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**Douglas S. Massey, Camille Z. Charles, Garvey F. Lundy, and Mary J. Fischer:  
The Source of the River**

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# CHAPTER 1

## THE PUZZLE OF MINORITY

### UNDERACHIEVEMENT

**P**RIOR TO the civil rights movement of the 1960s, racial and ethnic minorities were substantially excluded from U.S. higher education. African Americans, in particular, were barred from most colleges and universities by a combination of de jure and de facto mechanisms, and they faced particularly severe barriers at the nation's most selective institutions. If they were able to go to college at all, it was to a historically black college or university. Although several elite private institutions such as Howard, Morehouse, and Spelman provided excellent training for the sons and daughters of the black elite, most African Americans were relegated to underfunded, racially segregated state institutions. The situation was not much better for Latinos, especially in Texas, where Mexican Americans were subject to the sanctions of Jim Crow.

The civil rights movement transformed race relations in the United States and produced vigorous efforts to incorporate African Americans and Latinos into the mainstream of American society. Nowhere was this effort more apparent than in higher education. Led by the nation's elite institutions, American colleges and universities undertook deliberate attempts to recruit minority students through a variety of "affirmative actions." These efforts encompassed a range of mechanisms for enhancing minority recruitment and admissions. Initially, they were justified as an attempt to redress past racial injustices, but as immigration from Asia and Latin America transformed the United States, the rationale shifted from righting past wrongs to representing racial and ethnic "diversity" for its own sake.

The new recruitment and admissions practices had pronounced effects on the racial and ethnic composition of American colleges and universities. The share of nonwhites among U.S. college students increased substantially, going from 16% in 1976 to 27% in 1996 (National Center for Education Statistics 2001). Among African Americans aged 18–24, the share attending college went from 21% in 1972 to 30% in 2000, while the percentage of Latinos attending college went from 17% to 22%. Statistics on Asians have only recently become available, but as of the year 2000 they had the highest rate of college attendance of any racial or ethnic group, with 55% of those aged 18–24 enrolled in school (compared with 36% for whites).

As the decades wore on, however, it became increasingly clear that mere recruitment into former bastions of white academic privilege would not be enough to erase the large gap in educational attainment between Latinos and blacks, on the one hand, and whites and Asians, on the other (Glazer 1997). Despite a variety of retention efforts—increased financial aid, remedial education, special tutoring, peer advising, culturally sensitive dorms, and ethnically supportive student unions—once admitted to institutions of higher education, African Americans and Latinos continued to underperform relative to their white and Asian counterparts, earning lower grades, progressing at a slower pace, and dropping out at higher rates. More disturbing was the fact that these differentials persisted even after controlling for obvious factors such as SAT scores and family socioeconomic status (Bowen and Bok 1998).

The most basic indicator of success in college is graduation. Figure 1.1 shows trends in the percentage of those aged 25–29 who finished at least four years of college from 1977 to 1997. Despite two decades of affirmative action, intergroup differentials in college attainment have hardly changed, and by the end of the 1990s they even appeared to be widening. Through the early 1990s, roughly a quarter of all whites aged 25–29 finished college, compared with just 13% of blacks and around 10% of Latinos. After 1994, however, whites surged upward, reaching 29% by 1997. In contrast, blacks remained stuck at under 15% and Latinos at around 10%.

Longitudinal surveys offer another way to look at educational attainment. These surveys follow the educational progress of a cohort (an entering class) as it progresses through time. The College and Beyond Survey, for example, followed the 1979 and 1989 cohorts of freshmen at selective colleges and universities (see Bowen and Bok 1998). Graduation rates for Asians and whites in the earlier cohort were similar (around 88%) but substantially higher than those reported for Latinos (73%) and blacks (71%). Graduation rates were generally higher for the 1989 cohort, in which Asians displayed the highest graduation rate (96%), followed closely by whites (94%). Surprisingly, the rate for Latinos also rose substantially, reaching 90%, whereas the rate for blacks stagnated in relative terms, lagging behind at only 79%. Graduation rates for minorities were generally higher at more selective institutions (Bowen and Bok 1998).

Despite a multitude of studies, the literature remains inconclusive about the reasons for these persistent differentials. Special programs are being designed and implemented to improve black and Latino retention, but without any real understanding of the underlying causes of their higher dropout rates. One reason for our current lack of knowledge is the scarcity of good data. Studies of minority achievement draw heavily on

