The Declining “Equity” of American Higher Education

Astin, Alexander W.
Oseguera, Leticia.


Published by The Johns Hopkins University Press
DOI: 10.1353/rhe.2004.0001

For additional information about this article
http://muse.jhu.edu/journals/rhe/summary/v027/27.3astin.html
The Declining “Equity” of American Higher Education

Alexander W. Astin and Leticia Oseguera

“Equitable” and “accessible” are among the terms most frequently used to describe American higher education. The great expansion of American higher education that occurred in the two decades following the end of World War II opened educational opportunities to many Americans who previously would not have been able to attend college. This expansion of places in the system was also accompanied by massive increases in financial aid, most notably the introduction of need-based aid in many states, the major increases in federal aid that accompanied the Higher Education Act

ALEXANDER W. ASTIN is Allan M. Carter Professor of Higher Education at the University of California at Los Angeles and Director of the Higher Education Research Institute at UCLA. He has authored 20 books and some 300 other publications in the field of higher education. His current research focuses on student outcomes, educational policy and reform, the civic role of higher education, and the roles of values, consciousness, and spirituality in higher education. Dr. Astin has received awards for outstanding research and service from 11 different national associations, is a fellow at the Center for Advanced Study in the Behavioral Sciences, and a recipient of 10 honorary degrees. LETICIA OSEGUERA is a doctoral candidate in the Higher Education and Organizational Change program at the University of California, Los Angeles, and also a research analyst for the Higher Education Research Institute. Her research focuses on the stratification of American higher education, the civic role of higher education, and baccalaureate degree attainment for underrepresented groups. She is coauthor with Alexander W. Astin of Degree Attainment Rates at American Colleges and Universities (Los Angeles: Higher Education Research Institute, 2002). Address inquiries to Alexander W. Astin at Higher Education Research Institute, UCLA, 3005 Moore Hall, Box 951521, Los Angeles, CA 90095-1521; telephone: (310) 825-8331; fax: (310) 794-5004; e-mail: aastin@gseos/ucla.edu.
of 1965, and the amendments to that act passed in 1972. In addition to these system-level efforts, most undergraduate institutions also embarked on major outreach programs to encourage members of heretofore underrepresented groups—especially African Americans and Latinas/os—to attend college. As a result of all these changes, the accessibility and equity of American higher education was substantially enhanced during the 1960s and 1970s.

While members of underrepresented groups and low-income people in general have more access to higher education today than was the case 40 years ago, policy makers have paid little attention to a relatively hidden aspect of the equity question: the hierarchical arrangement of American higher educational institutions and the distribution of students within that institutional system. Most academics and many college-bound students and their parents are well aware of the fact that there are only a handful of baccalaureate-granting colleges and universities—perhaps one in 10—that are regarded as excellent or the best. Such beliefs are regularly reinforced by the considerable attention given to prestige rankings such as those published annually by *U. S. News and World Report*.

From the perspective of anyone interested in educational equity, the question is: How accessible are the best institutions at the top of the pecking order to students from different socioeconomic groups? And, given the debates about affirmative action that have been occurring at both the national and state levels for the past decade and a half, it is also important to know (a) how has access to the best institutions changed during the last two decades? and (b) what are the possible reasons for any observed changes? This study addresses these questions.

