# Test Scores Do Not Equal Merit

# Enhancing Equity & Excellence in College Admissions by Deemphasizing SAT and ACT Results

by

## Charles Rooney

with Bob Schaeffer and the staff of FairTest, the National Center for Fair & Open Testing

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# Test Scores Do Not Equal Merit

# **Executive Summary**

- More than 275 four-year colleges and universities across the U.S., acting on the belief that
  "test scores do not equal merit," do not use the SAT or ACT to make admissions decisions
  about some part or all of their incoming freshmen classes. These institutions range widely
  in size and mission. Countless other institutions make little use of the tests for admission
  purposes, provided applicants meet other requirements, but have not stated explicit policies
  exempting groups of students from submitting test scores.
- Schools that have made standardized tests optional for admissions are widely pleased with the results. Many report their applicant pools and enrolled classes have become more diverse without any loss in academic quality. "Test score optional" policies promote both equity and excellence. This holds true at selective private liberal arts colleges such as Bates College as well as at such large, public institutions as the California State University system.
- Colleges and universities that have moved away from using standardized tests to make admissions decisions have done so for a variety of reasons, but all have concerns about the impact of overreliance on the tests. Some public universities have acted to deemphasize the SAT and ACT in the face of restrictions on affirmative action; a few are developing more flexible approaches to admissions in response to changes in the K-12 sector; many have found high school classroom performance to be a markedly superior way of forecasting academic success in college. All these schools have in common serious questions about the predictive accuracy, equity and value of standardized admissions tests.
- **Lessons learned** at the wide range of "test score-optional" schools can be applied to many other institutions. These lessons include:
  - Dropping tests leads to greater diversity because the focus on test scores deters otherwise qualified minority, low-income, first-generation, female and other students from applying
  - Deemphasizing tests attracts more students who are academically capable
  - Tests add little useful information to the high school record: overall, relatively few admissions decisions change with the addition of test scores
  - High school performance -- expressed either as grades or class rank -- is the best available screening device for applicants
  - Moving away from tests promotes sounder educational practices in high schools
- Institutions that still require ACT or SAT scores should review the experiences of schools
  that have deemphasized the tests or explicitly made them optional in the admissions
  process. Colleges and universities should examine their own experiences with tests and ask
  these questions:
  - Do the tests really have predictive validity at this institution?
  - Does that validity hold for all ethnic, age, and income groups as well as for both men and women?
  - Do the tests add anything significant to what admissions officers already know about applicants?
  - Are test score requirements deterring potential applicants who would make suitable students?
  - Are students from underrepresented groups judging this institution by its test score requirements?
  - Is this institution sending the wrong pedagogical message to high schools by relying on narrow, three or four-hour multiple-choice exams to help sort students?

#### I. Introduction

More than 275 four-year colleges and universities across the United States do not use the SAT or ACT to make admissions decisions about some or all of their incoming first year-students (see Appendix A). At institutions ranging in size and mission from multicampus public systems, such as the University of Texas and California State University, to small private liberal arts colleges, such as Bates College in Maine, Muhlenberg College in Pennsylvania and Union College in New York, university officials have identified standardized admissions tests as significant barriers to entry for thousands of academically qualified minority, first-generation, lowincome and female college students. By turning away from reliance on test scores, these institutions are promoting both equity and **excellence**. Educators and policymakers across the country are subjecting the SAT and ACT to unprecedented scrutiny and, in many cases, deciding that the social and academic costs of continuing to rely heavily on these tests outweigh any possible benefits.

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The reevaluation of undergraduate admissions tests (and their graduate-level counterparts, the MCAT, GRE, GMAT and LSAT) has been accelerated by Proposition 209 in California and the Hopwood decision in Texas, both of which ban the use of racial preferences in university admissions and other areas. In California, Prop. 209, along with parallel Board of Regents policy changes, led to sharp declines in minority graduate and undergraduate participation at selective campuses of the University of California. On the other hand, in Texas (see case study on page 30), a new law admitting the top 10 percent of high school graduates, without regard to test scores, and encouraging more individualized readings of applications, helped reverse the decline in minority admits while rewarding classroom academic performance. These policy changes have also exposed the decisive role that standardized admissions tests play in restricting access for some groups of students and have prompted calls for further reducing reliance on the exams.

Schools that have dropped or sharply restricted the use of the SAT and ACT are widely pleased with the results.

While legislative changes and judicial decisions in California, Texas and elsewhere have prompted more universities to reconsider their use of the SAT and ACT, the test-optional movement long predates the recent assault on affirmative action. Many four-year colleges and universities have long had broad concerns about the validity, equity, and educational impact of standardized admissions tests. Schools such as Bates and Bowdoin Colleges made the decision to go optional 15-20 years ago, recognizing that the tests were unnecessarily restricting their applicant pools. Other institutions did not require test scores from their inception, consistent with their missions. Many colleges analyzed their admissions numbers and found that standardized tests were simply not very good predictors of first-year college performance, which is what the tests purport to do. More recently, some public institutions have begun developing plans to make their admissions systems more flexible in order to reflect changes in the K-12 sector, including moves toward competency-based assessments.

Schools that have dropped or sharply restricted the use of the SAT and ACT are widely pleased with the results. Regardless of size or selectivity, these institutions have seen substantial benefits, including increased student diversity, more and better-prepared applicants, and positive reactions from alumni/ae, students, guidance counselors and the public. Test-optional colleges and universities have not experienced particular difficulties recruiting and selecting their entering classes. High school students continue to seek out these schools, sometimes because of their own experiences with test scores, but also because they value the efforts of test-optional schools to promote diversity in backgrounds and learning styles. Franklin & Marshall, which offers academically qualified students the option of not submitting test scores, reports at least one applicant who scored a perfect 1600 on the SAT but chose not to submit that score as a show of disdain for the test.

This report summarizes the experiences of a variety of schools that have either dropped or deemphasized standardized admissions tests. The case studies are intended to show other colleges and universities why it makes sense to stop requiring the SAT or ACT and how to go about it. Most of the admissions and university officials who have spoken about their schools' struggles to develop new, innovative approaches to selecting students have acknowledged the importance of evaluating the practices and experiences of other test-optional schools. Bates College in particular has conducted numerous studies of its optional admissions program, providing detailed reports about the backgrounds and academic achievements of its students, both those who chose to submit test scores with their applications and those who did not.

Test-optional schools have put into practice their skepticism about such false measures of merit as scores on a three-hour largely multiple-choice exam.

#### Test Scores Do Not Equal Merit

Higher education institutions that reduce their reliance on standardized admissions tests are sending a strong message that "test scores do not equal merit." One of the central arguments in favor of standardized admissions tests is that they serve as "common yardsticks," enabling admissions officials to compare students from different academic backgrounds. However, no one would seriously argue that a 1200 combined SAT score at an affluent suburban high school means the same thing as a 1200 at a resource-starved high school serving low-income students. Even the Educational Testing Service, which makes the SAT, has criticized the "Myth of a Single Yardstick," arguing that there is "no single, primary ordering of people as 'best-qualified' or 'most meritorious' as simple notions of merit require." Test-optional schools have put into practice their skepticism about such false measures of merit as scores on a threehour largely multiple choice exam. In many cases, schools that join the ranks of "test-optional" colleges are merely making explicit and formal current admissions practices which already depend very little on standardized admissions tests.

By dropping or deemphasizing test scores for admissions, private colleges open up their campuses to these students and thereby promote both equity and excellence. If, as the testmakers' publications acknowledge,<sup>2</sup> and many colleges practice, high school achievement is paramount in the admissions equation, and test scores provide no more than supplemental information, there are only two possible reasons for considering such scores in the admissions process. Both involve changing the admission decision that would be made in the absence of the test. If the tests do not alter the fate of applicants, then they are clearly of no use to admissions officers.

The first possible justification for looking at test scores would be to identify students whose high school records indicate they are capable of performing successfully in their first year of college but who are not truly academically qualified because their high school records overstate their preparedness. The second would be to flag students with greater academic promise than was revealed by their performance in high school classrooms.

The first use of standardized tests for admissions is exclusive and centers on students who did well in high school but did not receive high (or sufficiently high) SAT or ACT scores. These students — disproportionately minority and lower-income — are at the heart of one current debate over the use of test scores for admissions. Strict test score requirements will keep these students out of more competitive institutions, despite their records of achievement in classrooms, extracurricular activities and community leadership. By dropping or deemphasizing test scores for admissions, private colleges open up their campuses to these students and thereby promote both equity and excellence. Selective public institutions, often vital gateways to participation in a state's political, business and community organizations, play down tests so as not to shut out talented and capable minority, low-income, rural and first-generation college students.

"Moreover, we're deeply concerned essentially that the SAT is used to cull students, not to give them the opportunity to come to the University of California, which, by the way, was the original intent of the SAT, . . . to try to give those students an alternative way to demonstrate their ability to do well in the academic area. We think presently it's just primarily a culling device, particularly for Latino students."

-- Eugene Garcia, Dean of the Graduate School of Education at the University of California at Berkeley<sup>3</sup>

The second hypothetical use of standardized admissions tests is inclusive and may play more of a role in testmaker mythology than in practice. Students affected by this use of the tests are those whose high school classroom performances understated their potential but whose test scores offer a glimpse of what they could do academically. Although this may occur on occasion, it is unlikely that a significant number of students who had "underperformed" in high school would suddenly excel in college. In any event, a test-optional policy would not hurt these applicants because they could submit SAT or ACT scores along with an explanation of their high school records.

True test-score optional policies allow colleges to include many applicants with low scores but strong records of academic and other forms of achievement. At the same time, these policies do not exclude students who believe submission of their test scores helps demonstrate their academic potential.

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## II. The Benefits of Making Test Scores Optional

"We've raised standards without raising test scores by focusing on core curriculum and HSGPA minimum."

#### **Eliminating Test Requirements Helps Colleges**

Colleges do not need the tests to select students
Institutions as varied as the California State University (CSU) system and Bowdoin College have concluded that they do not need to rely on SAT and ACT scores to compose their freshman classes. One administrator at CSU, which admits over two-thirds of its freshman class regardless of test scores, said, "We've raised standards without raising test scores by focusing on core curriculum and HSGPA (high school grade-point average) minimum." As the comprehensive statistical analysis in *The Case Against the SAT* shows clearly, dropping the use of the SAT in admissions would not harm colleges' abilities to select accurately their incoming classes.

Having made submission of both SATs and SAT IIs (formerly called Achievement Tests) optional back in 1969, Bowdoin College has a wealth of experience in admitting highly selective classes — 4,435 students applied for 443 openings for the entering class of 1997 — without requiring test results. Bowdoin's research shows that, since the test-optional policy was initiated, the academic performance of students who do not submit SAT or ACT results has been comparable to the performance of those students who submit scores.

Very few colleges and universities need to sort and rank their applicants Schools such as Bowdoin that receive two or more applications for each spot must cull their applicant pools. However, most colleges and universities admit a large majority of the students who apply and have little or no need to sort applicants. The average acceptance rate for four-year schools is approximately 75%; out of approximately 1600 four-year institutions, only 125 or so reject more than half of their applicants.<sup>6</sup> Failure to meet course requirements

serves to eliminate from consideration many applicants, leaving that many more schools in the position of accepting all students who meet basic academic standards. In interviews with admissions officers, Ernest Boyer, former U.S. Commissioner of Education, found that most schools retained their SAT score requirement not because they felt they needed test scores, but in order to maintain "an aura of selectivity." Nearly two-thirds of these officials admitted using SAT and ACT scores very little in the selection process despite requiring them.<sup>7</sup>

Dropping or restricting tests helps colleges recruit academically stronger classes

In a five-year study of its test score-optional policy, Bates College found that the change "has had no visible negative impact on the quality of enrollees, and seems in fact to have had a positive impact." Moreover, nonsubmitters (those who chose not to submit their standardized test scores for admissions purposes) had a higher academic survival rate than their submitter counterparts. On the large-scale public university side, 1990 data from the Oregon State System of Higher Education (OSSHE) showed that had its member colleges relied heavily on test scores instead of high school grade point average, they would have admitted a somewhat less academically-able student body. 9

Dropping or restricting tests helps colleges and universities diversify their student bodies

At Bates College, the SAT-optional policy resulted in a more diverse student body, with applications and enrollment by minority students more than doubling in the first five years. <sup>10</sup> Members of minority groups make strong use of the policy, electing to withhold their SAT scores at a higher rate than the total applicant pool. Similarly, Wheaton College in Massachusetts has attracted more

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"The use of standardized tests unduly limits admissions [and] ... has had a chilling effect on the motivations and aspirations of underserved populations."

minority students since its optional policy went into effect in 1992. When the Texas Higher Education Coordinating Board studied ways to promote diversity at the state's public teaching universities, it concluded that "the use of standardized tests unduly limits admissions [and] ... has had a chilling effect on the motivations and aspirations of underserved populations." In 1998 testimony, the head of the University of California (UC) Latino Eligibility Task Force said, "I think we're deeply concerned about how the SAT does not predict success in college for particularly Latino students over a longer period of time. . . . There is no evidence to suggest in the UC or otherwise that it is correlated or predictive of success at the University of California." <sup>112</sup>

#### **Going Test-Optional Helps Students**

One-shot tests will play a smaller role in determining students' educations As more schools go test-optional or de-emphasize the SAT and ACT, students will know they will be evaluated more on the basis of their actual performance in the classroom. This should encourage greater attention to academics. Removing test scores from the equation will offer particular benefits to low-income, minority, first-generation, rural, female and older students, or, more generally, to any students whose performances on tests do not provide a good or meaningful measure of their academic abilities.

Access to test coaching will exert less influence over the admissions process

Commercial test prep courses cost \$700 or more and increase students' composite SAT scores by more than 100 points on average, and as much as several hundred.<sup>13</sup> College admissions officers do not know which applicants have taken such courses and cannot know whose scores were boosted by coaching and whose are not. Middlebury College made the SAT optional in part because officials

suspected that SAT score gains they noticed in affluent areas were due to coaching rather than to improvements in academic achievement. As more schools move away from the SAT and ACT, students will feel less pressure to take these expensive and time-consuming courses. William Hiss of Bates College noted, "We think coaching distracts a student at precisely the critical moment when young people need to build up confidence and personal steam for critical thinking, effective writing, and developing strong analytical skills." He added that Bates went optional in part as an "attempt to say to these young people, use your time and your energy to create real forward motion in your life...."

"Our hope is that the decision to move to a testoptional admissions policy will give some of the power back to students in the college admissions process."

Good students without high test scores will not be deterred from applying Students with lower test scores, even with otherwise strong academic records, are often discouraged from applying to colleges with SAT/ACT requirements and higher average test scores for the student body. Bates, Bowdoin and Franklin Marshall all report that changing their test score requirements brought in new applicants, some with lower test scores, who have done well after being admitted, but who would likely not have applied had test score requirements been in place.