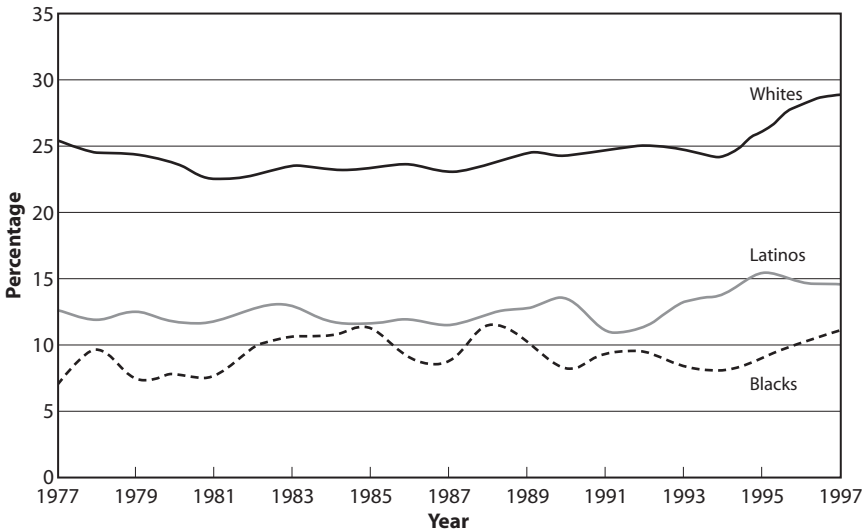


Figure 1.1. Percentage of persons aged 25–29 with four or more years of college

administrative databases compiled for other purposes or rely on small convenience samples gathered at particular institutions. Across all studies, moreover, there is a remarkable lack of standardization and sophistication in design and analysis. As a result, apart from basic measures of family structure, socioeconomic status, and high school performance, we know relatively little about the traits and characteristics that members of different racial and ethnic groups bring with them when they arrive on campus, or about how such differences in background might affect outcomes in higher education.

Although we are now four decades into the great social experiment of affirmative action, no systematic, nationally representative study has yet sought to investigate the determinants of college success for different racial and ethnic groups. We sought to redress this gap by surveying representative samples of Asian, Latino, and black freshmen entering a set of twenty-eight selective colleges and universities in the fall of 1999. The institutions chosen for study were those used by Bowen and Bok (1998) in their *College and Beyond Survey*. Whereas the goal of Bowen and Bok was to understand “the shape of the river”—the path followed by minority students as they moved through life after college—ours was to comprehend the *source* of that river—who the students were, where they came from, what their characteristics were, and how these characteristics shaped their academic progress.

In the absence of reliable data, theoretical explanations have proliferated with no good way of choosing between them. For the most part, the various theories that have been proposed to this point are neither logically inconsistent nor mutually exclusive, and for that reason none can be rejected *a priori*. Probably all contain an element of truth, and the real question is which ones are most powerful in explaining academic performance compared with the alternatives. The only way to answer this question is empirically, using relevant, reliable, and representative data.

Such information is precisely what we sought to provide by launching the National Longitudinal Survey of Freshmen (NLSF). In this volume we use data from the first wave of that survey, in which new students were interviewed as they arrived on campus as freshmen. Our purpose here is to learn all we can about the similarities and differences that whites, blacks, Latinos and Asians bring with them when they walk through the door on the first day of class. We wish not only to document these differences, but to understand the family, neighborhood, school, and peer circumstances from which they arose and, in turn, how they condition academic success during the first term of college. Differing backgrounds may or may not contribute to our understanding of differential rates of academic performance, but it is an obvious place to start. Before we begin our journey toward “the source of the river,” however, we first review the different theoretical explanations that have so far been advanced to explain the academic underperformance of minorities in general, and African Americans in particular.

### Theories of Minority Underperformance

Social science research on intergroup differences in educational achievement has, for the most part, focused on black-white differentials. Clearly the black-white divide has a special salience given the unique history of slavery, segregation, and discrimination experienced by African Americans in the United States. Since 1965, however, mass immigration has transformed the American reality to render the old notion of the black-white color line increasingly obsolete (Farley 1998; Bobo et al. 2000). The United States now houses a variegated population characterized not by a single, all-encompassing racial duality, but by a multidimensional intersection of changing racial and ethnic continua. Although any label is bound to be an oversimplification of this new, more complex reality, for practical reasons we focus on three groups that together constitute the bulk of what most people consider to be “minorities” in the United States: African Americans, Latinos, and Asians. All three groups are composed

not only of natives with many generations of U.S. residence, but also of recently arrived immigrants and their children.

### *The Theory of Capital Deficiency*

Perhaps the simplest and most widely recognized explanation for poor academic performance is that some people, for whatever reason, lack the resources needed for academic success. Such explanations range from the controversial claim that certain racial groups have less inherited intelligence (e.g., Herrnstein and Murray 1996) to more straightforward hypotheses that link poor academic performance to disadvantages stemming from low family income (Jencks et al. 1979; Fischer et al. 1996). Leaving genetic explanations aside, in the jargon of modern social science these explanations generally revolve around different notions of “capital deficiency,” where capital comes in a variety of distinct forms.

The most commonly recognized form is *financial capital*: income, assets, and various monetary instruments that together comprise a household’s economic resources. Obviously, children born into rich families are at a distinct advantage when it comes to preparing for college. Over the course of their lives, their parents are in a privileged position to purchase academic inputs of higher quality—not simply good schooling, private tutoring, and extracurricular training, but comfortable housing, good nutrition, and access to intellectual stimuli. When problems arise, moreover, wealthy parents can retain an army of specialists to help their offspring overcome whatever learning disabilities they face: educational psychologists, clinical diagnosticians, youth counselors, and child learning specialists.

