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The Role of Standardized Tests in College Admissions

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About the Series

A Civil Rights Agenda for the Next Quarter Century

The Civil Rights Project was founded in 1996 at Harvard University, during a period of increasingly conservative courts and political movements that were limiting, and sometimes reversing, major civil rights reforms. In 2007 the Project moved to UCLA. Its goal was—and still is—to bring together researchers, lawyers, civil rights advocates and governmental and educational leaders to create a new generation of civil rights research and communicate what is learned to those who could use it to address the problems of inequality and discrimination. Created a generation after the civil rights revolution of the 1960s, CRP’s vision was to produce new understandings of challenges and research-based evidence on solutions. The Project has always maintained a strong, central focus on equal education and racial change.

We are celebrating our first quarter century by taking a serious look forward—not at the history of the issues, not at the debates over older policies, not at celebrating prior victories but at the needs of the next quarter century. Since the work of civil rights advocates and leaders of color in recent decades has often been about defending threatened, existing rights, we need innovative thinking to address the challenges facing our rapidly changing society. Political leaders often see policy in short two- and four-year election cycles but we decided to look at the upcoming generation. Because researchers are uniquely qualified to think systematically, this series is an attempt to harness the skills of several disciplines, to think deeply about how our society has changed since the civil rights revolution and what the implications are for the future of racial justice.

This effort includes two very large sets of newly commissioned work. This paper is the first in the series on the potential for social change and equity policies in the nation. The other set of studies focuses on California, a vast state whose astonishing diversity foretells the future of the U.S. and whose profound inequality warns that there is much work to be done. All these studies will

initially be issued as working papers. They will be brought together in statewide conferences and in the U.S. Capitol and, eventually, as two major books, which we hope will help light the way in the coming decades. At each of the major events, scholars will exchange ideas and address questions from each other, from leaders and from the public.

The Civil Rights Project, like the country, is in a period of transition, identifying leadership for its next chapter. We are fortunate to have collaborated with a remarkable network of important scholars across the U.S., who contributed to our work in the last quarter century and continue to do so in this new work. We are also inspired by the nation's many young people who understand that our future depends on overcoming division. They are committed to constructing new paths to racial justice. We hope these studies open avenues for this critical work, stimulate future scholars and lawyers, and inform policymaking in a society with the unlimited potential of diversity, if it can only figure out how to achieve genuine equality.



Gary Orfield



Patricia Gándara

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Foreword

If access to an equitable education is the great civil rights issue of our time, then we have an enormous amount of work to do. Many studies have shown that talented, low income and students of color are less likely to go to college and complete bachelor's degrees than mediocre students from high income families. Affirmative action was intended to help even out these disparities, in part by taking into consideration the challenges that some groups of students face in getting to college. However, opponents argue that admission criteria based primarily or exclusively on test scores and grades are, in fact, the definition of merit. This, of course, ignores the differences in students' backgrounds and access to educational opportunities that prepare them to compete in the college admissions competition, including standardized test scores. It also ignores the question of how a social good, like higher education, should be distributed in an egalitarian society. The Supreme Court cases, *Students for Fair Admissions v Harvard* and *Students for Fair Admissions v UNC*, in which a group of students challenged the use of affirmative action because they were denied admission to these campuses, while some underrepresented students with somewhat lower grades and test scores were admitted, raises the question of how to define merit once again.

What constitutes merit? Who *deserves* admission? How is society, not just the individual, best served in the college admission process? The SFFA case argues that a highly limited resource – admission to these universities—should be decided primarily on the basis of students' quantitative scores, with the highest scoring students *deserving* admission, irrespective of other characteristics that a college may find important. How did this come to be the definition of merit?

In the following paper by Rebecca Zwick, formerly Distinguished Presidential Appointee at the Educational Testing Service, Professor Emerita at University of California, Santa Barbara, and author of “Who gets in? Strategies for Fair and Effective College Admissions,” she explains how, ironically, the use of standardized tests for the purpose of determining college admission is rooted in

earlier attempts to create a more equitable system of student selection. That is, a system that was not so dependent upon the wealth and status of students' parents was desired, since many educators noted that these socially advantaged but mediocre students did not seem to "merit" admission as much as others from less advantaged backgrounds. Yet, some would argue the tests that were created to address this inequity traded one set of inequities for others, as test scores (and even grades) are strongly correlated with family social class and students' educational opportunities. Zwick argues for a re-examination of how standardized assessments are used and the high stakes associated with them. While such tests have long been controversial and considered by many to be unfair, especially for students of color, low-income students and those whose first language is not English, recent events have brought this long-simmering debate to a head.

The Supreme Court cases against Harvard and North Carolina and the Black Lives Matter movement have brought issues of racial inequity to the forefront, and broad swaths of the population are demanding what they view to be more equitable social and educational policies. Even as the nation becomes more diverse, little progress is being made in diversifying the most competitive colleges and universities. Moreover, more and more colleges have abandoned the use of standardized tests in the wake of these demands, and the University of California—the nation's largest and arguably most prestigious public university—recently chose to forgo the use of standardized tests for purposes of admission, arguing that a more "holistic" approach better served the state and its students. That is, university leaders believed it more important to consider a diversity of talents and characteristics rather than relying on test scores to decide who would be admitted.