"Test-optional" admissions policies give students greater say in the process

Muhlenberg College included this statement in its "Questions and Answers About Muhlenberg's SAT/ACT Policy:"

"Our hope is that the decision to move to a test-optional admissions policy will give some of the power back to students in the college admissions process. This decision gives students a larger say in how to present themselves, what constitutes their strongest portfolio of credentials, etc. On a number of levels, we hope that this new policy will reinforce the kind of active, thoughtful, engaged

Many admissions officers fear that overemphasis on tests leads to students focusing a great deal of their energy and attention on test scores rather than their high school work. intellectual participation we expect from our students once they are members of the college community."<sup>17</sup>

#### **Broader Benefits of Test-Optional Admissions Policies**

A shift away from test-based admissions promotes more widespread access to selective colleges and universities

Moving away from admissions schemes that rely heavily on SAT or ACT scores opens the doors to academically qualified students whose test scores say more about their family backgrounds than about their capacity to perform well in college classes. Students from families with higher household incomes achieve higher scores than students from families with lower incomes (see Appendix D). As the demographic profile of high school graduates in the United States shifts over the next 10 or 15 years, the SAT and ACT will increasingly serve as barriers to college access. The University of California's (UC) Latino Eligibility Task Force found, "The SAT seems to have been a barrier for eligibility and participation in the University of California for Latinos, women, and other disadvantaged students, since it was incorporated into the UC admissions requirements in 1968."18 The Task Force concluded that "eliminating the SAT requirement would greatly expand Latino student eligibility without compromising the integrity of UC's ability to select those students who are most likely to succeed in its programs."19

Creates educational benefits for high school students

"Bowdoin College does not want to encourage high schools to design their courses to accommodate multiple-choice exams..." <sup>20</sup>

Many admissions officers fear that overemphasis on tests leads to students focusing a great deal of their energy and attention on test scores rather than their high school work. It also leads to high schools feeling pressure to devote precious resources to test preparation. Bill Mason, then Admissions Director at Bowdoin College, claims, "[T]he natural outgrowth of a system... which relies solely on SAT scores" is high schools designing their courses "to accommodate multiple-choice exams...." He added,

SAT underprediction

"arguably leads to the
exclusion of 12,000

women from large, competitive 'flagship' state
universities."

"The message we should be sending to high schools is that admissions offices at selective colleges are capable of making informed decisions without relying heavily or at all on the Educational Testing Service, not that we want them to design their courses to what can be tested by multiple-choice exams. By and large, that isn't the way we evaluate our students. Why should we require that high school students be evaluated in that fashion?"<sup>21</sup>

#### Removes unfair obstacles for women

Study after study has demonstrated clearly that the SAT underpredicts women's performance in college and overpredicts the performance of men, even when taking into account different course-taking patterns. According to a study by two members of the faculty at the University of California at Berkeley, the use of test scores in admissions cost between 200 and 300 women acceptance into Berkeley each year during the 1980s.<sup>22</sup> The study projects that SAT underprediction "arguably leads to the exclusion of 12,000 women from large, competitive 'flagship' state universities."<sup>23</sup> The researchers urged the College Board either to correct the gender problem on the SAT or provide all member institutions with a "user's warning label" that appropriate use of the test requires some kind of "gender-sensitive corrective."<sup>24</sup>

Other studies confirm the gender bias of the math portion of the SAT (SAT-M) in particular. A 1995 paper, "Participation in Mathematics Courses and Careers: Climate, Grades and Entrance Exami-

By moving away from reliance on SAT and ACT tests, colleges and universities would send a strong message that test scores do not equal merit.

nation Scores,"<sup>25</sup> confirmed that college admissions test scores underpredict the ability of women to succeed. The study contrasted the multiple choice, rapid response SAT-M with mathematical examinations in other countries that require solutions to several long problems and which seem unbiased with respect to gender. The authors criticized not only the use of SAT-M scores in making admissions and scholarship decisions, but also noted that "a particularly inappropriate use of these college entrance examinations scores is for placement in college mathematics courses."<sup>26</sup> Some schools, including the Massachusetts Institute of Technology (MIT), adjust their use of test scores in admissions equations to compensate for the gender gap (see Appendix C).

#### Moves away from testing mania

SAT and ACT scores are now used for everything from selecting scholarship winners to selling real estate. The quality of high schools, colleges and even state education systems as a whole are often judged on the basis of test score averages, even though experts — and the test makers themselves — have long dismissed such comparisons as invalid because of the varying proportion of students taking the test and the differences within student populations. For instance, an increase in the number of students for whom English is a second language taking college entrance tests can alter a high school's average score without revealing anything about the quality of its education. By moving away from reliance on SAT and ACT tests, colleges and universities would send a strong message that test scores do not equal merit. In Texas, for example, leaders of the public university system have strenuously promoted their version of a test-optional admissions policy in order to signal members of underrepresented groups that they are still welcome on Texas campuses in the aftermath of the Hopwood decision.

## Why Colleges Still Use SAT and ACT Scores

Given all the problems with the SAT and ACT and the many advantages of test score-optional admissions policies, why do so many schools still require applicants to submit their test scores? At least three explanations are given by admissions professionals.

submission of the tests optional have not suffered a dropoff either in the number or quality of applicants.

Schools that have made

#### Marketing

Many colleges fear that dropping their SAT or ACT requirement will signal potential applicants that they are also lowering their academic standards. College ranking services help foster this notion by incorporating a school's average SAT/ACT score into its overall ranking (although *U.S. News & World Report*'s well-known index weights a school's average SAT scores at just 6% of overall scores<sup>27</sup>). One admissions officer interviewed by Ernest Boyer for his book, College, said, "If we didn't ask for the scores, we would be regarded in the marketplace as having very low prestige. We can't afford that."28 Another told Boyer, "It's like a dance where everyone continues to go through the motions after the music has stopped."29 This belief is clearly a misconception. Schools that have made submission of the tests optional have not suffered a dropoff either in the number or quality of applicants. In fact, Bates and Muhlenberg both reported increases in the number of applicants without any loss in academic quality.

#### Political Pressure

At public institutions in particular, administrators are subject to decisions made by state and local governments for political purposes. Test score requirements are a cheap way of creating the impression that universities are raising academic standards and a convenient mechanism to cut the size of entering classes. In recent years, public universities in New York City, Massachusetts and elsewhere have responded to political pressure to improve academic quality (and/or reduce enrollment) by restricting access, using standardized test scores as the vehicle. This report includes

The example of the University of Texas at Austin shows that applications can be read and evaluated individually, eliminating the need to rely on test scores.

case studies of institutions, or systems (such as the University of Texas and California State University) that have responded to changing political environments not by clamping down on access but by developing alternative approaches to admissions that promote both access and academic excellence.

#### Low Cost

Colleges pay nothing for applicants' tests scores; students pay all the costs. Test scores are easy to process and require little time on the part of admissions officers. They also come with a vast body of demographic data that colleges use for honing their recruiting and "yield management" programs. A more sophisticated, comprehensive set of admissions requirements entails more staff time and somewhat higher costs. However, even testmakers recognize the dangers of underinvestment in the admissions process. At the graduate school level, Philip Shelton, Executive Director of the Law School Admissions Services, warned that law schools are spending too little on their admissions offices, leading to an overreliance on such easily quantifiable measures as LSAT scores.<sup>30</sup>

Similarly, Christopher Hooker-Haring, Admissions Director at Muhlenberg, has warned the College Board about the dangers of schools trying to carry out admissions on the cheap.<sup>31</sup> However, Hooker-Haring also noted that his school and 800 others like it across the country already read individual applications and do the other work necessary to make admissions decisions without using SAT or ACT scores. The costs to those schools of making the tests optional would be low or nil. For large, selective institutions, the example of the University of Texas at Austin shows that applications can be read and evaluated individually, eliminating the need to rely on test scores. For large institutions that require the tests but do not really use them to make admissions decisions, eliminating the requirement will not increase costs.

### II. CASE STUDIES

Below are profiles of five diverse higher education institutions that have implemented admissions policies that either reduce or eliminate the role of college entrance examinations in making admissions decisions. In some cases, colleges give students the right to choose whether or not to submit their test scores; in other cases, colleges and universities do not use test scores to make admissions decisions about students who meet certain requirements, such as class rank or grade-point average standards.

Together, these five cases provide a broad overview of how institutions of any size or mission can promote both equity and excellence by turning away from SAT and ACT requirements.

A. Bates College

"If I had had to choose between making tests optional and losing 1000 applications it would have been tough. But when you gain 1000 applications? There's no downside." — William Hiss, current Vice President and former Director of Admissions at Bates

Bates College allows for the most detailed case study because of the thorough, step-by-step process undertaken by staff, faculty and administration in gradually changing Bates' test requirements. Concerns about diversity, the effects of coaching and the impact of the SAT on secondary education and students all had roles in leading Bates to begin conducting research about its admissions policies in the late 1970s, then move to make the SAT I optional in 1984, and, finally, to make all tests optional for admission in 1990.

The admissions office of Bates began considering dropping the SAT in 1979 and conducted a series of studies assessing the likely results of such a move. One study, for example, found that students' evaluations of their "energy and initiative" in high school added

Concerns about diversity, the effects of coaching and the impact of the SAT on secondary education and students all had roles in leading Bates to begin conducting research about its admissions policies in the late 1970s.

Many students "mistakenly assume that the tests are a major part of the application and select colleges on the basis of the median test scores." more to the ability to predict performance at Bates than did either Verbal or Math SAT scores.<sup>33</sup> In general, the research concluded that "adding self-evaluations improves the prediction formula markedly," demonstrating the importance of such characteristics as "energy and initiative" and "motivation" in academic success. Another study showed that SAT scores were not helpful in predicting which students would later drop out for academic reasons.

In October of 1984, the faculty voted by a margin of two to one to make SAT scores optional for admission while still requiring scores from three College Board Achievement Tests or the ACT. Bates President Thomas Hedley called the move "... a bold step by the faculty, reflecting deep concern with the effectiveness of the SATs." Bates, founded in 1855 by abolitionists, was the first coeducational institution in the East, and seeks to remain true to its history of "commitment to social justice, civil rights, and respect for the individual." <sup>35</sup>

Thus, the decision to change its admissions requirements in 1984 was spurred by concerns that the SAT was restricting the applicant pool Bates wished to attract and having a harmful effect on students.

First, the faculty was concerned that the SAT may not "present a true picture of the academic potential" of an applicant.<sup>36</sup> Second, many students "mistakenly assume that the tests are a major part of the application and select colleges on the basis of the median test scores."<sup>37</sup> Bill Hiss explained,

"Bates' reasonably high average SAT scores were scaring many good students off. More families than we would like use average SAT scores published in guidebooks to decide if Bates is an appropriate institution for their children, and falsely conclude either that Bates is too difficult academically or that their sons or daughters could not be admitted."38

Third, the faculty felt that the close correlation between the SAT and family income disadvantaged some students.<sup>39</sup> Therefore, "The faculty wanted to offer a clear public gesture to encourage applicants from students in groups least likely to have the SATs operating in their favor: minority students, first-generation immigrants, bilingual students, and rural or blue-collar students."<sup>40</sup>

And finally, faculty members were concerned that rampant test coaching meant that the energies of high school teachers and students were being misdirected and that the high school curriculum might be affected.<sup>41</sup>

At the end of five years of the SAT-optional policy in 1990, faculty members conducted a careful study of the academic performance of the five classes that entered Bates between 1985 and 1989. The research committee looked at a variety of measures, including verbal and math SAT, total SAT, Achievement (now called SAT II) Tests and cumulative grade point average. The SAT-I scores had been collected after enrollment for research purposes only. According to the study, tests add little predictive value to the high school record:

"[N]either SATs nor Achievements seem to predict GPA [grade-point average] with great strength. The verbal and math SAT together accounted for 9.6 percent of the variation in grades, while the Achievement tests accounted for 12.2 percent of the variation. When SATs and Achievements were combined in a multiple regression analysis, they together accounted for only 13.6 percent of variation in cumulative GPA."<sup>42</sup>

"The faculty wanted to offer a clear public gesture to encourage applicants from students in groups least likely to have the SATs operating in their favor: minority students, first-generation immigrants, bilingual students, and rural or blue-collar students."

In five years only one of the 14 students dismissed from Bates for academic reasons was an SAT nonsubmitter: 93% of those dismissed were SAT submitters. In comparing five years of enrollees who submitted SAT scores with those who didn't, Bates found that while "non-submitters" averaged 160 points lower on the SAT, their freshman grade point average — which is what SAT scores are supposed to predict — was only five one-hundredths of a point lower than that of "submitters." <sup>43</sup>

The academic survival rate of non-submitters was found to be nearly flawless and better than that of submitters: in five years only one of the 14 students dismissed from Bates for academic reasons was an SAT non-submitter: 93% of those dismissed were SAT submitters. Those who didn't submit their SAT scores had an academic survival rate of 99.8%. Hiss states, "These results seem to us, to put it mildly, very good."44

Though applications had declined at most colleges due to demographic patterns and families' financial considerations, applications at Bates increased by more than a third in the first five years of the SAT optional policy. The number of applicants increased from 2,551 to 3,394 for a class of 400.

Bates also found that recruiting students from groups particularly targeted by its mission was significantly easier with the SAT-optional policy. Applications and enrollments of minority students more than doubled in the five years of SAT optional, with these students electing to withhold scores at a significantly higher rate (41%) than the class as a whole (22%). Applications from international students also more than doubled during this time, and Bates is now enrolling more older students.<sup>45</sup>

Thus, in the fall of 1990, the faculty voted to make standardized tests completely optional for admission. The faculty vote was virtually unanimous: 84 to 1.46 "Riding as it did a nationwide wave

of concern about standardized testing, the Bates decision has become a national test case."<sup>47</sup> According to then-Admissions Director Bill Hiss, the faculty was also given the alternative of voting to require students to submit any test scores (SAT, ACT or Achievements), but the faculty felt no need to opt for this approach.<sup>48</sup>

Bates current admissions process uses factors other than test scores, such as high school record, essays, recommendations, personal interviews and student interests, in evaluating students.<sup>49</sup> In particular, the Bates staff values the personal interview: "...[T]he College remains committed to the personal interview as part of its evaluation, and Bates is bucking a noticeable trend at other similar colleges away from doing personal interviews."<sup>50</sup>

The percentage of students choosing the nonsubmission option has remained fairly constant over the years, totaling about 28% of all applicants. The non-submitters are admitted at a lower rate than submitters, about 19%, compared to 30-35% for all students, but enroll at a 4-5% higher rate than submitters. So Bates' freshman class is typically comprised of 25% non-submitters.

In the first two years of the "all tests optional" policy, just as in the earlier, SAT-optional version of the policy, a higher number of women, "Mainers" — who tend to be blue collar applicants from rural areas — and minority students opted not to submit test scores. Bates admissions staff members have also found that some applicants with very high test scores don't submit them for philosophical reasons.<sup>51</sup>

In retrospect, Bill Hiss explained, when people at Bates started to look at their testing policy, three things were all moving in the same direction: first, they weren't convinced that tests were highly In the first two years of the "all tests optional" policy, just as in the earlier, SAT-optional version of the policy, a higher number of women, "Mainers" — who tend to be blue collar applicants from rural areas — and minority students opted not to submit test scores.