In recent years, however, social scientists have identified other forms of capital relevant to the education and training of children. *Human capital* refers to the skills, abilities, and knowledge possessed by specific individuals (Schultz 1963; Becker 1964). Education itself is a form of human capital, and years of schooling is its most common indicator (though not without its flaws—see Blalock 1991). Under the precepts of human capital theory, parents invest in their children in the same way that entrepreneurs invest in a company, seeking to maximize their ultimate payoff—in this case the happiness, productivity, socioeconomic status, and prestige of their descendants in society.

Parents who themselves possess large quantities of human capital are in a better position to supervise and manage its acquisition by others (Steinberg 1996; Lareau 2000; Farkas 1996). College-educated parents are more likely than others to read to their children and provide intellectual stimulation within the home. They understand the process of school-

ing better, are less deferential to teachers and school authorities, and take a more active role in monitoring how their children are being taught and managing their education (Lareau 2000). Hence, one reason that minorities may experience academic difficulties in college is that, owing to a lack of access to education, their parents are less able to prepare them for higher education. Research also shows, moreover, that well-educated black parents are less able to transmit human capital to their children than comparably educated white parents, owing to a legacy of racism and discrimination (Duncan 1969).

Another form of capital is *social capital*: the tangible benefits and resources that accrue to people by virtue of their inclusion in a social structure (Bourdieu and Wacquant 1992). People gain access to social capital through membership in networks and institutions and then convert it into other forms of capital (such as education) to improve or maintain their position in society (Bourdieu 1986; Coleman 1990). When children are connected through ties of kinship or friendship to people who can help them prepare for college—socially, psychologically, culturally, and academically—then those ties constitute a source of social capital.

Finally, *cultural capital* refers to a knowledge of the norms, styles, conventions, and tastes that pervade specific social settings and allow individuals to navigate them in ways that increase their odds of success. This concept originated in the theoretical writings of Max Weber (see Swidler 1986; Macleod 1995) but gained special prominence in the work of Bourdieu (1977), who argued that cultural information passed on informally from one generation to the next helps to perpetuate social stratification. Wealthy children inherit a substantially different body of cultural knowledge compared with working-class children, especially when the latter are members of a racial or ethnic minority. School systems are organized such that the cultural knowledge of middle-class whites is valorized and systematically rewarded, whereas the cultural capital possessed by lower-class minorities is not.

Academia, in particular, is a rarefied social niche with its own customs, traditions, and expectations. Exposure to and prior knowledge of the social conventions of academia can be critical in preparing students for achieving success in a school environment (Farkas 1996). This knowledge may be quite practical—such as knowing why, when, where, and how to study—or it may be more diffuse and loosely related to educational achievement—how to behave in certain social situations, familiarity with certain cultural symbols, knowledge of certain styles of music, food, and dress. The latter are basically shared understandings that enable students to “fit in,” be comfortable, and feel like they “belong.” DiMaggio and Ostrower (1990) found significant black-white differences in knowledge of Euro-American high culture, which generally suffuses the academic mi-

lieu of selective colleges and universities. Alienation from these cultural forms might very well undermine the confidence and, hence, the achievement of minority students from poor and working-class backgrounds.

A major empirical problem for social scientists is that the various forms of capital—financial, human, social, and cultural—are almost always highly intercorrelated (MacLeod 1995). People with financial capital usually also have privileged access to cultural, social, and human capital. Thus, whereas DiMaggio and Ostrower (1990) and Roscigno and Ainsworth-Darnell (1999) have documented clear black-white differences in cultural capital, they also found that these differentials were substantially explained by differences in socioeconomic background. One goal of our study is to measure the forms of capital carefully and separately to disentangle their effects from one another.

Leaving aside the issue of *which* forms of capital are most important in determining educational outcomes, the theory of capital deficiency is generally supported by a substantial body of work documenting the powerful effect that family socioeconomic status has on children's educational achievement. The seminal work here is that of Coleman (1966), whose early results have been substantiated in subsequent work (Hanushek 1989; Miller 1995). Coleman found that differences in achievement among white, black, Asian, and Latino high school students were most strongly influenced by parental education, income, and occupational status, whereas school characteristics had a modest effect on academic achievement.

### *The Theory of Oppositional Culture*

The theory of oppositional culture originated in the work of the anthropologist John Ogbu (1978, 1981). It has also been called the “blocked opportunities framework” (Kao and Tienda 1998) and the “caste theory of education” (Ogbu 1978). Rather than dwelling on individual deficits, Ogbu sought to explain the academic performance of racial and ethnic minorities with reference to broader societal structures and historical processes. He began by distinguishing two kinds of minority groups: voluntary and involuntary. The former include *immigrant minorities*, such as Koreans, Chinese, and Punjabi Indians, who enter the host country freely seeking to improve their material well-being, as well as *autonomous minorities*, such as Jews and Mormons, whose minority status derives from adherence to a belief system that is not predominant in the larger society.