**BACKGROUND OF THE STUDY**

While a number of studies have documented the fact that students from the lower socioeconomic strata are underrepresented in elite institutions (e.g., Carnevale & Rose, 2003), the published data on this question are more than a decade old. Moreover, the few quantitative studies that have looked at the possible reasons for this underrepresentation (Karabel & Astin, 1975) relied on data from more than 30 years ago. More important is the fact that no studies have looked at recent trends. Considering the considerable investment by state and federal governments and by individual institutions in financial aid, affirmative action, and outreach efforts during recent years, it is especially important to assess such trends: Is our system becoming more equitable? Has it become less equitable? Such information is also important because the U.S. Congress is in the process of a major reauthorization of the Higher Education Act.
Why is access to elite or highly selective institutions important? A good deal of research has shown that these top-ranked institutions command substantially more resources than other institutions (e.g., Astin, 1985; Bowen & Bok, 1998). While it is certainly debatable whether they always offer the best educational experience for students, their position in the top ranks of the institutional pecking order clearly confers certain educational and career benefits not available in other institutions (Bowen & Bok, 1998; Carnevale & Rose, 1993; Henson, 1980; Karabel & McClelland, 1987; Rosenbaum, 1984). Thus, regardless of how well a particular institution educates its students, it is well known that the most sought-after employers and most graduate and professional schools favor the graduates of prestigious institutions in their recruitment practices (Henson, 1980). Further, from a strictly educational perspective, longitudinal research has shown that attending an institution where the majority of students come from the upper socioeconomic levels confers a number of educational benefits not available at institutions that enroll students from the lower socioeconomic levels (Astin, 1993). Still other benefits stem from the fact that the most prestigious institutions are largely residential. A number of studies, for example, have documented the considerable advantage that residential students enjoy over commuters (Astin, 1977, 1993; Chickering, 1974; Pascarella & Terenzini, 1991).

Perhaps the principal obstacle to access to highly ranked institutions among poor and underrepresented students is the system of selective admissions which favors students who perform well on standardized admissions tests and who have high grade point averages (GPAs) from secondary school. Since students from poor and less-well-educated families tend to perform less well than other student groups by these measures, they are disadvantaged in competing for access to the most prestigious institutions (Fleming, 1990; Valencia & Aburto, 1991; Walpole et al., 2001).

Another potential obstacle to access to elite institutions is the escalating fiscal pressures that many institutions have been experiencing during the past decade. Recent cutbacks in federal and state funding, coupled with increasing costs, have made it difficult for institutions to meet the financial need of their poorest students (Heller, 2001; Johnstone, 1999). The Catch-22 of financial aid, of course, is caused by the manner in which most institutions (especially the private ones) run their financial aid programs: since most internal student financial aid comes from tuition revenues, raising tuition is certainly the surest means an institution has for increasing its financial aid, yet raising tuition also increases the poor student’s need (Heller, 2001; Johnstone, 1999). Under these circumstances, increasing numbers of private institutions are abandoning need-blind admissions and using ability to pay as a consideration in the admissions decision (Kirp, 2002; Pulley, 2002). Clearly, such policies tend to make it even more difficult for poor
students to attend elite colleges and universities, usually among the costliest institutions (Astin, 1985).

The issue, then, is whether, and to what extent, student access to the most elite institutions has changed during the past several decades, especially among students from the lowest socioeconomic levels.

**Method**

To explore this question, we relied on data from the Cooperative Institutional Research Program’s (CIRP) entering Freshman Survey, an annual assessment that has been conducted for the past 38 years. Each fall approximately 400,000 freshmen from more than 700 institutions complete a comprehensive questionnaire that asks about basic demographic and biographical information, values, self-concept, attitudes, and educational plans. The principal purpose of each CIRP survey is to provide precollege data for use in longitudinal studies of student development. However, our primary interest in this study focuses on students’ socioeconomic status: parental family income, mother’s educational level, and father’s educational level. CIRP has four major advantages in these areas: (a) institutions strive to survey all entering freshmen rather than to collect samples; (b) repeat participation by institutions from year to year is high (ranging between 85–90%), thereby providing a good deal of continuity in the sample over time; (c) the sample of degree-granting institutions is large and covers all known types of institutions by control, size, and selectivity level; and (d) the institutional population is stratified such that any over- or under-participation by type, control, or selectivity level can be adjusted using compensatory weights. Additional weighting corrects for underparticipation of entering freshmen by gender both within institutions and within stratification cells. (See Sax et al., 2002 for details.) Thus, the resulting weighted data are designed to approximate the results that would have been obtained if all first-time, full-time entering freshmen in American higher education had completed the survey.

