American Indians and "others"

versus 2 percent) and were also somewhat more likely to choose public universities and private four-year colleges. Of those from the "other" racial/ethnic category, 6 percent of the disabled but only 1 percent of the nondisabled enrolled in private two-year colleges. Thus, the private two-year colleges present an unusual profile, in that substantially more of their disabled students than of their nondisabled students are black, Asian, or "other."

#### Current Religious Preference (Table 63)

As Table 63 indicates, both disabled and nondisabled 1978 freshmen who gave their current religious preference as Catholic were especially unlikely to enroll in private two-year colleges (many of which are controlled by Protestant denominations) and, to a lesser extent, in public and private four-year colleges. Relative to their proportions among all entering freshmen, Catholic freshmen were overrepresented at public two-year colleges: They constituted 38 percent of all nondisabled entering freshmen and 35 percent of all disabled entering freshmen, but 48 percent and 43 percent, respectively, of those entering community colleges. This tendency may reflect the relatively low socioeconomic backgrounds of many Catholics. Jewish freshmen, both disabled and nondisabled, were disproportionately enrolled in private universities, constituting 15 percent of the entering freshmen at these institutions but only 4 percent of all entering freshmen. Their enrollment in the most "elite" of institutional types is probably a function of their higher socioeconomic status, better academic preparation, and stronger parental expectations. Those nondisabled freshmen naming "other" religious preferences were more likely than average to enter private four-year colleges, whereas the disabled freshmen in this category were somewhat

Table 63

Religious Preferences of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Religious Preference	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Protestant <sup>a</sup>	48	38	51	50	39	72	46	47	38	53	48	37	79	46
Roman Catholic	32	32	34	34	48	21	38	32	25	33	31	43	11	35
Jewish	6	15	2	2	3	0	4	5	15	3	3	3	0	4
Other <sup>b</sup>	3	5	5	6	5	2	5	5	7	5	8	7	5	6
None	10	11	7	8	6	4	8	12	15	6	9	10	4	9
N	291,610	82,750	334,630	256,260	506,000	54,350	1,525,590	7,314	2,183	9,184	8,159	17,711	2,157	46,709
Do you consider yourself a reborn Christian?														
Yes	26	24	34	38	25	47	30	28	24	34	39	28	54	32
N	236,004	67,998	270,764	213,979	396,275	43,075	1,229,092	6,035	1,811	7,651	6,907	14,156	1,782	38,342

<sup>a</sup> Includes Baptist; Congregational (UCC); Episcopal; Lutheran; Methodist; Presbyterian; Quaker (Society of Friends); Unitarian-Universalist

<sup>b</sup> Includes Eastern Orthodox; Muslim; Mormon (Latter Day Saints) and "other" religions

overrepresented not only in private four-year colleges but also in private universities and public two-year colleges. Freshmen indicating that they had no current religious preference were especially likely to enter public and private universities and (in the case of the disabled) public two-year colleges. Finally, those students who considered themselves to be reborn Christians constituted 47 percent of the nondisabled freshmen and 54 percent of the disabled freshmen enrolling at private two-year colleges. In addition, larger-than-average proportions of entrants to private four-year colleges were reborn Christians. Since such students would tend also to be Protestant, and since many private two-year and four-year colleges are operated by Protestant denominations, this distribution makes logical sense.

#### Marital Status (Table 64)

Married freshmen (who constituted 1 percent of the nondisabled group and 4 percent of the disabled group) were more likely to enroll in public two-year colleges than in any other institutional type; they constituted 6 percent of the disabled entrants and 2 percent of the nondisabled entrants to this type of institution; in addition, 4 percent of disabled entrants and 2 percent of nondisabled entrants to private two-year colleges were married at college entry; and small proportions of the disabled entering public universities and public and private four-year colleges were married students. However, none of the nondisabled who enrolled at public or private universities or four-year colleges was married.

#### Veteran Status (Tables 65, 66)

In Chapter 3, it was noted that 3 percent of disabled freshmen and 1 percent of nondisabled freshmen were veterans of military service. As Table 65 indicates, entrants to public two-year colleges were most likely

Table 64

Marital Status of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Marital Status	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Not presently married	100	100	100	100	98	98	99	99	100	97	99	94	97	97
Married, living with spouse	0	0	0	0	2	2	1	1	0	2	1	5	2	3
Married, not living with spouse	0	0	0	0	0	0	0	0	0	0	0	1	2	1
N	307,306	87,621	345,719	266,325	535,266	57,662	1,599,895	7,634	2,328	9,870	8,413	18,874	2,374	49,491

Table 65

Veteran Status of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Veteran Status	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Yes, veteran	1	1	1	1	2	1	1	1	1	3	1	4	2	3
N	305,748	88,477	347,205	266,318	531,061	56,070	1,597,576	7,555	2,295	9,961	8,366	18,974	2,415	49,566

Table 66

Distribution of Disabled and Nondisabled Veterans at Public and Private Universities, Four-Year Colleges, and Two-Year Colleges, 1978  
(percentages)

Veteran Status	Nondisabled						N	Disabled						N
	Universities		4-Year Colleges		2-Year Colleges			Universities		4-Year Colleges		2-Year Colleges		
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
Yes, veteran	11	2	22	9	53	2	21,168	6	2	21	9	58	5	1,341

to be veterans, followed by disabled entrants to public four-year colleges. Table 66 indicates that slightly larger proportions of disabled veterans (58 percent) than of nondisabled veterans (53 percent) entered community colleges; however, disabled veterans were almost twice as likely as nondisabled veterans to enter private two-year colleges (5 percent versus 2 percent), whereas nondisabled veterans were almost twice as likely as disabled veterans to enter public universities (11 percent versus 6 percent). Otherwise, the institutional choices of disabled and nondisabled veterans were about the same.

#### Parents' Education (Tables 67, 68, 69, 70)

As was pointed out in Chapter 4, the fathers of 1978 freshmen tended to be somewhat better educated than the mothers, and disabled freshmen differed little from nondisabled freshmen with respect to parental education.

In terms of their admissions selectivity (as well as other measures of quality), U.S. higher education institutions are hierarchically ordered (Astin and Henson, 1977), with universities being the most selective and two-year colleges the least selective. The parents' educational level of both disabled and nondisabled entrants to the various institutional types reflects this hierarchy: Freshmen entering private universities had the best educated parents, followed by those entering public universities and private two-year colleges had the least educated parents. These patterns are shown in Table 67 (for father's education) and Table 68 (for mother's education).

Tables 69 and 70, showing the institutional distribution of freshmen at different levels of parental education, make this institutional hierarchy even more clear: Substantial proportions of freshmen, especially the dis-

Table 67

Educational Level Attained by Fathers of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Educational Level	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
Grammar school or less	3	3	6	6	6	8	5	5	5	8	8	9	15	8
Some high school	7	5	10	8	15	14	11	7	6	14	10	17	17	13
High school graduate	24	13	27	24	38	36	29	23	15	28	22	34	31	28
Postsecondary school other than college	4	3	5	4	4	3	4	4	1	4	5	5	1	4
Some college	14	14	15	14	10	14	13	14	13	16	13	12	11	13
College degree	26	26	20	21	17	14	20	25	21	16	19	13	17	17
Some graduate school	4	4	2	3	2	2	3	4	7	3	4	1	0	3
Graduate degree	19	32	13	20	8	9	14	18	31	11	21	10	7	14
N	303,279	86,064	339,937	263,010	520,028	56,096	1,568,007	7,518	2,294	9,681	8,378	18,007	2,321	48,199

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Table 68

Educational Level Attained by Mothers of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Educational Level	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Grammar school or less	2	2	4	3	5	5	4	3	3	6	5	6	8	5
Some high school	6	4	9	8	11	13	9	7	5	13	11	14	14	12
High school graduate	38	25	43	35	52	47	43	35	22	40	31	45	41	39
Postsecondary school other than college	8	7	8	6	7	4	7	8	5	7	7	8	3	7
Some college	17	20	14	17	12	14	14	17	22	14	16	11	11	14
College degree	20	25	15	19	11	11	16	20	25	13	18	9	16	14
Some graduate school	3	5	2	3	1	1	2	4	4	2	3	1	0	2
Graduate Degree	7	12	5	7	4	6	6	6	15	6	9	6	7	7
N	303,278	86,660	342,681	265,280	524,436	56,811	1,579,676	7,548	2,302	9,714	8,426	18,178	2,344	48,512

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Table 69

Educational Level Attained by Fathers of 1978 Freshmen at Public and Private Universities, Four-Year Colleges, and Two-Year Colleges, by Disability Status (percentages)

Educational Level	Nondisabled						N	Disabled						N
	Universities		4-Year Colleges		2-Year Colleges			Universities		4-Year Colleges		2-Year Colleges		
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
Grammar school or less	11	3	25	17	38	5	85,081	10	3	21	16	42	9	3,901
Some high school	12	3	21	13	47	5	168,847	8	2	22	14	48	6	6,327
High school graduate	16	2	20	14	43	4	453,809	13	3	20	14	45	5	13,350
Postsecondary school other than college	19	4	27	16	32	2	66,934	16	2	20	15	45	2	1,828
Some-college	21	6	25	18	26	4	201,783	16	5	24	17	34	4	6,397
College degree	25	7	22	17	28	2	322,000	23	6	19	19	28	5	8,340
Some graduate school	26	9	20	21	21	3	41,619	22	13	24	23	18	0	1,268
Graduate Degree	25	12	20	23	18	2	227,942	20	10	15	26	25	2	6,788

Table 70

Educational Level Attained by Mothers of 1978 Freshmen at Public and Private Universities,  
Four-Year Colleges, and Two-Year Colleges, by Disability Status  
(percentages)

Educational Level	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		N	Universities		4-Year Colleges		2-Year Colleges		N
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Grammar school or less	10	4	24	16	43	5	56,922	8	2	23	16	43	8	2,560
Some high school	13	2	23	16	41	5	137,932	9	2	22	16	45	6	5,658
High school graduate	17	3	22	14	40	4	674,397	14	3	21	14	43	5	18,786
Postsecondary school other than college	22	5	25	15	31	2	114,043	17	3	19	16	43	2	3,574
Some college	22	8	21	19	26	3	229,754	19	7	20	20	30	4	6,720
College degree	25	9	20	21	23	2	246,235	22	8	18	23	23	5	6,856
Some graduate school	25	13	20	28	12	2	31,819	27	10	20	25	17	1	1,017
Graduate Degree	22	12	19	22	20	4	88,582	14	10	16	22	33	5	3,338

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abled, whose parents had no more than a high school education enrolled in community colleges. Those whose fathers had graduate degrees were twice as likely as the average disabled freshman to enter private universities; disabled freshmen whose fathers had a graduate degree were more likely than were their nondisabled counterparts to enroll, either in private four-year colleges or public two-year colleges.

Father's Occupation (Table 71)

The institutional hierarchy is also reflected in the enrollments of 1978 freshmen by father's occupation (Table 71). Those freshmen whose fathers held jobs requiring a graduate or advanced-professional degree tended to enroll in the more elite institutional types. For example, 2 percent of both the disabled and the nondisabled groups said their fathers were physicians; but 9 percent of the nondisabled and 7 percent of the disabled entrants to private universities, and 4 percent of both groups entering private four-year colleges, said their fathers were physicians. Similarly, only 1 percent of both groups in the total sample, but 4 percent of those enrolling at private universities, said their fathers were lawyers. The children of engineers were most likely to enroll at public universities.

Conversely, those 1978 freshmen whose fathers worked in occupations requiring little training tended to enroll in the relatively nonselective institutional types: The children of farmers/ranchers were disproportionately enrolled in private two-year colleges; the children of skilled workers, in public two-year colleges and (in the case of the nondisabled only) in private two-year colleges; the children of semiskilled workers and laborers, in public two-year colleges and (in the case of the disabled only) public four-year colleges.

Table 71

Occupation of Fathers of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Occupation <sup>a</sup>	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Artist	1	1	1	1	1	0	1	1	2	1	1	1	1	1
Businessman	34	36	30	32	25	29	30	34	37	26	28	23	24	27
Clergy	1	1	1	3	1	3	1	0	1	1	3	1	0	1
College Teacher	1	2	1	2	0	0	1	1	3	1	1	0	1	1
Doctor	3	9	1	4	1	2	2	3	7	2	4	1	2	2
Educator (secondary)	3	4	4	4	3	1	3	3	3	3	3	4	1	3
Elementary Teacher	0	1	1	1	1	0	1	1	1	1	1	1	1	1
Engineer	12	10	9	8	9	7	9	11	8	9	7	8	6	8
Farmer-Rancher	4	1	3	4	4	6	4	4	1	4	4	4	10	4
Health Professional	2	2	2	1	1	0	1	2	1	2	1	1	1	2
Lawyer	2	4	1	2	1	1	1	2	4	0	3	0	0	1
Military	2	2	3	1	1	3	2	2	3	3	1	1	1	2

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Table 71 (Concluded)

(percentages)

Occupation <sup>a</sup>	Nondisabled								Disabled					
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Research Scientist	1	2	0	1	1	1	1	2	0	0	0	0	0	
Skilled Worker	9	6	10	9	14	14	11	10	7	10	10	14	8	11
Semiskilled Worker	3	2	4	4	6	4	5	3	2	7	5	8	6	6
Laborer	2	1	4	3	4	3	3	3	1	5	4	5	3	4
Unemployed	1	2	3	2	3	4	2	2	2	4	2	4	3	3
Other	18	15	22	20	26	23	22	18	15	22	22	24	31	22
N	294,950	83,470	326,960	255,010	502,470	51,880	1,514,730	7,228	2,193	9,189	7,950	16,840	2,051	45,450

<sup>a</sup> See Appendix B for derivation of these occupational categories

The children of businessmen (the most common paternal occupation) were overrepresented at public and private universities and underrepresented in the two-year colleges.

There were few notable differences (in terms of father's occupation) between disabled and nondisabled freshmen enrolling at the various institutional types.

Estimated Parental Income (Table 72)

Chapter 4 indicated that disabled 1978 freshmen tended to come from slightly lower socioeconomic backgrounds, with respect to parental income, than did nondisabled 1978 freshmen. Thus, 31 percent of the disabled, compared with 25 percent of the nondisabled, estimated their parents' total 1977 income to be less than \$12,500.

As Table 72 shows, parental income was related to the cost of the institution attended. For example, 31-32 percent of entrants to the most elite and expensive of institutional types, the private universities, came from families with incomes of \$40,000 or more. Other institutional types enrolling relatively large proportions of freshmen from affluent backgrounds were the public universities and the private four-year colleges.

At the other end of the scale, the college enrollment patterns of low income freshmen varied somewhat by disability status. Disabled freshmen whose parental incomes were under \$8,000 were more likely than were their nondisabled counterparts to enter private two-year colleges, slightly more likely to enter public four-year colleges, but slightly less likely to enter two-year public colleges.

Table 72.

Estimated Annual Income of Parents of 1978 Freshmen by Disability Status,  
and by Level and Control of Institution  
(percentages)

Annual Parental Income	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Less than \$8,000	7	7	13	12	14	15	12	9	6	19	14	16	25	15
\$8,000 - \$12,499	9	8	14	12	15	13	13	11	10	15	14	19	16	16
\$12,500 - \$19,999	22	18	23	23	29	30	25	21	13	23	24	30	26	25
\$20,000 - \$29,999	29	20	27	24	28	22	27	26	24	23	21	20	16	22
\$30,000 - \$39,999	17	16	13	14	8	11	12	15	15	12	11	9	7	11
\$40,000 - more	16	31	10	16	6	9	12	18	32	8	16	5	10	11
N	278,040	77,840	30,998	242,360	465,270	48,520	1,422,000	7,006	2,130	8,671	7,650	16,292	2,098	48,347

### Summary

These analyses underscore the important role played by community colleges--and, to a lesser extent, by private two-year colleges--in opening postsecondary access to a wider variety of people, enrolling relatively large proportions of freshmen above traditional college age and (concomitant with that) of married students and veterans. Moreover, about three in five of the 1978 entrants to two-year colleges were first-generation college students (i.e., their parents had not gone beyond high school). It is also worth noting that, of 1978 freshmen whose fathers had a graduate degree, substantially more of the disabled than of the nondisabled enrolled in community colleges, while substantially fewer enrolled in public or private universities. It may be that these disabled students do not have the same opportunity as their nondisabled counterparts to attend the more selective institutions and that (despite the high educational attainment of their fathers) they would not have gone to college at all if a community college had not been available to them.

Just as important, these analyses make clear the hierarchical structure of U.S. higher education. Those institutions at the top not only have a disproportionate share of the financial and human resources but also, because of their selective admissions policies, enroll a disproportionate share of freshmen from high socioeconomic backgrounds, thus perpetuating status differences in the larger society.

Finally, the analyses indicate that the disabled and the nondisabled entrants to a given institutional type are similar in their demographic and family background characteristics. More specific findings for each of the six institutional types are summarized below.

Public Universities. Virtually all 1978 entrants to public universities

were between ages 17 and 20; virtually none of the nondisabled, and only 1 percent of the disabled, were married; and only 1 percent in either group were veterans. These institutions enrolled fewer nonwhites than any other institutional type, except that 22 percent of disabled Asians (compared with 15 percent of all disabled freshmen) chose public universities. Protestants, Jews, and students with no current religious preference were somewhat over-represented, whereas Catholics and those with some "other" religious preference were underrepresented, relative to their proportions among all entering freshmen.

Entrants to public universities came from fairly high socioeconomic backgrounds. Their parents tended to be well-educated: Close to half of their fathers, and about 30 percent of their mothers, had at least a baccalaureate. Larger-than-average proportions said their fathers were businessmen, physicians, engineers, and lawyers. The parental incomes of the disabled tended to be somewhat lower than those of the nondisabled, but about three-fifths of both groups reported parental incomes of over \$20,000.

Private Universities. At the top of the status hierarchy with respect to selectivity and other measures of quality, private universities enrolled unmarried, traditional-age freshmen who tended to come from high socioeconomic backgrounds. About three in ten (compared with only 11-12 percent of all 1978 entering freshmen) reported parental incomes of \$40,000 or more. About three in ten (compared with 14 percent of the total sample) said their fathers had graduate degrees, and larger-than-average proportions had fathers who were businessmen or worked in occupations requiring advanced training, such as college teaching, medicine, law, and scientific research.

Fifteen percent of entrants to private universities were Jewish, compared with only 4 percent of all 1978 entering freshmen; and a larger

proportion than at any other institutional type said they had no current religious preference. On the other hand, Protestants and Catholics were somewhat underrepresented. Private universities were also less likely than any other institutional type to enroll freshmen who considered themselves born-again Christians. At the same time, private universities were more likely than any other institutional type except public four-year colleges to enroll nonwhites, especially Asians and students of "other" racial/ethnic backgrounds.

Public Four-Year Colleges. Although the proportions of "older" and of married entrants were negligible, Blacks and Hispanics were better represented at public four-year colleges than at any other type of institution. In addition, relatively large proportions of Protestants and of reborn Christians entered these institutions, which were also the second most popular choice (after public two-year colleges) of veterans. Entering freshmen were of average socioeconomic status, with the nondisabled somewhat more likely than the disabled to have college-educated fathers who were businessmen, school teachers, and lawyers, and the disabled more likely to have fathers who were physicians, semiskilled workers, and laborers or who were unemployed. Half of the nondisabled entrants, but only 43 percent of the disabled entrants, reported parental incomes of \$20,000 or more. In short, disabled freshmen at public four-year colleges came from slightly more disadvantaged backgrounds than the nondisabled, a fact of which institutional policymakers should be aware.

Private Four-Year Colleges. These institutions were more popular with Asians than with any other racial/ethnic group. Protestants and students with "other" religious preferences, as well as reborn Christians, were somewhat overrepresented, whereas Catholics and Jews were underrepresented,

relative to their proportions among all entering freshmen. The socioeconomic status of entrants to private four-year colleges tended to be higher than that of public four-year college entrants but lower than that of public university entrants. Larger-than-average proportions had fathers who were clergymen, physicians, and lawyers.

Public Two-Year Colleges. As has been pointed out before, these institutions, along with private two-year colleges, dominate in serving nontraditional students. They were chosen by 38 percent of the disabled freshmen (compared with 34 percent of the nondisabled). In addition, 5 percent of their nondisabled and 12 percent of their disabled freshmen were over age 21; 2 percent of the nondisabled and 6 percent of the disabled students were married. Community colleges were the most popular choice of veterans. Relatively large proportions of their freshmen were white or from "other" racial/ethnic backgrounds; relatively few were black. A relatively large proportion were Catholic; relatively few were Protestant or Jewish. Somewhat curiously, only 17 percent of disabled Asians, but 30 percent of nondisabled Asians, enrolled in community colleges.

The socioeconomic status of community college freshmen tended to be low, with the nondisabled coming from slightly higher income levels than the disabled: 42 percent of the nondisabled, but only 34 percent of the disabled, reported parental incomes of at least \$20,000. Differences between the two groups with respect to parents' education were slight. Relatively large proportions of both groups said their fathers were skilled, semiskilled, or unskilled workers or that they were unemployed. Disabled students were especially likely to have fathers who were school teachers.

Private Two-Year Colleges. These colleges present a somewhat puzzling profile, with some striking differences between disabled and nondisabled

entrants. For instance, of the disabled entrants, 6 percent were age 21 or over, 4 percent were married, and 2 percent were veterans; of the nondisabled, only 1 percent were age 21 or over, 2 percent were married, and 1 percent were veterans. Minorities were underrepresented among the nondisabled, relative to their proportions in the total sample. The disabled group, on the other hand, included relatively large proportions of Blacks, Asians, and those of "other" racial/ethnic backgrounds.

Though Protestants constituted only 46 percent of the total nondisabled and disabled samples, close to four in five disabled entrants and 72 percent of nondisabled entrants to private two-year colleges were Protestant. Virtually no Jews, and smaller-than-average proportions of Catholics and of those with "other" or with no religious preferences were found in either group.

Larger proportions of low-income freshmen, especially disabled students, enrolled at private than at public two-year colleges, but larger proportions of private two-year college entrants reported parental incomes of \$40,000 or more. Fully one-quarter of the disabled entrants, compared with 15 percent of the nondisabled entrants, came from families with incomes of less than \$8,000. The disabled were more likely than the nondisabled to say that their fathers had no more than a high school education; but about one-quarter in each group said their fathers had a baccalaureate or better. The mothers of the disabled tended to be better educated than the mothers of the nondisabled. Larger-than-average proportions of both groups said their fathers were farmers. In addition, larger-than-average proportion of the nondisabled entrants had fathers who were clergymen, military officers, skilled workers, or unemployed.

## Chapter 12

### High School Background

This chapter, paralleling Chapter 5, describes the high school backgrounds of 1978 entrants to the six types of institutions. The topics covered include: year of graduation, high school program, grade average and class rank, remedial work taken in various subjects, perceived adequacy of the preparation received in various subjects, and frequency of certain behaviors and activities.

#### High School Graduation (Table 73)

The overwhelming majority of 1978 freshmen (94 percent of the nondisabled and 90 percent of the disabled) had graduated from high school in 1978 and thus had entered college directly. Disabled freshmen were more likely than nondisabled freshmen to have graduated from high school earlier than 1978 (8 percent versus 6 percent), with the largest proportions of delayed entrants in both groups occurring at public two-year colleges, followed by private two-year colleges, public four-year colleges, and private four-year colleges. In addition, 1 percent of the nondisabled and 2 percent of the disabled had passed the GED test in lieu of receiving high school diplomas; and 1 percent of the nondisabled entrants to private two-year colleges and 1 percent of the disabled entrants to private four-year colleges saying they had never graduated from high school. Consistent with their greater likelihood of being 17-18 years old at college entry, virtually all entrants to universities had graduated from high school either in 1978 or one year earlier.

Table 73

High School Graduation of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages).

High School Graduation	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges			Universities		4-Year Colleges		2-Year Colleges		
	Public	Private	Public	Private	Public	Private	Total	Public	Private	Public	Private	Public	Private	Total
1978	97	98	96	96	90	92	94	96	98	92	93	83	89	90
1977	2	1	2	2	4	5	3	2	2	3	3	6	7	4
1976	0	0	1	0	2	0	1	0	0	1	1	2	1	1
1975 or earlier	0	0	1	1	3	1	2	0	0	3	2	6	2	3
Did not graduate but passed GED	0	0	1	0	1	1	1	0	0	0	0	3	2	2
Never completed high school	0	0	0	0	0	1	0	0	0	0	1	0	0	0
N	307,571	88,703	348,009	267,810	534,209	56,866	1,603,161	7,629	2,317	9,974	8,421	18,337	2,444	49,622

### High School Program (Table 74)

Most 1978 freshmen (88 percent of the nondisabled, 81 percent of the disabled) had taken college preparatory programs in high school (Table 74). Of those who had taken some other type of program (e.g., vocational, secretarial), the greatest proportion (20 percent of the nondisabled, 30 percent of the disabled) entered public two-year colleges, followed by private two-year colleges (23 percent of the nondisabled, 28 percent of the disabled). These figures underscore the role played by the two-year colleges in serving nontraditional students.

At the other end of the scale, only 3 percent of entrants to private universities took other than a college preparatory program.

Larger proportions of the disabled than of the nondisabled entering both public and private four-year colleges and public universities had not taken a college preparatory program. As noted in Chapter 5, the greater tendency of disabled students to take some other type of program may be connected with their having some "special" status in high school: i.e., being enrolled in programs for handicapped students.

### High School Grades and Class Rank (Tables 75, 76)

Chapter 5 pointed out that the nondisabled tended to have somewhat better high school academic records (i.e., grade averages, class rank) than the nondisabled. As Tables 75 and 76 suggest, differences in the six institutional types, with respect to the high school academic performance of both their disabled and their nondisabled freshmen, reflect their differential selectivity (i.e., admissions standards). These differences are almost a matter of definition, in that high school grades and class rank are two of the main criteria used in screening applicants for college admissions (the other being scores on standardized tests).

Table 74

High School Program of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

High School Program	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
College preparatory	95	97	90	92	80	77	88	94	97	86	89	70	72	81
Other (e.g., vocational)	5	3	10	8	20	23	12	6	3	14	11	30	28	19
N	307,766	89,010	347,995	267,690	530,675	56,774	1,599,907	7,650	2,332	10,020	8,555	18,671	2,416	49,645

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Thus, close to half of all entrants to the most selective institutions, the private universities, made A averages in high school, and about seven in ten ranked in the top quarter of their graduating classes. At the next most selective institutions, the public universities, about one-third made A averages and at least three in five ranked in the top quarter. There was very little difference between the disabled and the nondisabled on either measure at these institutions.

At the other end of the scale, only about one-tenth of the entrants to public and private two-year colleges made A averages, and fewer than three in ten ranked in the top quarter of their classes. Entrants to the community colleges made slightly better grades in high school than private two-year college entrants. The picture for high school rank is mixed: Among nondisabled freshmen, those entering the public institutions were more likely to rank high in their classes; among the disabled, however, entrants to the private institutions not only outranked their counterparts at community colleges but also tended to have higher high school ranks than the nondisabled at their own institutions.

At the four-year college level, slightly greater proportions at the private institutions than at the public institutions made A averages and ranked in the top quarter of their classes; but approximately equal proportions at both institutional types made C or D grade averages and ranked in the bottom half. In short, public four-year college entrants were the more likely to make B averages and to rank in the second quarter of their classes. Again, the nondisabled entered these institutions with slightly better academic records than the disabled.

To summarize: differences between the disabled and the nondisabled were marked at the two-year colleges and the four-year colleges. Apparently,

Table 75

High School Grade Average of 1978 Freshmen, by Disability Status  
and by Level and Control of Institution  
(percentages)

Grade Average	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
A- to A+	33	48	24	28	11	10	23	31	49	17	22	7	7	17
B- to B+	58	46	61	58	65	56	60	58	44	64	60	60	56	60
C- to C+	9	6	15	14	24	32	16	12	7	18	17	31	34	22
D	0	0	0	0	1	1	0	0	0	1	0	1	2	1
N	308,106	89,028	247,867	268,216	537,537	57,674	1,638,421	7,697	2,322	9,995	8,590	18,870	2,476	49,950

Table 76

High School Class Rank of 1978 Freshmen, by Disability Status  
and by Level and Control of Institution  
(percentages)

Class Rank	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Top quarter	65	72	47	52	29	30	46	61	69	38	46%	20	23	37
2nd quarter	26	22	36	32	38	39	34	28	22	40	34	39	42	36
3rd quarter	9	6	16	14	28	30	18	10	7	19	17	34	29	23
Lowest quarter	1	1	1	2	4	5	2	1	2	3	2	7	6	4
N	305,551	86,611	342,329	265,525	517,805	56,458	1,574,276	7,635	2,313	9,933	8,446	18,331	2,417	49,076

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universities are less apt than other types of institutions to relax their admissions standards in order to accommodate disabled students. The four-year colleges, on the other hand, appear to give disabled applicants credit for nonacademic strengths and compensatory skills manifested in their successful functioning at the high school level. Since two-year colleges have the least stringent admissions standards, and since the nondisabled freshmen at the private two-year colleges were somewhat superior in class rank to the disabled entrants, the implication is that many disabled persons who might otherwise not have gone on to college at all--perhaps because they did not qualify for admission or perhaps because they felt anxious about competing with the nondisabled--now have access to higher education through the two-year colleges.

#### Remedial Work (Table 77)

As was mentioned in Chapter 5, relatively few 1978 freshmen--and only slightly more of the disabled than of the nondisabled--reported having had "remedial work or special tutoring" in high school. Of six selected subjects, they most commonly took remedial work in reading.

Consistent with differences in high school grades and class rank, freshmen entering universities, especially in the private sector, were least likely to have had remediation, whereas entrants to two-year colleges were most likely to have done so. The public two-year colleges enrolled the largest proportions of nondisabled freshmen who had taken remedial work. For the disabled, the picture is different: Substantially more of those at private two-year colleges than at any other institutional type had done remedial work.

Table 77

Remediation Taken in High School, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Subject Area	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
English	6	6	10	10	12	10	10	7	6	12	13	14	20	12
Reading	7	7	11	10	14	9	11	10	7	12	15	15	24	14
Mathematics	7	8	9	11	12	13	10	9	8	12	14	13	18	12
Social Studies	7	6	11	10	12	10	10	8	6	13	12	13	22	12
Science	6	6	9	9	11	10	9	7	5	10	12	10	17	10
Foreign Language	5	5	6	7	8	6	6	6	5	8	8	7	9	7
N	310,513	89,846	351,603	270,282	546,338	57,864	1,626,495	7,766	2,357	10,114	8,609	19,444	2,564	50,794

Differences between disabled and nondisabled entrants were virtually nonexistent at private universities and were slight at public two-year colleges. The differences were somewhat more marked at private four-year colleges than at either public universities or public four-year colleges. Disabled entrants to the private two-year colleges, however, were almost three times as likely as the nondisabled entrants to have taken remedial work in reading, about twice as likely to have taken remedial work in social studies and English, and substantially more likely to have taken remedial work in science and mathematics.

#### Adequacy of High School Preparation (Table 78)

Table 78 shows the proportions of disabled and nondisabled entrants to each of the six types of institutions indicating they felt "very well prepared" and "poorly prepared" in each of eight subject or skill areas. (The middle response alternative on the freshmen questionnaire, "fairly well prepared" is not shown in the table).

The areas in which 1978 freshmen were most inclined to feel well prepared were history and social studies, reading and composition, science, and mathematical skills; foreign languages, vocational skills, and study habits were perceived as the weakest areas. The disabled were somewhat less likely than the nondisabled to feel poorly prepared in mathematical skills and science and more likely to feel poorly prepared in foreign languages. They had more confidence, however, in their vocational skills and, to a lesser extent, in their musical and artistic ability. Other differences by disability area and gender were discussed in Chapter 5.

Clearly, entrants to private universities had the greatest confidence in the quality of their high school preparation: Larger proportions of both

Table 78

Adequacy of High School Preparation, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Subject	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
<b>Mathematical skills</b>														
Very well prepared	39	47	33	34	25	18	32	35	43	28	28	20	16	26
Poorly prepared	12	9	14	14	17	18	15	15	13	19	20	23	24	20
<b>Reading and composition</b>														
Very well prepared	38	47	35	38	29	32	35	37	44	35	37	27	25	33
Poorly prepared	9	9	10	10	12	9	10	11	11	12	11	17	13	13
<b>Foreign Language</b>														
Very well prepared	18	23	17	18	15	13	17	18	24	16	18	12	14	16
Poorly prepared	33	27	37	35	41	44	37	36	32	42	38	51	52	44
<b>Science</b>														
Very well prepared	39	44	35	36	31	26	35	36	42	28	35	29	27	31
Poorly prepared	9	9	11	11	11	12	10	10	10	12	13	17	13	14
<b>History, social studies</b>														
Very well prepared	40	45	43	44	36	41	40	43	46	42	47	38	36	41
Poorly prepared	6	7	5	6	6	7	6	6	9	7	6	8	7	7
<b>Vocational skills</b>														
Very well prepared	15	11	16	16	23	31	19	24	29	26	18	28	26	22
Poorly prepared	41	46	33	38	29	24	34	44	50	34	39	26	24	34
<b>Music and artistic skills</b>														
Very well prepared	24	24	24	26	24	26	24	25	25	25	29	25	32	26
Poorly prepared	36	36	34	32	34	35	34	36	37	37	43	32	26	34
<b>Study habits</b>														
Very well prepared	21	31	18	23	15	16	19	21	28	17	26	15	16	19
Poorly prepared	23	19	23	24	28	30	25	28	27	25	25	28	30	27

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disabled and nondisabled at these institutions said they were well prepared in mathematical skills, reading and composition, foreign languages, history and social sciences, and study habits. In addition, 29 percent of the disabled freshmen at private universities, compared with only 11 percent of the nondisabled freshmen at these institutions and 22 percent of all nondisabled freshmen, rated their vocational preparation high. Entrants to public universities and to public and private four-year colleges were also likely to regard themselves as well prepared in academic subject areas and in study skills. The nondisabled entering two-year colleges, on the other hand, were much more confident of their vocational skills than were their counterparts at the more selective institutions. Among the disabled, the proportions seeing themselves as well prepared in vocational skills varied little by institutional type, ranging from 18 percent at private four-year colleges to (as previously mentioned) a high of 29 percent at private universities. Similarly, the proportions confident of their musical and artistic skills were about the same across institutions, with the disabled at each institutional type being more likely than the nondisabled to view themselves as well prepared in this area; the high was 32 percent of the disabled at private two-year colleges.

Moreover (with the exceptions of vocational skills already noted), the disabled and nondisabled entrants to each institutional type were remarkably similar in their perceptions of the adequacy of their high school preparation. Nondisabled freshmen at public two-year colleges were significantly more inclined than disabled freshmen to say they were prepared in mathematical skills and in foreign languages; nondisabled freshmen at the private two-year colleges were significantly more inclined to see themselves as well prepared in reading and composition.

### Activities and Behaviors (Table 79)

Table 79 shows the proportions of disabled and nondisabled entrants to each of the six institutional types saying that, during the year prior to college entry (which for most students meant the last year of high school), they engaged in various activities or behaviors "frequently." (On four items which represent relatively rare occurrences--taking tranquilizing pills, taking sleeping pills, participating in organized demonstrations, and working in a political campaign--the summed proportions engaging in the behavior "frequently" or "occasionally" are shown). As Chapter 5 indicated, substantially more of the disabled (51 percent) than of the nondisabled (35 percent) wore glasses or contact lenses. The disabled were also more likely to take tranquilizers (10 percent, versus 5 percent of the nondisabled), to take sleeping pills (5 percent versus 3 percent), to stay up all night (11 percent versus 6 percent), and to smoke cigarettes (18 percent versus 14 percent), whereas the nondisabled were slightly more likely to attend religious services (48 percent, versus 44 percent of the disabled). Otherwise, the differences between the two groups were small.

Differences in the activities and behaviors of entrants to different types of institutions were consistent with what we already know. For example, the largest proportions of freshmen who had regularly attended religious services during the previous year were found at private four-year and two-year colleges, institutions often controlled by Protestant denominations and enrolling many freshmen who consider themselves born-again Christians. Esthetic interests (manifested in playing a musical instrument and attending recitals and concerts) were most common among entrants to private universities, followed by entrants to private four-year colleges and public universities.

Table 79

Activities and Behaviors of 1978 Freshmen, by Disability Status, and by Level and Control of Institution  
(percentages)

Activities and Behaviors	Nondisabled							Disabled						
	Universities		4-Yr. Colleges		2-Yr. Colleges		Total	Universities		4-Yr. Colleges		2-Yr. Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Played a musical instrument <sup>b</sup>	25	29	23	26	19	20	23	25	29	21	26	17	21	21
Attended a religious service <sup>b</sup>	49	46	51	58	40	59	48	46	42	47	56	34	51	44
Smoked cigarettes <sup>b</sup>	10	9	12	12	19	19	14	12	9	14	13	25	18	18
Took vitamins <sup>b</sup>	18	21	19	20	16	13	18	20	25	20	23	20	14	21
Participated in organized demonstrations <sup>a</sup>	16	18	16	17	18	18	17	18	20	20	20	17	22	19
Took tranquilizing pills <sup>a</sup>	5	5	4	5	5	6	5	9	10	9	11	12	11	10
Wore glasses or contact lenses <sup>b</sup>	38	39	32	40	31	28	35	57	53	51	56	47	45	51
Attended a public recital or concert <sup>b</sup>	23	28	21	24	19	15	21	26	32	22	25	19	27	23
Took sleeping pills <sup>a</sup>	3	3	3	3	3	5	3	5	5	4	6	5	5	5
Jogged <sup>b</sup>	25	28	29	27	20	22	24	27	27	26	24	16	24	22
Stayed up all night <sup>b</sup>	6	6	6	6	8	8	7	11	10	10	10	12	15	11
Drank beer	26	20	19	20	23	22	22	29	21	21	20	23	16	23
Worked in a local, state, or national political campaign <sup>a</sup>	11	14	8	11	7	7	9	14	14	10	14	9	15	11

<sup>a</sup>Frequently or occasionally

<sup>b</sup>Frequently only

relatively large proportions of freshmen at private two-year colleges said they had participated in organized demonstrations (although the variability on this item was low, ranging from 16 percent to 22 percent), and a large proportion of the disabled (but few of the nondisabled) at these institutions had participated in political campaigns.

Jogging was most common among those entering private universities and public four-year colleges but uncommon among public two-year college entrants. Most likely to take vitamins were freshmen at private universities and private four-year colleges; least likely were private two-year college freshmen. Smoking was far more characteristic of community college students, and of disabled students at private two-year colleges, than of other groups; beer drinking was most characteristic of public university freshmen; staying up all night was most characteristic of two-year college entrants; and taking tranquilizing pills was most characteristic of the disabled at both public and private two-year colleges. These findings suggest that freshmen at private universities have "healthier" habits, whereas those entering two-year colleges are more inclined to engage in "unhealthy" behavior. These differences may in part be a function of age: The freshman classes at two-year colleges included larger proportions of older students.

Once again, the most marked differences between disabled and nondisabled entrants were found at the private two-year colleges. For instance, about twice as many of the disabled as of the nondisabled had attended recitals or concerts, frequently stayed up all night, and worked in political campaigns during the previous year. Most similar with respect to high school activities were those entering private universities.

Summary.

The analyses of this chapter underscore once again the hierarchical structure of the U.S. higher education system and make it clear that secondary school performance is a major factor in the subsequent "sorting" of students into the different types of institutions, with those who have the best academic records and the greatest confidence in the adequacy of their preparation attending the most elite. At the top of the hierarchy, enrolling the most superior students, are the private universities, followed by the public universities and the private four-year colleges; at the bottom are the two-year colleges. The analyses also make clear the major role played by the two-year colleges in providing postsecondary access to people who might otherwise not have had the opportunity to go to college, including those whose high school performance was less than outstanding. Since many of these students are also disabled, these colleges face a double challenge.

