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# Research Questions and Data Resource Needs For Examining Student Access to Higher Education

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From Reconceptualizing Access in Postsecondary Education: Report of the Policy Panel on Access. Full report can be found at: <http://nces.ed.gov/pubs98/98283.pdf>

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# Research Questions and Data Resource Needs For Examining Student Access to Higher Education

## **Abstract**

This paper examines some of the important policy issues pertaining to student access to higher education and raises evaluation questions for which evaluation research is needed. For illustrative purposes, the paper presents data that show the progress the nation has made in expanding access persistence and degree completion for various segments of the population at different levels, types and qualities of colleges and universities

## **Disciplines**

Disability and Equity in Education | Education | Higher Education

## **Comments**

From Reconceptualizing Access in Postsecondary Education: Report of the Policy Panel on Access. Full report can be found at: <http://nces.ed.gov/pubs98/98283.pdf>

## **RESEARCH QUESTIONS AND DATA RESOURCE NEEDS FOR EXAMINING STUDENT ACCESS TO HIGHER EDUCATION**

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### **Introduction**

Expanding student access to college has been a leading mantra of American higher education policymakers and leaders for a little more than the latter half of the 20th century. Although enacting policies and taking actions that lead to greater access are their primary functions, policymakers and educational leaders must also be concerned about periodically evaluating their policies and actions. This involves raising the appropriate policy questions, generating the necessary data and information for measuring progress, and enacting new strategies that aim toward achieving greater access.

This paper examines some of the important policy issues pertaining to student access to higher education and raises evaluation questions for which evaluation research is needed. For illustrative purposes, the paper presents data that show the progress the nation has made in expanding access persistence and degree completion for various segments of the population at different levels, types and qualities of colleges and universities.

Because financial aid has been the principal vehicle that public policymakers use to pursue greater access for students in higher education, trends in various types of student aid are presented along with some pertinent research questions for which new data are needed. The additional data recommended are required for constructing a better profile of the status of student access to higher education and for evaluating the policies and programs that are designed to achieve access. Finally, progress made by the most selective colleges and universities in the nation toward achieving greater access and opportunity are presented in order to raise new questions about how college and university admissions policies are used to expand access to college.

### **Defining the Access Issues**

Student access to college may seem at times to be a clear-cut and easy concept to grasp. It is, however, a fairly complex issue. In part, the complexity is due to the variety of special groups in the nation that compete for target status, the continuous changes in societal needs and political pressures that causes shifts in policy. The focus of efforts to achieve access has shifted from time to time over the past five decades from veterans of World War II to more contemporary emphases upon women, African Americans, Hispanics, Native Americans and the economically disadvantaged. For the moment it seems that underrepresented minorities and low socioeconomic status citizens are the dominant foci of efforts to expand student access.

Another factor that contributes to the complexity of student access is the many points in the educational pipeline that have an important relationship to higher education access. At the pre-collegiate stages of the pipeline, academic achievement in elementary and secondary schools to prepare for college

are important dimensions of access. The pre-college academic preparation combined with the college and university admissions policies and standards are all related to whether students are qualified to attend college at all, and if so, the types and quality of colleges available for them to attend. These factors are also related to the level of student diversity that individual colleges and universities are able to achieve. College academic performance, persistence and degree progress also contribute to access when access is defined not simply as college entry but also as obtaining an associate's or bachelor's degree. To the extent that students' post-baccalaureate educational and occupational achievements are related to the quality and type of colleges and universities they attend and the quality of their college experiences, then these factors too become important indicators of access.

### **A Policy Analysis Context for Examining Student Access to Higher Education**

The three major vehicles that policymakers and educators use to expand access are financial aid, college admissions criteria and policies, and financial resources to support the demand for instruction. Beginning with the Veterans Readjustment Act in 1944, followed by the initial Higher Education Act of 1965 and subsequent reauthorizations, the national government has provided leadership for expanding student access to higher education. The principal tool has been financial aid for individual members of targeted groups. The groups have included veterans of military service and economically disadvantaged students, and to a lesser extent women and underrepresented minorities.

The fifty states and their individual colleges and universities have chimed in with the national government by launching their own initiatives to expand student access. Their levers for expanding access have included building new campuses primarily during the 1960s and 70s to accommodate more students and establishing student financial aid programs, some of which are modeled after those of the national government. In the southern states, and a growing number of other states, the Federal Courts have played a role in student access to college. The courts have often debated and decided on issues that affect resource allocations to support access.

Individual colleges and universities have also advanced the student access movement by establishing either flexible or open admissions policies. The consequence of these policies is that every citizen with the requisite high school diploma is provided a place somewhere in a college or university. U.S. colleges and universities have also established a record of providing need based financial assistance to expand student access. The consequence of all of these policies has been broader access and opportunity for students and enormous overall growth in American higher education enrollments and funding.

On one hand, the U.S. deserves to be extolled for its unparalleled record of pursuing access and opportunity for its citizens as well as for foreign visitors. On the other hand, it could stand to be admonished because of the present societal uncertainty about the achievements, status and conditions of access, and the lack of clarity about future directions. Student access to higher education has multiple meanings and little attention has been given to constructing adequate measures for assessing the quality and efficiency of the programs and policies that are instituted to achieve greater access. The important assessment and evaluation questions can be examined under the three broad categories of student participation, financial aid policies, and college and university admissions policies.

The data at the national level on student participation are available through the Integrated Postsecondary Education Data System (IPEDS). Data and information for examining access as it relates to finances and college level admissions are less available. Despite a national investment of resources

into the cross-sectional National Postsecondary Student Aid Study (NPSAS) and its two longitudinal descendants, Beginning Postsecondary Students (BPS) and Baccalaureate and Beyond (B&B), many of the important policy questions concerning the relationship of financial aid to student access are unanswerable with existing data.

The third category, the relationship of student admissions policies to access, is a topic of great interest today because of assaults upon affirmative action. Consequently, much of the necessary data about variations in the policies and criteria used for admitting and retaining college students resides at the campus level. Some of the critical policy questions pertaining to each of these are presented below, along with the challenges facing policy researchers and evaluators as they attempt to assess progress in implementing and evaluating policies and programs aimed at achieving greater access.

## **Student Participation**

### **Trends in Student Access**

Among the important questions pertaining to student participation are the following:

- How much access and opportunity have been achieved for America's economically disadvantaged citizens and underrepresented minorities?
- Are economically disadvantaged and underrepresented minority students attending the full range of colleges and universities in acceptable numbers?
- Are the learning and other developmental experiences of college and university students indistinguishable by social class and race/ethnicity?
- Are the benefits of higher education equivalent for students from the broad range of socioeconomic, racial and ethnic backgrounds?

It took 312 years (1948) after the founding of America's first college for the first one-million students to enroll in a single year. Today, just five decades later, over 14 million students are enrolled. Approximately 62 percent of the nation's high school graduates each year enter some type of postsecondary institution within a year of receiving their high school diploma. Even though some ethnic minority groups continue to be underrepresented among the nation's college and university students and degree recipients, their numbers have been increasing faster than the overall rate of growth. Table 1 presents the recent enrollment trends by race/ethnicity. In 1995, African Americans and Hispanics, respectively, comprised about 10.9 percent and 8.3 percent of the nation's undergraduate students. For both groups, this is their highest representation ever. Moreover, the number of African American and Hispanic undergraduates has grown faster than the overall number.

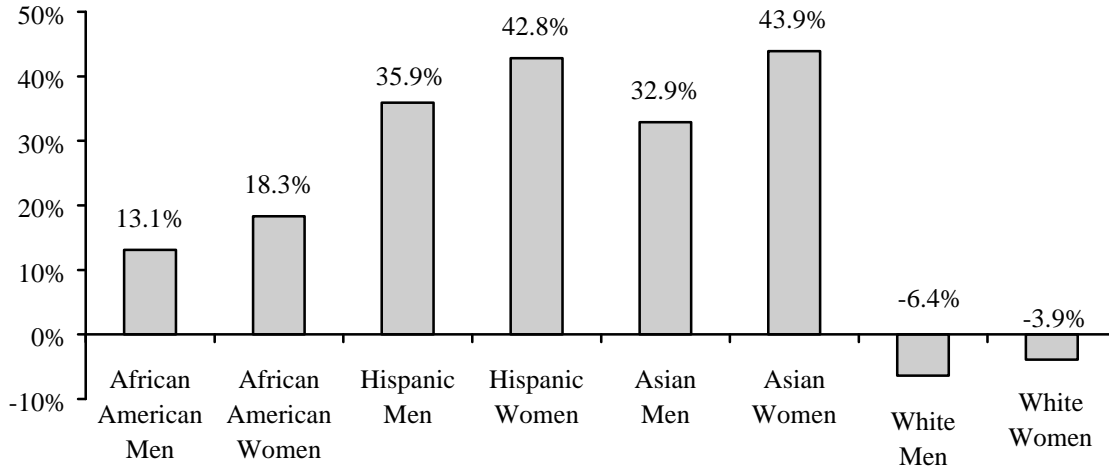
Figure 1 illustrates the rate of growth in undergraduate enrollment during the present decade by race/ethnicity. The data illustrated in Figure 1 reveals that the sub-groups of men and women who have been least represented in higher education have gained access at impressive rates during the present decade. Between 1990 and 1995 for example, Asian women and Hispanic women have increased their enrollment by 43.9 percent and 42.8 percent, respectively, among undergraduate students in the nation's colleges and universities.

