

# Section 5

## *Contexts of Postsecondary Education*



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## Summary: Contexts of Postsecondary Education

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The postsecondary education system encompasses various types of institutions, both public and private. These include less-than-2-year institutions providing short-term vocational training, 2-year institutions offering associate's degrees and vocational certificates, and 4-year colleges and universities offering bachelor's or higher degrees. This system serves not only recent high school graduates but also adults of all ages who enroll to fulfill a wide range of personal and career-related goals.

Although issues of student access, persistence, and attainment have been predominant concerns in postsecondary education (see section 3), the context in which postsecondary education is delivered has attracted considerable attention as well. With respect to students, issues of ongoing concern have included, for example, curriculum content,

student access to faculty and courses, the use of technology, and the availability of student support services. All of these issues must be addressed in the context of a diverse student body that varies in terms of age, sex, race/ethnicity, socioeconomic background, academic goals, and work and enrollment patterns. With respect to faculty, issues such as workload, tenure, salaries, allocation of time between teaching and research, and faculty diversity have been prominent.

The indicators in this section describe the undergraduate population, the programs and course of study they take, their learning opportunities, and the special programs in which they participate. They also describe the characteristics of faculty and how colleges and universities use faculty and other resources.



# Characteristics of Postsecondary Students

## Undergraduate Diversity

*Undergraduates display considerable diversity in their demographic, enrollment, and employment characteristics.*

Undergraduates who attend our nation's colleges and universities are not a homogeneous group. Many student demographic, enrollment, and employment characteristics are related to the risk of dropping out (NCES 97-578). Consequently, understanding the variation in the undergraduate population has implications for how institutions plan their programs and for meeting students' needs and promoting their success.

More than half of undergraduates were women in 1999-2000 (56 percent), and close to a third were other than White. Although traditional college-age students (23 years or younger) accounted for 57 percent of all undergraduates, 43 percent were age 24 or older. More than a quarter (27 percent) of undergraduates had dependents, 13 percent were single parents, and 80 percent were employed, including 39 percent who were employed full time. Also, 9 percent reported having some type of disability (see supplemental table 35-1).

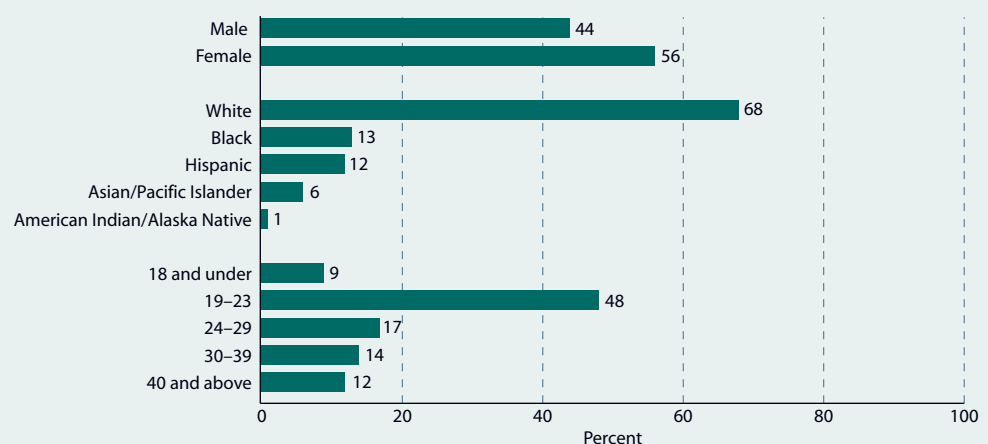
In general, the distribution of students according to the characteristics just mentioned has changed

little over the past 10 years, but two notable differences exist. First, the proportion of students who are White has decreased, while the proportion of students in each other racial/ethnic group has increased. Combined, minority students represented nearly a third of all undergraduates in 1999-2000, up from about a quarter in 1989-90. Second, the percentage of students working full time during the school year rose 7 percentage points during this period, while the percentage working part time fell 9 points. The percentage of students not working rose almost 2 points (see supplemental tables 35-1 and 35-2).