At Bates, many nonsubmitters who turned out to be fine students might never have been admitted -- or would have been discouraged from applying -- without the SAT optional policy. predictive — in particular tests were predicting failure for some minority and English-as-a-second language students who turned out to be really brilliant. Second was the ethical question of whether test requirements were scaring away the very applicants Bates said it wanted. And third was a marketing issue: you can't convince a high school student to attend your school if he or she has been scared off by high average SAT scores and has decided not to apply.<sup>52</sup>

Bates' experience demonstrates clearly that even very selective schools don't need the SAT—or any test score—in order to choose their entering freshman classes. At Bates, many non-submitters who turned out to be fine students might never have been admitted — or would have been discouraged from applying — without the SAT optional policy. In a 1997 interview, Hiss told *U.S. News & World Report* that for about a quarter to a third of Bates students, the SAT is:

"not predictive and, in some cases, is what a statistician would call a false negative. That is, in fact the test seems to suggest the student cannot do good work when in fact they can. They come to Bates, they make the dean's list, they graduate Phi Beta Kappa, having come with modest SATs." <sup>53</sup>

## B. Franklin & Marshall College

In the spring of 1991, Franklin & Marshall College, a selective school in Lancaster, Pennsylvania, made test scores optional for applicants in the top ten percent of their high school classes. These students now have the option of submitting two graded writing assignments instead of test scores. Students whose schools do not calculate class rank may choose the tests-optional policy if they have accumulated a 3.6 GPA in college preparatory course work.

The impact of the rule change on admissions at F&M is substantial since, prior to the new policy, more than forty percent of F&M's applicants had been in the top ten percent of their high school class. For the class of 2001, 63% of those enrolled were in the top ten percent. F&M is a "highly competitive" college which admitted 54% of its 3940 applicants in 1998. Of the 500 who enrolled, 57 did not submit test scores.<sup>54</sup>

According to Admissions Director Peter Van Buskirk, the change in policy stemmed, in part, from the growing nationwide dissatisfaction with the role of the SAT in the college admissions process. "A lot of schools are beginning to discuss some sort of test optional policy — it's a hot topic," 55 said Van Buskirk in 1992. He said many admissions officers have expressed frustration with the media's rankings of colleges by scores and with the fact that students' first questions about a school invariably focus on test scores. "In conversations with students and parents, our new policy has met with uniform approval. They don't have to work under the ominous burden of SAT scores anymore," Van Buskirk explained. 56

"We weren't convinced that the SAT is a necessary predictor for high achievers," he continued. "In a highly selective school, you end up looking at a group of students in which many are in the top 10 percent and you can't take them all. If you're wincing because you see a modest SAT score, then you're not being fair to a candidate who should be evaluated on other factors. What this decision does is take the wincing out of the process." 57

The change in policy was proposed by Franklin & Marshall's Faculty Committee on Admissions after conducting several internal studies of the Class of 1992 which proved that the high school record is the best predictor of academic work at F&M, especially for high achieving students.<sup>58</sup> A validity study comparing predictors

"If you're wincing because you see a modest SAT score, then you're not being fair to a candidate who should be evaluated on other factors. What this decision does is take the wincing out of the process." Allowing the top 10% of high school students to apply without submitting SAT scores "will increase applications from students whose modest SAT scores may not be indicative of their real talents and abilities."

for first-year college grades at Franklin & Marshall, conducted by the College Board, revealed that the high school rank (HSR) forecast freshman GPA almost as well (.54) as a combination of HSR, SAT scores and the Test of Standard Written English (TSWE) scores (.57). Moreover, the high school record contributed far more (.67) to this multiple regression equation than did either the SAT-V (.10) or SAT-M (.05).<sup>59</sup> Similar studies of the classes of 1991 and 1990 confirmed all of these findings.

F&M's Office of Institutional Research further analyzed the data to illuminate the predictive power of three admissions models — SAT only, HSR only, and SAT and HSR combined — for high and low performing students. This analysis showed that while the combined formula was most successful at predicting both high- and low-end academic performers, the SAT alone was a poor predictor of these extremes. For example, 21 of the 40 students with the lowest freshman GPA (2.0 or less) had SAT scores above 1100. For the top 40 students in the Class of 1992, (freshman GPA of 3.4 or higher) the HSR model predicted 18 of them, while the SAT model predicted only one. "Clearly, the HSR-only model is competitive with the combined model in predicting high freshman GPAs." 60

The research office at F&M also looked at the predictive power of the three models after the second year of college course work, and again found that HSR (.42) far outperformed either the SAT-V (.28) or the SAT-M (.16). The committee concluded that allowing the top 10% of high school students to apply without submitting SAT scores "will increase applications from students whose modest SAT scores may not be indicative of their real talents and abilities." 61

F&M hoped the new policy would increase the volume of applications from such students, who may have been discouraged from applying in the past because of SAT scores below F&M's average. According to a committee report, "For these students, the requirement to submit such a score may have been posing an unwarranted barrier, a disincentive, although they might well perform satisfactorily here." The report cited the example of Bates College, which experienced a boost in applications after deemphasizing the SAT in 1984.

"Many students and alumni/ae have said 'I wish you had done this when I applied.'"

The first four years of its optional policy brought F&M the results it expected: a larger applicant pool; greater diversity in terms of race, class, gender, geography and urban/rural background; and academically able enrollees. Fifteen percent of early decision candidates submitted no tests, and all but two were admitted. The admission rate for non-submitters has been running at 10 - 15 percentage points higher than for submitters. According to Van Buskirk, each year non-submitters are "outperforming the norm of the class." 63

In 1998, the acting Director of Admissions, Julio Sanchez, reported F&M's continued happiness with the policy. Students who do not submit test scores are doing better than ever and are doing at least as well as students who do submit scores. For 1997, 208 students applied without submitting scores, up about 65% from 1996. Of that number, 173 were accepted and 57 enrolled. Both the acceptance and enrollment rates were higher for these students than for their counterparts who did submit scores. Sanchez noted that even some students with very high test scores choose not to submit them as a show of support for the college's test-optional policy.<sup>64</sup>

The policy has generated a lot of excitement, according to Van Buskirk. In fact, "many students and alumni/ae have said 'I wish you had done this when I applied.'" Van Buskirk feels that the policy has taken a lot of pressure off some candidates.

Students are asked to submit test scores, if possible, after admissions decisions are made to facilitate ongoing assessment of the test-optional policy. Franklin & Marshall's admissions process has continued with little difficulty, in part because F&M, like many other small schools, devotes the requisite care and time to the thoughtful and individualized screening of applicants, using tools more appropriate to their needs than the SAT. For those who choose not to submit test scores, "We will be looking at a student's command of the language, ability to communicate and willingness to probe." Such students must submit graded examples of their high school work from the fields of English, history or social studies, which analyze a written work or time period.

## C. Muhlenberg College

In 1996, the trustees of Muhlenberg College, a small, selective liberal arts college in Pennsylvania, voted unanimously to make the SAT and ACT an optional part of the school's admissions policy for all applicants. Muhlenberg's faculty had already voted overwhelmingly to end the standardized test score requirement and the president of the college was a strong supporter of the switch. Under the new policy, applicants choosing not to submit their test scores are asked to provide a graded paper with the teacher's comments on it and to meet with a member of Muhlenberg's admissions staff. These students are asked to submit test scores, if possible, after admissions decisions are made to facilitate ongoing assessment of the test-optional policy.

Muhlenberg's decision made it the fifth member of a loosely constituted group of Pennsylvania colleges and universities to alter its admissions policy by deemphasizing SAT and ACT scores.

Dickinson College, Franklin & Marshall College (see above),
Lafayette College, and Susquehannah University are other members of the "Keystone Group" that have made the tests optional or

otherwise limited their role in making admissions decisions. According to Muhlenberg Admissions Director, Christopher Hooker-Haring, these schools have helped each other move away from traditional admissions schemes. Admissions directors from member colleges meet and share perspectives on the process of putting into place new admissions policies and the benefits resulting from downplaying standardized tests. Hooker-Haring also pointed out that articles and other materials published by Bates and Bowdoin Colleges, two pioneers in test-optional admissions policies, were influential at Muhlenberg.

Muhlenberg "wanted to offer encouragement to groups of students who are underrepresented on many selective college campuses who often do not score well on the SAT."

Muhlenberg's conversion to a test-optional admissions policy began two years before the trustees' vote when Hooker-Haring and his staff began to take a closer look at the costs and benefits of continuing to require all applicants to submit scores. The number and quality of applicants to Muhlenberg was already increasing so the school was in a strong position to consider changes. As noted in a question-and-answer fact sheet released at the time the new policy was announced, Muhlenberg became concerned that

"standardized tests had come to occupy too much space in the middle of the college admissions process, both on the part of students, who often imagine that the SAT carries greater weight than it really does in the selection process, and on the part of colleges, which may be forced by the current rating and ranking mania to become more SATdriven in admissions decision-making in order to protect profiles, rankings, etc." 68

In particular, as the fact sheet noted, Muhlenberg "wanted to offer encouragement to groups of students who are underrepresented on many selective college campuses who often do not score well on the SAT (i.e., non-English speaking students, low income students, first generation college students, students of color, some learning disabled students, etc.)."

Data confirmed College Board and independent studies showing that, even with grade inflation and the tremendous diversity of U.S. high schools, grades were still the best predictors of college performance. The campus-wide discussion that preceded the faculty vote on the proposal to revise the admissions policy touched on most of the major issues that confront smaller schools where admissions staff review all individual applications. According to Hooker-Haring, there are approximately 800 such colleges in the United States. He believes all of them could drop their test score requirements without impairing significantly their capacity to recruit and select their incoming classes. <sup>69</sup> Gary Ripple, the Director of Admissions at Lafayette, another Keystone member that does not require SAT or ACT scores, shares Hooker-Haring's belief that many of these institutions have little need for test scores when making admissions decisions. 70 Many of these schools are concerned not about any loss in their ability to choose from among applicants but rather fear criticism from test supporters, including the College Board, who falsely mislabel the decision to drop test score requirements as lowering academic standards.

During the debate over the proposed changes, admissions officers and members of a faculty subcommittee reviewed data describing the correlations between SAT scores and performance at Muhlenberg. Besides national College Board studies, Muhlenberg had internal correlation data from the previous year. According to Hooker-Haring, this data confirmed College Board and independent studies showing that, even with grade inflation and the tremendous diversity of U.S. high schools, grades were still the best predictors of college performance. Muhlenberg also makes subtle adjustments when evaluating grades from high schools where there has been higher-than-average grade inflation.

Beyond narrow discussion of this data, however, Hooker-Haring and his staff explained to faculty members how admissions decisions were made, and how that decision-making process would not change significantly in the absence of SAT scores. Muhlenberg already reviewed each applicant's materials twice and gathered information about applicants' high schools. By carefully reviewing high school profiles that include such information as grade distributions and percentage of students going to four-year colleges, admissions officers can place students' high school grades in a more meaningful context. Muhlenberg also contacts high schools to gather additional data, if necessary. Among other sources of information about high schools, the College Board compiles figures that are readily available to members.

"Recent studies have shown that performing on standardized tests is a skill that can be developed with practice and coaching"

During the discussions about the proposed changes, several arguments in particular persuaded faculty members that a test-optional policy would benefit Muhlenberg. The first was the strong correlation between family income and SAT scores, a link reinforced by the availability of high-priced commercial test preparation courses. Hooker-Haring pointed out that Muhlenberg has no idea who has taken such courses and who has not, subverting claims that the SAT and ACT offer schools "standardized" and "objective" means of comparing students from different high schools.<sup>72</sup> In the fact sheet released when the policy change was announced, Muhlenberg noted that "recent studies have shown that performing on standardized tests is a skill that can be developed with practice and coaching" and that the susceptibility of tests to coaching "certainly removes an element of 'standardization' and gives further advantage to those who are affluent enough to afford coaching."

Beyond the narrow consideration of correlation data, however, the admissions staff also argued that whatever benefits accrue from using the tests do not justify the costs. Benefits, based on test score/grade correlation data, include a slightly greater ability to predict first-year academic performance. However, as Muhlenberg noted in its question-and-answer fact sheet, College Board data indicate "that the SAT adds between .06 and .08 of predictive

"The negative or exclusionary impact of the SAT falls most heavily on minority and low income groups of students because they tend to score lower on the test."

power to the high school record."<sup>73</sup> Even those increases are calculated just by comparing first-year grade-point average alone to grade-point average plus test scores, omitting any of the other criteria admissions counselors use to make selection decisions.

The costs of the test score requirement were considerable: many students chose not to apply, particularly minority, first-generation and low-income students. Muhlenberg knew from the experiences of other test-optional schools that these students were deterred by its SAT/ACT requirements. High school counselors had also confirmed that some students were put off by the test score criteria. "The negative or exclusionary impact of the SAT falls most heavily on minority and low income groups of students because they tend to score lower on the test," Muhlenberg's fact sheet noted. According to Hooker-Haring, Muhlenberg admissions officers and faculty members were impressed by the rise in applications experienced by Bates College after it switched to an optional policy.

In the two years since the test-optional policy was put into place, Muhlenberg has experienced a more than 25 percent increase in applications, posting two consecutive record years and exceeding 3,000 applicants for the first time. Of those, some 15 percent have chosen not to submit standardized test scores. There have not yet been significant changes in the numbers of minority or other underrepresented applicants, but Muhlenberg is receiving more applications from minority students who attend high schools which have not traditionally been feeder schools. Wheaton College in Norton, Massachusetts, which implemented its optional policy in 1992, has also received more applications from minority students and has set up a special pipeline to a predominantly minority inner-city high school in Philadelphia. Many of the applicants from that school choose not to submit test scores.<sup>74</sup>

To handle the increase in applicants and the greater demands placed on admissions officers by the policy shift (reading the nonsubmitters' graded papers), Muhlenberg added one person to its admissions staff. Since Muhlenberg already takes the time to read each application twice, the extra work load required just a small increase in the number of admissions personnel. Hooker-Haring noted that he has warned the College Board that underinvestment in admissions is a danger because it encourages colleges and universities to rely more heavily on such easy-to-quantify criteria as standardized admissions test scores. Again, he says, this applies to the 800 or so schools that also read applications at least twice.<sup>75</sup>

Underinvestment in admissions is a danger because it encourages colleges and universities to rely more heavily on such easy-to-quantify criteria as standardized admissions test scores.

From a marketing standpoint, Hooker-Haring explained, Muhlenberg has been very happy with the new admissions policy. In addition to the increase in applications, Muhlenberg has earned the goodwill of many high school counselors, parents and students. The new law governing admissions policies was specifically designed to counter the negative effects of the Hopwood decision, a federal court ruling that barred the use of affirmative action in Texas public university admissions.

### D. Texas Public University System

"Our ability to enroll a diverse class while maintaining high academic standards is certainly due in large part to HB [House Bill] 588."

-- Dr. Bruce Walker, Associate Vice President and Director of Admissions, University of Texas (UT), Austin, describing the impact of a new Texas law deemphasizing the role of the SAT and ACT in making admissions decisions at Texas public four-year universities.<sup>76</sup>

In 1997, Republican Governor George Bush, Jr. signed into law a bill, sponsored by a group of Texas House of Representatives Democrats, that requires the state university system to accept all applicants who finish in the top ten percent of public and independent Texas high schools, regardless of their SAT or ACT scores. For students not falling within the top ten percent, the new law (commonly referred to by its Texas House of Representatives bill number, HB 588) spells out 18 academic and socioeconomic criteria that "each general academic teaching institution" can consider when making admissions decisions. Of these 18, just two mention standardized test score results and, one of those calls for consideration of "... an applicant's performance on standardized tests in comparison with that of other students from similar socioeconomic backgrounds." "77

The new law governing admissions policies, Subchapter S of Chapter 51 (the Texas Education Code), was specifically designed to counter the negative effects of the *Hopwood v. the University of Texas School of Law* decision, a federal court ruling that barred the use of affirmative action in Texas public university admissions. With its swift and strong response, Texas has now become a leader in the national movement to seek alternatives to test score-based admis-

sions practices.