Table 1. Trends in Total Undergraduate Enrollment at America's Colleges and Universities by Race and Sex: Fall 1990 to Fall 1995  
(numbers in thousands in parentheses)

Year	White, Not Hispanic			African American, Not Hispanic			Hispanic			Other					
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female			
1990	100.0% (11,959.1)	45.0% (5,379.8)	55.0% (6,579.3)	77.5% (9,272.6)	35.0% (4,184.4)	42.5% (5,088.2)	9.6% (1,147.2)	3.7% (448.0)	5.8% (699.2)	6.1% (724.5)	2.7% (326.9)	3.3% (397.6)	6.8% (814.7)	3.5% (420.5)	3.3% (394.1)
1991	100.0% (12,439.3)	44.8% (5,571.0)	55.2% (6,868.3)	76.4% (9,507.7)	34.4% (4,273.0)	42.1% (5,234.8)	9.9% (1,229.3)	3.8% (478.1)	6.0% (751.1)	6.5% (804.2)	2.9% (361.4)	3.6% (442.7)	7.2% (898.1)	3.7% (458.5)	3.5% (439.6)
1992	100.0% (12,537.7)	44.5% (5,582.9)	55.5% (6,954.8)	74.9% (9,387.6)	33.5% (4,195.5)	41.4% (5,192.1)	10.2% (1,280.6)	4.0% (495.6)	6.3% (785.0)	7.1% (887.8)	3.2% (397.1)	3.9% (490.7)	7.8% (981.7)	3.9% (494.8)	3.9% (486.9)
1993	100.0% (12,324.0)	44.5% (5,483.7)	55.5% (6,840.3)	73.8% (9,100.4)	33.0% (4,067.0)	40.8% (5,033.4)	10.5% (1,290.4)	4.1% (499.6)	6.4% (790.8)	7.4% (918.1)	3.3% (409.2)	4.1% (508.9)	8.2% (1,015.1)	4.1% (507.9)	4.1% (507.2)
1994	100.0% (12,262.6)	44.2% (5,422.1)	55.8% (6,840.5)	72.6% (8,904.9)	32.3% (3,957.9)	40.3% (4,946.9)	10.7% (1,316.9)	4.1% (502.8)	6.6% (814.1)	8.0% (979.3)	3.5% (434.5)	4.4% (544.8)	8.7% (1,061.5)	4.3% (526.9)	4.4% (534.6)
1995	100.0% (12,231.7)	44.2% (5,401.1)	55.8% (6,830.6)	72.0% (8,805.6)	32.0% (3,918.1)	40.0% (4,887.5)	10.9% (1,333.6)	4.1% (506.8)	6.8% (826.9)	8.3% (1,012.0)	3.6% (444.2)	4.6% (567.8)	8.8% (1,080.5)	4.4% (532.1)	4.5% (548.4)
<b>Percentage Change</b>															
1990 to 1991	4.0%	3.6%	4.4%	2.5%	2.1%	2.9%	7.2%	6.7%	7.4%	11.0%	10.6%	11.4%	10.2%	9.0%	11.6%
1991 to 1992	0.8%	0.2%	1.3%	-1.3%	-1.8%	-0.8%	4.2%	3.6%	4.5%	10.4%	9.9%	10.8%	9.3%	7.9%	10.7%
1992 to 1993	-1.7%	-1.8%	-1.6%	-3.1%	-3.1%	-3.1%	0.8%	0.8%	0.7%	3.4%	3.1%	3.7%	3.4%	2.6%	4.2%
1993 to 1994	-0.5%	-1.1%	0.0%	-2.1%	-2.7%	-1.7%	2.1%	0.6%	3.0%	6.7%	6.2%	7.1%	4.6%	3.7%	5.4%
1994 to 1995	-0.3%	-0.4%	-0.1%	-1.1%	-1.0%	-1.2%	1.3%	0.8%	1.6%	3.3%	2.2%	4.2%	1.8%	1.0%	2.6%
<b>Total Change</b>	<b>2.3%</b>	<b>0.4%</b>	<b>3.8%</b>	<b>-5.0%</b>	<b>-6.4%</b>	<b>-3.9%</b>	<b>16.3%</b>	<b>13.1%</b>	<b>18.3%</b>	<b>39.7%</b>	<b>35.9%</b>	<b>42.8%</b>	<b>32.6%</b>	<b>26.5%</b>	<b>39.1%</b>

Source: Integrated Postsecondary Education Data System, "Enrollment" Survey

**Figure 1. Change in the Number of Undergraduates Enrolled at Colleges and Universities Nationwide: 1990 to 1995**



Source: Integrated Postsecondary Education Data System (IPEDS)

Table 2 shows the highest level of education attained by students of various socioeconomic status backgrounds. Substantial gaps remain between the percent of students from the lowest, middle, and highest socioeconomic status who receive bachelor's, Master's and first-professional degrees. High school is the highest level of education attained by 64.6 percent of students from the lowest quartile of socioeconomic status, compared to 53.8 percent of those from the middle two quartiles and 32.7 percent of those from the lowest quartile. In contrast, 41.2 percent of students from the highest socioeconomic quartile attain bachelor's degrees compared to 19.0 percent of the students in the middle two quartiles, and 6.4 percent of the students from the lowest quartile. Similarly, 6.9 percent and 2.7 percent of the highest socioeconomic quartile students complete Master's and first professional degrees, respectively, compared to only seven-tenths of one percent and one-tenth of one percent of students from the lowest socioeconomic status quartile.

The overall enrollment growth and the growth in representation by race and sex and other demographics are useful as general markers of success in achieving greater student access to higher education. Taken altogether, however, they do not provide sufficient information. As a start, a more refined perspective might include a look at how the various levels, types and status of colleges and universities contribute to the overall growth, and how various policies and practices that are instituted in the broad political arena and on individual campuses promote varying degrees of growth. To the extent that graduating from college is more beneficial than simply attending, it is also important to examine rates of degree completion versus attrition. Because of the need to spread around limited resources, assessing the rate that students progress through the curriculum is also important. And finally, the quality of students' educational experiences as measured by their acquisition of knowledge and skills is an important indicator of access.

Table 2. Highest Level of Education Attained by 1980 High School Sophomores by Socioeconomic Status (SES) Quartile: 1980 to 1992

Educational Attainment	Lowest SES Quartile	Middle SES Quartiles	Highest SES Quartile
Total	100.0%	100.0%	100.0%
Less than High School	9.0	3.9	1.4
High School	64.6	53.8	32.7
Certificate	12.3	11.5	7.0
Associate's Degree	6.9	9.1	7.6
Bachelor's Degree	6.4	19.0	41.2
Master's Degree	0.7	2.0	6.9
Professional Degree	0.1	0.5	2.7
Doctorate	--	0.1	0.5

Source: The Digest of Education Statistics, 1996

### Two-year Colleges versus Four-year Colleges and Universities

African Americans and Hispanics represent a higher percentage of enrollments in two-year colleges than in four-year colleges and universities, whereas the opposite is the case for Whites. Table 3 shows that, in 1995, African Americans and Hispanics represented 11.3 percent and 11.1 percent, respectively, of two-year college enrollments and Table 4 shows that African Americans and Hispanics represented 10.6 percent and 6.0 percent, respectively, of four-year college and university enrollments. Hispanic enrollment in two-year colleges increased by 43.7 percent during the first half of the present decade and by 34.4 percent at four-year colleges and universities. Over the same period, African American enrollment increased by 19.3 percent in two-year colleges and by 14.3 percent in four-year colleges and universities. In 1995, approximately 53.4 percent of African Americans, 39.9 percent of Hispanics and 56.9 percent of White undergraduates were enrolled in four-year colleges and universities with the balance attending two-year colleges.

### Types of Universities and Colleges

Table 5 presents the change in the distribution of African Americans, Hispanics, and all students enrolled in universities and colleges for the eleven year period from 1984 through 1995 by Carnegie classification and Table 6 presents the change in the distribution by the selectivity of the universities and colleges over the same period. In terms of Carnegie classification, Table 5 shows a slight shift upward in the percent of college and university students attending the comprehensive colleges and



Table 3. Undergraduate Enrollment at Two-Year Institutions, Race, and Sex: Fall 1990 to Fall 1995  
(number of students in parentheses)

Year	White, Not Hispanic			African American, Not Hispanic			Hispanic			Other					
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female			
1990	100.0%	42.6%	57.4%	75.5%	32.1%	43.4%	9.9%	3.7%	6.2%	8.1%	3.6%	4.5%	6.5%	3.2%	3.3%
	(5,213,165)	(2,221,642)	(2,991,523)	(3,937,843)	(1,673,267)	(2,264,576)	(516,022)	(195,281)	(320,741)	(422,583)	(188,299)	(234,284)	(336,717)	(164,795)	(171,922)
1991	100.0%	42.5%	57.5%	74.4%	31.5%	42.9%	10.2%	3.8%	6.3%	8.5%	3.8%	4.8%	6.9%	3.4%	3.6%
	(5,624,976)	(2,390,541)	(3,234,435)	(4,182,724)	(1,772,204)	(2,410,529)	(571,830)	(215,230)	(356,600)	(480,004)	(212,649)	(267,355)	(390,418)	(190,458)	(199,960)
1992	100.0%	42.2%	57.8%	72.2%	30.3%	41.9%	10.5%	3.9%	6.6%	9.5%	4.2%	5.3%	7.8%	3.7%	4.0%
	(5,698,715)	(2,404,271)	(3,294,444)	(4,115,646)	(1,729,274)	(2,386,372)	(596,784)	(221,286)	(375,498)	(542,818)	(240,206)	(302,612)	(443,467)	(213,505)	(229,962)
1993	100.0%	42.1%	57.9%	71.1%	29.9%	41.3%	10.7%	4.0%	6.7%	10.0%	4.4%	5.6%	8.1%	3.9%	4.2%
	(5,537,730)	(2,333,927)	(3,203,803)	(3,939,053)	(1,653,626)	(2,285,427)	(594,448)	(220,788)	(373,660)	(555,431)	(245,141)	(310,290)	(448,798)	(214,372)	(234,426)
1994	100.0%	42.0%	58.0%	69.6%	29.1%	40.5%	11.1%	4.1%	7.0%	10.8%	4.7%	6.0%	8.5%	4.1%	4.5%
	(5,501,980)	(2,310,565)	(3,191,415)	(3,829,322)	(1,603,702)	(2,225,620)	(610,375)	(223,769)	(386,606)	(592,622)	(260,028)	(332,594)	(469,661)	(223,066)	(246,595)
1995	100.0%	42.4%	57.6%	69.0%	29.3%	39.7%	11.3%	4.2%	7.1%	11.1%	4.8%	6.3%	8.6%	4.1%	4.5%
	(5,457,132)	(2,313,515)	(3,143,617)	(3,766,868)	(1,599,860)	(2,167,008)	(615,424)	(227,467)	(387,957)	(607,083)	(264,650)	(342,433)	(467,757)	(221,538)	(246,219)
<b>Percentage Change</b>															
1990 to 1991	7.9%	7.6%	8.1%	6.2%	5.9%	6.4%	10.8%	10.2%	11.2%	13.6%	12.9%	14.1%	15.9%	15.6%	16.3%
1991 to 1992	1.3%	0.6%	1.9%	-1.6%	-2.4%	-1.0%	4.4%	2.8%	5.3%	13.1%	13.0%	13.2%	13.6%	12.1%	15.0%
1992 to 1993	-2.8%	-2.9%	-2.8%	-4.3%	-4.4%	-4.2%	-0.4%	-0.2%	-0.5%	2.3%	2.1%	2.5%	1.2%	0.4%	1.9%
1993 to 1994	-0.6%	-1.0%	-0.4%	-2.8%	-3.0%	-2.6%	2.7%	1.4%	3.5%	6.7%	6.1%	7.2%	4.6%	4.1%	5.2%
1994 to 1995	-0.8%	0.1%	-1.5%	-1.6%	-0.2%	-2.6%	0.8%	1.7%	0.3%	2.4%	1.8%	3.0%	-0.4%	-0.7%	-0.2%
Total Change	4.7%	4.1%	5.1%	-4.3%	-4.4%	-4.3%	19.3%	16.5%	21.0%	43.7%	40.5%	46.2%	38.9%	34.4%	43.2%

Source: Integrated Postsecondary Education Data System (IPEDS)

Table 4. Undergraduate Enrollment at Four-Year Institutions, Race, and Sex: Fall 1990 to Fall 1995  
(number of students in parentheses)

