Appendix: Data Sources and Methodology

This report relies on the second follow-up of the High School Longitudinal Study of 2009 (HSLS:09), which took place in 2016. The initial survey included 23,000 students across 944 schools who were in the ninth grade in 2009. We used the second follow-up survey to track the enrollment behavior of these 2009 ninth graders between 2009 and 2016.

Using Barron’s 2014 rankings obtained from NCES-Barron’s Admissions Competitiveness Index Files: 1972, 1982, 1992, 2004, 2008, 2014, we identified the approximately 300,000 sampled ninth graders of 2009 who went on to enroll in a selective college, defined as a college within the top two tiers of Barron’s ratings (“Most Competitive” and “Highly Competitive”). For these students, we compiled data on weighted SAT and ACT scores, socioeconomic status, and race and ethnicity.

For the experiment, we sorted the entire sampled freshman 2009 cohort in descending order by composite SAT scores (derived from SAT and ACT scores, with the latter converted to SAT-equivalent scores). We then applied a running count of the weighted sample, “admitting” students until we reached the same number of freshmen that had enrolled in a selective college. We defined the SAT cut-off as the minimum SAT score of those we “admitted” in the running count.

When discussing students in our “admitted” group, we include all students whose composite SAT score was at or above the cut-off score. We included students whose scores were on the margin to enhance replicability: due to the nature of the weighted sample, we were not able to randomly select marginal cases from the data set.

We then perturbated the data to protect confidentiality without losing generality and rounded to the nearest thousand. We adjusted the actual enrollment numbers by a factor defined by the ratio of selective college enrollment to 300,000, and made an equivalent adjustment for the “admitted” enrollment numbers.

We define displacements as students who enrolled in a selective college, but had a composite SAT score below the 1250 threshold.

We define replacements as students who had not enrolled in a selective college, but had a composite SAT score above the 1250 threshold.
Acknowledgments

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Introduction

The competition to get into America’s most selective colleges and universities is fierce. Some top universities admit as few as 5 percent of applicants.\(^1\) Judging from how much high school students and their parents worry about standardized test scores, one might presume that an SAT or ACT score is the primary factor in college admissions—and that those admitted with lower scores are an exception to the rule. But a look at the numbers reveals a different reality.

A review of SAT and ACT standardized test scores among students in a recent class at the nation’s 200 most selective colleges finds that if all students were admitted solely on the basis of their test scores and no new seats were added, 53 percent of incoming students at the nation’s most selective colleges would no longer be attending (Figure 1). These students had median test scores that were 110 points below the median of all students at selective colleges (1140, compared to 1250). More than half of the students who would be ousted are affluent students—from families in the top quartile of socioeconomic status (SES).\(^2\)

FIGURE 1. With SAT-only admissions, more than half of incoming students at the 200 most selective colleges would no longer be attending.

Source: Georgetown University Center on Education and the Workforce analysis of the High School Longitudinal Study of 2009 (restricted use data), 2018.

Note: The data above includes all 2009 high school freshmen who went on to enroll at a selective college within the ensuing four years.

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1 Delaney, “New Data Show How Hard It Was to Get into an Elite US College This Year,” 2019.
2 Socioeconomic status reflects a combination of household income, educational attainment, and occupational prestige (a measure of social standing, power, and earnings ability).
If those students were ousted and replaced by applicants with higher test scores, however, the student bodies of America’s most selective colleges would become even more aristocratic. Now, 60 percent of incoming freshmen at selective colleges are from the top quartile of family SES, but that would increase to 63 percent if students were admitted based on standardized test scores alone.

In addition to having more affluent students, selective colleges would become notably less racially diverse. The White enrollment would grow by about 14 percent. Meanwhile, the combined Black and Latino enrollment at selective colleges would be reduced by 43 percent, and Asian enrollment would decline as well—by about 9 percent.

**A thought experiment**

Standardized tests were devised to measure merit: theoretically, if all students take the same test under the same conditions, the best and the brightest will emerge. But SAT and ACT scores are imperfect measures of ability. They are probability statements about the likelihood of college success, not absolute indicators of who is qualified for admission.

