OPPORTUNITY INSIGHTS

Standardized Test Scores and Academic Performance at Ivy-Plus Colleges

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What is the value of standardized test (SAT and ACT) scores in college admissions? Most colleges dropped the testing requirement for admissions following the onset of the COVID-19 pandemic in 2020, but some have since reinstated this requirement and others are considering whether to do so.

We contribute to this debate by studying the relationship between a student's test score and their academic performance during the first year of college. We use admissions records and first-year college grades from multiple Ivy-Plus colleges[4] for students between 2017 and 2022 to study how standardized test scores and high school grade point average (GPA) relate to academic success in college. ==Even among otherwise similar students with the same high school grades, we find that SAT and ACT scores have substantial predictive power for academic success in college.==

Finding #1: Students with higher SAT/ACT scores are more likely to have higher college GPAs than their peers with lower scores

Comparing within students of a given gender, family income level, race or ethnicity, and among students with the same grades in high school, students with the highest possible test score (i.e., SAT score of 1600 or ACT score of 36) achieve a first-year college GPA that is 0.43 points higher than students with an SAT score of 1200 or ACT score of 25 (which equates to the 75th percentile of test takers).

In their paper on admissions to highly selective colleges, [Chetty, Deming and Friedman (2023)](#) show similarly that scores correlate strongly with students' post-college outcomes including earnings, attendance at prestigious graduate schools, and employment at prestigious firms.

Since 2020, students at each of the schools in this analysis (and most schools nationwide) have had the option to apply without submitting standardized test scores. **Students opting to not submit an SAT/ACT score achieve relatively lower college GPAs** when they attend an Ivy-Plus college, with performance equivalent to students with an SAT score of 1307 (or an ACT score of 28).

Finding #2: High school GPA does a poor job of predicting academic success in college

In contrast to these test score patterns, students with a perfect (scaled) high school GPA of 4.0 achieve a cumulative GPA in college that is less than 0.1 points higher than a student with a 3.2 high school GPA, indicating ==high school GPA does little to predict academic success in college.==

==Higher SAT/ACT scores are associated with higher college GPAs but higher high school GPAs are not.==

This figure depicts the relationship between students' performance on standardized college entry exams (SAT/ACT) as well as their high school GPAs relative to their academic performance in college (first-year college GPA) when controlling for race, gender, and family income, as well as other characteristics such as first-generation and legacy status.
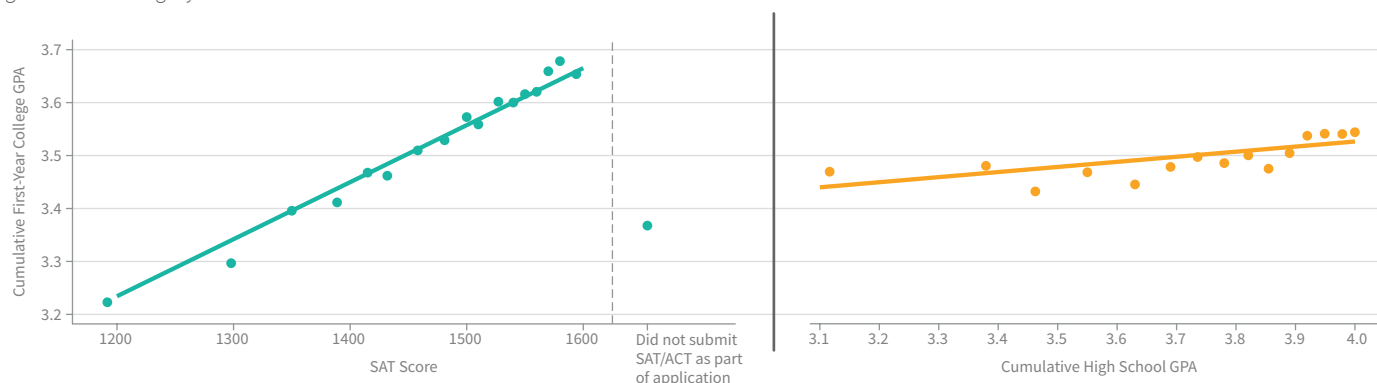
Finding #3: Students from different socioeconomic backgrounds who have comparable SAT/ACT scores receive similar grades in college

Despite their predictive power, standardized test scores may be unattractive for use in admissions if they are biased against students who have had access to fewer resources. To test this, we compare college success outcomes (first-year college GPA) of students from less advantaged vs. more advantaged high schools[5] and find that conditional on SAT/ACT score, **there is no evidence that students from higher-resourced backgrounds outperform students from lower-resourced backgrounds** – their college GPAs are virtually identical.

Higher SAT/ACT scores are associated with higher college GPAs – even when comparing students from different socioeconomic backgrounds.

This figure depicts the relationship between students' performance on standardized college entry exams (SAT/ACT) and their academic performance in college (first-year college GPA), controlling for race, gender, and family income, as well as other characteristics such as first-generation and legacy status. We plot the relationship separately for students attending less vs. more advantaged high schools, defined by an index of challenge indicators that feed into the College Board landscape tool.
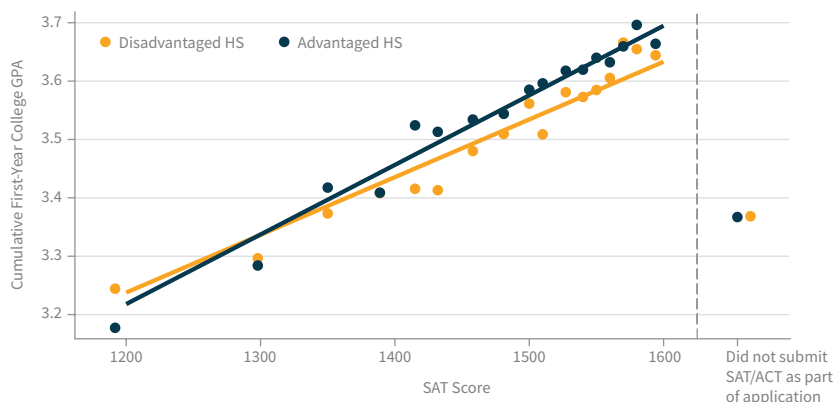
We conclude that standardized test scores may have more value for admissions processes than previously understood in the literature, especially for highly selective colleges

It is important to acknowledge that students from low-income families and other less advantaged backgrounds have lower standardized test scores and are less likely to take the test than students from higher income families. This fact is consistent with those presented above because of disparities experienced throughout childhood, including differences in school quality, neighborhood exposure, and many other environmental conditions. While these findings do not suggest how to address these deeper inequities, they do suggest that test scores may be helpful for highly selective colleges to create more upward mobility by prioritizing admissions for academically prepared students from a broader range of backgrounds.

A technical appendix for this analysis can be found on the Opportunity Insights website, as well as further analysis of admissions at Ivy-Plus colleges.

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1. Opportunity Insights, Brown University and National Bureau of Economic Research
2. Dartmouth College and National Bureau of Economic Research
3. Dartmouth College
4. Ivy-Plus colleges are defined as the eight Ivy League colleges – Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, University of Pennsylvania, and Yale University – plus Stanford, MIT, Duke, and Chicago.
5. High schools with a challenge indicator above the 20th national percentile (approximately the 75th percentile in the distribution of applicants to Ivy-Plus colleges) are considered 'less advantaged'.

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