Year	White, Not Hispanic			African American, Not Hispanic			Hispanic			Other					
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female			
1990	100.0%	46.8%	53.2%	79.2%	37.3%	41.9%	9.3%	3.7%	5.6%	4.5%	2.1%	2.4%	7.1%	3.8%	3.3%
	(6,719,023)	(3,146,990)	(3,572,033)	(5,318,301)	(2,504,676)	(2,813,625)	(622,945)	(249,058)	(373,887)	(300,320)	(137,763)	(162,557)	(477,457)	(255,493)	(221,964)
1991	100.0%	46.7%	53.3%	78.2%	36.7%	41.5%	9.6%	3.8%	5.8%	4.7%	2.2%	2.6%	7.5%	3.9%	3.5%
	(6,787,387)	(3,169,093)	(3,618,294)	(5,308,923)	(2,493,766)	(2,815,157)	(651,634)	(260,645)	(390,989)	(320,484)	(147,202)	(173,282)	(506,346)	(267,480)	(238,866)
1992	100.0%	46.5%	53.5%	77.1%	36.1%	41.0%	10.0%	4.0%	6.0%	5.0%	2.3%	2.7%	7.9%	4.1%	3.8%
	(6,815,351)	(3,169,670)	(3,645,681)	(5,256,453)	(2,460,090)	(2,796,363)	(678,993)	(272,625)	(406,368)	(342,776)	(156,000)	(186,776)	(537,129)	(280,955)	(256,174)
1993	100.0%	46.4%	53.6%	76.1%	35.6%	40.5%	10.2%	4.1%	6.1%	5.3%	2.4%	2.9%	8.4%	4.3%	4.0%
	(6,758,398)	(3,138,286)	(3,620,112)	(5,140,077)	(2,404,105)	(2,735,972)	(691,358)	(277,407)	(413,951)	(361,272)	(163,491)	(197,781)	(565,691)	(293,283)	(272,408)
1994	100.0%	46.0%	54.0%	75.1%	34.8%	40.2%	10.4%	4.1%	6.3%	5.7%	2.6%	3.1%	8.8%	4.5%	4.3%
	(6,732,999)	(3,098,952)	(3,634,047)	(5,054,480)	(2,344,654)	(2,709,826)	(702,316)	(277,197)	(425,119)	(385,424)	(173,777)	(211,647)	(590,779)	(303,324)	(287,455)
1995	100.0%	45.6%	54.4%	74.4%	34.2%	40.1%	10.6%	4.1%	6.5%	6.0%	2.7%	3.3%	9.1%	4.6%	4.5%
	(6,739,621)	(3,072,630)	(3,666,991)	(5,011,945)	(2,306,358)	(2,705,587)	(712,207)	(277,092)	(435,115)	(403,613)	(178,970)	(224,643)	(611,856)	(310,210)	(301,646)
<b>Percentage Change</b>															
1990 to 1991	1.0%	0.7%	1.3%	-0.2%	-0.4%	0.1%	4.6%	4.7%	4.6%	6.7%	6.9%	6.6%	6.1%	4.7%	7.6%
1991 to 1992	0.4%	0.0%	0.8%	-1.0%	-1.4%	-0.7%	4.2%	4.6%	3.9%	7.0%	6.0%	7.8%	6.1%	5.0%	7.2%
1992 to 1993	-0.8%	-1.0%	-0.7%	-2.2%	-2.3%	-2.2%	1.8%	1.8%	1.9%	5.4%	4.8%	5.9%	5.3%	4.4%	6.3%
1993 to 1994	-0.4%	-1.3%	0.4%	-1.7%	-2.5%	-1.0%	1.6%	-0.1%	2.7%	6.7%	6.3%	7.0%	4.4%	3.4%	5.5%
1994 to 1995	0.1%	-0.8%	0.9%	-0.8%	-1.6%	-0.2%	1.4%	0.0%	2.4%	4.7%	3.0%	6.1%	3.6%	2.3%	4.9%
Total Change	0.3%	-2.4%	2.7%	-5.8%	-7.9%	-3.8%	14.3%	11.3%	16.4%	34.4%	29.9%	38.2%	28.1%	21.4%	35.9%

Source: Integrated Postsecondary Education Data System (IPEDS)

Table 5. Change in the distribution of African American and Hispanic undergraduates enrolled at four-year colleges and universities by Carnegie classification: 1984 to 1995

	Total			African American			Hispanic		
	1984	1995	Change	1984	1995	Change	1984	1995	Change
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
	5,877,034	6,480,513	603,479	484,022	663,372	179,350	181,371	376,431	195,060
Research I	23.8%	22.3%	8.5%	16.4%	14.6%	9.7%	25.8%	22.5%	19.5%
	1,399,239	1,450,743	51,504	79,493	96,905	17,412	46,749	84,752	38,003
Research II	8.5%	7.7%	-0.6%	5.3%	4.6%	2.6%	5.0%	5.5%	6.0%
	502,009	498,562	-3,447	25,666	30,305	4,639	9,065	20,775	11,710
Doctoral	15.0%	14.7%	12.4%	14.7%	14.9%	15.5%	14.6%	14.6%	14.6%
	880,925	955,482	74,557	71,032	98,843	27,811	26,531	55,007	28,476
Comprehensive	38.2%	39.2%	49.7%	45.7%	46.5%	48.6%	45.1%	47.2%	49.2%
	2,246,695	2,546,593	299,898	221,148	308,270	87,122	81,768	177,799	96,031
Liberal Arts	14.4%	15.9%	30.0%	17.9%	19.5%	23.6%	9.5%	10.1%	10.7%
	848,166	1,029,133	180,967	86,683	129,049	42,366	17,258	38,098	20,840

Note: Totals do not include students enrolled at specialized four-year colleges and universities.

Source: Integrated Postsecondary Education Data System

Table 6. Change in the distribution of African American and Hispanic undergraduates enrolled at four-year colleges and universities by institutional selectivity: 1984 to 1995

	Number Institutions	Total			African American			Hispanic		
		1984	1995	Change	1984	1995	Change	1984	1995	Change
Total	1,389	100%	100%	100%	100%	100%	100%	100%	100%	100%
		5,814,344	6,455,371	641,027	476,889	670,659	193,770	179,874	372,747	192,873
Most Competitive	48	3.2%	3.1%	1.6%	2.1%	1.8%	1.0%	3.0%	2.7%	2.4%
		190,768	201,259	10,491	10,093	12,053	1,960	5,399	9,976	4,577
Highly Competitive	71	7.1%	6.6%	2.2%	3.4%	3.2%	2.8%	5.4%	6.2%	6.8%
		414,540	428,654	14,114	16,127	21,599	5,472	9,820	22,945	13,125
Very Competitive	222	21.1%	20.3%	14.0%	12.8%	13.2%	14.3%	24.1%	25.5%	26.8%
		1,225,293	1,315,067	89,774	61,113	88,830	27,717	43,314	95,000	51,686
Competitive	640	44.6%	45.2%	50.7%	40.9%	40.1%	38.3%	40.5%	38.8%	37.2%
		2,592,311	2,917,521	325,210	194,877	269,011	74,134	72,806	14,4524	71,718
Less Competitive	290	16.6%	17.0%	20.7%	28.3%	27.3%	24.9%	19.1%	18.9%	18.8%
		963,336	1,095,851	132,515	135,043	183,367	48,324	34,288	70,621	36,333
Noncompetitive	118	7.4%	7.7%	10.7%	12.5%	14.3%	18.7%	7.9%	8.0%	8.0%
		428,096	497,019	68,923	59,636	95,799	36,163	14,247	29,681	15,434

Notes: Totals do not include students enrolled at specialized four-year colleges and universities.

Institutional selectivity defined by Barron's Profile of American Colleges

Definitions:

Most Competitive = high school rank in top 10 percent to 20 percent, gpa of A to B+, median SAT between 625 and 800 (nonrecentered)

Highly Competitive = rank in top 20 percent to 35 percent, gpa of B+ to B, median SAT between 575 and 625 (nonrecentered)

Very Competitive = rank in top 35 percent to 50 percent, gpa no less than B-, median SAT between 525 and 575 (nonrecentered)

Competitive = rank in top 50 percent to 65 percent, median SAT between 450 and 525 (nonrecentered)

Less Competitive = rank in top 65 percent, median SAT below 450 (nonrecentered)

Noncompetitive = high school graduation

Source: Integrated Postsecondary Education Data System

universities overall and for African Americans and Hispanics. Over that eleven year period, comprehensive colleges and universities accounted for 49.7 percent of the increase in total undergraduate enrollment, 48.6 percent of African American enrollment growth, and 49.2 percent of Hispanic enrollment growth.

### **Persistence and Graduation**

Less than one-fourth of individuals who began their postsecondary education at community colleges in 1989/90 had attained an associate's degree (17.5%) or a certificate (5%) at the first institution in which they enrolled by spring 1994, five years after initially enrolling. Table 7 shows that only 17.7 percent of those who began their postsecondary education in a community college in 1989/90 had earned an associate's degree at any institution by 1994 and an additional 6.4 percent had earned a bachelor's degree.

Less than one-half (46.1%) of freshmen who were seeking bachelor's degrees completed a bachelor's degree within five years of their initial enrollment. Table 8 shows that more than one-fourth (27.7%) had earned no degree and were no longer enrolled.

About one-half (47.8%) of 1989 freshmen who were seeking bachelor's degrees had left the persistence track (i.e., transferred to a two-year institution, stopped out, or left without returning) by the spring of 1994. Table 9 shows that about one-third (31.0%) of those who left the persistence track did not return. The most common time to leave the persistence track was during the first year of enrollment (40.6%).

### **Issues Un-addressed**

Additional data and information are needed to address some of the important components of access such as the efficiency of the process, the educational effectiveness of the process and the benefits students acquire as a consequence of attending and completing college. Efficiency might be measured by the rates at which students progress through their college curricula either by average credit hours successfully completed per term of enrollment or length of time from entry to completion of a degree. Educational effectiveness pertains to the learning and skills students acquire while attending college and changes in the attitudes and behaviors of students while attending college. For skills and knowledge acquisition, it is difficult to imagine an adequate means of measurement short of an outcomes examination or other form of cognitive assessment. The non-cognitive components of students' college experiences can be assessed by a survey instrument or questionnaire. The benefits of the higher education process might include short-term and long-term occupational attainment, earnings, and post-baccalaureate educational experiences of students. Equality of access for particular targeted groups can be gauged by whether students make normal progress through the curriculum, acquire the expected knowledge and skills, possess the attitudes and behaviors that are at least the norm for college students, and achieve employment and earnings, and graduate and first-professional educational opportunities that are the norm for college graduates.