Nevertheless, standardized test scores are the most widely-used metric we have for comparing very different students to one another. With that in mind, we used these scores as a tool for this thought experiment.

We examined data that followed students entering high school in 2009, which includes information about those students’ family socioeconomic status, race and ethnicity, standardized test scores, and college enrollment. Using that data, we identified students from the high school class of 2013 who enrolled at the most selective colleges and universities in the country. Then we looked at all the prospective college students from that year who reported SAT or ACT scores. We sorted by score and took the highest-scoring students until every existing seat was filled in the most selective institutions—in other words, we lined students up and let them in on the basis of test scores alone. After filling all 300,000 existing seats, we found that no one with an SAT or SAT-equivalent score below 1250 would have been admitted to the 200 most selective colleges and universities if admissions were based on test scores alone.
Next, we looked at the number of students who actually attended these selective institutions despite not meeting our minimum test score threshold. This is where things got interesting: we found that 53 percent of students in our data set who enrolled at selective colleges scored below 1250 on the SAT.

One finding that emerges in this experiment is that lower-scoring affluent students are disproportionately taking seats that might have otherwise gone to students with higher test scores. A full 53 percent of students who got into selective colleges with scores below 1250 came from the top quartile of SES among families with college-age children (families with a median annual household income of $122,000). Two-thirds (66%) of these affluent students who were admitted with scores below 1250 are White.

We also find that few of the admitted students with scores below 1250 are from the groups typically assumed to benefit from affirmative action. Only 27 percent of these students are either Black or Latino. Most (57%) are White, and 8 percent are Asian. All of the students in these groups who would be ousted have very similar median SAT scores: Whites had a median SAT score of 1140, Asians had a median score of 1130, and Blacks and Latinos had a median score of 1120. So no single group was significantly dragging down the median SAT scores.

Public discourse about affirmative action has led some to believe that it primarily benefits lower-income Blacks and Latinos. But, in reality, few lower-income Blacks and Latinos are attending selective

FIGURE 2. Among students who would be displaced in an SAT-only admissions system, affluent Whites are the largest group.

![Enrolled students displaced under test-only admissions](image)

Source: Georgetown University Center on Education and the Workforce analysis of the High School Longitudinal Study of 2009 (restricted use data), 2018.

Note: Values may not sum to 100 percent due to rounding.

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7 Socioeconomic status quartiles correlate strongly with family income.
colleges. Only 16 percent of students admitted to selective colleges with test scores below the 1250 SAT threshold—and from the lowest three-quarters of family SES—are Black or Latino. That is a much lower share than the 35 percent with scores below the threshold who are White and affluent (Figure 2).

The recent college admissions scandal has reinforced a sense that social status, affluence, and contacts allow special access to selective colleges. Our data confirms that the affluent have extraordinary advantages in college admissions. Among incoming students with test scores below 1250, those from families in the top quartile of SES have more seats at selective colleges or universities than students in the bottom three quartiles combined. That is true even though among students with test scores below 1250, the median test score (1140) for students in the top SES quartile is the same as the median test score for students from the bottom three quartiles. When faced with equally prepared candidates for admission, it appears that affluent students will usually get the nod.

**Who is missing out?**

Our next step was to evaluate whether the demographics of the first-year class at selective colleges and universities would change if we admitted students based on standardized test score alone.

First, the median test score would rise significantly. At present, the median test score among admitted students at these selective colleges is 1250 on the combined SAT/ACT (measured using an SAT equivalent score). At the end of the reshuffling, the median score would increase to 1320.

Second, more enrolled students would be affluent. Currently, 60 percent of students who enrolled at the 200 most selective colleges and universities were from the top quartile of SES. Among those displaced in our thought experiment because they did not meet the SAT scoring threshold, 53 percent are from the top quartile of SES. But the students who would gain entrance instead of the displaced students would be even more affluent as a group, with 58 percent coming from the highest quartile. In the end, under an SAT-only admissions system, 63 percent of students in our entering class would be from the top SES quartile.

