

**Lecture II.**  
**The Quest for Equity:**  
**“Class” (Socio-Economic Status)**  
**In American Higher Education**

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## **II. The Quest for Equity: “Class” (Socio-Economic Status) in American Higher Education**

At the conclusion of yesterday’s lecture, I argued that in American higher education today, the continued—successful—pursuit of excellence depends on opening wider the gates of opportunity. Historically, colleges and universities have been far more welcoming to white, male students, of European descent, who were of the “right” religious persuasion and usually from families able to pay, than they have been to others. Fortunately, substantial progress has been made in eliminating blatant discrimination based on religion and gender—though, as always, problems remain.<sup>1</sup> Time constraints do not, however, allow me either to chronicle achievements in these spheres or to discuss the perplexing (and vexing) issues that are still unresolved. I need to save our time for a discussion of ongoing efforts to eradicate barriers related to race and ethnicity (the subject of next week’s lecture) and to disadvantages associated with family circumstances (my topic today).

### A. Brief Historical Context<sup>2</sup>

Issues of equity related to family circumstances (socio-economic status or SES) differ fundamentally from those related to religion and gender. For far too many years, qualified individuals were denied educational opportunity—excluded altogether—because of their religion or because of their gender. Children from poor families have also been denied educational opportunities, but almost never because of an explicit prohibition based solely on family income or parents’ educational attainments.<sup>3</sup> Colleges and universities have often sought to encourage the inclusion of at least the “right kinds” of poor students—especially sons of white ministers and teachers.

In today's world, the positive case for being broadly inclusive has three elements:

(1) As part of their quest for excellence, colleges and universities want to attract the most promising students, and there has never been reason to believe that all outstanding candidates will be able to pay whatever fees are charged without help. At many colleges and universities, the best students have often been the recipients of need-based financial aid.<sup>4</sup> As was emphasized in yesterday's lecture, the society at large certainly needs all the trained talent it can marshal.

(2) The educational-benefits-of-diversity argument applies here as it does where race and ethnicity are concerned. The quality ("excellence") of the campus learning environment is improved for everyone when students from a wide variety of backgrounds are present. Students need to learn how to put themselves in other people's shoes.<sup>5</sup>

(3) Finally, a commitment to this form of inclusiveness is an essential part of a broader affirmation of opportunity and is at the center of our concern for equity.<sup>6</sup> An important societal goal is to enable individuals to move up the ladder of accomplishment as far as their talents, character, and determination will take them. This proposition, central to a well-functioning democratic society, is especially important at a time when education is more critical than ever before in determining access to not only the best jobs (and the accompanying economic rewards), but also to a broad set of less tangible opportunities that help us "live a life."

These considerations, at least in the abstract, have resonated with educators and public-spirited citizens from Jefferson's day to our own, albeit in different ways and with different connotations. Jefferson exhorted the young republic to nurture at public expense the "natural aristocracy of talent and virtue." In his view, educational opportunity for "poor but worthy" students was a basic necessity in a democratic society, and he observed pointedly that the "the mass of mankind has not been born with saddles on their backs, nor a favored few booted and spurred, ready to ride them..."<sup>7</sup> To give tangible expression to their interest in enrolling "poor but pious" youth, some colleges not only worked hard to provide financial aid but, during the Jacksonian period, also changed the nomenclature, replacing references to "charity students" with references to "scholarship" students.<sup>8</sup> Still, the less patronizing language notwithstanding, historian Frederick Rudolph notes that "colleges were not yet really as sympathetic to poor boys

as they said they were”—especially if poor young men did not wish to be trained for medicine, law, the ministry or teaching but were interested in manufacturing, agriculture, or transportation.<sup>9</sup>

There was some diversification of higher education by social class between 1880 and 1920, but one study of liberal arts institutions during the mid-twenties revealed that 98 percent of the undergraduates were native-born, and that 91 percent of both their fathers and mothers were descendants of “older” immigrants from northern and western Europe. Also, the parents of these students were 4.8 times more likely to be in “professional services” than were members of the population at large.<sup>10</sup> At this time, public institutions were no more open to all than were private institutions; “the early state universities . . . did not offer free tuition, and generally were patronized chiefly by the sons of the wealthy.”<sup>11</sup> The University of Virginia was, of course, one such “aristocratic” state university—indeed, the leading one.

To “cut to the chase,” no one would claim that the lack of explicit exclusionary barriers before World War II meant that a real effort was made to address today’s “equity” objective in any thorough-going way. It was only after World War II that the G.I. Bill, the Truman Commission on Higher Education, and the general tenor of the times combined to “democratize” American higher education, and even then progress was slow.<sup>12</sup> At Princeton in 1947, President Harold Dodds proclaimed: “We shall always see to it that our students represent a democratic cross-section of American youth, geographically, and with respect to economic circumstance.”<sup>13</sup> But this was not the reality at Princeton then, and (truth be told) it is not the reality now—though, to be sure, times have changed and progress has been made.<sup>14</sup>

Let us now look with a “cold eye” at the match between our rhetoric of inclusiveness and present-day realities—beginning with the question of affordability.

## B. “Affordability” and Access at the National Level

### Tuition and Net Price

Headline writers and lawmakers alike focus on tuition when they discuss whether college is affordable and whether it has become more or less affordable as the years have passed.

Between 1971-72 and 2002-03, enrollment-weighted tuition levels, in constant (2002) dollars, rose from \$7,966 to \$18,273 at private four-year colleges, from \$1,646 to \$4,081 at public four-year colleges, and from \$840 to \$1,735 at public two-year colleges.<sup>15</sup>

Whether the level and rate of increase in tuition are “too high” is the subject of endless debate, but one proposition is abundantly clear: levels of tuition have to be assessed in the context of available financial aid. Thus, simply dividing listed tuition price by median family income does not provide a useful measure of whether price is (increasingly) the major barrier limiting collegiate attainment.<sup>16</sup> Gordon Winston and his colleagues at Williams College have gone to great lengths to demonstrate that in 2001-02, the average net price actually paid by a student with median family income at the selective schools in their study was just 34 percent of the average “sticker price” (“list” price). Net price was, on average, 22 percent of sticker price for families in the lowest income quintile.<sup>17</sup> It is also important to distinguish among sets of schools when examining tuition increases. Harvard economist Caroline Hoxby divided colleges and universities into cost deciles and found that, between 1970 and 1996: “Tuition has risen significantly [in real terms] only for the 20 percent of college places that are most expensive.”<sup>18</sup> But we have to recognize that the most rapid increases in tuition at public institutions have occurred after 1996—in fact, in the last five years—and that it is these institutions that provide educational opportunities for many economically disadvantaged students.<sup>19</sup>

## Enrollment Patterns

To understand where we are today, and how much progress has been made in advancing our “equity” objective, we have to look at actual enrollment patterns, seen in relation to family income. Overall, college enrollment rates have increased markedly for all economic, racial, and ethnic groups over the last 30 years. Increases in real income, student aid, and the returns to college education have combined to produce this welcome result. Yet, in the words of the College Board’s most recent report: “...An individual’s chances of entering ... college remain closely correlated with family background. Only 54 percent of high school graduates from the lowest income quartile enroll in college, compared to 82 percent of those with incomes above \$86,000 [the top quartile].” The College Board data also show that this gap in enrollment rates narrowed, but only very slightly, between 1970 and 2002.<sup>20</sup> Much of the rest of this lecture will be devoted to “unpacking” the factors that affect the patterns of college-going for students from different family backgrounds.