The following summarizes the findings with respect to the high school backgrounds of freshmen at each of the six institutional types.

Public Universities. Virtually all entrants to these institutions had graduated from high school in 1978; only 2 percent had completed their secondary school education in 1977 and thus delayed entering college for a year. Disabled entrants were somewhat more likely than were nondisabled entrants to have taken an other-than-college preparatory program in high school (6 percent versus 5 percent) and to have had remedial work, especially in reading and mathematics. They were slightly less likely to have earned A averages (31 percent versus 33 percent) and to rank in the top quarter of their high school graduating classes (61 percent versus 65 percent). They tended to feel less well prepared in mathematical skills, reading and composition, and science but better prepared in history and social studies than

did the nondisabled. Moreover, close to one-fourth (compared with only 15 percent of the nondisabled) said that their high schools had prepared them well in vocational skills.

Both disabled and nondisabled freshmen at public universities were more likely than average to report that during the previous year they had played a musical instrument, attended recitals or concerts, worn glasses or contact lenses, worked in a political campaign, but lower-than-average proportions smoked cigarettes. In addition, 27 percent of the disabled entrants (compared with 22 percent of the total disabled group) jogged. Finally, both disabled and nondisabled public university freshmen were more likely than their counterparts at any other institutional type to say that they drank beer "frequently" during the last year of high school.

Private Universities. As one would expect, given that private universities tend to be the most selective of institutional types, freshmen (both disabled and nondisabled) at these institutions were more likely than freshmen at other institutional types to have graduated in 1978 (98 percent), taken a college preparatory program in high school (97 percent), made A averages (48 percent of the nondisabled, 49 percent of the disabled), and graduated in the top quarter of their classes (72 percent of the nondisabled, 69 percent of the disabled). The proportions of nondisabled freshmen who had taken remedial work in various subjects was about the same as for nondisabled entrants to public universities; but fewer of the disabled entrants to private universities than to public universities took remedial work in any subject. Indeed, the proportions for disabled and nondisabled entrants were identical (except that fewer of the disabled took remedial work in science), suggesting that the two groups are more closely matched at private universities than at the other types of institutions. Both disabled and nondisabled entrants also

tended to feel better prepared in various subjects than did those at other institutions, although somewhat fewer of the disabled than of the nondisabled. said their high schools had given them good preparation in mathematical skills and in reading and composition. Again, as with public university entrants, the most striking difference occurs with respect to vocational skills: 29 percent of the disabled, but only 11 percent of the nondisabled, felt confident of their abilities in this area. It is somewhat puzzling why disabled students entering universities should feel so well prepared in vocational skills, since they were traditional-age freshmen who probably had no prior employment experience and had taken college preparatory programs in high school.

The pattern of behaviors and activities was virtually identical for the disabled and the nondisabled groups at private universities: They were more likely than any other group to report having played a musical instrument, attended recitals or concerts, and taken vitamins but less likely to say they smoked. In addition, somewhat larger-than-average proportions said they wore glasses or contact lenses, jogged, and participated in political campaigns, and lower-than-average proportions drank beer and attended religious services frequently.

The similarity in the high school backgrounds of disabled and nondisabled freshmen at private universities suggests that these institutions do not modify their admissions policies to make special allowances for disabled applicants. Of course, an element of self-selection may be involved here. That is, only those disabled students with the most outstanding high school records may apply to private universities.

Public Four-Year Colleges. Entrants to these institutions were more likely than were entrants to universities or to private four-year colleges

to have graduated from high school earlier than 1978 (4 percent of the non-disabled, 7 percent of the disabled), to have taken other-than-college-preparatory programs in high school (10 percent of the nondisabled, 14 percent of the disabled), and to have made B rather than A averages (61 percent of the nondisabled, 64 percent of the disabled). Close to half of the nondisabled (47 percent), but only 38 percent of the disabled, and slightly more of the disabled than of the nondisabled had taken remedial work, especially in mathematics, foreign languages, and English. Public four-year college freshmen were somewhat less likely than university freshmen to feel well-prepared in most subjects. The proportions of disabled and nondisabled entrants saying they were well prepared were similar except for mathematics skills and science (where the nondisabled tended to feel better prepared) and vocational skills (where 26 percent of the disabled, but only 16 percent of the nondisabled, said they were well prepared).

Again, the behavior patterns of the disabled and the nondisabled were similar. Freshmen in both groups were more likely than average to say that during the previous year they had frequently jogged and attended religious services but less likely than average to say they smoked, drank beer, and took tranquilizers.

Private Four-Year Colleges. Only 3 percent of the nondisabled and 6 percent of the disabled at these institutions had graduated from high school earlier than 1978; and 1 percent of the disabled entrants had never graduated from high school. Relative to freshmen at public four-year colleges, a larger proportion had taken college preparatory programs, made A averages, and ranked in the top quarter of their classes; the nondisabled were somewhat more likely to have done so than the disabled. But despite their better academic records, private four-year college entrants were generally

more likely than those at public four-year colleges to have taken remedial work, and this was especially true of the disabled. A possible explanation for this apparent paradox lies in the fact that larger proportions of private four-year college entrants than of public four-year college entrants had parents who held graduate degrees and earned high incomes. It is possible that such parents are more insistent than are less well-educated and affluent parents about seeing to it that their children get whatever in-school remediation or tutoring they need.

The proportions of disabled and nondisabled freshmen saying they were well prepared in certain subjects were similar. But disabled private four-year college entrants were less likely than any other group of disabled freshmen to feel confident of their vocational skills. Both disabled and nondisabled freshmen were more likely than average to attend religious services, play a musical instrument, attend recitals or concerts, take vitamins, wear glasses or contact lenses, jog, and work in political campaigns but less likely than average to smoke or drink beer. Finally, 6 percent of the disabled (compared with only 5 percent of any other group) said they had taken sleeping pills frequently or occasionally.

Public Two-Year Colleges. Consistent with their enrolling relatively large proportions of older students, community colleges were more likely than were other institutional types to have enrolled freshmen who had delayed entry to college: 14 percent of the disabled and 9 percent of the nondisabled 1978 freshmen had graduated from high school earlier than 1978; 3 percent of the disabled and 1 percent of the nondisabled had passed the GED rather than graduating from high school. The nontraditionality of many of these freshmen is also signaled by the fact that fully 30 percent of the disabled and 20 percent of the nondisabled had taken an other-than-college

preparatory program in high school. Close to one-third of the disabled and one-quarter of the nondisabled had made no better than a C average in high school, and only one-fifth of the disabled and 29 percent of the nondisabled had graduated in the top quarter of their class. The proportions taking remedial work were slightly higher than average, and the proportions feeling well prepared in various subjects were slightly lower than average, in all areas except vocational skills (where larger-than-average proportions manifested self-confidence) and musical and artistic skills (where the proportions resembled the norms). Only one-fifth of the disabled, compared with one-fourth of the nondisabled, felt well prepared in mathematical skills but this was the only large difference between the two groups, except that the disabled were considerably more likely to say they felt poorly prepared in foreign languages and science. Entrants to the public two-year colleges were more likely than other freshmen to smoke; in addition, 12 percent of the disabled (compared with 10 percent of the total disabled group) said they took tranquilizers at least occasionally. These freshmen were least likely of any group to say they had attended religious services or jogged frequently or had participated in a political campaign during the previous year; they were somewhat less likely than average to have played a musical instrument or attended public concerts or recitals.

Perhaps the most important point to emerge here is that many of the disabled students entering community colleges were "atypical" in other ways as well. They were less likely than average to enter college with outstanding academic records and with confidence in their own abilities and preparation.

Private Two-Year Colleges. Both disabled and nondisabled freshmen entering these institutions resembled their counterparts at the community

colleges, except that they were somewhat less likely to have graduated earlier than 1978 or to have made averages of B or better. Slightly fewer of the nondisabled, but slightly more of the disabled, had taken a college-preparatory course, ranked in the top half of their high school classes, and taken remedial work. Indeed, the proportions of disabled freshmen at these institutions who had had remediation in high school far exceeded the proportions of any other group in most cases. At least twice as many of the disabled as of the nondisabled entrants had had remedial work or special tutoring in English, reading, and social studies; and substantially greater proportions had had such work in mathematics, foreign languages, and science as well. The explanation advanced to explain the high remediation rates of disabled entrants to private, four-year colleges cannot be used here since relatively few of the disabled students in the private two-year colleges had fathers who held graduate degrees (or, indeed, who had gone to college at all) or came from high-income backgrounds. The alternative explanation is that, because of their disadvantaged family backgrounds, these students were especially in need of such remediation.

Another strong contrast between entrants to private and to public two-year colleges was in their religious behavior: Private two-year college entrants (especially the nondisabled) were much more likely than average to say that they had frequently attended religious services during the previous year. This is consistent with the high proportions who considered themselves to be reborn Christian, and with having proportionately more women represented. In addition, relatively high proportions reported having stayed up all night, taken tranquilizers, participated in organized demonstrations, and participated in political campaigns; relatively few were

contact lenses or took vitamins. The nondisabled were more likely than their counterparts at most other institutions to say that they smoked cigarettes and took sleeping pills; the disabled were less likely than their counterparts at other institutions to drink beer. Perhaps the most interesting contrast between the two groups at private two-year colleges has to do with their musical interests: Almost twice as many of the disabled (27 percent) as of the nondisabled (15 percent) said that they had attended recitals, or concerts frequently.

## Chapter 13

### College Choice and Freshman Residence

This chapter examines the college and residential choices of 1978 disabled and nondisabled entrants to the six institutional types. Paralleling Chapter 6, it looks at the following specific topics: the number of colleges freshmen applied to and the number of colleges at which they were accepted; whether the college entered was the student's first or lesser choice; reasons for attending college; reasons for choosing the particular college; distance between permanent home and college; planned and preferred residential arrangements.

#### Options (Tables 80, 81, 82)

As was pointed out in Chapter 6, the disabled and the nondisabled differed very little in the number of colleges they applied to: 37 percent of both groups applied to no other college than the one they were attending, 18 percent applied to one other college; 17-18 percent to two other colleges; and 27 percent to three or more other colleges. As Table 80 shows, however, there were variations by type of institution entered in 1978. Thus, those entering private universities were most likely to make multiple applications (with 34-35 percent saying they had applied to four or more other colleges), followed by those entering private four-year colleges (17-18 percent had applied to four or more other institutions). On the other hand, entrants to the two-year colleges, both public and private, were least likely to have made multiple applications. Indeed, over two-fifths of the freshmen entering these two types of colleges said they had applied to no other institutions, compared with less than one-fifth of those entering private universities. The figures for those entering public universities and public four-year

Table 80

College Applications of 1978. Freshmen, by Disability Status,  
and, by Level and Control of Institution  
(percentages)

Number of Other College Applications	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
None	38	19	36	32	43	44	37	36	17	34	33	42	44	37
One	17	13	20	17	18	20	18	19	14	20	16	19	17	18
Two	19	17	19	18	17	18	18	16	18	18	18	15	19	17
Three	14	17	13	15	13	10	14	15	16	16	16	14	13	15
Four	5	12	6	8	5	6	6	7	13	7	9	6	4	7
Five	4	9	4	5	3	1	4	3	10	3	4	3	2	4
Six or more	4	13	3	4	2	1	3	4	12	2	5	1	1	3
N	301,056	88,026	335,761	262,079	520,798	54,943	1,562,655	7,551	2,298	9,808	8,278	18,509	2,424	48,869

colleges were highly similar. These differences are not surprising when one considers that private universities tend to be the most highly selective of institutional types and that the students entering them have the most outstanding high school records. The most plausible explanation for their multiple applications is that they see themselves as having many options open to them and apply to many institutions as a hedge against being rejected by those they favor most. Conversely, two-year college entrants are probably least likely to feel that many options are open to them and thus inclined to settle for the institution that is most accessible to them rather than bothering to apply to other colleges.

Table 81 shows the number of college acceptances received by 1978 freshmen at the six institutional types. A slightly larger proportion of disabled (24 percent) than of nondisabled (20 percent) freshmen said they had been accepted by no college other than the one they were attending, but differences between the two groups were slight. The institutional differences reported above were reiterated in this analysis. (There is, of course, a strong relation between number of applications and number of acceptances.) That is, entrants to two-year colleges, especially community colleges, were most likely to report that they had not received acceptances from any other institution, whereas entrants to private universities were least likely to do so. Indeed, 48 percent of the nondisabled and 46 percent of the disabled freshmen attending private universities had been accepted by three or more other institutions. Among private two-year college freshmen, 23 percent of the disabled, but only 17 percent of the nondisabled, indicated they had been accepted by three or more other institutions.

Table 82 indicates the extent to which 1978 freshmen entered the colleges of their choice: As was mentioned in Chapter 6, about three-fourths of both

Table 81

College Acceptances Received by 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Number of Other College Acceptances	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
None	16	7	20	13	30	24	20	18	8	20	18	36	25	24
One	31	23	34	30	32	38	31	30	22	32	25	28	33	28
Two	26	23	23	26	22	22	24	24	24	24	26	18	19	22
Three	16	23	14	18	12	8	15	17	19	15	17	14	15	16
Four	7	12	6	7	4	6	6	6	15	6	8	3	7	6
Five	2	7	2	4	0	2	2	2	8	2	3	1	0	2
Six or more	2	6	2	2	1	1	2	3	4	1	3	0	1	2
N	201,095	72,871	237,424	187,412	340,079	33,655	1,072,531	5,318	1,979	7,092	6,172	12,653	1,579	34,794

Table 82

Preference for 1978 Freshman Institution, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Preference	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
First choice	79	78	74	77	75	68	76	76	79	73	74	73	71	74
Second choice	16	16	21	18	18	24	18	18	15	21	20	19	19	19
Third choice	3	4	4	4	5	5	4	3	4	4	5	5	8	5
Less than third choice	2	2	1	2	2	3	2	3	2	2	2	3	2	2
N	309,091	88,973	350,736	269,487	543,844	57,329	1,619,455	7,750	2,350	10,030	8,581	19,419	2,498	50,628

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disabled and nondisabled freshmen said they were attending their first-choice institution, 18-19 percent were in their second choice, 4-5 percent in their third choice, and only 2 percent in an institution which was less than their third choice. Most likely to be enrolled in their first-choice institutions were freshmen in public and private universities; least likely were those in private two-year colleges. Conversely, freshmen at public and private two-year colleges, especially the disabled, were more likely than others to indicate that the institution they were attending was no more than their third choice.

#### Reasons for Attending College (Table 83)

As was mentioned in Chapter 6, the reasons most commonly cited by both disabled and nondisabled 1978 freshmen as very important in their decision to attend college were "to be able to get a better job," "to learn more about things that interest me," and "to gain a general knowledge and appreciation of ideas." Relatively few freshmen mentioned "negative" reasons, although the disabled were twice as likely as the nondisabled to say they were going to college because they could not find a job (8 percent versus 4 percent) or because "there was nothing better to do" (4 percent versus 2 percent).

There were some significant differences by institutional type (Table 83). For instance, preparation for graduate or professional school was cited by substantial proportions of private university entrants but by relatively few community college entrants. This difference is explained by the generally better academic records and higher degree aspirations of the former, many of whom apparently anticipate advanced study from the time of their entry to college. Similarly, the "elitist" reasons of wanting to get

Table 83

Reasons for Going to College, by Disability Status, and by Level and Control of Institution, 1978  
(percentage marking "very important")

Reason	Nondisabled							Disabled						
	Universities		4-Yr. Colleges		2-Yr. Colleges			Universities		4-Yr. Colleges		2-Yr. Colleges		
	Public	Private	Public	Private	Public	Private	Total	Public	Private	Public	Private	Public	Private	Total
My parents wanted me to go	26	30	30	31	28	34	29	27	29	29	31	29	37	29
I could not find a job	2	2	4	3	6	6	4	4	3	6	6	12	7	8
I wanted to get away from home	9	10	7	9	6	10	8	11	15	10	12	8	16	10
To be able to get a better job	75	66	75	70	79	79	75	77	67	76	71	81	79	76
To gain a general education and appreciation of ideas	68	79	69	73	62	70	68	69	77	71	73	68	72	70
To improve my reading and study skills	34	38	39	40	36	45	37	35	38	42	44	42	51	41
There was nothing better to do	2	2	2	2	2	3	2	3	4	4	4	4	3	4
To make me a more cultured person	34	45	34	37	31	39	34	34	45	39	42	36	42	38
To be able to make more money	60	54	61	54	65	66	61	63	50	62	53	66	58	61
To learn more about things that interest me	74	80	72	77	70	68	73	75	79	77	78	72	79	75
To meet new and interesting people	62	67	56	62	48	59	56	63	62	56	62	53	60	57
To prepare myself for graduate or professional school	46	62	45	48	38	47	44	52	66	49	53	42	49	48

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a general education and to learn about things that interest them were more likely to motivate freshmen at private universities (and, to a lesser extent, private four-year colleges), whereas the more practical view of college as a stepping stone to a better job motivated larger proportions of both public and private two-year college entrants. The desire to become a more cultured person was more characteristic of freshmen in the private sector than of those in the public sector. Wanting to meet new and interesting people was cited by relatively large proportions of those attending public and private universities and private four-year colleges. Wanting to get away from home was an important consideration to larger-than-average proportions of freshmen in private universities and private two-year colleges (especially the disabled) but to lower-than-average proportions of public two-year college freshmen. This makes sense in view of the fact that community colleges are commuter institutions that do not provide residential facilities for their students. Community college entrants were more likely than average to say they were attending college because they could not find a job.

The strongest differences between disabled and nondisabled freshmen were found at the private two-year colleges, where disabled freshmen resembled freshmen at private universities and four-year colleges in giving high priority to learning about things that interest them, whereas the nondisabled were similar to freshmen at community colleges in saying they attended college in order to be able to make more money.

#### Reasons for Choosing Particular College (Table 84)

The most common reasons giving for choosing the particular college they attended was "good academic reputation," cited by half of all 1978 freshmen but by three-fourths of those at private universities, as well as relatively

Table 84

Reasons for Attending 1978 Freshman Institution, by Disability Status, and by Level and Control of Institution  
(percentage marking "very important")

Reason	Nondisabled							Disabled						
	Universities		4-Yr. Colleges		2-Yr. Colleges			Universities		4-Yr. Colleges		2-Yr. Colleges		
	Public	Private	Public	Private	Public	Private	Total	Public	Private	Public	Private	Public	Private	Total
My relatives wanted me to come here	5	6	6	7	6	6	6	6	5	7	9	6	9	7
My teacher advised me	3	5	4	4	3	5	4	3	5	6	6	6	7	6
This college has a very good academic reputation	58	76	47	64	37	43	50	60	75	44	62	43	44	51
I was offered financial assistance	8	25	14	25	10	19	14	12	28	18	26	16	24	18
I was not accepted anywhere else	2	2	3	2	3	2	3	3	2	3	3	6	4	4
Someone who had been here before advised me to go	13	12	14	16	13	14	14	17	13	18	18	15	16	16
This college offers special educational programs	25	31	27	25	26	24	26	29	31	31	32	32	31	31
This college has low tuition	18	2	21	4	23	11	17	19	3	20	7	24	7	18
My guidance counselor advised me	5	7	8	7	10	11	8	6	6	9	10	13	12	10
I wanted to live at home	5	4	12	4	15	7	10	6	3	11	6	18	10	12
A friend suggested attending	5	5	7	7	6	11	6	6	6	9	10	10	14	9
A college representative recruited me	2	4	5	8	2	11	4	3	7	6	11	3	12	6

large proportions at public universities and private four-year colleges (Table 84). Somewhat curiously, 43 percent of the disabled but only 37 percent of the nondisabled in public two-year colleges were attracted by the institution's academic reputation; since most community colleges do not have outstanding academic reputations, this difference may indicate that disabled entrants to these institutions are somewhat more naive than the nondisabled about the prestige of various types of colleges, an interpretation consistent with the large proportion of first-generation college students from low-income backgrounds found in the disabled group.

Overall, the special programs offered at an institution were more likely to attract disabled than nondisabled freshmen (31 percent versus 26 percent), and the same was true of the offer of financial assistance (18 percent versus 14 percent). Educators at public institutions and at private two-year colleges would do well to remember that their disabled freshmen may have special needs for financial aid not shared by the nondisabled; those at all types of institutions except private universities should be aware that the disabled more frequently enroll because of special programs provided. Any reductions in financial aid or special programs might have a negative impact on their enrollment of disabled students.

Though the proportions were very small, the disabled were also more likely than the nondisabled to say that in their choice of a particular college they had been influenced by teachers, guidance counselors, alumni, friends, and relatives or recruited by a college representative.

Logically enough, low tuition was cited much more often by entrants to public institutions, and the offer of financial assistance was cited more often by entrants to private institutions. Community college freshmen were much more likely than others to say they had chosen a particular college so they could live at home.

Differences between the disabled and the nondisabled were least apparent at the universities, especially those in the private sector, and most apparent in the two-year colleges. For instance, of community college freshmen, substantially more of the disabled said they had chosen their institution for its academic reputation, its offer of financial assistance, or special programs or because they had not been accepted elsewhere. Of private two-year college freshmen, the disabled were more likely than the nondisabled to mention special programs or not having been accepted by another institution.

Distance Between Home and College (Table 85)

Overall, the disabled and the nondisabled differed very little in the distance they travelled to attend college (Table 85). Both samples were split about evenly between those who said their permanent homes and their colleges were within 50 miles of each other and those who said they were 51 miles or more apart. The only significant differences were found for the private two-year college students: 47 percent of the nondisabled, but only 23 percent of the disabled, were attending colleges 50 miles or less from their homes. Conversely, 63 percent of the disabled, but only 52 percent of the nondisabled, were attending colleges more than 50 miles from their homes. Indeed, almost twice as many disabled (15 percent) as nondisabled (8 percent) private two-year college entrants said their colleges were more than 500 miles from their homes.

Looking at differences among the six institutional types, we find that those attending private universities were most likely to say that their homes were distant from their colleges, followed by entrants to private four-year colleges and to public universities. On the other hand, community college freshmen, followed by public four-year college entrants, were

Table 85

Distance of 1978 Freshman Institution from Permanent Home, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Distance	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
5 or less miles	6	5	9	8	16	8	10	6	6	10	7	15	6	10
6 - 10 miles	7	6	12	7	20	5	12	8	4	11	7	20	7	13
11 - 50 miles	26	15	29	17	35	34	27	19	15	28	16	34	23	26
51 - 100 miles	20	9	16	15	12	16	15	19	10	20	14	14	22	16
101 - 500 miles	43	33	25	37	16	28	28	41	30	25	36	16	26	26
More than 500 miles	4	31	10	17	2	8	8	6	35	7	19	2	15	9
N	308,317	88,828	347,641	268,352	538,326	57,754	1,609,214	7,732	2,350	9,984	8,571	19,092	2,498	50,227

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most likely to attend colleges close to home. These differences are consistent with differences in students' socioeconomic status as well as with differences in institutional characteristics: Community colleges are commuter institutions that serve many low-income students who must live at home with their parents if they are to be able to afford college at all. Further, a higher-than-average proportion of freshmen at these institutions were married, and "permanent home" to them would mean the home they share with their spouse, not the parental home; naturally, such students would not be likely to "go away" to college, as traditional-age freshmen typically do, as a first step in "leaving the nest." Public four-year colleges also represent a low-cost, accessible alternative to young people in many areas that do not have an extensive community college system. Private universities (and, to a lesser extent, public universities and private four-year colleges) often have a national reputation and thus draw their students from a wide pool. Moreover, these students tend to come from high socioeconomic backgrounds and thus can more easily afford the costs of living away from home.

#### Freshman Residence (Tables 86, 87)

Table 86 shows the planned freshman residence of 1978 entrants to the six institutional types; since the freshman questionnaire was usually completed at the beginning of the fall term, these residential plans can be assumed to represent the actual living arrangements of these students.

Table 87 indicates the residential preferences of 1978 freshmen: where they would have preferred to live if they had a choice.

As was pointed out in Chapter 6, most commonly, freshmen lived in college dormitories (55 percent of the nondisabled, 53 percent of the disabled),

Table 86

Planned Residence of 1978 Freshmen, by Disability Status, and by Level and Control of Institution  
(percentages)

Planned Residence	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
With parents or relatives	9	14	37	17	61	22	36	16	12	34	16	55	25	34
Other private home, apartment or room	3	1	4	4	10	4	6	3	1	4	4	17	1	9
College dormitory	78	81	57	76	25	72	55	76	82	60	76	23	70	52
Fraternity or sorority house	1	2	0	1	0	0	1	1	2	0	1	0	0	1
Other campus student housing	2	2	1	2	2	1	2	2	3	1	1	1	1	1
Other	0	0	1	0	2	1	1	0	0	2	1	3	3	2
N	299,660	86,573	334,627	256,642	510,329	54,092	1,541,916	7,408	2,231	9,212	7,898	17,738	2,063	46,550

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followed by "with parents or relatives" (36 percent of the nondisabled, 34 percent of the disabled), and in other private housing (apartments, rooms), with the disabled more likely than the nondisabled to cite this alternative (9 percent versus 6 percent). Very few lived in fraternities or sororities, other campus housing, or other housing.

The differences indicated in Table 86 hold few surprises. Most likely to live in dormitories were private university entrants (though relatively large proportions of freshmen at public universities, private four-year colleges, and private two-year colleges did so as well), and least likely, were public two-year college entrants, only one-quarter of whom mentioned this alternative. As was pointed out earlier, community colleges tend not to provide residential facilities for their students. Thus, the majority of these freshmen lived with parents or relatives (61 percent of the nondisabled, 55 percent of the disabled), and larger-than-average proportions lived in other private housing (10 percent of the nondisabled, 17 percent of the disabled). Entrants to public four-year colleges were also more likely than average to live with parents or relatives.

Most likely to live in fraternities and sororities were entrants to private universities; the disabled at these institutions were also more likely than average to live in other campus housing. Most likely to live in "other" housing were freshmen at public four-year and public and private two-year colleges.

Differences in the living arrangements of the disabled and the nondisabled at each institutional type were most marked at public two-year colleges, where (as has been pointed out) the disabled were more likely than the nondisabled to live in private housing, and at private two-year colleges, where the nondisabled were four times as likely to live in private housing

(4 percent versus 1 percent), and the disabled were somewhat more likely to live with their parents or in "other" housing. In addition, about twice as many disabled as nondisabled freshmen enrolling in public universities lived at home (16 percent versus 9 percent). Indeed, the nondisabled in these institutions were less likely than their counterparts at private universities to live at home.

As Chapter 6 pointed out, college dormitories headed the list of preferred residences, named by 47 percent of the nondisabled and 41 percent of the disabled, with those at private universities, public universities, and private four-year colleges being most likely to name this choice, and those at community colleges least likely to do so. Nonetheless, fewer freshmen expressed this preference than actually lived in dormitories, with one exception: Among community college freshmen, one-third of the nondisabled said they would prefer to live in college dorms, but only one-quarter did so; the proportions of the disabled living in dorms and expressing this preference were about equal.

The proportions expressing a preference for living with parents or relatives ranged from about one-tenth of university freshmen to over one-fourth of those at public two-year colleges. Again, as with the dormitory option, the proportions actually living at home exceeded the proportions expressing this preference; the conclusion is that many of the freshmen who lived with their parents (probably for financial reasons) were dissatisfied with this arrangement.

Private housing was the second most popular choice. In this case, the proportions expressing this preference were much larger than the proportions actually living in their own apartments or rooms. For example, 26-27 percent of the freshmen at public four-year colleges said they would prefer private housing, but only 4 percent planned to live in private housing in the

Table 87

Preferred Residence of 1978 Freshmen, by Disability Status  
and by Level and Control of Institution  
(percentages)

Preferred Residence	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
With parents or relatives	10	10	20	14	29	18	19	10	8	20	14	26	17	18
Other private home, apartment or room	22	16	26	19	28	26	24	24	24	27	22	35	33	28
College dormitory	57	61	44	56	35	45	47	52	50	45	50	24	39	41
Fraternity or sorority house	6	8	4	4	2	4	4	7	9	4	6	4	4	5
Other campus student housing	4	4	4	4	3	3	4	4	6	3	5	5	5	4
Other	1	1	2	2	3	2	2	2	3	1	3	5	4	3
N	221,206	64,433	222,255	186,112	298,620	32,358	1,024,983	5,245	1,733	6,327	5,591	10,228	1,404	30,527

fall of 1978. The disabled were more likely than the nondisabled to indicate a desire for independent living, with the discrepancy between the two groups being greatest at private universities.

Fraternities and sororities were more frequently the preference of private university freshmen than of other groups, and the same was true of "other campus housing." Most likely to say they would like to live in "other" housing were community college entrants.

Differences in the preferred residences of the disabled and the nondisabled were most apparent in the public and private two-year colleges and, somewhat surprisingly, in the private universities. Thus, three-fifths of the nondisabled at private universities, but only half the disabled, indicated a preference for college dormitories; and one-quarter of the disabled, but only 16 percent of the nondisabled, expressed a preference for private housing.

### Summary

The findings with respect to choice of an institution and residential plans and preferences once again underscore the hierarchical nature of the U.S. higher education system. The higher socioeconomic status of freshmen entering the more prestigious and selective institutions (the private universities and, to a lesser extent, the public universities and the private four-year colleges) are reflected in the wider choice they seem to have in selecting an institution, in their more "elitist" reasons for going to college and for choosing a particular college, and in their greater tendency to live in on-campus housing. The three other institutional types--in particular, the community colleges--enroll a larger proportion of "nontraditional" freshmen, whose family and high school backgrounds often put them at something of a

disadvantage in choosing a college. For instance, many of these students are forced (probably for financial reasons) to live at home with their parents and thus to choose a college within relatively easy commuting distance from their homes. On this point, a body of research (see, for example, Astin, 1975, 1977; Chickering, 1974) demonstrates that students who live on campus benefit more from the college experience than do those living at home or in other off-campus housing. Policymakers and educators should be aware of these effects and should make efforts, in the case of disabled students especially, to provide enriching experiences that may help to compensate for the lack of the residential experience. Following are the major findings for the freshman groups at each of the six institutional types.

Public Universities. Patterns with respect to college applications and acceptances resembled the patterns for the total groups. Over one-third of 1978 entrants to private universities said they had applied to no other institution, but almost four in five said they were attending their first-choice institution.

Larger-than-average proportions said they were attending college in order to meet new and interesting people and to prepare for graduate or professional school (with the disabled more likely than the nondisabled to indicate this latter reason) and that they had chosen their particular college because of its academic reputation and its low tuition; smaller-than-average proportions said they were going to college to improve their reading and study skills or because they could not find a job or that they had selected their institution because it offered them financial assistance or because they wanted to live at home. Very few had been influenced by guidance counselors or recruited by college representatives.

Only one-third of public university entrants said that the institution

was within 50 miles of their homes (compared with one-half of the total group), and close to one-half were attending colleges over 100 miles from home (compared with slightly more than one-third of the total group). Consistent with this, over three-fourths lived in college dormitories (though only 52 percent of the disabled and 57 percent of the nondisabled indicated that this was their residential preference), and only 16 percent of the disabled and 9 percent of the nondisabled (the lowest proportion at any institutional type) lived at home with their parents. Larger-than-average proportions said they would prefer to live in fraternities or sororities.

Private Universities. It is not surprising, given what we already know about the characteristics of these students, that 1978 freshmen entering private universities had applied to more colleges and received more acceptances than entrants to any other institutional type and that close to four-fifths said they were attending their first-choice institution. The superior educational credentials of these students enable them to "shop around" for a college and assures that they will be welcome at most institutions.

As regards reasons for going to college and for choosing their particular institution, the traditional missions of higher education and the attributes of selective institutions are obviously important to these freshmen. They were more likely than any other group to say they were going to college to gain a general education, to learn more about things that interest them, to meet interesting people, to become more cultured, and to prepare for graduate or professional school; in addition, a relatively large proportion wanted to get away from home. Conversely, they were least likely to any group to mention the instrumental reasons of being able to get a better job and to make more money. In choosing their particular institution, they were more likely than any other group to be motivated by its good academic reputation, its

offer of financial assistance (which, presumably, they would need to cover the high costs of tuition and living expenses), and the special programs it provided. They were less likely than others to mention low tuition, the desire to live at home, and not being accepted elsewhere; moreover, very few had been influenced by guidance counselors or alumni; and only 5 percent of the disabled (compared with 7 percent of the total disabled group) said they had chosen their institution because a relative wanted them to.

The distance between permanent home and institution tended to be greater for these students than for others; indeed, close to one-third said the college was more than 500 miles away from home, and close to two-thirds (almost twice the average) said it was over 100 miles away. Consequently, they were more likely than any other group to live in college dormitories or in fraternities and sororities; in addition, 3 percent of the disabled (compared with only 1 percent of the total disabled group) lived in "other campus housing." It is interesting that 14 percent of the nondisabled (compared with only 9 percent of their counterparts at the public universities) lived with their parents; this may account for the fact that the nondisabled freshmen at private universities were more likely than any other group to say they would prefer to live in college dorms or in fraternities and sororities and less likely to express a preference for private housing. In addition, a somewhat larger-than-average proportion of the disabled freshmen expressed a preference for college dormitory living or for "other campus housing" and somewhat fewer than average wanted to live in private housing. These housing preferences may also reflect the fact that virtually all of these freshmen are of traditional college age and therefore may not feel the urge to live on their own to the same extent as older freshmen might do.

Public Four-Year Colleges. The profile for freshmen entering public four-year colleges was similar to that for public university freshmen with respect to college applications and acceptances; about three-fourths were attending their first-choice institution. They were slightly more likely than those at public universities to say they were attending college because their parents wanted them to or because they wanted to improve their reading and study skills. As to their reasons for choosing the particular college, somewhat smaller-than-average proportions mentioned the institution's academic reputation, and slightly larger-than-average proportions mentioned its low tuition. In addition, 18 percent of the disabled public four-year college entrants (compared with 16 percent of the total group) said that "someone who had been there before advised me to go"; and 12 percent of the nondisabled entrants (compared with 10 percent of all nondisabled freshmen) said they chose the institution because they wanted to live at home. Their distribution with respect to distance between home and college was virtually identical to that of the total group of freshmen. With the exception of community college entrants, they were more likely than any other group to live at home with their parents and less likely to live in college dormitories. Slightly over one-fourth said they would prefer to live in private housing.

Private Four-Year Colleges. Entrants to these institutions were more likely than any other group to have applied to, and been accepted by, four or more institutions other than the one they were attending. The nondisabled were slightly more likely than the disabled to be attending their first-choice institution.

In their reasons for attending college, these freshmen resemble those entering universities: that is, relatively large proportions cite such reasons as gaining a general education, learning more about things that

interest them, becoming cultured, meeting new and interesting people, and preparing for graduate or professional school; relatively few mention getting a better job or making more money. But they were somewhat more likely than university entrants to be interested in improving their reading and study skills. As to their selection of a particular institution, they were more likely than average to be attracted by the institution's academic reputation and offer of financial assistance but less likely than average to cite low tuition and the chance to live at home. In addition, they were more likely than others to say "my relatives wanted me to come here" and "someone who had been here before advised me to go," and a relatively large proportion had been recruited by a college representative.

Freshmen at private four-year colleges were likely to say that their homes and their colleges were some distance apart; thus, like university entrants, the great majority lived in college dormitories; the proportion living with parents or relatives was larger than for university freshmen but smaller than for public four-year college entrants. Moreover, larger-than-average proportions expressed a preference for dormitory living (though only about two-thirds as many as actually lived in dormitories), but lower-than-average proportions wanted to live with their parents or in private housing.

Public Two-Year Colleges. It is clear that these institutions serve a local clientele: Over two in five of the 1978 freshmen had applied to no other institution, and smaller-than-average proportions had applied to, or been accepted by, multiple institutions. Seven in ten lived within 50 miles of the college. The majority (and a much larger proportion than for any other group--61 percent of the nondisabled and 55 percent of the disabled) lived with parents or relatives, only about one-fourth lived in college dormitories, and 10 percent of the nondisabled and 17 percent of the dis-

abled lived in private housing. With respect to residential preferences, college dormitories were the most common choice of the nondisabled, and private housing that of the disabled; this difference may be accounted for by the larger proportions of older and married freshmen in the disabled group.

Community college freshmen were more likely than average to go to college for practical/materialistic reasons (to get a better job, to be able to make more money). In addition, 6 percent of the nondisabled and 12 percent of the disabled were motivated by their inability to get a job. Lower-than-average proportions, however, were interested in gaining a general education, meeting new and interesting people, and preparing for graduate or professional school. As to their reasons for selecting a particular institution, they were more inclined than others to say that low tuition and the desire to live at home motivated them; 6 percent of the disabled had not been accepted elsewhere. In addition, larger-than-average proportions of both disabled and nondisabled freshmen had been advised by their guidance counselors. Since these freshmen were no more inclined than average to mention the influence of other people (friends, relatives, alumni), one possible interpretation is that high school counselors play a valuable role in encouraging some students who might otherwise not go to college at all to attend the local community college. These freshmen (especially the nondisabled) were less inclined than average to mention the college's academic reputation or the offer of financial assistance as reasons for choosing their college.

Private Two-Year Colleges. Entrants to these institutions were more likely than others to have applied to no other institution, though they were about twice as likely as community college entrants to be accepted by four or more institutions. Only two-thirds of the nondisabled and 71 percent of the disabled were in their first-choice institution.

Private two-year college freshmen (two-thirds of whom were women) were more likely than average to say that they were attending college to be able to get a better job, to improve their reading and study skills, to become more cultured, to please their parents, and to get away from home. Relatively large proportions of the nondisabled were concerned with making more money, whereas relatively large proportions of the disabled wanted to learn about things that interest them. The offer of financial assistance, the advice of guidance counselors or teachers, the suggestion of friends, and recruitment by a college representative were relatively often mentioned by these freshmen as reasons for selecting their particular college, but relatively few cited the institution's academic reputation, low tuition, or their desire to live at home. The disabled were also likely to say that their relatives had wanted them to come to the college. Thus, the influence of other people seems to play an important role in the college choice of these freshmen.

Unlike entrants to two-year colleges in the public sector, those entering private two-year colleges (especially the disabled) often attended colleges distant from their homes. Not surprisingly, then, they were almost three times as likely as those in the community colleges to live in college dormitories and less than half as likely to live with parents or relatives. Only 4 percent of the nondisabled and 1 percent of the disabled lived in private housing, though about one-quarter of the former and one-third of the latter expressed a preference for private housing. Thus, they seem somewhat more oriented toward independent living and less oriented toward on-campus living than were freshmen in the other two types of private institutions. This difference may in part be attributable to the larger proportion of married and older freshmen entering private two-year colleges.

## Chapter 14

### College Finances

The costs of attending different types of higher education institutions vary widely, with those in the private sector charging substantially higher tuitions than those in the public sector (some of which are virtually tuition-free). Added to tuition and other college fees are living expenses at residential colleges and travelling expenses to institutions located far from the student's home. Thus, freshmen entering private institutions must often bear much higher costs than those attending public two-year and four-year colleges, which are often commuter institutions that charge little or no tuition. Those attending public universities fall somewhere in the middle: The tuition costs are relatively low, but living expenses may be fairly high, since few of these students live at home (see Chapter 13).

The discussion in this chapter parallels that in Chapter 7, analyzing the financial situation of 1978 freshmen, by type of institution entered. The areas covered are: extent of financial dependence on parents; sources of financial support for college, and degree of concern about ability to pay for college.