Zwick concludes this powerful and carefully reasoned paper by citing the Nobel laureate Amartya Sen, a philosopher and economist, who argued that merit should reside not in the person

but in societal value and “that broadening access to higher education can itself be a meritocratic act.”

Racial equity in our changing society may rest on such arguments.

-Patricia Gándara

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Executive Summary

Over the last decade, colleges and universities have become increasingly concerned that requiring standardized test scores for admission is an impediment to campus diversity, and these objections have grown with the recent focus on societal inequities. In addition, the pandemic led to the cancellation of test administrations, which, in turn, caused many institutions to eliminate admissions test requirements. These developments present an opportunity to reconsider the role of college admissions testing.

Although admissions tests measure skills needed in college work and are useful in predicting college performance, the substantial test-score differences among ethnic and socioeconomic groups are a cause for concern. Asian and White test takers score higher, on average, than Black, Hispanic, and Native American test takers, and test takers from higher-income families perform better than lower-income test takers. While group differences do not in themselves demonstrate that a test is biased or unfair, a heavy emphasis on test scores in admissions decisions will result in lower selection rates for candidates who are Black, Hispanic, or Native American or are from low-income families.

These concerns have led to an increased emphasis on high school grades and personal characteristics in the admissions process. Grades are predictive of college success and reflect four years of academic accomplishments. However, grading stringency varies over high schools, courses, and teachers and over time. Grades can also be influenced by extraneous factors such as a student's socioeconomic status, gender, or ethnicity. In the absence of tests, grades could be vulnerable to lobbying efforts by parents and other inflationary pressures. Also, the patterns of group differences in grades are typically similar to, though less pronounced than, the patterns observed for test scores.

In recent years, the possibility of using personal characteristics as admissions criteria has drawn renewed interest. However, measuring potentially useful factors such as conscientiousness

and grit accurately and without bias is challenging, and findings about the predictive value of personal characteristics have been mixed.

What guidelines can be offered for the use of standardized admissions tests in the future?

- Any proposed use of an admissions test should be accompanied by a clear rationale and a thorough institutional study of the likely impact. The same type of scrutiny should be applied to other potential admissions criteria and to the effects of alternative ways of weighting and combining criteria. Research results should be made public to the degree possible.
- Institutions should provide clear information to applicants about the criteria used in admissions and how they are weighted and combined. In the case of test-optional policies, applicants should be provided with enough information to allow them to determine whether or not it is in their best interest to submit scores.
- If test scores are to be used in admissions decisions, they should be evaluated in context. The resources available to the applicant and the applicant's high school should be considered. High-quality in-person test preparation should be made available to all applicants at little or no cost.
- Steps should be taken to reduce the frenzy surrounding test scores. One small step would be to exclude information about institutions' test score distributions from college rankings. The utility of this information is questionable in any case, given the differences across institutions in test requirements.

Finally, it is worth considering definitions of meritocracy that deemphasize test scores and other achievement metrics. Contrary to the idea of meritocracy as typically interpreted in the admissions setting, the most accomplished applicants cannot be assumed to be the most deserving of admission. Admissions criteria must flow from an institution's admissions policy, and ultimately, its mission. Rather than seeking students with the most distinguished academic records, a school might seek those that best represent the state from a demographic perspective or those that will

benefit most from the curriculum. Going a step further, the Nobel laureate Amartya Sen argues that an action is meritocratic if it promotes a valued societal goal. Applying Sen's idea to admissions, a policy that gave preference to students from lower-income backgrounds would be considered meritocratic if the university's mission included the reduction of economic inequality in our society. Sen's perspective on meritocracy serves to remind us that broadening access to higher education can itself be a meritocratic act.

The Role of Standardized Tests in College Admissions¹

Rebecca Zwick

Introduction

During the last several years, Americans have faced formidable challenges. Beginning in 2020, the pandemic upended our daily lives. Actions by law enforcement and by everyday people jolted us into a greater awareness of racism and inequality in our society. In the post-election chaos, even the status of our democracy seemed to be threatened. There is a strong sense that we are at a crossroads, a time of transformation. Like virtually every other aspect of our lives, higher education admissions policies have been undergoing changes as well. And now, university affirmative action policies hang in the balance as we await the Supreme Court’s ruling on challenges to Harvard and the University of North Carolina. As a recent report on admissions testing from the National Association for College Admission Counseling (NACAC) notes, “After we emerge from the COVID-19 pandemic ..., we cannot simply ‘go back to normal.’ The tenuous grasp we hold on many of our habits and policies has been further loosened and we must adapt if we are to continue to fulfill our duty to the public good” (NACAC, 2020, p. 9).

Over the last decade, colleges and universities have become increasingly concerned that requiring standardized test scores for admission is an impediment to campus diversity, and these objections have grown with the recent focus on societal inequities. The Varsity Blues scandal in 2019, in which 50 individuals were charged by federal prosecutors in a scheme to purchase admission to elite universities (Medina, Benner, and Taylor, 2019), also fueled misgivings about the admissions process. Then, in a striking decision, the Regents of the University of California voted in

¹ I appreciate the support provided by ETS for an earlier version of this paper.

2020 to discontinue the University’s admissions test requirement. In doing so, the Regents endorsed a proposal by outgoing UC president Janet Napolitano, who noted the association of test scores with test takers’ socioeconomic and ethnic background (Wilner, 2020).