One key variable that needs to be added to this discussion is what Hoxby calls “college preparedness.” Working with national data for 1972 and 1992 high school graduates, Hoxby finds that: “College is not less accessible now than it was 30 years ago; it is significantly more accessible. Moreover, there is no evidence that students are being forced to enroll in inexpensive colleges that are inappropriate for their level of preparation. In fact, the main group of students who appear to be getting displaced from very expensive colleges is the group of students from medium-high to high income families who have low college preparedness [i.e., low SAT scores and low high school grades]. They are being replaced by highly prepared students from low income families.”<sup>21</sup> But these data also reveal persistent—and in some cases widening—differences in college enrollment by family income. For example, of all students with “medium-

high preparedness” (SATs between 500-600 and in the top third of class) from high income families, only 3 percent failed to go to college at all, and 52 percent went to one of the most expensive colleges; the corresponding figures for “medium-high-preparedness” students from families in the bottom income quintile were 13 percent with “no college” and 20 percent attending one of the most expensive colleges.<sup>22</sup>

Is the glass half full or half empty? It is at least half full if we focus on the considerable progress that has been made in extending access to top colleges and universities to well-prepared students from poor families. It is at best half empty if we focus on the sizes of the gaps in opportunity that continue to be associated with family income—especially when we consider the powerful underlying relationship between socio-economic status and elements of college preparedness.

We know, first, that students from high income families (and families with high educational attainment) are far more likely than students from lower SES categories to become test-takers in the first place. Less than a third of all students from families in the bottom income quartile even took the SAT, as compared with more than two-thirds of those from families in the top quartile. Second, test-takers from families with high income and high educational attainment do much better on the SATs than do students from other families. Among the test-takers, just over 7 percent of those from the bottom income quartile scored over 1200, as compared with over 20 percent of those in the top income quartile. Combining the probabilities of taking the tests in the first place and then scoring over 1200 on them demonstrates dramatically the advantages associated with coming from a high SES family. The odds of doing both (taking the tests and doing very well on them) were roughly *six* times higher for students from the top income quartile than for students from the bottom income quartile. When we look at the

educational attainment of parents, we find a very similar pattern (with even more pronounced differences): less than 1 percent of high school students from families with no college experience took the SAT and scored over 1200 on it—as compared with 6.6 percent of other students.<sup>23</sup>

These compelling relationships between socio-economic status and “preparedness” clearly help to explain the substantial gaps in enrollment rates noted earlier—but they are only part of the story. In his Brookings study of 1992 high school graduates, Tom Kane finds that even after controlling for differences in math and reading scores, there is still a 21-percentage-point difference in post-secondary enrollment rates between students from the bottom and top income quintiles. Including an additional control for parental educational attainment reduces the differential to 15 percentage points—which is still a highly significant difference. The general conclusion we draw from Kane’s research, including his recent work with Ellwood, is that family income matters “no matter what.”<sup>24</sup>

Socio-economic status affects enrollment in multiple ways. As a general rule, families that have high incomes and high educational attainment when their children are of college-age had high incomes and high educational attainment when their children were young, and these persistent advantages enabled them to enhance the “college preparedness” of their children in reinforcing ways. As Pedro Carneiro and James Heckman note:

Children whose parents have higher income have access to better quality primary and secondary schools. Children’s tastes for education and their expectations about their life chances are shaped by those of their parents. Educated parents are better able to develop scholastic aptitude in their children by assisting and directing their studies.<sup>25</sup>

It is the long-term, lasting effects of high socio-economic status on both cognitive and non-cognitive skills (including motivation, attitudes, social skills, and “proper” behavior) that Heckman and his various co-authors argue are the main determinants of differences in educational opportunity. Put the other way around, poor families have great difficulty investing

sufficient resources to develop in their children, in the time before high school graduation, the abilities and outlooks necessary to attend college and graduate. But Heckman agrees that what economists like to call short-term “credit constraints” also matter, albeit to a lesser extent, and that they would matter much more in the absence of the well-developed financial aid programs found in America today.<sup>26</sup> Higher income families obviously have an easier time “paying the bills.” Parents with high educational attainment also foster college enrollment after the test score results are reported by providing guidance, contacts, and knowledge about how the “admissions game” works.<sup>27</sup> It is these myriad, inter-connected effects of high socio-economic status that make the educational opportunity gap so persistent—and so hard to close.

### Educational Attainment

In concluding this discussion of educational opportunity at the national level—and before turning to a presentation of new evidence we have assembled concerning the role played today by the most selective colleges and universities in enhancing opportunity—we need to stop and ask ourselves if we (along with almost all other students of this subject) run the risk of paying too much attention to access (enrollment) and not enough to attainment (college completion). We do. Much more attention needs to be focused on attainment, and I suspect that the research literature and the policy discussion have gotten somewhat out of balance because attainment is far harder to analyze and less easily captured in “sound bites.”

Research by Sarah Turner (a professor here at the Curry School and in the economics department of UVa) underscores the importance of knowing more about the link between college enrollment and college completion. She finds that the college completion rate has declined among those in their early 20s and stagnated for those in their early 30s, while time-to-degree has unambiguously increased over the last 3 decades.<sup>28</sup> Policies that encourage enrollment

(“access”) for all but then fail to provide the guidance and resources for students to translate participation into attainment—especially students who come from lower-income families—are a waste of both public and personal resources.<sup>29</sup> The most novel feature of Turner's analysis of what has gone wrong is her emphasis on the importance of "supply-side" considerations: the capacity of various kinds of educational institutions to expand (and by how much) when enrollment increases, the flow of resources to these institutions, and which ones are most likely to be attended by students who might not have gone to college in earlier years. “Persistence” could well be affected by the flow of marginal students into resource-poor institutions that are hard pressed to provide the academic, financial, and moral support that these students need. Here we have a nice question for public policy: would it be wiser to invest more resources in the education of continuing student populations than in simply embracing access as an end in itself? We do not want improved "access" to turn out to be merely "fool's gold."

C. The Elite Schools:  
Engines of Opportunity or Bastions of Privilege?

We turn now to a detailed examination of new data showing how socio-economic status relates to admission, enrollment, and academic outcomes at 19 academically selective colleges and universities.<sup>30</sup> The schools in this special study include 5 private Ivy League universities (Columbia, Harvard, Princeton, the University of Pennsylvania, and Yale), 10 academically selective liberal arts colleges (Barnard, Bowdoin, Macalester, Middlebury, Oberlin, Pomona, Smith, Swarthmore, Wellesley, and Williams), and 4 leading state universities (Penn State, UCLA, the University of Illinois at Urbana/Champaign, and the University of Virginia). Thanks to the cooperation of these schools, and to the assistance of the College Board, we have at our disposal a rich new data set that allows us to look “microscopically” at the more than 180,000

applications to these schools for places in the 1995 entering cohort, at the characteristics of those applicants offered admission, at the “yields” on those offers, and, finally, at the performance of the matriculants themselves as they moved through college to graduation. At each stage along the way, we can see how outcomes differ according to the academic qualifications and socio-economic status of the students.

The fundamental question is whether these elite institutions should today be considered “engines of opportunity” or “bastions of privilege.” The president of one of them posed a central question: “In applying to my university, is an applicant better off, other things equal, being rich or poor?” Put another way: “Is there an admissions advantage associated with being poor, or with being the first member of your family to go to college, that is comparable to the advantage associated with being a minority student, a legacy, or a recruited athlete?” “Does socio-economic status play out differently in the public and private institutions?” To the best of our knowledge, this is the first time anyone has been able to answer such questions on a multi-institutional basis.<sup>31</sup>

One “bridge” is needed between national data and these multi-institutional data. We need to know about decisions to apply to these schools seen in relation to both academic preparedness and socio-economic status. I have already mentioned the extent to which family circumstances affect decisions to take SAT tests in the first place and then performance on. Of the relatively few low SES candidates who do end up with high SAT scores, more apply to selective and expensive schools such as those in our study than one might have expected, but here again there is some “slippage” as we move from the most privileged families down to those in the bottom income quartile, and to those with no experience of college. Data in a recent report by Richard Spies (the fourth in a series that Spies began in the 1970s) indicate that, of all high-testing

students from low-income families, about one-third apply to one or more of the selective colleges that he has chosen as a reference group—a set of institutions that is generally similar to ours. More than half of the high-testing students from high-income families applied to these schools. Later on, Spies refers explicitly to a “a difference of about 18 percentage points in the application rate between high and low-income students.” But we should not underplay Spies’ “overarching conclusion,” which is that “academic variables such as the SAT scores of the students are much more important factors in the college selection [application] process than financial variables such as family income.” He also finds evidence that the impact of family income is considerably smaller now than it was in earlier years.<sup>32</sup>