Third, the racial and ethnic makeup of the entering class would change dramatically. Currently, enrollment at the nation’s selective colleges is 66 percent White, 19 percent Black and Latino, 11 percent Asian, and 5 percent other races. But if we distribute seats to only students with the highest scores on the SAT and ACT, the White share of enrollment jumps to 75 percent, the Black and Latino share drops to 11 percent, the Asian share falls to 10 percent, and the share of other races and ethnicities remains 5 percent.

The reshuffling of students would end with many more White students in the most selective colleges. Roughly 91,000 White students would have to leave, but they would be replaced by 120,000 new

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White students with higher test scores. Whites would see a 14 percent net increase in their number of seats, and the median SAT score for White students would increase from 1260 to 1330.

The proportionate enrollment of Black and Latino students would drop steeply—about 44,000 Black and Latino students would be ousted, and they would be replaced by only about 20,000 different Black and Latino students. The net effect would be that Black and Latino students would lose 43 percent of their seats in this great re-sorting. The median SAT score for all Blacks and Latinos at selective colleges would rise markedly, from 1150 to 1300.

Asian students also would be hurt by the new distribution. In the reshuffling imagined in this report, about 13,000 Asian students would have to leave, and they would be replaced by 11,000 other Asian students. The net effect is Asians overall would lose about 9 percent of the seats they now hold in selective colleges. The median SAT for Asians at selective colleges would increase modestly, from 1310 to 1350 (Figure 3).

**The pros and cons of test scores in admissions**

To be clear, we aren’t advocating admissions based on SAT or ACT score alone. If anything, these standardized test scores have been overused as colleges and universities attempt to gain prestige. The higher a college’s average SAT score among incoming students, the higher achieving its students are perceived to be.

But the truth is that standardized tests are not a good enough predictor of college success to justify their use as a key determinant of admissions. Students with relatively high SAT scores do not perform at a much higher level than students with slightly lower SAT scores. For example, at selective colleges, we find that students with SAT scores between 1000 and 1099 have a 79 percent chance of graduating. That is similar to a student with an SAT score above 1200, who has an 85 percent chance of graduating when enrolled at a selective college. Requiring high SAT scores means rejecting a large number of students who have perfectly good chances of succeeding at a prestigious college.\(^9\)

In addition, since Black and Latino students have lower median SAT scores than Whites, an overreliance on the SAT puts Black and Latino students at a disadvantage in admissions, even though the test results mean little about whether they will actually succeed in college. That’s particularly unfortunate because Black and Latino students stand to benefit strongly from attending selective colleges: a Black or Latino student with a score above 1000 on the SAT has an 81 percent chance of graduating at a selective college, but only a 46 percent chance of graduating at an open-access college.\(^10\) Unfortunately, the overwhelming majority of Black and Latino students attend open-access colleges, severely diminishing their opportunities to graduate.

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\(^9\) Carnevale et al., *Our Separate and Unequal Public Colleges*, 2018.

\(^10\) Carnevale et al., *Our Separate and Unequal Public Colleges*, 2018.
FIGURE 3. How would enrollment change at highly selective colleges if SAT scores were the sole factor in admissions decisions?

By socioeconomic status

<table>
<thead>
<tr>
<th>Displaced Enrollees</th>
<th>Existing Enrollment Share</th>
<th>Test-only Enrollment Share</th>
<th>Replacement Enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>74,000</strong></td>
<td><strong>40% (119,000)</strong></td>
<td><strong>37% (111,000)</strong></td>
<td><strong>66,000</strong></td>
</tr>
<tr>
<td><strong>84,000</strong></td>
<td><strong>60% (181,000)</strong></td>
<td><strong>63% (189,000)</strong></td>
<td><strong>92,000</strong></td>
</tr>
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</table>

**159,000 Total Displacements**

**Source:** Georgetown University Center on Education and the Workforce analysis of the High School Longitudinal Study of 2009 (restricted use data), 2018.