In 1996, the United States Supreme Court decided not to review a federal appeals court ruling barring the Univ. of Texas Law School from pursuing affirmative action in its admissions policies. Texas Attorney General Dan Morales subsequently adopted a broad interpretation of the court's decision in *Hopwood*, ruling that none of the state's public universities would be allowed to use racial preferences in admissions and financial-aid decisions.

The impact of the ruling was dramatic: in the fall of 1997, just 4 African American and 26 Mexican American students enrolled at the University of Texas Law School, down from 31 African Americans and 42 Mexican Americans the year before.

Anticipating similar results at the undergraduate level, the Texas Higher Education Coordinating Board (THECB) established an Advisory Committee on Criteria for Diversity to analyze alternative admissions policies and criteria. Composed of faculty members from throughout the Texas public higher education system, the Committee was charged with studying how to maintain diversity at public colleges and universities in Texas.

The Committee's report, issued early in 1997, sought to identify factors that block access to higher education in Texas for underrepresented groups. Based on its research, the Committee concluded:

". . . the use of standardized tests unduly limits admissions. It also has a chilling effect on the motivations and aspirations of underserved populations. The debate about the appropriateness of standardized tests has a long history, and certain elements are generally agreed upon. The

"... the use of standardized tests unduly limits admissions. It also has a chilling effect on the motivations and aspirations of underserved populations. "In particular, standardized test scores should never be used as a sole screening factor where a low score alone bars an applicant from admissions without the consideration of other qualifications and accomplishments.". tests indicate some level of readiness to do college work, but scores are better predictors for some students than others. Except at the extremes, SAT/ACT scores do not adequately predict grades in core freshman courses or the probability of college graduation."<sup>78</sup>

At the conclusion of its report, the Committee sent to the full Coordinating Board a set of recommendations designed to promote more widespread access to higher education in Texas and to mitigate, at least in part, the damaging impact of the *Hopwood* decision. A key recommendation addressed standardized admissions testing:

"SAT/ACT and other standardized tests should be used for student counseling and curriculum development but should not be utilized as a major criterion in student admissions processes or in the awarding of financial assistance. In particular, standardized test scores should never be used as a sole screening factor where a low score alone bars an applicant from admissions without the consideration of other qualifications and accomplishments."<sup>79</sup>

Spurred by the THECB Committee recommendation, Texas law-makers filed more than two dozen bills to address public university admissions rules. After lengthy debate, both houses finally approved and Governor Bush signed into law House Bill 588 which added the following significant provisions to the Texas Education Code:

Sec. 51.803.(a) AUTOMATIC ADMISSION: ALL INSTITUTIONS:

Each general academic teaching institution shall admit an applicant for admission to the institution as an undergraduate student if the applicant graduated in one of the two school years preceding the academic year for which

the applicant is applying for admission from a public or private high school in this state accredited by a generally recognized accrediting organization with a grade-point average in the top 10 percent of the student's high school graduating class.

The bill also stated:

Sec. 51.804. ADDITIONAL AUTOMATIC ADMISSIONS: For each academic year, the governing board of each general academic teaching institution shall determine whether to adopt an admissions policy under which an applicant to the institution as a first-time freshman student, other than an applicant eligible under Section 51.803 (see above), shall be admitted to the institution if the applicant graduated from a public or private high school in this state . . . with a grade point average in the top 25 percent of the applicant's high school graduating class.<sup>80</sup>

Under the new law, applicants not qualifying for automatic admission will be evaluated based on institution-specific criteria which can include any combination of eighteen factors spelled out in the new law. In addition to the two mentions of standardized testing described above, these factors include high school academic record, the applicant's socioeconomic background (including household income), whether the applicant is the first generation from his or her family to attend college, and personal interviews.

Texas public universities have also intensified their recruitment activities. At the University of Texas at Austin, for example, officials focused those efforts on students in the top ten percent of their high school classes. Early in the fall of 1997, UT admissions officers identified 13,000 such students and sent them letters.<sup>81</sup> Texas A&M sent out admissions officers with financial aid representatives as part of its outreach, who joined representatives from the other

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HB 588 "has allowed us to take back some of the ground I think we lost following the Hopwood decision."

Texas public universities to explain the ten percent rule to high school counselors and students. A&M also was aggressive about explaining that there were alternative means of gaining admission to the school and that students below the top ten percent should not be discouraged.<sup>82</sup>

#### The Results

In testimony before the Higher Education Committee of the Texas House of Representatives, University of Texas at Austin Director of Admissions Bruce Walker described the pool of applicants for the 1998 freshman class as larger and more diverse than the 1997 pool. He noted that HB 588 "has allowed us to take back some of the ground I think we lost following the *Hopwood* decision." Preliminary numbers for the incoming class of 1998, the first year under the new admissions law, show modest increases in the numbers of African American (from 2.7 percent to 2.9 percent of the class) and Latino students (from 12.6 percent to 13.2 percent) who plan to enroll at the Austin campus. Texas A&M also reports likely increases in the number of minority students attending in Fall 1998.

Walker cited a study of applicants' behavior from 1990 to 1997, noting that an average of 4,600 top ten percent students applied each year during that period. The number of top ten percent applicants in 1998 was higher than any year in the study, due in part to the University's more intensive outreach to that cohort. Walker added that in 1998 there were more Hispanic (48.9 percent of Hispanic freshmen) and Asian top ten percent applicants than in any year covered in the study. The number of top ten percent African American students, 36.9 percent of African American freshmen, was the highest since 1993. "Our ability to enroll a diverse class while maintaining high academic standards is certainly due in large part to HB 588," Walker testified. At Texas A&M, officials expect

the yield among top ten percent students offered enrollment to climb 14%.

According to Walker, the part of HB 588 that codified what criteria the schools should use for making admissions decisions — the 18 factors — has given the University of Texas at Austin greater flexibility and has helped put a broader range of student achievement into context. Using those guidelines, admissions officers were able to "look at students wholistically" and "select students who will distinguish themselves."<sup>84</sup>

Some of the other, less selective public universities in Texas also reported changes in their admissions processes and results. The University of Houston, which had already admitted the top ten percent before HB 588, now admits the top 25%, provided they obtain a minimum high school grade-point average of 2.5 and meet core course requirements. The school has almost doubled the number of applications it receives from black and Hispanic students. Twenty-five percent of applicants are in the top ten percent of their high school classes, a figure that is equal across different ethnic groups. Grade-point averages across ethnic groups were nearly identical; only test scores differed.<sup>85</sup>

The results in Texas stand in stark contrast to what has happened in California. In 1998, the first year in which California's statewide ban on affirmative action applied to undergraduate admissions, the number of African Americans, Latinos and Native Americans offered enrollment at Berkeley dropped by more than 55 percent. At the eight schools in the University of California system, the total of African Americans accepted dropped by 17 percent and Chicanos/Latinos by 7 percent. The declines would have been far steeper if U.C. Riverside had not significantly expanded its total

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By rewarding students who excel in their academic environments, a top ten percent type rule does not penalize students who may not be good test takers but who have otherwise proven their academic prowess.

enrollment, accepting 100 more African Americans and 500 more Latinos.

The Texas solution should help other public systems — even those where affirmative action policies are still in place — develop alternative approaches to admissions. With bipartisan political support and a clear basis in academic performance, the top ten percent solution promotes the twin goals of equity and excellence. By rewarding students who excel in their academic environments, a top ten percent type rule does not penalize students who may not be good test takers but who have otherwise proven their academic prowess. Moreover, the emphasis on reading more closely the applications of students not in the top ten percent offers a model for how large public universities can approach admissions on a more individualized basis.

### E. California State University System

The Master Plan for Higher Education in California recommends that the State University (CSU) establish its freshman eligibility criteria such that the top one-third of the public high school graduating seniors are eligible to enroll as freshmen. In California's public higher education system, the 22 campuses of the State University fill the large niche between the University of California (9 campuses serving the top 12.5 percent of the state's high school graduates under the Master Plan) and the community college system. At both CSU and the University of California, eligibility does not guarantee admission to a particular campus, but it does guarantee acceptance at one institution in the system.

As of Fall 1998, California high school graduates who complete the required 15 college preparatory courses can gain eligibility for CSU

either by achieving an overall grade-point average (GPA) of 3.0 or greater in their tenth, eleventh, and twelfth grade courses, excluding physical education and military science, or by earning an overall grade-point average between 2.0 and 2.99 and having SAT or ACT scores that qualify on the State University's Eligibility Index. Students with GPAs above 3.0 do not need to submit ACT or SAT scores. (For the University of California system, students with high school GPAs above 3.3 are automatically eligible and do not need minimum SAT or ACT scores, but they must take the tests.) In 1996, the CSU eligibility pool represented 29.6 of California's public high school graduates.

The California State University (CSU) system's mission includes providing access to higher education for traditionally excluded groups. By deemphasizing test scores, CSU, which serves 276,000 undergraduates, has simultaneously succeeded in raising academic standards and promoting diversity: the student body in CSU institutions was 38.3 percent underrepresented minority in 1997, up from 22 percent in 1988.86 In 1997, 73 percent of first-time freshmen were admitted on the basis of a minimum high school grade point average (HSGPA) of 3.0 and completion of minimum collegepreparatory curriculum. Students who complete the college preparatory curriculum but who fall below a 3.0 HSGPA are evaluated on the basis of a test score/HSGPA index. Students who are still not eligible are considered for "special admissions" if they have special talents or are members of protected groups. Up to 8% of first-time freshmen can be admitted in these categories. Thus, the overwhelming majority of applicants to CSU are eligible through one or another of the alternative means of admission.

CSU leaders are fully aware of the connection between test scores, lack of diversity and poor educational quality. Keith Ian Polakoff,

By deemphasizing test scores, CSU, which serves 276,000 undergraduates, has simultaneously succeeded in raising academic standards and promoting diversity: the student body in CSU institutions was 38.3 percent underrepresented minority in 1997, up from 22 percent in 1988.

"We know from experience that if a kid meets the high school grade point average minimum but their test scores are low, that usually means that their parents didn't go to college."

Associate Vice-President for Academic Affairs at CSU, Long Beach, said, "I don't like test scores, and all the top administrators feel the same way. In fact, the whole CSU system has a mistrust of multiple-choice instruments. We've raised standards without raising test scores by focusing on core curriculum and HSGPA minimum." Pointing out the correlation between test scores and a student's socio-economic status, he said, "We know from experience that if a kid meets the high school grade point average minimum but their test scores are low, that usually means that their parents didn't go to college." According to Allison Jones, Senior Director of Access and Retention at the California State University Office of the Chancellor, the system's Eligibility Index was constructed using correlation data which show that high school grades, whatever their flaws, predict success at CSU twice as well as either the SAT or ACT:

The analysis of the correlation at CSU between the high school grade point average and success at CSU — which we define as persistence to the second year of study — and the analysis of correlation between the student's test scores and success at CSU, again continue to demonstrate the high school grade point average is about twice as effective in predicting success as are test scores.<sup>89</sup>

CSU has never required specific test scores from applicants who meet the minimum grade-point average criteria. Recently, CSU has been confronted with a growing number of incoming students who meet grade-point average criteria but who require remedial education once on campus. On some campuses, such as Long Beach, as many as half the students who were regular (meeting either grade-point requirements or the grade-point average/test score index requirements) rather than special admits need remediation. Long Beach and several of the other CSU campuses have high percentages of Limited English Proficiency (LEP) and English as a Second

Language (ESL) students who did well in high school but who require English remediation once on campus. Public universities across the country, including the City University of New York (CUNY), are facing similar situations.

In May 1998, trustees of CUNY voted 9-6 to require students who want to attend one of the system's 11 four-year campuses to pass three placement exams. The policy will be phased in over a three-year period beginning in 1999. According to the 1996 book, *Changing the Odds*, 90 nearly a quarter of a million New Yorkers who would otherwise have been shut out of college have gone on to receive degrees from CUNY. One of the authors of that study, David Lavin, has calculated that the new policy would bar 38 percent of whites, 67 percent of African Americans, 70 percent of Latinos and 71 percent of Asians from the four-year schools. Half of these students are immigrants.

The change at CUNY was pushed by New York Mayor Rudi Guliani who decried the high number of system students requiring remedial education. However, in 1995, 72 percent of America's four-year colleges offered such classes, including 80 percent of public institutions. CUNY's most prestigious school, the City College School of Engineering, ranks as one of the top producers of minority engineers nationwide. A significant number of engineering graduates begin with remedial calculus. Students who need one or two remedial courses graduate at only a slightly lower rate than students who do not need remediation.

According to Polakoff, "there has been no discussion of instituting test requirements" for students who meet the current high school GPA standard because CSU does not want to retreat from its historic mission of serving as an access-oriented institution.<sup>91</sup> In the

"There has been no discussion of instituting test requirements" for students who meet the current high school GPA standard because CSU does not want to retreat from its historic mission of serving as an accessoriented institution.

If any changes in the acceptance rate are needed, administrators expect to adjust the HSGPA/test score index for students whose HSGPA is under 3.0, rather than to alter the test score exemption for students who meet gradepoint average criteria

past, CSU administrators have stated that if any changes in the acceptance rate are needed, administrators expect to adjust the HSGPA/test score index for students whose HSGPA is under 3.0, rather than to alter the test score exemption for students who meet grade-point average criteria.

Under a bill approved by the California Assembly in August 1998, CSU would be required to set up a pilot program to admit even more students without regard to SAT or ACT scores. The measure, SB 1087, was introduced by Sen. Teresa Hughes (D-Inglewood) and is intended to explore "alternative admissions" criteria.

## IV. Making the Change

Colleges and universities seeking to revamp their admissions processes by deemphasizing standardized tests can tap into a diverse set of experiences at public and private four-year schools that have already taken these steps. As the case studies in this report demonstrate, schools that have gone "optional" have done so for a wide range of reasons and have chosen several different general approaches. Whether the initial impetus for change came from within the institution, as at Bates and Muhlenberg, or from without, as in the legislatively-propelled reforms at the University of Texas system, admissions officers at all these schools are charged with making the new policies work. Fortunately, as the case studies here show, de-emphasizing standardized tests in the admissions process can and does "work" by promoting the twin goals of equity and academic excellence.

Before modifying the use of standardized tests for admissions purposes, schools must understand just how they currently use the SAT and ACT.

Although each college or university must chart its own course when redesigning admissions requirements, the case studies included in this report make clear that there is a process, with a series of roughly similar steps, necessary to develop, implement and market a "test-optional" admissions policy.

#### 1. Carry out a standardized test "audit"

Before modifying the use of standardized tests for admissions purposes, schools must understand just how they currently use the SAT and ACT. There is often widespread misunderstanding about the role standardized tests play in the admissions process, even among faculty members. Potential applicants, parents, high school guidance counselors, and others outside the school may also overor underestimate how much admissions offices rely on the ACT or SAT when making admissions decisions, often because descriptions of requirements and policies are left deliberately vague. Sometimes

If a school now makes little use of the tests for admissions, then a switch to a completely optional policy might have little real impact on how admissions decisions are made but could affect the composition of the applicant pool.

repeat calls to the same institution yield different answers about just how the school uses the tests in its admissions process. At larger universities, individual schools or programs frequently have different test score requirements, further complicating the picture.