#### Dependence on Parents (Tables 88, 89)

As a means of assessing students' financial dependence on their parents and identifying those freshmen who might be regarded as legally independent, the freshman questionnaire asked respondents to indicate whether, in the year prior to college entry or in the freshman year, they had lived with their parents for more than two consecutive weeks, been listed as an exemption on their parents' federal income tax return, or received assistance worth \$600 or more from their parents. Chapter 7 indicated that nondisabled freshmen were more

Table 88

Dependence on Parents of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Type of Dependence	Nondisabled						Disabled							
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
Public	Private	Public	Private	Public	Private	Public		Private	Public	Private	Public	Private		
Lived with parents (for more than two consecutive weeks)	92	93	91	92	91	89	92	92	89	87	86	83	88	
Listed as an exemption on parents' Federal Income Tax Return	89	88	83	85	79	80	83	88	89	78	81	73	73	78
Received assistance worth \$600 or more from parents	77	85	64	73	52	66	66	74	80	58	70	46	58	59

likely to answer each of these questions affirmatively than were disabled freshmen, as one might expect, since the disabled were more likely to be over age 21 at college entry and to come from low socioeconomic backgrounds.

As Table 88 indicates, there were differences by type of college entered, with entrants to private universities being most likely to indicate dependence on parents, followed by entrants to public universities and to private four-year colleges. Conversely, entrants to public two-year colleges were least likely to be financially dependent on their parents, followed by entrants to private two-year colleges and to public four-year colleges. For instance, the proportions who had lived with their parents for at least two weeks during the freshman year or the previous year ranged from 83 percent of the disabled at private two-year colleges to 92-93 percent of both disabled and nondisabled university entrants. Slightly less than three-fourths (73 percent) of the disabled freshmen entering public or private two-year colleges had been claimed as exemptions on their parents' federal income tax return, compared with 88-89 percent of the disabled and nondisabled entering universities. The range was greatest on the third item: Only 46 percent of the disabled at community colleges, but 85 percent of the nondisabled at private universities, had received at least \$600 worth of assistance from their parents. Discrepancies between the disabled and the nondisabled were greatest at the two-year colleges.

Table 89, showing responses to a question about how many persons dependent on the parents (other than the student) were attending college in fall 1978, throws additional light on family financial situation. Obviously, the more dependents are attending college, the greater the strain on the family budget. Here, the patterns were somewhat different from those reported above: 69-70 percent of freshmen at two-year colleges, compared with 54 percent



4.5



3.0



3.6

4.0



4.5



5.0

5.6

6.3



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)

Table 89

Number of Other College-Going Dependents of Parents of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Number of Dependents	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
None	62	60	66	65	69	70	66	61	54	66	63	70	70	66
One	28	29	26	26	23	24	26	28	32	24	25	21	23	24
Two	8	8	6	6	5	3	6	9	10	8	8	7	4	8
Three or more	3	3	2	3	3	3	3	3	4	3	4	2	3	3
N	299,371	84,585	339,620	261,937	516,920	55,364	1,557,792	7,494	2,269	9,512	8,254	17,827	2,377	47,731

of the disabled and 60 percent of the nondisabled at private universities, indicated that there were no other dependents in college in 1978. Moreover, 14 percent of the disabled freshmen at private universities (and 12 percent) of their counterparts at public universities and at private four-year colleges) said that two or more dependents (presumably their siblings) were currently in college, compared with only 6-7 percent of the freshmen at private two-year colleges. Thus, it would seem that the families of students attending the more elite institutions have more dependents in college and thus are making greater financial outlays to cover college costs than are the families of students attending less selective institutions. One possible explanation is that, because their incomes tend to be higher, the parents of freshmen at the more selective institutions can more easily afford to send their children to college. A second explanation is that these families place a higher value on education and thus are more willing to support a number of children in college. (This second explanation is related to the first insofar as parental income is related to educational level of the parents and thus to a configuration of values that emphasize the benefits of education.) As was noted previously, many of the freshmen at two-year colleges were first-generation college students. This fact, coupled with the data in Table 89, suggests that a sizable proportion of these freshmen are attending college on their own initiative rather than as a result of the support and encouragement of their families. They may be equally likely to have siblings as freshmen in more elite institutions, but those siblings are less likely to be going to college.

Source of Finances (Table 90)

The importance of both amount and type of financial support for college to the persistence and achievement of students is well documented (see, for

Table 90

Expected Sources of Financial Support of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Source	Nondisabled							Disabled						
	Level and Control of Institution													
	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	2-Year Colleges Public	2-Year Colleges Private	Total	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	2-Year Colleges Public	2-Year Colleges Private	Total
Grants, Scholarships	32	49	36	54	36	56	40	38	49	41	56	43	60	45
Loans	19	30	15	34	20	25	22	20	33	19	37	25	21	25
Work and Savings	68	64	57	68	59	63	62	66	60	57	65	50	48	57
Spouse	0	0	1	1	1	1	1	1	0	2	1	2	2	2
GI Benefits	0	0	1	0	1	1	1	1	0	1	1	2	2	1
Other	7	10	12	9	9	16	10	10	8	15	11	13	14	12
Parental Aid	81	85	69	79	61	75	71	78	81	68	77	52	70	66

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example, Astin, 1975, 1977; Henson, 1980). For instance, grants and scholarships generally have positive effects, whereas loans have negative effects. Chapter 7 pointed out that the proportions of disabled and nondisabled freshmen reporting various sources of support differed, but the rank-order of the sources was the same for both groups. The most common source of support was parental aid (reported by 71 percent of the nondisabled and 66 percent of the disabled), followed by self-support in the form of earnings or savings from employment as well as participation in the College Work-Study program (CWS) (62 percent of the nondisabled, 57 percent of the disabled), grants or scholarships (40 percent of the nondisabled, 45 percent of the disabled), loans (22 percent of the nondisabled, 25 percent of the disabled), and "other" sources (10 percent of the nondisabled, 12 percent of the disabled). Very few freshmen got support for college from their spouses (1 percent of the nondisabled, 2 percent of the disabled) or from GI benefits (1 percent of both groups), the latter category including parents' as well as personal benefits. As this summary makes clear, the nondisabled were more likely than the disabled to pay their college expenses through parental aid or self-support, whereas the disabled were more likely to get grants and scholarships, loans, and support from spouse.

Because of differences in college costs and in the socioeconomic status of entrants to different institutional types, and because of the provisions of various kinds of financial assistance programs, it is not surprising that sources of finance vary considerably by type of institution entered. Thus, those attending the more elite institutions (universities, private four-year colleges) were much more likely to get support from their parents than were those attending relatively nonselective, low-cost institutions. The range

was from slightly over half (52 percent) of the disabled and 61 percent of the nondisabled at community colleges to 85 percent of the nondisabled at private universities. Those at private two-year colleges were somewhat more likely than those at public four-year colleges to get parental support. These differences are consistent with what we already know about differences in parental income levels.

Most likely to be self-supporting were freshmen attending public universities and private two-year colleges; about two-thirds of these students said they were using earnings or savings from employment or CWS funds to finance their college education. At the other extreme, only about half the disabled freshmen at public and private two-year colleges reported this source of support. Of course, disabled freshmen may have a more difficult time finding employment than the nondisabled. Of nondisabled freshmen, those at public four-year colleges (57 percent) and public two-year colleges (59 percent) were least likely to indicate this source of support.

Grants and scholarships were more frequently a source of support for those at private institutions (especially two-year colleges) than at public institutions. For instance, three-fifths of the disabled freshmen at private two-year colleges, compared with only about half as many of the nondisabled (32 percent) at public universities, said they got grants or scholarships. This discrepancy between the public and the private sectors may seem strange, insofar as students attending public institutions tend to come from lower socioeconomic levels than those attending private institutions; the explanation probably lies in the differences in the costs of public and private institutions. Grants are generally awarded on the basis of "need" relative to college costs, and students attending private institutions may be seen as having a greater need in that they must pay higher tuition costs.

Loans were most commonly mentioned as a source of support by those at private four-year colleges and (to a lesser extent) at private universities. Relatively few of those at public four-year colleges or public universities reported taking loans. This difference may be explained not only by the differences in the costs of public and private institutions but also by differences in student willingness to incur indebtedness. Generally, people from lower-income backgrounds are somewhat more reluctant to take loans than are those from more affluent backgrounds. Finally, reversing the overall pattern, the nondisabled in private two-year colleges were somewhat more likely than their disabled counterparts were to report loans as a source of college finance.

Consistent with their greater tendency to be married, larger-than-average proportions of disabled freshmen at public four-year colleges, public two-year colleges, and private two-year colleges said they got support for college from their spouses. Similarly, slightly larger-than-average proportions of the disabled at public and private two-year colleges said that GI benefits were a source of support; since these institutions enroll the largest proportions of veterans, this finding makes sense. The proportions receiving support from "other" sources ranged from 7 percent of the nondisabled at public universities to 16 percent of the nondisabled at private two-year colleges; though the disabled were generally more likely to report this source of support than were the nondisabled, this pattern was reversed at private universities and private two-year colleges. Because these other sources of support represent a miscellany, no inferences can be drawn from these differences.

Differences between the disabled and the nondisabled with respect to sources of support were greatest at the two-year colleges. For instance, only 48 percent of the disabled, compared with 63 percent of the nondisabled, at private two-year colleges indicated that employment or CWS was a source

of support. At public two-year colleges, only 52 percent of the disabled, compared with 61 percent of the nondisabled, got parental support.

Degree of Financial Concern (Table 91)

Chapter 9 indicated that the disabled and the nondisabled differed very little in the concern they feel about their ability to pay for their college education: About one-third (35 percent of the nondisabled, 32 percent of the disabled) said they had no concern; about half (50 percent of the nondisabled, 49 percent of the disabled) said they felt some concern; and the remainder (14 percent of the nondisabled, 19 percent of the disabled) expressed major concern.

Table 91 indicates that institutional differences with respect to degree of financial concern were also slight. The nondisabled enrolled in public four-year colleges seemed most confident about their ability to finance college (insofar as 38 percent said they had no concern), and disabled freshmen at private four-year colleges seemed least confident (with 72 percent expressing at least some concern); nondisabled freshmen in private four-year colleges as well, seem to feel some anxiety about their ability to pay for college, (with 69 percent expressing at least some concern). But entrants to two-year colleges differed very little from entrants to universities in degree of self-concern.

Part of the explanation for this similarity lies in the process of self-selection: Students from higher income levels tend to select the more expensive institutions, whereas those from lower income levels tend to select lower-cost options. Moreover, the findings suggest that the "net-price" of a college education (that is college costs, minus aid received) tends to be similar across institutions: Students attending higher-cost institutions are likely to get a higher level of financial aid to cover these costs.

Table 91

Degree of Concern About Financing College of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages).

Degree of Concern	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
None (I am confident that I will have sufficient funds)	35	36	38	31	35	35	35	34	34	32	29	35	34	32
Some concern (but I will probably have enough funds)	52	50	48	51	51	52	50	51	46	46	50	49	45	49
Major concern (not sure I will have enough funds to complete college)	14	14	14	18	13	13	14	15	20	22	22	17	19	19
N	306,733	87,156	346,942	268,383	534,907	56,444	1,600,560	7,682	2,321	9,948	8,472	18,970	2,433	49,826

Obviously, this explanation does not hold true for the four-year colleges: 22 percent of the disabled freshmen in both the public and private four-year colleges expressed major concern over college finances, as did 18 percent of the nondisabled in private four-year colleges (but only 14 percent of the nondisabled in public four-year colleges). The implication is that freshmen in these institutions are caught in the middle: Though their costs may be significantly higher than those of freshmen in two-year colleges, they are less likely to get the amount of aid they need to make them feel secure about their ability to finance college.

### Summary

The findings with respect to the college finances of freshmen at the six institutional types are summarized below.

Public Universities. Consistent with their being more likely to say that the offer of financial assistance was a very important consideration in choice of an institution, the disabled freshmen at public universities were more likely than the nondisabled freshmen to mention grants and scholarships as a source of support (38 percent versus 32 percent). Otherwise, the two groups were highly similar: Entrants to these institutions were somewhat more likely than average to be financially dependent on their parents (for example, about three-fourths said they had received at least \$600 worth of assistance from their parents). About two in five (compared with 35 percent of the total sample) reported that other dependents from their families were attending college. Larger-than-average proportions got parental aid or paid for college through earnings or savings from employment; smaller-than-average proportions got grant or scholarship aid or took loans; and public university freshmen were no more likely than average to worry about finances. Indeed, only 15 percent of the disabled entrants--the lowest figure for disabled students at any institutional type--expressed major concern over their ability

to pay for college.

Private Universities. The disabled entrants to private universities relied somewhat less on their parents for college support than did the non-disabled (81 percent versus 85 percent) and were more inclined to express major financial concern (20 percent versus 14 percent), perhaps because they were more likely to come from families which had other college-going dependents.

This is not to say, however, the either the disabled or the nondisabled freshmen at private universities were likely to be independent of their parents: They were just as likely as public university freshmen to have lived with their parents for at least two weeks (92-93 percent) and to have been listed as an exemption on their parents' income tax return (88-89 percent), and they were more likely than freshmen entering other types of institutions to have received at least \$600 worth of assistance from their parents (85 percent of the nondisabled, 80 percent of the disabled).

The proportions naming each of the major sources of college finance (scholarship and grants, loans, work and CWS, parental aid) were somewhat larger than average. In short, freshmen entering private universities seem to have a wider number of sources to draw upon.

Public Four-Year Colleges. The disabled freshmen at public four-year colleges were somewhat less likely than the nondisabled to be financially dependent on their parents and somewhat more likely to draw on grants and scholarships, on loans, and on their spouses as sources of support for college. In addition, 22 percent of the disabled, compared with only 14 percent of the nondisabled, felt major concern about their ability to pay for college. These differences are consistent with the higher proportions of older students, nonwhites, and low-income students in the disabled group. Equal proportions mentioned employment on CWS and parental aid as sources of support.

Overall, the proportions of these freshmen manifesting dependence on their parents were about average, as were the proportions saying that other dependents of their families were attending college. They were somewhat less likely than average to mention each of the major sources of college finance. Nonetheless, 38 percent of the nondisabled (compared with 35 percent of all nondisabled freshmen) said they felt no concern over their ability to pay for college, though a larger-than-average proportion of the disabled (22 percent, compared with 19 percent of all disabled freshmen) expressed major concern.

Private Four-Year Colleges. Consistent with their relatively high socioeconomic backgrounds, freshmen at private four-year colleges were substantially more likely than their counterparts at public four-year colleges to say they had received at least \$600 worth of assistance from their parents. The proportions indicating they would draw on loans or on earnings and savings from employment to finance their college education were higher than for any other insitutional type; and the proportions getting grants and scholarships were exceeded only by the proportions at private two-year colleges. Nonetheless, these freshmen were less likely than any other group to say they had no concern about their ability to pay for college, and more likely than any other to express major concern. It would seem, then, that in spite of the resources they have to draw on, many of these freshmen feel that they are not given sufficient amounts of aid to cover their college expenses.

The differences between disabled and nondisabled freshmen at private four-year colleges are consistent with overall differences between the disabled and the nondisabled groups.

Public Two-Year Colleges. As one would expect, given the relatively large proportions of older, married, and low-income students among entrants

to community colleges, relatively few of these students were dependent on their parents. For instance, only 52 percent of the nondisabled and 46 percent of the disabled got \$600 or more in assistance from their parents; and only 61 percent of the nondisabled and 52 percent of the disabled (the lowest figures for any institutional type) mentioned parental aid as a source of support. Moreover, lower-than-average proportions said that employment was a source of support; lower-than-average proportions of the nondisabled got grants or loans; and higher-than-average proportions of the disabled got support from their spouses or from GI benefits. Moreover, the disabled were less likely than average, and the nondisabled no more likely than average, to express concern over their ability to pay for college.

Private Two-Year Colleges. Although the proportions getting at least \$600 worth of assistance from their parents were about average, the proportions of freshmen at private two-year colleges saying they had lived with their parents for at least two weeks or had been listed as tax exemptions were slightly lower than average. Like their counterparts at community colleges, relatively few of these students said that other dependents from their families were attending college.

Somewhat larger-than-average proportions of freshmen at private two-year colleges mentioned parental aid as a source of support. These freshmen were more likely than those at any other institutional type to get grants or scholarships, perhaps because of the high tuition and living costs at some colleges in this category, coupled with the low parental incomes of some students entering these colleges.

With respect to other sources of college finance, the disabled and the nondisabled differed somewhat in that the nondisabled were somewhat more likely than average, and the disabled less likely than average, to get loans. Moreover, the proportion of disabled freshmen saying that they

expected to support themselves through earnings from employment or CWS were lower than for any other group (only 48 percent, compared with 57 percent of all disabled freshmen), though the proportions of nondisabled freshmen expecting to use self-support sources were about average.

Their distribution with respect to degree of concern over ability to pay for college resembled the norm, suggesting that these freshmen receive enough financial aid (probably in the form of grants) to cover their costs.

## Chapter 15.

### College Plans and Expectations

This chapter, paralleling Chapter 8, examines the degree aspirations of 1978 freshmen entering the six institutional types; their anticipated major fields of study, career plans, anticipated need for remediation in particular subjects, and expectations about the likelihood of having various experiences during the college years.

#### Degree Aspirations (Tables 92, 93)

Table 92 shows the highest degrees that 1978 freshmen planned to earn at any institution, and Table 93 shows the highest degree they planned to earn at their freshman institution. As was indicated in Chapter 8, the majority of students enter college planning to get either a baccalaureate (38 percent of the nondisabled, 34 percent of the disabled) or a master's (30 percent of the nondisabled, 27 percent of the disabled). The disabled tended to have slightly higher degree aspirations than the nondisabled in that, even though they were twice as likely to say they were not planning to get any degree (4 percent of the disabled, 2 percent of the nondisabled), they were more likely to aspire to a doctorate (11 percent, compared with 9 percent of the nondisabled) or to a professional degree (12 percent versus 10 percent), especially in law or divinity. In addition, 4 percent of the disabled and 3 percent of the nondisabled indicated they planned to get some "other" degree. No inferences can be drawn, however, since it is impossible to know from these data just what "other" degrees they had in mind; the relatively large proportions of such students in the two-year colleges suggest that many were planning to get diplomas or certificates from low-level occupational curricula, but others may have been planning on advanced professional degrees in fields other than those listed on the freshman questionnaire.

Table 92

Highest Degree Aspirations of 1978 Freshmen, by Disability Status, and by Level and Control of Institution  
(percentages)

Degree Aspiration	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
None	1	0	2	2	4	2	2	1	0	4	2	6	7	4
Associate (AA or equivalent)	1	0	2	2	19	19	8	1	0	4	1	17	6	8
Bachelor's degree. (BA, BS, etc.)	38	19	41	32	43	36	38	34	15	34	30	38	38	34
Master's degree (MA, MS, etc.)	33	30	36	34	22	29	30	32	28	32	32	21	20	27
PhD or EdD	10	18	10	12	4	4	9	14	24	12	14	6	6	11
MD, DO, DDS or DVM	10	19	4	9	2	2	6	10	17	4	9	3	6	6
LLB or JD (Law)	6	11	4	6	1	2	4	6	11	5	7	2	4	5
BD or M Div (Divinity)	0	1	0	1	0	1	0	1	1	1	1	1	6	1
Other	1	1	2	3	4	5	3	2	2	4	3	6	7	4
N	264,347	77,018	282,021	226,557	397,843	43,929	1,291,705	6,597	2,019	8,096	6,934	13,607	1,801	39,054

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Differences by institutional type are what one would expect, given differences in student background and in institutional curricula. Those planning to get no degree or only an associate degree were most likely to be enrolled in the two-year colleges. The proportions of baccalaureate aspirants were highest at the public four-year and two-year colleges and lowest at the private universities. Aspirants to a master's degree were best represented at public and private four-year colleges and at public universities and most poorly represented at public two-year colleges. The most elite institutions were most likely to enroll freshmen with the highest degree aspirations: Thus, the largest proportions of freshmen planning to get the doctorate or a professional degree were enrolled in private universities, followed by public universities and private four-year colleges. An exception to this generalization is that 6 percent of the disabled entrants to private two-year colleges (compared with only 1 percent in the total disabled sample) planned to get a professional degree in divinity.

Consistent with previous analyses, disabled entrants to universities, especially in the private sector, most closely resembled their nondisabled counterparts. The most marked differences between the two groups were found at the private two-year colleges. Thus, substantially larger proportions of the nondisabled than of the disabled at these institutions aspired to an associate or a master's degree; although more of the disabled than of the nondisabled planned to get no degree or some "other" degree, a higher proportion also aspired to the doctorate or to a professional degree.

As Table 93 indicates, many freshmen anticipated changing institutions (either during the undergraduate years or following completion of the baccalaureate) before getting their highest planned degree. The fact that over one-fifth of two-year college entrants said that they planned to get a bac-

Table 93

Degree Aspirations at 1978 Freshman Institution, by Disability Status,  
and by Level and Control of Institution  
(percentages).

Degree Aspiration	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
None	2	1	5	4	6	6	4	3	2	5	5	8	8	6
Associate (AA or equivalent)	2	2	5	3	67	62	26	2	2	6	4	66	55	30
Bachelor's degree (BA, BS, etc.)	67	64	71	78	20	24	53	65	60	67	74	15	21	46
Master's degree (MA, MS, etc.)	18	18	13	9	3	4	10	18	19	15	11	5	1	10
PhD or EdD	3	4	2	1	0	1	2	4	4	2	1	1	3	2
MD, DO, DDS or DVM	4	6	1	1	0	0	2	4	7	1	1	0	0	1
LLB or JD (Law)	2	3	1	1	0	0	1	2	4	1	1	0	2	1
BD or M Div (Divinity)	0	0	0	0	0	0	0	0	0	0	1	1	0	0
Other	1	1	2	2	3	3	2	2	3	2	2	5	10	4
N	202,926	64,119	236,869	193,028	354,017	36,561	1,087,517	4,801	1,776	6,344	6,331	12,714	1,739	33,704

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calaureate or advanced degree (at their freshman institution (degrees which are not, of course, offered in these institutions) can best be interpreted as an indication of naivete about higher education. It would seem that, at the time of college entry, these freshmen are simply not aware of the limitations of their institutions with respect to degree offerings. Since many of them are first-generation college students, such naivete is not too surprising. A similar problem arises in the case of those four-year college entrants who said they planned to get a doctorate or a professional degree from their freshman institutions, though the proportions were much smaller.

#### Probable Major Field (Table 94)

As noted in Chapter 8, the 79 response options for probable major field listed on the 1978 freshman questionnaire were collapsed into 16 categories for purposes of this analysis (see Appendix D). The results, by institutional type, are presented in Table 94. The disabled differed very little from the nondisabled in their probable major fields.

The most popular choice was business (named by close to one-fourth of both groups), followed by engineering, health professions, and education. The nondisabled were somewhat more likely to name agriculture as their probable major field, whereas the disabled were slightly more likely to name biological sciences, physical sciences, social sciences, humanities, and fine arts. In addition, 8 percent of the nondisabled and 6 percent of the disabled named "other technical" fields; 8 percent of the nondisabled and 10 percent of the disabled named "other nontechnical" fields; and 5 percent of the nondisabled and 4 percent of the disabled were undecided as to their major.

As one would expect, given the different curricula and missions that have evolved in U.S. higher education, there were marked differences by institutional type. Thus, freshmen enrolling in the more elite and selec-

Table 94

Anticipated Majors of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Major <sup>a</sup>	Nondisabled							Disabled <sup>b</sup>						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public, Private		
Agriculture	3	0	1	2	7	3	4	4	0	1	2	6	1	3
Biological Science	6	10	4	6	2	2	4	7	10	4	6	3	5	5
Business	20	15	22	21	30	37	24	19	15	19	17	30	31	23
Education	6	3	14	9	5	14	8	6	2	15	10	6	10	9
Engineering	13	11	10	8	10	3	10	11	10	10	6	10	5	9
English	1	2	1	2	0	0	1	1	3	1	2	0	0	1
Health Professions	12	14	9	10	9	5	10	12	12	8	10	8	4	9
History, Political Science	4	8	3	4	1	1	3	4	7	4	6	0	2	3
Humanities (other)	2	4	2	4	2	3	2	2	4	2	5	3	4	3
Fine Arts	5	6	6	6	3	8	5	6	6	7	6	4	8	6
Mathematics and Statistics	1	1	1	1	0	1	1	1	2	1	1	1	1	1

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Table 94 (Concluded)

(percentages)

Major <sup>a</sup>	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
Physical Sciences	3	5	2	2	1	0	2	4	5	2	4	2	0	3
Social Sciences	4	5	6	8	4	4	5	6	7	6	10	3	6	6
Other Technical	6	2	5	4	14	4	8	4	4	5	4	11	4	6
Other Nontechnical	9	8	8	7	9	9	8	8	8	10	8	12	16	10
Undecided	5	6	6	5	4	5	5	5	5	4	6	2	2	4
N	289,780	83,530	325,030	248,610	482,040	52,110	1,481,080	7,175	2,144	8,943	7,729	15,476	2,104	43,571

<sup>a</sup> See Appendix D for derivation of these categories

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tive types (universities and private four-year colleges) were more likely to name the traditional, "pure" academic subjects as their probable majors (e.g., biological, physical, and social sciences; English, history and political science, and other humanities), whereas those entering institutions lower down in the status hierarchy (public four-year colleges, two-year colleges) were more likely to name "practical" curricula. For example, the largest proportions of prospective business majors were found in the private two-year colleges, followed by the public two-year colleges; the smallest proportions were found in the private universities. Similarly, the public two-year colleges enrolled the largest proportions of freshmen planning to major in agriculture, whereas the private universities enrolled practically none; further, a relatively high proportion of freshmen in the public universities planned to major in agriculture, reflecting the historical fact that many of these institutions started out as land-grant colleges which had as a basic mission training and research in agriculture. Similarly, the concentration of prospective education majors in public four-year colleges can be explained by the fact that many of these institutions are former teachers colleges. (The private two-year colleges also enroll high proportions of freshmen planning to major in education.)

In addition, public universities were most likely, and private two-year colleges least likely, to enroll prospective engineering majors; private universities were most likely, and private two-year colleges least likely, to enroll freshmen planning to major in health professions (a category that includes premedicine, predentistry, nursing, and allied health fields). Private two-year colleges enroll larger-than-average proportions of freshmen planning to major in fine arts but lower-than-average proportions of those planning to major in "other technical" fields, while the reverse is true of

public two-year colleges. Finally, relatively few of the disabled freshmen entering public or private two-year colleges were undecided about their probable majors. Most likely to indicate uncertainty were nondisabled entrants to private universities and public four-year colleges.

#### Career Plans (Table 95)

Table 95 shows the career plans, classified into 15 categories, of disabled and nondisabled entrants to each of the six types of higher education institutions. (See Appendix E for a list of the 44 occupations included in these 15 categories.)

In general, freshman career choices were consistent with degree aspirations and probable major field, as well as with institutional characteristics. The most common choice, business, was named by about one-fifth of the entrants to all institutions except the private universities, where only 13 percent of the nondisabled and 15 percent of the disabled said they planned to become businesspersons. Those planning to become engineers were most likely to be enrolled in public universities and public two-year colleges. Other high-level occupations (doctor, lawyer, research scientist) were most frequently named by private university freshmen, followed by those at public universities and private four-year colleges. Larger-than-average proportions of freshmen planning to become elementary or secondary school teachers were found in public four-year colleges and private two-year colleges. Most likely to be undecided about their careers were freshmen at private universities; least likely were those at public two-year colleges. About three in ten freshmen at both public and private two-year colleges named "other" career choices, a miscellaneous category that includes a range of high- and low-level occupations such as architect, clerical worker, computer programmer, and homemaker.

Table 95

Anticipated Occupations of 1978 Freshmen,  
by Disability Status, and by Level and Control of Institution  
(percentages).

Occupation <sup>a</sup>	Universities		Nondisabled 4-Year Colleges		2-Year Colleges		Total	Universities		Disabled 4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
Artist	7	9	6	8	4	10	6	8	9	9	10	7	11	8
Business	18	13	20	19	20	20	19	17	15	16	16	20	14	18
Clergy	0	1	0	2	0	1	0	0	1	0	2	1	3	1
College Teacher	0	0	0	0	0	0	0	0	1	0	1	0	0	0
Doctor	6	17	3	7	1	1	4	8	16	3	7	3	0	4
Education	2	1	5	4	1	4	2	3	1	6	3	1	4	3
Elementary	3	1	6	4	3	6	4	2	1	7	4	3	5	4
Engineer	12	9	7	7	11	3	9	10	9	10	5	9	2	8
Farmer-	2	0	1	1	5	2	3	3	0	1	2	4	1	2
Health	8	5	6	5	7	3	7	8	3	5	5	6	7	6
Lawyer	6	10	4	6	1	2	4	6	10	5	7	1	2	4
Nurse	4	2	4	4	6	4	4	3	2	3	4	6	0	4
Research Scientist	3	5	2	2	1	1	2	4	6	2	2	2	0	3
Other	17	13	25	17	31	31	24	19	15	22	19	29	33	24
Undecided	12	14	10	13	9	12	11	10	10	10	11	10	18	10
N	293,340	83,330	328,990	254,040	487,830	51,190	1,498,700	7,244	2,150	8,890	7,794	16,330	2,035	44,443

<sup>a</sup> See Appendix E for derivation of these occupational categories.

Anticipated Need for Remediation (Table 96)

As Table 77 (Chapter 12) indicated, the disabled (especially those at private two-year colleges) were more likely to have taken remedial work in high school than were the nondisabled. Table 96 shows that they were also more likely to feel they would need remediation in college. Indeed, in all subjects except reading and social studies, the proportions of both disabled and nondisabled entrants to virtually all institutional types saying they would need remediation were almost twice as large as the proportions saying they had had remediation in high school. The subject about which they had the least confidence was mathematics, followed by English, foreign languages, and science.

Consistent with differences in perceived high school preparation, freshmen at public universities were least likely to feel a need for remediation, followed by those at public universities and at private four-year colleges. Most likely to feel that they would need remedial work were entrants to private two-year colleges, followed by those at public two-year colleges. For instance, about two-fifths of both disabled and nondisabled freshmen entering private two-year colleges said they would need remedial work or special tutoring in mathematics.

Federal guidelines for the implementation of Section 504 do not specify that higher education institutions should provide special programs for the disabled to make up for the shortcomings of their previous schooling. Putting aside the question of what should be done for those nondisabled students who enter college feeling a need for remedial work, the question of what should be done for those handicapped students who, in addition to other difficulties they may face, feel a need for remediation looms large.

Table 96

Anticipated Need for Remediation by Disability Status,  
and by Level and Control of Institution  
(percentages)

Subject	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
English	12	10	15	13	16	19	14	18	13	23	18	24	25	22
Reading	6	6	9	8	9	10	8	9	9	16	12	17	14	14
Mathematics	21	16	26	24	26	38	24	27	20	36	34	35	41	33
Social Studies	3	2	5	4	4	6	4	5	3	9	7	8	8	7
Science	12	11	14	14	12	17	13	16	11	21	21	18	14	18
Foreign Language	12	11	17	15	13	24	14	16	15	23	23	18	28	20
N	310,504	89,843	351,597	270,274	546,388	57,864	1,626,468	7,767	2,357	10,114	8,609	19,444	2,504	50,795

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Expectations Regarding College Experiences (Table 97)

Table 97 shows the proportions of 1978 disabled and nondisabled freshmen at the six institutional types who estimated that there was a "very good chance" of their having each of 24 experiences during the college years. As noted in Chapter 8, the most frequently anticipated experiences were finding a job in the field of their college major (about two-thirds of both groups), getting a baccalaureate (65 percent of the nondisabled, 61 percent of the disabled), being satisfied with college (55-56 percent), making at least a B average (42 percent of the nondisabled, 37 percent of the disabled), getting a job to help pay for college expenses (41 percent of the nondisabled, 36 percent of the disabled), living in a coed dorm (about one-quarter of both groups), and having to work at an outside job while in college (24 percent of the nondisabled, 22 percent of the disabled). The disabled tended to foresee more difficulties for themselves in college (failing one or more courses, needing extra time to complete the degree, getting tutoring help in specific courses, dropping out temporarily, seeking individual counseling for personal problems), whereas the nondisabled tended to foresee more achievements (being elected to a scholastic honor society, making a B average or better, getting the baccalaureate).

The expectations of 1978 freshmen differed considerably by institutional type. For instance, those entering private universities were most likely to anticipate high academic achievement (such as graduating with honors), followed by those at public universities and private four-year colleges; those entering two-year colleges were least likely to do so. Similarly, being elected to a student office and feeling satisfied with college were anticipated more frequently by entrants to private universities and private four-year colleges than by others.

Table 97

Anticipated Likelihood of Particular College Experiences, by Disability Status,  
and by Level and Control of Institution  
(percentage marking "very good chance")

College Experience	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Change major field	16	16	14	15	8	10	12	17	16	14	16	8	17	13
Change career choice	16	15	13	15	8	9	12	16	13	13	15	9	17	12
Fail one or more courses	2	1	1	2	2	2	2	3	3	4	3	3	8	4
Graduate with honors	13	19	12	14	8	9	12	12	21	9	13	10	5	11
Be elected to a student office	2	4	3	4	2	2	3	3	5	3	5	2	1	3
Get a job to help pay for college expenses	43	42	39	44	41	29	41	42	45	34	41	34	21	36
Join a social fraternity, sorority, or club	22	28	19	22	17	17	18	20	27	17	22	15	10	18
Live in a coeducational dorm	37	42	26	22	21	10	26	39	46	26	21	19	11	25

Table 97 (Continued)

(percentage marking "very good chance")

College Experience	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
Be elected to an academic honor society	10	17	7	9	5	7	8	10	18	7	9	2	5	6
Make at least a "B" average	47	57	40	45	38	29	42	42	59	34	42	34	19	37
Need extra time to complete degree requirements	5	4	6	5	4	6	5	6	5	8	7	7	9	7
Get tutoring help in specific courses	8	6	10	10	7	17	9	12	11	15	16	15	11	14
Have to work at an outside job during college	18	14	25	20	30	19	24	18	21	24	20	24	16	22
Seek vocational counseling	8	9	6	9	6	7	7	9	13	11	10	8	12	10
Seek individual counseling on personal problems	4	4	5	5	4	5	4	5	8	8	9	7	7	7

Table 97 (Continued)

(percentage marking "very good chance")

College Experience	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
Public	Private	Public	Private	Public	Private	Public		Private	Public	Private	Public	Private		
Get a bachelor's degree (B.A., B.S., etc.)	80	86	76	76	42	42	65	77	88	70	74	43	34	61
Participate in student protests or demonstrations	3	6	3	4	4	3	3	4	7	4	6	2	2	4
Drop out of this college temporarily (exclude transferring)	1	1	1	1	1	1	1	2	3	3	3	2	0	2
Drop out permanently (exclude transferring)	1	0	1	1	1	3	1	1	1	2	2	1	0	1
Transfer to another college before graduating	7	5	13	11	12	20	11	10	8	14	11	14	17	12
Be satisfied with your college	58	66	54	60	51	54	56	56	63	52	59	53	60	55

Table 97 (Concluded)

(percentage marking "very good chance")

College Experience	Nondisabled						Disabled							
	Universities		4-Year Colleges		2-Year Colleges		Universities		4-Year Colleges		2-Year Colleges		Total	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private		
Find a job after college in the field for which you were trained	68	70	68	68	65	64	67	67	70	65	65	64	57	65
Get married while in college	4	3	6	6	4	7	5	4	4	6	6	6	10	6
Get married within a year after college	15	12	18	17	13	20	15	15	12	16	18	13	16	15

The proportions saying there was a good chance they would get a job to pay their college expenses were substantially larger than the proportions saying they would probably have to work at an outside job during college, and this was true for both disabled and nondisabled freshmen at every institutional type. The former was most often anticipated by those at public and private universities and private four-year colleges, and the latter by public two-year college freshmen. Slightly larger proportions expected to seek vocational counseling than expected to seek individual counseling for personal problems, with the former most often anticipated by private university freshmen and the latter by public and private four-year college freshmen.

Some differences were clearly related to institutional differences. Thus, two-year college entrants, especially those in the private sector, were more likely than most others to say they would transfer to another college before graduating. Nonetheless, the proportions anticipating they will transfer were considerably smaller than the proportions who would in fact have to transfer if they are to fulfill their degree aspirations. For instance, only 12 percent of the nondisabled at community colleges expected to transfer, yet about three-fourths of these same students planned to get a baccalaureate or higher. The explanation for this discrepancy would seem to lie, once again, in the naïveté of many entering freshmen. Differences in the residential arrangements offered at different institutional types may account for some differences in expectations. Thus, larger-than-average proportions of freshmen at private universities, public universities, and private four-year colleges expected to join a fraternity or sorority. Such social organizations are more frequently found at these institutions than at public four-year colleges or public and private two-year colleges.

Differences in the gender composition of different freshman groups may

account for differences in expectations regarding marriage. Thus, at the two-year private colleges, where women far outnumbered men, 26-27 percent of the freshmen expected to get married either while in college or within one year after college; the comparable figure at private universities, where men outnumber women, was 15-16 percent.

Finally, entrants to two-year colleges, especially those in the public sector, seemed more goal-directed at college entry, in that relatively few expected to change major fields or career choices. This is consistent with the relatively small proportions who were undecided about their probable major field or the career choices.

### Summary

The degree aspirations, major field choices, and career plans of the 1978 freshman class differed according to the types of institutions they entered. Those entering the most prestigious and selective institutions (private universities, public universities, private four-year colleges) tended to have high degree aspirations and to plan to entering high-status occupations. Conversely, those entering institutions lower down in the status hierarchy had lower aspirations. Consistent with differences in high school records and perceived preparation, those entering two-year colleges were most likely to feel they would need remediation in college. Finally, differences in expectations about likely college experiences were also consistent with institutional differences in various direct and subtle ways. The following summarizes the findings by each of the six institutional types.

Public Universities. Freshmen entering public universities were more likely than average to aspire to advanced degrees: about one-third planned to get a master's; 10 percent of the nondisabled and 14 percent of the disabled aimed for a doctorate; 10 percent of both groups aspired to a medical

degree, and 6 percent of both groups to a law degree.

Larger-than-average proportions said they would probably major in engineering, the health professions, biological and physical sciences, or history and political science; lower-than-average proportions named probably majors in business or education. Consistent with these major field plans, larger-than-average proportions planned to become engineers, lawyers, research scientists, and health professionals. In addition, though only 4 percent of the total nondisabled and disabled groups said they planned to become doctors, 6 percent of the nondisabled and 8 percent of the disabled entering public universities expressed this ambition. Finally, slightly larger-than-average proportions of the nondisabled planned to become farmers or ranchers.

The proportions expecting to need remediation in various subjects were slightly lower than average. Consistent with this apparently favorable appraisal of their academic preparation, both disabled and nondisabled freshmen at public universities tended to say there was a very good chance they would graduate with honors, be elected to a scholastic honor society, make averages of B or better, and attain the baccalaureate. They were also more likely than average to anticipate joining a fraternity or sorority and living in a coeducational dormitory. Larger-than-average proportions of disabled freshmen said they would probably get a job to help pay their college expenses, but lower-than-average proportions of both disabled and nondisabled freshmen expected that they would have to work during the college years. Finally, relatively few expected to transfer to another institution before completion of college or to get married while in college, and the disabled were less likely than were their counterparts at other institutions to say they would probably seek individual counseling for personal problems.

