

The SAT Is Unfair to All Racial Groups by These Amounts

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The SAT is not a fair test for college applicants of color. The SAT is unfair because it measures Whiteness. *Whiteness* is defined as the bonus points White applicants receive because they are the largest single racial group. Whites' test performance is used as the standard against which all other groups are compared because they are the largest, but not necessarily the most knowledgeable group. The group's larger size gives White racial-group test takers bonus points throughout the SAT development and interpretation process. But the amounts of White bonus points can be calculated and corrected. Correcting scores to reduce the effects of White bonus points will be challenging because doing so requires test users and the general public to reconsider their interpretations of between-group racial differences in SAT mean scores. Yet not correcting scores for the numerical imbalance results in many college applicants of color not even being considered by colleges that require high SAT scores. It also results in students of color being stereotyped by their racial-group's mean SAT score.

What Does the SAT Measure?

The College Board, the publisher of the SAT, is imprecise about what the test measures. The SAT acronym does not stand for anything. The Board's publications state that the "SAT reinforces what students are learning in their classrooms while measuring the skills and knowledge that research shows are the most important for success in college and career." The College Board intends SAT content to reflect "the kinds of meaningful, engaging, and challenging work that students find in the best middle school and high school courses taught today" (College Board, 2021b). These statements refer to the context and process of student learning; that is, where and how students learn. They do not refer to content; that is, what students learn. Given this imprecise assessment goal, it is not surprising that college admissions officials are confused about whether to continue to use SAT scores for admitting students of color—many of whom acquired their academic skills in schools that were not "the best". It cannot be true that only graduates of elite high schools succeed in college.

The College Board implies that the SAT fairly assesses college-readiness knowledge and skills that students of all races learn in their classrooms (College Board, 2021a). But in 2018-2019, almost 80 percent of White students attended public schools where the percentages of White students were well over 50 percent. The curriculums in predominantly White schools do not typically center the positive contributions to literacy, math, science, or society of people of color. In fact, some states have laws that forbid teaching about race in public schools (Crawford, 2021; Cineas, 2020)). Hispanic (Latinx) and Black applicants are least likely to have learned reading, writing, and math skills in predominantly White schools (Schaffer, 2021), but some acquire those skills nevertheless. Most test developers are White and have been educated in predominantly White schools; as a result, they know how to assess White knowledge but they do not know how to assess the knowledge of students of color. Assessment cannot be fair unless it measures the many kinds of knowledge and skills that students obtain.

Considering that there is no agreement about what construct(s) the SAT measures, it possibly measures basic and sophisticated academic knowledge or skills related to reading, writing, and mathematics as Freedle's (1973) research suggests. Alternatively, it might measure intelligence as Herrnstein and Murray (1994), authors of the *Bell Curve*, claimed. Anything is possible given that the test developers do not specify what the SAT measures. Most test users interpret SAT scores in whatever ways are useful for their purposes. College deans of admission commonly interpret White applicants' higher SAT scores as evidence that Whites applicants' college preparation is superior to non-White college applicants' preparation. The deans' rationale for this interpretation is their belief that the SAT is a standardized test that objectively gauges applicants' quantity of the types of entry level knowledge necessary to succeed in college (Cramer & Medina, 2022). In other words, college deans presume that the SAT assesses college readiness criteria that are universal. But "standardization" does not refer to the content of tests. The term indicates that SAT test developers have used the common practices recommended by testing experts to develop, administer, score, and interpret test results. There is no external standard that fully defines the nature of effective pre-college knowledge and skills.

The content of the SAT is determined by primarily White test developers. The developers generate items to match their theories about the kinds of knowledge and skills that well-prepared college students should exhibit. Items are included in the test if test takers respond to them in a manner consistent with the test developers' theories. White test takers—the largest single racial group—have the greatest influence on which items are retained and, therefore, total SAT scores. Yet it is possible that test takers within the SAT-designated racial/ethnic groups of color do not perceive SAT test items in the same ways as the test developers or White test takers. There are many types of math skills and styles of English-language communication, as well as ways of thinking.

