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Access to and Opportunity in Postsecondary Education in the United States: A Review

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This review of the research on access to and persistence in higher education found that the proportions of women, older, and part-time college students have increased dramatically since 1960 and that although enrollments of African Americans and Latinos have also increased, they slowed in the 1980s, perhaps because of changed financial aid policies. Predictive research on access and persistence indicates the generally declining importance of socioeconomic advantage, as compared to academic ability. Weaker social and academic integration of students within their institutions has been used to explain lower rates of college persistence; the converse, the generally positive effects of women's and historically black colleges. Beginning at a community college lessens a student's chances of attaining a baccalaureate degree. Most forms of financial aid strengthen the persistence of minority students, though loans may not.

Since the civil rights movement and other initiatives of the 1960s, efforts have been made to increase access to and opportunities in higher education for less advantaged youths and other groups, such as women and members of ethnic minorities. The most striking difference in American higher education in the 1990s, compared to the 1960s, is that in many undergraduate institutions, the average student is a woman, older than 22, working and perhaps supporting her own family, and possibly attending classes only on a part-time basis; in short, the average undergraduate is a "nontraditional" student.

Despite these demographic changes in students, most of the research on access to and opportunity in higher education in the past 30 years has been based on analyses of national longitudinal data sets of high school seniors who moved directly to college; some of this research was even confined to men, and the most widely used study from the 1960s ignored racial differences. Thus, the challenge for researchers in this area is to expand their investigations to include nontraditional college students, to figure out which of the findings from earlier research apply to college students of the 1990s, and to suggest new avenues for study that will lead to a clearer understanding of the changing conditions of higher education in this country.

In this article, we review the great range of research on access to and opportunity in postsecondary education since the 1960s to highlight important findings and to suggest new policies and areas of research. First, we examine the research on changing patterns of access to postsecondary education; show how rates of college enrollment and college choice have varied by gender, race, socioeconomic status (SES), and academic ability; and highlight the increase in the proportions of nontraditional undergraduate students. Second, we consider how changes in financial aid to college students since the 1960s have altered access to higher education for different groups. Third, we review re-

search on access to different types of colleges and universities and transfer from two-year to four-year schools. Fourth, we summarize changing patterns in and factors that predict the completion of college. Finally, we discuss the major policy implications generated by this review and suggest areas for which further research is needed.

PATTERNS OF ACCESS TO COLLEGE

Enrollment in College

In comprehensive examinations of the patterns of high school graduation and participation in college, drawn from the Current Population Surveys of the 1970s to 1989, Mortenson and Wu (1990) found neither an increase in the overall rates of high school graduation nor any major change in college participation rates, although there was a drop in the college participation rate in the late 1970s that was reversed by the 1980s. However, access to postsecondary education was strongly affected by SES. From 1973 to 1992, the direct transition from high school to college increased from 47 percent to 62 percent. Furthermore, after narrowing in the 1970s, the disparity in the direct entry of students from different income levels increased in the early 1990s; in 1992, for example, 41 percent of the low-income students entered college directly from high school, compared to 57 percent of the middle-income students and 81 percent of the high-income students (U.S. Department of Education 1994:40).

With regard to women's access to higher education, the proportion of young women who entered college increased from 38 percent in 1960 to 62 percent by 1989, while the proportions of young men increased only 4 percent (from 54 percent to 58 percent) in the same period. Thus, the gender gap in college participation had closed by 1976 (Mortenson 1991:15).

For African Americans and Latinos, the pattern was quite different. (Note that the U.S. Bureau of the Census did not differentiate *among* non-White groups until 1976.) There was a gap of 13 percentage points between the college participation rates of Whites and non-Whites in the 1960s; this gap closed considerably in the 1970s but widened again in the 1980s, so that by the mid-1980s, the gap between Whites and African Americans had increased to 18 percent, though it narrowed slightly by 1989. The college entrance rate for recent Mexican American high school graduates was equivalent to that of Whites in 1974, but was 22 percent below the rate for Whites by 1988. For other Latino groups (Puerto Ricans and Cubans), the rate was 9 percent above the rate for Whites in 1974, but 1 percent below it by 1988 (Mortenson 1991:vii). From 1974 to 1991, direct entry to college from high school rose 6.5 percentage points for African Americans (from 40.5 percent to 47 percent), increased by 15 percentage points for Whites (from 49 percent to 64 percent), and returned to the same level (from 53 percent to 52.5 percent) for Latinos, after slight decreases in the 1980s (U.S. Department of Education 1994:40).

Clotfelter (1993) analyzed the increasing demands for higher education in the United States from an economic perspective. Noting the steadily increasing proportions of women, older, and part-time students who were enrolling in college in the 1980s, compared with the rise (and slight fall) in the enrollment of minority students from the 1970s to the 1980s, he stressed that the general pattern throughout this century has been an increase in the number of college entrants (even since the 1980s, with the declining population of 18 year olds).

Clotfelter explained the increasing demand for college in terms of the economic returns for graduating college in relation to the costs of attending college. Although the relative earnings of college graduates to nongraduates fell in the 1970s, they increased again by the 1980s. In addition, using the Parnes National Longitudinal Survey of Labor Market Experience, which examined changes from the 1960s to the 1970s, Monk-Turner (1983, 1988) found weaker long-term economic payoffs for entrants to community colleges than to entrants to four-year colleges.