Private Universities. About half the entrants to these institutions expected to get a doctorate or professional degree, although 19 percent of the nondisabled and 15 percent of the disabled aimed no higher than a baccalaureate. Though they were less likely than freshmen at any other institutional type to name a probable major or career in business, they were more likely than any other group to plan on majors in biological sciences, physical sciences, history and political science, the health professions, and to plan on careers as physicians, lawyers, and research scientists. In addition, relatively large proportions planned to major in English and other humanities; and relatively large proportions planned on careers as artists and clergymen. The proportions planning to major in agriculture, education, or "other" technical fields, or to enter careers in teaching, farming, nursing, the health professions, or "other" fields were relatively small. Nondisabled entrants to private universities were more likely than their counterparts at other institutions to be undecided about their career plans. These patterns of choice are attributable in part to the large proportions of these freshmen who come from high socioeconomic backgrounds and have outstanding high school records and in part to the high proportion of men in the entering freshman classes of private universities.

As one would expect, these freshmen were less likely than others to say they would need remedial work in any of the listed subjects. Even so, policymakers would do well to bear in mind that fully one-fifth of the disabled freshmen and 16 percent of the nondisabled see themselves as needing remediation in mathematics. Generally, these freshmen were very optimistic about college, being more likely than freshmen at other institutions to say there was a very good chance they would be satisfied with college, find a job in their major, get the baccalaureate, graduate with honors, be elected

to a scholastic honor society, make at least a B-average. In addition, larger-than-average proportions expected to change majors and career choices, join a fraternity or sorority, live in a coeducational dormitory, participate in student protests, and seek vocational counseling. The disabled entrants to private universities were more likely than their counterparts at other institutions to say they would get a job to help pay their college expenses. But relatively few of these students said that there was a good chance they would transfer before completing the baccalaureate, need extra time to complete the degree, fail one or more courses, get tutoring in specific courses, or get married either while in college or within a year after college.

Public Four-Year Colleges. Disabled and nondisabled freshmen at the public four-year colleges can be characterized as "typical," in that their distribution with respect to college plans and expectations closely resembles that of the total disabled and nondisabled samples. Somewhat larger-than-average proportions aspire to a baccalaureate or a master's degree, while relatively few aspired to a medical degree. Consistent with this latter finding, relatively few planned to become doctors or other medical professionals. They were, however, markedly more likely than others to plan to become elementary or secondary school teachers (11 percent of the nondisabled, 13 percent of the disabled) and to plan to major in education (14 percent of the nondisabled, 15 percent of the disabled). (The fact that many of these institutions were once teacher-training colleges has already been mentioned.) Other major fields more popular with public four-year college entrants than with most others were fine arts and social sciences. The proportions planning to major in business and to become businesspersons were about average. Disabled freshmen at these institutions were somewhat more likely than average to plan careers as engineers or artists.

The proportions saying they would need remediation in various subjects were slightly higher than average, with the disabled being more likely than the nondisabled to express this need. For example, 16 percent of the disabled, compared with 9 percent of the nondisabled, indicated they would probably need remedial work in reading. Their expectations about various experiences during the college years were also typical, though a larger-than-average proportion expected to need extra time in order to complete the baccalaureate--but to expect eventually to get the baccalaureate, to transfer, to seek individual counseling for personal problems, and to get married within a year after college.

Private Four-Year Colleges. As other analyses have indicated, freshmen entering these institutions tended to resemble those entering public universities. Their degree aspirations were high, with larger-than-average proportions aspiring to a master's, a doctorate, or a professional degree. Private four-year colleges emphasize traditional liberal arts curricula, and this emphasis is reflected in the relatively large proportions of 1978 entrants who planned to major in biological sciences, English, history and political science, and other humanities; in addition, both disabled and nondisabled freshmen at private four-year colleges were more likely than their counterparts at any other kind of institution to say they would probably major in the social sciences. Conversely, the proportions planning to major in engineering or "other technical" fields were relatively low. As to career plans, freshmen at these institutions were more likely than average to plan on becoming doctors or lawyers; in addition, 8 percent of both the nondisabled and disabled groups planned to go into the clergy.

The proportions of private four-year college freshmen saying they would need remediation in various subjects were lower than the proportions at public

four-year colleges (except in sciences, where the proportions were equal) but higher than the proportions in public universities. Similarly, they were somewhat more likely than those at public four-year colleges but less likely than those at public universities to expect to be elected to an academic honor society, make at least a B average, and get the baccalaureate; 13-14 percent expected to graduate with honors. Larger-than-average proportions expected to get a job to help pay for college expenses, seek individual counseling, be elected to student office, join a fraternity or sorority, participate in protests, be satisfied with college, and get married within a year after college; lower-than-average proportions expected to have to work while in college or to live in a coed dorm.

Public Two-Year Colleges. Lower aspirations and a stronger vocational orientation characterized 1978 entrants to public two-year colleges. The majority (66 percent of the nondisabled, 61 percent of the disabled) aimed no higher than a baccalaureate; they were the least likely to any group to plan on getting an advanced degree. Larger proportions than at any other type of institution planned to major in agriculture or "other technical" fields and to become farmers/ranchers or nurses. Relatively large proportions also planned to major in business and "other nontechnical" fields, but relatively few planned to major in the traditional liberal arts or in education or to become artists, doctors, lawyers, research scientists, or school teachers. Public two-year college entrants were less likely than any other group to be undecided about either their major field or career, suggesting that they enter college with definite goals in mind.

Though the nondisabled freshmen at community colleges were generally less likely than their counterparts at private two-year colleges to feel a need for remediation in various subjects, the disabled freshmen were more

likely than their counterparts at any other institutional type to say they would need remediation in reading. Somewhat surprisingly, since only 23 percent of community college freshmen planned to get nothing higher than an associate degree, only 12 percent of the nondisabled and 14 percent of the disabled expected to transfer before completing their degree plans. Obviously, a much larger proportion will end up transferring to a senior institution if they are to fulfill their aspirations to attain a baccalaureate or master's degree. The proportions anticipating high academic achievement are lower-than-average, as are the proportions expecting to be elected to a student office, join a fraternity or sorority, live in a coeducational dorm, or be satisfied with college. Moreover, 30 percent of the nondisabled and 24 percent of the disabled said there was a good chance they would have to work at an outside job while in college. Consistent with what has already been said about their goal-directedness, both disabled and nondisabled community college freshmen were less likely than their counterparts at other institutions to feel they would change their majors or their career choices or that they would seek vocational counseling.

Private Two-Year Colleges. As has already been noted, the disabled and nondisabled freshmen at private two-year colleges differed from one another rather drastically on some points, and these differences are apparent in their degree aspirations. Though the proportions planning to get a baccalaureate were about equal, the nondisabled were much more likely than the disabled to aspire to an associate or a master's degree; whereas the disabled were much more likely than the nondisabled to say they planned to get no degree or to aspire to a doctorate or a professional degree.

Differences between the two groups with respect to probable major field and career choice were less marked. Thus, larger-than-average proportions said they would major in business, fine arts, education, or "other nontechnical"

fields and that they would become artists, elementary or secondary school teachers, clergy, or go into "other" occupations. Relatively few planned to major in engineering, health professions, history and political science, or "other technical fields," and virtually none planned to major in English or physical sciences. In addition, the career choices of engineer, lawyer, doctor, and research scientist tended to be unpopular. The proportions of nondisabled freshmen planning to become health professionals were low, as were the proportions of disabled freshmen planning to become businesspersons or nurses. Close to one-fifth of the disabled freshmen were undecided about their future careers.

Private two-year college entrants were more likely than entrants to other institutional types to feel they would need remediation in English, mathematics, foreign language, and social studies. The nondisabled were more likely than the disabled to say they would require remedial work in science.

Both disabled and nondisabled freshmen were more likely than average to anticipate getting married while in college or within a year after college, needing extra time to finish their degrees, and transferring to another institution; they were less likely than average to anticipate high academic achievement. Further, relatively small proportions thought they would participate in student protests, find an appropriate job, live in a coed dormitory, or get a job to help pay their college expenses. Consistent with their uncertainty about their career plans, disabled freshmen at these institutions were much more likely than the nondisabled to anticipate changing majors or career choices; they were also more likely to feel they would fail one or more courses, but less likely to feel they would get tutoring, drop out either temporarily or permanently, graduate with honors, get a least a B average, or join a fraternity or sorority.

## Chapter 16

### Attitudes and Values

Paralleling Chapter 9 in its coverage, this chapter describes 1978 disabled and nondisabled entrants to the six institutional types in terms of their political orientation, their opinions on various controversial issues, and their values as reflected in the priority they give to various life goals.

#### Political Orientation (Table 98)

As was pointed out in Chapter 9, over half of 1978 freshmen (59 percent of the nondisabled, 54 percent of the disabled) characterized themselves as "middle-of-the-road" in their political orientation, about one-quarter said they were liberal, and 16 percent said they were conservative. Very few adopted extreme positions: 2 percent of the nondisabled and 3 percent of the disabled described themselves as far left; virtually none of the nondisabled and only 1 percent of the disabled called themselves far right.

As Table 98 indicates, the distribution of freshmen at public universities, public four-year colleges, and private four-year colleges closely resembles the total distribution, except that the disabled at private four-year colleges were somewhat less likely than average to be middle-of-the-road and more likely to be either liberal or conservative. The distribution at private universities and at two-year colleges, however, deviates from the norm.

At the private universities, only 48 percent of the nondisabled and 40 percent of the disabled described themselves as middle-of-the-road;

Table 98

Political Orientation of 1978 Freshmen, by Disability Status,  
and by Level and Control of Institution  
(percentages)

Political Orientation	Nondisabled							Disabled						
	Universities		4-Year Colleges		2-Year Colleges		Total	Universities		4-Year Colleges		2-Year Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private			
Far left	1	1	1	2	2	5	2	2	3	2	3	3	2	3
Liberal	25	30	22	24	21	15	23	26	34	25	28	23	22	25
Middle-of-the-road	57	48	57	55	64	64	59	55	40	56	49	58	53	54
Conservative	17	20	18	19	13	15	16	16	22	16	20	14	21	16
Far right	1	1	1	1	0	1	0	1	1	2	1	1	2	1
N	299,739	84,903	337,976	262,569	509,931	53,205	1,548,320	7,388	2,214	9,573	8,280	18,353	2,224	48,033

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thus, larger-than-average proportions called themselves either liberal or conservative, with the former outnumbering the latter by about three to two.

In contrast, 64 percent of the nondisabled (but fewer of the disabled) at both public and private two-year colleges were middle-of-the-road, and smaller-than-average proportions were liberal or conservative. Indeed, at private two-year colleges, the proportions of liberals and conservatives were about the same (15 percent of the nondisabled; 21-22 percent of the disabled). Moreover, 5 percent of the nondisabled (but only 2 percent of the disabled) characterized themselves as being far left in political orientation. As has been found in previous analyses, differences between disabled and nondisabled entrants were most marked at the private two-year colleges.

#### Opinions on Current Issues (Table 99)

Table 99 shows the proportions of disabled and nondisabled freshmen at the six institutional types who agreed "strongly" or "somewhat" with each of 30 statements related to a range of national, personal, and campus issues. As Chapter 8 suggested, there seems to be strong consensus on some questions. Over nine in ten freshmen, regardless of where they went to college, felt that women should get the same pay and opportunities for advancement as men in comparable positions; and at least three in four believed that the government should do more to control pollution and to discourage energy consumption; that, unless action is taken now, energy shortages could lead to catastrophe; that, in awarding degrees, the same performance standards should be applied to all students; and that college officials do not have the right to regulate the off-campus behavior of students.

Table 99

Opinions on Current Issues of 1978 Freshmen, by Disability Status, and by Level and Control of Institution  
(percentages marking "agree somewhat" or "agree strongly")

Issue Statement	Nondisabled							Disabled						
	Universities		4-Yr. Colleges		2-Yr. Colleges		Total	Universities		4-Yr. Colleges		2-Yr. Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
The federal government is not doing enough to control environmental pollution	83	83	82	83	80	80	82	84	87	82	80	82	81	82
The federal government is not doing enough to protect the consumer from faulty goods and services	72	70	73	72	75	73	73	72	68	75	72	74	69	73
The federal government should do more to discourage energy consumption	83	84	83	83	80	81	82	84	85	84	82	81	79	83
There is too much concern in the courts for the rights of criminals	65	60	64	63	69	63	66	64	58	64	61	66	66	64
Urban problems cannot be solved without huge investments of federal monies	45	44	52	47	52	47	49	46	45	52	46	53	55	50
People should not obey laws which violate their personal values	31	31	32	32	33	34	32	44	37	33	38	35	45	36
The death penalty should be abolished	32	36	32	36	32	28	33	31	41	32	37	31	38	33
A national health care plan is needed to cover everybody's medical costs	54	55	61	58	66	65	60	56	60	64	61	68	64	63
Energy shortages could cause a major depression or even wars in my lifetime if action is not taken now to prevent them	80	81	82	82	78	84	80	82	83	81	82	75	84	79
Abortion should be legalized	62	62	56	50	58	52	57	62	67	60	51	67	49	57
Grading in the high schools has become too easy	67	70	66	68	58	55	64	68	73	66	64	63	62	65
The activities of married women are best confined to the home and family	22	19	28	28	29	34	27	23	20	29	30	30	37	28
A couple should live together for some time before deciding to get married	46	48	43	38	50	38	45	47	49	54	41	51	40	49
Parents should be discouraged from having large families	52	54	47	47	46	43	48	54	57	46	50	45	46	48
Divorce laws should be liberalized	49	48	47	41	54	48	49	51	54	52	44	54	50	51

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Table 99--(Concluded)

Issue Statement	Nondisabled							Disabled						
	Universities		4-Yr. Colleges		2-Yr. Colleges		Total	Universities		4-Yr. Colleges		2-Yr. Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
If two people really like each other, it's all right for them to have sex even if they've known each other for only a short time	51	51	48	40	51	40	48	52	57	50	42	54	36	50
Women should receive the same salary and opportunities for advancement as men in comparable positions	93	95	92	93	92	92	93	93	95	92	91	91	92	92
Wealthy people should pay a larger share of taxes than they do now	72	66	73	72	76	68	73	72	65	79	70	76	76	75
Marijuana should be legalized	52	50	47	44	52	43	49	54	54	53	45	59	44	53
Busing is O.K. if it helps to achieve racial balance in the schools	35	35	40	40	48	47	41	38	41	45	43	53	51	47
It is important to have laws prohibiting homosexual relationships	40	34	48	47	49	56	46	39	32	45	48	45	60	45
College officials have the right to regulate student behavior off campus	10	12	15	16	16	15	14	12	12	19	17	22	22	19
Faculty promotions should be based in part on student evaluations	74	76	73	72	71	64	72	72	77	73	72	70	69	71
College grades should be abolished	14	13	16	15	19	22	16	18	16	18	18	19	33	19
Colleges would be improved if organized sports were de-emphasized	24	30	25	28	29	25	27	30	34	32	33	30	39	31
Student publications should be cleared by college officials	27	23	38	37	43	42	36	28	25	36	38	41	49	37
College officials have the right to ban persons with extreme views from speaking on campus	20	20	26	26	29	28	26	22	19	25	30	28	33	26
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	28	29	36	35	39	46	35	35	31	41	38	45	52	41
Open admissions (admitting anyone who applies) should be adopted by all publicly supported colleges	25	22	30	31	41	40	33	29	23	37	43	41	43	36
Even if it employs open admissions, a college should use the same performance standards in awarding degrees to all students	79	82	77	78	77	79	78	78	80	79	76	79	76	78

Although men and women often differed dramatically in their opinions, especially on matters pertaining to sex, differences between the total disabled and nondisabled groups were slight, rarely amounting to more than a few percentage points. The disabled were, however, more likely to approve of busing to achieve racial balance in the schools (47 percent, versus 41 percent of the nondisabled), preferential treatment in admissions for disadvantaged students (41 percent versus 35 percent), and the regulation of students' off-campus behavior by college officials (19 percent versus 14 percent).

Some issues seemed highly controversial in that the proportions indicating agreement ranged widely. For example, only one-fifth of the freshmen at private universities, but over one-third of those at private two-year colleges, felt that married women should confine their activities to the home and family. Similarly, the proportions subscribing to the notion that student publications should be cleared by college officials ranged from 23-28 percent of university entrants through 36-38 percent of four-year college entrants to 41-49 percent of two-year college entrants. On the other hand, over two-fifths of those entering two-year colleges, but only 22-23 percent of those entering private universities, felt that all public institutions should have open-admissions policies. Finally, opinion was sharply divided on the question of laws prohibiting homosexual behavior: One-third at private universities, two-fifths at public universities, slightly less than half at public and private four-year colleges and public two-year colleges, and over half at private two-year colleges believed that there should be such laws.

In most other analyses by institutional type, the more selective institutions (private universities, public universities, private four-year colleges)

have constituted one group; and the less selective institutions (public four-year colleges, public and private two-year colleges) another. In this analysis, however, the grouping on some questions deviated from this pattern. Entrants to private four-year and two-year colleges resembled one another in that they took a more repressive stand on such issues as legalizing abortion, legalizing marijuana, living together before marriage, and having casual sex. The explanation for this resemblance probably lies in the religious affiliation of many institutions in these categories and in their high enrollments of students who consider themselves born-again Christians. Most inclined to take a permissive stance on these issues were entrants to universities and to public two-year colleges. Community college freshmen were also more likely than others to believe that divorce laws should be liberalized. The higher proportion of older, married students at community colleges may in part account for this manifestation of greater liberalism.

Most inclined to take a liberal attitude on campus questions related to student freedom and power were freshmen, at both public and private universities. Thus, they were less likely than others to say that college officials have the right to regulate off-campus behavior, censor student publications, and ban speakers with extreme views and more likely to say that faculty promotions should be based in part of student evaluations. On these issues, entrants to the two-year colleges took the more conservative stance. Consistent with these differences, freshmen at private universities were most likely, and those at private two-year colleges least likely, to say that the death penalty should be abolished; community college entrants were most likely, and private university entrants least likely, to feel that the courts are too concerned with the rights of the criminal.

But the liberal image of the university student does not hold up on all issues, especially those related to remedying inequality: Two-year college freshmen were most likely, and university freshmen least likely, to believe that the disadvantaged should be given preferential treatment in admissions, that all public institutions should adopt open admissions, and that busing to achieve racial balance in the schools is an acceptable strategy. These attitudinal differences can best be explained by differences in socioeconomic background and race/ethnicity. Similarly, the generally superior high school performance of university freshmen probably accounts for their greater tendency to say that grading in the high schools has become too easy but least likely to say that college grades should be abolished.

Smaller-than-average proportions of university freshmen agreed that the wealthy should pay more taxes than they do now, that the federal government should do more to protect the consumer, that urban problems cannot be solved without huge outlays of federal monies, and that a national health care program should be established. Community college entrants were most inclined to subscribe to these views. In short, opinions seem to be dictated in large part by considerations of self-interest.

#### Life Goals (Table 100)

Table 100 shows the proportions of disabled and nondisabled freshmen at the six institutional types who rated each of 18 life goals as "essential" or "very important" to them. The top-ranked goals were "becoming an authority in my field" (73 percent of the nondisabled, 72 percent of the disabled) and "helping others who are in difficulty" (66 percent of the nondisabled, 67 percent of the disabled). As was the case with opinions on current issues, gender differences were more marked than were differences between the total disabled and nondisabled groups: Overall, the disabled were more likely

Table 100

Life Goals of 1978 Freshmen, by Disability Status, and by Level and Control of Institution  
(percentages marking "essential" or "very important")

Life Goal	Nondisabled							Disabled						
	Universities		4-Yr. Colleges		2-Yr. Colleges		Total	Universities		4-Yr. Colleges		2-Yr. Colleges		Total
	Public	Private	Public	Private	Public	Private		Public	Private	Public	Private	Public	Private	
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	12	18	14	15	12	15	13	14	22	16	16	14	19	16
Becoming an authority in my field	76	76	77	72	69	75	73	77	76	73	72	68	65	72
Obtaining recognition from my colleagues for contributions to my special field	53	57	52	49	48	50	51	60	59	56	51	50	40	52
Influencing the political structure	16	20	16	17	13	17	15	18	26	20	18	12	21	17
Influencing social values	30	35	31	37	29	38	32	34	40	37	41	26	38	33
Raising a family	61	62	62	66	63	66	63	59	61	57	59	58	61	58
Having administrative responsibility for the work of others	36	33	37	33	37	41	36	31	37	37	34	36	32	36
Being very well-off financially	62	59	62	62	62	64	60	63	56	61	52	63	56	59
Helping others who are in difficulty	63	68	67	70	63	73	66	67	72	68	72	63	75	67
Making a theoretical contribution to science	18	22	15	14	12	10	15	20	26	15	17	15	10	16
Writing original works (poems, novels, short stories, etc.)	14	20	13	15	11	11	13	16	25	19	19	13	27	17
Creating artistic work (painting, sculpture, decorating, etc.)	14	18	14	15	13	14	14	16	18	19	19	16	23	18
Being successful in a business of my own	48	47	46	46	52	51	49	51	49	47	48	53	51	50
Becoming involved in programs to clean up the environment	28	29	27	28	28	29	28	33	31	36	32	29	26	31
Developing a meaningful philosophy of life	60	65	57	62	51	62	57	62	72	58	65	52	60	58
Participating in a community action program	28	32	28	30	24	31	27	32	39	36	34	26	37	32
Helping to promote racial understanding	34	42	36	40	28	36	34	37	49	42	44	32	49	38
Keeping up-to-date with political affairs	42	51	39	42	28	32	37	44	56	42	43	31	30	38

to give high priority to goals related to artistic achievement, to participating in community action programs, and to helping promote racial understanding, whereas the nondisabled were more likely to emphasize the goal of raising a family. On the remaining items, the groups differed by no more than three percentage points. However, these overall figures tend to disguise stronger differences between disabled and nondisabled freshmen within a particular institutional type; these differences will be pointed out in the summary section.

Generally speaking, entrants to private universities seemed to be the most ambitious, in that they endorsed a wide variety of goals, and entrants to public two-year colleges seemed to be the least so. Both public and private university freshmen were more likely than others to value winning recognition from colleagues for contributions to one's special field, making a theoretical contribution to science, and keeping up-to-date with political affairs. The altruistic and activist goals of influencing social values, helping others in difficulty, participating in community action programs, and promoting racial understanding were more important to freshmen at private institutions than to those at public institutions. The same was true of developing a meaningful philosophy of life and of artistic goals (becoming accomplished in a performing art, writing original works, creating artistic works). Larger-than-average proportions of two-year college entrants wanted to succeed in a business of their own. Private two-year college freshmen were also more likely than others to endorse the goals of having administrative responsibility over others and being very well-off financially. Raising a family was endorsed most frequently by those at private four-year and two-year colleges (who, as was previously pointed out, tended to be traditionalist in their views).

### Summary

While the majority of 1978 freshmen were middle-of-the-road in political orientation, liberals outnumbered conservatives, and very few students characterized themselves as either far left or far right. Freshmen at all institutional types were inclined to endorse equality for women in the workplace, pollution control, energy conservation, equal performance standards for college graduation, and student freedom insofar as off-campus behavior is concerned. They were both achievement-oriented and altruistic, in that their top-ranked goals were becoming an authority in their field and helping others. The following sections summarize the findings by institutional type.

Public Universities. The distribution of public university freshmen with respect to political orientation resembled the norm. Both disabled and nondisabled freshmen at these institutions were more likely than average to favor legalizing abortion, discouraging parents from having large families, and legalizing marijuana and to believe that grading in the high schools has become too easy and that "if two people really like each other, it's all right for them to have sex even if they've known each other for only a very short time." They were less likely than average to say that urban problems can only be solved through large investments of federal funds, that a national health care program should be established, that homosexual behavior should be prohibited by law, and that married women should confine their activities to the home and family. They took a liberal position on issues related to student freedom but a conservative position on preferential treatment for the disadvantaged, open admissions, and busing to achieve racial balance. Relatively few felt that colleges should de-emphasize sports or abolish grading. Finally, only 31 percent of the nondisabled but 44 percent of the disabled felt that people should not obey laws that violate their personal values.

As to life goals, slightly larger-than-average proportions wanted to become an authority in their fields, win recognition from their colleagues, contribute to science theory, be very well-off, develop a meaningful philosophy of life, and keep up with political affairs. Smaller-than-average proportions wanted to achieve in a performing art or help others in difficulty. In addition, the disabled were less concerned than were their counterparts at other institutions with creating artistic works, having administrative responsibility over others, and helping to promote racial understanding, but more concerned with succeeding in their own business and becoming involved in programs to clean up the environment.

Private Universities. Far fewer of the freshmen entering these institutions than at other institutional types considered themselves to be middle-of-the-road politically; 30 percent of the nondisabled, and 34 percent of the disabled, characterized themselves as liberal; 20 percent and 22 percent, respectively, characterized themselves as conservative. Their liberalism is reflected in their attitudes toward student freedom issues and many social questions. Thus, they were more likely than any other freshman group to feel that the government should do more to control pollution and discourage energy consumption, that large families should be discouraged, and that faculty promotion should be based in part on student evaluation. They were least likely to feel that college officials have the right to ban speakers with extreme views or to clear student publications, that the courts have become too concerned with the rights of criminals, that married women should confine their activities to the home and family, or that there should be laws prohibiting homosexual behavior. Relatively large proportions also approved of abolishing the death penalty, de-emphasizing college sports, and legalizing abortion and marijuana. On the conservative side, they were less likely than most other freshmen groups to favor higher taxes for the wealthy, national

health care, the abolition of college grades, preferential treatment in admissions for the disadvantaged, open admissions at all public institutions, and busing to achieve racial balance, but they were most likely to feel that grading in high school has become too easy and that the same performance standards should be applied to everyone in awarding degrees. These elitist attitudes are probably a reflection of their own relatively high socioeconomic status and outstanding high school performance. Disabled freshmen at private universities took a more liberal stance than their nondisabled counterparts on many issues; they were also more likely than most others to say that divorce laws should be liberalized and that casual sex is acceptable. Moreover, 37 percent, compared with 31 percent of the nondisabled, believed that people should not obey laws which violate their personal values.

Freshmen at private universities, especially the disabled, tended to endorse as essential or very important a wide range of life goals, particularly those related to artistic and intellectual achievement. Larger-than-average proportions also gave high priority to developing a meaningful philosophy of life, influencing social values and the political structure, helping others, participating in community action programs, helping to promote racial understanding, and keeping up-to-date with political affairs. Indeed, the only goals in which they manifested less-than-average interest were having administrative responsibility over others, being very well-off financially, and succeeding in their own business.

Public Four-Year Colleges. The distribution of disabled and nondisabled freshmen at public four-year colleges with respect to political views, opinions on current issues, and life goals closely resembled the distribution

for the total groups. Of the nondisabled, a slightly smaller-than-average proportion called themselves liberal, and a slightly larger-than-average proportion called themselves conservative. In addition, 2 percent of the disabled characterized their political views as far right.

They were much more likely than were university entrants to agree that urban problems can only be solved by large investments of federal funds; this view may reflect the fact that many public four-year colleges are located in urban areas and draw their enrollments from disadvantaged inner-city youth. On many questions, the disabled freshmen at these institutions took a more liberal stance than the nondisabled, with substantially larger proportions saying that the wealthy should pay more taxes, that abortion and marijuana should be legalized, that divorce laws should be liberalized, that couples should live together before marriage, that colleges should put less emphasis on sports, and that open admissions should be initiated at all public institutions.

As regards life goals, the nondisabled were particularly concerned with becoming an authority in their field; while the disabled were more likely to give high priority to the goals of writing original works, creating artistic works, influencing social values, influencing the political structure, winning recognition from their colleagues, becoming involved in programs to clean up the environment; participating in community action programs, and helping to promote racial understanding. Both groups were relatively uninterested in succeeding in a business of their own.

Private Four-Year Colleges. Consistent with enrolling relatively large proportions of freshmen who considered themselves to be reborn Christians, private four-year colleges enrolled slightly larger-than-average proportions who said they were politically conservative, though the enrollment of liberals

was also slightly higher than average. These freshmen differed from their counterparts at the public four-year colleges in being less likely to agree that abortion should be legalized, that divorce laws should be liberalized, that people should live together before marriage, and that casual sex is acceptable. They were also less likely to approve of national health care, busing to achieve racial balance in the schools, higher taxation of the rich, and heavy federal outlays to solve urban problems. Only 31 percent of the nondisabled, but 43 percent of the disabled, felt that all public colleges should have open admissions.

Though less likely to endorse intellectual achievement goals, entrants to private four-year colleges resembled those at private universities in giving high priority to such altruistic and activist goals as helping others, participating in community action programs, and helping to promote racial understanding. They were also more likely than average to give high priority to developing a meaningful philosophy of life, keeping up-to-date with political affairs, and achieving in the arts; but they were less likely than average to care about succeeding in their own business or having administrative responsibility over others. On two goals, the disabled and the nondisabled differed considerably: 62 percent of the nondisabled, but only 52 percent of the disabled, wanted to be very well-off financially; 66 percent of the nondisabled, but only 59 percent of the disabled, said that raising a family was essential or very important to them.

Public Two-Year Colleges. Larger-than-average proportions of both nondisabled and disabled freshmen entering public two-year colleges characterized their political orientation as middle-of-the-road. Nonetheless, perhaps because of the relatively large proportions of older and of married students among these entering freshmen, they tended to take a permissive

attitude toward such issues as living together, casual sex, liberalizing divorce laws, and legalizing marijuana. In addition, perhaps because so many came from low-income families, they were more likely than average to believe that the rich should pay more taxes than they do now, that a national health care program should be initiated, that the disadvantaged should be given preferential treatment in admissions, that busing to achieve racial balance in the schools is an acceptable strategy, and that all public institutions should have open admissions. On issues involving student freedom, they were conservative. Relatively large proportions said that college officials have the right to censor student publications, to ban extremist speakers, and to regulate the off-campus behavior of students. In addition, they were more likely than most others to agree that the courts have become too concerned with the rights of criminals but less likely to be worried about energy shortages. The widest divergence of opinion between the disabled and the nondisabled in community colleges occurred on the question of abortion: Only 58 percent of the nondisabled, but 67 percent of the disabled, felt that abortion should be legalized.

In contrast to private university freshmen, who tended to endorse many goals, community college entrants tended to endorse relatively few, perhaps because they had a more realistic view of how much the individual can accomplish. Thus, lower-than-average proportions wanted to become an authority in their field, win recognition from colleagues, influence social values and the political structure, help others, participate in community action programs, promote racial understanding, develop a meaningful philosophy of life, or keep up-to-date with political affairs. They were, however, more likely than others to give high priority to succeeding in their own business; in addition, relatively large proportions gave high priority to having administrative responsibility over others and being very well-off

financially. Their emphasis on rather limited materialistic goals and their lack of interest in more exalted achievements are probably attributable to their poorer high school records and lower socioeconomic status. Many of these freshmen have probably never been encouraged to see themselves as potentially high achievers who can make positive contributions to society.

Private Two-Year Colleges. Nondisabled entrants to private two-year colleges were more likely than average to see themselves as middle-of-the-road politically and therefore less likely to see themselves as liberal or conservative; the proportions describing themselves in this way were identical (15 percent). In addition, 5 percent said they were far left. The proportions of nondisabled freshmen saying they were middle-of-the-road was average; in addition, 22 percent said they were liberal, and 21 percent saw themselves as conservative.

In their opinions, private two-year college freshmen revealed more conservatism than liberalism, at least in connection with sex and student freedom issues. Their traditional outlook is perhaps best epitomized by the fact that they were more likely than any other group to agree that the activities of married women are best confined to the home and family and that homosexual behavior should be prohibited by law. On the other hand, they were more likely than any other group to believe that disadvantaged students should be given preferential treatment in admissions; relatively high proportions also endorsed national health care, open admissions at public institutions, and busing. The high proportions of these freshmen who are born-again Christians from low-income backgrounds may account for these opinions.

On some questions, the nondisabled and the disabled differed considerably. For instance, the disabled were much more likely than the nondisabled to say that heavy expenditures are required to solve urban problems, that the wealthy should pay higher taxes, that the death penalty should be abolished, that

college sports should be given less emphasis, that college grades should be abolished, and that people should not obey laws that violate their personal values.

These differences extend to life goals as well. Disabled freshmen in private two-year colleges were much more likely than nondisabled freshmen to give high priority to writing original works, creating artistic work, and helping to promote racial understanding; but they are much less likely to value becoming an authority in their field, winning recognition from colleagues, having administrative responsibility over others, and being very well-off financially. However, larger-than-average proportions of both groups wanted to achieve in the performing arts, influence social values and the political structure, help others in difficulty, participate in community action programs, raise a family, and develop a meaningful philosophy of life; lower-than-average proportions were concerned about succeeding in their own business or keeping up-to-date with politics.

Section IV

Summary of Findings

## Chapter 17

### Summary: Disabled and Nondisabled Freshmen

This report is one product of a national longitudinal study of the disabled student in higher education, funded by the Office of Special Education of the U.S. Department of Education and conducted by the Higher Education Research Institute (HERI) in Los Angeles. The analyses are based on the weighted responses of approximately 5,000 disabled freshmen who, when they entered college as first-time, full-time students in 1978, completed the Student Information Form (SIF), the instrument used in the Cooperative Institutional Research Program (CIRP), which since 1965 has annually surveyed the entire entering freshmen classes of a representative sample of the nation's colleges and universities. The material presented here not only gives the first comprehensive national view of the disabled college freshman but also constitutes baseline information to be used in interpreting the responses of these same students to a follow-up questionnaire mailed out in 1981. (See Appendix G for a copy of the follow-up instrument.)

Section I (Chapters 1 and 2) of this report described the data base, sample, and methodology of the study. Section II (Chapters 3-9) compared the weighted responses of the disabled group (N=50,797) with those of a 15 percent random sample of nondisabled freshmen (N=1,626,569) who also entered college in 1978; compares men and women in the two groups; and examines similarities and differences among eight categories of disabled freshmen, classified on the basis of their disability, as self-identified on the 1978 SIF. These eight categories, and their proportionate share of the total disabled group, were as follows:

- o hearing disability, 7 percent
- o speech disability, 2 percent
- o orthopedic disability, 14 percent
- o visual disability, 29 percent
- o learning disability, 3 percent
- o other disability, 13 percent
- o multiple disabilities (i.e., those freshmen indicating that they had more than one of the above disabilities), 4 percent
- o unknown disability (i.e., those freshmen who indicated that they considered themselves to be physically handicapped but who did not specify a disability area), 27 percent.

The topics covered in Section II were demographic characteristics, family background, high school background, college choice and freshman residence, college finances, college plans and expectations, and attitudes and values.

Section III (Chapters 10-16) followed the same topical sequence, using the freshman institution as the unit of analysis. That is, comparisons were made between and among disabled and nondisabled entrants to six types of higher education institution, classified by control and level: public university, private university, public four-year colleges, private four-year college, public two-year college, private two-year college.

This final section comprises four chapters. The remainder of this chapter is devoted to a general description of the nondisabled and disabled freshman groups. Chapter 18 summarizes the analyses for the eight disability groups. Chapter 19 summarizes the analyses for the six institutional types. Chapter 20 draws out the policy implications of the findings and raises questions which information to be learned from the follow-up survey may help to answer.

### A Matter of Interpretation

Perhaps the most important insight to be gained from the analyses reported here is that, as a group, disabled 1978 freshmen differed very little from their nondisabled counterparts. That is, they were not a breed apart from "typical" freshmen; they entered college with much the same background, attitudes, plans, and expectations.

One question that recurs in interpreting these data is: What constitutes a "difference." Just as it may be equally accurate to describe a particular glass of water as half empty or half full, so more than one interpretation is possible in these comparisons of disabled and nondisabled freshmen. For instance, the life goal of "becoming an authority in my field" is rated as essential or very important by approximately equal proportions of disabled and nondisabled freshmen. Is it then appropriate to say that both groups are equally motivated by a drive for intellectual mastery? Given the disadvantage with which disabled freshmen start out, would it not be more appropriate to say that they are even more committed to high achievement than are their nondisabled counterparts? One is, of course, dealing with aggregate data and with the proportions responding in a particular way to an item on a questionnaire; thus, no conclusions about individual motivations are possible, though one can infer that the degree of achievement motivation differs with the individual.

The identification of differences between disabled and nondisabled freshmen is less problematic when the proportions vary by a larger number of percentage points. Moreover, aggregate data on the disabled may disguise substantial variation among the different disability groups (Chapter 18) or among entrants to different types of institutions (Chapter 19). Thus, the profiles presented in this chapter give only a general picture,

the details of which are limned in by the discussions in the next two chapters.

### A Profile of 1978 Freshmen

Women slightly outnumbered men (51 percent to 49 percent) in the 1978 entering freshman class. The majority of freshmen were white, unmarried, and 17-18 years old at college entry. Most had taken college preparatory programs in high school, had earned B grade averages, and had ranked in the top half of their graduating classes. In short, they had been "tracked" for college. Very few had seen military service; most had entered college directly after high school graduation.

As regards family background, the most common occupation of the fathers of 1978 freshmen was businessman; of the mothers, homemaker. The median parental income was approximately \$20,000. The fathers tended to be better educated than the mothers: About one in seven had a graduate degree, an additional 23 percent had the baccalaureate, but close to half had not gone beyond high school. Thus, many 1978 freshmen were first-generation college students.

Considering their youth, it is not surprising that most of these freshmen were still financially dependent on their parents to some extent. For instance, about four-fifths were claimed as exemptions for income tax purposes, and about seven in ten relied on parental aid as a source of support. The other most common source of college finances was self-support: that is, earnings or savings from employment. Only one in three freshmen expressed no concern about ability to pay for a college education; the remainder felt at least some concern, with one in seven indicating major concern.

In going to college, freshmen were motivated by both practical and intrinsic considerations: They wanted to be able to get a better job, to

learn more about things that interested them, to gain a general education and appreciation of ideas, and to be able to make more money. About three-fourths indicated that their freshman institution represented their first choice. The most common reason for selecting the college was its academic reputation.

Business was most frequently mentioned as probable major field of study, though engineering and the health professions were also popular choices. Career choices followed a similar pattern: Close to one-fifth wanted to go into business; about one-tenth wanted to become physicians or other health professionals; and slightly under one-tenth planned to become engineers. About three in five freshmen were confident they would earn the baccalaureate, and about half aspired to an advanced (graduate or professional) degree. However, fewer than one in three entered college feeling very well prepared in mathematical skills, study skills, or foreign languages; and substantial proportions (one-fourth of the nondisabled, one-third of the disabled) anticipated a need for remedial work or tutoring in mathematics.

Most 1978 freshmen expected to be satisfied with college and were confident that they would be able to find a job in their field for which they were trained after college. Over half planned to live in a college dormitory during their freshman year, but the proportions saying that college dormitories were their preferred residential arrangement were smaller. Similarly, about one-third lived with parents or relatives, but less than one-fifth indicated that this was their preference.

With respect to their political and religious orientation, their attitudes, and their values, 1978 freshmen reflected what the media tell us are current trends. For instance, a substantial three in ten regarded

themselves as born-again Christians, and over half were "middle-of-the-road" politically. The proportions characterizing themselves as liberals outnumbered the proportions calling themselves conservatives. On certain issues, there seems to be virtual consensus. Thus, nine-tenths of 1978 freshmen believed that employed women should get the same salaries and opportunities for advancement as men in comparable positions; and about four-fifths felt that the federal government should do more to control environmental pollution and discourage energy consumption; that action must be taken now to prevent energy shortages; and that college officials do not have the right to regulate the off-campus behavior of students. The top-ranked life goals were becoming an authority in one's field, helping others who are in difficulty, raising a family, being very well-off financially, and developing a meaningful philosophy of life. In short, they espoused both altruistic and instrumental values.