Table 7. Degree Attainment of those who Began their Postsecondary Education in Community Colleges in 1989/90 by Race and Sex (weighted sample size in parentheses)

Enrollment Status 1994	White						African American			Hispanic			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>First Degree Attained at First Institution in Which Enrolled</b>															
Total* +++	100.0% (966,436)	100.0% (471,074)	100.0% (495,362)	100.0% (755,929)	100.0% (371,163)	100.0% (384,766)	100.0% (82,566)	100.0% (37,590)	100.0% (44,976)	100.0% (98,013)	100.0% (50,670)	100.0% (47,343)	100.0% (29,928)	100.0% (11,651)	100.0% (18,277)
None	77.5% (748,608)	81.0% (381,550)	74.1% (367,058)	76.7% (579,453)	80.4% (298,577)	73.0% (280,876)	80.4% (66,363)	81.0% (30,454)	79.8% (35,909)	81.9% (80,291)	86.5% (43,853)	77.0% (36,438)	75.2% (22,502)	74.4% (8,667)	75.7% (13,835)
Certificate	5.0% (48,748)	4.6% (21,632)	5.5% (27,116)	5.2% (39,423)	4.6% (17,109)	5.8% (22,315)	8.1% (6,693)	8.0% (3,018)	8.2% (3,675)	1.1% (1,126)	0.0% (0)	2.4% (1,126)	5.0% (1,506)	12.9% (1,506)	0.0% (0)
Associate's Degree	17.5% (169,080)	14.4% (67,892)	20.4% (101,188)	18.1% (137,052)	14.9% (55,477)	21.2% (81,575)	11.5% (9,510)	11.0% (4,118)	12.0% (5,392)	16.9% (16,597)	13.5% (6,818)	20.7% (9,779)	19.8% (5,921)	12.7% (1,479)	24.3% (4,442)
<b>Enrollment Status in Spring 1994</b>															
Total* ++ ~	100.0% (966,436)	100.0% (471,074)	100.0% (495,362)	100.0% (755,929)	100.0% (371,163)	100.0% (384,766)	100.0% (82,566)	100.0% (37,590)	100.0% (44,976)	100.0% (98,013)	100.0% (50,670)	100.0% (47,343)	100.0% (29,928)	100.0% (11,651)	100.0% (18,277)
No Degree, Not Enrolled	48.6% (469,472)	49.5% (233,236)	47.7% (236,236)	49.7% (375,795)	50.1% (185,977)	49.3% (189,819)	53.9% (44,495)	55.2% (20,764)	52.8% (23,731)	39.5% (38,737)	47.3% (23,961)	31.2% (14,776)	34.9% (10,445)	21.8% (2,535)	43.3% (7,910)
No Degree, Enrolled	9.4% (90,771)	10.2% (48,068)	8.6% (42,702)	7.8% (58,808)	8.5% (31,602)	7.1% (27,205)	9.8% (8,079)	8.3% (3,119)	11.0% (4,960)	16.2% (15,895)	20.0% (10,152)	12.1% (5,743)	26.7% (7,990)	27.4% (3,195)	26.2% (4,795)
No Degree, Enrolled Four-Year Institution	5.0% (48,465)	6.6% (31,000)	3.5% (17,465)	5.3% (39,774)	7.1% (26,517)	3.4% (13,257)	3.7% (3,065)	0.0% (0)	6.8% (3,065)	4.2% (4,161)	6.0% (3,018)	2.4% (1,144)	4.9% (1,465)	12.6% (1,465)	0.0% (0)
Certificate	12.3% (118,685)	11.6% (54,640)	12.9% (64,044)	11.5% (86,922)	11.3% (42,001)	11.7% (44,921)	16.6% (13,677)	18.6% (6,984)	14.9% (6,693)	15.8% (15,450)	8.2% (4,150)	23.9% (11,301)	8.8% (2,636)	12.9% (1,506)	6.2% (1,130)
Certificate, Enrolled Four-Year Institution	0.6% (6,056)	0.6% (2,946)	0.6% (3,111)	0.8% (6,056)	0.8% (2,946)	0.8% (3,111)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Associate's Degree	13.5% (130,594)	12.1% (57,049)	14.8% (73,546)	14.2% (107,497)	12.7% (47,230)	15.7% (60,267)	8.3% (6,863)	11.0% (4,126)	6.1% (2,737)	12.0% (11,792)	11.2% (5,692)	12.9% (6,099)	14.8% (4,442)	0.0% (0)	24.3% (4,442)
Associate's Degree, Enrolled Four-Year Institution	4.2% (40,323)	3.7% (17,517)	4.6% (22,806)	4.1% (31,149)	3.3% (12,096)	5.0% (19,053)	4.5% (3,738)	6.9% (2,597)	2.5% (1,141)	4.0% (3,958)	2.7% (1,346)	5.5% (2,612)	4.9% (1,479)	12.7% (1,479)	0.0% (0)
Bachelor's Degree	6.4% (62,070)	5.7% (26,618)	7.2% (35,452)	6.6% (49,928)	6.1% (22,794)	7.1% (27,134)	3.2% (2,650)	0.0% (0)	5.9% (2,650)	8.2% (8,021)	4.6% (2,352)	12.0% (5,669)	4.9% (1,472)	12.6% (1,472)	0.0% (0)

Note: \*\*\* Test of statistical significance compares African Americans with Whites. \*\*\* p < .001, \*\* p < .01, \* p < .05  
 +++ Test of statistical significance compares White Men with White Women. +++ p < .001, ++ p < .01, + p < .05  
 ~~~ Test of statistical significance compares African American Men with African American Women. ~~~ p < .001, ~~ p < .01, ~ p < .05  
 Tests of statistical significance calculated using adjusted sample weight to control for influence of large sample sizes.

Note: Sample includes U. S. citizens only. " - " indicates sample size too small to estimate

Source: Beginning Postsecondary Student Survey, Second Follow-up (1994).

Table 8. Degree Attainment by May 1994 Among Beginning Postsecondary Students Seeking a Bachelor's Degree in 1989/90 by Race and Sex (weighted sample size in parentheses)

| Degree Attainment                      | White, Not Hispanic   |                     |                     | African American, Not Hispanic |                     |                     | Hispanic           |                    |                    | Other              |                    |                    |                    |                    |                    |
|----------------------------------------|-----------------------|---------------------|---------------------|--------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                        | Total                 | Male                | Female              | Total                          | Male                | Female              | Total              | Male               | Female             | Total              | Male               | Female             |                    |                    |                    |
| <b>All Students</b>                    |                       |                     |                     |                                |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Total** +++)                           | 100.0%<br>(1,101,865) | 100.0%<br>(545,248) | 100.0%<br>(556,617) | 100.0%<br>(893,784)            | 100.0%<br>(455,950) | 100.0%<br>(437,834) | 100.0%<br>(82,782) | 100.0%<br>(30,738) | 100.0%<br>(52,044) | 100.0%<br>(71,279) | 100.0%<br>(34,647) | 100.0%<br>(36,632) | 100.0%<br>(54,020) | 100.0%<br>(23,913) | 100.0%<br>(30,106) |
| Attained Bachelor's Degree             | 46.1%<br>(507,654)    | 41.8%<br>(227,837)  | 50.3%<br>(279,818)  | 48.1%<br>(430,003)             | 43.3%<br>(197,466)  | 53.1%<br>(232,537)  | 34.3%<br>(28,384)  | 29.1%<br>(8,945)   | 37.3%<br>(19,438)  | 30.4%<br>(21,666)  | 25.1%<br>(8,710)   | 35.4%<br>(12,956)  | 51.1%<br>(27,601)  | 53.2%<br>(12,715)  | 49.4%<br>(14,886)  |
| Still Enrolled                         | 18.0%<br>(198,604)    | 21.5%<br>(117,450)  | 14.6%<br>(81,154)   | 17.1%<br>(152,728)             | 20.8%<br>(94,893)   | 13.2%<br>(57,835)   | 19.8%<br>(16,418)  | 20.6%<br>(6,331)   | 19.4%<br>(10,087)  | 24.6%<br>(17,569)  | 24.1%<br>(8,348)   | 25.2%<br>(9,221)   | 22.0%<br>(11,889)  | 32.9%<br>(7,878)   | 13.3%<br>(4,011)   |
| Associate's Degree                     | 4.7%<br>(51,237)      | 4.1%<br>(22,180)    | 5.2%<br>(29,057)    | 4.6%<br>(41,435)               | 3.9%<br>(17,796)    | 5.4%<br>(23,639)    | 6.9%<br>(5,740)    | 8.2%<br>(2,517)    | 6.2%<br>(3,224)    | 3.6%<br>(2,555)    | 5.4%<br>(1,867)    | 1.9%<br>(688)      | 2.8%<br>(1,507)    | 0.0%<br>-          | 5.0%<br>(1,507)    |
| Certificate                            | 3.5%<br>(38,935)      | 2.9%<br>(15,949)    | 4.1%<br>(22,987)    | 3.5%<br>(30,964)               | 2.7%<br>(12,297)    | 4.3%<br>(18,667)    | 3.6%<br>(3,019)    | 3.2%<br>(975)      | 3.9%<br>(2,044)    | 5.9%<br>(4,240)    | 6.8%<br>(2,343)    | 5.2%<br>(1,897)    | 1.3%<br>(713)      | 1.4%<br>(334)      | 1.3%<br>(379)      |
| No Degree, Not Enrolled                | 27.7%<br>(305,433)    | 29.7%<br>(161,832)  | 25.8%<br>(143,601)  | 26.7%<br>(238,653)             | 29.3%<br>(133,497)  | 24.0%<br>(105,156)  | 35.3%<br>(29,221)  | 38.9%<br>(11,969)  | 33.1%<br>(17,251)  | 35.4%<br>(25,249)  | 38.6%<br>(13,379)  | 32.4%<br>(11,870)  | 22.8%<br>(12,310)  | 12.5%<br>(2,986)   | 31.0%<br>(9,324)   |
| <b>1989/90 Full-Time Students Only</b> |                       |                     |                     |                                |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Total +++)                             | 100.0%<br>(859,750)   | 100.0%<br>(428,278) | 100.0%<br>(431,472) | 100.0%<br>(720,572)            | 100.0%<br>(370,756) | 100.0%<br>(349,816) | 100.0%<br>(60,881) | 100.0%<br>(19,925) | 100.0%<br>(40,955) | 100.0%<br>(38,026) | 100.0%<br>(18,379) | 100.0%<br>(19,648) | 100.0%<br>(40,270) | 100.0%<br>(19,218) | 100.0%<br>(21,053) |
| Attained Bachelor's                    | 51.2%<br>(440,551)    | 46.4%<br>(198,763)  | 56.0%<br>(241,788)  | 52.2%<br>(376,420)             | 47.0%<br>(174,426)  | 57.7%<br>(201,993)  | 40.5%<br>(24,667)  | 34.4%<br>(6,862)   | 43.5%<br>(17,805)  | 45.4%<br>(17,251)  | 38.4%<br>(7,066)   | 51.8%<br>(10,185)  | 55.2%<br>(22,213)  | 54.2%<br>(10,408)  | 56.1%<br>(11,804)  |
| Still Enrolled                         | 17.4%<br>(149,266)    | 20.8%<br>(88,964)   | 14.0%<br>(60,302)   | 16.3%<br>(117,303)             | 19.5%<br>(72,323)   | 12.9%<br>(44,980)   | 22.0%<br>(13,382)  | 27.2%<br>(5,420)   | 19.4%<br>(7,963)   | 25.4%<br>(9,673)   | 29.1%<br>(5,343)   | 22.0%<br>(4,330)   | 22.1%<br>(8,908)   | 30.6%<br>(5,879)   | 14.4%<br>(3,029)   |
| Attained Associate's                   | 4.6%<br>(39,215)      | 3.6%<br>(15,290)    | 5.5%<br>(23,925)    | 4.7%<br>(34,108)               | 4.0%<br>(14,816)    | 5.5%<br>(19,292)    | 4.9%<br>(3,012)    | 2.0%<br>(394)      | 6.4%<br>(2,617)    | 1.5%<br>(588)      | 0.4%<br>(79)       | 2.6%<br>(509)      | 3.7%<br>(1,507)    | 0.0%<br>-          | 7.2%<br>(1,507)    |
| Attained Certificate                   | 2.8%<br>(23,969)      | 2.4%<br>(10,429)    | 3.1%<br>(13,539)    | 2.9%<br>(20,842)               | 2.5%<br>(9,121)     | 3.4%<br>(11,721)    | 4.0%<br>(2,414)    | 4.9%<br>(975)      | 3.5%<br>(1,440)    | 0.0%<br>-          | 0.0%<br>-          | 0.0%<br>-          | 1.8%<br>(713)      | 1.7%<br>(334)      | 1.8%<br>(379)      |
| No Degree, Not Enrolled                | 24.0%<br>(206,749)    | 26.8%<br>(114,831)  | 21.3%<br>(91,918)   | 23.9%<br>(171,899)             | 27.0%<br>(100,070)  | 20.5%<br>(71,829)   | 28.6%<br>(17,406)  | 31.5%<br>(6,275)   | 27.2%<br>(11,131)  | 27.6%<br>(10,513)  | 32.0%<br>(5,890)   | 23.5%<br>(4,623)   | 17.2%<br>(6,931)   | 13.5%<br>(2,597)   | 20.6%<br>(4,334)   |

Note: \*\*\* Test of statistical significance compares African Americans with Whites. \*\*\* p < .001, \*\* p < .01, \* p < .05  
 +++ Test of statistical significance compares White Men with White Women. +++ p < .001, ++ p < .01, + p < .05  
 ~~~ Test of statistical significance compares African American Men with African American Women. ~~~ p < .001, ~~ p < .01, ~ p < .05  
 Tests of statistical significance calculated using adjusted sample weight to control for influence of large sample sizes.  
 Note: Sample includes U. S. citizens only. " - " indicates sample size too small to estimate  
 Source: Beginning Postsecondary Student Survey, Second Follow-up (1994).