It is necessary to clarify current uses of the tests before designing and seeking support for new policies that reduce the role of the SAT or ACT. For many schools, a shift to an SAT-optional admissions policy would have little impact on how the school makes selection decisions. For some institutions however, such a shift would have an impact in areas ranging from the size and shape of the applicant pool, to the resources needed for the admissions office, to the school's reputation among high school guidance counselors. If a school now makes little use of the tests for admissions, then a switch to a completely optional policy might have little real impact on how admissions decisions are made but could affect the composition of the applicant pool. On the other hand, a college that currently relies heavily on the SAT or ACT to help whittle down its applicant pool would have to turn to other methods of selecting students and would likely also experience changes in the nature of its applicant pool. If a university now uses a test scorebased admissions index but wants to replace it with a more individualized approach to selection, changes in the staffing of the admissions office likely will be necessary.

While some colleges, universities or university systems have eligibility or admissions formulas with fixed test score requirements, in violation of testmakers' guidelines, most schools appear to have more flexible policies regarding applicants' test scores. That is, most schools lack formal policies setting out test score requirements for some or even most of their applicants. For example, some schools require no test scores from applicants who been out of high

school for several years, maybe four or five. On the other hand, some schools require scores from these students but pay them little heed. Similarly, some admissions offices already have policies in place to adjust scores for applicants from certain groups. Admissions officers at the Massachusetts Institute of Technology, for example, use separate test score/grade-point average indices for men and women.<sup>92</sup>

Any scholarship programs that rely exclusively on SAT or ACT scores, with cutoffs, should be restructured since the test are not meant for such precise use.

Just how an admissions office uses the test is also very significant. In some cases, tests could be used as an initial screening device but are not scrutinized subsequently. Alternatively, test scores sometimes serve as "tie-breakers," evaluated only when two or more candidates are closely matched in other ways. Test scores might be weighted so that they have more significance than grades or class rank, or given less weight than high school performance.

Finally, some schools use standardized test scores to make decisions about "merit" scholarships and placement. Any scholarship programs that rely exclusively on SAT or ACT scores, with cutoffs, should be restructured since the tests are not meant for such precise use. Using such cutoffs also violates test maker guidelines for proper use. Moreover, women will likely receive a disproportionately small share of such scholarships (see Appendix C).

2. Examine whether first-year grade point average is too narrow a criteria Both the SAT and ACT are designed solely to predict first-year college grades. However, schools should ask whether first-year grades are the most important criteria and whether there are alternate criteria that would provide a better prediction of a student's ability to persist and achieve beyond the first year. In the Winter 1998 issue of *Priorities*, the newsletter of the Association of Governing Boards of Universities and Colleges, William Sedlacek defined

"It appears that noncognitive variables should be used in higher education admission.
They have demonstrated validity in predicting student success and retention rates, particularly for minorities."

some of the limitations of using first-year grades as the primary criteria for assessing the value of test scores:

"Most scholars who research human abilities agree that the attributes first-year college students need to succeed differ from those they subsequently need. Typically, the first year of any curriculum is more didactic. Students learn facts and basic concepts in different disciplines. In later years, students are required to be more creative and to synthesize and reorganize their thoughts. Many students who do not do well in the first year often shine in their majors and in their later years of studies." <sup>93</sup>

Sedlacek, a professor of education and director of testing at the University of Maryland, College Park, adds that "standardized tests do not measure motivation, study habits, personal or professional goals, and other factors that can affect academic performance and persistence to graduation," <sup>94</sup> which is why so many schools no longer use the SAT or ACT to make admissions decisions about some or all applicants.

In previous research, Sedlacek has shown that considering outcomes other than first-year grades, such as persistence and graduation, further weakens the usefulness of the SAT and ACT. Sedlacek found that "student attitudes and expectations at matriculation are related to graduation five and six years later." That study found these types of noncognitive factors to be significantly related to graduation while such traditional measures of academic ability as the SAT were not.<sup>95</sup> At the conclusion of a 1989 article in the *Journal of College Admissions*, Sedlacek wrote:

"... it appears that noncognitive variables should be used in higher education admission. They have demonstrated validity in predicting student success and retention rates, particularly for minorities. Noncognitive variables have also been shown to have validity in predicting both undergraduate and postgraduate student success."96

Bates is one of the schools that studied student self-assessments and other variables to identify factors that predict performance on is campus. Instead of using first-year grade-point average as the criterion, Bates chose cumulative grade-point average since "overall performance was, in the final analysis, of greater interest to admissions officers."

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Trusheim question the
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#### 3. Review validity studies and validity study methodology

According to a 1985 survey by the American Association of Collegiate Registrars and Admissions Officers (AACRAO), only about half of four-year public colleges and universities, and about 40 percent of private four-year colleges and universities, said they conduct or commission predictive validity studies.<sup>97</sup> Most of these rely on the Validity Study Service (VSS) started by the Educational Testing Service (ETS), which manufactures the SAT, in 1964. Both the College Board and ACT call for validity study updates at least every five years.

The VSS was established to help colleges use the SAT to predict applicants' first-year college performance. The service helps colleges choose the predictors, usually test scores and grades, and calculates the regression equations to obtain the best prediction of first-year grades (or in some cases, an alternate outcome). Data from the previous year or years are used.

In their comprehensive critique, *The Case Against the SAT*,<sup>98</sup> James Crouse and Dale Trusheim question the importance of validation and correlation studies that fail to take into account the real world use of standardized admissions tests. "SAT scores can provide

"If a college that used the high school record and SAT were to admit and reject the same students with or without the SAT, dropping the test could not harm the college's admissions decisions."

important information only when they lead admissions officers to make admissions decisions they would not have made without SAT scores," the authors write.<sup>99</sup> In a 1991 study, published in the Harvard Education Review (HER), Crouse and Trusheim propose improvements to the College Board's traditional validity studies.

Crouse and Trusheim say VSS's methods "are significantly flawed, and this leads colleges to misleadingly positive conclusions" about the SAT. They suggest adding two tables to VSS reports to provide colleges with data showing "how much dropping the SAT and relying on only the high school record might hurt admissions decisions." 100

The two suggested additions include a "Crosstabulation of Predicted Grades" and a table predicting "College Outcomes." The first would show the extent to which a college would admit the same students regardless of whether it uses the high school record or the high school record plus SAT scores. The second would show to what degree adding the SAT to the high school record improves the rate of college graduation, the average high school grades of admitted students, and the percent of admitted students with average first-year grade-point averages above 2.5. They argue, "If a college that used the high school record and SAT were to admit and reject the same students with or without the SAT, dropping the test could not harm the college's admissions decisions." <sup>101</sup>

While such information would be very revealing for most institutions, the authors say, "It is clear that the changes we recommend in the VSS will not be considered by the [College] Board or ETS unless colleges demand them. Colleges that use the VSS should inform ETS and the Board directly that these small changes to the VSS ought to be implemented." <sup>102</sup>

In addition to the changes proposed by Crouse and Trusheim, colleges need to understand the effect of the tests on different applicant groups. Separate prediction and tabulation tables should be constructed by gender, by ethnicity, by family income, by age and by whatever other criteria colleges believe would affect performance. In addition, schools should look at how well the tests predict such other outcomes as graduation rates and four-year grades. Test makers' guidelines already instruct colleges and universities to do this, but few apparently do so.

At Muhlenberg, for example, the evaluation of test score use was embedded in a broader debate about how to make the school a more diverse institution while preserving its rigorous academic standards.

In 1998, an updated validity study service, Admitted Class Evaluation Service (ACES), was launched. Through ACES, the College Board can produce Indices of Predicted Success for current and future students using factors (such as grade-point average, test scores, and evaluations of essays by readers) and outcomes (first-year grades) selected by the college or university. ACES will break down those statistics by ethnic groups, gender, or other subgroup identified by the school. The updated validity study service does not address the concerns raised by Crouse and Trusheim.

#### 4. Look at Diversity and Outreach Issues

While it is important to gain a precise understanding of how a college is using standardized admissions tests, how well those tests predict performance at the institution, and whether there are alternatives that predict as well or better, it is also important to engage in a broader debate about a school's admissions goals and how to achieve them. At Muhlenberg, for example, the evaluation of test score use was embedded in a broader debate about how to make the school a more diverse institution while preserving its rigorous academic standards. In Texas, the reworking of admissions requirements came in response to the harsh impact of the *Hopwood* deci-

Research in California and Texas after the bans on affirmative action in those states, and the experiences and research at private liberal arts colleges like Bates, Union College in New York, Bowdoin and Muhlenberg, all identify standardized tests as practical bars to admission for academically qualified high school students from underrepresented groups.

sion and concerns about keeping the system's campuses open, accessible and high-quality.

Correlation data will not reveal anything about potential applicants being deterred by test score requirements. In Texas, higher education officials were deeply concerned with making sure that students from underrepresented groups still felt welcome at the state's public universities after the *Hopwood* ruling. Both Bates and Muhlenberg wanted not only to develop better, more equitable ways of evaluating applicants, they also wanted to expand their applicant pools by signaling their openness to students with different learning styles and from a wide variety of backgrounds.

Research in California and Texas after the bans on affirmative action in those states, and the experiences and research at private liberal arts colleges like Bates, Union College in New York, Bowdoin and Muhlenberg, all identify standardized tests as practical bars to admission for academically qualified high school students from underrepresented groups. Schools that have deemphasized the tests have all stated that they believe SAT and ACT requirements signal applicants from these groups that they are not welcome on campus.

To evaluate these outreach issues, schools need to know who is applying, who from the pool of potential applicants is not applying and why, and whether the current mix is in keeping with the school's mission. Schools should look at the mix of high schools, cities, regions, and states that are providing applicants. Which students from those schools are applying? Are top students from low-income areas applying and enrolling in a public university? Is a college developing new sources of applicants, especially applicants from underrepresented groups?

Changing patterns of application and enrollment requires modifications not just of admissions requirements but also of financial aid and outreach programs.

#### 5. Consider Broader Admissions Issues

"I've come to feel that the access-to-higher-education problems, especially for people in the bottom two income quartiles in America, are so important and we're on balance doing such a poor job at encouraging and convincing these young people to go to college that I'm more inclined to say colleges should find some other ways to do admissions that don't automatically screen out so many people."

-- William Hiss, Vice President for Administrative Services, Bates College<sup>103</sup>

Colleges and universities are critical gateways to economic and social success in contemporary U.S. society, and their decisions about who can attend — and how those decisions are made — are of great significance. Public universities in particular must promote both access and academic excellence. In Texas, the court ban on racial preferences has prompted a broad reconsideration of the role of standardized test scores, in large part because of the recognition that SAT and ACT requirements close doors to promising minority, low-income, first-generation and rural students. A similar debate is taking place in California.

#### 6. Develop Admissions Alternatives

Schools that have de-emphasized standardized tests have done so in a variety of ways. The two basic approaches are making submission of test scores optional for all applicants, and exempting stuIn Texas, the court ban on racial preferences has prompted a broad reconsideration of the role of standardized test scores, in large part because of the recognition that SAT and ACT requirements close doors to promising minority, low-income, first-generation and rural students.

The new law has given the University of Texas greater flexibility to seek out students who admissions officers believe can perform well, regardless of their test scores.

dents with proven high school records from submitting test score results. Each of these approaches has numerous variants and might include requiring students who do not submit test scores to send in a graded paper (as at Muhlenberg) or some other work product.

For smaller colleges like Muhlenberg and Bates, admissions officials already review individual applications and know far more about each student than just their test scores and grades. For large institutions, establishing additional or alternative criteria that admissions officials can turn to, including family background, extracurricular activities, and community involvement, will give admissions officers greater flexibility than if they rely strictly on test scores and grades.

For the biggest public universities, the issues are different. Again, the new Texas approach provides some lessons. As the Director of Admissions for the University of Texas at Austin noted, his school has made admissions decisions on a more individualized basis for those students not automatically admitted under the top ten percent provision. The new law has given the University of Texas greater flexibility to seek out students who admissions officers believe can perform well, regardless of their test scores. Texas has had to add admissions counselors to its staff but this is not surprising when moving away from formula-based admissions.

#### 7. Build Support for New Admissions Policies

Mechanisms for making decisions about instituting broad admissions policy reforms vary from college to college. In some cases, faculty members will vote on whether to drop tests while in others,

reforms may be brought about by changes in state law (Texas) or policy changes at the trustee or regents level (California).

In each of these cases, either the school's admissions office or a special faculty task force or commission will provide an overview of the issues connected with standardized testing at a school or system. Such a report should make note of current uses of the tests, the real impact the tests have on admissions decisions, the effects of test requirements on different groups (by gender, ethnicity, income, age and region), any data about the impact of test requirements on potential applicants who choose not to apply, correlation data (using overall grade-point average and graduation rates) by subgroup, and any available data about the role of test coaching. Beyond the data, the report should also lay out the ethical issues connected with standardized testing, including impact on education, psychological and financial cost to students, equal access to higher education, and mistaken notions about what constitutes merit.

Bates College has thoroughly documented its evaluation of the role of standardized tests. The Texas Higher Education Coordinating Board also examined the role of standardized tests at public universities in that state, as did the Latino Eligibility Task Force for California. There are also numerous general studies of the SAT, ACT and other standardized tests.

#### 8. Publicize Admissions Reforms

Once new admissions criteria have been put into place, it is very important to publicize them to potential applicants, high school guidance counselors, parents, and the wide range of print and Internet guides that report college admissions requirements. In

Beyond the data, the report should also lay out the ethical issues connected with standardized testing, including impact on education, psychological and financial cost to students, equal access to higher education, and mistaken notions about what constitutes merit.

Public universities that make a systemwide change, as in Texas, need to reach even deeper into the pool of potential applicants. In particular, high schools that have not traditionally fed students into the more selective public campuses need attention, including visits from admissions and financial aid counselors.

Texas, for example, university officials have found that many high school students still do not know very much about the 10 percent rule or that some institutions accept anyone in the top 25 percent of their class.

For smaller private colleges, publicity should include a press release/fact sheet, along the lines of Muhlenberg's (see page 25), notification of the school's traditional feeder high schools, and distribution of information to the broader community of guidance counselors. Noting the change on a World Wide Web site is also critical. Presentations at local and national meetings of guidance counselors is another way to reach a relevant audience.

Public universities that make a systemwide change, as in Texas, need to reach even deeper into the pool of potential applicants. In particular, high schools that have not traditionally fed students into the more selective public campuses need attention, including visits from admissions and financial aid counselors. The University of Texas also sent letters to top students and phoned more than 20,000 prospects.

### V. Conclusion

The successful experience of schools included in these case studies, and those of the hundreds of other institutions that have deemphasized standardized tests in admissions, make it abundantly clear that there is "life after the SAT" (or ACT). For the majority of institutions that do not rely heavily on standardized tests in making admissions decisions, the transition to a test-optional policy could take place smoothly. For those schools that already read individual applications at least once, SAT and ACT scores can easily be dropped or de-emphasized. Even such large schools as the University of Texas at Austin and the University of California at Berkeley have begun to take a more individualized approach to evaluating applications materials.

The gains to individual schools of de-emphasizing the ACT and SAT, in terms of the diversity and quality of applicants, is very clear from the case studies included here.

The gains to individual schools from de-emphasizing the ACT and SAT, in terms of the diversity and quality of applicants, is very clear from the case studies included here. Broader gains, particularly for academically qualified students from underrepresented groups, also accompany moves toward test-optional admissions.

The best admissions policies offer the most flexibility and permit applicants to demonstrate their potential in a variety of ways. Standardized test results may be part of the overall picture that an applicant wants to paint of his or her academic prowess. However, *students should not be required to submit test scores*. Reforms at the K-12 level will widen the gap between what is taught in high school classrooms and the narrow set of skills necessary to do well on the SAT or ACT. More and more first-time freshmen will come from groups such as linguistic minorities for whom the test often underpredicts success in college.