Thus, progress has been made in encouraging high-ability students from modest circumstances to apply to expensive, academically selective schools—even though they remain less likely to do so than comparably prepared students from wealthier families. Apparently, the application process itself is not as much of a barrier for well-prepared students from low income families as it used to be. One reason is that highly selective institutions have stepped up the recruitment of disadvantaged students. According to William Fitzsimmons, Harvard’s Dean of Admissions and Financial Aid, direct mailings from Harvard reach over 75,000 high school students; representatives from Harvard and three other institutions (Duke, Georgetown, and Penn) travel together to over 130 U.S. cities per year; and Harvard’s admissions officers travel by themselves to many more. A large part of this outreach effort is directed toward what Fitzsimmons calls “‘non-traditional’ families.” Major efforts are made to demystify the application process and to emphasize the much greater availability of financial aid today.<sup>33</sup> The cumulative effects of years of this kind of aggressive recruitment, combined with improvements in the flow of information and increases in the mobility of the student population, have bolstered

the number of high ability students (including those from disadvantaged backgrounds) who apply to highly selective institutions.

Applying to college is, of course, only the first step on the path from application, to admissions decisions, to enrollment, and eventually to graduation. The unique aspect of our new data is that we are able to follow students through each of these steps. There are, naturally enough, differences among the 19 colleges and universities in our study—but these differences are smaller than we had expected them to be (an interesting finding in itself). We will start out, therefore, by presenting summary statistics for the 19 schools as a group before distinguishing among them and before adjusting for the effects of differences in other key variables, such as SAT scores and racial composition. The path from application to graduation is charted (separately) for low income and low parental education students on Figure II.1.

There are two major conclusions to be drawn.

*First, the percentage of students who are low income and the percentage who are first-generation college students are both small. Students in the bottom quartile of the national income distribution represent roughly 10-11 percent of all students at these schools, and first-generation college students represent a little over 6 percent of the student population.<sup>34</sup> When we combine the two measures of socio-economic status, and then estimate the fraction of the enrollment at these schools that is made up of students who are both first-generation college goers and from low income families, we get a figure of about 3 percent (Figure II.2).<sup>35</sup>*

The second main conclusion, which may surprise some, is that *the percentages do not change very much as we move from the applicant pool to the group of students admitted, to those who enroll, and finally to those who graduate. The progression through these stages for students*

*defined according to both measures of lower socio-economic status is essentially the same as it is for everyone else.*

We can now answer another question: Are there substantial differences between the findings for the private and public institutions in our set of 19 schools? In the main, the picture is very much the same. As one might expect, the share of enrolled students from the bottom income quartile is slightly higher at the publics (11.8 percent versus 10.6 percent), as is the share who are first-generation college-goers (8.8 percent v. 5.5 percent). But these differences are hardly dramatic. For reasons related primarily to their high degree of selectivity, to the high levels of SAT scores that therefore characterize all of these schools, and to the strong correlation between SATs and socio-economic status, both sets of institutions enroll only very small numbers of students from families of modest circumstances. Only 4 percent of all students at the public universities are both first-generation college-goers and from low income families (compared with just under 3 percent in the private institutions).<sup>36</sup>

The question of *admissions preference* needs to be addressed directly—and can be, for the first time, with our data. Inspection of the raw percentages in Figure II.3 could easily lead one to think that admissions officers are biased against applicants from lower socio-economic backgrounds. The “raw” probability of admission is clearly lower for students from lower SES categories (whether defined by income quartile or parental education). But the raw data are misleading. The main missing variable is SAT scores. Even within this highly select population of students, SATs vary markedly according to family income and parental education. Average (combined) SAT scores of applicants are, on average, well over 100 points lower for applicants from the bottom income quartile or from a family with no history of college attendance.<sup>37</sup>

The clearest way to portray the importance of the different SAT distributions is by plotting the admission probabilities for various groups of applicants in relation to *SAT* scores (in effect, holding SATs constant). This has been done in Figure II.4 for three groups of students: students from bottom-quartile families who are not minorities, first-generation non-minorities, and all other (higher SES) applicants who not members of underrepresented minority groups. We see that *there is no perceptible difference in the chances of being admitted, at any given SAT level, for students from the two low SES categories and for all other (non-minority) students.* (We shall shortly add data for minority students, recruited athletes, and legacies to our analysis.)

More refined statistical analyses support this key finding. It is helpful to look at a summary measure that we call the “admissions advantage”—which is the average boost in the odds of admission provided to an applicant with certain characteristics relative to an otherwise identical applicant (Table II.1, top panel).<sup>38</sup> Noteworthy is the clear finding that applicants from bottom income-quartile families get no help in admissions, on an other-things-equal basis—and neither do applicants from the top quartile of the income distribution (who actually, surprisingly, pay a small “price” in admissions probabilities, on an other things equal basis, for being from the top quartile). Most of the 19 institutions in our study claim to be “need-blind” in admissions—to pay no attention whatsoever to the financial circumstances of their applicants.<sup>39</sup> These data suggest that in fact they are need-blind. First-generation college students, on the other hand, do get a statistically significant boost in their admission chances, but it is modest in size (4.1 percentage points against a “base” admissions probability of, say, 40 percent for otherwise similar students).

In a companion figure (Figure II.5), we show admission probabilities in relation to SAT scores for three other groups: underrepresented minority students, legacies, and recruited

athletes. It is evident that applicants in each of these categories have a decidedly better chance of being admitted, at any specified SAT level, than do other students, including those from low SES categories. (Note especially how well recruited athletes do at relatively low SAT levels, but levels that are nonetheless above the cut-off for NCAA eligibility.) The bottom panel of Table II.1 reinforces this observation by showing that the admissions advantages enjoyed by these three groups of “special” applicants, on an other things equal basis, are far greater than the advantage of 4.1 points enjoyed by first-generation college students. Recruited athletes receive the biggest boost at these institutions, about 30 percentage points, followed by underrepresented minorities at 28 points, and legacies at about 20 points. The straightforward interpretation of these estimates is that an applicant with an admissions probability of, say, 40 percent based on SAT scores and other variables would have an admissions probability of 70 percent if he or she were a recruited athlete. Needless to say, the reasons for giving admissions advantages to these three groups of applicants are radically different.<sup>40</sup>

Once offers of admission go out, the locus of decision-making shifts from the schools to the prospective students and their families. Their decisions as to whether to accept offers of admission determine how many students from various groups actually enroll (the school’s “yield”). As we saw earlier (Figure II.1), students from lower socio-economic groups enroll at disproportionately high rates.<sup>41</sup> Financial considerations are not driving them away, and this is surely a compliment to the generous financial aid programs of essentially all of the schools in our study.

The next important question is how low income students and first-generation college students perform academically after enrolling. Since these students enter with somewhat weaker academic credentials (on average) than their classmates, we would expect them to earn

somewhat lower grades—and they do. The typical first-generation college student’s cumulative GPA placed him or her at just under the 40<sup>th</sup> percentile in class rank; students from the bottom income quartile ranked in the 44<sup>th</sup> percentile (compared to the 53<sup>rd</sup> percentile for students in the top quartile of the income distribution). These 10-point differentials are not trivial, but they are far smaller than the corresponding differentials we found in past studies—between recruited High-Profile athletes and other students, for example.<sup>42</sup>

A key issue is not just how students from lower SES backgrounds fare academically relative to their classmates, but how well they perform relative to how they themselves might have been *expected* to perform on the basis of their incoming academic credentials and other characteristics.<sup>43</sup> Earlier research has shown that minority students earn lower grades than we would expect them to earn based on their SAT scores, fields of study, and high school grades.<sup>44</sup> This phenomenon, known as “underperformance,” is evident to an even greater extent among recruited athletes than among minority students.<sup>45</sup> Do students from lower socio-economic backgrounds also “underperform?” The simple (perhaps surprising, but very encouraging) answer: *They do not! Low income and first-generation college students do not exhibit any significant underperformance—they do almost exactly as well as we would expect them to do.* This important finding can be compared to the approximately 9-point underperformance of minority students and the 10-point underperformance of recruited athletes (Table II.2).<sup>46</sup> So, these low SES students are, from this perspective, taking full advantage of the educational opportunities that they are being given.