**Institutional Quality**

Although there are many possible definitions of institutional quality or excellence, probably the most widely used and widely accepted index is the institution’s selectivity. Institutions not only frequently use selectivity as a mark of excellence but popular magazine rankings of institutional quality also give it considerable weight (McDonough et al., 1998). Selectivity is also the best single measure of an institution’s position in the reputational pecking order (Astin, 1985). In this study, we defined selectivity as the mean Scholastic Aptitude Test (SAT) score (verbal plus mathematical composite) of
the entering freshman class. For institutions that rely on the American College Test (ACT), we converted the mean ACT composite score into an SAT equivalent composite score using formulas developed at the Higher Education Research Institute.

To achieve consistency in institutional comparisons over the decades, we decided to use institutional selectivity as of 1999. Although there are no doubt changes in any institution’s selectivity from year to year, these changes tend to be quite small; and the relative ordering of institutions remains remarkably constant over considerable periods of time (Astin & Henson, 1977; McCormick, 2001). The same appears to be true of reputational rankings (Astin, 1985; Astin et al., 2002).

As one might expect in a hierarchical system, the distribution of selectivity is highly skewed in a positive direction, with relatively few highly selective institutions and much larger numbers of less selective and nonselective institutions. For the current analysis we arbitrarily designated the top 10% as highly selective institutions, the bottom 30% as least selective or nonselective, and the remaining 60% as institutions of middle selectivity. This latter group includes many institutions that accept a relatively large proportion of applicants, while the least selective group includes most of the community colleges and other institutions that admit most of their applicants. While the CIRP freshman norms are typically derived from a sample of participating institutions that represents approximately 15–18% of the total institutional population (including more than 25% of the baccalaureate-granting institutions), the sample of CIRP participants typically includes at least two thirds of the institutions in the top 10% in selectivity. Since these highly selective colleges and universities are also among the most consistent year-to-year participants, the data reported in this study are based on an exceptionally good sample of the most selective institutions in the country.

Table 1 shows the proportions of students enrolling as first-time, full-time freshmen at institutions in each of the three selectivity levels during the past three decades. The proportion enrolling at the most selective (top 10%) institutions has remained fairly stable at around 10%, which suggests that these elite institutions are about average in the size of their freshman enrollments. The 60% of the institutions that make up the middle selectivity group enroll slightly less than half of all students, suggesting that they

---

1The institutional participants ordinarily account for 22–26% of the total CIRP population of accredited, degree-granting institutions (including more than 40% of all baccalaureate institutions), but the annual norms exclude those institutions that have low participation rates or are judged to have a nonrepresentative sample of first-time, full-time freshmen.

2The CIRP population weights, of course, compensate for this overrepresentation of highly selective institutions.
tend to be somewhat smaller than average. By contrast, the least selective 30% appear to be somewhat larger than average, since they account for more than 40% of the freshman enrollments. The percentages shown in Table 1 can be regarded as a kind of norm against which our data on socioeconomic status (SES) can be assessed. That is, students from a given SES level can be said to have equitable access if their proportions roughly match those shown in the table, i.e., 10%, 50%, and 40%, respectively, enrolling in institutions of high, middle, and low selectivity.

Socioeconomic Status

Although there are many different ways that one might measure a student’s socioeconomic status (SES), we decided that the educational attainment levels and income of the student’s parents would constitute the best indicators of SES.

Parental Income. The major challenge in being able to track changes in the college-going patterns of students by income level is the fact that the distribution of parental incomes changes regularly from year to year in the CIRP norms. Virtually without exception, the distribution has shifted upward toward higher incomes almost every year since the survey was first initiated in 1966. Under these conditions, the definition of any given income level would necessarily have to change from year to year in order for notions such as low income or middle income to have the same meaning over the more than three decades during which the survey has been underway. To compensate for these changes, we computed the 75th and 25th parental income percentiles separately for each year of the survey. Moreover, since CIRP parental incomes are reported in intervals, we had to employ interpolation and develop a system of corrective weights to compensate for the fact that the 75th and 25th percentiles almost always fell within an income interval rather than at the division between two intervals.