#### A Profile of Disabled 1978 Freshmen: Slightly on the Nontraditional Side

Although the total disabled group rarely differed by more than a few percentage points from the total nondisabled group, nonetheless 1978 disabled freshmen were somewhat more likely to possess the characteristics of "non-traditional" college students and to be "disadvantaged" not only with respect to socioeconomic status but also with respect to high school preparation. It is important to remember, however, that the disabled sample described in this report was identified on the basis of having answered affirmatively the question "Do you consider yourself to be physically handicapped?" or having indicated a specific disability area or both. Thus, some members of this sample were probably not truly handicapped in any legal or clinical sense; rather, they regarded themselves as "handicapped" or as having a

"learning disability" because of their relatively low socioeconomic backgrounds and low level of achievement in high school. The 1981 follow-up survey should help to clarify the validity of self-reports of handicapped status.

Larger proportions of the disabled than of the nondisabled were "non-traditional" college students in that they were nonwhite (17 percent, compared with 13 percent of the nondisabled), age 21 or older (5 percent versus 2 percent), married (3 percent versus 1 percent), and veterans (3 percent versus 1 percent).

As regards their slightly lower socioeconomic status, 21 percent of the disabled, compared with 16 percent of the nondisabled, said their fathers had not completed high school; and 15 percent of the disabled, compared with 12 percent of the nondisabled, estimated their parents' 1977 income to be less than \$8,000.

Their slight academic disadvantage is reflected in the following differences; only 81 percent of the disabled, compared with 88 percent of the nondisabled, had taken a college preparatory program in high school; 23 percent, compared with 16 percent of the nondisabled, had made no higher than a C+ grade average in high school; 27 percent, compared with 20 percent of the nondisabled, had graduated in the lower half of their high school classes. Disabled freshmen were less likely than the nondisabled to enter college feeling well prepared in mathematical skills, reading and composition, foreign languages, and science; they were more likely to anticipate needing remediation in virtually all subjects. Their lower academic self-esteem is manifested by the fact that only 37 percent, compared with 42 percent of the nondisabled, expected to earn at least a B average in college, whereas 14 percent, compared with 9 percent of the nondisabled, expected to get tutoring help in specific courses.

Close to one-fourth of the disabled freshmen, but only one-fifth of the nondisabled, said they had been accepted by no other institution than the one they were attending. As to their reasons for attending college, the disabled were more likely to mention such "push" factors as being unable to find a job (8 percent versus 4 percent of the nondisabled), having nothing better to do (4 percent, versus 2 percent of the nondisabled), and wanting to get away from home (10 percent, versus 8 percent of the nondisabled), though they were also slightly more likely to mention such "pull" factors as wanting to become more cultured (38 percent of the disabled, 34 percent of the nondisabled) and to prepare for graduate or professional school (48 percent of the disabled, 44 percent of the nondisabled). In choosing their particular institutions, they were more likely to have been influenced by the offer of financial assistance (18 percent of the disabled, 14 percent of the nondisabled), by special educational programs provided at the institution (31 percent of the disabled, 26 percent of the nondisabled). They were also more likely to have been influenced in their choice of a particular college by other people (teachers, guidance counselors, alumni, friends).

Disabled freshmen evidenced less financial dependence on their parents (e.g., were less likely to be claimed as tax exemptions or to receive at least \$600 worth of assistance) than the nondisabled. Only 66 percent of the disabled, compared with 71 percent of the nondisabled, indicated that parental aid was a source of financial support for college; and only 57 percent, compared with 62 percent of the nondisabled, expected to be self-supporting (i.e., to draw on earnings or savings from employment). But larger proportions of the disabled than of the nondisabled got grants or scholarships, took loans, or received support from their spouses to help finance their college education. A larger proportion (18 percent, compared with 14 percent

of the nondisabled) expressed major concern about their ability to pay for their college education. The disabled were somewhat more likely than the nondisabled to live in private housing and less likely to live in college dormitories or at home with parents or relatives. Many of these differences are probably attributable to the higher proportions of older, married, nonwhite, low-income students in the disabled group.

Despite their slight socioeconomic and educational disadvantages, the disabled had high aspirations. Though they were twice as likely as the nondisabled to say they planned to get no degree (4 percent of the disabled, 2 percent of the nondisabled), they were also more likely to aspire to a doctorate or an advanced professional degree (23 percent of the disabled, 19 percent of the nondisabled). Somewhat surprising, given the fact that they were less likely to have taken college preparatory programs in high school, is their preference for the more traditional "academic" fields: Slightly larger proportions of the disabled planned to major in biological science, physical science, social science, education, fine arts, "other" humanities, and "other nontechnical" fields; whereas slightly larger proportions of the nondisabled planned to major in agriculture, engineering, health professions, and "other technical" fields. Consistent with these differences in major field preferences, more of the disabled planned on careers as artists, teachers, and research scientists; whereas more of the nondisabled planned on careers as engineers, farmers, and health professionals.

Perhaps because of the larger proportion of older students in the disabled group, disabled freshmen were more likely than the nondisabled to say they had no current religious preference and less likely to say they had attended religious services frequently during the previous year. (On

the other hand, 32 percent of the disabled, compared with 30 percent of the nondisabled, considered themselves to be reborn Christians). They were also more likely to say they smoked cigarettes; took vitamins, sleeping pills, and tranquilizers; and stayed up all night. A larger proportion had participated in organized demonstrations and worked in political campaigns. Consistent with their past behavior, the disabled were more likely than the nondisabled to anticipate participating in protests or demonstrations during college. Politically, they were less likely to characterize themselves as middle-of-the-road (54 percent of the disabled, 59 percent of the nondisabled) or far left (3 percent of the disabled, 2 percent of the nondisabled).

This liberalism is manifested in their greater tendency to believe that the disadvantaged should be given preferential treatment in admissions (41 percent of the disabled, 34 percent of the nondisabled), that all public colleges should have open admissions (36 percent of the disabled, 33 percent of the nondisabled), and that busing to achieve racial balance in the schools is an acceptable policy (47 percent versus 41 percent). In addition, slightly larger proportions of the disabled than of nondisabled freshmen agreed that marijuana should be legalized, that couples should live together before marriage; that a national health care program should be established, that sports should be given less emphasis in college, that college grades should be abolished, and that people should not obey laws that violate their personal values: On the conservative side, 19 percent of the disabled, compared with 14 percent of the nondisabled, felt that college officials have the right to regulate the off-campus behavior of students.

The proportions of disabled and nondisabled freshmen subscribing to various life goals were highly similar, except that somewhat larger proportions

of the disabled said that participating in community action programs, promoting racial understanding, and achieving in the arts (performing arts, writing, the graphic arts) were very important or essential to them. But only 50 percent, compared with 63 percent of the nondisabled, gave high priority to the goal of raising a family.

### Conclusions

It is important to reiterate that the majority of disabled 1978 freshmen entered college with the same background characteristics as their nondisabled counterparts, including those characteristics (e.g., enrollment in a college preparatory curriculum, outstanding high school grades) that are generally associated with persistence and achievement in college. But at the same time it is important to note that a larger proportion of disabled than of nondisabled freshmen have characteristics that are "nontraditional" or "atypical" for undergraduates (e.g., being older, delaying entry to college, being nonwhite, making only average grades in high school, feeling less-than-well-prepared for college work). If such students are to persist and to achieve at a high level in college, they may require special attention, not necessarily because of any physical disability they may have but because of socioeconomic and academic disadvantages.

Disabled people themselves--and authorities on the disabled--are not always in agreement about what special efforts higher education institutions should make to accommodate the disabled. Some (e.g., De Gaff, 1979) insist that a "centralized" approach should be taken, while others argue that "highly centralized activity would not necessarily be efficient or adequate in meeting individual needs" (Brown and Redden, 1979, p. 1). Indeed, emphasizing that the disability does not define the person, Pinder (1979) is

vehement in her resentment of special efforts;

Assuming that the disabled as a class has "needs" which must be "met" or, better yet, "anticipated" is a form of reversion to the older way of looking at the disabled as people presumptively needing protection, special and expensive equipment, and special highly-trained personnel to handle them. It will be much kinder in the long run to turn us loose, to let us run free, to let us take our hard knocks with others. Instead of "needs"--the new term connoting our deficiencies--it is much kinder and fairer and more accurate to view us as persons with talents and skills and with the judgement and perspicacity to use them. (p. 8)

Thus, in offering the kind of adaptive, assistive support now mandated by federal law, college and universities must be mindful of what constitutes need and what kinds of services will most benefit the diverse undergraduate population. Further, they must try to distinguish those disabled freshmen who enter college well prepared to meet the academic demands from those who may encounter difficulties because they have delayed their entry to college or because their past experience has not prepared them adequately to rise to the challenges of college. Perhaps most important, colleges and universities must give prime consideration to the uniqueness of each individual with respect to motivations, aspirations, strengths, and compensatory coping skills.

## Chapter 18

### Summary: Profiles of the Eight Disability Groups

This chapter summarizes the major findings for each of the eight disability groups, presented in descending order of their representation in the total handicapped sample: the visually disabled, 29 percent; those with unknown disabilities, 27 percent; the orthopedically disabled, 14 percent; those with "other" disabilities, 13 percent; the hearing-disabled, 7 percent; the multiply disabled, 4 percent; the learning-disabled, 3 percent; and the speech-disabled, 2 percent.

#### Visual Disability

One-fifth of those 1978 freshmen who indicated on the Student Information Form that they had a visual disability responded negatively to the question "Do you consider yourself physically handicapped?" Moreover, 85 percent said they wore glasses or contact lenses. Thus, there is reason to believe that many of those included in this disability group were not disabled in any legal or clinical sense but merely had less-than-perfect uncorrected eyesight. The follow-up survey may help to clarify this ambiguity.

The gender composition of this group was identical with that of the nondisabled group (49 percent men, 51 percent women), as was their distribution with respect to age, marital status, and veteran status: 97 percent were between ages 17 and 20, 1 percent were married, and 1 percent were veterans. The racial/ethnic composition was the same as that of the total disabled group: Blacks accounted for 10 percent; Hispanics, 2 percent; Asians, 1 percent; and "others," 5 percent; the remainder were white. The proportions saying they were Protestant, "other," or had no current religious preference was slightly higher than the average for either the total disabled or the

nondisabled groups, whereas the proportion of Catholics was lower. One-third regarded themselves as reborn Christians.

Their socioeconomic status resembled the norm for all disabled freshmen. Thus, 56 percent estimated their parents' income to be under \$20,000; 45 percent (compared with 49 percent of the total disabled group and 45 percent of the nondisabled group) said their fathers had not gone beyond high school. Slightly larger-than-average proportions said their fathers were skilled workers or physicians; slightly smaller-than-average proportions indicated that either their mothers or their fathers were in business.

As with the nondisabled sample, 94 percent of the visually disabled had graduated from high school in 1978. Eighty-six percent (compared with 81 percent of all disabled freshmen) had taken college preparatory programs. Their academic records were outstanding: They were more likely than any other group to have made A averages (21 percent) and to have graduated in the top quarter of their classes (44 percent). Relatively few had taken remedial work, and they tended to feel very well-prepared in every area except vocational skills and study habits. Common activities included playing a musical instrument, attending recitals or concerts, and attending religious services.

The visually disabled were less likely than others to enroll in public two-year colleges (32 percent, compared with 38 percent of the total disabled group and 34 percent of the nondisabled) and more likely to enroll in public universities (19 percent, compared with 15 percent of the total disabled group). Consistent with these enrollment patterns, a relatively large proportion planned to live in college dormitories during the freshman year. They were less likely than average to attend college because they wanted to improve their reading and study skills or because they could not find a job,

nor were they particularly likely to choose their college because of its special educational programs.

Consistent with their youth, the visually impaired tended to be financially dependent on their parents and were more likely than any other group to mention parental aid as a source of college finances. In addition, 62 percent (compared with 57 percent of all disabled freshmen) mentioned self-support (i.e., earnings or savings from employment; College Work-Study), and relatively large proportions got grants or scholarships and took loans to finance their college education. Despite this variety of financial sources, one-fifth (compared with 18 percent of the total disabled group) expressed major concern about their ability to pay for college.

Perhaps because of these financial anxieties, more of the visually disabled than of any other group anticipated getting a job to help pay college expenses (41 percent) and having to work at an outside job during the college years (27 percent). These figures confirm the impression that many members of this group did not have a serious visual disability; if they had been seriously handicapped, they probably would not have expected to find employment or to meet simultaneously the demands of a job and of college. Relatively large proportions also anticipated changing career choices and major fields, making at least a B average, graduating with honors, and getting the baccalaureate. Indeed, the majority aspired higher than that: 30 percent planned to get a master's degree; 13 percent, a doctorate; and another 13 percent, an advanced professional degree. The major fields of engineering, agriculture, and biological sciences, and the career choices of engineer, health professional, and lawyer were especially popular with this group.

With respect to political orientation, the distribution of the visually impaired was similar to that for all disabled freshmen, except that slightly

more considered themselves liberal (27 percent, compared with 25 percent of all disabled freshmen and 23 percent of the nondisabled). This liberalism is evident in their attitudes toward student freedom issues: They were less likely than others to believe that college officials have the right to censor student publications or to ban speakers with extreme views. Further, relatively few believed that married women should confine their activities to the home and family. On some questions, however, their attitudes were more conservative or elitist: For instance, relatively small proportions thought that the death penalty should be abolished, that busing should be used to help achieve racial balance in the schools, or that the disadvantaged should be given preferential treatment in admissions. The proportions subscribing to various life goals resembled the average for all disabled freshmen, except that slightly larger-than-average proportions gave priority to developing a meaningful philosophy of life and keeping up-to-date with political affairs, and smaller-than-average proportions were concerned with having administrative responsibility over others and being successful in their own businesses.

Unknown Disability

Accounting for 27 percent of the total disabled sample, this group comprised those freshmen who indicated on the 1978 SIP that they considered themselves physically handicapped but then failed to specify a disability area. As was pointed out in connection with the visually impaired, some members of this group may not be handicapped in a medical or legal sense. Moreover, the larger proportion than of any other group (24 percent) indicating that they required architectural accommodations because of their handicap (constituting about one-fifth of all those disabled freshmen requiring architectural accommodations) may be due to the large numbers who

skipped this item on the 1978 SIF. Another possible interpretation is that many in this group are mobility-impaired but for some reason do not regard themselves as having an orthopedic disability and did not choose to check the "other" response option.

Over half (53 percent) of the freshmen in this group were women. The majority resembled "traditional" freshmen in that only 2 percent were age 21 or over at college entry and only 1 percent were married. Three percent were veterans; indeed, those with unknown disabilities constitute 26 percent of all disabled freshmen who are veterans, being exceeded only by the orthopedically disabled, who constitute 31 percent of the veteran group.

Relative to their proportions in the total disabled group, Hispanics (especially men) and Blacks were somewhat overrepresented--and Asians and "others" underrepresented--in the "unknown disability" category. Their distribution with respect to current religious preference was closer to that of the nondisabled than the disabled, with larger-than-average proportions of Catholics.

Their socioeconomic status resembled the norm for all disabled freshmen; hence, it was somewhat lower than that of nondisabled freshmen. For example, about half (51 percent, compared with 49 percent of the total disabled group and 45 percent of the nondisabled group) said their fathers had not gone beyond high school; 54 percent (compared with 56 percent of all disabled freshmen and 50 percent of the nondisabled) estimated their parents' 1977 income to be under \$20,000. The proportions indicating financial dependence on their parents were also average. For instance, 80 percent (compared with 79 percent of all disabled freshmen and 83 percent of the nondisabled) had been claimed as exemptions on their parents' federal income tax return. Nonetheless, they were more likely than any other disability group except

the visually impaired to cite parental aid as a source of college finance. Further evidence of strong parental encouragement is the fact that a larger proportion of this group than of any other said they were attending college "because my parents wanted me to go."

In addition, a larger proportion of those with unknown disabilities than of any other group had been enrolled in a college preparatory program in high school, and their grade averages tended to be fairly high. Though more likely than average to have taken remedial work, they were also more likely to see themselves as being very well prepared in academic subjects and less likely to anticipate needing remedial work in college. The implication is that the extra help they got in high school paid off, and these freshmen entered college feeling confident of their ability to handle academic work. This self-confidence is also manifested in the smaller-than-average proportions who expected to fail one or more courses, to get tutoring help, to seek either vocational or personal counseling, or to need extra time to complete their degree requirements.

Like the visually disabled, freshmen with unknown disabilities were somewhat more likely than others to enter public and private universities and less likely to enter community colleges. Being able to make more money was a common reason given for attending college, and this pragmatism is reflected in other aspirations and preferences. Thus, they were more likely than others to aim for a master's degree (30 percent, compared with 27 percent of all disabled freshmen), but only 20 percent (compared with 23 percent of the total group) aspired to a doctorate or a professional degree. Business was named as a probable major by 26 percent and as a career choice by 20 percent. Other popular major fields were engineering, and history/political science; other common career choices were lawyer and nurse. The

life goal of being very well-off financially was regarded as essential or very important by 65 percent (compared with 60 percent of all disabled freshmen). Other goals connected with status and influence--being an authority in one's field, winning recognition from colleagues, having administrative responsibility over the work of others--were also given high priority.

Those with unknown disabilities were somewhat more likely than average to be middle-of-the-road or conservative; only 22 percent, compared with 25 percent of the total disabled group, considered themselves liberal. Nonetheless, relatively large proportions believed in busing to achieve racial balance in the schools, abolition of the death penalty, and the investment of federal money to solve urban problems. On the other hand, relatively few approved of casual sex, less emphasis on sports at the college level, or the adoption of open admissions by all public institutions. The overall impression one gets is of a practical-minded, upwardly mobile group.

### Orthopedic Disability

The third largest of the disability groups--the orthopedically disabled, accounting for 14 percent of the total sample--had the same gender composition as the total disabled sample (51 percent men, 49 percent women), the greatest proportion indicating that they considered themselves physically handicapped (94 percent), and the next-to-the-highest proportion (after those with unknown disabilities) indicating that they required architectural accommodations. It also included large proportions of "nontraditional" freshmen: 13 percent were age 21 or over, 7 percent were married (and, of this married group, 12 percent were not living with their spouses), and 6 percent had done military service. Indeed, the orthopedically disabled accounted for 31

percent of the total group of disabled veterans (compared with 14 percent of the nonveteran disabled group); thus, their disability is clearly service-related and probably combat-related.

On the other hand, 91 percent of the freshmen in this group (compared with 83 percent of the total disabled sample) were white, with all minorities except those of "other" racial/ethnic backgrounds being drastically under-represented, relative to their representation in the total disabled sample. The implication would seem to be that an orthopedic disability--with its consequent impairment of mobility in many cases--represents more of a deterrent to college attendance among nonwhites than among whites, perhaps because nonwhites do not get as much encouragement from their high school teachers and counselors. Of course, these data do not permit any conclusions about the incidence of orthopedic disabilities in different racial/ethnic populations, but common sense suggests no obvious reason why whites should be more prone to such disabilities than nonwhites.

Other "nontraditional" characteristics of the orthopedically disabled include delayed college entry: 8 percent had completed high school in 1977 and thus delayed entry for one year, while 7 percent had graduated from high school in 1975 or earlier and thus delayed entry even longer. In addition, 4 percent had passed the GED test rather than actually getting a high school diploma, and another 1 percent had not graduated from high school at all. A relatively large proportion (23 percent, compared with 19 percent of the total disabled sample) had taken an other-than-college preparatory program in college, which may account for the small proportion who said they had been recruited to their current institution by a college representative.

The distribution of the orthopedic-disability group with respect to parents' education and income, high school grades, and high school rank was

similar to that of all disabled freshmen. Relatively large proportions indicated that their fathers were engineers or clergymen and that their mothers were businesspersons. No more than about 10 percent had taken remedial work in high school, and the proportions anticipating the need for such work in college were below average. They were relatively likely to feel well prepared in reading and composition, science, vocational skills, and study habits.

The inclusion of a fairly large proportion of older freshmen in this group probably accounts for some other findings. For instance, the orthopedically disabled were most likely of any disability group to smoke and drink beer; 20 percent (compared with 10 percent of all disabled freshmen and 5 percent of nondisabled freshmen) took tranquilizers and 9 percent took sleeping pills at least occasionally. They were also more likely than any other group to say they had no current religious preference, and relatively large proportions believed that abortion should be legalized, that couples should live together before marriage, and that casual sex is okay but did not feel that college officials have the right to regulate students' off-campus behavior, ban speakers, or censor publications.

Also consistent with the larger proportion of older students, the orthopedically disabled tended to be less dependent on their parents than most other groups: For instance, only 72 percent (compared with 79 percent of all disabled freshmen) had been listed as an exemption on their parents' income tax return; only 24 percent (compared with 29 percent of all disabled freshmen) were going to college because their parents wanted them to; and 71 percent (compared with 66 percent of the total disabled sample) indicated that no other dependents of their parents were currently attending college. Nonetheless, three-fifths got at least some financial support from their parents. Other sources of college finance mentioned more frequently by this

group than by most others were support from spouse and GI benefits. But only 53 percent (compared with 57 percent of all disabled freshmen) planned to draw on earnings or savings from employment to pay for college; this low figure may also indicate that the orthopedically disabled may have a more difficult time finding jobs and balancing the demands of employment and college than do members of other disability groups.

The orthopedically disabled were concentrated in community colleges: 46 percent, compared with 38 percent of all disabled freshmen, entered these institutions. Consequently, they were somewhat underrepresented at all other institutional types. Their reasons for choosing their institutions included its academic reputation, the offer of financial assistance, and the advice of a guidance counselor. Consistent with their heavy enrollment in public two-year colleges, a relatively large proportion (11 percent, compared with 8 percent of all disabled freshmen) planned to get no more than an associate degree, 14 percent planned to transfer to another institution before graduating, 54 percent went to colleges within 50 miles of their permanent homes, 13 percent (compared with only 9 percent of all disabled freshmen) lived in private housing and only half lived in college dormitories, and 39 percent indicated a preference for private housing.

Though less likely than average to aspire to a master's or a doctorate, relatively large proportions of the orthopedically disabled aimed for a baccalaureate (36 percent) or a medical degree (8 percent). Popular major field choices included business (25 percent); education (10 percent), health professions (10 percent), biological sciences (6 percent), and "other non-technical" fields (13 percent). Larger-than-average proportions named career choices as doctors (7 percent), health professionals (7 percent), and research scientists (4 percent), as well as clergy, college teacher, and farmer/rancher.

The orthopedically disabled were likely to characterize themselves as liberal (29 percent, compared with 25 percent of all disabled freshmen) rather than conservative (14 percent, compared with 16 percent of all disabled freshmen), and their liberalism is evident in the greater-than-average proportions feeling that the government should do more to control environmental pollution and discourage energy consumption and that the death penalty should be abolished. On the other hand, few approved of busing to achieve racial balance in the schools or open admissions, and they were more inclined than average to feel that the same performance standards should be applied to everyone and that grading in the high schools has become too easy. Thus, their attitudes suggest an independent, "rugged individualist," meritocratic orientation.

#### "Other" Disability

This group comprised all those disabled freshmen (13 percent of the total group) who checked the "other" response option on the 1978 SIF, indicating that their handicap did not fall into any of the specific listed areas (hearing, speech, orthopedic, visual, or learning). Of all the disability groups, those in the "other" category were least likely to have said that they considered themselves physically handicapped (79 percent), and only 4 percent required architectural accommodations. The follow-up survey should help to clarify the nature and extent of their disabilities. Another puzzling characteristic of this group is their tendency to check the "other" response option when it appears in connection with other items on the SIF: For instance, 6 percent (compared with 2 percent of all disabled freshmen) indicated that they planned to live in some "other" type of residence in their freshman year; since the list of specific residential options listed on the SIF seems fairly compre-

hensive, it is difficult to guess just what "other" living arrangements they had in mind.

Men predominated, with only two-fifths of the freshmen in this group being women. As with the orthopedically-handicapped, larger-than-average proportions were "nontraditional": 14 percent were age 21 or older at college entry (indeed, 6 percent were age 30 or over); 7 percent were married (and of this married group, 23 percent were not living with their spouses); 3 percent were veterans; 15 percent had delayed college entry for at least a year, 4 percent had passed the GED test in lieu of earning their high school diplomas via attendance, and 1 percent never graduated from high school; 29 percent had not taken college preparatory programs in high school; and 11 percent said they had no current religious preference.

There were more nonwhites in the "other" disability group than in the orthopedic disability group, especially men from "other" racial/ethnic backgrounds; the three remaining racial/ethnic minorities were somewhat underrepresented. With respect to current religious preference, those indicating they were Catholic or Jewish were underrepresented, and those indicating "other" preferences were overrepresented, relative to their proportions in the total disabled group. The proportion saying they were reborn Christians was larger than for any other group (42 percent, compared with 32 percent of all disabled freshmen).

Those in the "other" disability category were further distinguished from the orthopedically disabled by their relatively poor high school achievement and low socioeconomic status. For instance, 31 percent (compared with 23 percent of all disabled freshmen and 16 percent of the nondisabled) earned no better than C averages in high school; 66 percent (compared with 73 percent of all disabled freshmen) graduated in the top half of their classes.

Though relatively few took remedial work in high school, larger-than-average proportions felt poorly prepared in math, reading and composition, foreign language, and study habits and anticipated needing remedial work in most subjects. In short, they entered college feeling little confidence in their academic abilities, and this lack of confidence is reflected in the relatively low proportions expecting to be elected to a scholastic honor society, make at least a B average, get the baccalaureate, or feel satisfied with college. Perhaps their lack of self-confidence also explains the relatively high proportions who cited "push" rather than "pull" factors as very important in their decision to attend college: having nothing better to do, not being able to find a job, pleasing their parents. On the other hand, 80 percent (compared with 77 percent of all disabled freshmen) were going to college in order to be able to get a better job; 46 percent (compared with 41 percent of all disabled freshmen) were interested in improving their reading and study skills.

As to their family background, 11 percent (compared with only 8 percent of the total disabled sample) said their fathers had no more than a grammar school education; only 29 percent (compared with 34 percent of the total disabled group) said their fathers had a baccalaureate or better. In addition, their fathers were more likely than average to be farmers, businessmen, and semiskilled workers. Finally, 62 percent (compared with 56 percent of the total disabled sample) came from families with incomes of less than \$20,000 a year. Given the disadvantaged status of many freshmen in this group, it is not surprising that they were less likely than average to be financially dependent on their parents: for instance, only 53 percent got \$600 or more in assistance from their parents, and only 58 percent listed their parents as a source of financial support for college. On the other

hand, 50 percent (compared with 45 percent of the total disabled sample) got grants or scholarships (indicating some recognition of their low-income status on the part of institutional financial aid officers), and 25 percent (compared with 18 percent of the total disabled sample) were attracted to their particular college by its offer of financial aid. Relatively larger proportions got support from their spouses, but relatively few expected to be self-supporting.) Thus, although one-third felt no concern over their ability to pay for college, 21 percent (compared with 18 percent of all entering freshmen) expressed major concern.

Those with "other" disabilities had a higher-than-average propensity to enroll in public two-year colleges (43 percent, compared with 38 percent of the total disabled sample) or private four-year colleges (19 percent, compared with 17 percent of the total disabled sample) but were underrepresented at public and private universities and at public four-year colleges. Their overrepresentation in community colleges explains the relatively high proportions who were attending an institution within five miles of their permanent homes (14 percent), living in private housing (10 percent) or "other" housing (6 percent), and expecting to transfer (14 percent) and the low proportions expecting to join a fraternity or sorority (13 percent).

Not surprising, in view of their enrollment patterns, is the fact that a higher proportion of this group than of any other aspired to no more than an associate degree (14 percent, compared with 8 percent of the total disabled group). Only 42 percent (compared with 50 percent of all disabled freshmen) planned on a graduate or advanced professional degree; thus, relatively few (44 percent, compared with 48 percent of the total disabled group) said they were attending college to prepare for graduate or professional school. Higher-than-average proportions named education, "other" humanities,

physical science, and "other technical" fields as their probable major fields; smaller-than-average proportions named biological sciences, business, or history and political science. Relatively few planned on high-status careers; the career choices of artist, farmer/rancher, and nurse were named more frequently by the "other" disability group than by most other groups. However, 14-15 percent said there was a fairly good chance they would change major fields and career choices during the college years.

Their distribution with respect to political orientation was unusual: Only half were middle-of-the-road; 18 percent (compared with 16 percent of all disabled freshmen) considered themselves conservative; and 5 percent (compared with 3 percent of all disabled freshmen) characterized themselves as far left. On the liberal side, larger-than-average proportions favored greater government protection of the consumer, higher taxes for the wealthy, the legalization of abortion, busing to achieve racial balance in the schools, preferential treatment in admissions for the socially disadvantaged, and open admissions at all public colleges. In addition, they were likely to feel that parents should be discouraged from having large families and that people should not obey laws which violate their personal values. On the conservative side, they tended to agree that the activities of married women should be confined to the home and family, that there is too much concern in the courts for the rights of criminals, that homosexual behavior should be prohibited by law, that student publications should be cleared by college officials, and that college officials have the right to ban extremist speakers.

Consistent with the relatively high proportion naming artist as their career choice, larger-than-average proportions endorsed goals related to artistic achievement--in particular, in the performing and the graphic arts. Other goals given high priority were influencing the political structure and

succeeding in one's own business. Relatively few were concerned with having administrative responsibility over others and being very well-off financially.

### Hearing Disability

Freshmen with hearing disabilities only constituted 7 percent of the total disabled group. (However, many students with a hearing impairment have some other impairment--usually speech--as well and thus are classified in the multiple-disabilities group). Men slightly outnumbered women (55 percent versus 45 percent). About one-sixth of these freshmen did not regard themselves as physically handicapped. The proportion saying they required architectural accommodations was identical with the proportion for all disabled freshmen: 6 percent. Obviously, the hearing-impaired often need accommodations (e.g., interpreters, machines) not ordinarily considered "architectural," and the follow-up survey should provide information on this point.

Only 6 percent of the hearing-disabled were age 21 or over at college entry, 3 percent were married (with 30 percent of the married group not living with their spouses), and 4 percent were veterans. Among disabled freshmen, veterans were almost twice as likely as nonveterans to be hearing-impaired (12 percent versus 7 percent); suggesting that the impairment may be service-related.

The racial/ethnic composition of the hearing-disability group was unusual: While the proportion of nonwhites (17 percent) was almost identical with that of the total disabled group (18 percent), Blacks and "others" were underrepresented, whereas Hispanics and Asians were overrepresented. Indeed, close to one-fifth of all disabled Asians had hearing defects, and the women in this group outnumbered the men by four to one. On the other hand, virtually all the Hispanics with hearing disabilities were male (97 percent).

This group included a higher proportion of Catholics (42 percent) than any other but a relatively low proportion of Protestants (41 percent) and of reborn Christians (26 percent).

Their socioeconomic status tended to be slightly higher than average. For instance, 38 percent (compared with 34 percent of the total disabled group) said their fathers had at least a baccalaureate, and 46 percent (compared with 44 percent of the total disabled group) estimated their parents' income to be over \$20,000. Their fathers were somewhat more likely than average to be businessmen, high school teachers, and college professors; their mothers were more likely than average to be clerical workers, social workers, and nurses. Freshmen in this group were somewhat less likely than average to be financially dependent on their parents: For instance, only 60 percent (compared with 66 percent of all disabled freshmen) cited parental aid as a source of college finances. They were more likely than any other group to take loans in order to finance their college education (31 percent, compared with 25 percent of all disabled freshmen), though only 16 percent indicated that they would have to take an outside job during college. (Self-support includes savings and participation in College Work-Study, as well as earnings from an outside job.) Close to half (48 percent, compared with 45 percent of the total disabled sample) got grants or scholarships. Despite the variety of financial sources they drew on, 71 percent (compared with 67 percent of the total disabled sample) expressed at least some concern over their ability to pay for college.

Like their socioeconomic status, their high school records were slightly higher than average. The proportion taking a college preparatory program was identical to the proportion of the total disabled sample (81 percent).

Though less likely than average to make either A or C grades, the hearing-

impaired were more likely than average to be B students (with 70 percent, compared with 60 percent of the total group, reporting B averages in high school); 77 percent (compared with 73 percent of the total disabled sample) had graduated in the top half of their classes. Nonetheless, larger-than-average proportions took remedial work, somewhat smaller-than-average proportions felt very well prepared in academic subjects or study skills, and higher-than-average proportions expected to need remediation in college. Despite this apparent lack of confidence, a larger-than-average proportion expected to graduate from college with honors.

The institutional distribution of the hearing-disabled was similar to that of all disabled freshmen; however, they were slightly overrepresented at public and private four-year colleges and public two-year colleges and underrepresented in the other institutional types. Larger-than-average proportions were attending college to get away from home (14 percent, versus 10 percent of all disabled freshmen) or for the rather "elitist" reasons of gaining a general education, learning more about things that interest them, preparing for graduate or professional school, and meeting new and interesting people. This suggestion of sociability is also reflected in the fact that larger-than-average proportions anticipated being elected to student office and joining a fraternity, sorority, or social club. In choosing their particular college, they were more likely than average to have been recruited by a college representative or to be attracted by special educational programs but relatively unlikely to have been influenced by other people (teachers, guidance counselors, alumni, friends) or by the desire to live at home.

Consistent with this last point, close to half (47 percent, versus 42 percent of all disabled freshmen) were attending colleges located between 51 and 500 miles from their homes; a larger-than-average proportion lived in

private housing, and a lower-than-average proportion lived with their families.

Their degree aspirations, anticipated majors, and career choices did not always seem consistent with one another. For instance, the proportion aspiring to a baccalaureate was larger than that of any other group (38 percent), and a larger-than-average proportion aspired to a medical or divinity degree, but relatively few sought a law degree. More of the hearing-impaired than of any other group planned to major in the health professions or in mathematics/statistics, and lower-than-average proportions planned to major in agriculture, education, or fine arts. Career choices more popular with this group than with others were nurse, high school teacher, college teacher, and engineer; relatively unpopular career choices included artist, lawyer, and research scientist. Very few of the hearing-disabled expected to drop out of college either temporarily or permanently, to transfer to another college, or to get married during college, but a relatively large proportion expected to seek individual counseling for personal problems.

Their distribution with respect to political orientation resembled that for all freshmen, except that 28 percent (compared with only 25 percent of the total disabled sample) characterized themselves as liberal. This liberalism was manifested chiefly in their opinions on social equity and heterosexual relations: Thus, a relatively large proportion favored busing to achieve racial balance in the schools, preferential treatment in admissions for the disadvantaged, open admissions at all public institutions, living together before marriage, and casual sex. They were also more likely than average to agree that faculty promotion should be based in part on student evaluations, that a national health care program should be established, that heavy investments of federal funds were needed to solve urban problems, and that people

should not obey laws that violate their personal values. On the conservative side, they were more likely than average to believe that laws prohibiting homosexual behavior are needed and that the courts are too concerned with the rights of criminals.

As to life goals, the hearing-impaired tended to give high priority to winning recognition from colleagues, succeeding in their own business, and becoming involved in programs to clean up the environment. They were relatively unconcerned with raising a family, being very well-off financially, and making a theoretical contribution to science.

#### Multiple Disabilities

Constituting 4 percent of the total disabled sample, this group includes all those 1978 freshmen who marked more than one disability area on the SIF. About two-fifths were speech-impaired; one-fifth, hearing-impaired; one-fifth, learning-disabled; 11 percent had some "other" disability; 8 percent were orthopedically disabled; and 8 percent were visually impaired. Only 9 percent of the multiply handicapped did not consider themselves physically handicapped; 6 percent said they required architectural accommodations.

Men slightly outnumbered women (54 percent versus 46 percent) in this group, which included slightly higher-than-average proportions of "nontraditional" students: 9 percent were age 21 or over; 3 percent were veterans; and 5 percent were married. Of these married freshmen, three-fifths were not living with their spouses; the implication is that being multiply handicapped places considerable stress on a marriage; the fact that so many of these students had a speech impairment suggests further that communication difficulties may negatively affect marriage.

Slightly more than four-fifths (81 percent) of the multiply disabled

were white. Hispanics were underrepresented, while Asians (especially men) and "others" (especially women) were overrepresented. Over half (51 percent, compared with 46 percent of the total disabled sample) were Protestant, while only 2 percent (compared with 4 percent of the total disabled sample) were Jewish; 35 percent (compared with 32 percent of all disabled freshmen) were reborn Christians.

The picture with respect to socioeconomic status was mixed. The multiply disabled tended to come from low-income backgrounds: 26 percent (compared with 15 percent of the total disabled group) estimated their parents' income to be under \$8,000; only 19 percent (compared with 22 percent of the total disabled group) estimated it to be \$30,000 or higher. Similarly, the multiply disabled were twice as likely as the average disabled freshmen to say that their parents had no more than a grammar school education. But 17 percent of the fathers (compared with 14 percent for the total disabled group) said their fathers had a graduate degree; and 14 percent of the mothers (compared with 7 percent for the total disabled group). Similar diversity is apparent with respect to parental occupations. Relatively large proportions said their fathers were engineers, lawyers, artists, farmers, skilled workers; and the multiply disabled were more likely than any other group to say their fathers were laborers or unemployed. Only 26 percent of the mothers (compared with 31 percent for the total disabled group) were homemakers; an unusually large proportion were artists and elementary or secondary school teachers, but 15 percent (compared with only 8 percent for all disabled freshmen) were skilled, semiskilled, or unskilled workers, and 12 percent were unemployed. In short, the multiply disabled tended to come from low socioeconomic backgrounds with respect to parental income, education, and occupation; but a sizable minority had well-educated parents who held high-status (but somewhat low-paying jobs).

The picture with respect to high school background is more clear-cut: The multiply disabled were less likely than any other group to have taken a college preparatory curriculum (with close to one-third taking a vocational or some other type of program in high school); 32 percent (compared with 23 percent of all disabled freshmen) had earned grade averages no higher than C; and only 56 percent (compared with 73 percent of all disabled freshmen) had graduated in the top half of their senior classes. Though 92 percent had completed high school in 1978 and thus entered college directly, 6 percent had delayed entry by a year or more; and 2 percent had taken the GED test. Relatively few had taken remedial courses in high school, but a relatively large proportion anticipated the need for remediation in college. Relatively large proportions felt underprepared in academic subjects. This lack of self-confidence is reflected in their greater-than-average tendency to say they would probably fail one or more courses and need extra time to get the baccalaureate. Conversely, they were somewhat less likely than others to expect to get the baccalaureate and to be able to find a job in their field after college.

On the other hand, many of the multiply disabled seemed to have a flair for music: They were more likely than any other group to feel very well prepared in musical and artistic skills, to play a musical instrument, to attend college in order to become more cultured. Nearly one-fifth (compared with 16 percent of all disabled freshmen) said that becoming accomplished in a performing art was very important or essential to them.

Other activities or behaviors mentioned more frequently by the multiply disabled than by other disability groups were attending religious services; taking vitamins, tranquilizers, and sleeping pills; and participating in organized demonstrations and political campaigns. Despite this indication

of past political activism, relatively few anticipated joining in student demonstrations while in college, though close to two in five gave high priority to the life goal of participating in community action programs.

The multiply disabled were less likely than any other group to drink beer or to smoke. This suggestion of puritanism--or, to put it more positively, of an emphasis on traditional values--is also evident in the relatively low proportions who believe that marijuana should be legalized, that parents should be discouraged from having large families, that couples should live together before marriage, or that liking someone a lot is sufficient reason for having sex with them. Their emphasis on the goals of raising a family, developing a meaningful philosophy of life, and influencing social values also seems congruent with their somewhat self-righteous image.

As regards institutional distribution, 43 percent of the multiply disabled (compared with 38 percent of all disabled freshmen) enrolled in two-year public colleges and 19 percent (compared with 17 percent of the total disabled group) at private four-year colleges. They were slightly underrepresented in public and private universities and severely underrepresented in public four-year colleges (only 13 percent, compared with 20 percent of all disabled freshmen). They were more likely than any other group to have applied to no institution other than the one they were attending, but they were also the most likely to say they were enrolled in their first-choice institutions. They tended to have selected their institution for its low tuition and special educational programs or because their relatives had wanted them to go there; otherwise, the influence of other people (teachers, guidance counselors, friends) on their college choice was usually small. Their reasons for attending college at all were often negative ones (they wanted to get away from home, they had nothing better to do, they could not find a

job), although a relatively large proportion wanted to learn more about things that interested them.