Extrapolating from national results, which show decidedly below-average graduation rates for students from low-income families,<sup>47</sup> one might expect students from lower socio-economic status groups at these schools to be less likely to graduate than their classmates. In

fact, first-generation college students graduate at almost exactly the same rate as other students, while students in the bottom income quartile are only slightly less likely to graduate than their wealthier classmates (with an 84 percent graduation rate compared to an 87 percent rate for other students).<sup>48</sup> All very gratifying results. But there is one mildly worrying finding. The small overall difference in graduation rates by income category that exists across all 19 schools in our study masks the fact that there is a more serious graduation rate problem associated with socioeconomic status at the public universities. For students at the private colleges and universities, there is less than a 1 point difference in graduation rates between students in the bottom income quartiles and those in the top quartile of the distribution; in contrast, there is a 12 point difference at the public universities.

The explanation does not appear to be differences between the sectors in the distribution of SAT scores by income quartiles (which are so small as to be negligible). Rather, we suspect that this result is driven mainly by differences in the scale of enrollment coupled with differences in the availability of resources. Enrollment in the '95 entering class in the public universities in our study averaged more than 4,000; the average was under 1,000 at the private institutions.<sup>49</sup> Our hypothesis is simple: students from poorer families, and from families that never before sent a family member to college, are likely to need more help and more nurturing in college, than are their classmates from families more experienced in dealing with the cultural, social, and academic challenges of college. Institutional scale and limits on the resources that are devoted to undergraduate education per student could well take a toll on the completion rates of low income and first-generation college students.<sup>50</sup>

To sum up: There is one major takeaway from this analysis of the '95 entering cohorts at the 19 colleges and universities in this study: *for those applicants who took the SAT, did well on*

*it, and applied to one of these selective institutions, family income and parental education, in and of themselves, had surprisingly little effect on admissions probabilities, on matriculation decisions, or on subsequent academic performance and graduation rates.* This is certainly not to suggest that socio-economic status has no effect on college enrollment and degree attainment at these elite schools. It has a huge effect. *But “the effect” occurs early on, in the years before college application, when “preparedness” is shaped through the persistent, cumulative development of cognitive skills; motivation, expectations, and other non-cognitive qualities; and practical knowledge about the college admission process.* When well-prepared applicants from poor families, or from families without prior college experience, appear in applicant pools (often as a result of the efforts of dedicated parents and teachers, as well as aggressive recruiting by the colleges and universities), these candidates are treated in admissions in very much the same way as everyone else; and, once enrolled, they then perform as they would be expected to perform. *But the odds of getting into this privileged pool in the first place depend enormously on who you are and how you grew up.*

Before considering new ways in which colleges and universities might respond to these stylized findings, we should take a step back and see how the situation has changed in recent years. For 11 of the institutions in our dataset, we have data for the 1989 entering cohort of students as well as for the 1995 cohort. When we compare the presence of students from lower income groups in these two cohorts, we find that there was a sharp up tick: the group from the real income equivalent of the 1989 bottom income quartile increased from 8.7 percent to 10.8 percent of the class. This increase in the share of places occupied by low-income students was “paid for” by a decrease in the share of students from the middle income categories; the top income quartile also increased its share.<sup>51</sup> We were originally somewhat unsure of what to make

of this finding, but our examination of other data sources, including the American Freshman Survey and the roster of Pell Grant recipients, bolsters our confidence that this shift is real.<sup>52</sup>

The Spies studies show that income has played less of a role over time in the decision to apply to highly selective and expensive institutions. Similarly, Hoxby's work demonstrates that, in an increasingly national and integrated market, the best colleges and universities compete vigorously for the best students, regardless of these students' family circumstances.<sup>53</sup> Recall also Dean Fitzsimmons' description of the intense recruitment of all students and the focus on identifying and encouraging high-achieving students from modest backgrounds. We suspect that these efforts have had a strong cumulative effect, as high schools that enroll students from poor families hear the same story over and over—and as they are visited by graduates of their secondary schools in prior years who have now gone on to graduate from selective colleges and universities. It seems clear that these privileged institutions are becoming better at finding talented students from every background and encouraging them to apply and enroll. The improved financial circumstances of at least the private institutions in the latter part of the 1990s, with attendant increases in financial aid, presumably also played a role.

So, we come back to the question of whether the glass is “half full or half empty.” By providing an increasingly straight path to entry and graduation for academically talented students from all socio-economic strata, these elite institutions are fulfilling their historical promise to serve as “engines of opportunity.” On the other hand, the disproportionately large number of graduates of these schools who come from the top rungs of American society indicate that they also remain “bastions of privilege.”<sup>54</sup>

Vigorous recruiting notwithstanding, the applicant pools of these schools contain a very small number of well-prepared students from families of modest circumstances relative to the

numbers of other very well-prepared candidates. This is the “controlling reality.” Given this reality, the key question is: can reliance on the traditional need-blind admissions approach enroll “enough” students to satisfy the commitment of these schools to be true “engines of opportunity?” Are the claims of “equity” really being met through a need-blind approach in a society in which students are so stratified by socio-economic status in their pre-college years?

D. “Class-based” Affirmative Action:  
On Its Own Terms or as an Alternative to Race-Sensitive Admissions?

Those of us who agree that the academically selective colleges and universities should do more than they are doing at present to enroll students from modest family backgrounds need to focus on specific, realistic alternatives to the traditional need-blind admissions, need-based aid approach. The most direct alternative is simply to “put a thumb on the scale” when weighing the qualifications of applicants from lower SES categories, much as we do now when we consider minorities, legacies, and recruited athletes—an approach sometimes called “class-based affirmative action” or “economic affirmative action.”<sup>55</sup> But what kind of thumb—and how heavy a thumb? And, what would be the effects of such an approach on the composition of the entering class (including the number of minority students), the academic qualifications of enrolled students, and financial aid requirements?

To provide tentative answers to these questions, we have simulated the effects of one particular thumb type and size for the schools in our study. After considering several alternatives, we decided to explore the implications of putting a “legacy thumb” on the scale. That is, let us see what would happen if students with family incomes in the bottom quartile were given the same admissions advantage, within each SAT range, that is now enjoyed by legacies.<sup>56</sup> This way of thinking has a nice kind of symmetry about it: why not give the least favored group

of applicants, who presumably have had to overcome many obstacles to become qualified candidates for admission, the same advantage in the admissions process that is now conferred on those whose parentage has given them a special place in the competition for admission? We also like the “legacy thumb” approach for another reason. The general practice, at least at private colleges and universities, is to give legacies a boost only after they have done very well on their own in building a strong academic record, and to give those with stronger records bigger boosts. We like the idea of giving special consideration after applicants have demonstrated considerable achievement. In the case of low SES candidates, this approach has special resonance. It says, in effect, “you have done great, in the face of many obstacles; now, we will give you a well-deserved boost.”

What do we find when, in our simulations, low-income applicants receive the same admissions advantage as legacies (and underrepresented minority groups also retain their current degree of admissions advantage)?<sup>57</sup> The admissions probability for low-income candidates at the schools in our study could be expected to increase substantially: from 32 percent at present to 47 percent—which is, coincidentally, essentially the same as the admissions probability for minority applicants (Table II.3). The admissions probability for non-minority students in the bottom income quartile would increase even more dramatically: by almost 20 percentage points, from 30 percent to nearly 50 percent. Especially interesting is the effect on the admissions probability for all other applicants: it falls, as it would have to, but only by about one percentage point: from 39 percent to 38 percent. The explanation is, of course, the relative sizes of the applicant pools. Turning now to enrollment, our simulations show that the share of the class comprised of students from low-income families could be expected to increase from 11 percent to about 17 percent; the minority share would (by assumption) hold constant at just over 13 percent, and the

share of all other students would decline from 79 to 73 percent. (These percentages add to more than 100 percent because there is an overlap between students from low-income families and minority students—the two groups together could be expected to constitute 27 percent of the student population, not 30 percent.) A side-effect of this kind of shift in admissions policies might be to reduce somewhat the number of students from wealthy families at the most selective institutions and, in effect, redistribute some of them to other liberal arts colleges and universities—which might be healthy all around.