When we first inspected the 30-year trends produced by these computations, we noticed a major discontinuity between the years 1984 and 1985 in the proportion of high-income students attending highly selective institutions. After some checking, we discovered that the format of the parental income question was substantially altered between 1984 and 1985, with a number of changes (including the addition of several new categories) having been made at the high end of the distribution of response alternatives (i.e., in the region of the 75th percentile). Since 1985 this revised format has remained basically the same, except for the occasional addition of another category at the high end to account for income inflation. For this reason, we shall report here income trends for high- and middle-income students only from 1985 and thereafter.

Parental Education. In the CIRP survey, the educational level of each of the student’s parents is reported along a seven-category continuum rang-
From grammar school to graduate degree. For the purposes of our study we were interested in three groups: students whose parents never attended college (first-generation students, or students from the lowest parental educational level), students whose parents both have college degrees (highest educational level), and the remaining students comprising those with at least one parent who attended college and at least one parent who did not complete college (the middle parental educational level).

Since American higher education is designed in part along meritocratic lines, meaning that access to the best institutions is supposed to be determined by the academic merit of the individual student, it is reasonable to suppose that any socioeconomic inequities that might be revealed by our SES measures are simply the consequence of how individual academic merit happens to be distributed in American society. In other words, given that selective admissions in American higher education continue to be highly dependent on the use of high school grades and standardized test scores, it is important to determine whether SES continues to play a role once we have taken into account the effects of these widely used indicators of academic merit. Nearly 30 years ago, Karabel and Astin (1975) demonstrated that SES did indeed play an independent role in determining the selectivity of the college attended; the question here, of course, is whether this is still the case, especially in light of the vast increases in state, federal, and institutional financial aid that have occurred since that time.

To explore this possibility, we performed a series of multivariate analyses to determine whether the correlations of parental income and parental education with access to highly selective institutions (see below) can be explained simply on the basis of merit, as signified by the student’s high school grades and admissions test scores. For this purpose we used admission to a

---

**Table 1**

**Percentage of First-Time, Full-Time Freshmen Attending Institutions of Differing Selectivity, 1971–2000**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>9.8</td>
<td>9.2</td>
<td>10.6</td>
<td>10.3</td>
</tr>
<tr>
<td>Medium</td>
<td>50.1</td>
<td>47.9</td>
<td>46.2</td>
<td>47.9</td>
</tr>
<tr>
<td>Low</td>
<td>40.1</td>
<td>42.9</td>
<td>43.2</td>
<td>41.8</td>
</tr>
</tbody>
</table>

1Mean SAT Score 1200 +
2Mean SAT Score 980–1199
3Mean SAT Score below 980
highly selective institution in fall 2000 as a dichotomous dependent variable, and four entering student characteristics as independent variables: average high school grade, composite SAT (or converted ACT) score, parental income, and composite (i.e., the sum of father’s and mother’s) level of educational attainment. Grades and test scores were allowed to enter the regression first in order to control for the effects of academic merit, after we determined whether the two SES variables added anything to the prediction of entry to a highly selective institution.

One final theoretical question concerns the possible reasons for any changes in socioeconomic stratification that we might observe in our data. To explore this question, we performed one final series of stepwise regression analyses similar in design to the one just described, except that we used all entering freshman characteristics rather than just the two merit and SES measures. Moreover, we performed separate regressions with entering freshman data from 1990 and 2000. Given the large number of available freshman characteristics—nearly 200—we terminated each regression as soon as no additional variable was capable of producing an increase in the multiple R-squared of at least .005. (Even with this tiny amount of variance, the coefficients for all variables in these regressions were still highly significant, i.e., p < .0001.) Next, we created a new reduced set of 33 independent variables consisting of all freshman characteristics that entered either (1990 or 2000) regression. We then reran the two regressions with the entire reduced set of 33 independent variables being forced into each regression. By insuring that each equation contained exactly the same independent variables, we were better able to compare the two coefficients (1990 and 2000) for any given variable.