Many of these characteristics are related to the type of institution students attend. Students at public 2-year institutions are more likely to have dependents, work full time, and delay enrollment than those at 4-year institutions. These results are consistent with the fact that students at public 2-year institutions are older than those at 4-year institutions. Conversely, students at 4-year institutions, especially private not-for-profit doctorate-granting institutions, are more likely than those at 2-year institutions to be of traditional age, not work, and attend full time.

SOURCE: U.S. Department of Education, NCES. National Postsecondary Student Aid Study (NPSAS:2000).

**UNDERGRADUATE DIVERSITY: Percentage of undergraduates with selected student characteristics: 1999-2000**



FOR MORE INFORMATION:  
Supplemental Notes 1, 9  
Supplemental Tables 35-1,  
35-2

NCES 97-578,  
NCES 2002-168

# Programs and Courses

## Degrees and Fields of Study

Over the past decade, the number of associate's degrees awarded has increased at a faster rate than the number of bachelor's degrees.

The number of associate's degrees awarded between 1988–89 and 1999–2000 increased by 29 percent, from 437,000 to 565,000. In contrast, the number of bachelor's degrees awarded grew by 22 percent over the same time period, from 1,019,000 to 1,238,000 (see supplemental tables 36-1 and 36-2).

More associate's degrees were awarded in liberal arts/sciences, general studies, and humanities than in any other field in both 1988–89 and 1999–2000. Associate's degrees in these fields increased in both the number awarded (by 54 percent) and in the share of the total (from 28 to 33 percent). Business management/administrative services and health professions/related sciences had similar shares of all associate's degrees in 1999–2000 (16 and 15 percent, respectively). The number of associate's degrees awarded in business was similar in both years, but the number in health grew by 41 percent. In engineering-related technologies, the number of associate's degrees declined by 17 percent: this field accounted for 6 percent of all associate's degrees awarded in 1999–2000, down from 10 percent in 1988–89. The fields of visual/performing arts and computer/information sciences ex-

perienced dramatic growth (increasing by 109 and 159 percent, respectively), but each field accounted for only 3 to 4 percent of all associate's degrees awarded in 1999–2000 (see supplemental table 36-1).

At the bachelor's degree level, degrees awarded in business—the largest field in 1999–2000—increased their share of the total bachelor's degrees awarded between 1970–71 and 1988–89 (from 14 to 24 percent), but decreased their share between 1988–89 and 1999–2000 (from 24 to 21 percent). Conversely, bachelor's degrees awarded between 1970–71 and 1988–89 in education and social sciences/history—the second two largest fields in 1999–2000—decreased their shares between 1970–71 and 1988–89 and then remained relatively stable from 1988–89 to 1999–2000 (accounting for 9 to 11 percent of all degrees in both years, down from 21 and 19 percent in 1970–71). The fields with the next highest shares in 1999–2000, health professions and related sciences, psychology, and biological/life sciences, each accounted for between 4 and 6 percent of all bachelor's degrees awarded in both 1988–89 and 1999–2000 (see supplemental table 36-2).

**ASSOCIATE'S DEGREES: Number of associate's degrees conferred by Title IV degree-granting institutions, percentage of total, and percentage change, by field of study: 1988–89 and 1999–2000**

Field of study	1988–89		1999–2000		Percent change
	Number of degrees	Percent of total	Number of degrees	Percent of total	
Total <sup>1</sup>	436,764	100.0	564,933	100.0	29.3
Liberal arts and sciences, general studies, and humanities	121,988	27.9	187,454	33.2	53.7
Business management and administrative services	92,481	21.2	92,274	16.3	-0.2
Health professions and related sciences	59,535	13.6	84,081	14.9	41.2
Engineering-related technologies	42,593	9.8	35,395	6.3	-16.9
Marketing operations/marketing and distribution	14,338	3.3	5,557	1.0	-61.2
Protective services	11,682	2.7	16,298	2.9	39.5
Other academic <sup>2</sup>	8,194	1.9	12,930	2.3	57.8
Visual and performing arts	8,178	1.9	17,100	3.0	109.1
Computer and information sciences	7,900	1.8	20,450	3.6	158.9
Mechanics and repairers	7,769	1.8	11,614	2.1	49.5
Multi/interdisciplinary studies	7,737	1.8	11,784	2.1	52.3
Precision production trades	7,414	1.7	11,814	2.1	59.3

<sup>1</sup>Total includes other fields not shown.