Differential Access: 1960s to 1980s

Sociological analyses of educational attainment have generally claimed that SES and academic ability are the two primary factors that influence an individual's access to education beyond high school. The National Longitudinal Study of the High School Class of 1972 (NLS:72), based on a survey of 1972 seniors who were resurveyed in 1973, 1974, 1976, and 1979 (with a final follow-up in 1986), was the basis for research on access to college in the 1970s (Peng, Bailey, and Eckland 1977; Thomas, Alexander, and Eckland 1979). This federally supported survey was repeated with a different twist in High School and Beyond (HSB), which surveyed a national sample of 1980 high school sophomores and seniors at two-year intervals until 1986 and was the source of wide-ranging research on access and college choice in the 1980s (Falsey and Heynes 1984; Hearn 1991; Lee 1985). For the 1960s, the major national longitudinal data set of high school students was Project Talent, whose design varied considerably from NLS:72 and HSB, although it still affords some comparisons with these studies. Peng (1977), for example, compared data from Project Talent and NLS:72 and found that direct continuation to college had declined in four-year and vocational-technical colleges but not in two-year colleges.

Taken together, these longitudinal studies show a great expansion of institutions of higher education; an increase and an elaboration of two-year junior colleges (now generally referred to as community colleges); and increased efforts, especially in some states, to ease the process of transfer from two-year to four-year colleges. With regard to college entrants, there have been dramatic increases in the proportion of women and older students and changes in both directions in the proportions of minority students. In addition, much larger proportions of students now commute, work while attending college, and study part time. Thus, it is important to remember that going to college in the 1990s may refer to something quite different in terms of what college is and what the experience of "going" entails from what it meant in 1960.

In a study that compared data from Project Talent, NLS:72, and HSB, Clowes, Hinkle, and Smart (1986) offered some interesting evidence of the types of young people who entered college directly from high school from the 1960s to the 1980s. By 1982, the proportions of women of all socioeconomic and ability levels who were attending both four-year and two-year colleges had increased, and the number of female students slightly exceeded the number of male students. Furthermore, there was a decline in the overall college-entry rate for young men from 1961 to 1982, although a more substantial drop occurred in 1972. Between 1961 and 1972, there was a sharp decline in the enrollment of the highest-aptitude young men and a smaller decline for the high-aptitude women. However by 1982, the enrollments of these high-ability groups increased, although the rates for young men never returned to the 1961 levels. Academic aptitude was a stronger determinant of attending a four-year college than was SES; however, throughout the three decades, there was a greater likelihood that those from more advantaged backgrounds would go to four-year colleges and universities.

For two-year or technical colleges, there was a steady increase in attendance among all social classes from the 1960s through the 1980s. Males and females with middle-level ability increasingly entered two-year colleges, but between 1972 and 1982, the proportion of high-ability seniors entering two-year colleges declined for both sexes. In 1982, as in 1972, African American high school seniors of all ability levels were more likely than White high school seniors to attend four-year than two-year colleges. In 1982, the college-entrance rate for Latinos was the highest at community colleges.

Using logistic regression models to analyze the combined effects of race, class, and gender on enrollment in either two- or four-year colleges within one year of high school graduation, Alexander, Pallas, and Holupka (1987) found, from analyses of NLS:72 and HSB, that

SES was not important for the most academically talented students. However, for students with weaker academic backgrounds, especially Whites, social-class factors were much more pronounced. Furthermore, for students with similar levels of academic aptitude, lower-class minority students had higher rates of college attendance than did lower-class White students.

The influence of a high school academic track is clearly seen in the 1972-80 comparison. For students whose academic performance was lower, being in an academic track greatly strengthened the likelihood of their attending college. In addition, for those who were not in the academic track, the importance of social-class advantage for attending college was apparent (Alexander et al. 1987).

In an analysis of a wide variety of sources of aggregate data on enrollment patterns from 1960 to 1986, Karen (1991b: 223) argued that increased access to higher education was achieved by those who had "gained recognition as official social categories," that is, those groups who had politically mobilized (African Americans and women), whereas lower-SES students who had not mobilized experienced few gains in access to college. Some of the gains were reduced in the 1980s as the result of decreased federal funds for financial aid at a time when the costs of higher education were rising. Nevertheless, the increased proportions of African Americans and women in elite institutions remained fairly constant throughout the period, although African Americans' overall college attendance dropped while women's did not. Finally, despite some increase in the proportions of African Americans and women in elite institutions, the major gains for African Americans and women in higher education occurred in the lower-tier colleges.

Racial-Ethnic Differences in Educational Attainment

In the 1970s, numerous studies focused on the changing effect of race on educational attainment (Farley 1977; J. N. Porter 1974; Portes and Wilson 1976). Porter, analyzing the Project Talent data set from the 1960s, and Portes and Wilson, using Youth in Transition, a data set from the Institute of Social Research, University of Michigan, found that social-psychological factors ("conformity" in Porter's study and "self-esteem" and "educational aspirations" in Portes and Wilson's) were more significant determinants of educational attainment for African American males, whereas SES, mental ability, and scholastic achievement were stronger for White males. (It should be noted that both analyses were solely of men.)

Kerckhoff and Campbell (1977) pointed to inconsistency in high school academic performance and the importance of nondeviant behavior in school as significant factors in predicting the educational attainment of African Americans and whites. Staying out of trouble and superior high school performance are more important for African Americans than for whites. However, Gottfredson (1981), who conducted a LISREL analysis of the NLS:72 data, found no substantive differences in the educational attainment of African Americans and Whites. She stated that once the estimates in the analytic model were " 'corrected' for differential measurement reliability, . . . the oft-observed black-white differences in the effect of mental ability on academic performance disappears" (p. 552).

By the late 1980s, the decline in the college attendance of African American students had become a concern. Comparing responses from the Monitoring the Future survey of high school seniors from 1975 to the mid-1980s, Hauser and Anderson (1991) found evidence of a weakening of plans to attend college among African Americans as compared to Whites from the 1970s to the mid-1980s. Arbeiter (1987) drew attention to the decreasing proportion of African Americans in college from the 1970s to the 1980s, and Allen (1988) noted the difficulties faced by African American students who entered college with numerous educational disadvantages.

