National Center for Education Statistics

PEDAR

U.S. Department of Education
Institute of Education Sciences
NCES 2005–156

College Persistence on the Rise?

Changes in 5-Year Degree Completion and Postsecondary Persistence Rates Between 1994 and 2000

Postsecondary Education Descriptive Analysis Reports

Executive Summary
The complete report is available at
http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005156

November 2004

Laura Horn
Rachael Berger
MPR Associates, Inc.

C. Dennis Carroll
Project Officer
National Center for Education Statistics

U.S. DEPARTMENT OF EDUCATION
Rod Paige
Secretary

INSTITUTE OF EDUCATION SCIENCES
Grover J. Whitehurst
Director

NATIONAL CENTER FOR EDUCATION STATISTICS
Robert Lerner
Commissioner

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

NCES activities are designed to address high priority education data needs; provide consistent, reliable, complete, and accurate indicators of education status and trends; and report timely, useful, and high quality data to the U.S. Department of Education, the Congress, the states, other education policymakers, practitioners, data users, and the general public.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other NCES product or report, we would like to hear from you. Please direct your comments to:

National Center for Education Statistics
Institute of Education Sciences
U.S. Department of Education
1990 K Street NW
Washington, DC 20006-5651

November 2004

The NCES World Wide Web Home Page is: http://nces.ed.gov
The NCES World Wide Web Electronic Catalog is: http://nces.ed.gov/pubsearch

Suggested Citation

Horn, L., and Berger, R. (2004). *College Persistence on the Rise? Changes in 5-Year Degree Completion and Postsecondary Persistence Rates Between 1994 and 2000* (NCES 2005–156). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

For ordering information on this report, write:

U.S. Department of Education
ED Pubs
P.O. Box 1398
Jessup, MD 20794-1398

or call toll free 1-877-4ED-PUBS

Content Contact:
Aurora D'Amico
(202) 502-7334
Aurora.D'Amico@ed.gov

Executive Summary

Using two longitudinal surveys of beginning postsecondary students (i.e., first-time freshmen),[1] this study examines whether students who enrolled in the beginning of the 1990s were more or less likely than those who enrolled in the mid-1990s to complete postsecondary education. Specifically, the analysis compares the degree completion and persistence rates among two cohorts—students who first enrolled in postsecondary education in academic year 1989–90 and their counterparts who first enrolled in 1995–96. The study focuses on the rates at which students in each cohort completed a degree within 5 years or were still enrolled at the end of 5 years; it also examines changes in the students' demographic profile and other population characteristics. The findings are based on data from the 1990/94 and 1996/01 Beginning Postsecondary Students Longitudinal Studies (BPS:90/94 and BPS:96/01). Each of these studies surveys a sample of students who enrolled in postsecondary education for the first time in a specific academic year. The earlier cohort of beginning postsecondary students consisted of students who first began their postsecondary education in 1989–90 (BPS:90/94) and were interviewed again in 1992 and 1994. The more recent cohort followed students who began in 1995–96 (BPS:96/01) and were interviewed subsequently in 1998 and 2001.[2] The later survey actually covers a 6-year period, but in order to make comparisons with BPS:90/94, which ended after 5 years, measures of 5-year degree completion and persistence are analyzed. It is important to note that the findings from this analysis are entirely descriptive in nature and, while associations are noted, they should not be interpreted as causal inferences.[3]

Historical research based on data collected by the U.S. Department of Education and the U.S. Census Bureau has shown that college completion rates have changed little since the early 1970s (Barton 2002; Adelman 2004), with completion rates of 66–67 percent for 1972, 1982, and 1992 high school graduates who ever enrolled at a 4-year college (figure 1). In the current study, no overall change in the 5-year *bachelor's degree completion rate* was detected. However, despite the relatively short period of 6 years between the two surveys, measurable changes in 5-year *persistence rates* were evident. Students in the more recent (1995–96) cohort were more likely to be enrolled 5 years after they began their postsecondary studies. As a result, the combined rate of degree completion and 5-year persistence for students who began their undergraduate education in a 4-year institution rose from 76 to 80 percent (table 5-A).

Changes in Student Populations

Between 1989 and 1995, total undergraduate fall enrollment in institutions of higher education increased from 11.7 million to 12.2 million (U.S.

[1] The surveys included students in the 50 states, the District of Columbia, and Puerto Rico.

[2] Overall weighted response rates for these two studies are 91 and 86 percent, respectively (see appendix B for more information).