**Note:** Numbers in figure may not sum due to rounding.
By race/ethnicity

Displaced Enrollees

- White: 11,000
- Black/African American or Hispanic/Latino: 13,000
- Asian: 44,000
- Other: 91,000

Existing Enrollment Share

- White: 5% (16,000)
- Black/African American or Hispanic/Latino: 11% (32,000)
- Asian: 19% (56,000)
- Other: 66% (197,000)

Test-only Enrollment Share

- White: 5% (14,000)
- Black/African American or Hispanic/Latino: 10% (29,000)
- Asian: 11% (32,000)
- Other: 75% (225,000)

Replacement Enrollees

- White: 9,000
- Black/African American or Hispanic/Latino: 11,000
- Asian: 20,000
- Other: 120,000

159,000 Total Displacements

159,000 Total Replacements
At present, colleges consider SAT scores along with many other factors—including high school grades, essays, letters of recommendation, extracurricular activities, ability to pay the tuition, and talents—in what they call a “holistic” approach to admissions. This process is intended to form a well-rounded group of entrants each year with disparate backgrounds and interests. For example, a college might admit a student with lower test scores who is planning to pursue a certain major that is undersubscribed. A college might want to have a certain percentage of students who are first-generation college goers, or to strike a balance among students of different sexes or ethnic backgrounds, from different parts of the country, or who have demonstrated talent in music or athletics. A college may choose to admit a student from a high-income family with the means to pay a greater proportion of the tuition bill. A holistic approach allows admissions officers to take that array of factors, and many others, into account, and it’s one reason that colleges admit so many students who would be kicked out on the basis of our thought experiment.

A holistic approach gives colleges a lot of leeway in their decisions. The admissions process at colleges is already opaque: colleges don’t release a list of students who got in and the reasons that those students were selected. Likewise, they don’t reveal who didn’t get in and why those applicants were rejected. Without standardized tests, colleges would have even more freedom to admit or reject whomever they want, with even fewer checks on their decision making.

The real dilemma

The question of how heavily to weigh standardized test scores in admissions decisions is about more than fairness in admissions. At its heart, it’s a question about the goals of our higher education system and what we do when those goals are in tension. It’s rooted in a longstanding debate about the quest to find balance between efficiency and racial and economic justice.

At the end of the day, we want our education system to promote upward mobility in a way that is fair. We want a system that gives chances to students who work hard and show potential to succeed, regardless of who they are or where they come from.

That might be the system we want, but it’s not the system we have. Instead, we have a brutally efficient system that begins sorting children at birth. At each step along the K–12 pathway, we give the most and best resources to the students who have the most to begin with, reasoning that our investments should go where they have the greatest chances of paying off.

What does this have to do with colleges and universities? If the great sorting of society into haves and have-nots starts at birth and its effects are cumulative, the obvious solution is to look to the pre-K–12 system to address unequal distribution of resources. But even if we immediately fixed every disparity in the pre-K–12 system, we would still have to wait almost another 18 years before entering college freshmen in the United States would find themselves on equal footing regardless of their race or ethnicity.

11 Carnevale et al., Born to Win, Schooled to Lose, 2019.
class background. We can and should reform primary and secondary education to address existing disparities. But we also need to leverage the higher education system, and selective colleges and universities in particular, to address the opportunity gaps faced by today’s young adults.

Our thought experiment clearly indicates that an SAT-only admissions process isn’t the answer. If admission to the most selective colleges were based on SAT scores alone, those institutions would serve even more affluent White students than they already do, further perpetuating intergenerational race and class privilege. But we also find that the current admissions system disproportionately benefits affluent Whites.

So, just as an SAT-only admissions standard isn’t the answer, neither is an admissions process without any standardization at all. What we need is a system that is not only holistic (while still including some form of standardization), but also transparent. Without transparency, there is no way to ensure that the system is fair.
References


Appendix: Data Sources and Methodology

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When discussing students in our “admitted” group, we included all students whose composite SAT score was at or above the 1250 cut-off score. We acknowledge that many students elect not to apply to or enroll in these colleges for a variety of reasons, but for the purposes of this experiment, we assumed that all these students would apply to selective colleges and enroll in them if accepted. We included students whose scores were on the margin to enhance replicability. We then perturbated the data to protect confidentiality without losing generality and rounded to the nearest thousand.

We define **displacements** as students who enrolled in a selective college, but had a composite SAT score below 1250.

We define **replacements** as students who had not enrolled in a selective college, but had a composite SAT score at or above 1250.
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