Hidden White Bonus Points in SAT Content

Every year the College Board provides SAT mean scores, sample sizes, and percentages of high school test takers for each of six government-defined racial or racialized ethnic groups (College Board, 2019; National Center for Education Statistics, 2022). It also provides mean scores for a two-or-more races group and a no-response group. The no-response category consists of test takers who did not specify a racial group. The College Board uses all eight categories to calculate descriptive and normative information. In 2019, the year before COVID shutdowns, White test takers, the group with the second highest total SAT mean score (Mean = 1114) were 43 percent of the SAT test takers. Asian/Asian Americans, the group with the highest SAT total mean score (Mean = 1223), were 10 percent of the total number of test takers. Black/African Americans, the group with the lowest total SAT mean score of all groups (Mean = 933), were 12 percent of the test takers. By dividing percentages by 100, one obtains proportions. Relative proportions are hidden throughout the testing process.

Test users and commentators compare SAT mean scores of test takers of color to SAT mean scores of White test takers (Smith & Reeves, 2020; Toldson & McGee, 2014). When the White mean is higher, they call the difference between scores an "achievement gap," and the

group of color with the lower score is considered to be deficient in some way. The White-Black gap is the focus of most research and commentaries (*Journal of Blacks in Higher Education*, 2006). The kindest experts attribute the gap to deficiencies in Black test takers' personality characteristics, such as lack of motivation; poor parental upbringing, not being read to enough as children; or to substandard educations regardless of their parents' social class (Toldson & McGee, 2014). Less empathic experts attribute the differences to innate intellectual superiority of White test takers (Gottfredson, 1975).

Yet perhaps Whites' higher mean scores do not indicate their intellectual superiority relative to other racial groups. Observed racial-group differences in SAT mean scores might occur because the content of the SAT favors the types of knowledge White students learn in predominantly White schools. But SAT test items might not adequately assess the types of knowledges that groups of color learn in more diverse formal and informal educational environments. Fair testing requires that researchers examine SAT content for White favoritism. White favoritism is equivalent to SAT bonus points for Whites.

Roy Freedle is a former Educational Testing Service (ETS) researcher who compared Black and White test takers' responses to items from previous versions of the SAT. ETS developed test items, administered tests, and scored them for the College Board as recently as 2018 (Adams, 2020). Freedle (2003) was surprised to find that Blacks did better on "hard items" than Whites, whereas Whites did better than Blacks on "easy items." However, the SAT content was comprised of more easy items than hard items. The imbalance of hard to easy items gave Whites an advantage. Examples of hard or scholarly items included words such as "vehemence" and "anathema," words that occur most frequently in scholarly readings. Freedle argued that use of hard words might be more strongly related to success in college than use of easy words. By contrast, examples of easy words were "canoe" and "golf," words that Freedle reported are used frequently in "everyday conversations" (among Whites), but are not necessarily used in the same ways, if at all, within other racial groups.

Freedle (2003) created supplementary subtests of the hard SAT vocabulary items, which he selected from prior versions of the SAT. He used the subtests to discover how much Black test takers' scores increased when their scores on the hard vocabulary items were added to their original SAT scores. Freedle found the only Black test taker in three years of test scores whose original test score was 250. A score of 250 was almost the lowest possible score in the versions of the SAT that Freedle examined. The hard-item-subtest correction raised that student's score to 650—almost the highest possible. More generally, his adjustments of SAT scores to correct for White vocabulary bonus points indicated that more Black test takers should have been eligible for admission to elite colleges, that is, colleges that require high SAT scores for admission. Freedle recommended that ETS researchers make the SAT fairer to Black test takers by including as many hard items as easy items in future revisions of SAT vocabulary tests.