Orfield and Paul (1987–88) examined the enrollments of African Americans and Latinos in four-year colleges in five

major cities and saw that the rates had been shrinking throughout the early 1980s. They focused on four factors to account for this decline: increasing racial segregation in elementary and secondary schools, steadily rising college costs, inadequate assistance to less-well-prepared students, and the lack of commitment by postsecondary institutions to the educational needs of minorities (see also Lang 1992). In a comprehensive analysis of the decline in the college entrance of African Americans, which we discuss later, Hauser (1992) stated that the strongest factor was the decreases in the amount and form of financial aid.

Research on the enrollment of Latinos in college discovered similar problems in access as those for African Americans (Cortese 1985). However, Latinos were much more likely to enroll in two-year colleges (Lee and Frank 1990) and thereby to confront the difficulty of transferring to four-year colleges, a topic to be discussed presently.

Finally, in the early 1990s, there was renewed pressure for public colleges to become racially integrated. In 1992, the Supreme Court decided in *U.S. v. Fordice* that state courts would be granted broad powers to redress policies and practices that have limited the proportions of African Americans in many universities and colleges, primarily in the South (Orfield 1993). However, this ruling could also have negative effects on historically Black colleges. Orfield warned that how the Clinton administration responds to the Court's pressure for greater equity in higher education may be critical,

> for this is a time when all students who fail to obtain a college education may be at economic risk; when the country has a rapidly expanding non-white population; and when all racial minorities are experiencing problems of access to, and completion of, higher education. (p. 14)

However, the 1995 decision by the Board of Regents of the University of California to alter its affirmative action policy (which supported increased access for women and minorities) may foretell a shift away from support for ethnic-racial diversity in higher education. A 1996 ruling by the Fifth Circuit Court of Appeals against the use of race as a factor in admitting students to the University of Texas lent legal support to political efforts to abolish such affirmative action policies.

Nontraditional Students

As we mentioned earlier, there has been a tremendous increase in the proportions of nontraditional students at postsecondary institutions. The types of undergraduate students regularly included under this rubric are older students (generally aged 24 and over), who delayed going to college or reentered after "stopping out," and part-time students (Apling 1991; Hearn 1992; U.S. Department of Education 1994). Other categories that are sometimes included are married students (U.S. Department of Education 1994), single-parent students (Apling 1991), first-generation students (Hsiao 1992; Terenzini et al. 1994), and financially independent students (U.S. Department of Education 1994). Still another category is students with irregular academic qualifications or intentions, such as (1) students without high school diplomas (Apling 1991), (2) students who are not seeking a college degree (Hearn 1992), and (3) students who are attending for-profit proprietary institutions (U.S. Department of Education 1994). Hearn (1988) concluded that the nature of college attendance is becoming increasingly ambiguous and that claims about greater access to or equality or progress in it need to be advanced cautiously.

More than half of all attendees at undergraduate colleges are characterized as nontraditional (Apling 1991; U.S. Department of Education 1994). However, this proportion varies considerably, depending on the type of postsecondary institution; it is the highest in two-year public institutions and the lowest in four-year doctorate-granting institutions (U.S. Department of Education 1994:140). The rise in part-time attendance has been fostered by the availability of financial aid (Pell grants) to students with half-time course loads

and, since the early 1990s, to students taking even fewer courses (Hearn 1992). By 1992, 44 percent of all college students were attending part time, and it was projected that this pattern will continue into the next century (U.S. Department of Education 1992).

In a study of the 1980 high school graduates surveyed in HSB, Hearn (1992) concluded that nontraditional student status (defined in that study as part-time, delayed, or non-degree-seeking attendance) was associated with lower-SES background, weaker high school academic credentials, and lower educational aspirations. With regard to continuity across decades, Hearn found that the determinants of delayed entry to college (academic marginality and lower SES) for the high school graduates in 1980 were parallel to those that Eckland and Henderson (1981) found for the 1972 graduates who were surveyed in NLS:72). It is not surprising that Apling (1991) observed that, on average, nontraditional students were likely to work more hours per week (33–36 hours) than were traditional college students (21 hours). Studies have shown that the major reasons that older students give for returning to college are to change or advance in their careers, to gain the satisfaction of completing a degree, to learn more, or to achieve independence or identity (Spanard 1990).

CHANGES IN FINANCIAL AID POLICIES

Policies on financial aid to college students have changed greatly from those in the Higher Education Act of 1965. In the 1970s, grants were extended to low-income students, and in 1978, the Middle Income Student Assistance Act offered greatly expanded opportunities for aid to students from middle-income and more affluent families. Furthermore, financial aid has increasingly come in the form of repayable loans that low-income students are less willing to assume because of their sense that their lifetime earnings from a college education may not repay the costs incurred from loan indebtedness (College Entrance Examination Board 1983, 1990; Mortenson 1990a, 1990b).

1970s

Using a national data set from 1975, Rosenfeld and Hearn (1982) observed that women tend to rely more fully on the financial support of their families than do men and that although there were no overall differences in grants allotted to men and women, women were more dependent on loans. In addition, women made their college choices from a narrower range of institutions—those that were lower in cost and less selective—and to attend prestigious colleges, it was more crucial for them than for men to receive aid.