There are two kinds of potential “costs” associated with this hypothetical income-sensitive, “legacy thumb” policy (not counting the “political/relationship” costs—or gains—associated with a change in philosophy that, as always, would anger some and please others). First, there could be effects on the academic profiles of the institutions and on academic outcomes. It would not be unreasonable, for example, to worry about some reduction in average SAT scores if high-scoring students from high SES backgrounds were replaced by less well prepared students from low SES categories. But in fact, for reasons that are somewhat complicated to explain, the average SAT scores of the members of the entering class would remain essentially unchanged. A large part of the explanation is that at present large numbers of high-testing students from low-income families are being turned down—they are suffering the same fate as many other disappointed candidates with high test scores who applied to these selective institutions. Figure II.4 shows that, for example, rejection notices were sent to over half of the low income applicants with SAT scores between 1350 and 1400.<sup>58</sup> Nor is there any evidence to suggest that the relatively small number of additional low-income students to be admitted under this regime would fail to perform academically at the level of other students. More “aggressive” changes in admissions policies might have deleterious effects of this kind, but

the relatively modest initiative under investigation here seems unproblematic from this standpoint.<sup>59</sup>

Second, there would be—no question about it—significant dollar costs involved in providing financial aid to a larger number of needy students (and perhaps some additional institutional expense for support services). We estimate that for our private liberal arts colleges, with an average of 500 students per class, grant aid funds would have to rise about \$460,000 per class, per year, or just under \$2 million for all four classes (approximately a 12 percent increase), if current financial aid policies were maintained. For our private universities, with 1500 students per class, the necessary increase could be expected to be about \$1,400,000 per class, per year, or between \$5 and \$6 million for all four classes (which is also approximately a 12 percent increase).<sup>60</sup>

These costs would vary substantially from one institution to another, as would the capacity of the institution to absorb them or to offset them by increases in tuition. We have real sympathy for those responsible for living with budget constraints, and we certainly do not mean to suggest that putting a “legacy thumb” on the scale, on behalf of low SES students, would be a painless process for any institution. Trade-offs always have to be considered, and they are not limited to choices within the admissions and financial aid domain. Faculty have to be recruited and retained, libraries have to be supported, and so on. “Absolutist” policies (“we will do *X* no matter what....”) are always suspect. When resources are limited, principles collide.

Still, substantial as these financial costs are, it is easier (at least for me) to imagine moving at least some distance in this direction with admissions policies in the near term than it is to believe that we can somehow fix the powerful pre-college “conditioning” of the pool of applicants any time soon. I am strongly in favor of doing whatever can be done to enhance

college preparedness for students from disadvantaged backgrounds, but that will be a long and difficult process. Meanwhile, there is, in my view, a strong argument in favor of doing more at the college level to help some substantial number of deserving students almost immediately.

Giving a “legacy boost” to low-income applicants might itself encourage more such applicants to apply to highly selective schools.<sup>61</sup> In any case, this kind of policy is, in my judgment, likely to be more effective in altering the socio-economic composition of classes than improving financial aid offers to those now being admitted. The relatively high “yields” on current offers of admission to low-income applicants (higher than the average yields on all offers of admission) suggest that present-day financial aid policies are less of a problem than is reliance on need-blind admissions. This is why I made the “throw-away” comment at yesterday’s lecture questioning (mildly) the emphasis now being given by schools like Harvard and the University of Virginia to increasing grant aid to needy students. It is fine to be more generous, but I think consideration should be given to the alternative of putting a “thumb” on the admissions scale (maybe even a thumb-and-a-half). And if any institutions are going to take the lead in moving beyond need-blind admissions, it is almost certainly going to have to be the “privileged” institutions that we have studied.<sup>62</sup>

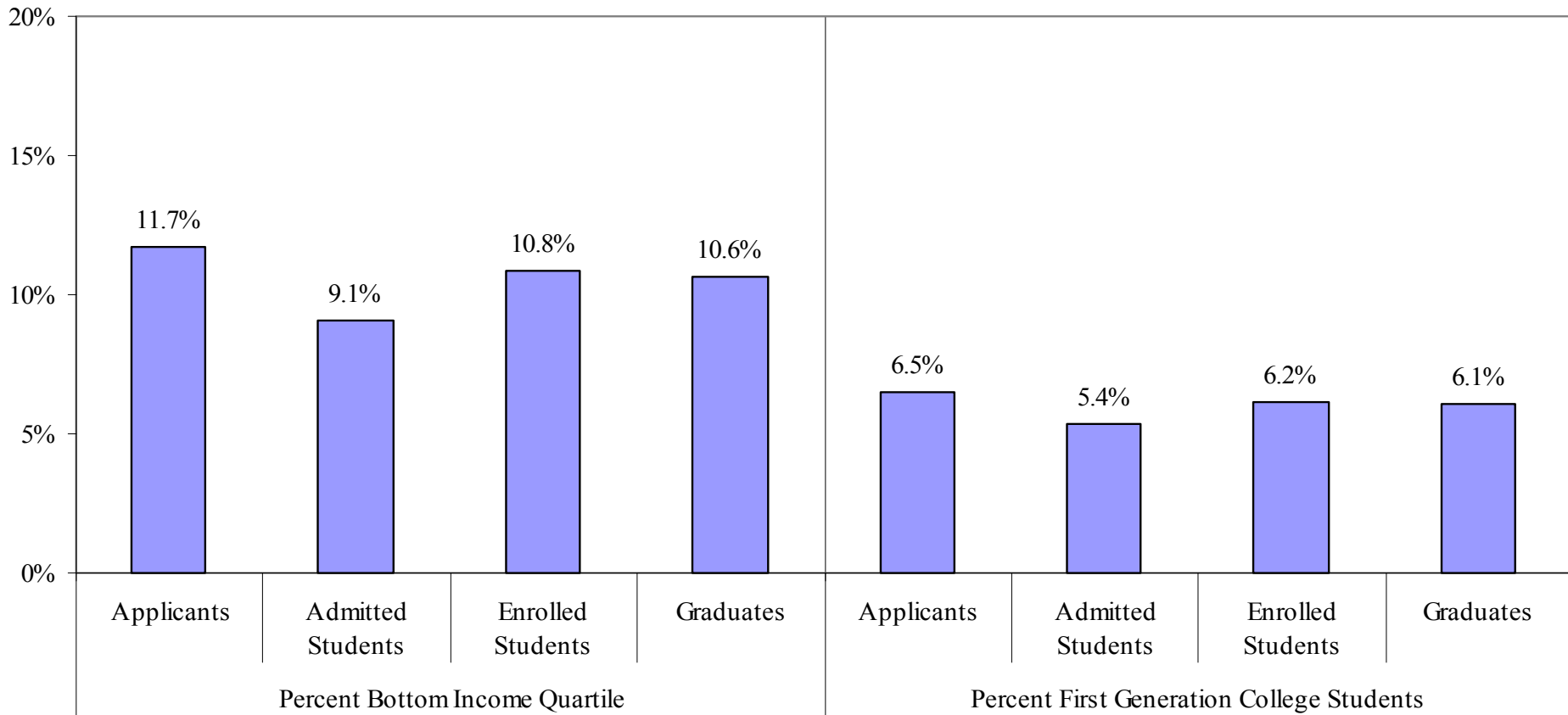
We turn now to the last major question (and, for some, the thorniest one): what would happen if institutions were both to use the “legacy thumb” in admitting students from low-income families and to stop giving any explicit preference to underrepresented minorities? Since minorities are disproportionately represented in the bottom income quartile, giving consideration to family income (or parental education) presumably would benefit them to some extent, relative to other applicants.<sup>63</sup> But by how much? What would happen to minority enrollments if minority preferences were eliminated at the same time that a “legacy” weight was given to being

from a low income family? The answer provided by our simulations is that minority enrollments could be expected to fall by nearly one-half—from 13.4 percent at present to 7.1 percent (Table II.4).<sup>64</sup> In Tom Kane’s words: “It’s important to be very clear that income and race are not substitutes.”<sup>65</sup>