<sup>2</sup>Other academic includes area, ethnic, and cultural studies; biological/life sciences; English language and literature/letters; foreign languages and literatures; mathematics; philosophy and religion; physical sciences; psychology; and social sciences and history. Each field accounted for less than 1 percent of the total associate's degrees conferred in each year.

SOURCE: U.S. Department of Education, NCES. (2002). *Digest of Education Statistics 2001* (NCES 2002–130). Data from U.S. Department of Education, NCES. Integrated Postsecondary Education Data System (IPEDS), "Completions" surveys.

FOR MORE INFORMATION:  
Supplemental Tables 36-1,  
36-2





# Learning Opportunities

## Perceived Impact of Work on Postsecondary Learning

*Undergraduates who work but identify themselves primarily as students are more likely to report that working negatively affects their academic performance as the number of hours worked per week increases.*

Eighty percent of undergraduates at 4- and less-than-4-year institutions worked during the 1999–2000 school year: 48 percent of undergraduates identified themselves primarily as students working to meet school expenses and 32 percent as employees who decided to enroll in school. The remaining 20 percent of undergraduates did not work. Students who identified themselves as working to meet expenses worked an average of 26 hours per week, whereas those who considered themselves to be employees worked an average of 40 hours per week (see supplemental table 37-1).

Working can pay for or help offset some costs of schooling, but working can also limit students' opportunities to learn and have a negative effect on their grades. As the number of hours worked per week increased for those who identified themselves as primarily students, so did the likelihood of students indicating that work had a negative impact on their academic performance and that it limited their number of classes, class schedule, access to the library, and class choice. As an illustration, among students working to help pay for school expenses, 16

percent of those working 1 to 15 hours per week in 1999–2000 indicated that working had a negative effect on their grades. Thirty percent of students who worked 16 to 20 hours a week said the same, as did close to half of those who worked 35 or more hours (48 percent).

Of those who considered themselves primarily students, the percentage borrowing to pay for their education decreased as the number of hours worked per week increased. Almost half of students who worked 1 to 15 hours per week borrowed (49 percent), compared with 32 percent of students who worked 35 or more hours. Thus, students appear to be working as a substitute for borrowing.

Other research (NCES 98–088) has found a negative relationship between hours worked and persistence. Consequently, students must find an appropriate balance between working and studying. While borrowing to pay for education can leave students with a large debt, working long hours reduces the amount of time students have for studying and may decrease the likelihood that these students will finish their postsecondary education.

NOTE: Includes students at 4- and less-than-4-year institutions.

SOURCE: U.S. Department of Education, NCES, National Postsecondary Student Aid Study (NPSAS:2000).

**EFFECTS OF WORKING:** Among undergraduates who considered themselves primarily students but worked to help pay for school expenses, the percentage reporting various effects of work on their schooling and the percentage who borrowed, by average hours worked per week: 1999–2000

Hours worked per week	Effects of working					
	Limited number of classes	Limited class schedule	Limited access to library	Reduced class choice	Negative effect on grades	Borrowed to pay for education
Total	38.6	46.1	30.1	32.9	34.6	39.4
1–15	14.5	19.6	12.2	12.1	16.2	48.8
16–20	29.0	37.4	23.3	25.6	30.2	41.3
21–34	41.3	50.7	32.4	35.7	39.9	37.8
35 or more	63.3	70.0	47.9	53.0	47.9	31.7