Furthermore, Freedle (2003, 2010; Freedle & Kostin, 1997) discovered that the pattern of minority-status groups scoring better than Whites on hard items and worse on easy items not only pertained to vocabulary items, but also to math items. In addition to Black test takers, all other groups of color and poor Whites showed the same hard-versus-easy-item pattern. Thus,

Freedle concluded that Black test takers' scoring pattern was not merely their idiosyncrasy. If the College Board researchers wanted to make the SAT fairer to test takers of color and poor Whites, they would eliminate the White bonus-point advantage by balancing test items so that there are equal numbers of items on which each racial group does well. Some of the items from the different racial groups might be overlapping possibly, due to shared experiences; but some items would be unique. The academically talented student might be able to correctly answer items reflecting various kinds of knowledge rather than only White upper-class conversational knowledge. Yet Adams (2020) found that recent revisions of the SAT have made the test easier for White privileged test takers by eliminating "obscure words;" that is, the equivalent of Freedle's "hard words."

How Many SAT Bonus Points Do You Get If You're White?

For some unknown reason, testing experts have not addressed the issue of how much SAT mean scores are affected by huge differences in the numbers or proportions of White test takers relative to the other racial groups included in test development and interpretation. This oversight is particularly concerning considering that every year the College Board researchers compute the national total mean score(s) of their test takers by multiplying each racial and miscellaneous group's mean total score by its proportion of the total number of SAT examinees and summing the results. The process is called "weighting" and implies that College Board researchers assume that the test scores assess different constructs for each group.

Even so, the College Board's weighting process obscures the fact that White test takers have always added more to the annual total SAT test means because their proportion of test takers is greater than the proportion of any other group. For example, in 2019, the total SAT mean score was 1059. Whites' rounded weighted contribution to the mean was 479 points ($.43 \times 1114 = 479$). The Asian American test takers, the group with the highest mean score of all groups, contributed 122 points to the overall mean ($.10 \times 1223 = 122$). Black test takers the racial group with the lowest SAT mean score of all groups, contributed 112 points to the overall SAT mean ($.12 \times 933 = 112$). By subtracting each group's weighted points from the White group's weighted points, the number of White bonus points can be determined. The amount of advantage White test takers have will vary by the group to which they are compared because the relative proportions and mean scores (that is, types of knowledge/intelligence/skills) of each racial/ethnic group differ.

To illustrate, the White test takers' SAT bonus point advantage (BPA) over their Asian counterparts is calculated by subtracting the Asian test takers' contribution to the total mean (122 SAT points) from the White test takers' SAT points (BPA = $479 - 122 = 357$). For Black test takers, White test takers' bonus point advantage is 367 SAT points (BPA = $479 - 112 = 367$). Thus, whatever the SAT measures, White test takers as a group have about a hidden 357-point advantage over Asian/Asian American high-school SAT test takers, and a 367-point advantage over Black/African American high-school SAT test takers. Such advantages are unfair because they give White test takers bonus points simply because there are more of them and, therefore, their knowledge or intelligence is treated as if it is more valuable than the knowledge or intelligence of other racial groups. The White advantage is even greater when the SAT mean

scores of Native Hawaiians and American Indians are considered because these groups were respectively 0% and 1% of the SAT test takers in 2019, which indicates that they had virtually no influence on the total SAT mean.

Yet there is no reason why Whiteness should be given greater weight in determining what the SAT measures or how individuals' SAT scores are interpreted. Whiteness is not a thing. It is not a personality characteristic such as motivation to learn. It is not a behavior such as how long one studies. It is not socioeconomic status. It is not innate. Instead it is usually determined by the government and people in one's environment who label the person as White, often based on physical appearance. Researchers and commentators pretend that they are actually measuring Whiteness by assigning people to a White racial demographic category. Nevertheless, a person so labeled or categorized does not have to do anything to earn Whiteness except check the White racial demographic box and look White (Helms, Jernigan, & Mascher, 2015). Given that Whiteness is no more a thing than the color of other racial and ethnic groups is a thing, there is no fair reason why White high school students should be given multiple bonus points on the SAT just because they are White.