A completely equitable higher education system, in terms of the independent variables used in this study, would be one where students from different socioeconomic classes have equal access to the best educational opportunities, which in this instance means the most selective colleges and universities. Since concerns about equity usually focus on the most disadvantaged segments of the population, our two initial questions to be explored in these analyses were:

---

3In recent years it has become fashionable to use logistic regression instead of ordinary least squares (OLS) regression when the dependent variable is a dichotomy. However, since an extensive empirical comparison of the two methods using CIRP data (Dey & Astin, 1993) shows that they yield essentially identical results, we chose to use OLS regression because the SPSS program includes important options (e.g., beta-in for variables not in the equation) not available in the logistic regression program. Further, a recent methodological study using the same data that we employed in this study shows that OLS regression and logistic regression produce cross-validated results that are essentially identical (Oseguera & Vogelgesang, 2003).
1. Do low SES students, in comparison to middle and high SES students, have equal access to the most selective colleges and universities?

2. Has the access of low SES students to the most selective colleges and universities changed during the past several decades?

Clearly, if low SES students are as likely as students from other SES levels to enroll in the most selective colleges and universities, then we can conclude that educational equity has been achieved by the higher education system in the United States, at least insofar as access to the most selective institutions is concerned. On the other hand, if low SES students are less likely to enroll in highly selective institutions than students from other income levels, then educational equity has yet to be attained. Obviously, the degree of underrepresentation would be an indicator of the degree of inequity. Similarly, if proportionately greater numbers of low SES students are attending the most selective colleges today in comparison to previous decades, then we can conclude that the various efforts to enhance equity are beginning to pay off and that equity in American higher education is on the upswing. However, if low SES students are less likely to attend highly selective institutions today than was the case in earlier decades, then equity is in decline.

**TRENDS**

*Parental Income*

Figure 1 shows how the composition of the entering classes, in terms of parental incomes, has been changing by selectivity level during the past 16 years. Distinctive trends can be seen for each of the three income groups:

1. A steady increase in the representation of high-income students (from 46 to 55% of the entering freshmen)

2. A steady decrease in the representation of middle-income students (from 41 to 33%)

3. Little change in the representation of low-income students (steady at between 9 and 13% of the entering freshmen).

Another way of looking at the trends shown in Figure 1 is to consider the probability that students from any income level will enroll in one of the most selective institutions. Access by students from the wealthiest families has been steadily increasing—from less than 20% in the mid-1980s to about 24% by the end of the 1990s. Somewhat surprisingly, it appears to be the middle-income students, rather than low-income students, who are being replaced. Thus, since the mid-1980s, the proportion of middle-income stu-

---

4As already indicated, results for earlier years (1971–1984) are not comparable because the format of the parental income item was permanently changed in 1985.
...udents who manage to enroll in a highly selective institution has declined from 8–9% to 6–7%. Even so, by 2000, access by low-income students to highly selective institutions remained below that of middle-income students: 5.0% versus 6.7%, respectively. In short, these data suggest the following conclusions:

- There are substantial inequities in the accessibility of highly selective colleges and universities to students from different parental income levels. Specifically, students from the wealthiest families are overrepresented by a factor of more than 2, while students from the poorest families are underrepresented by a factor of one-half. Students from middle-income families are underrepresented by a factor of about one third.
- These inequities have been increasing during the past decade and a half, with the degree of overrepresentation of high-income students growing from 84 to 120%, and the degree of underrepresentation of middle-income students increasing from 19 to 36%. Since the underrepresentation of the poorest students has remained fairly steady at around 50%, it ap...
pears that the increasing concentration of high-income students in the most selective institutions has come at the expense of middle-income students.

**Parental Education**

Table 2 shows that the composition of the freshman classes entering highly selective institutions, in terms of parental educational level, has changed dramatically during the past three decades. Whereas in 1971 the entering classes at these institutions contained roughly equal numbers of students whose parents had never attended college and students whose parents both had college degrees (25% and 28% respectively), today the children of highly educated parents outnumber first-generation students by better than six to one (62% versus 9%). At the same time, students whose parents' education falls in the middle level, who used to make up nearly half of the entering classes at highly selective institutions, are now outnumbered two to one by students with highly educated parents.