Furthermore, Olson and Rosenfeld (1984) found that parents' knowledge of the range and complexity of financial aid programs, acceptance of the burdensome effort of completing application forms, and willingness to accept loans as part of a package of support varied greatly and affected their children's access to such aid. Using data from parents of students surveyed in both HSB and in the National Educational Longitudinal Study of 1988 (NELS:88), Steelman and Powell (1993) explored racial differences in parental attitudes to financial aid. They found that minority parents were more likely to support governmental financial aid for higher education than were White parents, but were also more likely to accept responsibility for paying for their children's college education (White parents expected their children to bear more of the costs). With SES controlled for, minority parents planned to save as much for their children's higher education as did White parents. The authors concluded that minority parents "endorse policies that widen the access to education for all youth and require personal initiatives by students to reciprocate the government; . . . [hence] the assumption of individual responsibility and support for collectivist policies are not incompatible" (p. 240). One of the greatest differences in how higher education has been financed since the 1960s is that the role of parental support in this process has greatly diminished.

1980s and 1990s

Federal aid to students in higher education decreased in the 1980s. The need-based 1972 amendments to the 1965 Higher Education Act (the Basic Educational Opportunity Grant), which offered financial aid to needy students on a massive scale, were greatly weakened in the 1980s when the Reagan administration did not increase aid to meet the rising costs of higher education and the effects of inflation. In addition, because of the shift from grants to loans, a form of aid that many minority students resisted, as well as the greater emphasis on academic admission standards (such as more stringent requirements for high school mathematics), fewer young people from minority groups attended college in the 1980s (Stampen and Fenske 1988).

A study of how financial aid affected the decisions of high school seniors to attend college in 1972, 1980, and 1982 showed that all types of aid facilitated college attendance for all the groups, including minority students (St. John and Noell 1989). For African Americans in 1980 and 1982, all forms of financial aid (including loans) facilitated their going to college, although the positive effects of loans were weaker. Combined aid packages (including loans and work opportunities), which increased by 1982, encouraged more African Americans, Latinos, and Whites to attend college. Overall, the receipt of financial aid was a better predictor of college attendance for African Americans and Latinos than for Whites.

In a discussion of the cutbacks in student financial aid during the 1980s, Orfield (1992) stated that the assumption behind the current financial aid policy is that students can rely on the economic resources of their families. Contrary to this assumption, research has clearly shown that "there is a direct relationship between income and college attendance" (p. 362) and that the rising costs of higher education mean that low-income students are increasingly unable to cover the full costs of even public colleges.

Reviewing the possible causes of the decline in the number of African American college students, Hauser (1992) discounted the changing sex composition (the trend was similar for both men and women), geographic location, or economic standing as major causes. Furthermore, he found (from the Monitoring the Future yearly surveys of high school seniors) that since 1975, there has been *no* indication that the interest of African American high school seniors in higher education has declined. Although more African American young men planned to enter military service during the 1980s, the "share of recent black male high school graduates who joined the Armed Forces declined continuously from 21 percent in 1979 to 14 percent in 1986" (p. 301).

Hauser then focused on changes in financial aid as the primary culprit in the decline in college attendance among African Americans. (In an analysis of the effects of changes in financial aid in the 1980s, Clotfelter 1993 also supported this position.) Using Mortenson's (1990a, 1990b) analyses, Hauser concluded that African Americans are less willing to borrow for higher education for purely economic reasons ("a student's willingness to borrow will be affected by the economic return to his or her investment," pp. 302–03) and for psychological reasons, given that African American students are increasingly from low-income families in which "a typical $10–12,000 debt will often be larger than his or her annual family income" (p. 304). Hauser concluded that if changes in the form of financial aid have had such negative effects on the enrollment of African American students, then an increase in financial aid could increase the enrollment of this group.

In a review of the effects of changes in federal policies on financial aid to higher education in the early 1990s, Hauptman (1993) noted that although the reauthorization of the Higher Education Act of 1992 created greater flexibility in students' repayment options for college loans, the support base for lower-class students weakened and little additional help was available to older, part-time, or independent students. However, the borrowing conditions of middle-class stu-

dents improved because support for living costs increased and the value of parents' homes was ignored.

ACCESS TO DIFFERENT TYPES OF SCHOOLS

Elite Colleges

Using data from the American Council of Education on a sample of 1966 entering freshmen at 251 colleges and universities, Karabel and Astin (1975) observed a strong association between social class and college selectivity, though there was an independent impact of academic ability. However, at the most elite colleges, there were minute proportions of students from modest SES origins—"high SES students [were] 8 times as likely to attend very selective colleges as [were] students of low SES" (p. 387).

Similarly, in a study of 1975 college freshmen who completed the Cooperative Institutional Research Program survey and had taken the PSAT and/or the SAT or ACT, Hearn (1984) found that the socioeconomically and academically "rich got richer" in terms of the selectivity of the colleges they attended. But in a later analysis of the HSB data, Hearn (1988) showed that socioeconomic factors played only a small role in students' attending more costly undergraduate institutions relative to academic indicators and that the more "economic" of the SES factors (family income and family size) were less important than were the more "social" of the SES factors (father's and mother's education).

In an economic analysis of the effects of federal student aid programs on inequality in the choice of higher education institutions, Sazama (1992) noted that these programs opened up opportunities for less advantaged students in less prestigious institutions during the 1970s but that nearly all these gains were lost in the 1980s. With regard to access to more prestigious institutions, the impact of the equalizing effects of federal financial aid programs has become much weaker over time.

In a study of the undergraduate admissions process at Harvard, Karen (1990, 1991a) found that indicators of academic and athletic accomplishment and cultural capital (parents' education, especially if they were Harvard alumni; parents' occupations; and high school environment), as well as minority status, were primary determinants of selection. Asians were treated differently from the other ethnic minority groups; they were selected largely from the highest-ability pools and were not given extra consideration for other criteria, such as attendance at prestigious prep schools. Efforts to stress egalitarianism led to some emphasis on selecting working-class students, though most of those selected were males.