Moreover, White students have always had a hidden bonus-point advantage over students of color because there are so many more of them relative to all of the SAT-designated racial and ethnic groups of color. This abundance of Whites has always been so since the SAT was first administered in 1926, long before racially integrated high schools were even the remote possibility that they are today. In 2019, their Whiteness gave the White high-school test takers a bonus-point advantage over their high school peers of color ranging from 235 (Latinx) to 479 (Pacific Islanders), depending on the group(s) of color to which they were being compared. Between the SAT testing years of 2017 through 2020, the proportions of White SAT takers did not vary much below or above 43% and their mean total test scores ranged from 1104 in 2020 to 1123 in 2018. Thus, the bonus points for 2019 will not vary much in subsequent years unless the relative proportion of White high school SAT test takers declines and their mean test scores change significantly because the College Board has modified test content to be more inclusive.

In their *Standards for Educational and Psychological Testing*, the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME) set the standards for fair use of tests, such as the SAT, unless prohibited by law. According to the *Standards*, a "test that is fair within the meaning of the *Standards* reflects the same construct(s) [for example, SAT language and math skills] for all test takers, and scores from it have the same meaning for all individuals in the intended population; *a fair test does not advantage or disadvantage some individuals because of characteristics irrelevant to the intended construct*" (AERA et al., 2014, p. 50; italics added). Freedle's (1973) studies of racial-group differences in responses to SAT items is evidence of the unfairness of SAT content, although more research involving additional racial or racialized ethnic groups is needed. The College Board's reporting of separate total means disaggregated by racial groups is implicit evidence that racial groups of color are disadvantaged by characteristics (that is, racial groups) irrelevant to the intended construct, although the Board has not demonstrated how to adjust scores to compensate for racial-groups as irrelevant characteristics.

How to Compensate for SAT White Racial-Group Unfairness

For college admissions committees, faced with the problem of whether to reinstate the SAT scores as admissions criteria or to continue to use them even though they are demonstrably unfair to high school students of color, resolution of the unfairness problem is difficult. Two possible remedies should have occurred during the test development phase: (a) increasing the number of high school students of color so that the relative number or proportion of White test takers is not so large that it camouflages the knowledge/intelligence contributions of test takers of color; and (b) increasing the diversity of test content in ways that balance out the White bonus-point advantage. Yet neither admissions officials, nor parents of high school students, nor the students themselves control the percentages of students of color in the population. Federal and state governments control the size of the high school student population of color through reproduction legislation and immigration policies, while parents of color influence it to a lesser extent by their reproduction decisions. Students of color should not be penalized for being few in number. That just is not fair.

Hypothetically, college admissions officials could attempt to construct their own hard-easy SAT subtests in the manner of Freedle (1973). But to obtain enough students of color in each racial/ethnic group of color to eliminate White content bias themselves, admissions committees first would have to gain access to the individual SAT item responses of every high school student who took the test in the last four years or so. In the unlikely event that the College Board would release so much proprietary information, the admissions committees then would have to analyze those item responses using sophisticated statistical analyses that even MIT admissions committees might find challenging (Cramer & Medina, 2022). College admissions personnel typically are not psychometricians with test development skills and admissions decisions must happen rather quickly each year. As a result, it is unlikely that test content will ever be balanced in ways that give members of each group a fair opportunity to show what they know, and that is unfair.