"We are mired in a testocracy that, in the name of merit, abstracts data from individuals, quantifies those individuals based on numerical rankings, exaggerates its ability to predict those individuals' future performance, and then disguises under the rubric of 'qualifications' the selection of those who are more socio-economically privileged. Only by rethinking our assumptions about the current system and future possibilities can we move toward the ideals that so many Americans share." 104

#### **Notes**

- 1. "Merit and Opportunity: Testing and Higher Education at the Vortex," Nancy Cole, President, Educational Testing Service, paid opinion editorial, New York Times, September 19, 1997, p. A25
- 2. "Taking the SAT I: Reasoning Test," The College Board, 1997-98 edition, p. 3.
- 3. Eugene Garcia, Dean of the Graduate School of Education at the University of California at Berkeley and Chairman of the Latino Eligibility Task Force, in testimony before the California Senate Select Committee on Higher Education Admissions and Outreach, February 5, 1998.
- 4. Keith Ian Polakoff, Assistant Vice-President for Academic Affairs and Dean of Graduate Studies, California State University, Long Beach. Telephone interview, March 15, 1990.
- 5. James Crouse and Dale Trusheim, *The Case Against the SAT*, Chicago, University of Chicago Press, 1988.
- 6. Barron's Profiles of American Colleges: 21st Edition, Compiled by College Division of Barron's Educational Series, New York, 1996.
- 7. Ernest Boyer, *College: The Undergraduate Experience in America*, New York, Harper & Row Publishers, 1987, p. 34.
- 8. William Hiss, "Optional SATs: Six Years Later," *Bates: The Alumni Magazine*, September 1990, pp. 15-19.
- 9. Office of Academic Affairs, Oregon State System of Higher Education "OSSHE Freshman Academic Performance by Admission Mode for 1988-89 Academic Year," (December 21, 1989).

- 10. Hiss (1990), p. 18.
- 11. Texas Higher Education Coordinating Board: Advisory Committee on Criteria for Diversity, "Second Status Report," January 16, 1997, p. 12.
- 12. Eugene Garcia, Dean of the Graduate School of Education at the University of California at Berkeley and Chairman of the Latino Eligibility Task Force, in testimony before the California Senate Select Committee on Higher Education Admissions and Outreach, February 5, 1998.
- 13. Stockwell, Sarah, Robert Schaeffer and Jeffrey Lowenstein. *The SAT Coaching Cover-Up*, Cambridge, National Center for Fair & Open Testing, 1991.
- 14. "Middlebury Alters Rule Requiring SAT Scores," *Chronicle of Higher Education*, April 22, 1987.
- 15. Hiss (1990), p. 15.
- 16. Ibid., p. 15
- 17. "Questions and Answers About Muhlenberg's Test-Optional Policy," Muhlenberg College.
- 18. Latino Eligibility Task Force (1997), p. 19.
- 19. Ibid., pp. 19-20.
- 20. Mason, William R., former Director of Admissions, Bowdoin College, written communication (August 5, 1987).
- 21. Ibid.
- 22. David Leonard & Jiming Jiang, "Gender Bias and the College Predictions of the SATs: A Cry of Despair," Accepted for publication in *Research in Higher Education*, 40, 3, June 1999, p. 35.
- 23. Ibid., p. 12
- 24. Ibid., p. 35.
- 25. Marcia C. Linn & Cathy Kessel, Participation in Mathematics Courses and Careers: Climate, Grades, and Entrance Examination Scores, Presented at the 1995 AERA Annual Meeting, San Francisco, CA, p. 26.

- 26. Ibid., p. 21.
- 27. U.S. News & World Report 1998 College Rankings, September 1, 1997, p. 99.
- 28. Boyer, p. 97.
- 29. Ibid., p. 66.
- 30. Philip Shelton, Executive Director, Law School Admissions Services, telephone interview, November 1997.
- 31. Christopher Hooker-Haring, Director of Admissions, Muhlenberg College, telephone interview, March 1998.
- 32. William Hiss, telephone interview, March 24, 1992.
- 33. William Hiss, Elizabeth Woodcock and Alice McGrath, "(At Least) 20 Questions: Academic Criteria, Personal Qualities and College Admissions," in *The Journal of College Admissions*, Summer 1984, p. 12.
- 34. "SATs Made Optional for Admission," *Bates Update,* November, 1984, p. 1.
- 35. Ibid.
- 36. Ibid.
- 37. Ibid.
- 38. Hiss (1990), p. 15.
- 39. Bates Update, p. 1.
- 40. William Hiss, "Optional SATs: The First Two Years at Bates College," in *Measures in the College Admissions Process: A College Board Colloquium*, New York, College Entrance Examination Board, 1986, p. 12.
- 41. Bates Update, p. 1.
- 42. Hiss (1990), p. 17.
- 43. Ibid.
- 44. Ibid.
- 45. Ibid.
- 46. "A School Rejects Requiring Tests for Applicants," *New York Times*, November 18, 1990, A17.

- 47. Hiss (1990), p. 17.
- 48. Hiss, telephone interview, November 19, 1990.
- 49. New York Times, Nov. 18, 1990.
- 50. Hiss (1990) p. 17.
- 51. Hiss, telephone interview, March 24, 1992.
- 52. Hiss interview, 1992.
- 53. "Interview With William Hiss," *U.S. News and World Report* Online, 1998 College Rankings, http://www.usnews.com/usnews/edu/college/cobates.htm.
- 54. Julio Sanchez, Acting Director of Admissions, telephone interview, August 1998.
- 55. Peter Van Buskirk, Director of Admissions, interview, July 1991.
- 56. Van Buskirk interview, July 1991.
- 57. "Some Applicants Will be Permitted to Skip the S.A.T." *New York Times*, June 2, 1991.
- 58. Committee on Admissions, Franklin & Marshall College, Interoffice Memorandum re: Optional SAT, (March 19, 1991), pp. 4-5.
- 59. Ibid., p. 4.
- 60. Ibid., p. 4.
- 61. Ibid., p. 5.
- 62. Ibid., p. 5.
- 63. Van Buskirk interview, July, 1991.
- 64. Sanchez interview, August 1998.
- 65. Van Buskirk interview, July 1991.
- 66. Christopher Hooker-Haring, telephone interview, November 1997.
- 67. Hooker-Haring, telephone interview, November 1997.
- 68. "Questions and Answers About Muhlenberg's Test-Optional Policy."
- 69. Hooker-Haring, telephone interview, November 1997.
- 70. Gary Ripple, Director of Admissions, Lafayette, telephone interview, July 1997.
- 71. Hooker-Haring, telephone interview, November 1997.

- 72. Ibid.
- 73. "Questions and Answers About Muhlenberg's Test-Optional Policy."
- 74. Gail Berson, Director of Admissions, Wheaton College, telephone interview, August 1998.
- 75. Hooker-Haring, telephone interview, November 1997.
- 76. Dr. Bruce Walker, Associate Vice President and Director of Admissions, University of Texas at Austin, Testimony before the Texas House of Representatives Higher Education Committee, June 24, 1998.
- 77..Section 1. Chapter 51, Education Code, Subchapter S: Uniform Admission Policy, Sections Chapters 51.803-51.805.
- 78. Texas Higher Education Coordinating Board: Advisory Committee on Criteria for Diversity, "Second Status Report," January 16, 1997, p. 12.
- 79. THECB Advisory Committee on Criteria for Diversity report, p. 15.
- 80. Section 1. Chapter 51, Education Code, Subchapter S: Uniform Admission Policy, Sections Chapters 51.803-51.805.
- 81. Augustin Garza, Deputy Director, Office of Admissions, University of Texas at Austin, Testimony before the Texas House of Representatives Higher Education Committee, June 24, 1998.
- 82. Ronald Douglas, Provost, Texas A&M University System, Testimony before the Texas House of Representatives Higher Education Committee, June 24, 1998.
- 83. Walker testimony before Texas House Higher Education Committee, June 24, 1998.
- 84. Walker testimony before Texas House Higher Education Committee, June 24, 1998.
- 85. Director of Admissions, University of Houston official, testimony before the Texas House of Representatives Higher Education Committee, June 24, 1998.

- 86. Cal State Statistics (web site reference), http://www.calstate.edu, "Systemwide Enrollment by Ethnic Group, Number and Percent of Total," from Fall 1988.
- 87. Polakoff, Keith Ian, Assistant Vice-President for Academic Affairs and Dean of Graduate Studies, California State University, Long Beach, telephone interview, March 15, 1990.
  88. Ibid.
- 89. Allison Jones, Testimony before the California Senate Select Committee on Higher Education Admissions and Outreach, February 5, 1998.
- 90. David Lavin & David Hyllegard, *Changing the Odds,* New Haven. Yale University Press, 1996.
- 91. Polakoff, telephone interview, July 1998.
- 92. Elizabeth S. Johnson, "College Women's Performance in a Math-Science Curriculum: A Case Study," *College & University*, Spring 1993/Summer 1993, pp. 74-78.
- 93. William Sedlacek, "Multiple Choices for Standardized Tests," *AGB Priorities*, Newsletter of the Association of Governing Boards, Number 10, Winter 1998, pp. 5-6.
- 94. Sedlacek (1998), p. 6.
- 95. William Sedlacek and Terence Tracey, "Prediction of College Graduation Using Noncognitive Variables by Race," Research Report 2-86, Counseling Center, Office of Vice Chancellor for Student Affairs, University of Maryland at College Park, 1986, p. 12. 96. William Sedlacek, "Noncognitive Indicators of Student Success," *Journal of College Admissions*, Fall 1989, pp. 2-6.
- 97. Breland, Hunter M., Gita Wilder and Nancy J. Robertson, *Demographics, Standards, and Equity: Challenges in College Admissions*, (American Association of Collegiate Registrars and Admissions Officers, American College Testing Program, College Board, Educational Testing Service and National Association of College Admissions Counselors, 1986), p.51, as cited in Crouse and Trusheim, *The*

Case Against the SAT, p. 42.

98. James Crouse and Dale Trusheim, *The Case Against the SAT*, Chicago, University of Chicago Press, 1988.

99. Ibid., p. 6.

100. James Crouse and Dale Trusheim, "How Colleges Can Correctly Determine Selection Benefits From the SAT," *Harvard Education Review*, Vol. 61, No. 2, May 1991, p. 125.

101. Crouse and Trusheim (1991). p. 130.

102. Crouse and Trusheim (1991). p. 144.

103. "Interview With William Hiss," *U.S. News and World Report* Online, 1998 College Rankings, http://www.usnews.com/usnews/edu/college/cobates.htm.

104. Susan Sturm and Lani Guinier, "The Future of Affirmative Action: Reclaiming the Innovative Ideal," *California Law Review*, Volume 84, Number 4, July 1996.

# **APPENDICES**

- A. List of 281 4-Year Schools That Have Eliminated or Reduced Test Score Requirement
- **B. Graduate Level Admissions**
- C. Gender Bias on the SAT
- D. SAT Fact Sheet

# 281 Schools Which Have Eliminated or Reduced SAT and ACT Requirements for Admission Into Bachelor Degree Programs

This list includes colleges and universities that do not use the SAT or ACT to make admissions decisions about at least some freshman applicants. Some schools exempt students who meet gradepoint average criteria while others may require SAT or ACT scores but use them only for placement purposes. Please check with the school's admissions office to learn more about specific admissions requirements.

AK AL	Sheldon Jackson College, Sitka Alabama State University, Montgomery <sup>1</sup> Miles College, Fairfield <sup>1</sup> Oakwood College, Huntsville <sup>1</sup> Selma University, Selma <sup>1</sup> Stillman College, Tuscaloosa <sup>1</sup>	СО	Patten College, Oakland San Diego State University (CSU), San Diego San Francisco State Univ. (CSU), San Francisco San Jose State University (CSU), San Jose Sonoma State University (CSU), Rohnert Park National College, Denver
	Troy State University, Montgomery		Nazarene Bible College, Colorado Springs
AR	Philander Smith College, Little Rock <sup>1</sup>	СТ	Charter Oak State College, Newington Connecticut College, New London <sup>5</sup>
	Southern Arkansas University, Magnolia <sup>1</sup> University of Arkansas, Fayetteville	DC	Southeastern University, Washington
	University of Arkansas-Monticello, Monticello		Strayer College, Washington <sup>1</sup>
	University of Arkansas-Pine Bluff, Pine Bluff	DE	Univ. of the District of Columbia, Washington
ΑZ	Arizona College of the Bible, Phoenix <sup>1</sup>	DE FL	Wilmington College, New Castle <sup>1</sup> Bethune-Cookman College, Daytona Beach
	Northern Arizona University, Flagstaff <sup>3</sup> Prescott College, Prescott		Edward Waters College, Jacksonville <sup>1</sup>
CA	Academy of Art College, San Francisco		Florida Memorial College, Miami <sup>1</sup>
	Amer. College for the Applied Arts, Los Angeles		Fort Lauderdale College, Ft. Lauderdale
	Armstrong University, Berkeley		Hobe Sound Bible College, Hobe Sound <sup>1</sup>
	Art Inst. of Southern California, Laguna Beach		Jones College, Jacksonville
	CA Polytechnic State University, San Luis Obispo		Orlando College, Orlando
	CA State Polytechnic University, Pomona		Ringling School of Art and Design, Sarasota <sup>3</sup> Schiller International University, Dunedin
	CSU Bakersfield, Bakersfield		Tampa College, Tampa
	CSU Chico, Chico	GA	American College for the Applied Arts, Atlanta
	CSU Dominguez Hills, Dominguez Hills	<b>U</b> A	Brewton-Parker College, Mount Vernon <sup>1</sup>
	CSU Fresno, Fresno CSU Fullerton, Fullerton		Emmanuel College, Franklin Springs <sup>1</sup>
	CSU Hayward, Hayward		Thomas College, Thomasville
	CSU Long Beach, Long Beach	GU	University of Guam, Mangilao
	CSU Los Angeles, Los Angeles	HI	Hawaii Pacific University, Honolulu
	CSU Northridge, Northridge	ID	Northwest Nazarene College, Nampa <sup>1,3</sup>
	CSU Sacramento, Sacramento	IL	Columbia College, Chicago
	CSU San Bernardino, San Bernardino		East-West University, Chicago
	CSU Stanislaus, Stanislaus		Internat'l Acad. of Mrchndising & Design, Chicago
	Calif. College for Health Sciences, Nat'l City <sup>4</sup>		Olivet Nazarene University, Kankakee <sup>1</sup>
	Golden Gate University, San Francisco		Robert Morris College, Chicago
	Humboldt State University (CSU), Arcata		Shimer College, Waukegan
	Humphreys College, Stockton	IN	Calumet College of St. Joseph, Hammond
	JFK University, Orinda		Indiana State Univ., Terre Haute <sup>1</sup>
	La Sierra University, Riverside <sup>3</sup>		Indiana University East, Richmond <sup>1</sup>
	National University, San Diego	KS	Martin University, Indianapolis Emporia State University, Emporia <sup>2, 3</sup>
	New College of California, San Francisco	ΝO	Fort Hays State University, Hays <sup>1</sup>
	New School of Architecture, San Diego		Tort Hays State Offiversity, Hays