Table 9. Persistence Pattern of 1989/90 Beginning Postsecondary Students who were Seeking Bachelor's Degrees by Race and Sex  
(weighted sample size in parentheses)

| Persistence                                 | Total                 | Male                | Female              | White Not Hispanic  |                     |                     | African American Not Hispanic |                    |                    | Total              | Hispanic           |                    | Total              | Other              |                    |
|---|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|   |                       |                     |                     | Total               | Male                | Female              | Total                         | Male               | Female             |                    | Male               | Female             |                    | Male               | Female             |
| Total*** +++                                | 100.0%<br>(1,101,865) | 100.0%<br>(545,248) | 100.0%<br>(556,617) | 100.0%<br>(893,784) | 100.0%<br>(455,950) | 100.0%<br>(437,834) | 100.0%<br>(82,782)            | 100.0%<br>(30,738) | 100.0%<br>(52,044) | 100.0%<br>(71,279) | 100.0%<br>(34,647) | 100.0%<br>(36,632) | 100.0%<br>(54,020) | 100.0%<br>(23,913) | 100.0%<br>(30,106) |
| Did Not Leave                               | 52.2%                 | 48.1%               | 56.2%               | 54.2%               | 49.3%               | 59.3%               | 36.1%                         | 34.2%              | 37.3%              | 42.8%              | 37.0%              | 48.2%              | 55.7%              | 59.3%              | 52.9%              |
| Persistence Track                           | (574,881)             | (262,187)           | (312,693)           | (484,396)           | (224,700)           | (259,696)           | (29,895)                      | (10,498)           | (19,397)           | (30,474)           | (12,803)           | (17,671)           | (30,116)           | (14,187)           | (15,929)           |
| Left Persistence Track                      | 47.8%                 | 51.9%               | 43.8%               | 45.8%               | 50.7%               | 40.7%               | 63.9%                         | 65.8%              | 62.7%              | 57.2%              | 63.0%              | 51.8%              | 44.3%              | 40.7%              | 47.1%              |
|   | (526,984)             | (283,061)           | (243,923)           | (409,388)           | (231,250)           | (178,137)           | (52,887)                      | (20,240)           | (32,647)           | (40,805)           | (21,844)           | (18,961)           | (23,904)           | (9,726)            | (14,178)           |
| <b>Type of Departure</b>                    |                       |                     |                     |                     |                     |                     |                               |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Left Persistence                      | 100.0%                | 100.0%              | 100.0%              | 100.0%              | 100.0%              | 100.0%              | 100.0%                        | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             |
| Track +++                                   | (526,984)             | (283,061)           | (243,923)           | (409,388)           | (231,250)           | (178,137)           | (52,887)                      | (20,240)           | (32,647)           | (40,805)           | (21,844)           | (18,961)           | (23,904)           | (9,726)            | (14,178)           |
| Downward Transfer                           | 38.4%                 | 37.3%               | 39.6%               | 39.0%               | 37.3%               | 41.3%               | 34.1%                         | 36.1%              | 32.8%              | 34.5%              | 34.1%              | 34.8%              | 42.8%              | 44.9%              | 41.3%              |
|   | (202,140)             | (105,468)           | (96,671)            | (159,822)           | (86,328)            | (73,494)            | (18,037)                      | (7,316)            | (10,720)           | (14,060)           | (7,457)            | (6,603)            | (10,221)           | (4,367)            | (5,854)            |
| Stopout                                     | 30.6%                 | 34.1%               | 26.5%               | 29.6%               | 34.1%               | 23.7%               | 32.1%                         | 28.5%              | 34.4%              | 40.1%              | 38.0%              | 42.4%              | 28.9%              | 37.4%              | 23.2%              |
|   | (161,333)             | (96,660)            | (64,673)            | (121,080)           | (78,950)            | (42,130)            | (16,989)                      | (5,769)            | (11,220)           | (16,345)           | (8,307)            | (8,037)            | (6,920)            | (3,633)            | (3,286)            |
| Left Without Return                         | 31.0%                 | 28.6%               | 33.9%               | 31.4%               | 28.5%               | 35.1%               | 33.8%                         | 35.3%              | 32.8%              | 25.5%              | 27.8%              | 22.8%              | 28.3%              | 17.8%              | 35.5%              |
|   | (163,511)             | (80,933)            | (82,578)            | (128,485)           | (65,972)            | (62,513)            | (17,861)                      | (7,154)            | (10,707)           | (10,401)           | (6,080)            | (4,321)            | (6,764)            | (1,726)            | (5,037)            |
| <b>Academic Year Left Persistence Track</b> |                       |                     |                     |                     |                     |                     |                               |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Left Persistence                      | 100.0%                | 100.0%              | 100.0%              | 100.0%              | 100.0%              | 100.0%              | 100.0%                        | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             | 100.0%             |
| Track                                       | (526,984)             | (283,061)           | (243,923)           | (409,388)           | (231,250)           | (178,137)           | (52,887)                      | (20,240)           | (32,647)           | (40,805)           | (21,844)           | (18,961)           | (23,904)           | (9,726)            | (14,178)           |
| Left in 1989/90                             | 40.6%                 | 41.6%               | 39.5%               | 39.9%               | 39.3%               | 40.8%               | 47.7%                         | 52.9%              | 44.5%              | 53.4%              | 67.0%              | 37.7%              | 15.3%              | 16.5%              | 14.4%              |
|   | (214,191)             | (117,870)           | (96,321)            | (163,505)           | (90,912)            | (72,594)            | (25,245)                      | (10,714)           | (14,531)           | (21,789)           | (14,640)           | (7,150)            | (3,651)            | (1,605)            | (2,046)            |
| Left in 1990/91                             | 20.8%                 | 22.7%               | 18.7%               | 22.6%               | 24.4%               | 20.3%               | 14.5%                         | 17.3%              | 12.8%              | 15.6%              | 9.6%               | 22.5%              | 12.9%              | 22.6%              | 6.3%               |
|   | (109,796)             | (64,275)            | (45,520)            | (92,680)            | (56,493)            | (36,187)            | (7,668)                       | (3,494)            | (4,174)            | (6,356)            | (2,088)            | (4,268)            | (3,091)            | (2,201)            | (891)              |
| Left in 1991/92                             | 25.3%                 | 23.7%               | 27.3%               | 24.2%               | 23.9%               | 24.7%               | 23.5%                         | 17.3%              | 27.4%              | 18.8%              | 13.6%              | 24.8%              | 59.7%              | 54.7%              | 63.1%              |
|   | (133,531)             | (67,001)            | (66,530)            | (99,148)            | (55,209)            | (43,939)            | (12,441)                      | (3,502)            | (8,939)            | (7,667)            | (2,965)            | (4,702)            | (14,275)           | (5,325)            | (8,950)            |
| Left in 1992/93                             | 9.1%                  | 8.8%                | 9.6%                | 9.5%                | 9.2%                | 9.9%                | 9.2%                          | 9.9%               | 8.8%               | 7.3%               | 6.7%               | 7.9%               | 5.7%               | 1.0%               | 8.9%               |
|   | (48,186)              | (24,824)            | (23,363)            | (38,977)            | (21,266)            | (17,711)            | (4,886)                       | (2,000)            | (2,887)            | (2,970)            | (1,464)            | (1,506)            | (1,354)            | (94)               | (1,259)            |
| Left in 1993/94                             | 4.0%                  | 3.2%                | 5.0%                | 3.7%                | 3.2%                | 4.3%                | 5.0%                          | 2.6%               | 6.5%               | 5.0%               | 3.1%               | 7.0%               | 6.4%               | 5.2%               | 7.3%               |
|   | (21,280)              | (9,090)             | (12,190)            | (15,077)            | (7,371)             | (7,706)             | (2,646)                       | (530)              | (2,116)            | (2,023)            | (687)              | (1,336)            | (1,533)            | (501)              | (1,032)            |

Note: \*\*\* Test of statistical significance compares African Americans with Whites. \*\*\* p < .001, \*\* p < .01, \* p < .05