[3] All differences noted in the report are statistically significant at the 0.05 level.

Department of Education 2000, table 190). In addition to the increase in the total undergraduate population, the racial/ethnic composition and income level of students just beginning their postsecondary education changed over the 6-year period. In particular, as shown in table A, Black and Hispanic students made up larger proportions of beginning postsecondary students over the study period, while the proportion of White students declined over time. Although no overall change in the gender distribution was detected, when the data were broken out by the type of institution students first attended, among students enrolled in private not-for-profit 4-year institutions, it appears that the percentage who were women increased from 51 percent in 1989–90 to 57 percent in 1995–96; however, the difference is not statistically significant (table 1).

Coinciding with the rise in Black and Hispanic student enrollment in the 6-year period between cohorts was an increase in the proportion of low-income students. The percentage of low-income students increased from 13 to 16 percent overall for dependent students.[4] This increase held for dependent students who began in public 4-year institutions (from 10 to 15 percent) and private for-profit institutions (from 21 to 35 percent) (table 1).

The age distribution of beginning students changed to some degree. As of December 31 in the year they enrolled, the percentage of 19-year-olds and students in their 20s increased, while the proportion of 18-year-olds declined.

Table A. For beginning postsecondary students who first enrolled in 4-year institutions, percentage distribution by parents' highest level of education: 1989–90 and 1995–96

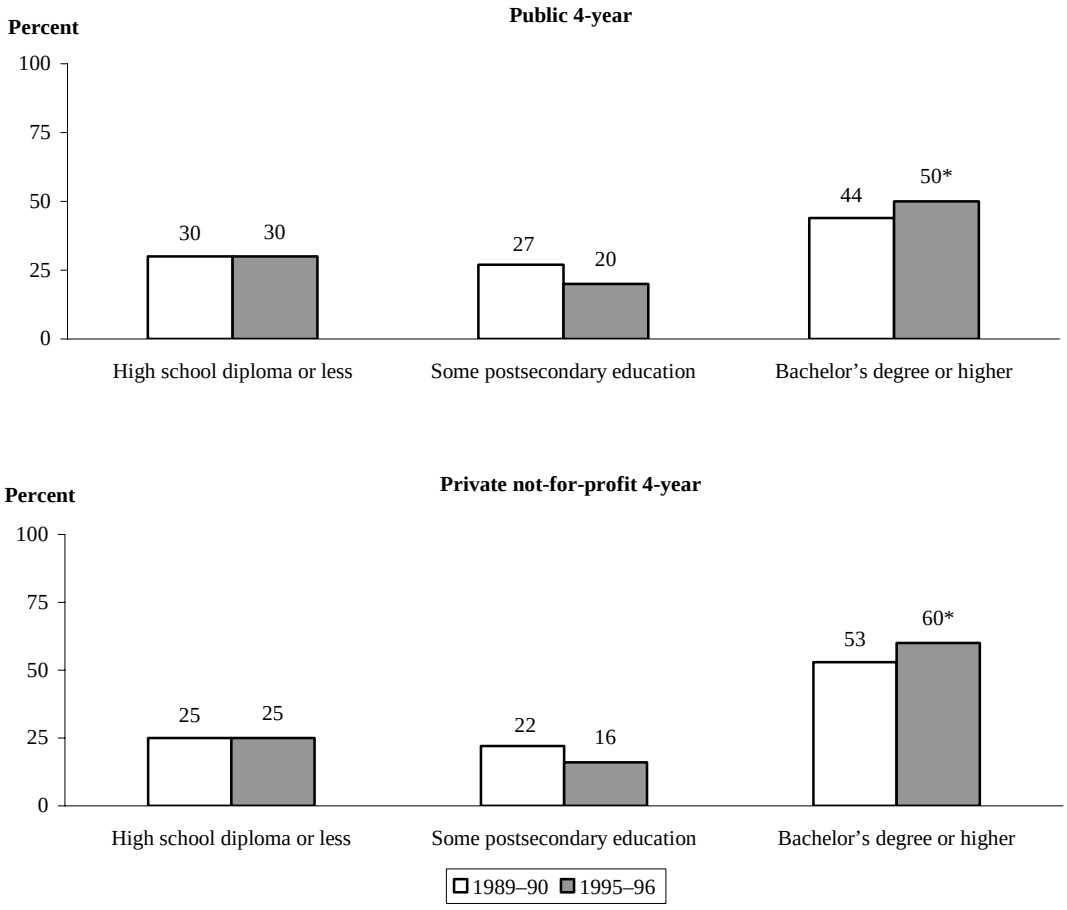
	1989–90	1995–96
Total	100.0	100.0
Gender		
Male	46.0	45.2
Female	54.0	54.8
Race/ethnicity[1]		
American Indian	0.7	0.8
Asian/Pacific Islander	4.0	4.6
Black	8.8	11.9*
White	78.8	70.6*
Hispanic[2]	7.6	12.2*
Income relative to poverty level[3]		
Dependent students		
Below 125 percent	12.6	16.2*
125–449 percent	58.9	56.0
450 percent or higher	28.5	27.8
Independent students		
Below 125 percent	38.4	47.1*
125–449 percent	56.0	46.4*
450 percent or higher	5.7	6.5
Age as of 12/31 in year of enrollment		
18 years or younger	55.2	45.3*
19 years	17.0	21.9*
20–29 years	18.1	21.1*
30 years or older	9.7	11.8