Differences in test performance across ethnic and socioeconomic groups have also entered the public conversation through the debates about affirmative action in admissions. Whereas UC and many other institutions have questioned or opposed the use of admissions tests, believing that they impair diversity efforts, the petition filed by the organization challenging Harvard and UNC implies that admission rates should depend more heavily on test scores and high school grades. Students for Fair Admissions (SFFA) claims that at both schools, “applicants with the same ‘academic index’ (a metric ... based on test scores and [grade-point average]) had widely different admission rates by race,” with African American and Hispanic applicants being favored over White and Asian American applicants with the same scores (Students for Fair Admissions, 2023a; 2023b). From the SFFA perspective, groups with lower test scores and grades should have commensurately lower admission rates.

These developments and controversies present an opportunity to consider the role of college admissions testing in our society. I begin by recounting the history of college admissions in the US, the relationship of admissions tests to intelligence testing and military testing, and the motivations for developing standardized exams to replace the admissions methods used at the turn of the twentieth century. Next, I describe the college admissions tests used today, along with their role in the admissions process, their advantages and limitations, and the ongoing debates about their fairness. I then discuss the future of admissions and admissions testing and end with a discussion of the concept of meritocracy as it applies to college admissions.

The History of Admissions Testing in the United States

Until the late 1800s, American postsecondary institutions played a passive role in the admissions process, typically waiting for prospective students to present themselves for evaluation by the faculty. Because each school had its own examination, applying to more than one institution was difficult. In 1870, the University of Michigan introduced a new approach—the certificate system (Wechsler, 1977). The university undertook the inspection of feeder high schools and waived entrance tests for graduates of the approved schools. These high school students were granted certificates and were automatically admitted to the university.

It is interesting from today’s perspective that the certificate system was apparently disliked by Michigan students, who feared that “without entrance examinations, teachers and students had become more lax in their preparation” (Wechsler, 1977, pp. 25-26). The system flourished, however, spreading to most US colleges by 1915. Very selective universities like Harvard and Yale continued to require entrance tests.

A milestone in college admissions occurred in 1900, when the leaders of 12 colleges and universities formed the College Entrance Examination Board (now simply College Board), which developed a common set of admissions tests for the participating institutions (Fuess, 1950). These essay exams were scored centrally by the College Board. This new system represented a gain in efficiency for institutions and also benefited candidates who wished to apply to multiple schools.

The Emergence of the SAT and the ACT

Over the next 50 years, the admissions testing landscape changed greatly, influenced by developments in intelligence testing and military testing. Both the Stanford-Binet intelligence test (Terman, 1916) and the National Intelligence Tests, a group assessment intended for schoolchildren (Whipple, 1921), appeared in the US in the early twentieth century. Intelligence tests served as the basis for the Army Alpha test, developed for selecting and assigning military recruits during World

War I, and the Army Alpha questions, in turn, influenced the content of the first Scholastic Aptitude Test, which was administered in 1926 to about 8,000 people. It consisted of 315 questions, mostly multiple-choice, which were to be completed in 97 minutes (Lawrence, Rigol, Van Essen, and Jackson, 2004).

For many years, the SAT had no competitors. During the 1930s, the popularity of the test grew with the development of mechanical scoring capabilities, which eliminated the need for hours of tedious clerical work (Lemann, 1999). Standardized testing continued to flourish during the 1940s. Ten million military recruits were tested during World War II using assessments that borrowed elements from elementary and secondary school exams developed by the Iowa Testing Programs (Office of Technology Assessment, 1992), another example of the interplay between educational and military testing. The market for admissions tests increased with the passage in 1944 of the GI Bill, which sent thousands of World War II veterans to college. In 1947, Educational Testing Service was founded in Princeton, New Jersey through the merger of the testing activities of three companies: The College Entrance Examination Board, the Carnegie Foundation for the Advancement of Teaching, and the American Council on Education.

During the 1950s, the Measurement Research Center, a spinoff of the Iowa Testing Programs, perfected the optical scanner designed by E. F. Lindquist, one of the fathers of standardized educational testing. The invention of the scanner, originally called the “Iowa scoring machine,” played a significant role in facilitating large-scale administration of standardized tests. In 1959, Lindquist, who was also a statistician, founded the American College Testing Program. Today, the company is ACT, Inc. and the test is simply the ACT.

While the SAT consisted of only verbal and mathematical sections, the ACT was broader in scope and was intended to be more closely tied to the classroom. The content of the test is informed by surveys of high school teachers and curriculum experts. Currently, the test comprises four

sections: English, Mathematics, Reading, and Science. Test takers obtain a score on each section, as well as a composite score and a “STEM score” based on performance on the Math and Science sections. Those who complete an optional essay test in Writing receive a Writing score and an English Language Arts score based on English, Reading, and Writing performance.

Today’s SAT program is owned by the College Board; the tests are administered by ETS under a contract with College Board. The SAT is developed with input from high school teachers and college faculty. The current version, introduced in 2016, includes three tests-- Reading; Writing and Language; and Math. The main scores received by test takers are section scores in Evidence-Based Reading and Writing, and in Math, and a total score. In 2021, the College Board announced the elimination of the essay test, which had been an optional portion of the SAT since 2016², along with the SAT Subject Tests, which assessed particular areas such as biology, chemistry, and foreign languages. The Board described these changes as an effort to reduce and simplify demands on students (College Board, 2021).