Persell, Catsambis, and Cookson (1992) found that the academic performance of female applicants in high school was a weaker predictor of selection to elite colleges than it was for male applicants. However, the chances of acceptance to these colleges were greater for female applicants who had attended elite boarding schools. As the authors stated: "To gain comparable educational attainment, some historically disadvantaged groups seem to need greater amounts of desirable assets or to have assets that provide higher rates of conversion for them" (p. 222).

Historically Black Colleges

The increasing presence of African Americans in predominantly White colleges can be hailed as a sign of progress, signaling the end of racist admission policies. Comparing the educational, occupational, and income attainment of African Americans who attended historically Black colleges and those who had attended predominantly White colleges, Pascarella, Smart, and Stoecker (1989) found that attending a historically Black college had a significant, positive indirect effect on the educational attainment of the female students, mainly in the form of greater academic achievement. The corresponding indirect effect for the male students was similar in magnitude, though it was not significant. In addition, family SES status had a continuing indirect effect on the students' attainments and was also related to the

prestige of the undergraduate colleges they selected.

Thus, it can be argued that in spite of African American students' greater access to predominantly White colleges, historically Black colleges and universities still have an important mission, since they admit students who otherwise might not be able to attend college because of social, financial, or academic barriers. In addition, African American students who attended historically Black colleges reported higher academic achievement, greater social involvement, and higher occupational aspirations than did their counterparts who went to predominantly White schools (Allen 1992). These findings seem to support Tinto's (1993) contention that social and academic integration are important determinants of college persistence, since African American students do better in college when they feel valued, accepted, and socially connected—feelings they are more likely to have at historically Black colleges.

Women's Colleges

In a secondary analysis of NLS:72, Riordan (1992) compared the outcomes for female graduates of coeducational colleges versus women's colleges. He found few major differences in educational or occupational attainment, although graduates of women's colleges were less likely to go on to graduate school; nevertheless, there were social-psychological and attitudinal benefits of attending women's colleges: Graduates had higher self-esteem and self-control and more positive attitudes about the changing role of women than did women who graduated from coeducational schools.

Other studies have suggested that women appear to benefit academically from attending women's colleges. For example, Tidball (1985, 1986) noted that women who graduated from women's colleges were twice as likely as were women who graduated from coeducational colleges to receive doctorates or enter medical school. Furthermore, Conaty, Alsalam, James, and To (1989) found that by 1986, women who had been high school seniors in 1972 and attended women's colleges earned, on average, 20–25 percent more than did alumnae of coeducational institutions. The benefits of single-sex education are frequently attributed to

> the presence of more women on the faculty who can serve as role models for students, giving them concrete examples of successful women; the greater opportunities for women students to develop leadership skills through top positions in campus organizations and by active participation in classes; and the greater supportiveness of all-women environments, which put women's concerns at the center of the institution. (Miller-Bernal 1993: 47).

Comparing students of Wells and William Smith, two women's colleges, to female students at two coeducational schools, Miller-Bernal concluded that women's self-satisfaction was positively associated with taking courses on women's issues, participating in classes, and perceiving that college personnel were concerned with women's needs, all of which were more prevalent in women's colleges.

Community Colleges and the Transfer Process

Extensive research on the development and expansion of the two-year community college system in the United States (Dougherty 1987, 1991, 1992, 1994; Brint and Karabel 1989; Karabel 1986) has found that the original purpose of these colleges as gateways to the attainment of four-year college degrees diminished in the 1970s and 1980s. Instead, community colleges greatly expanded their terminal vocational programs in an attempt to define a clearer mission for themselves and stripped their transfer programs of resources. As a result, the proportion of community college students who transferred to four-year institutions declined from the 1970s to the 1980s (Dougherty 1994; Grubb 1990).

Critics claim that community colleges actually hinder their students from transferring to four-year colleges because they often lack supportive student peer groups and dormitories and usually have an

antiacademic atmosphere in which the faculty have low expectations of their students (Dougherty 1994). Problems in the transfer process include weak forms of articulation (course equivalence) between community colleges and four-year schools, underdeveloped and uninformed advising systems at community colleges, and deliberate attempts by some community colleges to divert students to vocational programs (Dougherty 1991). Moreover, four-year colleges may limit places for community college transfers, and transfer students may receive lower levels of financial aid than do new freshmen and continuing students (Dougherty 1994).

A number of studies have explored factors that facilitate the transfer of students from two-year to four-year colleges. For example, using data from the City University of New York system, in which such transfers should have been easy, Alba and Lavin (1981) found that students who began in community colleges had less chance of attaining college degrees. Vélez and Javalgi (1987), using the NLS:72 data, stressed the positive benefits of students living on campus and having a work-study position that fostered social integration, both of which were rarely available at community colleges. Lee and Frank (1990), in an analysis of HSB data, concluded that it is the continuing negative effects of social class that reduce the chances of transfer for many community college students; once social class is controlled, the negative effects of minority status, for example, are reduced. In short, Lee and Frank noted, for students who are socially and academically advantaged enough to attend four-year schools, community colleges may be an inexpensive and successful alternative route to attaining their bachelor's degrees.

Examining the long-term effects of having attended a two-year college (using the 1986 follow-up of the NLS:72 data set of 1972 high school graduates), Whitaker and Pascarella (1994) showed that when educational attainment was held constant, there were great similarities in the occupational prestige and earnings of those who began their education at two-year or four-year colleges. But when attainment was not held constant, those who had attended two-year colleges subsequently had jobs of significantly lower occupational status and income.