+++ Test of statistical significance compares White Men with White Women. +++ p < .001, ++ p < .01, + p < .05

~~~Test of statistical significance compares African American Men with African American Women. ~~~ p < .001, ~~ p < .01, ~ p < .05

Tests of statistical significance calculated using adjusted sample weight to control for influence of large sample sizes.

Note: Sample includes U. S. citizens only. " - " indicates sample size too small to estimate.

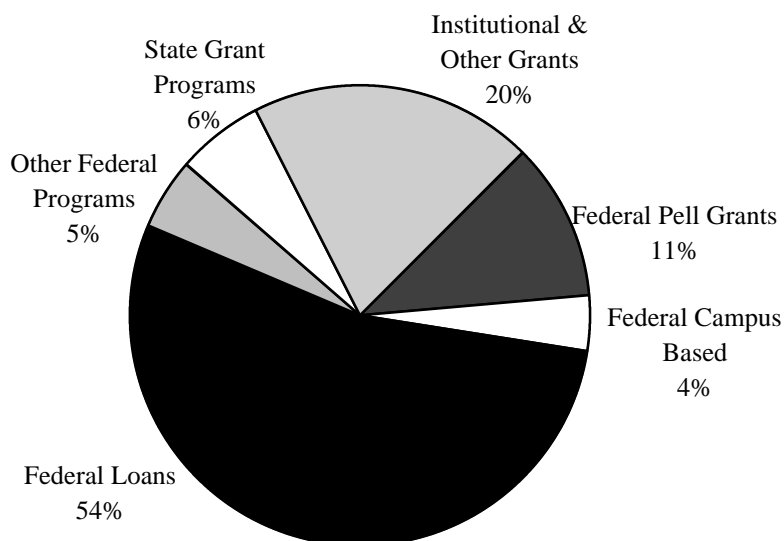
Source: Beginning Postsecondary Student Survey, Second Follow-up (1994).



## Financial Aid

Financial aid programs authorized under Title IV of the Higher Education Act are the primary vehicle through which the national government attempts to expand student access to college. Today about \$37 billion is awarded annually under federal financial aid programs, representing 74 percent of all college financial aid awarded to students from all sources. Figure 2 illustrates the distribution of financial aid from all sources for the academic year 1995-1996. Of the \$50 billion in financial aid that students relied upon in 1995-96 from all sources, Figure 2 reveals that federal loans accounted for the largest share (54%) followed by institutional and other related aid (20%), Pell Grants (11%), state grants (6%), campus based programs (4%), and other federal specially targeted programs (5%). While some of campus based financial aid is awarded on the basis of merit, the vast share is need-based aid designed primarily to expand access to college for students whose personal financial circumstances might otherwise be an impediment to college entry and persistence.

**Figure 2. Distribution of Financial Aid Awarded to Postsecondary Education Students: 1995/96**



Source: Trends in Student Aid: 1986 to 1996, The College Board, 1996

In 1995/96, 4.674 million subsidized Stafford loans were awarded to postsecondary education students under either the Federal Family Education Loan Program (3.19 million) or the Ford Direct Loan Program (1.484 million). Table 10 shows that an addition 2.45 million unsubsidized loans were also awarded. About 3.6 million students received an average Pell grant of \$1,502.

Table 10. Number of Financial Aid Recipients and Average Award: 1995/96

| Type of Aid                                  | Total Number of Recipients | Average Amount Per Recipient |
|----------------------------------------------|----------------------------|------------------------------|
| Federal Pell Grant                           | 3,600,000                  | \$1,502                      |
| <b>Federal Campus Based Aid</b>              |                            |                              |
| College Work Study                           | 709,000                    | \$864                        |
| Federal SEOG                                 | 984,000                    | \$588                        |
| Federal Perkins Loan                         | 776,000                    | \$1,233                      |
| <b>Federal Family Education Loan Program</b> |                            |                              |
| Stafford Subsidized                          | 3,190,000                  | \$3,461                      |
| Stafford Unsubsidized                        | 1,697,000                  | \$3,685                      |
| PLUS                                         | 282,000                    | \$5,819                      |
| <b>Ford Direct Loan Program</b>              |                            |                              |
| Stafford Subsidized                          | 1,484,000                  | \$3,444                      |
| Stafford Unsubsidized                        | 753,000                    | \$3,376                      |
| PLUS                                         | 144,000                    | \$5,515                      |

Source: Trends in Student Aid, The College Board, 1996

About one-half (51.7%) of all undergraduates enrolled at four-year colleges and universities in the fall of 1992 received some type of financial aid. Table 11 shows that grants are the most common type of aid, received by 42.5 percent of all undergraduates attending four-year institutions. About one-third (30.0%) of all undergraduates received loans and 9.4 percent received work study. About one-fifth (22.7%) of all undergraduates received Pell grants and one-fifth (21.7%) received institutional sources of aid.

Some of the important challenges to the current financial aid programs for which data are available to monitor are the following:

- The declining purchasing power of the financial aid awards that students presently receive;
- The high rates of default in the loan programs;
- The rates of attrition among grant and loan recipients;
- Academic preparation for college, and academic performance in college; and
- The debt burden of college graduates.

Table 11. Types and Sources of Aid Received by Undergraduates at Four-Year Colleges and Universities by Race and Sex: Fall 1992  
(weighted sample size in parentheses)

| Type and Source of Aid      | White, Not Hispanic   |                       |                       | African American, Not Hispanic |                       |                       | Hispanic            |                     |                     | Other               |                     |                     |                     |                     |                     |
|-----------------------------|-----------------------|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                             | Total                 | Male                  | Female                | Total                          | Male                  | Female                | Total               | Male                | Female              | Total               | Male                | Female              |                     |                     |                     |
| Total                       | 100.0%<br>(6,707,220) | 100.0%<br>(3,110,121) | 100.0%<br>(3,597,099) | 100.0%<br>(5,430,979)          | 100.0%<br>(2,567,687) | 100.0%<br>(2,863,292) | 100.0%<br>(648,478) | 100.0%<br>(258,000) | 100.0%<br>(390,478) | 100.0%<br>(402,073) | 100.0%<br>(171,171) | 100.0%<br>(230,902) | 100.0%<br>(225,690) | 100.0%<br>(113,263) | 100.0%<br>(112,427) |
| Any Aid***                  | 51.7%<br>(3,468,360)  | 51.1%<br>(1,588,953)  | 52.2%<br>(1,879,407)  | 49.3%<br>(2,676,739)           | 49.1%<br>(1,261,294)  | 49.4%<br>(1,415,445)  | 66.3%<br>(430,182)  | 64.8%<br>(167,249)  | 67.3%<br>(262,933)  | 65.3%<br>(262,493)  | 63.0%<br>(107,824)  | 67.0%<br>(154,669)  | 43.8%<br>(98,946)   | 46.4%<br>(52,586)   | 41.2%<br>(46,360)   |
| Merit-Based*                | 10.3%<br>(690,816)    | 10.7%<br>(332,608)    | 10.0%<br>(358,208)    | 10.8%<br>(585,451)             | 11.0%<br>(283,042)    | 10.6%<br>(302,409)    | 9.5%<br>(61,586)    | 10.8%<br>(27,800)   | 8.7%<br>(33,786)    | 6.5%<br>(25,995)    | 7.5%<br>(12,885)    | 5.7%<br>(13,110)    | 7.9%<br>(17,784)    | 7.8%<br>(8,881)     | 7.9%<br>(8,903)     |
| Grants***                   | 42.5%<br>(2,848,355)  | 41.4%<br>(1,287,341)  | 43.4%<br>(1,561,014)  | 39.6%<br>(2,152,456)           | 39.0%<br>(1,002,527)  | 40.2%<br>(1,149,929)  | 57.4%<br>(372,507)  | 55.8%<br>(143,970)  | 58.5%<br>(228,537)  | 59.4%<br>(239,031)  | 56.9%<br>(97,440)   | 61.3%<br>(141,591)  | 37.4%<br>(84,361)   | 38.3%<br>(43,404)   | 36.4%<br>(40,957)   |
| Loans (Excluding PLUS)*** ~ | 30.0%<br>(2,013,877)  | 29.6%<br>(921,336)    | 30.4%<br>(1,092,541)  | 29.0%<br>(1,575,567)           | 28.9%<br>(742,530)    | 29.1%<br>(833,037)    | 42.7%<br>(276,622)  | 40.4%<br>(104,132)  | 44.2%<br>(172,490)  | 25.6%<br>(102,782)  | 25.4%<br>(43,536)   | 25.7%<br>(59,246)   | 26.1%<br>(58,906)   | 27.5%<br>(31,138)   | 24.7%<br>(27,768)   |
| Work Study*** + ~           | 9.4%<br>(630,115)     | 8.7%<br>(270,471)     | 10.0%<br>(359,644)    | 8.6%<br>(467,516)              | 8.2%<br>(210,278)     | 9.0%<br>(257,238)     | 16.0%<br>(103,748)  | 13.5%<br>(34,822)   | 17.7%<br>(68,926)   | 8.9%<br>(35,827)    | 7.7%<br>(13,207)    | 9.8%<br>(22,620)    | 10.2%<br>(23,024)   | 10.7%<br>(12,164)   | 9.7%<br>(10,860)    |
| Any Federal Aid*** ~        | 38.8%<br>(2,599,804)  | 37.7%<br>(1,173,846)  | 39.6%<br>(1,425,958)  | 35.4%<br>(1,920,100)           | 35.1%<br>(901,330)    | 35.6%<br>(1,018,770)  | 57.3%<br>(371,266)  | 53.8%<br>(138,908)  | 59.5%<br>(232,358)  | 56.9%<br>(228,909)  | 53.3%<br>(91,283)   | 59.6%<br>(137,626)  | 35.2%<br>(79,529)   | 37.4%<br>(42,325)   | 33.1%<br>(37,204)   |
| Need-Based Aid*** ++ ~      | 42.1%<br>(2,821,283)  | 40.4%<br>(1,257,067)  | 43.5%<br>(1,564,216)  | 39.1%<br>(2,124,589)           | 38.1%<br>(979,213)    | 40.0%<br>(1,145,376)  | 58.1%<br>(376,564)  | 54.1%<br>(139,492)  | 60.7%<br>(237,072)  | 58.8%<br>(236,436)  | 55.4%<br>(94,794)   | 61.3%<br>(141,642)  | 37.1%<br>(83,694)   | 38.5%<br>(43,568)   | 35.7%<br>(40,126)   |
| Title IV*** ~               | 38.5%<br>(2,583,794)  | 37.4%<br>(1,164,304)  | 39.5%<br>(1,419,490)  | 35.1%<br>(1,906,213)           | 34.8%<br>(892,989)    | 35.4%<br>(1,013,224)  | 57.1%<br>(370,144)  | 53.4%<br>(137,707)  | 59.5%<br>(232,437)  | 56.9%<br>(228,774)  | 53.3%<br>(91,283)   | 59.5%<br>(137,491)  | 34.9%<br>(78,663)   | 37.4%<br>(42,325)   | 32.3%<br>(36,338)   |
| Pell Grant*** ~             | 22.7%<br>(1,519,951)  | 21.5%<br>(667,889)    | 23.7%<br>(852,062)    | 18.6%<br>(1,008,513)           | 18.3%<br>(469,079)    | 18.8%<br>(539,434)    | 42.9%<br>(278,306)  | 38.9%<br>(100,304)  | 45.6%<br>(178,002)  | 46.6%<br>(187,322)  | 43.4%<br>(74,346)   | 48.9%<br>(112,976)  | 20.3%<br>(45,810)   | 21.3%<br>(24,160)   | 19.3%<br>(21,650)   |
| Institutional*              | 21.7%<br>(1,457,048)  | 21.6%<br>(671,867)    | 21.8%<br>(785,181)    | 21.5%<br>(1,166,081)           | 21.4%<br>(550,478)    | 21.5%<br>(615,603)    | 23.4%<br>(151,722)  | 23.3%<br>(60,030)   | 23.5%<br>(91,692)   | 22.2%<br>(89,460)   | 21.1%<br>(36,186)   | 23.1%<br>(53,274)   | 22.1%<br>(49,785)   | 22.2%<br>(25,173)   | 21.9%<br>(24,612)   |
| State*** ++ ~               | 15.3%<br>(1,025,418)  | 14.3%<br>(444,076)    | 16.2%<br>(581,342)    | 14.3%<br>(778,985)             | 13.6%<br>(349,858)    | 15.0%<br>(429,127)    | 20.4%<br>(132,059)  | 17.6%<br>(45,482)   | 22.2%<br>(86,577)   | 21.2%<br>(85,294)   | 19.1%<br>(32,624)   | 22.8%<br>(52,670)   | 12.9%<br>(29,080)   | 14.2%<br>(16,112)   | 11.5%<br>(12,968)   |

Note: \*\*\* Test of statistical significance compares African Americans with Whites. \*\*\* p < .001, \*\* p < .01, \* p < .05

+++ Test of statistical significance compares White Men with White Women. +++ p < .001, ++ p < .01, + p < .05