Both the SAT and ACT have taken steps toward computer administration, with the initial moves toward digital delivery occurring in statewide administrations of these tests. Statewide administrations of college admissions tests, which began in 2001, have been used to satisfy accountability requirements and to encourage college attendance. According to Camara, Liu, and Mattern (in preparation), most states fund either the ACT or SAT for all juniors, while a few states allow each district to choose which test to administer. The ACT began offering digital delivery for statewide administrations in 2015. International administrations were transitioned to digital delivery in 2018. The SAT program began offering digital administration to states and districts in 2017

² The essay will continue to be available only in states where it is required for SAT school-day administrations conducted for accountability purposes.

(Camara, Liu and Mattern, in preparation). Digital administration began outside the US in 2023 and is slated to begin for all US test-takers in 2024.

How the SAT and ACT Are Used in College Admissions Today

Overall, admission to America’s roughly 2,300 four-year institutions is less selective than many believe.³ In academic year 2020-2021, about 25% of these colleges and universities accepted all applicants, 37% accepted at least three-quarters, and 27% accepted between half and three-quarters. Only 12% of the institutions accepted fewer than 50% of their applicants (National Center for Education Statistics, 2022a).

In 2019, NACAC published its most recent version of the periodic report, *State of College Admission*, which is based on a survey of postsecondary institutions. According to the report, the admissions criteria considered most important at the responding schools—grades, strength of high school curriculum, and admission test scores—had remained consistent over the 20 years preceding the report’s publication (Clinedinst, 2019, p. 4). Test scores were considered along with high school grades and other factors that varied across institutions, including work experience, artistic talent, athletic ability, and demographic factors. The report noted that admissions tests were being used for various purposes beyond the admissions decision itself. At some institutions, test scores were used in selecting students for scholarships, for assigning students to courses, or for identifying students who could benefit from extra academic support.

Test-Optional and Test-Blind Admissions

An admissions trend that was not addressed in the 2019 NACAC report was the movement toward test-optional admissions policies, which was already underway. In test-optional admissions,

³ Only schools that offered degrees at the bachelor’s level or higher, enrolled first-year undergraduates, and participated in Title IV federal financial aid programs were included in this count.

applicants themselves decide whether to submit test scores. Submitters' scores are considered in admissions decisions, but, assuming the policy works as intended, nonsubmitters are not at a disadvantage. Some postsecondary institutions have gone a step further by adopting test-blind policies, meaning that they will not consider test scores, even if submitted. Before the pandemic, colleges and universities adopting test-optional or test-blind policies typically cited an interest in admitting a more diverse student body as the reason for the policy change (Lopez, Schwartz, Ward, and Pisacreta, 2020; NACAC, 2020).

Early in the coronavirus pandemic that began in early 2020, many ACT and SAT administrations were canceled, sometimes at the last minute. Although the situation improved somewhat during the 2021-2022 school year, arranging to attend a test administration could still be difficult (Camara and Mattern, 2022). As a result, many schools eliminated test score requirements—in some instances, for several years (Jaschik, 2020). Common App, a membership organization of more than 1,000 higher education institutions that use a common application, conducted a study of applicants for fall 2021 admission. (The numbers of institutions and applicants included in the study are not given.) Only 11 percent of participating institutions required test scores from applicants, compared to about two thirds in 2019-2020. Forty percent of applicants reported a test score in their applications, compared to 73 percent in 2019-2020. Reporting rates were higher for applicants from more affluent communities and lower for first-generation and under-represented minority applicants (Freeman, Magouirk, and Kajikawa, 2021). According to a subsequent Common App report, only 4 percent of the 841 participating institutions required a test score for 2023 admission (Magouirk et al., 2023). As of May 2023, the National Center for Fair and Open Testing (2023), better known as FairTest, listed more than 1,800 schools that “do not require all or most recent U.S. high school graduates applying for fall 2023 to submit ACT/SAT results before admissions decisions are made.” This includes schools that exempt only a portion of applicants from test score requirements.

A notable shift in testing policy that took place during the pandemic was the decision by the University of California (UC), which serves more than 230,000 undergraduates on nine campuses, to become test-blind. In May 2020, the UC Regents voted to phase out admissions tests by 2025, against the recommendations of UC's own Standardized Testing Task Force (STTF; University of California Academic Senate, 2020). Beginning immediately, test-optional policies would be in place, to be followed in 2023 by test-blind policies (with scores continuing to be used for some non-admission purposes). However, the policy change planned for 2023 occurred sooner than expected. A July 2020 lawsuit focusing on the inaccessibility of tests to applicants with disabilities because of pandemic-related disruptions resulted in a preliminary injunction prohibiting the consideration of admissions test scores at any of UC's ten campuses (Hoover, 2020; Watanabe, 2021).