When we consider these trends in terms of *probabilities*, we find that access to highly selective institutions among students from the best-educated families has remained relatively unchanged (about 20%) over the three decades. But how could this be so, especially in light of the pattern of declining enrollment of students from the middle and lowest levels of parental education? The answer, of course, is that the absolute size of this group—students whose parents both have college degrees—has increased dramatically during the past three decades, from 17.1% of first-time freshmen in 1971 to 37.2% of the first-time freshmen in 2000. In other words,

---

**Table 2**

**Freshman Classes Entering Institutions of High Selectivity: Changes in Composition by Parental Educational Level**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High¹</td>
<td>28.2</td>
<td>39.8</td>
<td>49.9</td>
<td>61.5</td>
<td>+33</td>
<td>+118</td>
</tr>
<tr>
<td>Middle²</td>
<td>46.8</td>
<td>42.3</td>
<td>37.0</td>
<td>29.5</td>
<td>-17</td>
<td>-37</td>
</tr>
<tr>
<td>Low³</td>
<td>25.1</td>
<td>17.9</td>
<td>13.2</td>
<td>9.1</td>
<td>-16</td>
<td>-64</td>
</tr>
</tbody>
</table>

¹Both parents have a college degree.  
²One parent attended college and at least one parent did not complete college.  
³Neither parent attended college.

Similar increases have occurred in the overall educational level of the U.S. adult population during the past three decades (U.S. Census Bureau, 2000).
over the past 30 years students from the best-educated families have managed to maintain the same high rate of access to highly selective colleges and universities—about 1 in 5—in spite of the fact that their numbers have more than doubled during this same period. In contrast, the rate of access among first-generation students has declined from about 1 in 18 to 1 in 27 even though their numbers have declined by almost half. And while the size of the group whose parents’ education falls into the middle level has changed only slightly over the three decades (from 37.2% to 35.3% of entering freshmen respectively, between 1971 and 2000), their rate of access to highly selective institutions has declined from 1 in 9 to 1 in 14.

As a consequence of these trends, the chances today of a student from a highly educated family enrolling in a highly selective institution are nearly three times better than the chances of a student from the middle educational level and more than five times better than those of a first-generation student.

To get a better sense of how these demographic changes have affected the overall equity picture, we have prepared two additional tables that examine access to institutions of medium and low selectivity. Table 3 summarizes the results for institutions of medium selectivity. Here we see clearly the effects of the rising overall level of educational attainment among students’ parents: a large increase in students with highly educated parents (from 14.6% to 34.7% of the entering class), and a comparable decline in first-generation students (from 39.7% to 21.1%). When it comes to probabilities of enrolling, however, very little change has occurred between 1971 and 2000, either for students of highly educated parents (from 64.8% to 64.3%)
or for students whose parents are in the middle educational level (from 64.1% to 62.1%), and only a small decline for first-generation students (from 54.7% to 50.9%).

Trends in the composition of student bodies enrolling in nonselective institutions are shown in Table 4. Once again we see the effect of the overall increase in parental educational levels: an increase in students with highly educated parents and a decrease in first-generation students. However, there has also been a substantial increase (from 35.8% to 44.3%) in students whose parental education falls in the middle category, in spite of the fact that the size of this group has declined slightly since 1971. (See Table 1.) This finding suggests a kind of trickle-down effect: As more students from the middle level of parental income are displaced from highly selective institutions, more are ending up in the least selective institutions.

In short, these data warrant the following conclusions regarding access to higher education institutions by students from different parental educational levels:

• In contrast to first-generation students, a student with highly educated parents has a 500% increase in his or her chances of gaining access to a highly selective college or university. Compared to students whose parental education falls in the middle level, students with highly educated parents are 300% more likely to gain access to a highly selective institution.

• While similar inequities could be observed three decades ago, they have increased in size during the past 25 years.
Given that the overall education level of students’ parents has increased dramatically during the past 30 years, the parental educational level of entering freshman classes has risen substantially in institutions at all levels of selectivity. Nevertheless, large differences by selectivity level persist: freshman classes entering highly selective colleges and universities, compared to those entering nonselective institutions, include more than three times as many students whose parents both have college degrees, and the freshman classes at nonselective institutions include more than four times more first-generation students than do the freshman classes entering highly selective institutions. (See Tables 2 and 4.)