*Estimate for the 1995–96 cohort is statistically significantly different from the estimate for the 1989–90 cohort ($p<0.05$).
[1]American Indian includes Alaska Native, Black includes African American, Pacific Islander includes Native Hawaiian, and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified.
[2]It should be noted that 14 percent of Hispanic students in the later BPS survey (BPS:96/01) were from Puerto Rican institutions, while in the earlier survey, students from Puerto Rico accounted for 3 percent of Hispanic students. When students from Puerto Rico are removed, the total percentages of Hispanic students are 7.4 and 10.8, respectively, for the two cohorts (BPS:90/94 and BPS:96/01).
[3]Describes income as a percentage of the established poverty threshold for a given family size (see appendix A for detailed definition). For dependent students, calculation is based on parents' income. For independent students, calculation is based on their own income.
NOTE: Detail may not sum to totals because of rounding. Unless otherwise specified, all variables refer to the first time students first enrolled.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990/94 Beginning Postsecondary Students Longitudinal Study (BPS:90/94) and 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

[4] In the analysis comparing income levels between the BPS cohorts, "low income" is defined as family incomes that did not exceed 125 percent of established poverty levels. Poverty levels are calculated for families of different sizes. Dependent students are typically those under the age of 24 and are reported as dependents by their parents on financial aid applications. Dependent income levels are based on parents' income the year before students enrolled. See appendix A for more details.

As the demographic profile of beginning students changed, so did the level of education achieved by their parents. Students in the later cohort were more likely to have at least one parent who held a bachelor's degree or higher. Such students are typically more successful in completing college degrees than their counterparts whose parents never attended postsecondary education (Nuñez and Cuccaro-Alamin 1998). The change in parents' education levels was particularly evident among students who began in 4-year institutions, among whom the percentage with parents who held bachelor's degrees or higher increased from 44 to 50 percent for those who started in public institutions and from 53 to 60 percent for those who started in private not-for-profit institutions (figure A and table 2).

Figure A. Percentage distribution of the highest level of education completed by students' parents among beginning postsecondary students who first enrolled in 4-year institutions: 1989–90 and 1995–96



*Difference between 1989–90 and 1995–96 is statistically significant ($p<0.05$).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990/94 Beginning Postsecondary Students Longitudinal Study (BPS:90/94) and 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

There was some indication that students' academic preparation may have changed over time, primarily for students who began in public 2-year colleges. Among these students, the percentage who reported taking remedial mathematics courses in their first year of enrollment increased from 11 to 17 percent (table 2). About 1 in 10 students who began in public 2-year colleges reported taking remedial reading courses in both cohorts.

Changes in Student Borrowing

Over the 6-year period between cohorts, rising tuition and changes in federal loan regulations were associated with changes in the way in which beginning students financed their postsecondary education. Between 1989–90 and 1995–96, tuition at postsecondary institutions increased 20 to 40 percent, depending on the institution type (The College Board 1998). Financial aid also increased over this period, but loans made up a greater portion of aid in 1995–96 (The College Board 2000). Changes in federal loan regulations expanded students' eligibility for both unsubsidized and subsidized loans (Berkner 2000). Consistent with these changes, the percentage of students who borrowed to help pay for their postsecondary education increased. During the course of their enrollment, nearly one-half of students who began their postsecondary education in 1995–96 took out student loans to help pay for their education, compared with about one-third of their counterparts who first enrolled 6 years earlier (table 4). Thus, beginning postsecondary students who enrolled in 1995–96 were more likely to accrue loan debt over the course of their studies than their counterparts who enrolled in 1989–90.