*Involuntary minorities* include groups such as African Americans, Amerindians, Mexicans, and Puerto Ricans, who were incorporated into American society largely against their will through enslavement, conquest, or colonization and were then relegated to a menial, subordinate

status. Whereas voluntary minorities compare themselves to compatriots in their countries of origin to derive a favorable view of the host society, involuntary minorities compare themselves with native majority members and are painfully aware of their disadvantaged status, which generates negative feelings toward mainstream values and institutions. Thus, whereas voluntary minorities see cultural differences simply as obstacles to be overcome in order to achieve success, involuntary minorities view them as symbols of pride and resistance.

Involuntary minorities thus come to perceive knowledge of and participation in the dominant culture and its institutions as a betrayal of group loyalty and a threat to identity. They develop a defiant position vis-à-vis mainstream institutions and feel alienated from schools, learning, and education. Studying hard and excelling in school are seen as culturally illegitimate. Among black high school students, for example, to display intelligence, use standard English, and earn high academic honors is to “act white.” For such students, academic success thus comes at a high psychological price: “racelessness.” Although their skin may be black, successful African American students are forced to reject a portion of their black identity as part of the “burden of acting white” (Fordham and Ogbu 1986; Fordham 1988, 1996).

These psychological dynamics are also expressed socially. Black parents, for example, communicate a mixed message to their children, telling them that school is important, on the one hand, but simultaneously expressing a distrust of the educational system, on the other, as well voicing doubts about the efficacy of education in shielding their children from racial discrimination. Black peers, meanwhile, view academic success as a threat to group solidarity and negatively sanction students who perform well, calling them “nerds” and “brainiacs,” or casting other aspersions on their coolness. Involuntary minorities thus tend to develop a collective oppositional culture, a frame of reference that actively rejects mainstream behaviors to undermine academic achievement.

Ogbu and Fordham developed their ideas based on ethnographic fieldwork they conducted in racially segregated American high schools. Other ethnographers have sought to confirm their results by studying different groups in different settings. Solomon (1992), for example, studied West Indian students in Toronto and found considerable resistance to academic success, especially among males. Even though West Indians are voluntary immigrants to Canada, Solomon argued that exposure to discrimination and isolation led to the formation of an oppositional identity. Waters (1999), meanwhile, identified two different patterns of assimilation among second-generation West Indians in New York: one group identified with native black Americans and adopted an oppositional identity that led to

academic underachievement, whereas another group identified with immigrants and were more academically successful.

In his study of Latinos, Suarez-Orozco (1991) found that the various national-origin groups behaved in ways consistent with Ogbu's theory depending on whether they were voluntary (Cubans, Dominicans) or involuntary immigrants (Mexicans, Puerto Ricans). Likewise, Matute-Bianchi (1986) found that the children of recently arrived Mexican immigrants generally displayed proschool attitudes that led to academic achievement; but those born or raised in the United States developed oppositional identities as *chicanos* or *cholos* that undermined their educational progress.

Other ethnographers, however, found students to be more discerning and sophisticated in their rejection of mainstream culture. Carter (2001), for example, reported that black and Latino students rejected certain styles of speech, dress, and music as "acting white" but nonetheless valued behaviors conducive to academic success, such as studying hard, getting good grades, and making the honor roll. Although O'Connor (1997) found that black students indeed adhered to a collective "black" identity, it did not include hostility to academic success. Based on her fieldwork among the Navajo, Deyhle (1995) argued that oppositional culture was inappropriate in explaining their resistance to education, which she traced to their marginalization in the economy and to distinct elements of their cultural heritage, which derived from centuries-old traditions rather than opposition to European culture *per se*.

If attempts to verify oppositional theory from ethnographic research have yielded a mixed record, efforts to verify it quantitatively have been even less successful. Cook and Ludwig (1998) found that, controlling for socioeconomic status, academically successful black students surveyed in the National Educational Longitudinal Survey (NELS) were no less popular than others, and that, on average, black students were no more alienated from school than were whites. Indeed, on some dimensions they were even *more* invested in academic success. Although Ainsworth-Darnell and Downey (1998) obtained similar results, Farkas, Lleras, and Maczuga (2002) criticized them for including all schools in their analysis rather than focusing on segregated institutions. They also found problems with their dependent variable (self-reported "popularity"). In several analyses using as an alternative dependent variable "frequency of hostile attacks," they found that black students in high-minority and high-poverty schools were more likely to be put down or made fun of for doing well academically. The strength of these findings, however, have been questioned by Downey and Ainsworth-Darnell (2002).

In their study of NELS data, Kao, Tienda, and Schneider (1996) found that blacks and Latinos had aspirations closely matching those of whites,

but that they earned significantly lower grades, suggesting a pattern of underachievement. In contrast, Asians had much higher aspirations than whites who earned the same grades, suggesting a pattern of overachievement. For them, peer culture apparently places a heavy emphasis on educational attainment, and, if anything, Asian students suffer a danger of “choking” under the relentless pressure for stellar grades and superior accomplishment (Kao 1995; Cheryan and Bodenhausen 2000). Unlike black parents, moreover, Asian parents do not send a mixed message about the importance of education (Sue and Okazaki 1990). Whereas Asian parents may be skeptical about the degree to which education will forestall discrimination, they do not communicate this skepticism to their children to the same degree as black parents do (see also Kao and Tienda 1998)

When Kao, Tienda, and Schneider (1996) considered the relationship between peer evaluation and academic performance, however, they found little evidence of any social bias against academically successful minorities, be they Asian, Latino, or African American. They also found that blacks and Latinos used their own groups as a reference to form peer evaluations and did not have identities defined in *opposition* to whites. Kao and Tienda (1998) subsequently reported that repeating a grade level greatly dampened the college aspirations of Latinos and blacks, although most of the intergroup differences were accounted for by differences in family resources.