Reformed Bible College, Grand Rapids Kansas State University, Manhattan MidAmerica Nazarene College, Olathe Wayne State University, Detroit3 Bemidji State University, Bemidji<sup>1,3</sup> Pittsburg State University, Pittsburg<sup>1</sup> MN Minnesota Bible College, Rochester University of Kansas, Lawrence<sup>2, 3, 4</sup> Washburn University of Topeka, Topeka<sup>1</sup> National College, St. Paul Wichita State University, Wichita Univ. of Minnesota: Crookston, Crookston KY Clear Creek Baptist Bible College, Pineville Baptist Bible College, Springfield MO Eastern Kentucky University, Richmond<sup>1, 2</sup> Hannibal-LaGrange College, Hannibal<sup>1</sup> Lindsey Wilson College, Columbia<sup>1</sup> Lincoln University, Jefferson City<sup>1</sup> Missouri Baptist College, St. Louis<sup>1</sup> Mid-Continent Baptist Bible College, Mayfield Northern Kentucky University, Highland Heights<sup>1</sup> Missouri Western State College, St. Joseph National College, Kansas City Pikeville College, Pikeville Sue Bennett College, London<sup>1</sup> Ozark Christian College, Joplin<sup>1</sup> LA Grambling State University, Grambling<sup>1</sup> Univ. of Missouri -- Kansas City, Kansas City<sup>7</sup> Grantham College of Engineering, Sidell Magnolia Bible College, Kosciusko MS Louisiana State University, Shreveport<sup>1,3</sup> Tougaloo College, Tougaloo McNeese State University, Lake Charles<sup>1</sup> Salish Kootenai College, Pablo MT Nicholls State University, Thibodaux1 University of Great Falls, Great Falls Northeast Louisiana University, Monroe<sup>1</sup> NC East Coast Bible College, Charlotte1 John Wesley College, High Point Northwestern State University, Natchitoches<sup>1</sup> Southeastern Louisiana University, Hammond<sup>1</sup> ND Mayville State University, Mayville<sup>1</sup> Southern University & A&M College, Baton Rouge Minot State University, Minot<sup>1</sup> NE Chadron State College, Chadron<sup>1</sup> Southern University at New Orleans, New Orleans<sup>1</sup> University of Southwestern Louisiana, Lafayette<sup>1</sup> Peru State College, Peru<sup>2</sup> Becker College, Worcester<sup>4</sup> MA Union College, Lincoln<sup>1</sup> Wayne State College, Wayne<sup>1</sup> Boston Architectural Center, Boston Cambridge College, Cambridge NH College for Lifelong Learning, Durham New England College, Henniker Hampshire College, Amherst Hebrew College, Brookline NJ Thomas Edison State College, Trenton Mount Ida College, Newton Center National College, Albuquerque NM Wheaton College, Norton St. John's College, Santa Fe Sierra Nevada College, Incline Village MD Baltimore Hebrew University, Baltimore N۷ St. John's College, Annapolis University of Nevada: Reno, Reno<sup>1,3</sup> Univ. of Maryland University College, College Park<sup>6</sup> NY Bard College, Annandale-on-Hudson ME Bates College, Lewiston Baruch College (City University of NY), Manhattan<sup>3</sup> Bowdoin College, Brunswick Boricua College, New York College of the Atlantic, Bar Harbor Brooklyn College (City University of NY), Brooklyn<sup>3</sup> Unity College, Unity City College (City University of NY), Manhattan Univ. of Maine at Farmington, Farmington Coll. of Staten Island (City U. of NY), Staten Island University of Maine at Augusta, Augusta Eastman School of Music at Univ of Rochester, Baker College of Cadillac, Cadillac MI Fashion Instit. of Technology, New York Baker College of Flint, Flint Hartwick College, Oneonta Baker College of Mount Clemens, Clinton Township Herbert H. Lehman College (CUNY), Bronx<sup>3</sup> Baker College of Muskegon, Muskegon Hilbert College, Hamburg Baker College of Owosso, Owosso Hunter College (City University of NY), Manhattan<sup>3</sup> Baker College of Port Huron, Port Huron John Jay Coll. of Criminal Justice (CUNY), Manhattan Cleary College, Ypsilanti Julliard School, New York Davenport College of Business, Grand Rapids Long Island Univ.: Brooklyn Campus, Brooklyn4 Detroit College of Business, Dearborn Medaille College, Buffalo Ferris State University, Big Rapids<sup>3</sup> Medgar Evers College (City Univ. of NY), Brooklyn Lake Superior State University, Sault Ste. Marie<sup>1</sup> Mercy College, Dobbs Ferry Lawrence Technological University, Southfield<sup>1</sup> New York City Technical College (CUNY), Brooklyn Michigan Technological Univ., Houghton New York Institute of Technology, Old Westbury<sup>1, 4</sup> Oakland University, Rochester<sup>1</sup> Queens College (City Univ. of NY), Queens<sup>3</sup>

### TEST SCORES DO NOT EQUAL MERIT

State U of NY/Empire State Coll., Saratoga Springs Oglala Lakota College, Kyle Union College, Schenectady<sup>5</sup> Presentation College, Aberdeen Univ. of the State of N.Y. - Regents College, Albany Sinte Gleska University, Rosebud Utica Coll. of Syracuse Univ., Utica4 TX Angelo State University, Angelo<sup>3</sup> York College (City Univ. of NY), Queens Arlington Baptist College, Arlington<sup>1</sup> Antioch College of Antioch Univ., Yellow Springs Lamar University, Beaumont<sup>3</sup> OH Cleveland State University, Cleveland Midwestern State University, Wichita Falls<sup>3</sup> Franklin University, Columbus Paul Quinn College, Dallas<sup>1</sup> God's Bible School and College, Cincinnati<sup>1</sup> Prairie View A&M Univ., Prairie View<sup>3</sup> Ohio Univ., Southern Campus at Ironton, Ironton Sam Houston State University, Huntsville<sup>3</sup> Ohio University, Zaneville Campus, Zaneville Southwest Texas State Univ., San Marcos<sup>3</sup> Shawnee State University, Portsmouth<sup>4</sup> Southwestern Adventist College, Keene<sup>1</sup> Union Institute, Cincinnati Southwestern Assemblies of God Coll., Waxahachie University of Rio Grande, Rio Grande<sup>1, 4</sup> Stephen F. Austin State Univ., Nacogdoches<sup>1,3</sup> University of Toledo, Toledo<sup>1, 2</sup> Sul Ross State University, Alpine Wilberforce University, Wilberforce<sup>1</sup> Tarleton State University, Stephenville<sup>3</sup> Youngstown State University, Youngstown<sup>1, 2, 3</sup> Texas A&M University - Commerce, Commerce<sup>3</sup> OK Mid-America Bible College, Oklahoma City<sup>1</sup> Texas A&M University - Kingsville, Kingsville<sup>3</sup> Southern Nazarene University, Bethany<sup>1</sup> Texas A&M University, College Station<sup>3</sup> University of Oklahoma, Norman<sup>3</sup> Texas College, Tyler<sup>1</sup> Eastern Oregon State College, LaGrande<sup>3</sup> Texas Southern University, Houston<sup>1</sup> OR Lewis & Clark College, Portland Texas Tech University, Lubbock<sup>3</sup> Maryhurst College, Maryhurst Texas Woman's University, Denton<sup>3</sup> Oregon Institute of Technology, Klamath Falls University of Houston, Houston<sup>3</sup> Oregon State University, Corvallis3 University of Houston - Downtown, Houston<sup>1</sup> Portland State University, Portland University of North Texas, Denton3 Western Oregon State College, Monmouth<sup>3</sup> University of Texas, Austin<sup>3</sup> PΑ Dickinson College, Carlisle University of Texas at Arlington, Arlington<sup>3</sup> Franklin and Marshall College, Lancaster<sup>3</sup> University of Texas at Dallas, Richardson<sup>3</sup> Gratz College, Melrose Park University of Texas at El Paso, El Paso<sup>3</sup> Lafayette College, Easton University of Texas - Pan American, Edinburg<sup>1</sup> Lancaster Bible College, Lancaster<sup>1</sup> University of Texas of the Permian Basin, Odessa<sup>3</sup> Muhlenberg College, Allentown University of Texas at San Antonio, San Antonio<sup>3</sup> Pennsylvania College of Technology, Williamsport<sup>4</sup> Wayland Baptist University, Plainview<sup>1</sup> Susquehanna University, Selinsgrove<sup>3</sup> Wiley College, Marshall<sup>1</sup> PR American University of Puerto Rico, Bayamon VA National Business College, Roanoke Norfolk State University, Norfolk Colegio Universitario del Este. Carolina Johnson & Wales University, Providence VT Burlington College, Burlington RI Goddard College, Plainfield SC Allen University, Columbia Benedict College, Columbia<sup>1</sup> Middlebury College, Middlebury<sup>5</sup> Morris College, Sumpter Southern Vermont College, Bennington Voorhees College, Denmark<sup>1</sup> Heritage College, Toppenish WA SD Black Hills State University, Spearfish WI Univ. of Wisconsin-Superior, Superior<sup>3</sup> National College, Rapid City<sup>1</sup> Univ. of Wisconsin-Green Bay. Green Bay3 W۷ College of West Virginia, Beckley1

#### Kev:

- 1 = SAT/ACT used only for placement and/or academic advising
- 2 = SAT/ACT required only from out-of-state applicants
- 3 = SAT/ACT required only when minimum GPA or Class Rank is not met
- 4 = SAT/ACT required for some programs
- 5 = SAT/ACT not required but SAT-II series required (Middlebury requires SAT-II or AP or IB series, or ACT)
- 6 = University of Maryland University College is a separate institution from University of Maryland at College Park
- 7 = Can petition university to be exempted from SAT/ACT

Source: The College Handbook, 35th Edition, 1998 (College Entrance Examination Board) and telephone interviews.

## **Appendix B: Graduate Level Admissions**

Although this report describes test-optional admissions policies only at the undergraduate level, many of the same lessons apply to admissions into law, medical, business and other graduate and professional schools. Especially in the wake of Proposition 209 in California and the *Hopwood* Decision in the Fifth Circuit, graduate and professional schools are looking more closely at the costs of relying too heavily on standardized admissions tests and are piloting new admissions approaches to maintain equity and excellence.

The issues concerning the use of standardized tests in graduate level admissions are similar to those in undergraduate admissions: the predictive validity of the tests; whether first-year grades are the appropriate criterion; the impacts of test use by gender, ethnicity, family income and age; and inappropriate uses of the tests for admissions or scholarships. Identifying broad trends in the use of the Graduate Record Exam (GRE) in particular is difficult because graduate programs in different academic departments use the GRE general and subject tests in widely differing ways, even within the same university.

**LSAT** 

In response to plummeting minority enrollments in Texas and California law schools, the American Bar Association (ABA) and the Law School Admissions Council (LSAC) have proposed a pilot project under which law schools would deemphasize the role of the Law School Admissions Test (LSAT) in evaluating applicants. Concerned by the fall in minority enrollment, the Committee on Diversity of the ABA's Section for Legal Education and Bar Admissions proposed a pilot project under which participating schools would use the LSAT only to create an initial pool of applicants considered qualified. From that list, admissions offices would then use other criteria, including grades, to select the incoming class.

In response to plummeting minority enrollments in Texas and California law schools, the American Bar Association (ABA) and the Law School Admissions Council (LSAC) have proposed a pilot project under which law schools would deemphasize the role of the Law School Admissions Test (LSAT) in evaluating applicants.

According to a study by a former Vice President of the Law School Admissions Services (LSAS), eliminating affirmative action in admissions and relying instead on a strict, test-score based, quantitative means of evaluating applicants could lead to a 75 percent reduction in the number of minorities admitted to law school.

Currently, most schools combine grades and test scores in a formula to select students from the applicant pool.

Although most public law schools in Texas suffered sharp declines in minority enrollments immediately after the *Hopwood* decision, the University of Houston Law School maintained a relatively constant ethnic mix. This was achieved by an intense overhaul of admissions approaches that previously had been heavily weighted toward the LSAT but now examine applications more closely and take into account such factors as leadership ability, community service and overcoming hardship. Law schools at the University of California at Berkeley, the University of Texas at Austin and Texas A&M are also evaluating ways of reducing the role in admissions of the LSAT.

According to a study by a former Vice President of the Law School Admissions Services (LSAS), eliminating affirmative action in admissions and relying instead on a strict, test-score based, quantitative means of evaluating applicants could lead to a 75 percent reduction in the number of minorities admitted to law school. Dr. Linda Wightman also found the LSAT to be a poor predictor of both graduation from law school and passage of the bar exam. Even Philip Shelton, the executive director of the Law School Admissions Services (LSAS), which makes the LSAT, has warned law schools against overreliance on the test.

#### **GRE**

A 1997 study by intelligence researchers Robert J. Sternberg and Wendy M. Williams demonstrates that the Graduate Record Exam (GRE) is a poor predictor of performance in a psychology graduate program. The study compared GRE scores with grades, professors' rankings, and dissertation quality for 165 advanced degree candi-

dates at Yale University. Consistent with Sternberg's "Triarchic Theory of Human Intelligence," they expected GRE scores to predict grades but not necessarily measures of creativity or practical performance. In fact, the GRE had only a modest correlation with first year grades and no statistical significance for subsequent coursework. For other aspects of graduate school performance, "ratings of analytical, creative, practical, research, and teaching abilities by primary advisers and ratings of dissertation quality by faculty advisers," test scores were generally not useful.<sup>3</sup> Researchers at Vanderbilt, Texas A&M and New York University found that GRE scores have low predictive values for students from certain minority groups. Even ETS, which makes the GRE, has concluded that the test underpredicts the performance of women 25 years and older.

At the four University of Texas medical schools, minority enrollment for 1998 is back up to pre-Hopwood levels, in part because admissions officials are for the first time interviewing more applicants whose grades and test scores were lower than those of traditional applicants.

#### **MCAT**

Research at the University of California at Davis Medical School found that students admitted under affirmative action policies had graduation rates and performance reviews very similar to those admitted on the basis of test scores alone. According to the study, the two groups graduated at essentially the same high rate, completed residency training at the same rate and received similar evaluations from residency directors.<sup>4</sup>

At the four University of Texas medical schools, minority enrollment for 1998 is back up to pre-*Hopwood* levels, in part because admissions officials are for the first time interviewing more applicants whose grades and test scores were lower than those of traditional applicants. Officials at the schools said there was little change in the academic qualifications of those getting offers compared to the previous year.<sup>5</sup>

#### **Notes**

- 1. Linda Wightman, "The Threat to Diversity in Legal Education: An Empirical Analysis of the Consequences of Abandoning Race as Factor in Law School Admission Decisions," *New York University Law Review*, Volume 72. pp. 111-145.
- 2. Philip Shelton, telephone interview, November 1997.
- 3. "Does the Graduate Record Examination Predict Meaningful Success in the Graduate Training of Psychologists?" *American Psychologist*, Vol. 52. No. 6, June 1997, pp. 630-641
- 4. Dr. Robert Davidson and Dr. Ernest Lewis, "Affirmative Action and Other Special Consideration Admissions at the University of California School of Medicine," *Journal of the American Medical Association*," October 8. 1997.
- 5. Mary Ann Roser, "UT Schools Accept More Minority Students," *Austin American Statesman*, May 23, 1998, online edition, http://www.austin360.com:80/news/001metro/05may/23/law23.htm.