FOR MORE INFORMATION:  
Supplemental Note 1  
Supplemental Table 37-1  
NCES 98–084,  
NCES 98–088

# Learning Opportunities

## Student Participation in Distance Education

*Despite the proliferation of distance education offerings, fewer than one in 10 undergraduates enroll in these classes.*

Enrollments, course offerings, and availability of distance education increased rapidly during the 1990s. The percentage of 2- and 4-year institutions offering distance education classes rose from 33 to 44 percent between fall 1995 and 1997, and the number of such classes nearly doubled (NCES 2000–013). One-fifth of the nation’s 2- and 4-year institutions also planned to start offering distance education courses between 1998 and 2001.

Despite the expansion of distance education offerings, 8 percent of undergraduates and 12 percent of master’s students enrolled in such classes at postsecondary institutions in 1999–2000. A higher percentage of students at public 2-year colleges than at 4-year institutions participated in distance education classes (9 versus 7 percent). Of the undergraduates who participated, more used the Internet (60 percent) than live audio or television (37 percent) or prerecorded audio or television (39 percent). Similarly, more master’s students who participated in distance education classes used the Internet than live or prerecorded audio or television (68 percent versus 45 and 29 percent,

respectively). Among students who participated in distance education classes, master’s students were more likely than undergraduates to report that their entire program was available through distance education. Finally, among students who participated, a higher proportion of both undergraduate and master’s students were less satisfied than more satisfied with the quality of instruction they received in their distance education classes compared with their regular classes (see supplemental tables 38-1 and 38-2).

Among undergraduates, females (9 percent) were more likely than males (7 percent) to participate in distance education, as were students over age 24 than younger students and students who worked part time than students who worked full time (although some of these characteristics may be interrelated). Undergraduates who considered themselves “employees who study” were more likely to participate than students who considered themselves either “students who work” or “students who do not work” (see supplemental table 38-1).

**DISTANCE EDUCATION PARTICIPATION: Percentage of undergraduates who participated in distance education classes at postsecondary institutions, and percentage of participants with various experiences with distance education: 1999–2000**

Distance education characteristics	Total	2-year public	4-year		
			Total	Public	Private not-for-profit
Total percentage participating <sup>1</sup>	7.6	9.0	6.6	6.9	6.1
Percentage of participants <sup>2</sup>					
Type of distance education <sup>3</sup>					
Live TV/audio	37.3	39.3	34.1	36.6	27.5
Prerecorded audio/TV	39.3	43.8	33.2	31.5	37.7
Internet	60.1	56.4	64.3	61.6	71.5
Entire program available through distance education	29.0	28.8	27.8	27.1	29.8
Level of satisfaction with distance education classes compared with regular classes					
Total	100.0	100.0	100.0	100.0	100.0
More satisfied	22.6	24.0	19.9	20.2	19.1
Equally satisfied	47.1	45.1	51.2	51.1	51.6
Less satisfied	29.6	30.0	28.2	28.2	28.1

<sup>1</sup>Denominator is total undergraduate population.

<sup>2</sup>The denominator in the rows below is the number of undergraduate students who participated in distance education classes.

<sup>3</sup>Type of distance education categories are not mutually exclusive.

NOTE: Includes students who participated in distance education at either the institution at which they were enrolled or both the institution at which they were enrolled and another institution. Students who participated in distance education only at an institution other than the one at which they were primarily enrolled were excluded. Percentages may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, NCES, National Postsecondary Student Aid Study (NPSAS:2000).

FOR MORE INFORMATION:  
Supplemental Tables 38-1,  
38-2



NCES 98–062,  
NCES 2000–013



# Faculty

## Status of Women and Minority Faculty

*During the 1990s, women advanced their faculty status, including salary. At the end of the decade, however, a gap in salary between male and female faculty remained.*

Between 1992 and 1998, full-time female faculty increased their representation in public doctoral, research, and medical institutions. In addition, greater percentages of full-time female faculty held the rank of full professor and a doctoral or first-professional degree in 1998 than in 1992. The average base salary for full-time female faculty increased from \$45,580 in 1992 (in constant 1998 dollars) to \$48,370 in 1998, whereas the average base salary for full-time male faculty remained about the same.