### *The Theory of Stereotype Threat*

The theory of stereotype threat was developed by the psychologist Claude Steele (1988, 1992, 1998). It argues that members of certain minority groups are prone to underperform academically because of an unconscious fear of living up to negative stereotypes about their group’s intellectual capacity. Stereotype threat is a possibility whenever a person is at risk of fulfilling a negative stereotype associated with his or her group. If the threat is strong enough, it may interfere with performance, and long-term exposure leads to disidentification as a psychological defense mechanism: the domain in which the threat occurs is dropped as a basis for self-esteem (Steele and Aronson 1995; Aronson, Quinn, and Spencer 1998).

African Americans are stereotyped as being intellectually inferior in U.S. society (witness Herrnstein and Murray 1996), and black students are keenly aware of the prevailing negative valuation of their mental abilities. Every time black students are called upon to perform academically in the college setting, they are at risk of confirming this negative valuation, both to themselves and to others. The threat may be particularly salient in selective colleges and universities, where minority students are

widely perceived (rightly or wrongly) by white faculty and students to have benefitted from a “bending” of academic standards because of affirmative action.

Failing to perform up to expected standards is psychologically distressing because it implies that the stereotype is, in fact, correct: the student *is* intellectually inferior to other students. Rather than face the risk of such distress, black students downplay the importance of academic success as a standard of self-worth and put less effort toward academic achievement. If they fail, they can then tell themselves that they really did not try their hardest and that academic outcomes are not important anyway.

The theory of stereotype vulnerability rests on three basic assumptions. First, it assumes that people are highly motivated to think well of themselves and have others do the same. Second, it assumes that anxiety about the possibility of performing badly increases the likelihood of a poor performance. Third, it assumes that disidentification—psychological disengagement from the domain in question—is the long-term outcome of exposure to such anxiety. Disidentification should not be confused with the related but more general concept of devaluation, which refers to the abstract perception of a domain as unimportant. Disidentification involves the specific removal of the domain as a measure of self-esteem (Crocker and Major 1989). It is well documented, for example, that African Americans generally value education—indeed, they value it more than other racial and ethnic groups. Despite this valuation, African Americans consistently underperform academically, yet they nonetheless have high self-esteem (Mruk 1999). This is the case, Steele would argue, because academic performance is not a central domain in which African Americans construct self-esteem: they have *disidentified* with academic achievement as a metric of self-worth.

Experiments undertaken to test the theory of stereotype vulnerability have generally yielded supportive findings (Steele and Aronson 1995; Josephs and Schroeder 1997; Aronson, Quinn, and Spencer 1998). In these experiments, one group of students is prompted so as to reduce stereotype threat before undertaking a test or intellectual task, while another is left alone or primed to increase stereotype threat. Results invariably show an inverse relationship between the degree of stereotype threat and intellectual performance. A major question, however, is the degree to which these results can be generalized outside the laboratory.

To examine stereotype threat in the real world, Steele et al. (forthcoming) instituted a special program for African American students at the University of Michigan. Students were recruited into the program, but rather than stigmatize them by making the program appear as an attempt to compensate for shortcomings, they were told that being in the program was an honor. They attended weekly seminars to get to know each other

and share common experiences and then participated in specific “master workshops” to expose them to advanced material. After several years, results showed that program participants earned better grades and were less likely to drop out than other black students.

### *The Theory of Peer Influence*

The theory of peer influence basically states that academic aspirations and achievement are strongly shaped, especially in adolescence, by social pressures emanating from the people that students encounter in their schools and classrooms (Coleman 1961). According to Hallinan (1983), peer effects can be classified into two broad categories: contextual and proximate. *Contextual peer effects* are those stemming from the social, demographic, or economic composition of a student body. *Proximate peer effects* are those stemming from the influence of specific people in a friendship network. Studies of proximate effects generally begin by enumerating the individuals in a person’s social network and then consider how their values, beliefs, and aspirations influence the academic aspirations or achievement of the student.

Contextual peer effects operate through two mechanisms: reference group processes and interpersonal processes. The former occur because other students present in a classroom or school tend to establish group norms, offer concrete role models, and provide a yardstick for social comparison (Festinger 1954; Kelley 1967; Merton and Rossi 1968). Interpersonal processes operate because the values and standards of peers are transmitted interpersonally through specific interactions between individuals within a social environment (Hallinan 1983: 221).