Changes in Degree Completion and 5-Year Persistence

Table B summarizes the educational outcomes of students in the two cohorts in terms of their 5-year degree completion and persistence rates. The first column displays the percentage of students who completed any degree in 5 years (the sum of columns 2, 3, and 4). Columns 2, 3, and 4 show the rate at which students completed each type of degree (bachelor's degree, associate's degree, and vocational certificate), while columns 5 and 6 display the percentage of students who had not earned a degree, but were still enrolled in either a 4-year institution or a subbaccalaureate institution. Column 7 shows the percentage of students who were not enrolled after 5 years and had not earned a degree. It is possible that these students resumed their postsecondary education at a later date (i.e., stopped out), but within the 5-year time frame of each survey, they had not earned a degree and were not enrolled. The last column of the table displays the combined 5-year degree completion and persistence rate (the sum of columns 1, 5, and 6), which, in other words, is the percentage of students who had completed a degree or were still enrolled 5 years after they began their postsecondary education. Where differences between the two student populations are statistically significant ($p<.05$), an asterisk appears next to the number for the more recent (1995–96) cohort.

The results indicate an increase in the percentage of students who had not yet completed a degree, but were still enrolled in a 4-year institution 5 years after first enrolling. These are students who are taking longer than 5 years in their efforts to complete a bachelor's degree. This finding held across all institution types except those in the for-profit sector. Among all students

Table B. Percentage of beginning postsecondary students who had completed a degree or were still enrolled 5 years after they began postsecondary education, by type of first institution and year enrolled: 1989–90 and 1995–96

		Highest degree completed			No degree, 5-year persistence			Total
	Total completed	Bachelor's degree	Associate's degree	Certificate	Still enrolled at 4-year	Still enrolled at 2-year or less	No degree, not enrolled	completed or persisted
Total[1]								
1989–90	49.9	25.8	11.2	13.0	8.1	5.2	36.8	63.2
1995–96[2]	46.6*	25.1	9.9	11.7	11.6*	6.6	35.2	64.9
Type of first institution								
All 4-year								
1989–90	60.3	53.3	4.2	2.9	13.3	1.9	24.4	75.6
1995–96	59.3	53.4	3.7	2.3	17.2*	3.2*	20.4*	79.6*
Public 4-year								
1989–90	54.8	46.9	4.7	3.2	16.1	2.3	26.8	73.2
1995–96	53.3	46.6	4.1	2.6	20.9*	3.7*	22.1*	77.9*
Private not-for-profit 4-year								
1989–90	71.9	66.6	3.0	2.3	7.4	1.2	19.6	80.4
1995–96	69.8	65.3	2.9	1.6	10.7*	2.2*	17.3	82.7
Public 2-year								
1989–90	36.7	6.3	17.5	12.9	5.1	9.6	48.6	51.4
1995–96	32.0	6.9	15.9	9.3*	9.7*	10.5	47.8	52.2
Private for-profit								
1989–90	59.7	1.6	11.1	46.9	0.7	1.1	38.6	61.4
1995–96	58.6	1.4	8.2	49.1	1.6	3.2*	36.6	63.4

*Estimate for the 1995–96 cohort is statistically significantly different from the estimate for the 1989–90 cohort ($p<0.05$).

[1]Total also includes private not-for-profit 2-year and less-than-2-year institutions and public less-than-2-year institutions.

[2]The 6-year completion and persistence rates for the 1995–96 cohort are presented in table B-1.

NOTE: Detail may not sum to totals because of rounding. Unless otherwise specified, all variables refer to the first time students enrolled.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990/94 Beginning Postsecondary Students Longitudinal Study (BPS:90/94) and 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

who started in 1989–90, 8 percent were still enrolled in a 4-year institution, while among those who began 6 years later, 12 percent were still enrolled. The increase in enrollment after 5 years was accompanied by an overall decline in degree completion from 50 to 47 percent. However, for both cohorts, bachelor's degree completion remained at about one-quarter among all beginning students and at about 53 percent among students who began in 4-year institutions.