The net result of these changes is that American higher education now appears to be even more stratified, when it comes to student SES, than it was 30 years ago. Students with highly educated parents now account for more than 60% of the entering freshman classes at the most selective institutions, about one third of the students at middle selectivity institutions, and only 18% of the students in the least selective institutions. At the same time, students whose parents’ education falls in the middle ranges are increasingly being displaced from highly selective institutions (17% decline) into the least selective institutions (9% increase). This pattern replicates the finding with middle-income students discussed in the previous section. Finally, while the diminishing number of first-generation students has resulted in substantial declines in their presence at institutions at all levels of selectivity, the relative decline has been much greater in the highly selective colleges and universities (nearly two thirds, as contrasted with about half in the institutions of middle selectivity and only about one third in the least selective institutions). As a result, first-generation students now account for more than a third of the students enrolling at the least selective institutions, about one student in five at the middle selectivity institutions, and less than one in 10 at the most selective colleges and universities. Clearly, first-generation students in American higher education are becoming increasingly concentrated in the least selective institutions.

Given the similar pattern of increasing stratification by SES also seen with parental income, it seems clear that (a) there are substantial socioeconomic inequities in student access to the most selective colleges and universities, and (b) these inequities have been increasing during the past 25 years. In other words, the American higher education system is moving toward increased socioeconomic stratification, despite such countermeasures as massive state and federal financial aid programs, affirmative action, and outreach programs of many types. The equity implications of these findings take on added significance in light of the fact that the overall access rate of low SES students to higher education has declined by nearly half in recent years (Bernal, Cabrera, & Terenzini, 2000).
Possible Explanatory Factors

Why have these changes occurred? First, does SES continue to play a direct role in access to highly selective colleges and universities, or can differential access to such institutions by students from different SES levels be accounted for solely in terms of differences in academic merit? As Table 5 shows, although controlling for SAT and high school grades substantially reduces the effect of both SES measures on the dependent variable, SES is still significantly related to admission to highly selective institutions. In other words, students’ socioeconomic status directly affects their chances of enrolling in a highly selective institution, even after the effect of academic merit is taken into account.

Has the weight carried by merit, SES, and other student characteristics in determining access to highly selective institutions changed during the past decade? Results from these final two regressions are summarized in Table 6. In both fall 1990 and fall 2000, students with the best chance of enrolling in a highly selective college or university had high admission test scores and good grades in high school, came from highly educated and affluent families, tended to be either Jewish or Asian American, and tended not to identify their religious preference as Protestant. Given that our definition of

---

*We are defining Protestant as Baptist, Episcopalian, Lutheran, Methodist, Quaker, Seventh Day Adventist, United Church of Christ, or Presbyterian.

---

### Table 5

**Effect of Controlling for Academic Merit on the Relationship Between SES and Enrollment in a Highly Selective Institution**

(N = 65,004)

<table>
<thead>
<tr>
<th>SES Measure</th>
<th>Simple $r$</th>
<th>Other SES measure$^{****}$</th>
<th>SAT</th>
<th>High School Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental education**</td>
<td>.26</td>
<td>.19***</td>
<td>.09***</td>
<td>.09***</td>
</tr>
<tr>
<td>Parental income</td>
<td>.25</td>
<td>.17***</td>
<td>.11***</td>
<td>.11***</td>
</tr>
</tbody>
</table>

* Standardized partial regression coefficient (Beta)
** Sum of mother’s and father’s level of educational attainment
*** $p < .0001$
****Parental education and parental income
“highly selective” is based on the mean admission test score of the entering freshman class, it is not surprising that the individual student’s SAT/ACT score carries substantially more weight than any other entering freshman characteristic. However, for our purposes here, the most important comparisons are between pairs of nonstandard regression coefficients shown in the final two columns of Table 6, which represent the best approximation to the relative weight that each entering characteristic received in 1990 and 2000. An inspection of these coefficients warrants the following conclusions:

- When it comes to enrolling in a highly selective institution, the weights given to admission test scores and parental education changed very little between 1990 and 2000.
- The positive effect of high school grades on enrollment in a highly selective institution weakened somewhat between 1990 and 2000, while the positive weight associated with how much the student studies increased slightly.
- The positive effects on the student’s chances of enrolling in a highly selective institution of parental income, being Jewish, and of not being Protestant have all increased substantially during the past decade.
- The weight associated with being Asian American increased slightly.
- The reduced weight assigned to high school grades may well be a function of grade inflation in the schools (Astin et al., 2002). As grade averages become more and more inflated, they are given decreasing weight in the admissions process. And while the increased weight associated with parental income is consistent with the trend data already discussed, it is somewhat surprising that the weight associated with parental education did not also increase between 1990 and 2000. As Table 6 shows, the simple r for parental education increased slightly, but the regression coefficients showed virtually no change. A partial explanation for this seeming contradiction can be found by looking at the findings in a stepwise fashion. For example, it appears that two of the reasons why parental education did not receive more weight in fall 2000 are the larger weights associated with study time and being Jewish. That is, since students who are Jewish and students who study a lot tend to have highly educated parents, giving these two variables greater weight slightly diminishes the weight associated with parental education. In fact, the increase in the weight associated with parental income would have been even larger if it were not for the increased weights associated with being Jewish and with not being Protestant. In other words, Jewish students and non-Protestants\textsuperscript{7} tend to come from relatively affluent families.

\textsuperscript{7}Non-Protestants are primarily students who check “Roman Catholic” and “none” as their religious preference.
A possible explanation for some of these changes might be found in two sources: (a) the increased competitiveness of college admissions, and (b) cultural capital theory (e.g., Farkas, 1996; McDonough, 1997). There is ample evidence from freshman survey trends that admission to college has become increasingly competitive during the past decade, including large increases in multiple applications, increased reliance on quality rankings in national magazines, and increased use of early decisions (Sax et al., 2002; Astin et al., 2002). Thus, it may well be that cultural capital—in this case, knowledge (McDonough, 1997) about the value of attending an elite institution and strategies for gaining admission to such an institution—plays a larger role in the college choice process than was the case a decade ago. And if Jewish, non-Protestant, and Asian American students have acquired greater amounts of this kind of cultural capital from their better-educated families, friends, and communities, then it seems reasonable to conclude that the increasingly competitive college admissions process favors students from these groups. Obviously this interpretation needs to be tested in future research.
CONCLUSION

This analysis of three decades of data from national samples of entering college freshmen shows substantial socioeconomic inequities in who gains access to the most selective colleges and universities in the United States. Further, these inequities have increased during recent decades, despite the expansion of remedial efforts such as student financial aid, affirmative action, and outreach programs. American higher education, in other words, is more socioeconomicly stratified today than at any time during the past three decades. Although the underlying reasons for these trends are not clear, it may well be that they are at least partially attributable to the increasing competitiveness among prospective college students for admission to the country’s most selective colleges and universities.

APPENDIX

Variables Used in Regressions

1. Background
   • Parents’ education
   • Parents’ income
   • Student native English speaker
   • Student’s religion
     * Protestant
     * Jewish
   • Student’s Race
     * African-American/Black
     * American Indian
     * Asian American
     * Caucasian/White

2. Academic Preparation
   • High school GPA
   • SAT composite

3. Activities in Past Year
   • Attended a religious service
   • Participated in organized demonstrations
   • Tutored another student
   • Smoked cigarettes
   • Performed volunteer work
   • Came late to class

4. Self-Ratings
   • Academic ability
   • Drive to achieve
5. Reasons for Attending College
   • Gain a general education
   • Improve reading and study skills
   • Make more money

6. Student Opinions
   • Too much concern for the rights of criminals
   • Abortion should be legal
   • Abolish capital punishment
   • Prohibit homosexual relations
   • Employers can require drug testing
   • Federal government should do more to control handguns
   • Sex is okay if two people like each other

7. Hours Per Week in Last Year Spent
   • Studying or doing homework
   • Working for pay

8. Goals and Values
   • Create artistic work
   • Keep up to date with political affairs

**Dependent Variables**

• Dichotomous variable: most selective institutions (1990 and 2000)

**References**