Initially, the STTF had recommended that UC consider the development of a new test that would include “simulations and realistic performance tasks that can assess creative problem solving, inductive and deductive reasoning, and analytical capability” (University of California Academic Senate, 2020, p. 111). The assessment was to be “continuously accessible” to high school students (p. 109) and practice content was to be available so that students could try out the assessment as often as they wanted (p. 114). Realizing a vision of this kind in an affordable fashion, while maintaining the test's technical and predictive value would in itself have been a heroic accomplishment, but there was an additional challenge: The future test was intended to display results with “smaller disparities than current measures along the lines of race, ethnicity and socioeconomic status” (p. 109). Not surprisingly, a committee tasked with recommending next steps reported in late 2020 that it had “determined that it is neither feasible nor desirable to create or develop a new test to take the place of the SAT or ACT in UC admissions (University of California Feasibility Study Steering Committee, 2020). They proposed instead that the Smarter Balanced Assessment, a test then given in grades 3 through 8 and 11 in 16 US states and territories, be further

evaluated for admissions use. In late 2021, however, UC abandoned this plan as well, announcing its intention to “practice test-free admissions now and into the future” (Watanabe, 2021).

Tests, Grades, and Personal Characteristics as Admissions Criteria

In evaluating the role of standardized tests in admissions, it is important to consider not only the advantages and disadvantages associated with their use, but the advantages and disadvantages of alternative criteria. Here I discuss the pros and cons of tests, grades, and personal characteristics as criteria for college admission.

Test Scores as Admissions Criteria

College admissions test scores measure important skills that are needed in college work and are generally found to be useful predictors of college grades. Although their predictive value tends to be slightly weaker than that of high school grades, the inclusion of test scores along with grades in the regression equations used to predict college performance is consistently found to improve accuracy. For example, according to a recent review of the predictive validity of test scores (Camara, Liu, and Mattern, in preparation), both the ACT and SAT were found to have a correlation of .51 with first-year college grade-point average (GPA) in large-scale studies (Westrick et al., 2019; Westrick et al., 2020).⁴ The correlation between high school grades and college GPA was .61 for ACT takers and .53 for SAT takers. Analyses that included both test scores and high school grades as predictors yielded multiple correlations with college GPA of .64 for the ACT (Westrick et al., 2020) and .61 for the SAT (Westrick et al., 2019).⁵

⁴ These results are based on the ACT composite score and, for the SAT, the total of the Math and Evidence-Based Reading and Writing scores. The reported correlations are corrected for range restriction. These corrections are intended to compensate for the fact that scores and grades for admitted students (on whom analyses are based) are less variable than scores and grades for the applicant pool.

⁵ A multiple correlation is a measure of association, ranging from 0 to 1, between a set of (at least two) variables and a single variable.

Occasionally, test scores prove to be a stronger predictor than high school grades. A large study at the University of California recently found that “[a]t UC, test scores are currently better predictors of first-year GPA than high school grade point average” (University of California Academic Senate, 2020, p. 20). In addition, college admissions tests have been found to be helpful in predicting grades beyond the first year (Zwick, 2006, 2007) and degree attainment (e.g., Radunzel and Noble, 2012; Mattern, Shaw, and Marini, 2013). Test scores can be particularly useful in evaluating international students and applicants who are home-schooled, have high school equivalency diplomas; or have high school GPAs of 4.0 or above. They may also help to identify talented students who have not performed well in high school.

Objections to admissions tests typically focus on the substantial test-score differences among socioeconomic and ethnic groups. To quantify group disparities in a scale-free manner, it is useful to express them in standard deviation units. To calculate these standardized differences, mean differences on a particular measure are divided by the standard deviation of that measure.⁶ In the social sciences, group differences of more than 0.8 standard deviations are typically considered large (Cohen, 1988). On both the ACT and the SAT, the standardized differences between the higher-scoring ethnic groups—Asian and White test takers—and the lower-scoring groups—Black, Hispanic and Native American test takers—tend to be at least one standard deviation. Differences between the highest and lowest socioeconomic groups are usually about one standard deviation (Zwick, 2019).⁷

⁶ Roughly speaking, the standard deviation is the average distance between an observation (here, a score or grade) and the average of those observations.

⁷ In 2020, Asian test takers had the highest average SAT total score and American Indian/Alaska Native test-takers had the lowest. The standardized difference was $(1217-902)/211=1.5$. The standardized difference between those with at least one parent with a graduate degree and those whose parents did not have a high school diploma was $(1186-919)/211=1.3$ (College Board, 2020). In 2020, average ACT composite scores were highest for Asian test-takers and lowest for Black/African American and American Indian/Alaska Native test takers. (The latter two groups had the same average.) The standardized difference was $(24.9-16.7)/6=1.4$ (ACT, Inc., 2020). ACT results were not reported for socioeconomic groups.

While these large group differences are indisputably a source of concern, their meaning is a matter of controversy. The *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, 2014), a document that “has been repeatedly recognized by regulatory authorities and courts as setting forth the generally accepted professional standards” for developers and users of tests (p. 2), holds that “group differences in outcomes do not in themselves indicate that a testing application is biased or unfair” (p. 54), although unfairness is not ruled out.