The literature on proximate peer influence contends that proximity is a necessary, though not sufficient, condition for interpersonal attraction and, hence, influence. When two people are proximate in a social structure, their likelihood of interaction and mutual influence increases (Hallinan 1982: 290). Research on proximate effects generally compares the attitudes and behaviors of students with those of specific peers and infers influence from observed similarities. Sewell, Haller and Portes (1969), for example, delineated three potential sources of interpersonal influence—teacher encouragement, parental encouragement, and friends’ college plans—of which they found the latter to be most important. Hallinan (1983) likewise found that students were more likely to attend college if their friends expected to go to college, regardless of socioeconomic status, and that the strength of the peer effect generally increased from the freshman to senior year of high school.

A serious empirical problem in studies of peer influence is self-selection. In general, young people choose friends who are similar to themselves,

with comparable goals, aspirations, and outlooks (Kandel 1978; Epstein and Karweit 1983; MacLeod 1995). Other things being equal, students with high educational aspirations seek out friendships with others who share similar expectations for educational success, whereas students with low academic aspirations seek out others with low expectations for success. If we observe a correlation between the aspirations of individuals and the aspirations and performance of their peers, is it because of peer influence or self-selection into the peer group? Whereas some investigators argue that peer effects primarily reflect selection processes (Brown 1990), others conclude that they remain strong even after selection effects are controlled (Savin-Williams and Berndt 1990).

Kao (2001) attempted to control directly for selection effects using longitudinal data. She found that peer effects strongly influenced educational aspirations: Asians had greater educational success, in part, because they were more likely to have academically oriented friends. She also found that black students were more sensitive to friends' beliefs and behaviors than others. In contrast to the predictions of Ogbu, however, black peers were no less supportive of educational success. Rather, they were more strongly disposed to outside work, which was more detrimental to their academic achievement than for other groups.

Steinberg (1996) also considered intergroup differences in peer influence and found that Asian students outperformed other groups despite being exposed to "less than perfect" parenting. In contrast, black students performed significantly worse than others despite more positive parenting. Steinberg explains difference in terms of peer influence. Asian students were far more likely than others to have friends who placed a great emphasis on academic achievement; the friends of black and Latino students placed least emphasis on schooling, while whites were in-between.

### *Attachment Theory*

Tinto (1993) argues that the process of dropping out of college is much like the processes of departure from other human communities—leaving generally reflects an absence of effective integration and the social support it provides. Thus, departing students are those who are insufficiently attached, socially and academically, to the institution in question. In Tinto's words, "an institution's capacity to retain students is directly related to its ability to reach out and make contact with students and integrate them into the social and intellectual fabric of institutional life. It hinges on the establishment of a healthy, caring educational environment which enables all individuals, not just some, to find a niche in one or more of the many social and intellectual communities of the institution" (pp. 204–5).

Attachment is influenced by individual factors, of course, such as a student's motivation for earning a college degree and his or her degree of commitment to achieving it. But integration is not solely an individual-level phenomenon; it necessarily involves an *interaction* between the individual and the institution. Student departure may be conceptualized to have three interactional dimensions. The first is *adjustment*, or the process by which students become acclimated to the social and academic environment of the college or university. Students who come to campus underprepared academically will find adjustment particularly stressful, as will those whose prior socialization and life experiences differ markedly from those of other students. Both groups experience an elevated risk of leaving school. The final stage of adjustment is integration, wherein a student comes to feel a sense of belonging at the institution.

A second interactional source of leaving school is *congruence*, which is the degree of fit between the student's preferences and interests and those of the institution. As before, incongruence can occur in either the social or the academic realm. Academically, it occurs whenever students feel a mismatch between their level of preparation and the level at which courses are taught (too easy or too hard), or when they have ideological differences with the material being presented. Social incongruence occurs whenever students perceive that their own beliefs, values, and behaviors are at odds with those of other students. *Isolation* is the final interactional source of student departure. Students who do not make close personal connections with faculty or students on campus are naturally less attached to the institution and consequently give up less when leaving. Isolated students have few social ties binding them to the institution and are thus more likely to leave. Many students remain in school despite a lack of interest or disillusionment with their studies because that is where their friends are (Johnson, Crosnoe, and Elder 2001).

### *Critical Theory, Segregation, and School Effects*

Critical theory accounts for differential educational outcomes in terms of specific institutional arrangements that reproduce inequality. Bowles and Gintis (1976), for example, argue that schools are not neutral sites designed to provide all students with equal educational resources. Rather, they are institutions created by the dominant social classes to inculcate a curriculum corresponding to the class position of the students, thus reproducing socioeconomic inequality over time. To put it crudely, parents of upper-class children have no interest in devoting resources to the education of lower-class children, so that poor and working-class students end up going to lousy schools to receive a lousy education to prepare them for the lousy jobs they will hold as adults (see also Willis 1977). This basic

line of reasoning has been extended beyond social class by postmodernist theorists, who argue that academic institutions are also structured along the lines of race and ethnicity to generate inequality (Davies 1995).