~~~Test of statistical significance compares African American Men with African American Women. ~~~ p < .001, ~~ p < .01, ~ p < .05

Tests of statistical significance calculated using adjusted sample weight to control for influence of large sample sizes

Note: Sample limited to U. S. citizens enrolled in Fall 1992 only

Source: National Postsecondary Student Aid Study: 1992/93

## The Declining Value of Financial Aid Dollars

Over the past decade, the average cost of attending college in the United States increased at a faster rate than average financial aid awards and disposable personal income. Table 12 shows that, between 1986 and 1995, tuition and fees increased by 89 percent at private four-year colleges and universities, from \$6,581 to \$12,432, and by 123 percent at public four-year colleges and universities, from \$1,285 to \$2,860. During the same ten-year period, the average Pell grant increased by 16 percent from \$1,294 to \$1,502 and the average subsidized Stafford Loan by 45 percent from \$2,381 to \$3,461. The average College Work Study award declined by 5 percent from \$912 to \$864. Average disposable income rose by only 52 percent from \$13,000 to \$19,729 (The College Board, 1996) Table 13 shows that, in constant dollars, the value of the average Pell award declined by 16 percent from \$1,773 to \$1,482. The extent to which this decline in the purchasing power of Pell grants has affected access for students who are on the economic margin is unknown and the important data for knowing do not exist in our national arsenal of data and information. Also unknown is the important question of how the decline in the relative value of financial aid affects the quality and price of college that students are able to afford to attend.

Table 12. Changes in Tuition, Personal Income, and Financial Aid Awards: 1986-87 to 1995-96 (current dollars)

| Year           | Tuition and Fees  |                  |                 | Disposable Personal Income | Financial Aid |                    |                     |
|----------------|-------------------|------------------|-----------------|----------------------------|---------------|--------------------|---------------------|
|                | Private Four-Year | Public Four-Year | Public Two-Year |                            | Pell Grant    | College Work Study | Stafford Subsidized |
| 1986-87        | \$6,581           | \$1,285          | \$657           | \$13,000                   | \$1,294       | \$912              | \$2,381             |
| 1995-96        | \$12,432          | \$2,860          | \$1,387         | \$19,729                   | \$1,502       | \$864              | \$3,461             |
| Percent Change | 89%               | 123%             | 111%            | 52%                        | 16%           | -5%                | 45%                 |

Source: Trends in Student Aid: 1986 to 1995, The College Board, 1996.

Table 13. Changes in Tuition, Personal Income, and Financial Aid Awards: 1986-87 to 1995-96 (constant dollars)

| Year           | Tuition and Fees  |                  |                 | Disposable Personal Income | Financial Aid |                    |                     |
|----------------|-------------------|------------------|-----------------|----------------------------|---------------|--------------------|---------------------|
|                | Private Four-Year | Public Four-Year | Public Two-Year |                            | Pell Grant    | College Work Study | Stafford Subsidized |
| 1986-87        | \$9,016           | \$1,761          | \$900           | \$18,082                   | \$1,773       | \$1,250            | \$3,261             |
| 1995-96        | \$12,264          | \$2,821          | \$1,368         | \$19,729                   | \$1,482       | \$852              | \$3,414             |
| Percent Change | 36%               | 60%              | 52%             | 9%                         | -16%          | -32%               | 5%                  |

Source: Trends in Student Aid: 1986 to 1995, The College Board, 1996.

## Loan Defaults

The National Commission on Responsibilities for Financing Postsecondary Education (1993) reported that over one-million borrowers default on more than \$3 billion in a given year. This is about 15 percent of the money borrowed in a given year. According to that Commission, the percent of proprietary institution students who default (48%) is four times higher than the percent of four-year college students (12%) who default. The impact of default

upon the resources available to prospective students has not been approximated. The extent to which the educational, social, economic, and occupational status of those who drop-out compared with those who complete degrees is important but unknown. It is also important to examine the impact of the loan forgiveness provisions that are a part of some loan programs upon promoting greater student access to college.

### **The Drop-Out Rate of Grant Recipients**

The percentage of 1989/90 beginning postsecondary students who were seeking bachelor's degrees and who attained bachelor's degrees within five years of initially enrolling was comparable for those who did (43.6%) and those who did not receive (46.6%) Pell grants during 1989/90. Table 14 shows that dropout rates are higher for Pell grant recipients than for non-recipients (34.8% versus 26.1%). Bachelor's degree attainment rates are higher for 1989 freshmen who received any type or amount of grant than for freshmen who received no grants (55.6% versus 39.4%) and for freshmen who received any type or amount of loans than for freshmen who received no loans (57.6% versus 42.7%).

### **The Criteria for Receiving Financial Aid**

About four-fifths (81%) of all financial aid awarded to undergraduates attending U.S. four-year colleges and universities in fall 1992 was need based and one-fifth was awarded based on academic merit without consideration of financial need. Table 11 shows that approximately 10 percent of all undergraduates attending four-year colleges and universities received financial aid based on academic merit and 42 percent received financial aid based on need.

### **The Debt Burden of College Graduates**

There are several sources of data about the financial indebtedness/debt burden of college graduates. The average amount of undergraduate indebtedness held by 1992/93 bachelor's degree recipients who borrowed any amount during their undergraduate experiences was \$9,068. The College Board (1997) now estimates that this amount increased to approximately \$13,000 for 1996. These data need to be refined to show the debt burdens by such demographics of the population as socioeconomic status, age and race, as well as major field.

In order to adequately evaluate the effectiveness of financial aid programs toward both reforming policy and expanding access and opportunity, the following questions need to be addressed:

- What contributions have financial aid policies and programs made toward eliminating the disadvantaged status of financial aid recipients?
- What types or combinations of aid lead to the greatest access and what types and combinations are impediments to access for various targeted populations of students?

Table 14. Percent of 1989/90 Beginning Postsecondary Students who were Seeking Bachelor's Degrees who Completed Bachelor's Degrees by Spring 1994 by Financial Aid Received, Race, and Sex (weighted sample size in parentheses)