Alternatively, admissions committees could add points to the SAT scores of applicants of color or they could subtract points from the scores of White applicants to adjust for the White sample-size and content advantages or the applicants of colors' numerical and content disadvantages. If one adjusted the means of just the Asian/Asian Americans and Black/African American racial groups due to their groups' small relative sizes by adding the White bonus point differentials to each of the group's mean scores, then Asian/Americans' mean score would become 1580 and Black/African Americans mean score would become 1300. If test takers applied to colleges with these corrected scores, their scores would place them at the 99th and 86th percentiles, respectively. Percentiles are used to indicate the number of test takers who scored above or below a given score. Consequently, individuals with such scores would be performing respectively as well as or better than 99 percent and 86 percent of students who obtained SAT scores in 2019 regardless of race. Moreover, the Black-White achievement gap would be reversed because the corrected Black mean would be higher than the uncorrected White mean.

Many college admissions officials only consider applicants whose SAT scores meet or exceed the minimum requirement for their college. When applicants' scores satisfy the college

minimum score requirements, their chances of being admitted to college are increased. Yet if test takers' SAT scores are below college minimum requirements, they may be discouraged from applying to any colleges. It is useful to examine the harmful effects to test takers of color when their SAT scores are not corrected for White bonus points.

Harvard College reportedly admits students with very high SAT scores, but “very high scores” does not refer to the same minimum SAT requirement for all racial groups (Biskupic, 2018). The prosecutor, in a recent affirmative action court case, revealed that Harvard’s minimum SAT score requirement for Black, Latinx, and Native American applicants is 1100. The minimum SAT score required for Asian American men is 1380, whereas the minimum SAT score required for Asian American women is 1350. Asian Americans are the only group for whom scores are disaggregated by gender. For Whites in sparsely populated regions, the minimum SAT score requirement is 1310. The prosecutor did not report the minimum standard for other Whites.

The prosecutor in the Harvard case described SAT scores of 1100 as “middle-range.” Indeed, a minimum score of 1100 places applicants’ scores at the 58th percentile using 2019 College Board norms. But White bonus points are always embedded in the SAT. Therefore, they affect scores regardless of which groups are compared. Applying the appropriate corrections to Black, Latinx, and Native American scores of 1100 yields corrected scores of 1475, 1335, and 1570, respectively. The corrected scores place Native Americans at the 99th percentile, Blacks at the 98th percentile, and Latinx at the 90th percentile. The highest possible SAT score is 1600. Both Asian men and Asian women’s corrected scores exceed this limit. In sum, Harvard’s minimum SAT score requirement for each of the applicant groups of color would likely exceed most colleges’ minimum requirements, if the scores were corrected for White bonus points.

Low scores should also be corrected. A SAT total score of 800 is a low score that would likely be disqualifying. Yet correcting scores of 800 obtained by test takers of color by removing White bonus points would increase the number of low scorers of color available for admissions committees to consider. For example, the correction for Black test takers increases the number of available candidates by an additional 62,000 (23%). For Native Americans, the number increases by almost 4,000 (29%), For Native Hawaiians, it is over 1,000 (19%). Other groups’ increases range from 94,000 (Latinx) to 6,856 (Asian) of the SAT test takers. Many colleges administrators could achieve campus racial/ethnic diversity goals simply by correcting scores for hidden White bonus points.

What is the Fair Adjustment for White Test Takers?

Adjusting White applicants’ scores to make them less unfair would be a bit more complicated. The proper adjustment, which is subtracting White bonus points, depends on which applicants of color are the comparison group. For example, to compare Asian and White applicants’ scores, removing the White bonus-points, reduces the White total mean score from 1114 to 757. The mean score adjustment for White versus Black applicants is 367 points, making the White corrected mean score 747. These adjustments place the White mean at about the third percentile rather than about the 60th percentile. Alternatively, the respective adjusted scores for a

White applicant with a SAT score of 1600 are 1233 or 1243 when compared to these two groups. It is still a good score, but not a perfect score. It is not as good as either the Asian or Black mean score when the bonus points are removed. A White student's SAT score is perfect only when it is compared to other White applicants because White test takers automatically benefit from White bonus points. Therefore, when comparing White test takers to each other, there is no need to correct for White bonus points.