Forty-six percent (compared with 39 percent of all disabled freshmen) attended colleges that were located between six and fifty miles from their homes. They were more likely than any other group to live in college dormitories and less likely to live with their parents or relatives; a surprisingly high proportion (12 percent, compared with 4 percent of all disabled freshmen) said they would prefer to live in "other campus student housing."

Though over three-fourths of the multiply disabled were claimed as exemptions on their parents' income tax return, only half (compared with 59 percent of all disabled freshmen) received at least \$600 worth of assistance from their parents, and only 57 percent (compared with 66 percent of all disabled freshmen) indicated that parental aid was a source of college finances. At the same time, 46 percent (compared with 35 percent of all disabled freshmen) indicated that other dependents of their parental families were also attending college. With the speech-impaired, the multiply disabled were more likely than others to get grants or scholarships, as is consistent with their low-income status. They were more likely than any other group to get support from GI benefits and from "other" sources and less likely than any other group except the learning-disabled to be self-supporting. Thus, they tended to feel at least some concern about their ability to pay for their college education.

The proportions planning to get no degree, or only an associate degree, were relatively high, as were the proportions aspiring to a doctorate; the proportions planning to get a baccalaureate or a master's were relatively low. On the other hand, 9 percent (compared with 6 percent of the total disabled sample) aimed for a medical degree (MD, DO, DDS, or DVM), and 6

percent (compared with 5 percent of the total disabled sample) wanted a law degree. The proportions planning on majors and careers in business were about average (22 percent and 19 percent, respectively). Other major field choices more popular with the multiply disabled than with others were education, engineering, social sciences, and "other technical" fields; uncommon major field preferences were biological sciences, health professions, history and political science, and physical science. Relatively large proportions planned careers as high school and college teachers, engineers, and health professionals; the proportion planning to become doctors was the same as for all disabled freshmen, 4 percent. This suggests that the medical degree that 7 percent of the multiple disability group aspired to was, for many, not an MD for rather one of the other types of medical degree. Only 7 percent were undecided about the career plans.

Consistent with this last finding, the multiply disabled were less likely than any other group to anticipate changing major fields or career plans, although a relatively large proportion expected to seek vocational counseling (11 percent) or personal counseling (12 percent).

As might be expected from some of the opinions cited earlier, the multiply disabled were less likely than any other group to characterize themselves as liberal; they were more likely than any other group to see themselves as middle-of-the-road; in addition, 4 percent (compared with 3 percent of all disabled freshmen) saw themselves as far left. Even though many members of the group espoused traditional values in certain areas, relatively large proportions took a liberal position on other questions: for instance, government responsibility for consumer protection, national health, and the solution of urban problems; public and college policies designed to promote greater equality of opportunity; and the liberalization of divorce laws.

Perhaps because of their own relatively poor high school grades, they were less likely than any other group to say that grading in the high schools has become too easy; they were more likely than others, however, to believe that colleges should give less emphasis to sports and should abolish grades.

In addition to wanting to achieve in the performing arts, a larger-than-average proportion of the multiply disabled wanted to produce creative writing. However, they also tended to give emphasis to the material goals of being very well-off financially and succeeding in their own business. Relatively few were concerned with creating artistic works such as paintings and sculpture, helping others in difficulty, or making a theoretical contribution to science.

#### Learning Disability

Only 3 percent of the disabled 1978 freshmen indicated they had a learning disability. Of this group, four-fifths regarded themselves as physically handicapped, and 4 percent said they required architectural accommodations. The group was male-dominated (57 percent) and included few "nontraditional" freshmen: Only 2 percent were age 21 or over, 3 percent were married (and 27 percent of this married group were not living with their spouses); and 2 percent were veterans. On the other hand, only 73 percent of the learning-disabled group were white. Of the racial/ethnic minorities, Blacks (especially men), Hispanics (especially women), and Asians (especially men) were overrepresented, relative to their proportions among all disabled freshmen. The distribution by current religious preference is remarkable in that there were three times as many Jews among the learning-disabled (12 percent) as in either the total disabled or the nondisabled samples (4 percent). In addition, Protestants were overrepresented, whereas Catholics and

those with "other" and with no current religious preferences were under-represented among the learning-disabled, only 26 percent of whom considered themselves to be reborn Christians.

The members of this group were distinguished above all by their poor high school performance and lack of confidence in their ability to perform at the college level. The reader should bear in mind, however, that the disability groups were identified on the basis of self-reports and that many freshmen in this group may be "slow learners" or "poor readers" or simply students who are unduly fearful of the challenges of college work rather than having a "learning disability" as clinically or legally defined. Indeed, there is often disagreement within the medical and education communities about what actually constitutes a learning disability. Results from the follow-up survey should enable us to differentiate those in the group who had actually been diagnosed as learning-disabled and had thus received special education services from those who labeled themselves "learning-disabled" because of previous failures or difficulties in school.

Another distinguishing feature of this disability group is that there were many distinguishing features: that is, the learning-disabled often deviated significantly from the norm, whereas differences among other disability groups were usually a matter of no more than a few percentage points. This is perhaps best illustrated by their family background characteristics. The parents of learning-disabled freshmen tended to be highly educated: 54 percent of the fathers and 42 percent of the mothers had at least a baccalaureate; no other disability group came close to these figures. Because of their impressive educational credentials, the parents of the learning-disabled may be especially likely to support college education for their children; this tendency may explain why the learning-disabled are enrolled in college, despite

their apparent academic deficiencies, and why they were more likely than any other group (54 percent, compared with 44 percent of all disabled freshmen) to say that other dependents of their parents were also attending college. Nearly one-fifth of the learning-disabled (compared with 11 percent of the total disabled sample and 12 percent of the nondisabled sample) estimated their parents' income to be \$40,000 or more. Only 43 percent (compared with 56 percent of the total disabled sample and 50 percent of the nondisabled sample) reported parental incomes of under \$20,000. Similarly, the proportion saying their fathers were businessmen was unusually high: 44 percent. Common maternal occupations were elementary and secondary school teacher (13 percent) and health professional (8 percent); only one-fifth (compared with 31 percent of all disabled freshmen) said their mothers were full-time homemakers. Larger-than-average proportions of both mothers and fathers were artists. Thus, the socioeconomic status of the learning-disabled tends to be high.

The great majority (96 percent) had graduated from high school in 1978 and entered college immediately; only 3 percent had delayed entry, and only by a year. About one-fourth had not taken a college-preparatory program. As mentioned earlier, the high school performance of the learning-disabled was poor. Only 4 percent reported A averages, and 56 percent had made no better than C averages. They were only half as likely as the typical disabled freshman to have graduated in the top half of their classes. They were much more likely than any other disability group to have taken remedial work in English and reading, though the proportions taking remedial work in social studies and mathematics were only slightly higher than average, and the proportions taking remedial work in science and foreign languages were slightly below average. They were more likely to feel poorly prepared in virtually all areas except vocational skills: 28 percent (a figure very

close to the 26 percent who took other-than-college-preparatory programs) felt their high schools had prepared them very well in vocational skills. The proportions expecting to take remedial work in college were generally higher than for any other disability group: For instance, 31 percent of the learning-disabled (compared with 14 percent of all disabled freshmen) expected to take remedial work in reading. Other expectations about the college experience attest to their lack of self-confidence: They were more likely than any other group to say there was a very good chance they would fail one or more courses, need extra time to complete their degree requirements, and get tutoring in specific courses, but less likely than others to feel they would graduate with honors, be elected to an academic honor society, make at least a B average, or get the baccalaureate. A relatively large proportion expected to drop out either temporarily or permanently. Nonetheless, 58 percent (compared with 55 percent of all disabled freshmen) thought they would be satisfied with college.

To an even greater extent than those with hearing, orthopedic, "other," and multiple disabilities, the learning-disabled were concentrated in the community colleges (53 percent, compared with 38 percent of all disabled freshmen); in addition, 9 percent (compared with 5 percent of the total disabled sample) attended private two-year colleges. Thus, they were under-represented in the other institutional types, especially public and private universities (which tend to be the most selective institutions). The proportion enrolling in private four-year colleges (16 percent) was only slightly lower than the proportion for all freshmen (17 percent).

The learning-disabled were more likely than any other group to make multiple college applications, perhaps because they were anxious about their chances of being accepted at any college or perhaps because they wanted to

have as many options as possible to choose from: 23 percent (compared with 14 percent of all disabled freshmen) applied to four or more institutions besides the one they were actually attending. This strategy apparently pays off, since 34 percent of the learning-disabled, compared with 26 percent of all disabled freshmen, were accepted by three or more institutions other than the one they were attending; and 76 percent were enrolled in their first-choice institution.

Two in five learning-disabled freshmen attended colleges within 10 miles of their homes; the comparable figure for all disabled freshmen was 23 percent. On the other hand, 16 percent (compared with 9 percent of all disabled freshmen) said that their colleges were more than 500 miles from their permanent homes. Close to half (47 percent, compared with 34 percent of all disabled freshmen) lived with parents or relatives; only 44 percent lived in college dormitories, and only 3 percent (the lowest proportion for any disabled group) lived in private housing, though 42 percent would have preferred private housing. These figures are consistent with the enrollment patterns mentioned above, since most community colleges are commuter institutions, whereas private four-year and two-year colleges are usually residential institutions.

The reasons for going to college more frequently mentioned by the learning-disabled were both negative (having nothing better to do, not being able to find a job) and positive (gaining a general education, learning about things, becoming more cultured, meeting new and interesting people, preparing for graduate or professional school). Given the fact that their parents tend to be highly educated and thus may be presumed to value college education, it is not surprising that about one-third were attending college because "my parents wanted me to go." And given their academic deficiencies, it is not

surprising that they were more likely than any other group to say they were attending college to improve their reading and study skills. On the other hand, they were relatively unlikely to be motivated by the desire to get a better job.

As to their reasons for choosing their particular college, they were more likely than any other group to say that they had not been accepted elsewhere and that they were attracted by the special educational programs offered by the institution. In addition, a large proportion mentioned the institution's academic reputation. They were also likely to be influenced in their choice by other people, especially guidance counselors (mentioned by 23 percent of the learning-disabled, compared with 10 percent of the total disabled group). They were less likely than others to choose their institution because of its low tuition or its offer of financial assistance. The implication is that, because they come from relatively high-income families, financial concerns do not weigh as heavily with them as with some other disability groups. This interpretation is borne out by other findings. For instance, the learning-disabled were less likely than any other group to be dependent on their parents in the sense of living with them or being claimed as tax exemptions, they were just as likely as the average disabled freshman to say they received at least \$600 worth of assistance from their parents. Moreover, even though smaller proportions than of any other group cited grants and scholarships, loans, or earnings and savings from employment as a source of financial support, a higher proportion than of any other group (43 percent, compared with 32 percent of all disabled freshmen) felt no concern about their ability to pay for college. Either because many of them attend low-cost institutions, or because they get large enough amounts of support from the sources they do draw on, the learning-disabled seem to suffer

few financial anxieties.

The degree aspirations of the hearing-disabled also presented something of an anomaly: Though more likely than any other group to say they did not plan to earn any degree (16 percent, compared with 4 percent of all disabled freshmen and 2 percent of the nondisabled sample), they were also more likely than most others to aspire to a law degree (11 percent, compared with 5 percent of all disabled freshmen and 4 percent of the nondisabled). Relatively few planned to get a baccalaureate or a master's degree, while the proportions aspiring to an associate degree, a doctorate, a medical degree, or a divinity degree were the same as for all disabled freshmen. Larger-than-average proportions planned to major in agriculture, biological science, history and political science, fine arts, "Other technical" fields, and "other nontechnical" fields, whereas smaller-than-average proportions named probable majors in business, engineering, education, health professions, mathematics/statistics, physical sciences, or social sciences. Their career plans were not entirely consistent with their degree and major field plans. For instance, only 3 percent planned to become lawyers; the question arises, what do the other 8 percent plan to do with their law degrees? Other relatively unpopular career choices were businessperson, doctor, engineer, farmer, and nurse. On the other hand, 14 percent (compared with 8 percent of all disabled freshmen) wanted to be artists, 35 percent planned on "other" careers, and larger-than-average proportions wanted to be elementary school teachers and health professionals. In addition, 13 percent said they were undecided as to career choice, and 13 percent expected to seek vocational counseling. Larger-than-average proportions anticipated getting married either during college or within a year after college, particularly considering that this group had more men than women.

The learning-disabled tended to adopt extreme political positions: Thus, 10 percent (compared with 3 percent of the total disabled sample) said they were far left; 5 percent (compared with 1 percent of all disabled freshmen) said they were far right, and the proportions characterizing themselves as middle-of-the-road or liberal were smaller than average. This duality is reflected in their opinions on current issues. On the liberal side, the learning-disabled were more likely than any other group to believe that the federal government should do more to control pollution and solve urban problems; that the death penalty should be abolished; that people should not obey laws that violate their values; that marijuana should be legalized; that busing should be used to achieve racial balance in the schools; that college grades should be abolished; and that college sports should be de-emphasized. They were also more likely than average to feel that large families should be discouraged and divorce laws liberalized and to approve of casual sex. They were least likely of any group to say that the courts are too concerned with the rights of criminals or that laws prohibiting homosexual behavior are important.

On the conservative side, lower proportions of the learning-disabled than of any other group supported greater government protection of the consumer, national health care, immediate action to prevent energy shortages, the legalization of abortion, higher taxes for the wealthy, equal pay for women, and the use of student evaluations as criteria for faculty promotion, but larger-than-average proportions believed that married women should confine their activities to the home and family and that college officials have the right to ban speakers and regulate the off-campus behavior of students.

The life goals that they were more likely than others to endorse were helping to promote racial understanding (47 percent, compared with 38 per-

cent of the total disabled sample) and making a theoretical contribution to science (38 percent, compared with 16 percent of the total disabled sample). That they should value the first of these goals is understandable, in view of the relatively large proportion of nonwhites in the learning-disabled group, but their emphasis on the latter is both puzzling and unrealistic, in view of the small proportions planning careers in science. Consistent with the relatively large proportion planning to become artists, the learning-disabled also tended to give high priority to the goals of writing original works, creating works of art, and (to a lesser extent) becoming accomplished in one of the performing arts. They were also more likely than average to want to participate in community action programs and in programs to clean up the environment. This political activist streak is consistent with the relatively large proportions who said they had participated in student demonstrations and in political campaigns in the previous year. Although more likely than average to give priority to having administrative responsibility for the work of others, the learning-disabled were generally unlikely to value goals associated with achievement, power, and status (becoming an authority in one's field, winning recognition from colleagues, influencing the political structure, being very well-off financially). Finally, they were less likely than any other group to say that helping others in difficulty and developing a meaningful philosophy of life were essential or very important to them.

#### Speech Disability

Constituting only 2 percent of the total 1978 disabled sample were those freshmen indicating that their sole disability was a speech impairment. (It should be remembered, however, that two-fifths of the multiply handicapped indicated a speech disability.) Only 73 percent of the speech-impaired

considered themselves to be physically handicapped, and none required architectural accommodations because of this handicap.

Women constituted only one-third of the group, and Whites slightly over two-thirds. Hispanics, Asians, and those from "other" racial/ethnic backgrounds (especially women from this last group) were overrepresented among the speech-disabled, suggesting that many of these freshmen may identify themselves in this way simply because they have difficulty with English. The follow-up survey should help to clarify which actually have speech impairments.

Eight percent of the group were age 21 or over at college entry (5 percent were age 30 or over), 2 percent were married, and virtually none were veterans. Protestants and Jews were somewhat underrepresented, and Catholics and those with "other" religious preferences somewhat overrepresented, among the speech-impaired. Slightly over one-third (35 percent) said they were reborn Christians.

Like those with "other" and with multiple disabilities, those with speech impairments tended to be disadvantaged socioeconomically. For instance, 28 percent of the fathers and 36 percent of the mothers had not completed high school; the proportion of fathers with a baccalaureate or better was close to the proportion for all disabled freshmen (33 percent), but the mothers of the speech-impaired were only half as likely (12 percent) as the mothers of all disabled freshmen (23 percent) to have reached this level of educational attainment. A larger proportion of the freshmen in this group (64 percent) than of any other estimated their parents' income to be under \$20,000; indeed, close to one-quarter said it was under \$8,000. On the other hand, 14 percent (compared with 11 percent of the total disabled group) said their parental income was over \$40,000. Parental occupations show a similar split. The proportion of fathers who were businessmen (24 percent) was only slightly

lower than the figure for all disabled freshmen (26 percent). But larger-than-average proportions said their fathers were lawyers, military personnel (7 percent, compared with only 2 percent for all disabled freshmen), engineers, laborers, and unemployed. One-fourth said their mothers were full-time homemakers (compared with 31 percent of all disabled freshmen). But larger-than-average proportions indicated that their mothers were businesswomen (nonclerical), lawyers, semiskilled workers, or unemployed.

The speech-impaired also tended to be disadvantaged in terms of high school background (though not to the same extent as the learning-disabled). Thus, only 70 percent took a college preparatory program (compared with 81 percent of the total disabled sample). Though the majority made B averages, 32 percent earned no better than C averages, and only 8 percent got A averages; similarly, only 53 percent ranked in the top half of their graduating class. They were more likely than others to have taken remedial work in mathematics, and a relatively large proportion felt very well prepared in mathematics, as well as in science, vocational skills, musical and artistic skills, and study habits. But one-fourth saw themselves as poorly prepared in reading and composition, and larger-than-average proportions foresaw themselves as needing remediation in virtually all subjects, but especially English, reading, and social studies. Not surprisingly, they were more likely than average to expect that they would need tutoring, fail at least one course, and drop out permanently, but less likely than average to expect that they would make at least a B average, get the baccalaureate, and feel satisfied with college. What is surprising, they were unlikely to feel they would need extra time to complete the degree; moreover, a larger proportion than of any other group (10 percent, compared with 6 percent of all disabled freshmen) anticipated being elected to an academic honor society. These

expectations seem unrealistic, to say the least.

The proportion of speech-impaired freshmen enrolling in community colleges was identical with the proportion for all freshmen (38 percent). The speech-impaired tended to be overrepresented at public four-year colleges and private two-year colleges and underrepresented at the other institutional types (public and private universities, private four-year colleges). Over half (52 percent, compared with 39 percent of all disabled freshmen) attended a college within 6-50 miles of their homes, though a relatively large proportion (16 percent) traveled over 500 miles to college.

Though their application patterns were normal, they were more likely than any other group to say they had been accepted by no institution other than the one they were attending. Though slightly larger-than-average proportions were going to college to improve their reading and study skills and to prepare for graduate or professional school, the speech-impaired were less inclined than others to cite the remaining listed reasons; fewer of them than of any other group were interested in making more money or in learning about things of interest. Similarly, they were less likely than others to have been attracted to their particular institution by its academic reputation or offer of financial aid, and few had been encouraged by a guidance counselor. But they were about twice as likely as average to have been influenced in their choice by a friend or by "someone who had been here before." In addition, they were more likely than any other group to enter the freshman institution because they wanted to live at home. Consistent with this finding, they were more likely than any other group to live with parents or relatives and relatively unlikely to live in college dormitories or in other private housing. However, 44 percent indicated they would live in a college dormitory during their freshman year. As to residential preferences, slightly over

one-quarter opted for each of the three most common types of residence (with parents or relatives, other private housing, college dormitories), and 10 percent indicated a preference for "other" housing.

The proportions evidencing dependence on their parents were about average. However, they were less likely than any other group to cite parental aid as a source of financial support for college (50 percent). With the multiply-disabled, they were more likely than any other group to get grants or scholarships, as is consistent with their low economic status. Thus, it is not surprising that they were least likely of any group to say they felt no concern about their ability to pay for college and most likely (34 percent) to express major concern. But the proportions saying they would get a job to help pay for college expenses were slightly lower than average (35 percent, compared with 36 percent of all disabled freshmen), as were the proportions saying they would have to work at an outside job (10 percent, compared with 22 percent of all disabled freshmen). It seems probable that their academic deficiencies make them reluctant to try to balance employment with college work. Or it may be, in some cases, that they feel their speech disability (or lack of fluency in English?) may make it hard for them to find work.

Their distribution with respect to degree aspirations resembled that for all disabled freshmen, except that (like the learning-disabled) 11 percent aspired to law degrees. They were least likely to any group to plan to major in business (15 percent, compared with 23 percent of all disabled freshmen), although one-fifth planned careers in business. They were more likely than any other disability group to plan a major in agriculture, education, fine arts, and English, and larger-than-average proportions named "other technical" and "other nontechnical" fields. Though relatively few said they were undecided about their probable major, they were the most likely to any group to say there

was a good chance they would change major fields while in college (22 percent, compared with 13 percent of all disabled freshmen). In addition to business-person, relatively popular career choices among the speech-disabled included high school teacher, farmer, and health professional, but fewer than average wanted to be engineers, nurses, or research scientists, and only 4 percent planned to become lawyers. As with the learning-disabled, the question of why so many planned to get law degrees arises. Very few of the speech-impaired were undecided about their future careers, and only an average proportion planned to change career choices or seek vocational counseling, although they were almost twice as likely as average to expect they would seek personal counseling (13 percent, compared with 7 percent for all disabled freshmen).

The distribution of the speech-impaired on political orientation resembled that for all disabled freshmen, except that a larger-than-average proportion (4 percent, compared with 1 percent of the total disabled sample), characterized themselves as far right. Perhaps because the group was predominantly male, there seemed to be general consensus on a number of questions. Thus, larger proportions of the speech-disabled than of any other group approved of federal efforts to protect the consumer and discourage energy consumption, a national health care program, the legalization of abortion, the liberalization of divorce laws, open admissions at all public colleges, and preferential treatment in admissions for disadvantaged students. They were also more likely than any other group to believe that the courts are too concerned with the rights of criminals and that married women should confine their activities to the home and family. But they were less likely than average to believe that parents should be discouraged from having large families or that faculty promotions should be based in part on student evaluation, and they were also more likely than others to take an authoritarian stand on student rights:

Chapter 19

Summary: Profiles of Disabled and Nondisabled  
Entrants to the Six Institutional Types

This chapter summarizes the major findings from Section III (Chapters 10-16) of this report, which analyzed data on disabled and non-disabled freshmen entering a national sample of 383 higher education institutions in 1978. These institutions were categorized into six types on the basis of control (public, private) and level of degree (university, four-year college, two-year college).

Mirroring U.S. society, U.S. higher education can be characterized as both egalitarian and elitist: egalitarian in that virtually any high school graduate has access to some type of postsecondary institution; elitist in that institutions are arranged hierarchically, with those at the apex (private universities and, to a less extent, public universities and some private four-year colleges) admitting only the "best" students and those at the bottom (public two-year colleges, most public four-year colleges) admitting a diverse range of students. In short, different types of institutions enroll different types of students, and these differences tend to be systematic and consistent. The institutional hierarchy is perpetuated not only by the selective admissions policies of those institutions at the top of the pyramid but also by a certain degree of self-selection on the part of students from different backgrounds. Thus, one purpose of this study was to compare students, especially handicapped students, entering the six different institutional types. A second purpose was to discover how closely the disabled entrants at a given institutional type resemble their nondisabled counterparts.

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### Public Universities

Public universities enrolled 19 percent of the nondisabled sample and 15 percent of the disabled sample; women constituted 48 percent of both groups. Relative to their proportions in the total disabled sample, those with visual and with unknown disabilities were somewhat overrepresented, and those with hearing, orthopedic, learning, and "other" disabled were somewhat underrepresented. Five percent (compared with 6 percent of all disabled freshmen) indicated that they required architectural accommodations.

Virtually all the freshmen entering public universities were of traditional college age (17-20), virtually none of the nondisabled and only 1 percent of the disabled were married, and 1 percent of each group were veterans. Only 6 percent of all disabled veterans, compared with 11 percent of all nondisabled veterans, enrolled in these institutions.

The proportion of whites in the entering freshman classes of public universities was higher than for any other institutional types. All minority groups except Asians were underrepresented. However, 22 percent of all disabled Asians (but only 17 percent of all nondisabled Asians) entered these institutions. Catholics and those with "other" religious preference were somewhat underrepresented, as were freshmen saying they had no religious preference were somewhat overrepresented.

The socioeconomic status of freshmen at public universities was fairly high: One-third of both groups estimated their parents' 1977 income to be \$30,000 or more; close to half the fathers and 30 percent of the mothers had a baccalaureate or better. Larger-than-average proportions of fathers were businessmen or worked in other high-level occupations (physicians, engineer, lawyer) while lower-than-average proportions held low-status jobs (skilled, semiskilled, unskilled worker) or were unemployed.

The high school records of public university freshmen were outstanding: 94-95 percent took college preparatory programs; about one-third made A averages; and about nine-tenths ranked in the top half of their graduating class. Relatively few took remedial work or anticipated needing remediation in college, though the disabled were somewhat more likely than the nondisabled to do so. From one-third to two-fifths of both groups felt very well prepared in math, reading and composition, science, and history/social studies; about one-fifth were confident of their musical and artistic skills and their study habits; and 24 percent of the disabled, but only 15 percent of the nondisabled, felt their vocational skills were well developed. These freshmen were more likely than those at other institutional types to say they drank beer frequently during the last year of high school (26 percent of the nondisabled, 29 percent of the disabled).

Though relatively few were attending college because they could not find jobs or because they wanted to improve their reading and study skills, larger-than-average proportions of public university freshmen were motivated by a desire to meet new and interesting people. Close to four-fifths were enrolled in their first-choice institution, which they were likely to have chosen for its academic reputation and low tuition. About three-fifths were attending institutions located between 51 and 100 miles of their homes; about three-fourths lived in college dormitories. A higher proportion of the disabled (16 percent) than of the nondisabled (9 percent) were living with parents or relatives.

Both disabled and nondisabled freshmen were likely to be financially dependent on their parents to some degree: for instance, about three-fourths said their parents gave them at least \$600 worth of assistance. About two-fifths said that other dependents from their parental families

were also attending college. Public university entrants were more likely than others to finance their college education through self-support and parental aid but less likely to get grants and scholarships or loans or to draw on "other" sources. They were no more likely than average to express concern over their ability to pay for college.

The degree aspirations of public university freshmen were high, with 59 percent of the nondisabled and 63 percent of the disabled planning to get an advanced degree. They were more likely than others to say they would major in engineering, and larger-than-average proportions named biological and physical sciences, the health professions, and history/political science as their probable major fields. The career choices especially popular with this group were engineer, health professional, doctor, lawyer, and research scientist. They were more likely than average to anticipate changing majors or career choices while in college, performing well academically, joining a fraternity or sorority, and living in a coeducational dormitory. About two-fifths of both groups expected to get a job to help pay their college expenses. Relatively few expected to transfer to another college or to seek personal counseling.

As with the total disabled and nondisabled samples, over half of the public university entrants characterized themselves as middle-of-the-road politically, and liberals outnumbered conservatives. Though they took a liberal position on most questions relating to national policies, student rights, and sexual issues, they were conservative (or "elitist") in their attitudes toward, for instance, preferential treatment in admissions for the disadvantaged and busing to achieve racial balance in the schools. Similarly, they were less likely than others to favor national health care and federal investments to solve urban problems. Their life goals reflected

a drive for achievement in their field: For instance, they were more likely than any other group to give high priority to winning recognition from their colleagues for contributions to their special fields.

Disabled freshmen entering public universities differed very little from their nondisabled counterparts; indeed, the two groups seemed more similar to one another than did the "average" disabled and nondisabled freshman (i.e., as represented by the figures for the total disabled and nondisabled samples). The chief differences may be summarized as follows: The disabled group included larger proportions of Asians and of those with "other" or no religious preferences. Though their high school records were as good as those of the nondisabled, they seemed less confident of themselves, in that higher proportions expected to require remediation and tutoring in college, and fewer expected to earn B or better averages. The disabled were more likely to attend college to prepare for graduate and professional school and to aspire to the doctorate or a degree in divinity, to plan to major in agriculture, and to choose careers as doctors or farmers/ranchers. The disabled were also more likely to choose their particular institution because it offered them financial assistance, to pay for college through grants and scholarships, and to live with their parents or relatives. Substantially larger proportions felt that college sports should be de-emphasized, that the disadvantaged should be given preferential treatment in admissions, and that people should not obey laws which violate their values. They were also more likely to give high priority to the goal of winning recognition from colleagues, as well as to altruistic and social-action goals but less likely to want administrative responsibility over others.

### Private Universities

Among the characteristics that distinguish private universities as a group from other institutional types--and thus determine to a large extent the kinds of students they enroll--are selective admissions policies (hence, a large concentration of academically able students: Close to half of the 1978 freshmen made A averages in high school); high tuitions (hence, a large concentration of affluent students: Close to half of the 1978 freshmen came from families with incomes of \$30,000 or more a year); an emphasis on graduate and professional education (hence, a large concentration of students with high aspirations: About four-fifths of the 1978 freshmen aspired to an advanced degree); and the historically based mission of preparing an elite to meet national needs (hence, a preponderance of men: Only 43 percent of the 1978 nondisabled freshmen and 40 percent of the disabled freshmen were women). Thus, impressive past achievement, high socioeconomic status, and overwhelming ambition were among the characteristics that distinguished both disabled and nondisabled entrants to private universities from their counterparts at other institutional types.

Six percent of the total nondisabled sample and 5 percent of the total disabled sample entered private universities in 1978. Those with visual and unknown disabilities were somewhat overrepresented at these institutions, and those with learning and "other" disabilities were somewhat underrepresented. As at public universities, 5 percent of the disabled freshmen indicated they required architectural accommodations.

Virtually all freshmen were "traditional" in the sense of being between the ages of 17 and 20, being unmarried, and entering college directly after high school graduation (1 percent of the nondisabled and 2 percent of the disabled had delayed college entry by one year.) One percent of both groups were veterans.

Only about four-fifths of the freshmen were white, however, with Asians and those from "other" racial/ethnic backgrounds being somewhat overrepresented and Hispanics being somewhat underrepresented (especially among the disabled) relative to their proportions in the total samples. Moreover, Jews constituted 15 percent of both the disabled and nondisabled groups at private universities, but only 4 percent of the total samples. This concentration of Asians and Jews in these selective institutions accords with what we generally know about the high achievement motivation and emphasis given to education in both cultures; no conclusions can be drawn about the "other" racial/ethnic category, which is too heterogeneous to invite speculation. Both Protestants and Catholics were somewhat underrepresented. Moreover, private universities had the lowest proportion of freshmen considering themselves reborn Christians and the highest proportion saying they had no religious preference.

As mentioned, private university freshmen were more likely than any other group to come from affluent and well-educated families. Less than two-fifths (compared with about half of the total sample) estimated their parents' income to be under \$20,000 a year; about half the fathers and 30 percent of the mothers had a baccalaureate or better; indeed, 31-32 percent of the fathers and 12-15 percent of the mothers had a graduate degree. Both the disabled and the nondisabled were more likely than their counterparts at other institutional types to say their fathers were businessmen, college teachers, doctors, lawyers, and research scientists, though they were less likely than public university freshmen to say their fathers were engineers.

Similarly, their high school records were more impressive than those of any other group: Only 3 percent had not taken college preparatory programs; fewer than 10 percent had made C averages or ranked in the bottom half of

their graduating classes; they were relatively unlikely to have taken remedial work or to anticipate the need for remediation in college; and they were more likely than any other group to believe themselves very well prepared in all academic subjects (though almost half felt poorly prepared in vocational skills, and over one-third felt poorly prepared in musical and artistic skills). Despite their comparative lack of confidence in their musical skills, they were more likely than others to indicate that they played a musical instrument; they were also more likely to attend recitals or concerts, work in political campaigns, and take vitamins but unlikely to smoke.

In their reasons for going to college, private university freshmen clearly subscribed to the traditional missions of selective institutions: Thus, they were more likely than entrants to other institutional types to cite gaining a general education, become more cultured, learning more about things that interest them, meeting new and interesting people, and preparing for graduate or professional school; they were least likely of any group to cite making more money and getting a better job as very important motivations for college attendance. In addition, a relatively large proportion wanted to get away from home. They tended to make multiple applications and to be accepted by several institutions other than the one they were attending. They were attracted to their institution by its academic reputation, offer of financial assistance, and special educational programs.

Over three in five enrolled in private universities that were over 100 miles from their homes, and only one-fourth attended institutions within 50 miles of their homes. Thus, four-fifths (a higher figure than for any other group) lived in college dormitories; only 1 percent, however, lived in private apartments or rooms. Somewhat surprisingly, the nondisabled were more likely than their counterparts at public universities to live at home with parents or relatives.

Consistent with their youth and their affluent backgrounds, the great majority were dependent to some extent on their parents: For instance, 85 percent of the nondisabled and 80 percent of the disabled said they got at least \$600 worth of assistance from their parents. They mentioned a wide variety of financial sources to pay for college: parental aid, grants and scholarships, self-support, and loans. Nonetheless, 64 percent of both groups mentioned at least some concern about their ability to pay for their college education.

As indicated, their degree aspirations were very high: They were less likely than any other group to want no more than a baccalaureate and more likely than any other to aspire to a doctorate, medical degree, or law degree. In their selection of a probable major, they were more attracted than others to the traditional liberal arts: Thus, they were more likely than entrants to most other institutional types to name majors in biological and physical science, English, history/political science, other humanities, as well as in engineering and health professions but less likely to name business, education, agriculture, or "other technical" fields. Similarly, they more frequently planned on careers as doctors, lawyers, and research scientists; but relatively few wanted to be businesspersons, school teachers, farmers, health professionals, or nurses. They had some tendency to be undecided as to their probable major field and career choice and to anticipate changing major fields and careers and seeking vocational counseling while in college. They were also likely to anticipate high academic achievement (making a B average or better, being elected to an academic honor society, graduating with honors), joining a fraternity or sorority, living in a coeducational dormitory, being satisfied with college, and finding a job in their field; relatively few expected to transfer to another institution or to get married either while in college or within a year after college:

Entrants to private universities were least likely of any group to characterize themselves as middle-of-the-road politically and most likely to see themselves as liberal or conservative, with the former outnumbering the latter by three to two. They took a liberal position on most questions (for instance, student rights, women's issues, and sexual behavior) but, like public university entrants, were rather conservative on social equity issues (busing to achieve racial balance, preferential treatment for the disadvantaged, open admissions). In addition, relatively few believed that the wealthy should pay higher taxes, that urban problems can be solved only by huge investments of federal funds, that a national health care program should be initiated, and that college grades should be abolished. Thus, their views were markedly elitist.

Their life goals embraced a number of areas, including artistic and occupational achievement and political action, but they were relatively uninterested in having administrative responsibility over others, being very well-off financially, or succeeding in their own business.

As was also true among public university entrants, disabled freshmen at private universities were remarkably similar to their nondisabled counterparts. The chief differences were as follows. The disabled group included fewer Hispanics and Catholics but more Asians and more freshmen with "other" or no current religious preferences. They came from slightly lower socioeconomic backgrounds, and their fathers were less likely to be doctors and engineers and more likely to be college teachers. Though their academic records were comparably high, they lacked confidence to some extent, being more likely to anticipate needing remediation and tutoring and to feel poorly prepared in academic areas. (However, 29 percent of the disabled, compared with only 11 percent of the nondisabled, regarded themselves as

very well-prepared in vocational skills.) The nondisabled entrants to private universities were more likely than the disabled entrants to attend college in order to meet new and interesting people and to be able to make more money, whereas the disabled were more likely to go to college in order to get away from home. Consistent with this difference, a somewhat larger proportion travelled more than 500 miles to attend college. The disabled were more likely to express a preference for private apartments, whereas the nondisabled were more likely to express a preference for college dormitories. The disabled were more likely to say that other dependents from their families were attending college, to express major concern over their ability to pay for college, and to aspire to a doctorate. They were less likely to aspire to a baccalaureate or a medical degree or to be undecided in their career choice. Slightly larger proportions expected to drop out either temporarily or permanently and to seek vocational and personal counseling; 21 percent (compared with only 14 percent of the nondisabled) expected to have to work at an outside job while in college. Their political orientation was more likely to be liberal, conservative, or far left and less likely to be middle-of-the-road. On some questions, they took a more liberal position: For instance, larger proportions approved of federal action to control pollution, the legalization of abortion, the liberalization of divorce laws, casual sex, busing to achieve racial balance in the schools, and civil disobedience. Finally, they were more likely to endorse the life goals of becoming accomplished in a performing art, writing original works, having administrative responsibility over others, influencing social values and the political structure, promoting racial understanding, participating in community action programs, developing a meaningful philosophy of life, and keeping up-to-date with political affairs, but they were less concerned with being very well-off financially.

### Public Four-Year Colleges

The second most popular institutional type (after public two-year colleges), public four-year colleges enrolled 22 percent of the nondisabled sample and 20 percent of the disabled sample in 1978. Women accounted for 53 percent of the former group and 50 percent of the latter. Of the various disability groups, those with visual and unknown disabilities were somewhat overrepresented, and those with orthopedic, learning, and "other" disabilities somewhat underrepresented. Six percent of the disabled freshmen said they required architectural accommodations.

Virtually all the nondisabled freshmen were single and of traditional college age; 1 percent were veterans; 4 percent had graduated from high school earlier than 1978, and 1 percent had taken the GED test. Of the disabled freshmen, 4 percent were age 21 or older, 7 percent had delayed college entry, 2 percent were married, and 3 percent were veterans.

Only 82 percent of the nondisabled freshmen and 75 percent of the disabled freshmen were white. Thus, public four-year colleges had larger minority enrollments than any other institutional type, with Blacks and Hispanics being overrepresented. Indeed, larger proportions of these two groups entered public four-year colleges than entered community colleges. Asians, on the other hand, were underrepresented, especially among the disabled. Protestants were also somewhat overrepresented, whereas Catholics, Jews, and freshmen with no religious preference were somewhat underrepresented at these institutions. One-third of both disabled and nondisabled freshmen considered themselves reborn Christians.

In many respects, the profiles of disabled and nondisabled entrants to public four-year colleges resembled the norms for the two samples. For instance, 50 percent of the nondisabled freshmen and 43 percent of the dis-

abled freshmen estimated their parents' income to be \$20,000 or higher. Slightly more than one-fifth of both groups indicated that their mothers had a baccalaureate or better; 35 percent of the nondisabled and 30 percent of the disabled said their fathers had achieved this level of education.

Ten percent of the nondisabled and 14 percent of the disabled had taken an other-than-college-preparatory program in high school. The grade averages and class ranks of both groups were slightly higher than average; but their distribution with respect to remedial work taken in high school, perceived adequacy of preparation in various subjects, and anticipated need for remediation in college resembled the norm for their respective groups. Both disabled and nondisabled freshmen were somewhat more likely than average to say they jogged but less likely to smoke, drink beer, or take tranquilizers.

Their patterns with respect to college applications and acceptances and reasons for attending college resembled the overall patterns for the disabled and nondisabled samples. As to their reasons for choosing their particular institution, they were more likely than average to mention its low tuition and less likely to mention its academic reputation. After community college students, they were most likely to live with parents or relatives. Their dependence on their parents was about average: Slightly over two-thirds of both groups got support from their parents to help pay for college, and they were more likely than average to rely on "other" sources but less likely than average to get grants and scholarships or to take loans. Disabled freshmen at public four-year colleges were more likely than their nondisabled counterparts to express major concern about their ability to pay for college.