Changes in persistence and completion rates varied across the institution types that students first attended. For example, among students who began in public 4-year colleges or universities, the likelihood of still being enrolled in a 4-year institution increased (from 16 to 21 percent). Commensurate with this, the combined degree completion and 5-year persistence rate went up as well (from 73 to 78 percent).[5] This finding implies that given more time, the rate of bachelor's degree

[5] The combined rate of degree completion and persistence includes the small percentage of students enrolled in a less-than-4-year institution. For students who started in a 4-year college, being enrolled in a less-than-4-year institution would not be an indication of persisting toward a bachelor's degree.

completion in public 4-year institutions may increase. In private not-for-profit 4-year institutions, on the other hand, a change in the combined completion and persistence rate could not be detected even though the likelihood of still being enrolled in a 4-year institution increased measurably (from 7 to 11 percent).

Like students who first enrolled in the 4-year sector, those who started in public 2-year colleges increased their likelihood of being enrolled in a 4-year institution at the end of 5 years (from 5 to 10 percent). At the same time, comparisons between the two cohorts revealed no measurable change in either transfer rates from public 2-year colleges (figure 4) or bachelor's degree completion of transfer students (table 12). Therefore, the fact that a greater percentage of transfer students are enrolled in a 4-year institution after 5 years suggests that public 2-year college students in the later cohort may have been more persistent in pursuing a bachelor's degree. At the same time, however, the rate at which students in public 2-year colleges completed vocational certificates declined over the 6 years between cohorts, from 13 percent to 9 percent.

Changes by Gender, Race/Ethnicity, and Income

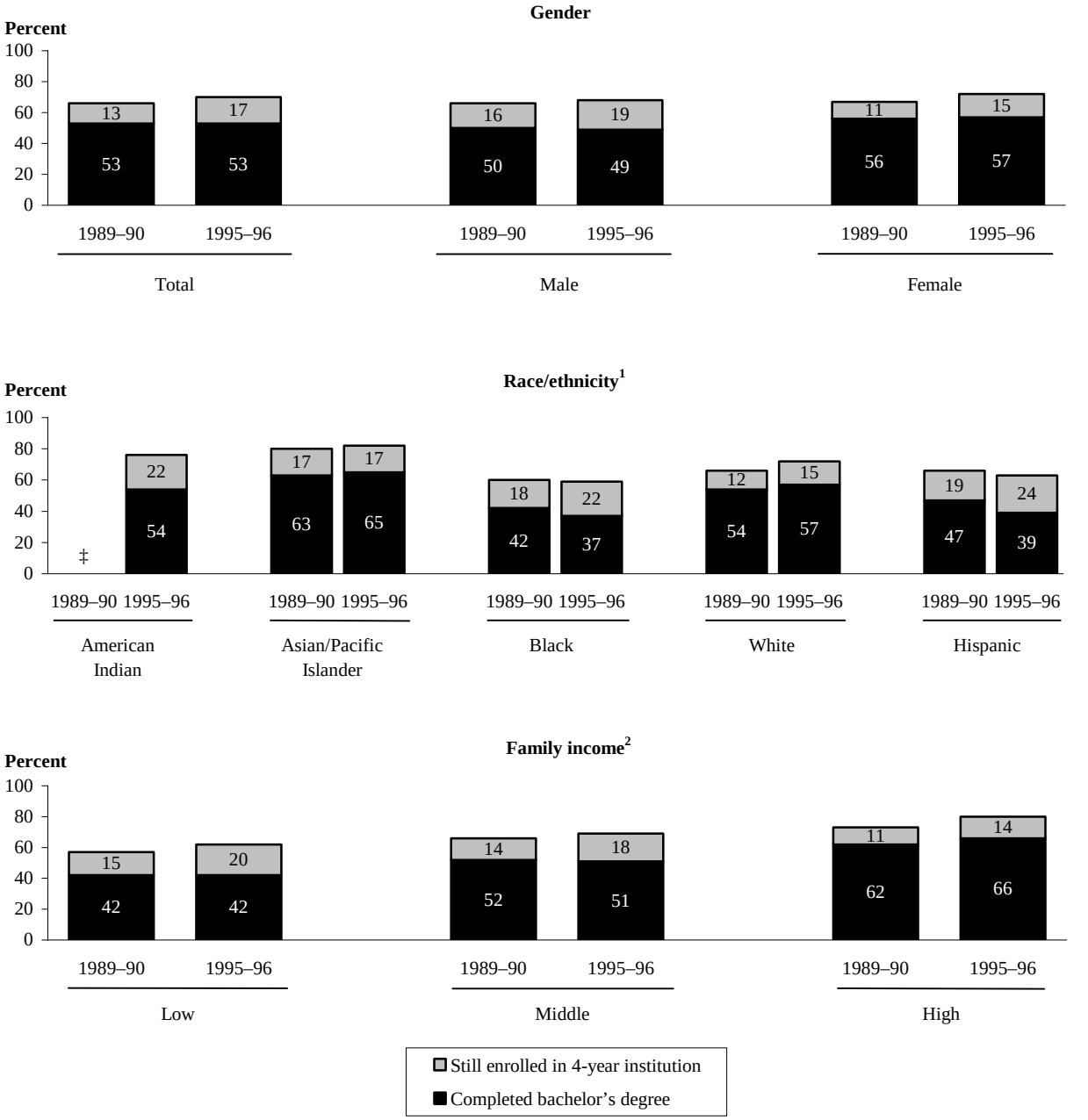
The analysis detected some variations in postsecondary completion and persistence measures by demographic characteristics; however, most of these changes were observed among students in specific institution types rather than among all students. In fact, the main finding overall—the increase in the percentage of students still enrolled in a 4-year institution—held for both men and women, for White students, and across all income levels (table 6).