| Degree Attainment                      |                     |                     |                     | White, Not Hispanic |                     |                     | African American, Not Hispanic |                    |                    | Hispanic           |                    |                    | Other              |                    |                    |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|  | Total               | Male                | Female              | Total               | Male                | Female              | Total                          | Male               | Female             | Total              | Male               | Female             | Total              | Male               | Female             |
| <b>No Pell Grant in 1989/90*** +++</b> | 100.0%<br>(902,032) | 100.0%<br>(465,289) | 100.0%<br>(436,743) | 100.0%<br>(756,085) | 100.0%<br>(395,715) | 100.0%<br>(360,371) | 100.0%<br>(47,891)             | 100.0%<br>(21,143) | 100.0%<br>(26,748) | 100.0%<br>(53,533) | 100.0%<br>(28,262) | 100.0%<br>(25,271) | 100.0%<br>(44,523) | 100.0%<br>(20,169) | 100.0%<br>(24,353) |
| Attained Bachelor's                    | 46.6%<br>(420,431)  | 42.1%<br>(195,684)  | 51.5%<br>(224,747)  | 48.8%<br>(369,345)  | 43.9%<br>(173,713)  | 54.3%<br>(195,632)  | 31.0%<br>(14,844)              | 26.7%<br>(5,647)   | 34.4%<br>(9,196)   | 27.2%<br>(14,582)  | 21.9%<br>(6,183)   | 33.2%<br>(8,399)   | 48.7%<br>(21,661)  | 50.3%<br>(10,140)  | 47.3%<br>(11,520)  |
| No Degree, Not Enrolled                | 26.1%<br>(235,867)  | 28.6%<br>(133,076)  | 23.5%<br>(102,791)  | 25.2%<br>(190,403)  | 27.9%<br>(110,378)  | 22.2%<br>(80,025)   | 36.1%<br>(17,297)              | 45.4%<br>(9,604)   | 28.8%<br>(7,693)   | 35.2%<br>(18,852)  | 38.9%<br>(10,999)  | 31.1%<br>(7,853)   | 20.9%<br>(9,314)   | 10.4%<br>(2,095)   | 29.6%<br>(7,219)   |
| <b>Received Pell Grant in 1989/90</b>  | 100.0%<br>(199,833) | 100.0%<br>(79,959)  | 100.0%<br>(119,874) | 100.0%<br>(137,698) | 100.0%<br>(60,235)  | 100.0%<br>(77,463)  | 100.0%<br>(34,891)             | 100.0%<br>(9,595)  | 100.0%<br>(25,296) | 100.0%<br>(17,747) | 100.0%<br>(6,385)  | 100.0%<br>(11,362) | 100.0%<br>(9,497)  | 100.0%<br>(3,744)  | 100.0%<br>(5,753)  |
| Attained Bachelor's                    | 43.6%<br>(87,223)   | 40.2%<br>(32,152)   | 45.9%<br>(55,071)   | 44.1%<br>(60,659)   | 39.4%<br>(23,753)   | 47.6%<br>(36,905)   | 38.8%<br>(13,540)              | 34.4%<br>(3,298)   | 40.5%<br>(10,242)  | 39.9%<br>(7,084)   | 39.6%<br>(2,527)   | 40.1%<br>(4,557)   | 62.5%<br>(5,940)   | 68.8%<br>(2,574)   | 58.5%<br>(3,366)   |
| No Degree, Not Enrolled                | 34.8%<br>(69,567)   | 36.0%<br>(28,757)   | 34.0%<br>(40,810)   | 35.0%<br>(48,250)   | 38.4%<br>(23,119)   | 32.4%<br>(25,131)   | 34.2%<br>(11,924)              | 24.7%<br>(2,366)   | 37.8%<br>(9,558)   | 36.0%<br>(6,397)   | 37.3%<br>(2,381)   | 35.4%<br>(4,017)   | 31.5%<br>(2,996)   | 23.8%<br>(891)     | 36.6%<br>(2,105)   |
| <b>No Grants in 1989/90*** +++</b>     | 100.0%<br>(649,554) | 100.0%<br>(345,908) | 100.0%<br>(303,646) | 100.0%<br>(541,365) | 100.0%<br>(292,910) | 100.0%<br>(248,455) | 100.0%<br>(32,162)             | 100.0%<br>(13,866) | 100.0%<br>(18,297) | 100.0%<br>(41,615) | 100.0%<br>(23,814) | 100.0%<br>(17,801) | 100.0%<br>(34,412) | 100.0%<br>(15,319) | 100.0%<br>(19,093) |
| Attained Bachelor's                    | 39.4%<br>(256,071)  | 34.6%<br>(119,704)  | 44.9%<br>(136,368)  | 41.5%<br>(224,463)  | 36.2%<br>(106,158)  | 47.6%<br>(118,304)  | 22.5%<br>(7,235)               | 16.8%<br>(2,332)   | 26.8%<br>(4,903)   | 22.5%<br>(9,369)   | 13.7%<br>(3,252)   | 34.4%<br>(6,117)   | 43.6%<br>(15,005)  | 52.0%<br>(7,962)   | 36.9%<br>(7,043)   |
| No Degree, Not Enrolled                | 29.0%<br>(188,370)  | 31.6%<br>(109,356)  | 26.0%<br>(79,014)   | 28.1%<br>(151,988)  | 31.0%<br>(90,920)   | 24.6%<br>(61,068)   | 39.4%<br>(12,675)              | 49.3%<br>(6,836)   | 31.9%<br>(5,839)   | 36.7%<br>(15,265)  | 42.8%<br>(10,192)  | 28.5%<br>(5,073)   | 24.5%<br>(8,442)   | 9.2%<br>(1,408)    | 36.8%<br>(7,035)   |
| <b>Received Grants in 1989/90**</b>    | 100.0%<br>(452,310) | 100.0%<br>(199,340) | 100.0%<br>(252,971) | 100.0%<br>(352,419) | 100.0%<br>(163,040) | 100.0%<br>(189,378) | 100.0%<br>(50,620)             | 100.0%<br>(16,872) | 100.0%<br>(33,748) | 100.0%<br>(29,665) | 100.0%<br>(10,833) | 100.0%<br>(18,831) | 100.0%<br>(19,607) | 100.0%<br>(8,594)  | 100.0%<br>(11,013) |
| Attained Bachelor's                    | 55.6%<br>(251,583)  | 54.2%<br>(108,133)  | 56.7%<br>(143,450)  | 58.3%<br>(205,541)  | 56.0%<br>(91,308)   | 60.3%<br>(114,233)  | 41.8%<br>(21,149)              | 39.2%<br>(6,614)   | 43.1%<br>(14,535)  | 41.5%<br>(12,297)  | 50.4%<br>(5,458)   | 36.3%<br>(6,839)   | 64.2%<br>(12,596)  | 55.3%<br>(4,752)   | 71.2%<br>(7,844)   |
| No Degree, Not Enrolled                | 25.9%<br>(117,064)  | 26.3%<br>(52,477)   | 25.5%<br>(64,587)   | 24.6%<br>(86,665)   | 26.1%<br>(42,577)   | 23.3%<br>(44,088)   | 32.7%<br>(16,546)              | 30.4%<br>(5,133)   | 33.8%<br>(11,413)  | 33.7%<br>(9,985)   | 29.4%<br>(3,187)   | 36.1%<br>(6,797)   | 19.7%<br>(3,868)   | 18.4%<br>(1,579)   | 20.8%<br>(2,289)   |
| <b>No Loans in 1989/90*** +++</b>      | 100.0%<br>(853,752) | 100.0%<br>(428,301) | 100.0%<br>(425,452) | 100.0%<br>(696,693) | 100.0%<br>(360,805) | 100.0%<br>(335,888) | 100.0%<br>(53,944)             | 100.0%<br>(20,655) | 100.0%<br>(33,290) | 100.0%<br>(60,470) | 100.0%<br>(29,736) | 100.0%<br>(30,734) | 100.0%<br>(42,644) | 100.0%<br>(17,105) | 100.0%<br>(25,539) |
| Attained Bachelor's                    | 42.7%<br>(364,812)  | 38.2%<br>(163,756)  | 47.3%<br>(201,056)  | 45.0%<br>(313,478)  | 40.1%<br>(144,609)  | 50.3%<br>(168,869)  | 30.0%<br>(16,191)              | 23.7%<br>(4,889)   | 34.0%<br>(11,302)  | 26.9%<br>(16,249)  | 19.8%<br>(5,879)   | 33.7%<br>(10,370)  | 44.3%<br>(18,893)  | 49.0%<br>(8,379)   | 41.2%<br>(10,515)  |
| No Degree, Not Enrolled                | 28.6%<br>(243,870)  | 30.2%<br>(129,510)  | 26.9%<br>(114,360)  | 27.2%<br>(189,600)  | 29.4%<br>(106,229)  | 24.8%<br>(83,372)   | 39.1%<br>(21,086)              | 46.3%<br>(9,555)   | 34.6%<br>(11,530)  | 36.4%<br>(22,036)  | 40.0%<br>(11,902)  | 33.0%<br>(10,134)  | 26.1%<br>(11,148)  | 10.7%<br>(1,825)   | 36.5%<br>(9,324)   |
| <b>Received Loans in 1989/90*</b>      | 100.0%<br>(248,112) | 100.0%<br>(116,947) | 100.0%<br>(131,165) | 100.0%<br>(197,090) | 100.0%<br>(95,145)  | 100.0%<br>(101,945) | 100.0%<br>(28,838)             | 100.0%<br>(10,083) | 100.0%<br>(18,755) | 100.0%<br>(10,809) | 100.0%<br>(4,911)  | 100.0%<br>(5,898)  | 100.0%<br>(11,375) | 100.0%<br>(6,808)  | 100.0%<br>(4,567)  |
| Attained Bachelor's                    | 57.6%<br>(142,843)  | 54.8%<br>(64,081)   | 60.0%<br>(78,762)   | 59.1%<br>(116,526)  | 55.6%<br>(52,857)   | 62.5%<br>(63,668)   | 42.3%<br>(12,193)              | 40.2%<br>(4,057)   | 43.4%<br>(8,136)   | 50.1%<br>(5,417)   | 57.6%<br>(2,831)   | 43.8%<br>(2,586)   | 76.6%<br>(8,708)   | 63.7%<br>(4,336)   | 95.7%<br>(4,372)   |
| No Degree, Not Enrolled                | 24.8%<br>(61,563)   | 27.6%<br>(32,322)   | 22.3%<br>(29,241)   | 24.9%<br>(49,053)   | 28.7%<br>(27,269)   | 21.4%<br>(21,784)   | 28.2%<br>(8,135)               | 23.9%<br>(2,414)   | 30.5%<br>(5,721)   | 29.7%<br>(3,213)   | 30.1%<br>(1,477)   | 29.4%<br>(1,736)   | 10.2%<br>(1,162)   | 17.1%<br>(1,162)   | 0.0%<br>-          |

Note: \*\*\* Test of statistical significance compares African Americans with Whites. \*\*\* p < .001, \*\* p < .01, \* p < .05

+++ Test of statistical significance compares White Men with White Women. +++ p < .001, ++ p < .01, + p < .05

~~~ Test of statistical significance compares African American Men with African American Women. ~~~ p < .001, ~~ p < .01, ~ p < .05

Tests of statistical significance calculated using adjusted sample weight to control for influence of large sample sizes

Note: Sample includes U. S. citizens only. " - " indicates sample size too small to estimate.

Source: Beginning Postsecondary Student Survey, Second Follow-up (1994).

- Are economically disadvantaged students receiving sufficient support to attend the most prestigious and most expensive colleges and universities for which they are academically qualified?
- Do the present structures of financial aid and other policies and programs provide adequate incentives and rewards to encourage students to complete their curricula and receive a degree? and
- What are the individual and social benefits to the states' and the nation for their investment in financial aid to college students?

These are the most important policy questions, yet data and information do not exist in current national data bases to adequately address them.

## **College and University Admissions Policies**

### **Competitive Colleges and Universities**

Beyond the campus-based financial aid that institutions award to students, individual colleges and universities also play a vital role in determining access, primarily through their admissions process, but also through the efforts they make to ensuring that students have successful collegiate experiences. Table 6 reveals the substantial underrepresentation of African Americans attending the colleges and universities with the most competitive admissions standards and their overrepresentation among students attending the less selective and noncompetitive colleges and universities. Only 1.8 percent of African Americans attend the most competitive colleges and universities, 3.2 percent attend highly competitive colleges and universities, 13.2 percent attend very competitive institutions and 42 percent attend less competitive and noncompetitive institutions combined. This compares to a total enrollment distribution of 3.1 percent attending the most competitive, 6.6 percent attending highly competitive, 20.3 percent attending very competitive institutions, and only 25 percent attending less competitive and noncompetitive institutions combined. Unlike African Americans, the Hispanic distribution on the competitiveness of institution scale more closely resembles that of the overall distribution of students. The following are two questions that need to be addressed about the college admissions process as it pertains to increasing access:

- Are college and university admissions policies sufficiently flexible to admit talented students from a variety of racial/ethnic and socioeconomic status backgrounds who demonstrate merit in a variety of ways? and
- Do colleges and universities carry out appropriate validity studies to ensure that the criteria used in selecting students for admissions are equally valid across racial/ethnic group and socioeconomic class?

### **Conclusions**

Although the nation has made enormous strides improving data and information on higher education over the past two decades, much more is needed in order to measure progress and evaluate policies and programs that are designed to increasing student access. This paper has

presented a view of access to college that ranges from pre-collegiate academic preparation through the post-collegiate consequences of attending college. Much of the nation's policies, as well as the progress being made in achieving greater student access, are not dependent upon the quality of data or research. But, improvements to the nation's access policies, developing models of policies and programs to improve efficiency and effectiveness, and increasing our understanding of both the progress and the factors that contribute to the progress are dependent upon improving both our data and research.

The following are four of the most important issues for which new data and research are needed toward improving access to higher education.

- Are the learning and development outcomes different for economically disadvantaged and underrepresented minority students for attending different colleges and universities?
- Are the Pell Grant, Stafford Loan and other national financial aid programs appropriately constructed to yield the greatest access for economically disadvantaged and underrepresented minority students?
- Are college and university admissions policies and standards appropriate and valid for yielding greater access and achievement for economically disadvantaged and underrepresented minority students?
- Are there differential social and economic benefits for economically disadvantaged and underrepresented minority students for attending and graduating from different types of colleges and universities?