Larger than-average proportions of both groups aspired to a master's degree, but they were less likely than were their counterparts at private four-year colleges to aspire to a doctorate or professional degree, especially

a medical degree. Reflecting the historical mission of many public four-year colleges as teacher training institutions, the proportions planning to major in education and to become elementary or secondary school teachers were higher than at any other institutional type. Lower-than-average proportions planned to major in agriculture or to become farmers/ranchers or doctors. Otherwise, their distribution with respect to probable major fields and career choice resembled the norm. They were somewhat more likely than average to anticipate transferring to another institution, needing extra time to complete the degree, seeking personal counseling, and getting married within a year after college.

Their distribution with respect to political orientation also resembled the norm, and the proportions subscribing to particular opinions deviated by no more than a few percentage points from the proportions for the total nondisabled and disabled samples. They were somewhat less likely than average to give high priority to the goals of succeeding in their own business and raising a family.

In addition to including a larger proportion of "nontraditional" (older, married, nonwhite) students, the disabled group at public four-year colleges came from slightly lower socioeconomic backgrounds. For instance, 50 percent (compared with 43 percent of the nondisabled group) said their fathers had no more than a high school education. Their fathers were less likely than the fathers of the nondisabled to be businessmen, teachers, or lawyers, but more likely to be physicians, farmers, and semiskilled workers or laborers. Because the median parental income reported by the disabled tended to be slightly lower, it is not surprising that they were more likely to get grants and scholarships and to express major financial concern. They were less likely, however, to have taken college preparatory programs, made A averages, and ranked in the top quarter of their graduating classes, and they had less

confidence in the adequacy of their high school preparation, except in vocational skills. As to their reasons for attending college, 15 percent of the disabled, but only 10 percent of the nondisabled, wanted to get away from home; thus, they were less likely to live with parents or relatives and more likely to live in college dormitories. The disabled had somewhat lower degree aspirations, in that they were more likely to plan on no degree or on only an associate degree and less likely to aspire to a baccalaureate; however, slightly larger proportions wanted a doctorate or law degree. They were more likely to plan on becoming artists or engineers and less likely to aspire to careers in business, and they were somewhat more likely to anticipate high achievement such as graduating with honors. They were more likely to be liberal or far left in their political orientation. Although disabled freshmen as a group tended to be somewhat more liberal than the nondisabled on certain questions, the discrepancies between the two groups were particularly marked among public four-year college entrants. Thus, significantly larger proportions of the disabled felt that the wealthy should pay higher taxes, that abortion should be legalized, that marijuana should be legalized, that divorce laws should be liberalized, that couples should live together before getting married, that public colleges should have open-admissions policies, and that college sports should be de-emphasized. This liberalism was also manifested in their more activist stance with respect to different life goals: Thus, they were more likely than were their nondisabled counterparts to give high priority to influencing social values and the political structure, becoming involved in programs to clean up the environment and in community action programs, and working to promote racial understanding.

### Private Four-Year Colleges

This category encompasses a diverse group of institutions, ranging from highly selective liberal arts colleges with a national reputation to "invisible" nonselective sectarian institutions. This heterogeneity may account for some of the observed anomalies in the characteristics of freshmen enrolling in private four-year colleges, who in some ways resemble the highly able and affluent freshmen who enroll in universities but share certain characteristics that typify two-year college entrants.

Private four-year colleges enrolled 17 percent of both the disabled and the nondisabled samples, with women predominating (52-53 percent). Those disabled freshmen requiring architectural accommodations were somewhat less inclined to attend these institutions than other types, making up only 4 percent of the disabled enrollments. Those with visual, hearing, and multiple disabilities were somewhat overrepresented, and those with unknown disabilities were somewhat underrepresented.

As with public four-year college freshmen, virtually all the nondisabled were unmarried 17-20-year-olds; 96 percent had graduated from high school in 1978. The disabled group included more nontraditional students, in that 3 percent were age 21 or over, 1 percent were married, and 7 percent had graduated from high school earlier than 1978. One percent of both groups were veterans.

Minority students constituted 15 percent of the nondisabled entrants and 17 percent of the disabled entrants, with Asians being overrepresented in both groups, Hispanics being underrepresented among the disabled, and those from "other" racial/ethnic backgrounds being overrepresented among the nondisabled and underrepresented among the disabled. Protestants and those with "other" religious preferences were somewhat overrepresented,

whereas Jews and Catholics were somewhat underrepresented, among public four-year college entrants. Close to two in five were reborn Christians.

Freshmen at private four-year colleges came from relatively high socioeconomic backgrounds, though not so high as those of university freshmen. For instance, about three in ten estimated their parents' income to be over \$30,000; 44 percent of both groups said their fathers had at least a baccalaureate. Their fathers were more likely than average to be physicians, lawyers, and clergymen and less likely than average to be engineers and military personnel.

The same general comment can be made about their high school preparation. They were more likely than their counterparts at public four-year colleges, but less likely than those at public and private universities, to have taken a college preparatory program, made A averages, and ranked in the top quarter of their classes. However, they were generally no more likely than public four-year college freshmen to perceive themselves as being well-prepared in academic subjects, no less likely to have taken remedial work in high school, and only slightly less likely to anticipate needing remedial work. They were more likely than average to play a musical instrument, attend religious services, jog, and take vitamins, and a relatively large proportion worked in a political campaign.

Like university freshmen, freshmen at private four-year colleges tended to mention traditional "liberal arts" reasons for attending college: gaining a general education, learning about things that interest them, becoming more cultured, meeting new and interesting people. They also wanted to prepare themselves for graduate or professional school but were relatively uninterested in getting a better job or making more money. They tended to make multiple applications and to get accepted by several institutions besides the one they

were actually attending, which they chose because of its academic reputation and offer of financial assistance. They were more likely than any other group except private two-year college freshmen to be recruited by a college representative; they were often influenced in their college choice by other people (relatives, alumni, friends). Over half (compared with slightly more than one-third of the total samples) attended colleges that were located over 100 miles from their homes; about three-fourths lived in college dorms, 16-17 percent with parents or relatives, and 4 percent in private housing. Their dependence on their parents was about average, except that over seven in ten said they got at least \$600 in assistance from their parents, who were named as a source of college support by 77 percent of the disabled and 79 percent of the nondisabled. Like the freshmen at private universities, they drew on a variety of other sources of support as well: They were more likely than any other group to get loans, and larger-than-average proportions got grants and scholarships or expected to draw on earnings or savings from employment. Consequently, a relatively large proportion expected to get jobs to pay college expenses. Despite the various sources they have to draw on, they were more likely than any other group to express major concern about their ability to pay for college (18 percent of the nondisabled and 22 percent of the disabled) and least likely to say they felt no concern.

The degree aspirations of private four-year college entrants were high (though not so high as those of private university entrants), with larger-than-average proportions aspiring to a master's, doctoral, or professional degree. Their major field choices reflected the liberal arts curricula of the colleges they attended, with larger-than-average proportions planning to major in biological sciences, English, history/political science, and other humanities; the social sciences were more popular with this group

than with any other. Relatively few were interested in engineering or in "other technical" and "other nontechnical" fields. Larger-than-average proportions planned to become doctors, lawyers, and clergy or were undecided about their future careers. Thus, about 15 percent expected to change majors and career choices in college. Like university entrants, they tended to anticipate achieving academically (earning at least a B average, graduating with honors, being elected to an honor society), joining a fraternity or sorority, and being satisfied with college. Relatively large proportions expected to be elected to a student office, to get married within a year after college, and participate in student protests.

As was pointed out, many private four-year colleges are operated by or affiliated with religious denominations, and the religious orientation of many of these freshmen was reflected in their opinions on current issues: Thus, they were more likely than others to disapprove of legalizing abortion, liberalizing divorce laws, legalizing marijuana, living together before marriage, or having casual sex. Lower-than-average proportions felt that urban problems can be solved only by huge outlays of federal money or that a national health care plan should be established. On the liberal side, a relatively large proportion thought the death penalty should be abolished, and they were more likely than university entrants to favor busing to achieve racial balance, open admissions at public colleges, and preferential treatment in admissions for the disadvantaged. Their life goals reflected high social consciousness. Thus, they were more likely than most others to give high priority to helping others, influencing social values and the political structure, promoting racial understanding, participating in community action programs, and keeping up-to-date with political affairs. They also tended to emphasize the personal goals of developing a meaningful philosophy of life.

and raising a family. On the other hand, relatively few were interested in winning recognition from colleagues, having administrative responsibility over others, or succeeding in their own business. Private four-year college entrants were somewhat less likely than average to characterize themselves as middle-of-the-road and more likely to call themselves conservative, although a fairly large proportion (especially of the disabled) regarded themselves as liberal.

Differences between disabled and nondisabled entrants to private four-year colleges (other than those general differences--such as the greater proportions of older, married freshmen who have not taken a college preparatory program and who have delayed entry to college--that characterize the total samples) were few. The disabled group included fewer whites and Hispanics and more Asians. The fathers of the disabled freshmen were less likely to be businessmen or teachers and more likely to be lawyers. Though they came from slightly lower-income backgrounds, made slightly lower grades in high school, were more likely to have taken remedial work, nonetheless the disabled were as likely to feel very well prepared (except in mathematics) and, indeed to rate their preparation in history/social studies, vocational skills, musical and artistic skills, and study habits higher. The disabled were less interested than the nondisabled in business (as a career or a major), and more interested in history/social studies and other humanities (as probable majors) and in law and college teaching (as careers). They were less likely than their nondisabled counterparts to be middle-of-the-road politically and more likely to be liberal. Larger proportions approved of open admissions and of civil disobedience, and fewer gave high priority to the life goals of being financially very well-off and raising a family.

### Public Two-Year Colleges

Although much has already been said in this report about the role of the community college in opening access to higher education for many "non-traditional" students who might otherwise not have gone to college at all, one should not lose sight of the fact that the majority of entrants to public two-year colleges are "traditional" freshmen who come from middle-income families and whose high school records qualify them for entry to more selective institutions. Indeed, many of these freshmen enroll in transfer programs and will eventually complete the baccalaureate elsewhere. Moreover, as the costs of attending college continue to rise, as the rate of return on a college education falls because of reduced market demand for degree-holders, and as public support of higher education drops, it seems likely that the community college will be selected by even greater proportions of young people who might previously have gone elsewhere to college.

In 1978, public two-year colleges were the predominant institutional type, enrolling 34 percent of the nondisabled sample and 38 percent of the disabled sample, with those having learning, orthopedic, "other," multiple, and hearing disabilities being overrepresented and those with visual and unknown disabilities being underrepresented. Over half (53 percent) of all those disabled freshmen requiring architectural accommodations entered these institutions; thus, they constitute 8 percent of all disabled entrants. The gender composition of the two groups differed: Women made up 51 percent of the nondisabled group (exactly their figure in the total disabled population) but only 46 percent of the disabled group (compared with 49 percent among all disabled freshmen).

Public two-year colleges enrolled larger proportions of "nontraditional" freshmen than any other institutional type: Thus, 5 percent of the nondisabled and 12 percent of the disabled were age 21 or over (indeed, 1 percent of the

nondisabled and 5 percent of the disabled were age 30 or older); 2 percent of the nondisabled and 6 percent of the disabled were married; 2 percent of the nondisabled and 4 percent of the disabled were veterans.

The proportions of whites among public two-year college freshmen were higher than was the case at private universities or public and private four-year colleges: Eleven percent of the nondisabled and 13 percent of the disabled freshmen were nonwhite, with those from "other" racial/ethnic backgrounds being overrepresented but with the other minority groups (especially Blacks) being underrepresented. Community colleges were the only institutional types at which Catholics were overrepresented, relative to their proportions among all freshmen; Protestants and Jews were underrepresented, as were reborn Christians. Freshmen having no religious preference were underrepresented among the nondisabled but overrepresented among the disabled.

The socioeconomic status of many of these freshmen tended to be low: Only 14 percent reported parental incomes of \$30,000 or more; 58 percent of the nondisabled and 65 percent of the disabled came from families whose incomes were under \$20,000. Similarly, about three-fifths of the fathers and two-thirds of the mothers had no more than a high school education. The proportions of fathers who were businessmen, physicians, or military personnel were lower than average; the proportions who were skilled or semiskilled workers or laborers were relatively high.

The high school records of many public two-year college entrants were also relatively poor. Nine percent of the nondisabled and 14 percent of the disabled had graduated from high school earlier than 1978 and thus delayed entry to college; 1 percent of the nondisabled and 3 percent of the disabled had passed the GED test. One-fifth of the nondisabled and 30 percent of the disabled had taken other-than-college-preparatory programs. Their grade

averages and class ranks tended to be low. They were slightly more likely than average to have taken remedial work (a mean of about 12 percent) but no more likely than average to anticipate taking remediation or tutoring in college. They lacked confidence in the adequacy of their high school preparation, especially in reading and composition. They were more likely than average to indicate that they smoked, but the proportions saying they played a musical instrument, attended concerts or recitals, jogged, worked in political campaigns, or attended religious services during the previous year were lower than average.

Their reasons for attending college tended to be practical (to be able to get a better job and make more money); in addition, 6 percent of the non-disabled and 12 percent of the disabled said they were going to college because they could not find a job. Most had applied to, and been accepted by, no other, or only one other, institution. As reasons for choosing a particular institution, low tuition and the desire to live at home were mentioned more frequently by these freshmen than by entrants to other institutional types, whereas the college's academic reputation and offer of financial aid were mentioned less often than average. The advice of a guidance counselor was also a relatively important consideration.

Since the accessibility of the community college is one of its main attractions, it is not surprising that seven in ten of these freshmen said that their colleges were within 50 miles of their homes. Moreover, a much larger proportion of public two-year college entrants than of any other group (61 percent of the nondisabled, 55 percent of the disabled) lived with parents or relatives (though they were more likely than any other group to indicate a preference for living in other private housing), and a much smaller proportion lived in college dormitories.

Despite the high proportions that lived with their parents, relatively few had been listed as an exemption on their parents' income tax return or received at least \$600 in assistance from their parents and they were most likely of any group to say that no other dependents from their families were attending college. Moreover, they were less likely than any other group to say they got parental aid to help pay for their college costs but also relatively unlikely to get grants and scholarship and loans or to support themselves through employment. Nonetheless, they were no more inclined than average to feel major concern about their ability to pay for college.

As one would expect, community college entrants were less likely than any other group to aspire to advanced degrees and more likely to say either that they would get no degree or only an associate degree. They were somewhat more likely than public four-year college entrants to plan on a baccalaureate. Business was a particularly popular choice: 30 percent planned to major in it, and 20 percent planned to enter business as a career. Other relatively popular major field choices were agriculture and "other technical" fields. Larger-than-average proportions expected to become farmers/ranchers, engineers, nurses and health professionals or to go into "other" fields.

Community college entrants were markedly less likely than average to anticipate high academic achievement (making a B average or better, being elected to an academic honor society, graduating with honors); they were also less likely to expect to be elected to a student office, join a fraternity or sorority, or be satisfied with college. In some ways, they seemed to be more goal-directed than were freshmen at universities and four-year colleges, in that relatively few thought they would change major fields or career choices or seek vocational counseling. But they were more likely

than any other group to say there was a very good chance they would have to work at an outside job while in college (30 percent of the nondisabled, 24 percent of the disabled).

Greater-than-average proportions of freshmen entering public two-year colleges considered themselves to be middle-of-the-road politically, and smaller-than-average proportions identified themselves as liberal or conservative. Nonetheless, they were more inclined than others to adopt a liberal position on certain questions: higher taxes for the wealthy; national health care; federal investments to solve urban problems; living together before marriage; liberalizing divorce laws. On the conservative side, they were more likely than any other group to feel that the courts are too concerned with the rights of criminals. On campus questions, their position is the reverse of that taken by university freshmen: that is, they support social equity (giving preferential treatment to the disadvantaged, having open admissions at all public colleges) but not student rights and freedoms.

They also stand in direct contrast to private university freshmen in that the proportions endorsing various life goals is relatively small: They are least likely of any group to rate as very important or essential the goals of becoming an authority in their field, influencing social values and the political structure, helping others in difficulty, participating in community action programs, helping to promote racial understanding, developing a meaningful philosophy of life, and keeping up-to-date with political affairs. On the other hand, they were more likely than any other group to want to succeed in their own business, and relatively large proportions endorsed being very well-off financially and having administrative responsibility over others.

The most notable differences between the disabled and the nondisabled

groups at public two-year colleges, beyond those that have already been mentioned or that apply to the total groups, were as follows: The disabled were much more likely to be "nontraditional" (older, married, veterans) and to express no religious preference. They were more likely to have taken other-than-college-preparatory courses and make C averages. They were somewhat more likely to go to college in order to get a general education and to meet new and interesting people; they more frequently chose their college for its academic reputation and offer of financial aid. The disabled more often lived in private housing and expressed a preference for these residential arrangements. Slightly higher proportions aspired to a doctorate, medical, or law degree; slightly more planned to become doctors. Finally, they were more likely than any other group to favor legalizing abortion and marijuana.

#### Private Two-Year Colleges

As with private four-year colleges, this category comprises a diverse group of institutions: military academies, business schools, technical institutes, finishing schools, and sectarian colleges. Despite this diversity, these colleges make up the smallest segment of American higher education, enrolling 4 percent of the total nondisabled group and 5 percent of the total disabled group in 1978; 4 percent of the disabled entrants required architectural accommodations. Those with learning, hearing, speech, other, and multiple disabilities were overrepresented, and those with orthopedic, visual, and unknown disabilities were underrepresented. One noteworthy feature of these institutions is that they are female-dominated: 62 percent of the nondisabled freshmen and 59 percent of the disabled freshmen at private two-year colleges were women.

Relatively large proportions of nontraditional freshmen enrolled in

private two-year colleges: 1 percent of the nondisabled and 6 percent of the disabled were married (and, of the latter group, 53 percent were not living with their spouses). However, only 1 percent of the nondisabled and 2 percent of the disabled were veterans.

Of the nondisabled freshmen, only one-tenth were nonwhite; both Hispanics and those of "other" racial/ethnic backgrounds were underrepresented, relative to their proportions in the total sample. By way of contrast, fully one-quarter of the disabled freshmen were nonwhite, with all minority groups except Hispanics being overrepresented. Private two-year colleges were dominated by Protestants; all other categories of religious preference were underrepresented. Moreover, the proportions considering themselves to be reborn Christians were much higher than at any other institutional type (47 percent of the nondisabled, 54 percent of the disabled).

Although private two-year college entrants were more likely than their counterparts at community colleges to report parental incomes of \$30,000 or more (20 percent of the nondisabled, 17 percent of the disabled), the proportion of disabled freshmen who estimated their parents' income to be less than \$8,000 (25 percent) was much larger than that for any other group. Similarly, though about one-quarter of both disabled and nondisabled entrants to both public and private two-year colleges said their fathers had at least a baccalaureate, disabled freshmen at private two-year colleges were more likely than any other group to say their fathers had no more than a high school education (63 percent, compared with an average of 49 percent for the total disabled sample and 45 percent for the total nondisabled sample). In short, a substantial proportion of the disabled entrants to private two-year colleges were of low socioeconomic status.

Private two-year college freshmen were less likely than community college

freshmen to have graduated from high school earlier than 1979 (6 percent of the nondisabled, 10 percent of the disabled); 1 percent of the nondisabled and 2 percent of the disabled had passed the GED test; and 1 percent of the nondisabled had never graduated from high school. Twenty-three percent of nondisabled and 28 percent of the disabled had taken an other-than-college preparatory program in high school. About one-third of both groups had made no better than a C average and had ranked in the bottom half of the graduating class. The disabled were considerably more likely to have taken remedial work in high school and somewhat more likely to anticipate needing remediation at the college level (except in science, where 17 percent of the nondisabled but only 14 percent of the disabled expected to need remediation). The disabled were less confident of the adequacy of their preparation in reading and composition, history and social studies, and vocational skills; but they were more likely than any other group to feel well prepared in musical and artistic skills.

As very important reasons for going to college, private two-year college freshmen were more likely than entrants to other institutions to say that their parents wanted them to attend, that they wanted to get away from home, and that they wanted to improve their reading and study skills; relatively large proportions wanted to become more cultured and to be able to get better jobs. Like their counterparts at community colleges, they were also likely to say they were attending college because they could not find a job. They were the most likely to any group to say they had applied to no college other than the one they were attending and least likely to say they were in their first-choice institutions. In choosing their institution, they were likely to have been influenced by other people (friends, teachers, guidance counselors, and college recruiters) or by the offer of financial

assistance, but relatively few said that the institution's academic reputation, an offer of financial assistance, or the desire to live at home motivated their choosing the particular institution. They were less likely than average to attend colleges within ten miles of their homes; the non-disabled were especially likely to say that their homes were between 11 and 50 miles from home, whereas the disabled tended to travel greater distances: 15 percent (compared with only 8 percent of the nondisabled) said their home and institutions were more than 500 miles apart. Larger-than-average proportions of both groups planned to live in college dormitories during the freshman year, and smaller-than-average proportions planned to live at home or in other private housing.

Not only were they more likely than their counterparts at public two-year colleges to say they got at least \$600 worth of assistance from their parents, but also they were more likely to cite parental aid as a source of college support; in addition, relatively large proportions got grants and loans, and they were more likely than most other groups to draw on "other" sources. Their tendency to express concern about their ability to pay for college was about average.

The degree aspirations of the disabled and the nondisabled differed considerably. The disabled were much more likely to say they would get no degree (7 percent, compared with 2 percent of the nondisabled) and somewhat more likely to aspire to a doctorate or a professional degree, especially in divinity (6 percent, versus no more than 1 percent of any other group). On the other hand, close to one-fifth of the nondisabled, but only 6 percent of the disabled, planned to get an associate degree. Both the disabled and the nondisabled freshmen at private two-year colleges were more likely than freshmen at other institutional types to plan to major in business, though

only 20 percent of the nondisabled and 14 percent of the disabled planned to enter careers in business. Other relatively popular major fields were education, fine arts, and "other nontechnical" fields; common career choices were artist, school teacher, and clergy; 7 percent of the disabled, but only 3 percent of the nondisabled, wanted to become health professionals. Finally, close to one-fifth of the disabled, but only 12 percent of the nondisabled, were undecided about their career plans. Thus, it is not surprising that relatively large proportions of the disabled thought there was a good chance they would change majors and career choices while in college. They were also more inclined than the nondisabled to think they would fail one or more courses and need extra time to complete the baccalaureate. Private two-year college entrants were more likely than any other group to anticipate transferring to another institution and getting married while in college or within a year after college. They were less likely than average to expect to get a job to help pay for college expenses, live in a coeducational dorm, find an appropriate job after college, or achieve academically (graduating with honors, being elected to an academic honor society, making at least a B average).

Larger-than-average proportions of the disabled characterized themselves as conservative, whereas larger-than-average proportions of the nondisabled characterized themselves as middle-of-the-road; in addition, 5 percent of the nondisabled said they were far left in their political leanings. Except on social equity issues (busing to achieve racial balance in the schools, preferential treatment in admissions for the disadvantaged, open admissions at all public colleges), both groups tended to take conservative positions (on student rights, sexual behavior, and equality for women, for example), although a relatively large proportion favored national health care. This

conservatism may be attributable to the religiosity of many private two-year college entrants (as reflected in the high proportion of reborn Christians and of students saying they had attended religious services frequently during the previous year). Where the two groups differed, the disabled held more liberal (or less traditional) views than the nondisabled; thus, the disabled were more likely to believe that heavy federal outlays are needed to solve urban problems, that the wealthy should pay more taxes, that the death penalty should be abolished, that college grades should be abolished, that college sports should get less emphasis, and that people should not obey laws that violate their personal values.

The two groups also differed in their life goals, with the disabled being much more likely than any other group to give high priority to the artistic goals of writing original works and creating artistic works such as painting and sculpture. In addition, close to half of the disabled, but only 36 percent of the nondisabled, wanted to help promote racial understanding. The nondisabled were more achievement- and status-oriented, with relatively large proportions endorsing such goals as becoming an authority in one's field, winning recognition from colleagues, having administrative responsibility over others, and being very well-off financially. Both groups were concerned with influencing social values and the political structure, helping others, and raising a family.

As this discussion has suggested, differences between the disabled and the nondisabled were more marked about private two-year college freshmen than among freshmen at other institutional types. The disabled group included a much larger proportion of minority students and of students from disadvantaged backgrounds (as measured by parental income and father's education). Perhaps these background differences account for the strong differences in aspirations, expectations, opinions, and life goals.

## Chapter 20

### Implications of the Study

For the U.S. higher education system and for the handicapped of the nation, this is a pioneering era. At long last, the law requires that colleges and universities receiving federal funds make their facilities and programs accessible to the handicapped. At long last, the disabled are being extended the opportunity to pursue higher education. Responsibility for their success as college students is shared by the disabled themselves and by the academic institutions that enroll them.

The findings from this study provide the first nationally representative, data-based information on disabled freshmen as they enter college. The results of the follow-up survey should permit us to draw an even more comprehensive and detailed picture of these students as they progress through college and to define more precisely their needs. For instance, the freshman data indicate that, even though only 6 percent of all handicapped freshmen require architectural accommodations, this group is fairly evenly distributed among institutional types; thus, every type of higher education institution has an obligation to provide such facilities. The follow-up survey should yield information on the nature of the accommodations required by the remaining 94 percent of the handicapped group. Since the additional costs of complying with federal law accrue to colleges and universities at a time when they are already hard-pressed by financial constraints, it is imperative that academic administrators have a clear idea of which accommodations are most useful, and to whom.

The findings already produced by this study of the disabled college student have important implications not only for academic institutions but for other agencies and segments of U.S. society as well. These implications, and the empirical evidence on which they rest, are summarized in the remainder of this chapter.

1. Since comparisons of disabled and nondisabled 1978 freshmen show that the two groups do not differ markedly in their backgrounds, previous academic performance, values and attitudes, or educational and career aspirations, it follows that the institution bears as great a responsibility for the ultimate success or failure of the disabled student as it does for the educational development of all its students. This means that colleges and universities must marshal their human and material resources to facilitate, rather than hinder, the progress of the disabled.

2. Differences among groups according to their disability area(s) underscore the need for policymakers to address the question of whether they should formulate general provisions and policies for all handicapped students or should instead consider special provisions and policies that take these differences into account.

3. Typically, disabled freshmen enter college feeling less confident of their academic ability and high school preparation than do nondisabled freshmen. Thus, institutional policymakers who are committed to offering the handicapped access to more than a revolving door face questions not covered by federal law: Having admitted the disabled, to what extent are institutions responsible for providing them with remediation in subjects

where they are weak? At the very least, academic institutions could provide their freshmen with lists of private tutors, community-based options for remediation, and so forth. Such a service, while costing the institutions very little, could go a long way toward meeting the special needs of the disabled.

4. Since so many disabled freshmen seemed to lack confidence in the adequacy of their academic preparation, elementary and secondary schools need to reassess the quality of the education they are providing to their handicapped students. Since a relatively large proportion of disabled freshmen had not taken a college preparatory program in high school, the lower schools also need to evaluate their counseling and guidance programs to ascertain whether disabled students are being discouraged by their teachers and counselors from considering college as an option.

5. Although the disabled 1978 freshmen were just as career-oriented as their nondisabled counterparts, evidence indicates that they had a harder time finding jobs. For instance, they were less likely to mention savings or earnings from employment and College Work-Study as sources of support, less likely to expect they would work during college to help meet college costs, but more likely to say they were attending college because they could not find a job or because they had nothing better to do. Clearly, U.S. society needs to improve its record for employing the handicapped. Higher education institutions should lead the way, not only by offering on-campus jobs to their disabled students but also by making direct appeals to the employers in their communities.

6. These analyses indicate that disabled 1978 freshmen tended to come from slightly lower socioeconomic backgrounds than their nondisabled counterparts and were somewhat more likely to express major concern about their ability to pay for college. In addition, a larger proportion relied on grants and scholarships. At a time when federal support for higher education is being reduced, it is important that financial aid programs that benefit disabled students be maintained. Cutbacks in such programs will ultimately work to the detriment of U.S. society as a whole.

7. That men slightly outnumbered women among disabled 1978 freshmen, whereas women slightly outnumbered men among the nondisabled, suggests that many disabled women who have the potential for college are failing to realize this potential, perhaps because they receive little encouragement to do so from their parents, teachers, and counselors. Whatever the explanation, the implication is that colleges and universities should develop outreach programs to recruit these women; it may also be necessary to provide them with special support services once they have enrolled in college.

8. The differential enrollment patterns of freshmen from different disability groups suggest that some types of institutions need to do more to reach a wider range of disabled students. For instance, relative to their proportion among all entering freshmen, the orthopedically disabled were underrepresented at all types of institutions except public two-year colleges. Among disabled entrants to private universities--generally the most selective and elite of institutional types--those with orthopedic, learning, "other," and multiple disabilities were underrepresented. College officials concerned with opening access to the disabled may want to

examine the record of their own institutions and to take steps toward recruiting specific groups of disabled students.

9. In 1978, 38 percent of the disabled freshmen (compared with 34 percent of the nondisabled) entered public two-year colleges, as did 53 percent of those disabled freshmen requiring architectural accommodations. Community colleges are to be commended for opening access to the disabled, as well as to other "nontraditional," "high-risk" groups such as older students, married students, veterans, the economically disadvantaged, and the educationally underprepared. Nonetheless, research evidence shows that public two-year colleges have negative effects on student persistence; that is, a student is more likely to drop out of higher education if he/she enrolls in a community college than if the same students enrolls in some other type of institution. Obviously, it is frivolous to recommend that students avoid enrolling in community colleges. A more realistic suggestion is that reforms be initiated within community colleges to increase student persistence. For example, community colleges might revitalize their transfer function by establishing as one option a "transfer-college-within-a-college," wherein students aspiring to a baccalaureate can be brought together.

10. The overrepresentation of the disabled at two-year colleges does not let four-year colleges and universities off the hook. Three-fourths of the 1978 disabled freshmen enrolling at community colleges aspired to at least a baccalaureate. If they are to realize these aspirations, they must be seen as an important group in articulation/transfer efforts.

11. One specific feature of community colleges that may in part explain their negative effect on persistence is that most of them are commuter institutions and do not provide residential facilities for their students. A body



of research indicates that students who live in on-campus housing (e.g., college dormitories) are more likely than those who live off campus (e.g., with parents or other relatives; in private apartments) to persist in college, probably because they have a greater opportunity to become deeply involved in college life. Many disabled freshmen--especially those with speech and learning disabilities--miss this opportunity because they do not live in campus residential facilities. Thus, community colleges and other institutions where dormitory facilities are scarce should seek other ways of involving commuter students in campus life: for instance, by providing centers--similar to the women's centers and international houses that now exist on many campuses--where students can meet together informally.

12. Finally, some effort should be made to develop funding formulas that allocate resources in such a way that academic institutions serving the handicapped receive more funds to accommodate them.

Appendices

215562

PLEASE PRINT: YOUR NAME \_\_\_\_\_  
 First Middle or Maiden Last  
 HOME STREET ADDRESS \_\_\_\_\_  
 CITY STATE ZIP CODE Area Code Home Phone No.

When were you born?  
 [ ] [ ] [ ]  
 Month Day Year  
 (01-12) (01-31)

1978 STUDENT INFORMATION FORM

DIRECTIONS

Your responses will be read by an optical mark reader. Your careful observance of these few simple rules will be most appreciated.

- Use only black lead pencil (No. 2 or less).
- Make heavy black marks that fill the circle.
- Erase cleanly any answer you wish to change.
- Make no stray markings of any kind.

EXAMPLE:

Will marks made with ball pen or fountain pen be properly read? Yes  No

Dear Student:

The information in this form is being collected as part of a continuing study of higher education conducted jointly by the American Council on Education and the University of California at Los Angeles. Your voluntary participation in this research is being solicited in order to achieve a better understanding of how students are affected by their college experiences. Detailed information on the goals and design of this research program are furnished in research reports available from the Laboratory for Research on Higher Education at UCLA. Identifying information has been requested in order to make subsequent mail follow-up studies possible. Your response will be held in the strictest professional confidence.

Sincerely,

*Alexander W. Astin*

Alexander W. Astin, Director  
 Cooperative Institutional Research Program

DO NOT MARK IN THIS AREA

⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
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MARK IN THIS AREA ONLY IF DIRECTED

⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

GRP. CODE

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1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

5. Was your high school program: (Mark one)

College preparatory?   
 Other? (For ex., vocational)

6. What was your average grade in high school? (Mark one)

A or A+  B-   
 A  C+   
 B  C   
 B  D

7. How well do you feel that your high school prepared you in the following areas:

(Mark one in each row) Vary Well Fairly Well Poorly

Mathematical skills

Reading and composition

Foreign languages

Science

History, social sciences

Vocational skills

Musical and artistic skills

Study habits

11. Have you had, or do you feel that you will need, any special tutoring or remedial work in any of the following subjects? (Mark all that apply)

English	<input type="radio"/>	<input type="radio"/>	Social studies	<input type="radio"/>	<input type="radio"/>
Reading	<input type="radio"/>	<input type="radio"/>	Science	<input type="radio"/>	<input type="radio"/>
Mathematics	<input type="radio"/>	<input type="radio"/>	Foreign language	<input type="radio"/>	<input type="radio"/>

12. How many miles is this college from your permanent home? (Mark one)

5 or less  51-100   
 6-10  101-500   
 11-50  More than 500

13. Where do you plan to live during the fall term? If you had a choice, where would you have preferred to live?

(Mark one in each column) Plan To Live Prefer To Live

With parents or relatives

Other private home, apt. or rm.

College dormitory

Fraternity or sorority house

Other campus student housing

Other

14. Is this college your: (Mark one)

First choice?  Less than third choice?   
 Second choice?    
 Third choice?

15. To how many colleges other than this one did you apply for admission this year?

No other  1  3  5   
 2  4  6 or more

Note: If you applied to no other college, skip to item 17 on the next page

16. How many other acceptances did you receive this year? (Mark one)

None  1  3  5   
 2  4  6 or more

1. Your sex: Male  Female

2. Are you a veteran? (Mark one) No  Yes

3. How old will you be on December 31 of this year? (Mark one)

16 or younger  21   
 17  22   
 18  23-25   
 19  26-29   
 20  30 or older

4. In what year did you graduate from high school? (Mark one)

1978  Did not graduate but passed G.E.D. test   
 1977  Never completed   
 1976  1975 or earlier  high school

(Note: Please check that your pencil markings are completely darkening the circles. Do not use pen or make ✓'s or X's. Thank You.)

8. Are you enrolled (or enrolling) as a:

(Mark one) Full-time student?   
 Part-time student?

9. Prior to this term, have you ever taken courses for credit at this institution?

Yes  No

10. Since leaving high school, have you ever taken courses at any other institution?

(Mark all that apply in each column) For Credit Not for Credit

No

Yes, at a junior or cmty. college

Yes, at a four-year college or university

Yes, at some other postsecondary school (For ex., technical, vocational, business)

17. How much of your first year's educational expenses (room, board, tuition, and fees) do you expect to cover from each of the sources listed below?

(Mark one answer for each possible source)

Parental or family aid, or gifts  None  \$1-\$499  \$500-\$999  \$1,000-\$1,499  \$1,500-\$2,000  Over \$2,000

Grants or Scholarships:

Basic Educational

Opportunity Grant

Supplemental Educational

Opportunity Grant

State scholarship or grant

College grant (other than above)

Other private grant

Loans:

Fed. guaranteed student loan

Nat'l direct student loan

Other college loan

Other loan

Work and Savings:

College Work-Study grant

Other part-time work while attending

Full-time work while attending

Savings from summer work

Other savings

Spouse

Your G.I. benefits

Your parent's G.I. benefits

Social secur. dependent's benefits

Other

18. Please answer the following questions regarding BEOG (Basic Educational Opportunity Grant) and GSL (Guaranteed Student Loan) financial aid programs. (Mark all that apply in each column)

	BEOG Grants	GSL Loans
I have heard of this program	<input type="radio"/>	<input type="radio"/>
I applied for aid from this program	<input type="radio"/>	<input type="radio"/>
I qualified for aid in this program (whether or not I applied)	<input type="radio"/>	<input type="radio"/>

19. Were you last year, or will you be this year:

Living with your parents (for more than two consecutive weeks)  Yes  No

Listed as an exemption on your parents' Federal Income Tax Return

Receiving assistance worth \$600 or more from your parents

20. Are you: (Mark one)

Not presently married

Married, living with spouse

Married, not living with spouse

21. Are you: (Mark all that apply)

White/Caucasian

Black/Negro/Afro-American

American Indian

Asian-American/Oriental

Mexican-American/Chicano

Puerto Rican-American

Other

22. For the activities below, indicate which ones you did during the past year. If you engaged in an activity frequently, mark (F). If you engaged in an activity one or more times, but not frequently, mark (O) (occasionally). Mark (N) (not at all) if you have not performed the activity during the past year.

(Mark one for each item)

Played a musical instrument  F  O  N

Attended a religious service  F  O  N

Smoked cigarettes  F  O  N

Took vitamins  F  O  N

Participated in organized demonstrations  F  O  N

Took a tranquilizing pill  F  O  N

Wore glasses or contact lenses  F  O  N

Attended a public recital or concert  F  O  N

Took sleeping pills  F  O  N

Jogged  F  O  N

Stayed up all night  F  O  N

Drank beer  F  O  N

Worked in a local, state, or national political campaign  F  O  N

23. Where did you rank academically in your high school graduating class? (Mark one)

Top Quarter  3rd Quarter

2nd Quarter  Lowest Quarter

24a. Do you consider yourself physically handicapped?

No  (Go to Question Number 25)

Yes

24b. If yes, what type of handicap do you have? (Mark all that apply)

Hearing  Orthopedic

Speech  Learning disability

Visual  Other

24c. Does your handicap require architectural accommodations (wheelchair ramps, elevators, etc.)? Yes  No

25. What is the highest academic degree that you intend to obtain?

(Mark one in each column)

	Highest Planned	Highest Planned at this college
None	<input type="radio"/>	<input type="radio"/>
Associate (A.A. or equivalent)	<input type="radio"/>	<input type="radio"/>
Bachelor's degree (B.A., B.S., etc.)	<input type="radio"/>	<input type="radio"/>
Master's degree (M.A., M.S., etc.)	<input type="radio"/>	<input type="radio"/>
Ph.D. or Ed.D.	<input type="radio"/>	<input type="radio"/>
M.D., D.O., D.D.S., or D.V.M.	<input type="radio"/>	<input type="radio"/>
LL.B. or J.D. (Law)	<input type="radio"/>	<input type="radio"/>
B.D. or M.Div. (Divinity)	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>

26a. How many persons are currently dependent on your parents for support (include yourself and your parents, if applicable)?

1  2  3  4  5  6 or more

26b. How many of these dependents other than yourself are currently attending college?