Opponents of admissions testing, however, often regard the score gaps as sufficient evidence that admissions tests are biased. Earlier critiques of admissions tests tended to focus on test content, which was presumed to be biased in favor of upper-class White test-takers. Today, score disparities are more often attributed to unequal access to test coaching. However, although differences in access to coaching—particularly the more intensive and expensive variety—are clearly a fairness concern, they are unlikely to be a major contributor to the score gaps in admissions test results. First, the most carefully designed coaching studies show that average gains on admissions tests are modest (Zwick, 2017). Second, large performance differences among ethnic and socioeconomic groups are evident in other assessments, such the National Assessment of Educational Progress, a government survey of students’ knowledge and skills.⁸ Because it does not report scores at the school or student level, NAEP creates no incentive for coaching. Other academic performance measures, including grades, show similar though less prominent patterns (e.g., see Zwick, 2017). The impact on admissions test scores of varying access to coaching is likely

⁸ In the 2019 grade 12 NAEP math assessment (the most recent grade 12 math assessment), the standardized difference between the highest-scoring (Asian/Pacific Islander) and lowest-scoring (Black) ethnic groups was $(173-128)/36 = 1.3$. The standardized difference between those ineligible for the National School Lunch Program (higher socioeconomic status) and those who were eligible (lower socioeconomic status) was $(160-136)/36 = 0.7$. I obtained these results using the NAEP Data Explorer at <https://www.nationsreportcard.gov/ndecore/xplore/NDE>.

to be dwarfed by the effects of the pervasive inequities in educational opportunity that affect students from childhood through high school.

Educational achievement is strongly associated with socioeconomic factors even in early childhood (McLoyd, 1998), and childhood poverty rates vary widely across ethnic groups. In 2020, US poverty rates were 23 to 28 percent for Black, Hispanic, and American Indian children, compared to 7 to 10 percent for White and Asian children (National Center for Education Statistics, 2022b). Indicators of educational quality, including teacher experience and qualifications, student-teacher ratios, and access to college preparatory courses, as well as student grades and other achievement measures, are consistently found to be associated with family and school-level socioeconomic status (e.g., Betts, Rueben and Danenberg, 2000; Organisation for Economic Co-operation and Development, 2010). The typical patterns of admissions test scores are in keeping with these findings.

Regardless of the cause of admissions test score gaps, it is clear that a heavy emphasis on test scores in the admissions process will result in lower selection rates for candidates who are Black, Hispanic, or Native American or are from low-income families. For this reason, some educators propose that admissions decisions rely more heavily on grades and personal characteristics.

In addition to the troubling score differences, objections to the SAT are in some instances tied to its history. The first SAT, administered in 1926, was developed by Princeton professor Carl Brigham. As an advisor to the College Board (and subsequently a paid staff member), Brigham was chosen to chair a commission tasked with developing a “psychological test” for use in college admissions (Fuess, 1950). Brigham was firmly entrenched in the eugenics movement. Based on his assessments of World War I military personnel, Brigham had concluded in his 1923 book, *A Study of American Intelligence*, that immigrants, Black people, and Jews were deficient in intelligence and that their presence could lead to a deterioration of the nation’s intellectual capacity. He later modified his

views, stating that “comparative studies of various national and racial groups may not be made with existing tests” and labeling his own previous comparisons as being “without foundation” (Brigham, 1930, p. 165). Brigham did not, however, recant his claims about group differences in intelligence; he stated only that existing tests were not adequate for making comparative studies of the kind that he had previously conducted (Saretzky, 1982). Despite the fact that today's SAT bears little resemblance to the 1926 version, the SAT's ancestral link to intelligence tests and eugenics continues to be cited in present-day criticisms of the test (e.g., Atkinson, 2001; see also Camara, 2009).

High School Grades as Admissions Criteria

While some opponents of admissions testing are critical of high school grades as well (e.g., Guinier, 2015; Kohn, 2001), others are strong advocates for giving high school grades more weight in admissions decisions (e.g. Geiser and Santelices, 2007). A frequent argument in favor of high school grades is that they tend to have a higher correlation with college grades than do admissions test scores. In addition, while test scores provide a snapshot of a fairly narrow set of academic skills, high school grades reflect four years of academic accomplishments and provide indirect measures of characteristics like industriousness and perseverance (Willingham, Pollack and Lewis, 2002). Also, emphasizing grades in college admissions can provide a signal to students and high schools about the importance of enrolling in college preparatory courses.

On the negative side, grading stringency varies over high schools, courses, and teachers and also over time. In addition, grades can be influenced by extraneous factors such as a student's attractiveness, socioeconomic status, gender, or ethnicity (Rauschenberg, 2014; Van Ewijk, 2011; Willingham, Pollack, and Lewis, 2002). It has also been suggested that in the absence of tests, grades would be vulnerable to the lobbying efforts by concerned parents (Wolf, 2014) and other inflationary pressures. These aspects of grades can limit both their utility and fairness.

It is important, too, to note that the patterns of group differences in high school GPA are typically similar to, though less pronounced than the patterns observed for admissions test scores. For example, in the Education Longitudinal Study of high school seniors (Ingels, Planty, and Bozick, 2005), the largest pairwise standardized difference between ethnic groups was 1.3 for admission test scores and 1.0 for high school GPA. The standardized difference between the highest and lowest socioeconomic groups was 1.1 for test scores and 0.7 for high school GPA (Zwick, 2017). (Methodological factors that may explain why group differences tend to be smaller on grades are discussed in Zwick and Green [2007].)