Adding or subtracting points is the only practical remedy for unfairness that admissions committees can actually use. Students could even correct their own scores. Perhaps the fairest approach is to add the White-bonus-point differentials to the scores of test takers of color. Use of this approach would allow test takers of color to enjoy the same benefits of high SAT scores as White test takers have experienced since the inception of the SAT. Nevertheless, (mostly) White parents and students would likely object to this remedy because many of these parents invest a lot of financial resources so that their students can obtain the highest SAT scores (Adams, 2020; Biskupi, 2018; Economou & Pellitiere, 2022). Therefore, the only peaceable solution for ending unfairness for everyone is to stop using SAT scores as admissions criteria, a solution which some colleges have chosen (Gordon, 2020; Wexler, 2021). Continuing to use uncorrected scores has harmful consequences for (a) applicants of color, (b) White applicants, (c) college campuses, and (d) society.

Why Not to Use the SAT

Proponents of SAT use insist that the SAT is fair because it is related to other academic outcomes such as first year GPA and post-graduate careers (Harden, 2022). But they are confusing fairness and validity. A test yields valid scores if it relates to academic outcomes as expected. A test yields unfair scores if the scores measure something in addition to what they are supposed to measure (Helms, 2017). The SAT measures Whiteness, which is not intended. If the academic outcomes also measure Whiteness, then the test may seem to be valid because the Whiteness in the SAT and the Whiteness in outcomes are related. One example in the academic arena is that full-ride academic scholarships are given to students with the highest SAT scores, whereas other students without family financial resources support themselves by working and with huge student loans. When one has to work for an education, there is less time to study and seek out professors as potential mentors and, thereby, enhance one's grades through social relationships.

Many applicants of color, who should be admitted to college, will not be. As a consequence, they will miss out on many of the life options that are available to college graduates. If they become students on predominantly White campuses, students of color may face racial stereotypes because White professors and peers often falsely presume that especially Black students were admitted despite low test scores. Moreover, students of color experience racial microaggressions, invisibility, and academic evaluations based on conformity to White academic perspectives (Ashby, 2021). Ironically, on the day that diversity issues are discussed in class, they are expected to be the experts. Even when students of color graduate from elite colleges, their work environments often replicate their college experiences of stereotyping and discrimination (Erby, 2022).

The SAT is also unfair to White applicants despite their bonus-point advantage. Applicants use their racial group's second highest SAT mean score as evidence that Whites are intellectually superior to racial groups of color. Those White students, who believe that only their manner of thinking is correct, do not value any viewpoints that differ from their everyday life experiences. Some White professors only focus on White knowledge because they share the belief that it is superior. Others fear negative student evaluations of them if they offer alternative perspectives. Consequently, many White students do not learn how to think critically or to solve problems innovatively. Moreover, they learn to fear people who are diverse thinkers.

Colleges are dumb downed when they only admit one-way thinkers based on SAT scores. SAT scores are unfair to applicants of color. They are unfair because the small numbers of them in society do not permit fair measurement of their talents. College graduates of color are more likely to be role models for young people in marginalized communities after they graduate. Thus, society is deprived of many college graduates of color who might make life better for others. Society is also harmed when White college graduates do not develop a diversity of academic or intellectual skills. White graduates become protectors of one-way thinking in their communities if their academic skills are narrow. It must be embarrassing to administrators of elite colleges to see their White graduates in leadership roles resort to name calling, cussing, and endorsing violence to make their points when use of hard words would be much more civilized.

In sum, neither the College Board nor deans of admissions have taken the actions necessary to make the SAT a fair test for all racial groups. Supreme Court Justice John Roberts opined: "The way to stop discrimination on the basis of race is to stop discriminating on the basis of race" (Turner, undated). College deans of admission can take a huge step toward stopping racial discrimination on college campuses by not using tests that discriminate on the basis of race.

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