None  1  2  3 or more

27. In deciding to go to college, how important to you was each of the following reasons?

(Mark one answer for each possible reason)

Very important  
Somewhat important  
Not important

My parents wanted me to go  V  S  N

I could not find a job  V  S  N

I wanted to get away from home  V  S  N

To be able to get a better job  V  S  N

To gain a general education and appreciation of ideas  V  S  N

To improve my reading and study skills  V  S  N

There was nothing better to do  V  S  N

To make me a more cultured person  V  S  N

To be able to make more money  V  S  N

To learn more about things that interest me  V  S  N

To meet new and interesting people  V  S  N

To prepare myself for graduate or professional school  V  S  N

28. Do you have any concern about your ability to finance your college education? (Mark one)

None (I am confident that I will have sufficient funds)

Some concern (but I will probably have enough funds)

Major concern (not sure I will have enough funds to complete college)

29. How would you characterize your political views? (Mark one)

Far left

Liberal

Middle-of-the-road

Conservative

Far right

30. What is your best estimate of your parents' total income last year? Consider annual income from all sources before taxes. (Mark one)

Less than \$3,000 <input type="radio"/>	\$15,000-19,999 <input type="radio"/>
\$3,000-3,999 <input type="radio"/>	\$20,000-24,999 <input type="radio"/>
\$4,000-5,999 <input type="radio"/>	\$25,000-29,999 <input type="radio"/>
\$6,000-7,999 <input type="radio"/>	\$30,000-34,999 <input type="radio"/>
\$8,000-9,999 <input type="radio"/>	\$35,000-39,999 <input type="radio"/>
\$10,000-12,499 <input type="radio"/>	\$40,000-49,999 <input type="radio"/>
\$12,500-14,999 <input type="radio"/>	\$50,000 or more <input type="radio"/>

31. What is the highest level of formal education obtained by your parents? (Mark one in each column)

	Father	Mother
Grammar school or less	<input type="radio"/>	<input type="radio"/>
Some high school	<input type="radio"/>	<input type="radio"/>
High school graduate	<input type="radio"/>	<input type="radio"/>
Postsecondary school other than college	<input type="radio"/>	<input type="radio"/>
Some college	<input type="radio"/>	<input type="radio"/>
College degree	<input type="radio"/>	<input type="radio"/>
Some graduate school	<input type="radio"/>	<input type="radio"/>
Graduate degree	<input type="radio"/>	<input type="radio"/>

32. Mark only three responses, one in each column.

- M Your mother's occupation.
- F Your father's occupation.
- Y Your probable career occupation

NOTE: If your father (or mother) is deceased, please indicate his (her) last occupation.

Accountant or actuary	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Actor or entertainer	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Architect or urban planner	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Artist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Business (clerical)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Business executive (management, administrator)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Business owner or proprietor	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Business salesman or buyer	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Clergyman (minister, priest)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Clergy (other, religious)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Clinical psychologist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
College teacher	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Computer programmer or analyst	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Congratiionist or forester	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Dentist (including orthodontist)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Dietitian or home economist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Engineer	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Farmer or rancher	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Foreign service worker (including diplomat)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Homemaker (full-time)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Interior decorator (including designer)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Interpreter (translator)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Lab technician or hygienist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Law enforcement officer	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Lawyer (attorney) or judge	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Military service (career)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Musician (performer, composer)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Nurse	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Optometrist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Pharmacist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Physician	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
School counselor	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
School principal or superintendent	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Scientific researcher	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Social, welfare or recreation worker	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Statistician	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Therapist (physical, occupational, speech)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Teacher or administrator (elementary)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Teacher or administrator (secondary)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Veterinarian	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Writer or journalist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Skilled trades	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Other	<input type="radio"/> Y		
Undecided	<input type="radio"/> Y		
Laborer (unskilled)		<input type="radio"/> F	<input type="radio"/> M
Semi-skilled worker		<input type="radio"/> F	<input type="radio"/> M
Other occupation		<input type="radio"/> F	<input type="radio"/> M
Unemployed		<input type="radio"/> F	<input type="radio"/> M

33. Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here? (Mark one answer for each possible reason)

My relatives wanted me to come here	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
My teacher advised me	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
This college has a very good academic reputation	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
I was offered financial assistance	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
I was not accepted anywhere else	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
Someone who has been here before advised me to go	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
This college offers special educational programs	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
This college has low tuition	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
My guidance counselor advised me	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
I wanted to live at home	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
A friend suggested attending	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N
A college representative recruited me	<input type="radio"/> V	<input type="radio"/> S	<input type="radio"/> N

Very important  
Somewhat important  
Not important

BE SURE TO ANSWER QUESTION 34.

35. Mark one in each row:

The Federal government is not doing enough to control environmental pollution	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
The Federal government is not doing enough to protect the consumer from faulty goods and services	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
The Federal government should do more to discourage energy consumption	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
There is too much concern in the courts for the rights of criminals	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Urban problems cannot be solved without huge investments of Federal monies	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
People should not obey laws which violate their personal values	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
The death penalty should be abolished	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
A national health care plan is needed to cover everybody's medical costs	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Energy shortages could cause a major depression or even wars in my lifetime if action is not taken now to prevent them	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Abortion should be legalized	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Grading in the high schools has become too easy	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
The activities of married women are best confined to the home and family	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
A couple should live together for some time before deciding to get married	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Parents should be discouraged from having large families	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Divorce laws should be liberalized	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
If two people really like each other, it's all right for them to have sex even if they've known each other for only a very short time	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Women should receive the same salary and opportunities for advancement as men in comparable positions	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Wealthy people should pay a larger share of taxes than they do now	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Marijuana should be legalized	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Busing is O.K. if it helps to achieve racial balance in the schools	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
It is important to have laws prohibiting homosexual relationships	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
College officials have the right to regulate student behavior off campus	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Faculty promotions should be based in part on student evaluations	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
College grades should be abolished	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Colleges would be improved if organized sports were de-emphasized	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Student publications should be cleared by college officials	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
College officials have the right to ban persons with extreme views from speaking on campus	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Open admissions (admitting anyone who applies) should be adopted by all publicly supported colleges	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1
Even if it employs open admissions, a college should use the same performance standards in awarding degrees to all students	<input type="radio"/> 4	<input type="radio"/> 3	<input type="radio"/> 2	<input type="radio"/> 1

34a. Current religious preference:

(Mark one in each column)

Baptist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Congregational (U.C.C.)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Eastern Orthodox	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Episcopal	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Jewish	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Latter Day Saints (Mormon)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Lutheran	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Methodist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Muslim	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Presbyterian	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Quaker (Society of Friends)	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Roman Catholic	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Seventh Day Adventist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Unitarian-Universalist	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Other Protestant	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
Other Religion	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M
None	<input type="radio"/> Y	<input type="radio"/> F	<input type="radio"/> M

34b. Do you consider yourself a reborn Christian? Yes  No

- 1 Disagree Strongly
- 2 Disagree Somewhat
- 3 Agree Somewhat
- 4 Agree Strongly

36. Below is a list of different undergraduate major fields grouped into general categories. Mark only one circle to indicate your probable field of study.

ARTS AND HUMANITIES

- Art, fine and applied
English (language and literature)
History
Journalism
Language and Literature (except English)
Music
Philosophy
Speech
Theater or Drama
Theology or Religion
Other Arts and Humanities

PHYSICAL SCIENCE

- Astronomy
Atmospheric Science (incl. Meteorology)
Chemistry
Earth Science
Marine Science (incl. Oceanography)
Mathematics
Physics
Statistics
Other Physical Science

PROFESSIONAL

- Architecture or Urban Planning
Home Economics
Health Technology (medical, dental, laboratory)
Library or Archival Science
Nursing
Pharmacy
Pre dental, Premedicine, Preveterinary
Therapy (occupational, physical, speech)
Other Professional

SOCIAL SCIENCE

- Anthropology
Economics
Geography
Political Science (gov't., international relations)
Psychology
Social Work
Sociology
Other Social Science

TECHNICAL

- Building Trades
Data Processing or Computer Programming
Drafting or Design
Electronics
Mechanics
Other Technical

OTHER FIELDS

- Agriculture
Communications (radio, T.V., etc.)
Computer Science
Forestry
Law Enforcement
Military Science
Other Field
Undecided

BUSINESS

- Accounting
Business Admin. (general)
Finance
Marketing
Management
Secretarial Studies
Other Business

EDUCATION

- Business Education
Elementary Education
Music or Art Education
Physical Education or Recreation
Secondary Education
Special Education
Other Education

ENGINEERING

- Aeronautical or Astronautical Eng.
Civil Engineering
Chemical Engineering
Electrical or Electronic Engineering
Industrial Engineering
Mechanical Engineering
Other Engineering

37. Indicate the importance to you personally of each of the following: (Mark one for each item)

- (N) Not Important
(S) Somewhat Important
(V) Very Important
(E) Essential

- Becoming accomplished in one of the performing arts (acting, dancing, etc.)
Becoming an authority in my field
Obtaining recognition from my colleagues for contributions to my special field
Influencing the political structure
Influencing social values
Raising a family
Having administrative responsibility for the work of others
Being very well off financially
Helping others who are in difficulty
Making a theoretical contribution to science
Writing original works (poems, novels, short stories, etc.)
Creating artistic work (painting, sculpture, decorating, etc.)
Being successful in a business of my own
Becoming involved in programs to clean up the environment
Developing a meaningful philosophy of life
Participating in a community action program
Helping to promote racial understanding
Keeping up to date with political affairs

38. What is your best guess as to the chances that you will:

- (N) No Chance
(L) Very Little Chance
(S) Some Chance
(V) Very Good Chance

- Change major field?
Change career choice?
Fail one or more courses?
Graduate with honors?
Be elected to a student office?
Get a job to help pay for college expenses?
Join a social fraternity, sorority, or club?
Live in a coeducational dorm?
Be elected to an academic honor society?
Make at least a "B" average?
Need extra time to complete your degree requirements?
Get tutoring help in specific courses?
Have to work at an outside job during college?
Seek vocational counseling?
Seek individual counseling on personal problems?
Get a bachelor's degree (B.A., B.S., etc.)?
Participate in student protests or demonstrations?
Drop out of this college temporarily (exclude transferring)?
Drop out permanently (exclude transferring)?
Transfer to another college before graduating?
Be satisfied with your college?
Find a job after college in the field for which you were trained?
Get married while in college? (skip if married)
Get married within a year after college? (skip if married)

The Laboratory for Research on Higher Education at UCLA actively encourages the colleges that participate in this survey to conduct local studies of their student bodies. If these studies involve collecting follow-up data, it is necessary for the institution to know the students' ID numbers so that follow-up data can be linked with the data from this survey. If your college asks for a tape copy of the data and signs an agreement to use it only for research purposes, do we have your permission to include your ID number in such a tape? Yes No

- 39. (A)(B)(C)(D)(E)
40. (A)(B)(C)(D)(E)
41. (A)(B)(C)(D)(E)
42. (A)(B)(C)(D)(E)
43. (A)(B)(C)(D)(E)
44. (A)(B)(C)(D)(E)
45. (A)(B)(C)(D)(E)
46. (A)(B)(C)(D)(E)
47. (A)(B)(C)(D)(E)
48. (A)(B)(C)(D)(E)

THANK YOU!



Appendix B  
Father's Occupation

Collapsed Category	Response Item Alternatives
Artist	Actor or entertainer; artist; interior decorator (including designer); musician (performer, composer); writer or journalist
Businessman	Accountant or actuary; business executive (management, administrator); business owner or proprietor; business salesman or buyer
Clergyman	Clergyman (minister, priest); clergy (other religious)
College Teacher	College teacher
Doctor	Dentist (including orthodontist); physician
Educator (secondary)	School counselor; school principal or superintendent; teacher or administrator (secondary)
Elementary Teacher	Teacher or administrator (elementary)
Engineer	Engineer
Farmer/Forester	Conservationist or forester; farmer or rancher
Health Professional	Dietitian or home economist; lab technician or hygienist; optometrist; pharmacist; therapist (physical, occupational, speech) veterinarian
Lawyer	Lawyer (attorney) or judge

Appendix B (Continued)

Father's Occupation:

Collapsed Category

Response Item Alternatives

Military Career

Military Service (career)

Research Scientist

Scientific researcher

Skilled Worker

Skilled trades

Semiskilled Worker

Semiskilled Worker

Laborer

Laborer (unskilled)

Unemployed

Unemployed

Other

Architect or urban planner; business (clerical); clinical psychologist; computer programmer or analyst; foreign service worker (including diplomat); homemaker (full-time); interpreter (translator); law enforcement officer; nurse; social, welfare or recreation worker; statistician; other occupation

Appendix C

Mother's Occupation

Collapsed Category	Response Item Alternatives
Artist	Actor or entertainer; artist; interior decorator (including designer); musician (performer, composer); writer or journalist
Business	Accountant or actuary; business executive (management, administrator); business owner or proprietor; business salesman or buyer
Business (clerical)	Business (clerical)
Clergy or Religious Worker	Clergyman (minister, priest); clergy (other religious)
College Teacher	College teacher
Doctor	Dentist (including orthodontist); physician
Educator (secondary)	School counselor; school principal or superintendent; teacher or administrator (secondary)
Elementary Teacher	Teacher or administrator (elementary)
Engineer	Engineer
Farmer/Forester	Conservationist or forester; farmer or rancher
Health Professional	Dietitian or home economist; lab technician or hygienist; optometrist; pharmacist; therapist (physical, occupational, speech) veterinarian
Homemaker (full-time)	Homemaker (full-time)

Appendix C (Continued)

Mother's Occupation

Collapsed Category	Response	Item Alternatives
Lawyer	Lawyer (attorney) or judge	
Social, Welfare or Recreation Worker	Social, welfare or recreation worker	
Nurse	Nurse	
Research Scientist	Scientific researcher	
Skilled Worker	Skilled trades	
Semiskilled Worker	Semiskilled Worker	
Laborer	Laborer (unskilled)	
Unemployed	Unemployed	
Other	Architect or urban planner; clinical psychologist; computer programmer or analyst; foreign service worker (including diplomat); interpreter (translator); law enforcement officer; military career; statistician; other occupation	

Appendix D

Major

Collapsed Category	Response Item Alternatives
Agriculture	Agriculture, forestry
Biological sciences	Biology (general); biochemistry or biophysics; botany; marine (life) sciences; microbiology or bacteriology; zoology; other biological science
Business	Accounting; business administration (general); finance; marketing; management; secretarial studies; other business
Education	Business education; elementary education; music or art education; physical education or recreation; secondary education; other education
Engineering	Aeronautical or astronautical engineering; civil engineering; chemical engineering; electrical or electronic engineering; mechanical engineering; other engineering
English	English (language and literature)
Health professions	Nursing; pharmacy; pre-dental, premedicine, pre-veterinary; therapy (occupational, physical, speech)
History, political science	History; political science (government, international relations)
Humanities (other)	Language and literature (except English); philosophy; theater or drama; theology or religion; other arts and humanities
Fine arts	Art, fine and applied; music; speech architecture or urban planning

Appendix D (Continued)

Major

Collapsed Category	Response Item Alternatives
Mathematics and Statistics	Mathematics; statistics
Physical sciences	Astronomy; atmospheric science (including meteorology); chemistry; earth science; marine science (including oceanography); physics; other physical science
Social sciences	Anthropology; economics; geography; psychology; social work; sociology; other social science
Other technical	Health technology (medical, dental, laboratory); data processing or computer programming; drafting or design; electronics; mechanics; other technical; computer science
Other nontechnical	Journalism; home economics; library or archival science; other professional; building trades; communications (radio, T.V., etc); law enforcement; military science; other field
Undecided	Undecided

Appendix E  
Student Occupation

Collapsed Category

Response Item Alternatives

Artist

Actor or entertainer; artist; interior decorator (including designer); musician (performer, composer); writer or journalist

Business

Accountant or actuary; business executive (management, administrator); business owner or proprietor; business salesman or buyer

Clergyman

Clergyman (minister, priest); clergy (other religious)

College Teacher

College teacher

Doctor

Dentist (including orthodontist); physician

Educator (secondary)

School counselor; school principal or superintendent; teacher or administrator (secondary)

Elementary Teacher

Teacher or administrator (elementary)

Engineer

Engineer

Farmer/Forester

Conservationist or forester; farmer or rancher

Health Professional

Dietitian or home economist; lab technician or hygienist; optometrist; pharmacist; therapist (physical, occupational, speech); veterinarian

Lawyer

Lawyer (attorney) or judge

Nurse

Nurse

Research Scientist

Scientific researcher

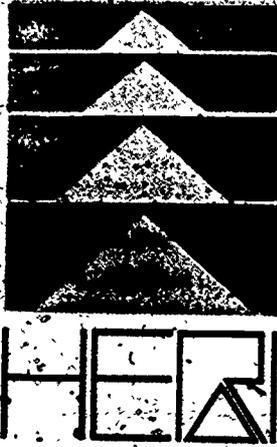
Other

Architect or urban planner; business (clerical); clinical psychologist; computer programmer or analyst; foreign service worker (including diplomat); homemaker (full-time); interpreter (translator); law enforcement officer; military service (career); social, welfare or recreation worker; statistician; skilled trades; other

APPENDIX F

Region Categories

Region	Number of Institutions Used in Norms	State
East	149	Connecticut; Delaware; District of Columbia; Maine; Maryland; Massachusetts; New Hampshire; New Jersey; New York; Pennsylvania; Rhode Island; Vermont; Puerto Rico; Virgin Islands
Midwest	105	Illinois; Indiana; Iowa; Kansas; Michigan; Minnesota; Missouri; Nebraska; North Dakota; Ohio; South Dakota; Wisconsin
South	88	Alabama; Arkansas; Florida; Georgia; Kentucky; Louisiana; Mississippi; North Carolina; South Carolina; Tennessee; Virginia; West Virginia; Canal Zone
West	41	Alaska; Arizona; California; Colorado; Hawaii; Idaho; Montana; Nevada; New Mexico; Oklahoma; Oregon; Texas; Utah; Washington; Wyoming; Guam



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## 1981 FOLLOW-UP SURVEY OF 1978 DISABLED FRESHMEN

When you entered college in 1978, you participated in the Cooperative Institutional Research Program's annual freshman survey. At that time, you were one of 7,000 students completing the freshman questionnaire who said you were handicapped. This survey asks for more information about you, and about your experiences since then. Even if you are not disabled, or are no longer in college, we want you to answer and return this questionnaire. Your responses will provide valuable information to help federal, state, and college policy-makers better meet your needs and those of similar students in the future.

This survey was developed by the Higher Education Research Institute in Los Angeles and funded by the Bureau for the Education of the Handicapped in Washington, D.C. Your responses will be held in the strictest confidence, and they will be presented only in summary form. Students whose disabilities do not affect their reading or writing should be able to complete the survey in about half an hour. We realize, however, that some people will need to take a longer time. Your thoughtful responses and willing participation are much appreciated. Please return your survey as soon as possible in the enclosed stamped envelope.

We welcome your comments. However, all stray marks or writing on this questionnaire will invalidate your responses. Therefore, please follow directions carefully, and enclose your comments on a separate sheet of paper.

Sincerely,

Dr. James Henson  
Judith K. Lawrence  
Higher Education Research Institute



**MARKING DIRECTIONS**

**NOTE:** Your responses will be read by an optical mark reader. It is important that you follow a few simple rules.

- Use only a black soft lead pencil (No. 2 is ideal).
- Make heavy dark marks that completely fill the circle.
- Erase cleanly any answer you wish to change.
- Make no stray marks anywhere on this form.

Proper Mark:  Improper Marks:

**1. What is your current status? (Mark one)**

- I am currently enrolled in college, and have been since 1978. (Answer item 2a and not 2b)
- I withdrew from college temporarily but am currently enrolled again. (Answer items 2a and 2b)
- I am temporarily not in college but plan to return soon. (Answer items 2a and 2b)
- I have permanently withdrawn from college or intend to do so. (Skip 2a and answer 2b)

**2a. Which of the following do you still expect to do in college? (Mark all that apply)**

- Change major field
- Change career choice
- Fail one or more courses
- Graduate with honors
- Be elected to a student office
- Make at least a "B" average
- Need extra time to complete degree requirements
- Get tutoring help in specific courses
- Seek vocational counseling
- Seek individual counseling on personal problems
- Participate in protests and demonstrations
- Drop out of college temporarily
- Transfer to another college before graduation
- Get a job after college connected with major field of study
- Get a job after college for which a college degree is appropriate

**2b. How important were each of the following factors in your decision to interrupt or terminate your education? (Mark one column for each factor)**

- |  | Very Important        | Somewhat Important    | Not at All Important  |
|--|-----------------------|-----------------------|-----------------------|
| College did not provide adequate support services (e.g., note-takers, readers, interpreters, attendants) . . . . . | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I had completed my planned program . . . . .   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I had to assume family responsibilities (e.g., because of family illness) . . . . .                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I became ill/needed treatment . . . . .  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I got a good job offer . . . . .   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I needed to earn money (e.g., for school) . . . . .  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I (or my family) moved to a different location . . . . .   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I did not do as well academically as I thought I would . . . . .   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My relatives/spouse discouraged me from continuing . . . . .   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I decided I did not need a college degree . . . . .  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I wanted time to reconsider my goals and interests . . . . .   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**2b. (Cont.)**

- |  | Very Important                   | Somewhat Important               | Not at All Important  |
|--|----------------------------------|----------------------------------|-----------------------|
| I changed my career plans . . . . .  | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I was tired of being a student . . . . .   | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I was unable to get the financial aid I needed . . . . .                               | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| College expenses were too high . . . . .   | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| Expenses connected with my disability were too high . . . . .                          | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I wanted to get practical experience . . . . .   | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/> |
| I felt that a college education would not improve my job prospects . . . . .           | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I didn't feel safe on campus . . . . .   | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I had no place to study . . . . .  | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I didn't "fit in" at college . . . . .   | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I wanted to travel . . . . .   | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| I wanted to transfer to another institution but could not enroll immediately . . . . . | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| Other (Indicate degree of importance) . . . . .  | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |

**3. Which of the following have you done (did you do) while in college? (Mark all that apply)**

- Changed major field
- Changed career choice
- Failed one or more courses
- Was elected to a student office
- Served on a campus committee
- Got a job to help pay for college expenses
- Joined a social fraternity, sorority, or club
- Made at least a "B" average
- Participated in protests or demonstrations
- Felt satisfied with college

**4. What type of high school did you attend most of the time? (Mark one)**

- Public
- Private: Nondenominational
- Private: Religious

**5a. What type of arrangement best describes your educational program at each level? (Mark one in each column)**

- |   | Elementary<br>Grades K to 5-6 | Junior High<br>Grades 6-7 to 9-10 | High School<br>Grades 9-10 to 12 | College               |
|---|-------------------------------|-----------------------------------|----------------------------------|-----------------------|
| Regular academic program with nondisabled peers . . . . .                     | <input type="radio"/>         | <input type="radio"/>             | <input type="radio"/>            | <input type="radio"/> |
| Regular academic program with special classes or services as needed . . . . . | <input type="radio"/>         | <input type="radio"/>             | <input type="radio"/>            | <input type="radio"/> |
| Regular school but segregated in special academic classes . . . . .           | <input type="radio"/>         | <input checked="" type="radio"/>  | <input type="radio"/>            | <input type="radio"/> |
| Special school for the disabled . . . . .                                     | <input type="radio"/>         | <input type="radio"/>             | <input type="radio"/>            | <input type="radio"/> |
| Other (Mark appropriate column) . . . . .                                     | <input type="radio"/>         | <input type="radio"/>             | <input type="radio"/>            | <input type="radio"/> |

**5b. Did you take adaptive physical education rather than regular gym classes?**

- No (Go on to question 6)
- Yes, Elementary (Grades K to 5-6)
- Yes, Junior High (Grades 6-7 to 9-10)
- Yes, High School (Grades 9-10 to 12)
- Yes, College



6. What academic degree are you currently working toward, and what is the highest academic degree you intend to get? (Mark one in each column)

	Current Degree Planned	Highest Degree Planned
None	<input type="radio"/>	<input type="radio"/>
High school diploma or GED	<input type="radio"/>	<input type="radio"/>
Vocational diploma/certificate	<input type="radio"/>	<input type="radio"/>
Associate (A.A. or equivalent)	<input type="radio"/>	<input type="radio"/>
Baccalaureate (B.A., B.S., etc.)	<input type="radio"/>	<input type="radio"/>
Teaching credential	<input type="radio"/>	<input type="radio"/>
Master's (M.A., M.S., etc.)	<input type="radio"/>	<input type="radio"/>
Doctorate (Ph.D. or Ed.D.)	<input type="radio"/>	<input type="radio"/>
Professional degree (e.g., M.D., D.D.S., D.V.M., LL.B., J.D., B.D., M.Div.)	<input type="radio"/>	<input type="radio"/>
Other (Mark appropriate columns)	<input type="radio"/>	<input type="radio"/>

7. What is your current (or most recent) college class? (Mark one)

- Freshman
- Sophomore
- Junior
- Senior
- Other

8a. How many colleges have you attended since fall 1978? (Mark one)

- One (Go on to item 9)
- Two (Answer item 8b)
- Three or more (Answer item 8b)

8b. How important was each of the following factors in your decision to transfer from your first college to another institution? (Mark one column for each factor)

	Very Important	Somewhat Important	Not at All Important
My first college did not provide adequate support services (e.g., note-takers, readers, interpreters; attendants)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I completed my planned program at my first institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted a better social life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to go to a larger institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to go to a smaller institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to live in a different type of community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to be farther from home (parents)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to be closer to home (parents)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I or my family moved to a different location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to go to an institution with a better academic reputation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to take a different type of program than was offered at my first institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was generally dissatisfied with my first institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I needed to attend a less expensive school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My financial situation improved so I could attend a more expensive school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I didn't feel safe on the campus of my first institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I had no place to study at my first institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I didn't "fit in" at my first institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Indicate degree of importance)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. What has been (was) your college enrollment status most of the time since 1978? (Mark one)

- Full time
- Part time
- Not enrolled

10. What has been (was) your employment status most of the time while in college? (Mark one)

- Not employed
- Full-time employment off campus
- Part-time employment off campus
- Full-time employment on campus
- Part-time employment on campus

11. In college, how concerned are (were) you about your ability to finance your college education? (Mark one)

- Very much
- Somewhat
- Not at all

12. What is (was) your overall college grade average? (Mark one)

- A or A+
- A-
- B+
- B
- B-
- C+
- C
- D

3. Please indicate your most recent major field of study in college. (Mark one)

**ARTS AND HUMANITIES**

- Art, fine and applied . . . . .
- English (language and literature) . . . . .
- History . . . . .
- Journalism . . . . .
- Language and Literature (except English) . . . . .
- Music . . . . .
- Philosophy . . . . .
- Speech . . . . .
- Theater or Drama . . . . .
- Theology or Religion . . . . .
- Other Arts and Humanities . . . . .

**BIOLOGICAL SCIENCE**

- Biology (general) . . . . .
- Biochemistry or Biophysics . . . . .
- Botany . . . . .
- Marine (Life) Science . . . . .
- Microbiology or Bacteriology . . . . .
- Zoology . . . . .
- Other Biological Science . . . . .

**BUSINESS**

- Accounting . . . . .
- Business Admin. (general) . . . . .
- Finance . . . . .
- Marketing . . . . .
- Management . . . . .
- Secretarial Studies . . . . .
- Other Business . . . . .

**EDUCATION**

- Business Education . . . . .
- Elementary Education . . . . .
- Music or Art Education . . . . .
- Physical Education or Recreation . . . . .
- Secondary Education . . . . .
- Special Education . . . . .
- Other Education . . . . .

**ENGINEERING**

- Aeronautical or Astronautical Eng. . . . .
- Civil Engineering . . . . .
- Chemical Engineering . . . . .
- Electrical or Electronic Engineering . . . . .
- Industrial Engineering . . . . .
- Mechanical Engineering . . . . .
- Other Engineering . . . . .

**PHYSICAL SCIENCE**

- Astronomy . . . . .
- Atmospheric Science (incl. Meteorology) . . . . .
- Chemistry . . . . .
- Earth Science . . . . .
- Marine Science (incl. Oceanography) . . . . .
- Mathematics . . . . .
- Physics . . . . .
- Statistics . . . . .
- Other Physical Science . . . . .

**PROFESSIONAL**

- Architecture or Urban Planning . . . . .
- Home Economics . . . . .
- Health Technology (medical, dental, laboratory) . . . . .
- Library or Archival Science . . . . .
- Nursing . . . . .
- Pharmacy . . . . .
- Pre dental, Pre medicine, Pre veterinary . . . . .
- Therapy (occupational, physical, speech) . . . . .
- Other Professional . . . . .

**SOCIAL SCIENCE**

- Anthropology . . . . .
- Economics . . . . .
- Geography . . . . .
- Political Science (gov't., international relations) . . . . .
- Psychology . . . . .
- Social Work . . . . .
- Sociology . . . . .
- Other Social Science . . . . .

**TECHNICAL**

- Building Trades . . . . .
- Data Processing or Computer Programming . . . . .
- Drafting or Design . . . . .
- Electronics . . . . .
- Mechanics . . . . .
- Other Technical . . . . .

**OTHER FIELDS**

- Agriculture . . . . .
- Communications (radio, T.V., etc.) . . . . .
- Computer Science . . . . .
- Forestry . . . . .
- Law Enforcement . . . . .
- Military Science . . . . .
- Other Field . . . . .
- Undecided . . . . .

14. Do (did) you have to study a particular field to get financial aid at college? (Mark one)

- No
- Yes

15. Where do (did) you live most of the time in college? Where would you prefer (have preferred) to live? (Mark one in each column)

	Actual Residence	Preferred Residence
College housing (dormitory, fraternity or sorority, other college housing) . . . . .	<input type="radio"/>	<input type="radio"/>
Off campus (private room, apartment, or house) . . . . .	<input type="radio"/>	<input type="radio"/>
Other (Mark appropriate columns) . . . . .	<input type="radio"/>	<input type="radio"/>

16. With whom do (did) you live most of the time at college? With whom would you prefer (have preferred) to live? (Mark one in each column as appropriate)

	Actual	Preferred
With parents or relatives . . . . .	<input type="radio"/>	<input type="radio"/>
Alone . . . . .	<input type="radio"/>	<input type="radio"/>
With disabled roommate or roommates . . . . .	<input type="radio"/>	<input type="radio"/>
With nondisabled roommate or roommates . . . . .	<input type="radio"/>	<input type="radio"/>
With spouse . . . . .	<input type="radio"/>	<input type="radio"/>
Other (Mark appropriate columns) . . . . .	<input type="radio"/>	<input type="radio"/>

17. In college, do (did) you have tutoring or remedial work in any of the following subjects? (Mark all that apply)

- No
- Yes, reading
- Yes, writing or composition
- Yes, mathematics
- Yes, social studies
- Yes, science
- Yes, foreign language
- Yes, other



18. What is your probable career occupation? (Mark one)

- Accountant or actuary
- Actor or entertainer
- Architect or urban planner
- Artist
- Business (clerical)
- Business executive (management, administrator)
- Business owner or proprietor
- Business salesman or buyer
- Clergyman (minister, priest)
- Clinical psychologist
- College teacher
- Computer programmer or analyst
- Conservationist or forester
- Dentist (including orthodontist)
- Dietician or home economist
- Engineer
- Farmer or rancher
- Foreign service worker (including diplomat)
- Homemaker (full-time)
- Interior decorator (including designer)
- Interpreter (translator)
- Lab technician or hygienist
- Law enforcement officer
- Lawyer (attorney) or judge
- Military service (career)
- Musician (performer, composer)
- Nurse
- Optometrist
- Pharmacist
- Physician
- School counselor
- School principal or superintendent
- Scientific researcher
- Social, welfare or recreation worker
- Statistician
- Therapist (physical, occupational, speech)
- Teacher or administrator (elementary)
- Teacher or administrator (secondary)
- Veterinarian
- Writer or journalist
- Skilled trades
- Other
- Undecided

19a. In college, is (was) there any one person whose support, encouragement, guidance, or confidence in you is (was) central to your success? (Mark one)

- No (Skip to question 20)
- Yes, a personal friend (outside of school)
- Yes, a family member (e.g., parent or spouse)
- Yes, a high school friend
- Yes, a high school teacher
- Yes, a high school advisor, counselor
- Yes, a college friend
- Yes, a college professor, teacher
- Yes, a college advisor, counselor
- Yes, other

19b. Is this person: (Mark one for each item below)

- A.  Male  
 Female
- B.  Disabled  
 Not disabled
- C. Age  
 22 years or younger  
 23 to 29 years  
 30 years or older

20. Do you have a disability? (Mark all that apply and write your specific disability in the box below for each area that you mark.)

- No, I do not have a disability (Skip to question 30)
- Yes, visual (partially sighted, blind; not correctable with glasses or contact lenses)

[Empty box for visual disability description]

- Yes, hearing

[Empty box for hearing disability description]

- Yes, speech

[Empty box for speech disability description]

- Yes, orthopedic

[Empty box for orthopedic disability description]

- Yes, learning

[Empty box for learning disability description]

- Yes, health-related (e.g., respiratory, heart)

[Empty box for health-related disability description]

- Yes, emotional

[Empty box for emotional disability description]

- Yes, other

[Empty box for other disability description]

24. To what extent does (did) your disability area affect your functioning at college? (Mark one column for each of your disability areas)

	Very Much	Somewhat	Not at all
Visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Orthopedic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health-related	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emotional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



22. When was (were) your disability (disabilities) diagnosed?

(Mark one)

- Prenatally or at birth Before age 5
- Between ages 6-12
- Between ages 13-17
- Age 18 or older

23. Do you consider your disability to be:

(Mark one)

- Visible/apparent
- Sometimes apparent/sometimes not obvious
- Hidden/not obvious

24. In college, how concerned are (were) you about expenses associated with your disability?

(Mark one)

- Very much
- Somewhat
- Not at all
- Not relevant to me

25. To what extent are (were) the facilities and activities of your college community accessible to you?

(Mark one)

- Very much
- Somewhat
- Not at all
- Not relevant to me

26. To what extent are (were) the community residents of your college town sensitive to and supportive of you as a disabled person? (Mark one)

- Very much
- Somewhat
- Not at all
- Not relevant to me

27. In college, to what extent does (did) your disability affect your experiences in each of the following areas?

(Mark one column for each area)

	Very much	Somewhat	Not at all
Academic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreational, extracurricular	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychological, emotional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Indicate extent)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. The following is a list of support services and accommodations that you may or may not use (have used) at college.

(Mark the appropriate column for each)

	Am Currently Using (Did Use)	Would Use If Available (Would Have Used)	Do (Did) Not Use (Not Relevant to Me)
Existing architectural accommodations (e.g., elevators, stair railings)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adaptive architectural accommodations (e.g., ramps, adapted restroom facilities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adaptive equipment, assistive devices (e.g., tape recorders, braille)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support service personnel (e.g., interpreters, readers, attendants)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Program accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performance evaluation accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adaptive physical education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peer counseling from disabled students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peer counseling from nondisabled students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic advising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal counseling, therapy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vocational counseling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Repair services for assistive devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disabled student organizations, clubs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nondisabled student organizations, clubs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disabled student office, advocate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Legal services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adaptive admissions criteria	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adaptive admissions procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Campus orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial aid for college expenses (e.g., tuition, books)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial aid for cost-of-living expenses (e.g., food, rent)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial aid for disability-related expenses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special parking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Registration priority	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Mark and specify below appropriate columns)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Specify)

(Specify)

29. To what extent do (did) you experience the following at college?  
(Mark one column for each statement)

	Frequently	Occasionally	Seldom or Never
Faculty/staff underestimate my academic ability or potential . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty/staff overestimate my academic ability or potential . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People underestimate my ability to handle frustration and stress . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People overestimate my ability to handle frustration and stress . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty/staff ask me irrelevant or overly personal questions about my disability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other students ask me irrelevant or overly personal questions about my disability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because faculty/staff don't ask me meaningful questions about my disability, I must anticipate and answer such questions . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because other students don't ask me meaningful questions about my disability, I must anticipate and answer such questions . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The failure of my instructors to accommodate to my disability-related needs makes academic work more difficult . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can handle risk better and am more independent than most people realize . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People patronize me or talk to me as if I were a child . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People talk <u>about</u> me rather than <u>to</u> me . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My instructors avoid or ignore me . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other students avoid or ignore me . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty/staff make me feel that I cause them extra time and trouble . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other students make me feel that I cause them extra time and trouble . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because I have a disability, people assume that:			
I have other physical disabilities that I do not have . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am limited socially . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am limited in what I can do physically . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am limited in what I can do intellectually and academically . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. Rate yourself on each of the following traits as you really think you are when compared with the average person of your own age. We want the most accurate estimate of how you see yourself.  
(Mark one column for each trait)

	Above Average	Average	Below Average
Academic ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Athletic ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artistic ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Defensiveness . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drive to achieve . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematical ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mechanical ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Originality . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical attractiveness . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Political conservatism . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Political liberalism . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Popularity . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Popularity with the opposite sex . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public speaking ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence (intellectual) . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence (social) . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of humor . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sensitivity to criticism . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stubbornness . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding of others . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing ability . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31. How important is each of the following to you personally? (Mark one column for each item)

	Essential	Important	Not Important
Becoming accomplished in one of the performing arts (acting, dancing, etc.) . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Becoming an authority in my field . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtaining recognition from my colleagues for contributions to my special field . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Influencing the political structure . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Influencing social values . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raising a family . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having administrative responsibility for the work of others . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being very well-off financially . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping others who are in difficulty . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making a theoretical contribution to science . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing original works (poems, novels, short stories, etc.) . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating artistic work (painting, sculpture, decorating, etc.) . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being successful in a business of my own . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Becoming involved in programs to clean up the environment . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing a meaningful philosophy of life . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in a community action program . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping to promote racial understanding . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping up-to-date with political affairs . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping to promote the interests of the disabled . . . . .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



References

References

- Astin, Alexander W. Preventing Students From Dropping Out. San Francisco: Jossey-Bass, 1975.
- Astin, Alexander W. "Equal Access to Postsecondary Education: Myth or Reality?" UCLA Educator, Spring 1977; 8-17.
- Astin, Alexander W. Four Critical Years. San Francisco: Jossey-Bass, 1977.
- Astin, Alexander W. and Henson, James W. "New Measures of College Selectivity." Research in Higher Education, 1977, 6, 1-8.
- Astin, Alexander W. and Holland, John L. "The Distribution of 'Wealth' in Higher Education." College and University, 1962, 37, 113-125.
- Astin, Alexander W., King, Margo R., and Richardson, Gerald T. The American Freshman: National Norms for Fall 1978. Los Angeles: University of California at Los Angeles, 1979.
- Brown, Janet and Redden, Martha Ross. A Research Agenda on Science and Technology for the Handicapped. Washington: Office of Opportunities in Science, American Association for the Advancement of Science, 1979.
- Chickering, Arthur W. Commuting Versus Resident Students: Overcoming the Educational Inequities of Living Off Campus. San Francisco: Jossey-Bass, 1974.
- Dearman, Nancy B., and Plisko, Valena White. The Condition of Education, 1980 Edition. Statistical Report, National Center for Education Statistics: Washington: U.S. Government Printing Office, 1980.
- De Graff, Alfred, H. "Campus Services: A Variety of Alternatives." In Assuring Access for the Handicapped. (M.R. Redden, Ed.), San Francisco: Jossey-Bass, 1979, 41-52.
- Feldman, Kenneth A. and Newcomb, Theodore M. The Impact of College on Students, Vol. 1: An Analysis of Four Decades of Research. San Francisco: Jossey-Bass, 1969.
- Grant, W. Vance, and Eiden, Leo J. Digest of Education Statistics 1980. Washington: National Center for Education Statistics, 1980.
- Henson, James W. "Institutional Excellence and Student Achievement: A Study of College Quality and Its Impact on Educational and Career Achievement." Unpublished Doctoral Dissertation, University of California at Los Angeles, 1980.

National Center for Education Statistics. The Condition of Education: 1978 Edition. Washington: U.S. Government Printing Office, 1978.

Pinder, Peggy. "Obligation of the Disabled Student: Reasonable Self-Help." In Assuring Access for the Handicapped. (M.R. Redden, Ed.), San Francisco: Jossey-Bass, 1979, 1-10.

Thompson, Richard E. and Thompson, Cynthia A. The Handicapped Requirements Handbook. Washington: Federal Programs Advising Service, 1979.

Trent, James W. and Medsker, Leland L. Beyond High School: A Study of 10,000 High School Graduates. Berkeley, California: Center for Research and Development in Higher Education, University of California, 1967. (Published subsequently by Jossey-Bass, San Francisco, 1968).

Wulfsberg, Rolf, M. and Peterson, Richard J. The Impact of Section 504 of the Rehabilitation Act of 1973 on American Colleges and Universities: Technical Report. Washington: National Center for Education Statistics, 1979.