Personal Characteristics as Admissions Criteria

Admissions systems that included both academic and nonacademic criteria began to evolve after World War I (Wechsler, 1977), and discussions about using personal characteristics in admissions decisions appear in the literature at least as far back as the 1960s (e.g., Messick, 1964). In a significant 1985 study, Warren Willingham investigated the predictive value of a quality he called ‘productive follow-through,’ defined as ‘persistent and successful extracurricular accomplishment’ in high school. Although it proved to be a poor substitute for high school grades and admissions test scores in predicting college success, including productive follow-through along with these traditional factors substantially improved prediction (Willingham, 1985, p. 184). In recent years, the possibility of using personal characteristics (sometimes called character-based or noncognitive factors) as admissions criteria has drawn renewed interest. Because measures of these characteristics often display smaller group differences than test scores, it has been suggested that they could contribute to the prediction of college performance (including aspects like students’ leadership and citizenship), while simultaneously making the admissions process more equitable.

The question of whether measures of personal characteristics should be used as admission criteria requires careful consideration. Although there is little doubt that factors such as

conscientiousness, grit, and ability to delay gratification can be important to college success, measuring these characteristics accurately and without bias is challenging (Duckworth and Yeager, 2015). One drawback in using self-reports of personal characteristics is that the desired answers are often obvious to the respondent or may be coachable. In addition, some measures of these characteristics have unexpectedly shown patterns of group differences similar to those typically seen on standardized tests, implying that they would not be helpful in increasing the diversity of admitted classes (Zwick, 2017). In a recent review, Niessen and Meijer (2020) found that the available studies of character-based admissions criteria “show that most of these instruments have little predictive and incremental validity for academic achievement” (p. 82; also see Thomas, Kuncel, and Credé, 2007). Kuncel, Tran, and Zhang (2020) provide a more favorable perspective. They suggest that forced-choice personality assessments, which require respondents to indicate which of two statements better describes their personality, and situational judgment tests, which require test takers to indicate how they would respond to a particular scenario, may be promising approaches for use in the admissions setting.

A Look to the Future of Admissions Tests

With higher education admissions policies at a crossroads, what guidelines can be offered for the use of standardized admissions tests in the future?

First, any proposed use of an admissions test—the SAT, the ACT, or a new test—should be accompanied by a clear rationale and a thorough institutional study of the likely impact. The 2020 NACAC report provides a concise way of posing the main question to be addressed: “What are the ways in which college admission exams contribute to or detract from postsecondary access and success for a diverse set of students?” (NACAC, 2020, p. 2). The same type of scrutiny should be applied to other potential admissions criteria, such as grades and personal characteristics. The effects

of alternative ways of weighting and combining criteria should be investigated as well. The results of any such research should be made public to the degree possible.

Institutions should provide clear information to applicants about the criteria used in admissions and how they are weighted and combined. It is worth noting that test-optional policies are potentially problematic in this regard in that they involve (at least) two possible weighting schemes, depending on whether scores are submitted. Typically, neither is well described. One prestigious test-optional university includes the following statement on its website: “For applicants without scores, the Admissions Committee places greater weight on other parts of the application, such as high school transcripts, recommendation letters, and essays.” Vague statements like this one do not provide enough information to allow applicants, particularly unsophisticated ones, to determine whether or not it is in their best interest to submit scores (Zwick, 2017). Institutional websites often provide unhelpful advice such as the following (from another prestigious research university): “Some applicants may feel that an SAT or ACT score does not fully reflect their academic preparedness or potential. If this is the case for you, you may select [the] test-optional method of application and not supply SAT or ACT scores with your application.” Unless an applicant’s scores are very high or very low, however, making the optimal decision is not straightforward.⁹ From this perspective, test-blind admissions policies are more fair than test-optional ones.

If test scores are to be used in admissions decisions, they should be evaluated in context. The resources available to the applicant and the applicant’s high school should be considered. High-quality in-person test preparation should be made available to all applicants at little or no cost.

⁹ This predicament has certain parallels to the situation in which test takers are allowed to choose which of several test questions to answer. Although this feature of certain tests is typically regarded as an advantage to test-takers—an opportunity to do their best—research has suggested that test takers are not, in general, skilled at determining which choices will maximize their scores (Wainer and Thissen, 1994).

Steps should be taken to reduce the frenzy surrounding test scores. One small step would be to remove information about SAT and ACT score distributions from college rankings. The utility of institutional data on test score distributions is particularly questionable at present, given the differences across institutions in test requirements.

Finally, it is worth considering definitions of meritocracy that deemphasize test scores and other achievement metrics. I discuss this in the last section.

Alternative Approaches to Admissions

In addition to recommendations about admissions criteria, several proposals for sweeping changes of the entire admissions system have appeared in recent years. For example, a 2016 report from the Making Caring Common project at the Harvard Graduate School of Education outlined an admissions system intended to inspire “concern for others and the common good” (Harvard Graduate School of Education, 2016, p. 1). In short, the recommendation, which was endorsed by more than 70 college and university leaders, was that admissions decisions rely less on admissions tests and advanced coursework and focus instead on applicants’ service to their communities and families and even on their day-to-day conduct (p. 4).

Other changes that have been put forward involve algorithmic approaches as part of the admissions process. For example, a former college president suggested that the US might consider using a matching algorithm in which applicants would “provide information and preferences — perhaps for specific institutions, perhaps for a particular set of institutional characteristics — and would then be matched, using an algorithm, with a college ... [T]his system could ensure both that each applicant would get matched with an appropriate college and most colleges would get an incoming class of students that met its enrollment targets and priorities” (Rosenberg, 2020). (In fact, a matching system for college admissions is already in place in Chile.)