It has long been known that the quantity and quality of educational resources available to students are structured not only by socioeconomic status but by school segregation. An abundant literature going back to Coleman (1966) documents the ongoing reality of racial and ethnic segregation in American schools (Orfield 1993), and studies continue to show a particularly high degree of segregation and isolation for blacks and Latinos (Orfield and Eaton 1996). Racially segregated schools are, on average, of significantly lower quality on a variety of academic and nonacademic dimensions (Kozol 1991; Orfield 1993).

Thus, one potential explanation for the underperformance of blacks and Latinos in U.S. colleges and universities is that the schools they attend as children and teenagers prepare them less well for collegiate work by providing lower-quality education, or that their schools actively harm their capacity for learning by exposing them to deleterious and maladaptive environments characterized by violence, social disorder, and concentrations of poverty. Although research has found that school characteristics have rather modest effects on educational outcomes once socioeconomic status and selection effects are controlled (Coleman 1966; Burtless 1996), no study has yet examined the degree to which the social and academic environment experienced in high school influences academic achievement in college.

### Differences in College Preparation

Whatever the causes of minority underperformance in college—capital deficiency, oppositional culture, stereotype vulnerability, peer influence, institutional attachment, or school segregation—it is clear that measurable differences in academic preparation exist among whites, blacks, Asians, and Latinos by the time they graduate from high school. One of the most widely used indicators of college preparation, for all its flaws, is the SAT I: Reasoning Test, or SAT. As can be seen in figures 1.2 and 1.3, average verbal and math SAT scores have improved for all racial and ethnic groups in the past twenty years. Among blacks, math scores rose by 34 points and verbal scores by 24 points between 1976 and 1995, the largest increases observed for any group. Despite their improvement, however, African Americans still lag well behind whites and Asians. Whites generally earn the highest average verbal scores (448 in 1995), whereas Asians earn the highest average math scores (538 in 1995). Latinos fall in-between blacks and Asians on verbal scores, and between blacks and whites on math scores.

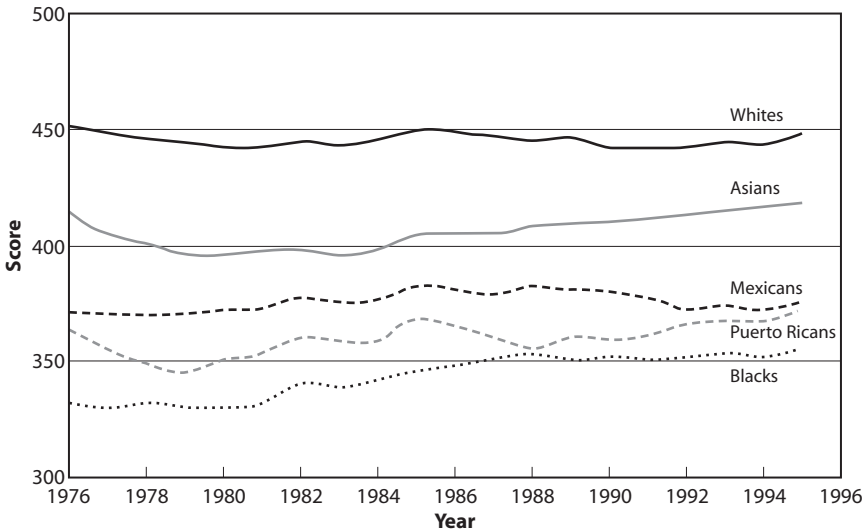


Figure 1.2. Average verbal score on SAT, 1976–1996

The use of SAT scores to indicate the degree of preparation for higher education has come under considerable criticism over the years. Not only are they said to be culturally biased (Taylor 1980), but research has consistently shown them to be imperfect and inconsistent as predictors of college performance (Bowen and Bok 1998; Crouse and Trusheim 1988; Kane 1998; Vars and Bowen 1998). For example, the relationship between SAT scores and academic performance is generally weaker for blacks, Latinos, and women than for whites, Asians, and men. African Americans, in particular, earn lower grades in college than one would predict given their SAT scores, and the *degree* of underperformance increases as SAT scores rise (Nettles 1991; Bowen and Bok 1998). Whatever is happening to undermine the academic performance of African Americans, it cannot be attributed to differences in SAT scores alone.

A second widely used indicator of college preparation is the number of Advanced Placement (AP) credits earned in high school. AP courses have increased in both prevalence and variety over the past decade. Between 1984 and 1997, for example, the number of students taking an AP examination increased nearly threefold, going from 5% to 13% among all twelfth graders (Condition of Education 2000).