Figure B illustrates changes by demographic characteristics for students who began in 4-year institutions. Differences in the combined 5-year degree completion and persistence rates were found primarily for those in public 4-year institutions where males, Whites, and low-income students experienced increases over time, while changes were not detected for women, other racial/ethnic groups, or higher income levels (table 7). Despite their financial disadvantage, the trends within income levels indicate that low-income students who first enrolled in public 4-year colleges improved their combined persistence and degree completion rate (figure C). Apparent increases for middle- and high-income students in the same sector were not statistically significant. In contrast to public 4-year institutions, among students who started in private not-for-profit 4-year institutions, high-income students improved their combined degree completion and persistence rate, while no change was detected for lower income students or for any other group of students (table 8).

Conclusions

On the whole, when comparing students who began their postsecondary education in 1989–90 with those who began 6 years later, no change was detected in the rate at which students earned a bachelor's degree within 5 years. However, for those who had not completed a degree, a higher percentage of students in the later cohort were still enrolled after 5 years. These findings indicate that students in the later cohort who had not earned a degree were more persistent in staying enrolled, but required more than 5 years in their efforts to complete a degree. Among students who began in public 2-year colleges, those in the later cohort

Figure B. Among beginning postsecondary students who first enrolled in 4-year institutions, the percentage who had completed a bachelor's degree or were still enrolled in a 4-year institution 5 years after they enrolled, by gender, race/ethnicity, and family income: 1989–90 and 1995–96



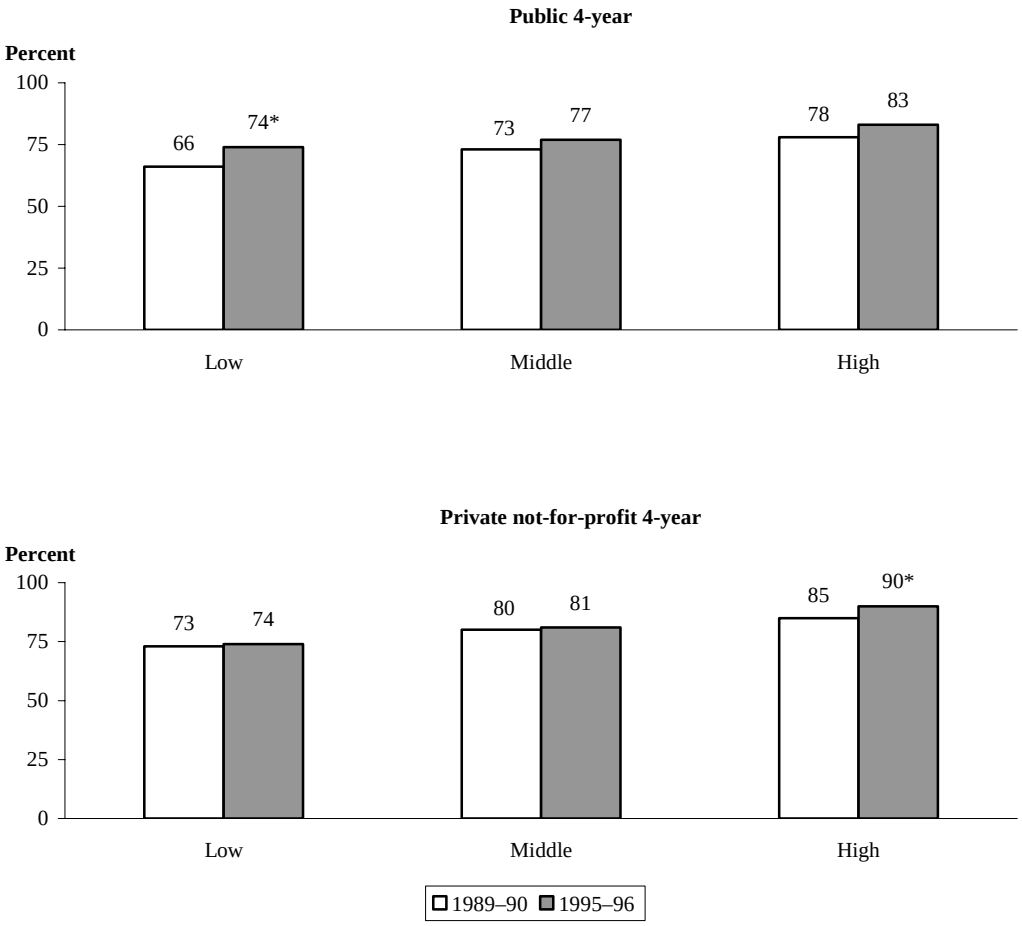
‡Reporting standards not met. (Too few cases.)