Race in American higher education is the subject of the third lecture in this series (to be given next week), and I will wait until then to explain why I feel so strongly that sustaining effective programs of race-sensitive admissions is of paramount importance to the achievement of our equity objective—and, for that matter, to the future of America. But so is enhancing educational opportunities for those among us who have had to overcome barriers of all kinds, related to having grown up outside the reaches of the economic and educational elites. Allegiance to this country’s ideals requires that American higher education do more than it is doing at present to support the aspirations of high-achieving young people from modest backgrounds who want to be welcomed within the walls of what are still seen by many as “bastions of privilege.”<sup>66</sup>

ENDNOTES – THIS SECTION IS NOT YET READY FOR DISTRIBUTION.

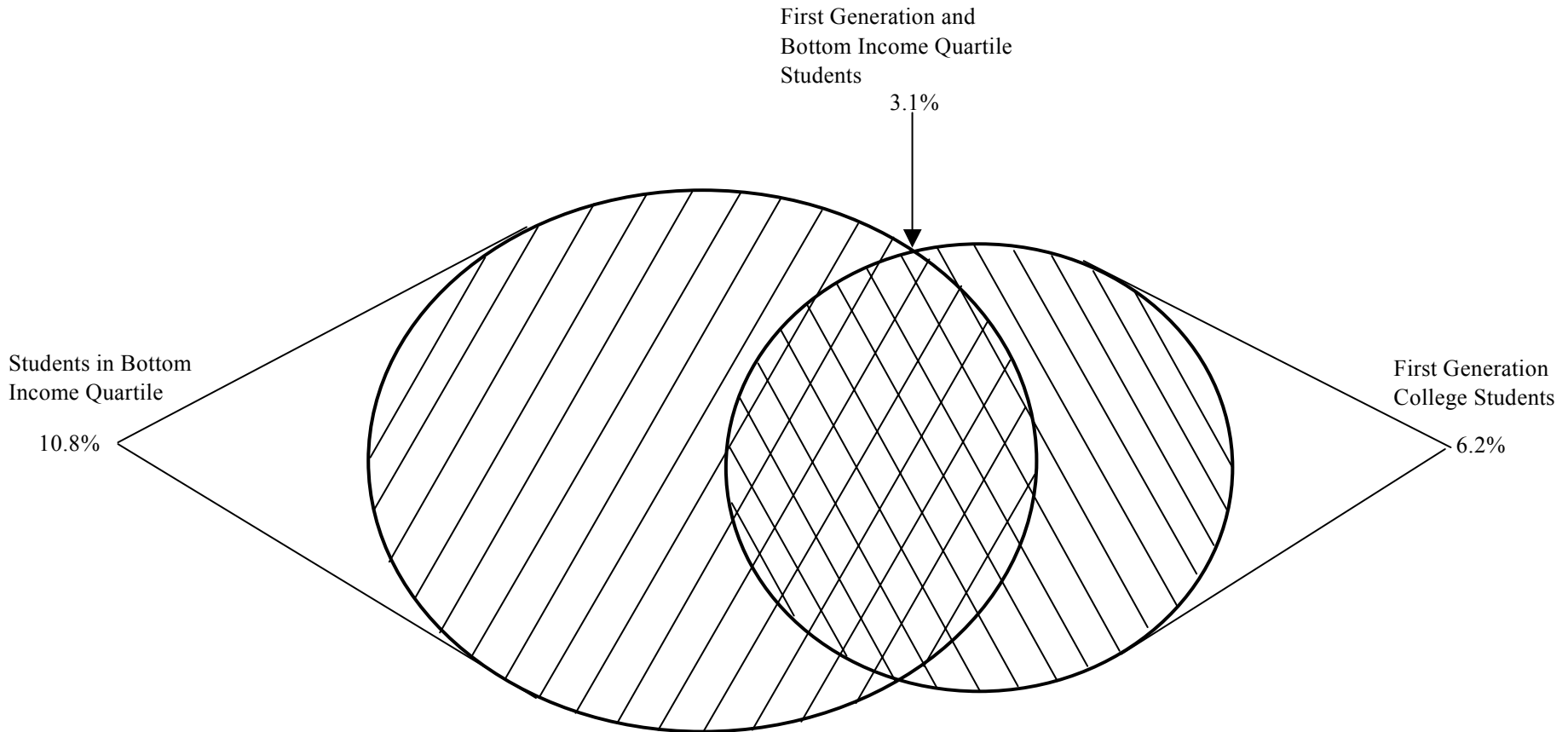
**Figure II.1:  
Percent of Applicants, Admitted Students, Enrolled Students, and Graduates  
Who are Socioeconomically Disadvantaged,  
All 19 Institutions, 1995 Entering Cohort**



Source: Expanded College and Beyond Database.

Note: Percentages based on non-foreign students who provided income and parental education data on the Student Descriptive Questionnaire.

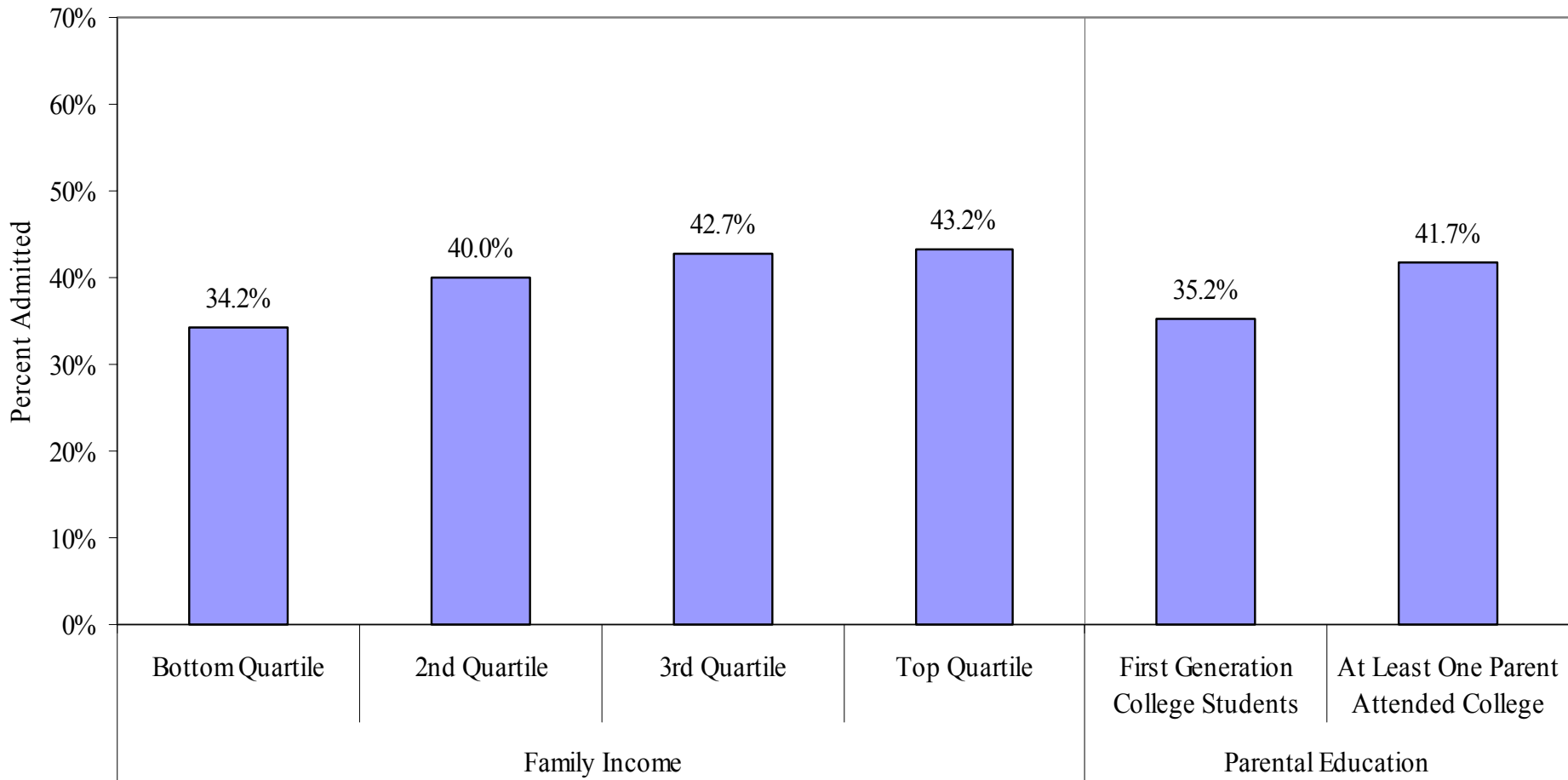
**Figure II.2:  
Percent of Students Who are in the Bottom Income Quartile, Percent Who are  
First Generation College Students, and Overlap Group,  
All 19 Institutions, 1995 Entering Cohort**