Consideration has being given to using financial incentives to improve the transfer rates from two-year to four-year institutions. Hauptman (1992) suggested that a financial aid "bonus" should be provided to junior-year transfer students, who would receive more support than juniors who entered four-year schools as freshmen, although he admitted that such a policy would be controversial. A more feasible method might be to offer better aid packages to transfer students, to give greater weight to transfers in the government's formulas for distributing the three types of aid (grants, work-study, and loans), or to give a "bonus" to four-year colleges—that is, to double-count transfer students for enrollment estimates, which would enable the schools to enrich their programs for transfer students.

COMPLETING COLLEGE

Background Factors

Students from affluent backgrounds are more likely to persist and graduate from college than are students with low SES backgrounds. For example, data from HSB indicated that six years after graduation from high school, 80 percent of the high-SES-quartile students, but only 40 percent of the low-SES-quartile students, who started college had finished (Carroll 1989). However, once other factors are controlled, the direct impact of SES on attainment of the bachelor's degree is modest, at best (Vélez 1985). Low-income students are not nearly as likely as their more affluent counterparts to have completed college preparatory curricula in high school—an experience that is positively linked to persistence in college (Mortenson 1991).

Greater proportions of African Americans, Latinos, and American Indians than of Whites drop out of college (Kalsner 1991). According to O. F. Porter (1990), only about 20 percent of Latinos and 23 percent of African Americans

complete college in six years, compared to over 40 percent of Whites and Asian Americans. Mortenson (1991:vi) found that "by 1989 Blacks had about 52 percent of the chance of a White to have earned a baccalaureate degree by age 25 to 29."

However, multivariate analyses have usually failed to reveal any consistent disadvantage of being African American for completing college. Anderson (1987), for example, did not find any significant effects for race in her study of college persistence. Furthermore, Vélez (1985) concluded that among students with high educational aspirations, Whites were more likely than non-Whites to graduate, but when the focus changed to students with low educational aspirations, non-Whites had substantially higher probabilities of finishing than did Whites. Since it can be assumed that non-White students are more likely to have attended inferior urban public schools, the negative effects of race on finishing college may be indirect through the impact of race on academic performance (Donovan 1984).

Initial enrollment patterns may play a role in the lower completion rates of Latinos, who are overrepresented in two-year colleges, whose students have lower rates of completing bachelor's degrees than comparable students in four-year colleges (see "Institutional Factors"). In 1992, about 57 percent of Latinos in higher education were enrolled in two-year colleges, compared to 39 percent of all students (U.S. Department of Education 1994). Such factors as language, culture, historical orientation to particular institutions, and degree of acceptance into the university community are believed to lead to different rates of completion for American Indians, African Americans, and Latinos (Cibik and Chambers 1991).

There are no appreciable differences in the dropout rates of men and women. Although there is some evidence that men were more likely than women to finish college during the 1970s (Vélez 1985), in the 1980s, gender differences were small or nonexistent (Carroll 1989). In regard to persons aged 25–29 with four or more years of college, Mortenson (1991:vi) concluded that "by 1989 women had about 96 percent of the chance of a man to have completed four years of college compared to less than 60 percent before 1965." Anderson (1987) did not find gender effects on attainment of a bachelor's degree in three types of institutions: private liberal arts colleges, research doctoral universities, and two-year colleges. However, she noted that in public four-year colleges, men had a lower probability than did women of attaining a degree within six years of their entrance.

Other evidence points to the fact that women are more likely to withdraw voluntarily for academic reasons (female students with low grades are more likely to leave than are comparable male students) and as a result of family responsibilities (Tinto 1993). This evidence suggests that there are societal pressures for women to place a higher emphasis on family duties, which may hamper their college careers. Nevertheless, the fact that more women than men are now enrolled in college indicates that women's commitment to completing their college education is increasing.

Academic Integration

Many students leave college when they fail to meet the academic demands of their schools. Their failure, in turn, can be traced back to their poor academic performance in high school and their lower academic ability. There is also evidence that private high schools prepare students better for the academic demands of college than do public high schools (Coleman, Hoffer, and Kilgore 1982). Yet, only a small proportion of college leavers are expelled for academic reasons (Tinto 1993). In fact, some students leave because they think that their schools' academic demands are too easy, in which case many able students end up withdrawing from one college to transfer to another. At other times, poor academic performance is the result of students' lack of commitment. Withdrawal, then, is usually a voluntary decision, reached after a student fails to become integrated in the intellectual life of his or her college. Tinto referred to this process as a "lack of congruence or

mismatch between the individual and the institution" (p. 51).

Social Integration

An important way in which students can become integrated into college life is by participating in formal and informal social systems. Centered in the daily life and personal needs of individual students, social systems operate largely outside the formal academic structure of colleges. Both informal interactions with faculty and staff and the more formal participation in extracurricular activities, such as the student newspaper, fosters students' social integration. Students who join groups or "subcultures" of their schools may develop social bonds that result in their heightened commitment to the schools (Tinto 1993). It is likely that social integration is facilitated by living on campus, given the empirical evidence to support the conclusion that students who live in dormitories are more likely to finish college than are those who live off campus (Vélez 1985).

Ideally, social integration should lead to a greater intellectual integration into the academic system of the college. For example, rewarding informal interactions between students and faculty can enhance intellectual development. However, students may allocate so much time to social activities that they fail to keep up with even the minimum demands of the academic system.

According to Tinto, persistence in college is a function of the match between a student's motivation and academic ability and the institution's academic and social characteristics. This interaction, in turn, impinges upon two underlying individual commitments: to completing college (goal commitment) and to a student's particular college (institutional commitment). From the perspective of interaction theory, retention and attrition result from interactions between students and colleges. Students who persist are said to "fit," while those who leave exhibit a "lack of fit."