There are strong incentives for college-bound students to take AP courses. First, those who take them may sit for a special exam, which if passed allows the student to receive college credit. AP scores are scaled

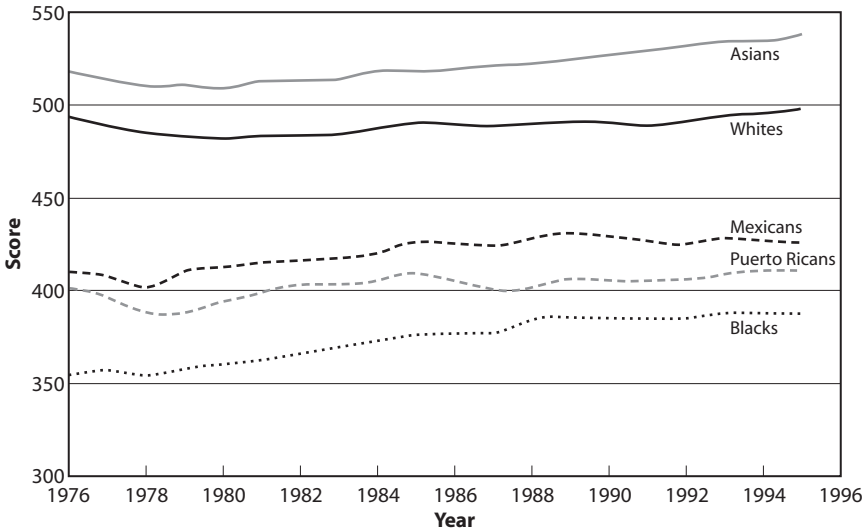


Figure 1.3. Average mathematics score on SAT, 1976–1996

from 1 to 5, with 5 being the highest possible score. Most colleges and universities accept a score of 3 or above and give one academic credit in the relevant subject.

A second reason for the growing popularity of AP courses is that they signal a rigorous curriculum of study (Condition of Education 2000). As with SAT scores, there are significant intergroup differences in AP exam-taking. In 1984, for example, 5% of white eleventh and twelfth graders took at least one AP exam, compared to just under 1% of African Americans and 2% of Latinos. Although the percentage had risen for all groups by 1997, blacks and Latinos continued to lag far behind Asians and whites (Condition of Education 2000).

In addition to SAT scores and AP credits, sound college preparation is also indicated by having taken advanced science and mathematics courses in high school. A study of high school transcripts conducted by the National Center for Education Statistics (1995) revealed a growing exposure to these subjects among high school graduates. As before, however, there were marked racial and ethnic differences. Whereas two-thirds of Asians in 1992 had taken advanced algebra, biology, and/or chemistry, only 44% of blacks and 51% of Latinos had taken advanced algebra, and 42% of blacks and 45% of Latinos had taken biology and chemistry. By way of comparison, 62% of whites had taken advanced algebra, and 56% had taken biology and chemistry.

## Assembling the Puzzle

That African Americans and Latinos are, on average, less well prepared for college than whites and Asians, and that they achieve at lower rates once they enter higher education, are not controversial claims. What is contentious and unresolved is the explanation for these intergroup differences. According to the theory of capital deficiency, blacks and Latinos have less access to various forms of capital—financial, human, social, and cultural—than whites and Asians (no doubt reflecting the legacy of discrimination and segregation), and these deficiencies translate directly into lower levels of academic preparation and poorer performance in college. According to the theory of oppositional culture, minorities such as blacks and Puerto Ricans devalue the institutions and products of the oppressor society, including its schools and education. As a result, academic achievement is perceived as “acting white” and is negatively sanctioned. The theory of stereotype vulnerability argues that the stereotype of black intellectual inferiority renders black and Latino students fearful of fulfilling the myth, causing psychological distress that they lower by disidentifying with education. Peer group theory holds that powerful adolescent subcultures emerge to challenge adult authority systems and that students who are susceptible to peer pressures rebel by underperforming academically. Attachment theory argues that school leaving stems from a lack of social and academic integration. Finally, a variety of critical theories argue that American society is structured such that certain minority groups are allocated by discriminatory processes to schools that offer inferior educational resources, leaving them ill-equipped to cope with the demands of higher education.

As already stated, these explanations are not mutually exclusive, and our task is to sort through them empirically to see which ones are most important in determining academic success or failure, here defined as performance during the first semester in college. In doing so, we focus on particular social arenas at different phases of life—childhood, early adolescence, and the late teenage years. Chapter 3 considers the family origins of NLSF respondents, exploring differences between whites, blacks, Asians, and Latinos with respect to household structure, family composition, home resources, and parental attitudes and behaviors. Chapter 4 broadens the purview to examine the nature of the neighborhoods in which the respondents came of age, considering the extent of racial and ethnic segregation as well as degree of exposure to various forms of social disorder and violence. Chapter 5 moves on to consider the characteristics of schools attended by students at different ages, focusing on the educational resources offered as well as on social and demographic com-

position. Chapter 6 takes an in-depth look at the social world of the teenager, exploring the values, perceptions, characteristics, and behaviors of high school peers. Finally, in chapter 7 we describe the values and aspirations of the students themselves as they are about to embark on a new journey through higher education and, ultimately, life.

Having documented in some detail the differing social, economic, and cultural backgrounds of white, black, Latino, and Asian freshmen, in chapter 8 we begin to sort out the independent contributions made by different background factors in determining preparation for college along a variety of dimensions: academic, financial, social, and psychological. In chapter 9 we measure how differences with respect to both background and preparation come together to determine a student's academic success in the first semester of college. A final chapter summarizes what we have learned from our close examination of the initial wave of the NLSF and sets the stage for analyzing successive follow-up surveys. Before we enter into the complexities of analysis, however, in the next chapter we describe the sample of students we compiled and the nature of the information we gathered from them.