Source: Expanded College and Beyond Database.

Note: Calculations based on non-foreign students who provided income and parental education data on the Student Descriptive Questionnaire.

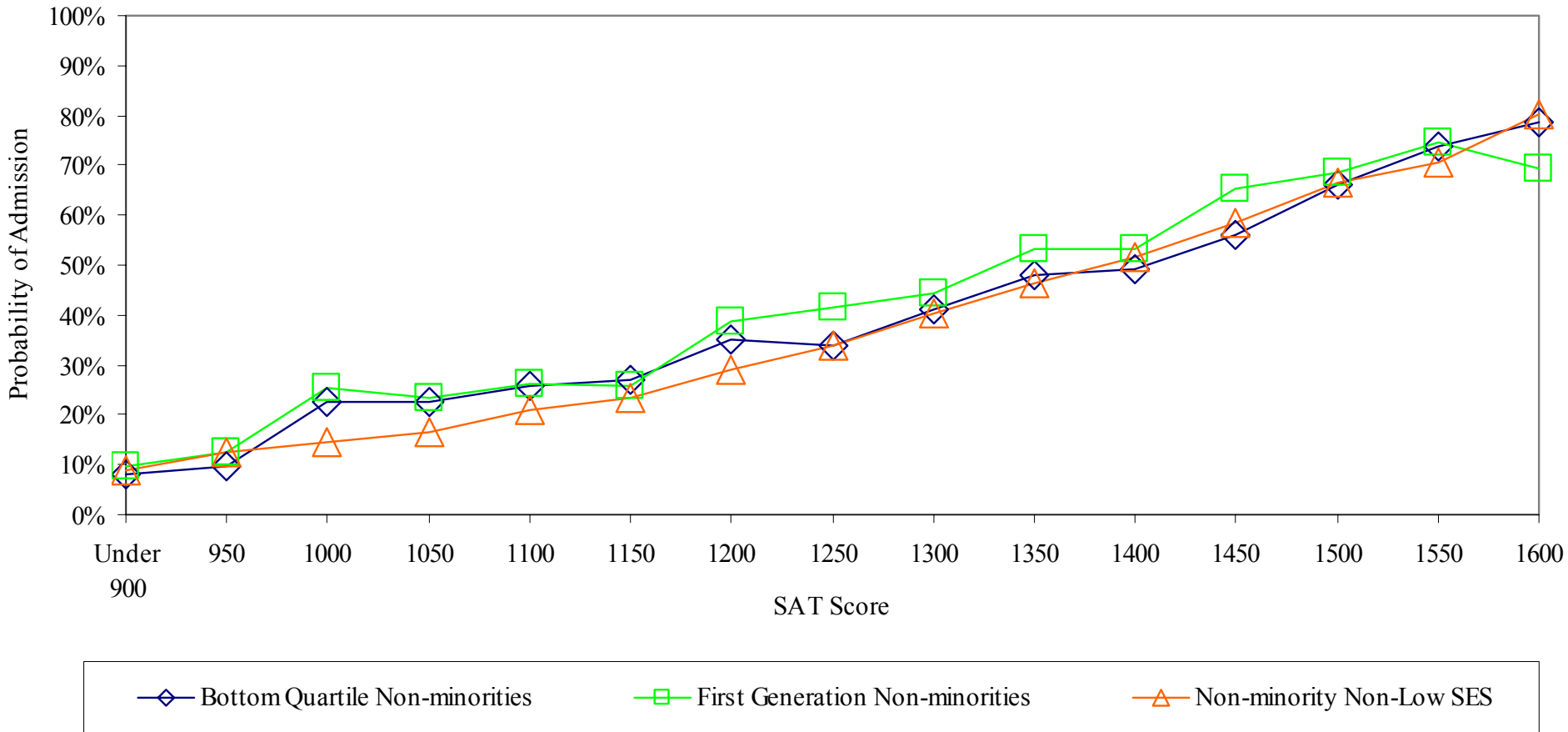
**Figure II.3:  
Probability of Admission by Family Income and Parental education,  
All 19 Institutions, 1995 Applicants**



Source: Expanded College and Beyond Database.

Note: Admission rates based on non-foreign applicants who provided income and parental education data on the Student Descriptive Questionnaire.

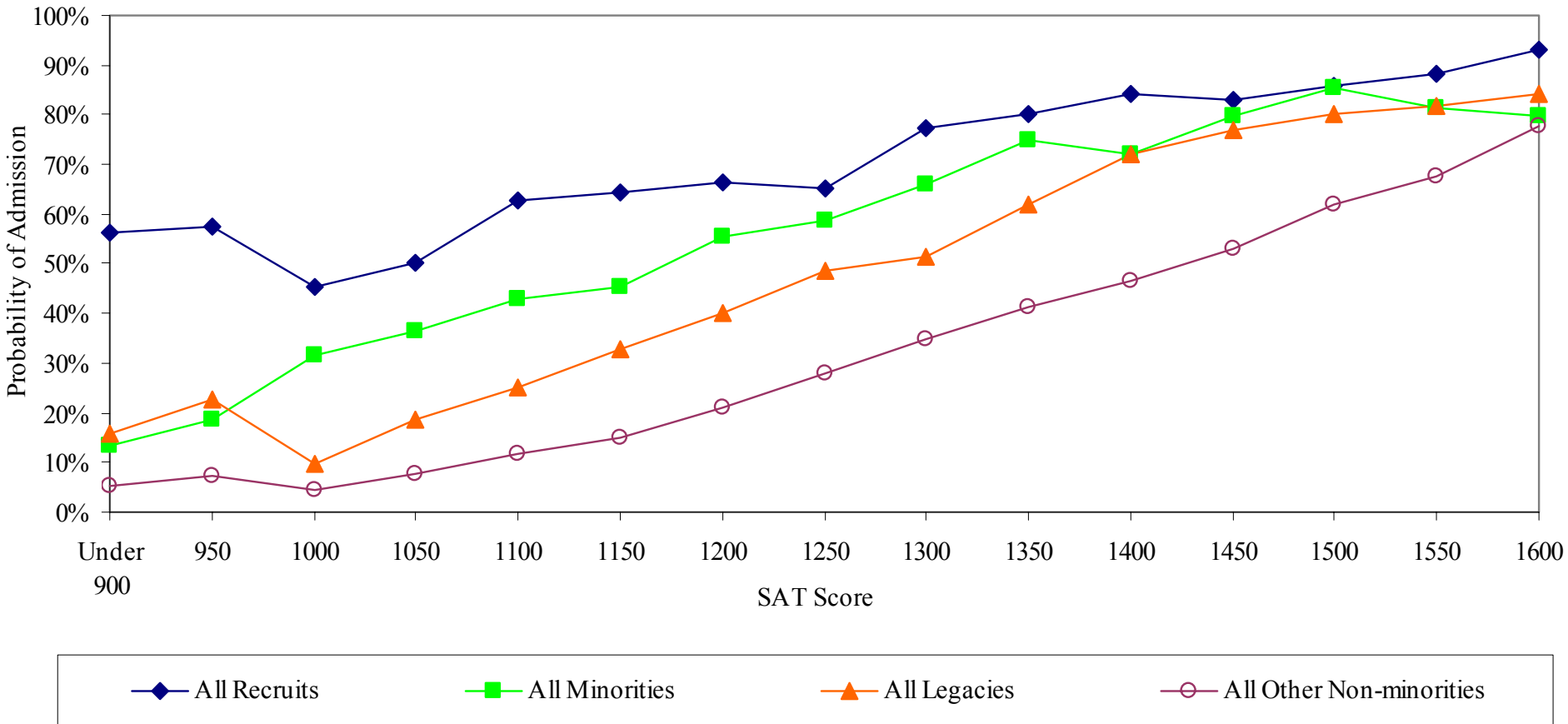
**Figure II.4:  
Probability of Admission of Non-minorities, by Family Income and  
Parental Education, by SAT Score Range,  
All 19 Institutions, 1995 Applicants**