## **Appendix C: Gender Bias on the SAT**

"It is urgent that, after a quarter century of delay, the College Board either corrects the gender problem its own studies have documented or provide all institutions employing its tests an unambiguous, highly visible 'user's warning label' that their appropriate use requires some kind of gendersensitive corrective. Given the clarity of the evidence on this problem, if the College Board does not undertake these measures itself, we imagine that it will not be long before the courts order it to do so." David Leonard and Jiming Jiang<sup>1</sup>

The SAT underpredicts the first-year college performance of females and overpredicts the grades of males, even when adjusting for course selection.

Of the nearly one-and-three-quarter million high school students who annually take the Educational Testing Service's SAT, America's oldest and most widely used college entrance exam, 54% are women. Although the SAT is designed explicitly to predict first-year college grades, women consistently receive lower scores on the SAT, particularly on the math portion of the test, despite earning higher grades throughout both high school and college. More significantly, the SAT underpredicts the first-year college performance of females and overpredicts the grades of males, even when adjusting for course selection.

Since 1970, males' scores have exceeded females' scores by at least 39 points, even though the introduction of a revised version of the test in 1995 promised reduction in "gender related prediction differences." In 1998, for example, the gap was 42 points, 35 on the SAT-Math alone. The gap persists across nearly all demographic and other characteristics, including ethnic group, family income, parental education, grade point average, and course selection.<sup>2</sup>

#### **Impact of Gender Bias**

Selection systems that rely heavily on SAT scores -- whether for admissions, scholarships, or "gifted and talented" programs -- systematically discriminate against females. A study at the University of California/Berkeley estimated that as many as 12,000 women each

"SAT scores capture a student's academic achievement no more than a student's yearbook photograph captures the full range of her experiences in high school."

year are excluded from large, competitive, "flagship" state universities simply because of the SAT's underprediction of women's first-year college performance.<sup>3</sup> Many colleges and universities across the United States, including the Massachusetts Institute of Technology, have modified or are modifying admissions practices to adjust for the gender gap on college admissions mathematics examinations, according to a 1995 study that detailed the negative impact of standardized college admissions tests on women's participation in mathematics.<sup>4</sup>

In Fall 1997, the College Board and ETS themselves modified the PSAT, which contains previously administered SAT items, to settle a FairTest civil rights complaint charging the testmakers with gender bias. The addition of a writing section to the PSAT, used as the sole criterion for selecting National Merit Scholarship semifinalists, will reduce the gender gap and give young women a fairer chance at more than \$25 million a year in scholarships. In a 1989 ruling on a similar misuse of tests, Federal District Court Judge John Walker struck down New York's system of awarding college scholarships on the basis of SAT scores finding, ". . . SAT scores capture a student's academic achievement no more than a student's yearbook photograph captures the full range of her experiences in high school."<sup>5</sup>

#### **SAT Scores, Family Income and Parents' Education**

The gender gap on the SAT-Math persists across all income levels, ranging from as high as 46 points for students from families with incomes less than \$10,000, to 29 points for families with incomes above \$100,000 (using 1997 data). While the gap drops slightly as family income climbs, it remains significant. The gap also remains when looking at different levels of parental education. When the highest level of education for either parent is a high school diploma, males outscore females on the SAT-M by 41 points. For students from families where at least one parent has a graduate degree, males score 32 points higher on the math portion of the SAT.

#### **Ethnicity and the Gender Gap**

Thirty-one percent of male test takers and 33% of female test takers are members of minority groups. Examining SAT-M score gender differences across ethnic groups shows that, for students who reported their ethnic background, the gap is at least 32 points, except for African Americans for whom the gender gap is just 17 points.

SAT-Math Scores and Course Selection in High School and College Looking only at the one-quarter of SAT test takers who took calculus in high school, men still scored 36 points higher on the math portion of the SAT (which tests math knowledge only through algebra and trigonometry, not calculus). For the 29% of students who took honors science courses in high school, the gender gap on SAT-Math is still 26 points. Overall, 68% of women SAT test-takers complete four years of math in high school; for males the figure is barely higher at 70%. Similarly, there is little difference between the average math grades men receive in high school (3.02) and those received by women (3.01). Yet, the gender gap for these students was 37 points.

In a 1992 study, ETS researchers Howard Weiner and Linda Steinberg analyzed the first-year college math grades and previous SAT scores of nearly 47,000 college students and found that women who earned the same grades in the same courses as men had averaged 33 points lower on the math section of the SAT.<sup>6</sup> ETS research shows that college course selection explains some of the gender gap but never more than half.

#### Causes of the Gap

Research has suggested several possible explanations for the SAT gender gap: 1) the multiple-choice format (women do better on essay and other types of assessments); 2) the SAT rewards males' greater willingness to take educated guesses on the test; 3) males do better on

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of the SAT.

"speeded" tests where most students cannot finish the exam;<sup>7</sup> 4) students who belong to groups expected to perform better on high-stakes tests score higher than students belonging to groups expected to achieve lower scores.<sup>8</sup>

#### **Notes**

- 1. David Leonard & Jiming Jiang, "Gender Bias and the College Predictions of the SATs: A Cry of Despair," Accepted for publication in *Research in Higher Education*, 40, 3, (June 1999), p. 35.
- 2. 1997 Profile of College-Bound Seniors, College Board, 1998
- 3. Leonard & Jiang, p. 3.
- 4. Marcia C. Linn & Cathy Kessel, "Participation in Mathematics Courses and Careers: Climate, Grades, and Entrance Examination Scores," Presented at the 1995 AERA Annual Meeting, San Francisco, CA, p. 26.
- 5. Sharif v. New York State Department of Education, 88 Civ. No. 8435 (JW), U.S. District Court, Southern District of New York, February 1989.
- 6. Howard Wainer and Linda Steinberg, "Sex Differences in Performance on the Mathematics Section of the Scholastic Aptitude Test: A Bidirectional Validity Study," *Harvard Eduational Review*, Vol. 62 No. 3, Fall 1992
- 7. M.C. Linn, "Gender Differences in Educational Achievement," In J. Pfleiderer (Ed.), *Sex Equity in Educational Opportunity, Achievement, and Testing* [Proceedings of 1991 Educational Testing Service Invitational Conference), 1992, pp. 11-50. Also, M.C. Linn, T.

DeBenedictis, K. Delucchi, A. Harris, and E. Stage, "Gender Differences in the National Assessment of Educational Progress Science Items," *Journal of Research in Science Teaching*, Vol. 24., No. 3, 1987.

8. Claude Steele, "A Threat in the Air: How Stereotypes Shape Intellectual Identity and Performance," *American Psychologist,* June 1997, pp. 613-629

# **Appendix D: The SAT: Questions and Answers**

#### What is the SAT?

The SAT is this nation's oldest, most widely used -- and misused -- college entrance exam. It is composed of two sections, Verbal and Math, each scored on a 200-800 point scale. The 138 questions are nearly exclusively multiple-choice; ten math questions require students to "grid in" the answer. By design, the test is "speeded" which means that many test takers are unable to finish all the questions.

The Educational Testing Service (ETS), under contract to the College Board, produces and administers the test.

# What Does SAT Stand For?

Nothing. Initially titled the Scholastic Aptitude Test and then the Scholastic Assessment Test, it is now officially named just SAT I because of uneasiness at ETS and the College Board about defining just what the test measures. "SAT is not an initialism; it does not stand for anything," say the testmakers.

# What is on the SAT?

A direct descendant of the racist anti-immigrant Army Mental Tests of the 1920s, the SAT was first administered in 1926 but did not become a fully multiple-choice exam until after World War II. From the beginning the test was designed to be independent of high school curricula (unlike the SAT's main competitor, the ACT). It now consists of analogies, sentence completions, reading comprehension, standard math and quantitative comparisons. The SAT does not include advanced math.

# What is the SAT Used For?

The SAT is validated for just one purpose: predicting first-year college grades. It does not do even this very well. Testmakers acknowledge that high school grade-point average (GPA) or class rank are the best predictors of first-year grades, despite the huge variation among high schools and courses. The SAT predicts other outcomes, such as graduation rates, even more poorly.

As more colleges move away from using the SAT for making admissions decisions, the testmakers are promoting its use for course placement purposes. However, studies show that the individual colleges' exams are much more accurate tools for placing students.

# **SAT Myths**

# The Test Is a Common Yardstick

After years of describing the SAT as a "common yardstick," the testmakers have now flip-flopped, claiming "it is a myth that a test will provide a unitary, unequivocal yardstick for ranking on merit." The SAT has always favored students who can afford coaching over those who cannot, students from wealthy suburban schools over those from poor urban school systems, men over women and students whose parents attended college over those whose parents did not.

## Coaching Does Not Work

The testmakers have backed away from their original claims that performance on the SAT could not be improved through coaching. The College Board even sells its own test preparation materials. A number of published studies conclude that good coaching courses can raise a student's scores by 100 points or more. These courses, which can cost \$700 or more, further skew scores in favor of higher-income test takers. Because college admissions officials do not know who has been coached and who has not, they cannot fairly compare two applicants' scores.

## Admissions Officers Need the SAT to Compare Students From Different High Schools

One careful academic study compared two admissions strategies, one using just the high school record and the other using high school record and SAT scores. More than 90% of the admissions decisions were the same under both strategies. However, the SAT-based strategy led to a far greater number of rejections of otherwise academically qualified minority and low-income applicants.

Most 4-year colleges accept more than 75% of their applicants and have limited or no real need for the SAT as an admissions tool. Even selective schools that reject more than half their applicants could drop the SAT without paying an academic price.

## Colleges Cannot Operate Without the SAT or ACT

More than 275 4-year colleges and universities no longer use the SAT or ACT to make admissions decisions about at least some of their applicants. These range from small, selective liberal arts colleges such as Bates, Bowdoin and Lafayette (which report increased diversity but no drop-off in the academic quality of their applicants) to public universities in Oregon and California. Public universities in Texas do not require SAT or ACT scores from applicants who finish in the top 10 percent of their high school classes. That policy change came after state researchers concluded that "the use of standardized tests unduly limits admissions" and that, "except at the extremes, SAT/ACT scores do not adequately predict grades in core freshman courses or the probability of college graduation."

## **SAT Misuse**

No standardized test should be used as the sole factor in making any decision. Nor should any test be used for a purpose for which it has not been "validated." Cutoff scores should not be used, especially for high-stakes decisions. Test use guidelines like these are frequently ignored, with no sanctions from ETS or the College Board.

How is the SAT Misused?

Any uses of the SAT that treat scores as precise measures are seriously flawed, the testmakers say: two students' scores must differ by at least 125 points before they can reliably be said to be different.

### **Examples of Misuse:**

National Merit Scholarships: The National Merit Scholarship Corporation uses Preliminary SAT (nearly identical to the SAT) scores as the sole criterion to select National Merit Scholarship semifinalists. The resultant pool of semifinalists has historically been predominantly male because boys score higher on the PSAT even though girls earn higher grades in high school (and college). In 1993, FairTest filed a complaint with the Office for Civil Rights (OCR) charging the testmakers with illegally assisting gender bias. As part of a settlement with OCR, ETS and the College Board agreed in 1997 to add a new multiple-choice "writing" component to the PSAT. Since girls have scored higher on writing sections similar to the new PSAT section on other exams, subsequent pools of semifinalists should include more females.

NCAA Proposition 16: The National Collegiate Athletic Association denies the right to compete to first-year students whose SAT or ACT scores fall short of a fixed score cutoff. Prop. 16, as the requirement is known, disqualifies a disproportionate number of academically qualified African Americans. In January 1997, two student-athletes filed a race discrimination lawsuit against the NCAA in federal court in Philadelphia.

Gifted and Talented Programs: Many special programs for the "gifted and talented," such as the Johns Hopkins Center for the Advancement of Academically Talented Youth, use the SAT or similar tests to select participants. Not surprisingly, girls and members of many minority groups are underrepresented in these accelerated programs.

## **SAT Bias**

### **Bilingual Students**

The speeded nature of the SAT imposes an unfair burden on students for whom English is not the first language. Research suggests that the SAT does not predict Hispanic students' first-year college grades as accurately as it does white students' grades. One study found that even for bilingual students whose best language was English the SAT underpredicted college performance.

# Impact of SAT Use on Minorities

African American, Latino, new Asian immigrant and many other minority test-takers score significantly lower than white students. Rigid use of SATs for admissions will produce freshman classes with very few minorities and with no appreciable gain in academic quality. The SAT is very effective at eliminating academically promising minority (and low-income) students who apply with strong academic records but relatively low SAT scores. Colleges that have made the SAT optional report that their applicant pools are more diverse and that there has been no drop off in academic quality.

## Stereotype Vulnerability

Several studies show that female and minority students who are aware of racial and gender stereotypes score lower on tests such as the SAT which purport to measure academic aptitude. One study defined this extra burden borne by some test-takers as "stereotype vulnerability," and warned that these findings "underscore the danger of relying too heavily on standardized test results in college admissions or otherwise."

### 1998 SAT Scores for College-Bound Seniors

Approximately 1.2 million test-takers, 54% female

	Verbal	Math	Total
American Indian or Alaskan Native	480	483	963
Asian, Asian Amer., or Pacific Is.	498	562	1060
Black or African American	434	426	860
Mexican American	453	460	913
Puerto Rican	452	447	899
Hispanic/Latino	461	466	927
White	526	528	1054
Other	511	514	1025
Males	509	531	1040
Females	502	496	998
ALL TEST-TAKERS	505	512	1017

## 1998 SAT Scores by family income

less than \$10,000/year	427	446	873
\$10,000 - \$20,000/year	451	463	914
\$20,000 - \$30,000/year	477	482	959
\$30,000 - \$40,000/year	495	497	992
\$40,000 - \$50,000/year	506	509	1015
\$50,000 - \$60,000/year	514	518	1032
\$60,000 - \$70,000/year	521	525	1046
\$70,000 - \$80,000/year	527	532	1059
\$80,000 - \$100,000/year	539	546	1085
more than \$100,000/year	559	572	1131

source: "News from The College Board," September 1, 1998

### 1998 ACT Scores

Total Test-takers: 995,039, 56.7% female

### **ACT Composite Score**

African American/Black American Indian/Alaskan Native Caucasian Mexican American/Chicano Asian American/Pacific Islander	17.1 19.0 21.7 18.5 21.8
Puerto Rican/Cuban/Other Hispanic	19.6
All Males All Females ALL TEST-TAKERS	21.2 20.9 21.0
ACT Scores Ry Family Income	
ACT Scores By Family Income Less than \$18.000/year	18.5
Less than \$18,000/year	18.5 19.3
•	
Less than \$18,000/year \$18,000 - \$24,000/year	19.3
Less than \$18,000/year \$18,000 - \$24,000/year \$24,000 - \$30,000/year	19.3 20.1
Less than \$18,000/year \$18,000 - \$24,000/year \$24,000 - \$30,000/year \$30,000 - \$36,000/year	19.3 20.1 20.6
Less than \$18,000/year \$18,000 - \$24,000/year \$24,000 - \$30,000/year \$30,000 - \$36,000/year \$36,000 - \$42,000/year	19.3 20.1 20.6 20.9
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Less than \$18,000/year \$18,000 - \$24,000/year \$24,000 - \$30,000/year \$30,000 - \$36,000/year \$36,000 - \$42,000/year \$42,000 - \$50,000/year \$50,000 - \$60,000/year	19.3 20.1 20.6 20.9 21.3 21.7

Source: "ACT Assessment 1998 Results: Summary Report," ACT