[1]American Indian includes Alaska Native, Black includes African American, Pacific Islander includes Native Hawaiian, and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified.

[2]Calculated separately for dependent and independent students. "Low" refers to the bottom 25 percent of the income distribution; "Middle" refers to the middle 50 percent; and "High" refers to the upper 25 percent. See appendix A for detailed definition.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990/94 Beginning Postsecondary Students Longitudinal Study (BPS:90/94) and 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

Figure C. Among beginning postsecondary students who first enrolled in 4-year institutions, the percentage who completed a degree or were still enrolled 5 years after they began postsecondary education, by family income: 1989–90 and 1995–96



*Difference between 1989–90 and 1995–96 is statistically significant ($p<0.05$).

NOTE: Family income is calculated separately for dependent and independent students. "Low" refers to the bottom 25 percent of the income distribution; "Middle" refers to the middle 50 percent; and "High" refers to the upper 25 percent. See appendix A for detailed definition.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990/94 Beginning Postsecondary Students Longitudinal Study (BPS:90/94) and 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01).

were also more likely than their counterparts who enrolled 6 years earlier to be enrolled in a 4-year institution. This result suggests that community college students in the later cohort were more persistent in maintaining their enrollment toward a bachelor's degree than their counterparts who enrolled 6 years earlier.

It is difficult to pinpoint what accounts for the increase in persistence between the two cohorts and to determine whether or not it is a temporary occurrence. Changes in the demographic composition of the two cohorts may be related to the changes in persistence. Black, Hispanic, and low-income students gained greater representation

between 1989–90 and 1995–96. Such students have historically been underrepresented in postsecondary education and often face additional barriers to completing a degree. However, the data indicate that low-income students in public 4-year institutions actually increased their likelihood of succeeding as evidenced by an increase in their 5-year persistence rate. Also, the percentage of students whose parents graduated from college rose over time, which would typically be associated with higher completion and persistence rates.

Changes in students' reliance on loans may also have influenced their decision to stay enrolled. Students who entered college in 1995–96 were more likely than their counterparts who enrolled 6 years earlier to have taken out student loans to help finance their education. Over the course of their postsecondary studies, nearly one-half of these students borrowed, compared with about one-third of their counterparts who had enrolled earlier. The prospect of leaving college in debt may have motivated these students to stay enrolled and complete a degree.

It is also possible that the economy played a role in changing the rates at which students persisted. Students who began their postsecondary education in 1989–90 and who were still enrolled in college 5 years later (in 1994) encountered a growing economy with plentiful job opportunities (Schwenk and Pfuntner 2003). Those students who had not yet finished their degree may have been attracted to the high-tech industry job market and thought they could join the labor force and return later to finish their degree. On the other hand, students who began college in 1995–96 and who were still enrolled 5 years later (in 2000) faced an economy in the beginning stages of a recession (Martel and Langdon 2001). With fewer job options and greater debt, these students may have been less willing to take a break from their studies and leave without a degree.