Interaction theory is built around several constructs: students' academic and social integration into the college community, background characteristics, formal and informal contact with faculty, peer culture, and intentions. The more a student is integrated into the fabric of a college, the lower the probability that he or she will leave the school. A college education can be conceptualized as a rite of passage that students must undergo to be incorporated into society. However, Tinto's (1987) model has been criticized for failing to note that rituals are always embedded in specific cultures. Thus, since the dominant culture in the United States is White, minority students are likely to have a disruptive cultural experience in college (Tierney 1992). By emphasizing conformity to norms from an individualistic perspective, Tinto improperly used the anthropological term *ritual,* which derives from a collective identity that is socially constructed.

External Factors

One of the major critiques of Tinto's original model of college persistence is its lack of attention to factors external to the institution (Cabrera, Nora, and Castañada 1992). Perhaps as a response to earlier critiques, in the second edition of his book Tinto (1993) added a discussion of the impact of the student's community or neighborhood or the influence of relatives and non-student friends on college persistence and material on nonresidential and part-time students.

The impact of outside communities was perhaps best described by Weis (1985; see also Bean's 1980 Student Attrition Model, which emphasized approval by and encouragement from relatives and non-college friends). In studying African American students attending a community college in an urban area, Weis found considerable tension between the strong collective tradition of the African American community and the official notions of individualism embedded in the expectations of the community college, as well as between the belief in the value of knowledge and education and distrust of and skepticism toward the school. Partly on the basis of Ogbu's (1982) concept of castelike minor-

ities, Weis suggested that students can become accomplices in their own failure. The enormous growth in nontraditional students in recent years also points to external factors as an increasingly important dimension of college persistence.

Institutional Factors

As was discussed earlier in relation to the transfer process, students who begin their postsecondary education at community colleges need not only to succeed academically, but to negotiate the often-difficult process of transferring to four-year schools. Thus, it is not surprising that attending a community college appears to decrease the chances of eventual graduation from college (Dougherty 1991, 1994; Vélez 1985). Nevertheless, the negative effects of attending community colleges are not permanent for students who transfer to four-year colleges.

Lee, Mackie-Lewis, and Marks (1993) found that community college students who subsequently transferred to four-year colleges and students who entered four-year colleges directly from high school had an equal probability of attaining bachelor's degrees. The researchers offered two alternative explanations for these somewhat surprising results. First, the major disadvantage of attending community college for persistence to the baccalaureate degree is

> the institutions' relative inability (or maybe even active resistance) to facilitate transfer for the students who wish to do so but do not necessarily have the academic record or already developed academic behaviors to [do so easily] without institutional assistance." (p. 107)

Second, transfer students, who are a selectively hardy and resilient lot (as indicated by their successful transition from the increasingly vocational community colleges to four-year schools), may have greater academic motivation and social-emotional strengths than do students who began their academic careers at four-year colleges.

Financial Aid and Persistence

Studies of the impact of financial aid on students' persistence in college can be broadly classified as those that explore whether a particular type of financial aid is more conducive to persistence and those that focus on the issue of educational equity by asking whether aid eliminates or reduces the effects of differences in income. With regard to the influence of types of aid, Astin (1975, 1982) concluded that grants and work-study programs are beneficial for persistence, but loans are not. However, he noted that to determine the positive effects of scholarships and grants, the amounts and long-term availability of this aid must be taken into account. Carroll (1987) suggested that a grant must be at a certain level ($2,250 in the mid-1980s) before the effect would appear. Woodward (1988) noted that students could have long-term access to financial aid if mechanisms, such as renewable scholarships, were instituted. The evidence on work-study programs suggests that this type of aid has a positive influence on college persistence (Olivas 1986; Vélez 1985). In reviewing the effects of these programs on persistence in college, O. F. Porter (1992) confirmed Tinto's (1987) integration model: The work-study program increases the number of connections students have with the campus, which leads to an enhanced sense of belonging and commitment to the college.

With regard to the impact of financial aid on educational equity, Stampen and Cabrera (1986, 1988) concluded that means-tested student aid is effective in compensating for the disadvantage of low income, so that low-income students who receive it are as likely to persist in college as are more affluent students. However, there is no consensus on the positive impact of financial aid. Tinto (1993) contended that the main effect of financial support occurs at the point when students are deciding whether to attend college and where to enroll. But for most students, he argued, financial aid has a marginal effect on the decision to leave school.

The most recent and comprehensive

study of the effects of financial aid on persistence controlled for the impact of academic ability, motivational factors, and integration and commitment variables (Cabrera et al. 1992). It concluded that financial aid has a significant total effect on persistence, but only indirectly: "The results specifically underline the indirect nature of finances in the persistence process in that it affects the student's academic integration, socialization processes, as well as his or her resolve to persist in college" (p. 589). The researchers suggested that financial aid gives its recipients more freedom to engage in social activities, removes the anxieties associated with looking for funds to finance their education, and makes it easier to engage in academic activities that enhance academic performance.

CONCLUSION

The strongest tradition in research on access to and opportunity in postsecondary education is to explore whether social-class advantage or academic ability—aristocracy or meritocracy—are stronger determinants of educational attainment. With the expansion of higher education in the United States to women and minorities, the focus of research shifted to incorporate these groups, but studies continue to emphasize class and ability.

However, a number of external factors have altered the relevance of SES and academic aptitude for educational outcomes. With the extension of financial aid, the importance of the economic strength of families in determining college outcomes has diminished. In addition, since more and more college students are adults who are no longer economically dependent on their families of origin and whose own SESs are largely undetermined, the significance of the social-class position of one's family is relevant for only part of the body of college students. Nevertheless, as much of this research contends, higher SES continues to give traditional-age students greater access to four-year and elite institutions.