As a further example of an algorithmic admissions tool, my colleagues and I proposed the use of constrained optimization, an operations research technique, as a means of diversifying the entering class while maintaining high academic standards. Early work in this area was conducted by Pashley and Thornton (1999). In this approach, admissions personnel can choose an entering class with the highest possible average on an academic measure, such as high school GPA, while simultaneously imposing requirements on class composition. For example, it might be required that a certain percentage of admitted students be from low-income families or be among the first generation in their family to apply to college (Zwick, 2017; Zwick, Blatter, Ye, and Isham, 2021; Zwick, Ye, and Isham, 2019).

One of the most recent developments is the emergence in recent years of *direct admissions*. Although there is some variation across programs, direct admissions typically involves a database in which the profiles of would-be college students are stored. These profiles contain information about achievements and interests but are much less extensive than ordinary applications. Institutions can view these files and make offers to selected individuals. These individuals are guaranteed acceptance if they follow up with an application. Pilot programs have shown some promise. The direct admissions approach increases efficiency by requiring individuals to complete applications only for schools that have already agreed to accept them and may serve to inform high school students about colleges that they did not know about (Hoover, 2023).

Final Thoughts: Meritocracy in College Admissions

In debates about college admissions tests, the word “meritocracy” often arises. In a period of just five years, a flurry of books addressed the idea of meritocracy in the context of college admissions, including *The Tyranny of the Meritocracy* (Guinier, 2015), *The Meritocracy Myth* (McNamee, 2018), *The Meritocracy Trap* (Markovits, 2019), and *The Tyranny of Merit* (Sandel, 2020). A recent *New*

York Times column warns that eliminating SAT requirements could “represent the death of the meritocracy as we have known it” (Douthat, 2023). Testing proponents often claim that tests embody the fundamental principle of meritocracy, while detractors argue that those with high test scores may not, in fact, be meritorious.

In considering these issues, it is useful to take into account that “meritocracy” began as a term of mockery. The word was coined by British satirist Michael Young, author of *The Rise of the Meritocracy*, originally published in 1958. As he notes in his introduction to a later edition, Young was warned that he would be “laughed to scorn” if he “invent[ed] a new word out of one Latin and one Greek word” (Young, 1994, p. xii). (The Latin word *meritum* means “what one deserves” or “due reward,” while the Greek “-cracy” refers to a type of government or rule.) But as Young notes, his title met with acclaim rather than criticism: “The twentieth century had room for the word” (p. xii). In his book, Young describes a smoothly running but abhorrent society in which every aspect of life—work, compensation, education, marriage—is regulated by intelligence test scores. Astonishingly, some commentators evidently did not recognize the book as satire—as a demonstration of “how sad, and fragile, a meritocratic society could be,” but as a sincere argument for a society of this kind (pp. xiv-xv).

Even if we could devise an entirely unobjectionable test that perfectly measured academic talent or accomplishment, it is not obvious that those with the highest scores would be most deserving of college admission. Consider the views of philosopher John Rawls. According to Rawls, talents are merely the result of a “natural lottery,” and we do not deserve to be rewarded for them any more than we deserve to be rewarded for wealth or social position. In fact, admissions policies need not favor those who are most likely to be successful, however defined. As I have noted elsewhere:

Whether a student is entitled to admission depends entirely on the purpose and rules of the school's admissions system ... An institution is not obliged to select the students who are deemed most likely to earn high grades or graduate. Indeed, if an institution's mission is to educate the least prepared, it may choose its students accordingly. There is no all-purpose blanket "entitlement" to be admitted to college ... (Zwick, 2017, p. 194)

The problem with the idea of meritocracy, as it is currently interpreted in the admissions context, is not merely the fact that no perfect measures of educational excellence exist, but that deservingness need not rely on talents or accomplishments. Admissions criteria must flow from an institution's admissions policy, and ultimately, its mission. For example, rather than seeking students with the most distinguished high school records or those most likely to graduate, a school might seek those that best represent the state from a demographic perspective or those that will benefit most from the curriculum (see Laird, 2005, p. 19).

Going a step further, the Nobel laureate Amartya Sen, a philosopher and economist, suggested in an essay published more than 20 years ago that merit does not reside within the individual at all (Sen, 2000; see Zwick, 2022). Although he does not explicitly address college admissions, he proposes two pertinent principles. First, "the rewarding of merit and the very concept of merit itself depend on the way we see a good society and the criteria we invoke to assess the successes and failures of societies." The second idea is that although "conventional notions of 'meritocracy' often attach the label of merit to *people*," the designation should instead be applied to *actions* (Sen, 2000, p. 12). An action is meritocratic if it promotes a valued societal goal. In the admissions context, for example, a policy that gave preference to students from lower-income backgrounds would be considered meritocratic if the university's mission included the reduction of economic inequality in our society. An admissions policy would be evaluated in terms of whether the characteristics of the admitted class, considered as a whole, upheld the mission of the institution.

Every admissions policy has implications for the academic and demographic characteristics of the entering class, the resources the incoming students will need, and the likelihood that they will have a successful college experience. A movement toward admissions policies that support student preparation and increase access to higher education, rather than encouraging a competitive frenzy, would be a welcome change. And Sen's perspective on meritocracy reminds us that broadening access to higher education can itself be a meritocratic act.

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