Source: Expanded College and Beyond Database

Note: Probabilities based on non-foreign applicants who provided income and parental education data on the Student Descriptive Questionnaire.

**Figure II.5:  
Probability of Admission of All Minorities, All Recruits, All Legacies, and  
All Other Non-minorities, by SAT Score Range,  
All 19 Institutions, 1995 Applicants**



Source: Expanded College and Beyond Database

Note: Pomona, Swarthmore, and Wellesley do not have recruited athlete data and University of Illinois does not have legacy data.

**Table II.1:  
Admissions Advantages Associated with Various Characteristics,  
13 Institutions, 1995 Applicants**

	Admissions Advantage
<i>Income (Relative to Middle Quartiles)</i>	
Bottom Quartile	-1.0
Top Quartile	<b>-3.1</b>
<i>Parental Education</i>	
First Generation College Student	<b>4.1</b>
<i>Other Characteristics</i>	
Recruited Athlete	<b>30.2</b>
Underrepresented Minority	<b>27.7</b>
Legacy	<b>19.7</b>

Source: Expanded College and Beyond Database

Notes: Numbers in **bold** are significant to 0.05. Predictions are based on a logistic regression with dependent variable admit, and controls for SATs, race, income, parental education, recruit status, legacy status, early application, and institutional dummy variables. Penn State, Pomona, Swarthmore, UCLA, University of Illinois, and Wellesley were excluded due to missing values. Only non-foreign applicants who provided income and parental education data on the Student Descriptive Questionnaire. Observations with missing values were excluded.

**Table II.2:**  
**Academic Underperformance Associated with Various Characteristics,**  
**All 19 Institutions, 1995 Entering Cohort**

	Rank in Class Percentile Points
<i>Income (Relative to Middle Quartiles)</i>	
Bottom Quartile	-0.5
Top Quartile	<b>1.7</b>
<i>Parental Education</i>	
First Generation College Student	0.4
<i>Other Characteristics</i>	
Recruited Athlete	<b>-10.1</b>
Underrepresented Minority	<b>-8.8</b>

Source: Expanded College and Beyond Database

Notes: Numbers in **bold** are significant to 0.05. Predictions are based on an OLS regression with dependent variable rank in class, and controls for SATs, race, income, parental education, recruit status, graduation status, field of study, and institutional dummy variables. Only non-foreign students who provided family income and parental education on the Student Descriptive Questionnaire were used. Observations with missing values were excluded.

**Table II.3:  
A Simulation of the Effects of Income-Sensitive Admission Preferences  
Based on Legacy Preferences, Retaining Race-Sensitive Preferences,  
18 Institutions, 1995 Entering Cohort**

	Current Policy	Income-Sensitive Preferences
<i>Admissions Probabilities</i>		
Non-minority, Bottom Income Quartile	29.6%	49.2%
Minority, Bottom Income Quartile	39.9%	40.7%
Minority, Non-Bottom Quartile	51.4%	51.7%
<b>All Bottom Income Quartile</b>	<b>32.1%</b>	<b>46.6%</b>
<b>All Minority</b>	<b>48.3%</b>	<b>48.8%</b>
<b>Non-minority, Non-Bottom Quartile</b>	<b>39.4%</b>	<b>38.4%</b>
<i>Percent of Admitted Students</i>		
Non-minority, Bottom Income Quartile	5.9%	10.5%
Minority, Bottom Income Quartile	3.3%	3.3%
Minority, Non-Bottom Quartile	12.2%	12.1%
<b>All Bottom Income Quartile</b>	<b>9.2%</b>	<b>13.8%</b>
<b>All Minority</b>	<b>15.5%</b>	<b>15.5%</b>
<b>Non-minority, Non-Bottom Quartile</b>	<b>78.6%</b>	<b>74.1%</b>
<i>Percent of Enrolled Students</i>		
Non-minority, Bottom Income Quartile	7.2%	13.4%
Minority, Bottom Income Quartile	3.4%	3.4%
Minority, Non-Bottom Quartile	9.9%	9.9%
<b>All Bottom Income Quartile</b>	<b>10.6%</b>	<b>16.7%</b>
<b>All Minority</b>	<b>13.4%</b>	<b>13.2%</b>
<b>Non-minority, Non-Bottom Quartile</b>	<b>79.4%</b>	<b>73.4%</b>

Source: Expanded College and Beyond Database

Note: University of Illinois is excluded due to missing legacy data. Numbers may not sum correctly or may differ slightly when they should be the same due to rounding.

**Table II.4:**  
**A Simulation of the Effects of Income-Sensitive Admission Preferences Based on Legacy Preferences, Eliminating Race-Sensitive Preferences, 18 Institutions, 1995 Entering Cohort**

	Current Policy	Income-Sensitive Preferences
<i>Admissions Probabilities</i>		
Non-minority, Bottom Income Quartile	29.6%	49.2%
Minority, Bottom Income Quartile	39.9%	27.0%
Minority, Non-Bottom Quartile	51.4%	26.3%
<b>All Bottom Income Quartile</b>	<b>32.1%</b>	<b>43.3%</b>
<b>All Minority</b>	<b>48.3%</b>	<b>26.6%</b>
<b>Non-minority, Non-Bottom Quartile</b>	<b>39.4%</b>	<b>40.5%</b>
<i>Percent of Admitted Students</i>		
Non-minority, Bottom Income Quartile	5.9%	10.7%
Minority, Bottom Income Quartile	3.3%	2.5%
Minority, Non-Bottom Quartile	12.2%	5.6%
<b>All Bottom Income Quartile</b>	<b>9.2%</b>	<b>13.1%</b>
<b>All Minority</b>	<b>15.5%</b>	<b>8.0%</b>
<b>Non-minority, Non-Bottom Quartile</b>	<b>78.6%</b>	<b>81.3%</b>
<i>Percent of Enrolled Students</i>		
Non-minority, Bottom Income Quartile	7.2%	13.0%
Minority, Bottom Income Quartile	3.4%	2.7%
Minority, Non-Bottom Quartile	9.9%	4.4%
<b>All Bottom Income Quartile</b>	<b>10.6%</b>	<b>15.7%</b>
<b>All Minority</b>	<b>13.4%</b>	<b>7.1%</b>
<b>Non-minority, Non-Bottom Quartile</b>	<b>79.4%</b>	<b>79.9%</b>

Source: Expanded College and Beyond Database

Note: University of Illinois is excluded due to missing legacy data. Numbers may not sum correctly due to rounding.