For older and part-time students, the relevance of academic achievements in high school and earlier may be attenuated. The option of beginning in nonselective two-year community colleges has weakened the need for entrants to start college with proved academic records. Similarly, the significance of academic and social integration in predicting college persistence may be much less for these students, whose contact with their colleges is circumscribed and whose primary social affiliations are probably outside school.

In essence, postsecondary education in the United States has become increasingly segmented. There are still elite (and not so elite) colleges that cater largely to traditional-age students and operate in much the same way as they did in the 1960s, except that they now have more women and minority students. But a much larger segment of American colleges have a more heterogeneous group of older, working adults who may be attending college part time. If access to and opportunities in postsecondary education are to be comprehended in the 1990s, this new mix of students and the changing educational conditions it has brought to American campuses need to be better understood.

Implications for Policies

The first policy implication of this review is that the factors that foster the academic and social integration of students may be both different and less significant for nontraditional students. Nontraditional students may need less in terms of fit and more in terms of institutional flexibility. Colleges and universities with more flexible scheduling; degree requirements; payment options; and ways for students to register, be advised, and handle their administrative needs would be more attractive and more accessible to nontraditional students. In short, nontraditional students may not need to make the integrative links that Tinto (1993) suggested; instead, schools may need to loosen up.

However, colleges and universities must not deliver these more flexible services indifferently. As Terenzini et al. (1994) stressed, these schools need to

make institutional accommodations to nontraditional students and to offer the social-psychological support that many of these students require. It is important that these schools do not assume that nontraditional students will be weaker academically or behave differently from traditional students. Nontraditional students may, in some institutions, be the most motivated, most academically talented, and the most emotionally strong students on campus. In this vein, another policy direction for universities and colleges is to encourage their strongest faculty and their most committed administrative staff to be fully involved in the education of nontraditional students, so this effort is not considered marginal within the institutions.

Another policy implication relates to minority students. Since every school has a unique mix of students, campus climate, and college personnel, attrition models based on national samples may prove to be inappropriate for specific colleges (McConnell-Castle 1993). For example, the use of interaction theory to explain attrition at predominantly White colleges and universities carries the hidden assumption that minority students are expected to fit into social structures that have traditionally been controlled by Whites. In light of this assumption, McConnell-Castle proposed that

> colleges and universities that undertake minority student attrition research and intervention efforts (a) should acknowledge interaction variability among students and racial/ethnic groups and (b) should base their attrition research and retention efforts on the specific needs, abilities, interests, and problems of the constituent groups in their student population. (p. 27)

In discussing the success of historically Black colleges in graduating African American students, Allen (1992) called for more research to elucidate the interaction among African American students, other actors, and the academic and social environments of colleges. This research should include an examination of the potentially negative impact of hostile racial and social relationships on the achievement of African American students. Allen also called for the demolition of institutional barriers that have created an unfair system of racial stratification in universities, such as

> admissions requirements that rely heavily on culturally and economically biased standardized tests; faculties dominated by middle-class, white males; soaring costs accompanied by inadequate financial aid programs; destructive pedagogical styles that emphasize "dog-eat-dog" competition; the embrace of exclusionary ethics that undercut attempts to achieve cultural pluralism and diversity; and norms that elevate "sorting out" procedures over approaches that emphasize student learning, such as value added, remedial strategies. (p. 42)

The evidence reviewed in this article highlights the positive and significant influence of specific forms of financial aid (grants and fellowships) on students' access to and persistence in college. The implication of these findings is that the balance between support from grants and from loans should shift back toward the grant side. O. F. Porter (1992) suggested that students should be given a higher ratio of grants to loans in the first two years of college and that the ratio of loans to grants should be increased in the last two years. Another suggestion is to increase the prominence of work-study programs because they connect students more fully to their institutions and thus enhances their persistence. With regard to policies at the state level, Porter suggested that since the tuition subsidies that public colleges and universities give to all students, regardless of financial need, unfairly favor upper-middle-income and wealthy students, tuition in these schools should be based on income. The new funds that would result from income-based tuition could be used to increase grants for the neediest students, expand work-study programs, and reward institutions with effective programs to enhance persistence. Hauptman's (1993) summary of elements that should characterize federal aid to higher education in the 1990s included more flexible forms of assistance to nontraditional students and

stronger links between student aid and national and community service.

Since most of the data reviewed here were based on samples of high school seniors, taken at a point at which a sizable proportion of the age group has already discontinued schooling, a more definitive examination of long-term factors that affect Americans' opportunities to gain access to postsecondary education must await analyses of the biannual follow-up surveys of NELS:88, which was based on a national sample of eighth graders in 1988. These data will provide evidence on high school dropouts who may have later entered community colleges to complete their high school requirements and then may have stayed on or returned to pursue postsecondary education.

In addition, since so many college students today did not enter college directly from high school, longitudinal studies of cohorts of high school (or even elementary school) students will not capture the population of college entrants that includes older, reentry students. The Beginning Postsecondary Student Longitudinal Study (BPS), a subsample of the National Postsecondary Student Aid Study (NPSAS), enables researchers to examine more closely influences on the academic success of nontraditional older students (U.S. Department of Education 1995). In 1992 and 1994, BPS resurveyed students who were first surveyed in NPSAS in 1988. It includes postsecondary transcripts and data on financial aid, along with the information from the survey of students. These data permit researchers to examine differences in the educational goals of nontraditional and traditional students and to track the educational progress and persistence (including transfers from two-year to four-year institutions) of different groups of students as they move through U.S postsecondary education in the 1990s.

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