Despite the improvement for female faculty, a salary gap between male and female faculty remains. Full-time male faculty earned about \$13,000 more than their female colleagues in 1998. This difference may be attributed to the fact that males are more likely than females to have characteristics associated with higher pay. In 1998, males were more likely than females to work at public doctoral, research, and medical institutions, be full professors, have tenure, and hold doctoral or first-professional degrees. Nonetheless, even if these and other salary-related characteristics—including age, field, level of students taught, experience, courseload, time engaged in teaching and research activities, and

number of recent publications—had been the same for males and females, full-time female faculty would have earned about \$5,000 less than their male colleagues in 1998 (see supplemental table 39-1).

With respect to race/ethnicity, there were some apparent changes in faculty status and salaries for some groups between 1992 and 1998, but none of these changes were statistically significant. However, some racial/ethnic differences existed in 1998. Compared with White faculty, Asian/Pacific Islander faculty had higher average salaries, were more likely to hold advanced degrees, and had greater representation at public doctoral, research, and medical institutions. Black faculty had lower average salaries and were less likely to have advanced degrees or attain tenure or full professorship than White faculty.

Some of the salary differences for faculty from various racial/ethnic backgrounds may be explained by differences in the faculty characteristics described above. After controlling for these characteristics, there were no statistically significant differences in average salaries across racial/ethnic groups (see supplemental table 39-1).

<sup>1</sup>For more information about the classification of postsecondary institutions, see *Supplemental Note 9*.

<sup>2</sup>In 1992, respondents did not have the option of selecting more than one racial category, while in 1998 they did. See *Supplemental Note 1* for more information.

NOTE: The analysis includes only full-time instructional faculty and staff at Title IV degree-granting institutions who had some instructional duties for credit. Instructional duties include teaching one or more classes for credit or advising or supervising students' academic activities. Base salary estimates for faculty in 1992 were adjusted to constant 1998 dollars using the Consumer Price Index.

SOURCE: U.S. Department of Education, NCES. National Study of Postsecondary Faculty (NSOPF:1993 and NSOPF:1999).

**STATUS OF WOMEN AND MINORITY FACULTY: Percentage of full-time instructional faculty and staff having selected characteristics and their average base salary (in constant 1998 dollars), by sex and race/ethnicity: Fall 1992 and 1998**

Faculty characteristics	Percentage of all full-time instructional faculty and staff who:								Average base salary of full-time instructional faculty and staff	
	Taught at public doctoral, research, and medical institutions <sup>1</sup>		Ranked as a full professor		Had tenure		Had a doctorate or first-professional degree		1992	1998
	1992	1998	1992	1998	1992	1998	1992	1998	1992	1998
<b>Total</b>	31.9	34.9	30.4	30.7	54.2	53.1	65.1	67.0	\$56,240	\$56,850
<b>Sex</b>										
Male	35.5	38.0	37.9	38.2	61.3	59.7	72.9	74.2	61,540	61,680
Female	24.7	29.4	15.2	17.6	39.7	41.6	49.6	54.3	45,580	48,370
<b>Race/ethnicity<sup>2</sup></b>										
White	32.1	34.8	31.5	32.2	55.6	54.3	65.2	66.6	56,450	57,000
Black	20.3	23.2	19.6	17.5	43.5	43.9	53.2	57.5	48,410	50,360
Asian/Pacific Islander	40.6	46.8	28.1	25.9	47.1	49.1	79.3	84.5	62,770	62,800
Hispanic	32.3	34.8	21.7	25.3	44.9	48.5	63.2	64.0	50,120	54,370
American Indian/ Alaska Native	21.7	34.2	16.1	17.8	43.0	29.4	48.1	53.2	63,990	48,090



FOR MORE INFORMATION:  
Supplemental Notes 1, 9, 14  
Supplemental Table 39-1  
NCES 2002-170