

The inferiority of SAT/ACT: Standardized testing and how it fails to predict academic abilities

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The Scholastic Assessment Test (SAT) is a standardized test produced by the non-profit organization CollegeBoard. It consists of three parts; the reading test, the writing, and language test, and the math test, and usually lasts for about 3 hours. The majority of the test consists of multiple choice questions with a few being written answer questions (College Board, n.d.). The American College Test (ACT) is almost the same, only with the addition of a science component and slightly different distributions of time allocation. The purpose of the SAT/ACT is to determine college preparedness on a national level. Every student is fairly graded against almost all students across the country (College Board, n.d.; College Board, 2019; Homeland Security, 2012). High School Grade Point Average (GPA) is another way of evaluating college preparedness but against students from the same high school rather than the country. According to supporters of the SAT/ACT, multiple studies of the SAT/ACT have found a statistically significant correlation between it and freshman college GPA, graduation GPA, and so on (University of California, 2020). However, there have been multiple studies showing a distinct bias in SAT/ACT scores among students, degrading their image as a good predictor of college success. I believe the SAT/ACT does not adequately predict college success and should not be used as a college admission qualification.

Firstly, SAT/ACT scores have shown a statistically significant correlation between scores and college success, however, those scores are often moderate at best, and as low as .42 at worst (Allensworth & Clark, 2020; University of California, 2020). In fact, some studies are seeing higher correlations between High School GPA and college success than SAT/ACT scores (Allensworth & Clark, 2020). However, it is believed that African American and Hispanic students' HSGPA doesn't predict their college GPA as well as students of other ethnicities (University of California, 2020). According to Allensworth and Clark, HSGPA may be 5x more

predictive of college graduation than a student's ACT scores. This possibility stems from multiple factors, such as what the SAT/ACT covers. As previously mentioned, the ACTs consists only of multiple choice questions on math, science, reading, and writing, and the SAT's even less, in a short 3-hour time frame. The tests also mostly focus on math and reading scores, excluding a broad range of subjects and knowledge that is required for college success. Meanwhile, HSGPA covers a broad range of knowledge and skills over many years of coursework, which more closely resembles what's expected at college. This may be why the University of California's study showed a moderate correlation between SAT/ACT scores and college freshman and graduation GPA, but a weak correlation between student retention and graduation. Allensworth and Clark used data samples from colleges across the country and found that there were small and occasionally insignificant relationships between SAT/ACT scores and college success depending on the college (Allensworth & Clark, 2020; University of California, 2020). Yet, when college success was compared to HSGPA, a strong relationship was seen. Allensworth and Clark also cited a study that found the discoveries of California universities showed the correlation between SAT scores and college GPA was mostly due to high school poverty, school racial composition, and student background (Allensworth & Clark, 2020; University of California, 2020). And this leads me to my second reason.

SAT/ACT scores do not account for demographic differences between students. According to the University of California (2020), SAT/ACT scores correlate more with demographic factors such as parental income, education, ethnicity, etc..., than a student's high school GPA. Research has shown that demographic predictors actually weaken the SAT/ACT score's ability to predict a student's success at college. In fact, since the 1990s, the variance in the SAT/ACTs affected by demographic factors has increased from 26% to 43%. The University

of California (UC) concluded from their analyses that the SAT/ACT's predictive power varies by demographic factors. When UC didn't control for demographic factors, SAT/ACT scores were better predictors of freshman GPA than HSGPA but were nearly identical in terms of graduation GPA, first-year retention, and overall graduation. However, when demographic factors were controlled for, SAT/ACT scores and HSGPA predicted freshman GPA the same, but SAT/ACT scores lacked when compared to HSGPA for predicting first-year retention, graduation GPA, and graduation. Similarly, the University of California (2020) mentions a study done by Saul Geiser, in which he found that demographic factors predict more than  $\frac{1}{3}$  of SAT/ACT score variance amidst UC applicants. Saul Geiser also found that among the predictors of SAT/ACT score variance, race/ethnicity was the strongest one. This is quite different from what the College Board, the current producer of the SAT test, shows in their studies. In one study done in 2006 by researchers Kobrin and Michel, they found that "the SAT was an equally effective or a slightly better predictor of college success than HSGPA", with the only exception being African American students, with a larger difference between HSGPA and SAT scores (from 79.7 to 94.8).

But it's not just demographic factors that affect SAT/ACT scores. Learning disabilities have long since been a complaint among parents and students and how they may affect SAT/ACT scores. According to Dr. Ellen Braaten (n.d.), students with learning disabilities (dyslexia, dysgraphia, disorder of written expression), or ADHD/ADD are given extra time and other amenities on the SAT/ACT. However, to be eligible for this special treatment, the student must be diagnosed with the disability or have extensive documentation of it affecting their learning. This documentation is done through a comprehensive assessment, which is typically a neuropsychological assessment, that measures the student's cognitive and executive functioning skills, as well as attention. Many students with learning disabilities, though not all, benefit

greatly from these accommodations. Dr. Braaten used a child with dyslexia as an example. Dyslexia is a learning disorder in which students will experience reading difficulty due to brain processing issues like identifying speech sounds and word decoding (Mayo Clinic, 2017). Because of this, a dyslexic student may have a much slower reading rate than other students, so a timed reading test would be much harder for the aforementioned student than others. This is an unfair disadvantage, so extra time may be allotted to make up for the disadvantage. This has been called unfair by some, however, Dr. Braaten explains why this is both fair and necessary. A dyslexic student who can answer every question, Dr. Braaten explains, but can't read the questions as fast as other students without dyslexia, will do well if actually given the time to read each question. However, students who do poorly on the SAT/ACT without dyslexia would not do any better if given extra time, because if the student doesn't know the answer after reading the question, extra time usually won't help. In spite of that, many students do not benefit from these accommodations as learning disabilities, in particular, go undiagnosed (Learning Disabilities Association of America, n.d.). According to the NCLD (2019), 1 in 5 children in the U.S. have some kind of learning and/or attention disorder. Some of these children are given special treatment and amenities to help with their disability, but many still aren't. And Dr. Braaten (n.d.) stated that students will not be given disability accommodations on the SAT/ACT if their disability is discovered in their sophomore or higher year. This is due to the fact that the SAT/ACT will not approve of a recent diagnosis, even if the problem is chronic and nothing new to the student. So many students who are either undiagnosed or only recently diagnosed are forced to take the SAT/ACT at an unfair disadvantage, which affects their overall score variance.

Clearly, there is a problem with how SAT/ACT scores are seen by colleges as a predictor of college success. College Board and other institutions believe that the SAT/ACT are good

predictors of college GPA and graduation. However, many studies are showing that it is often no better a predictor than a student's high school GPA and that any correlation that exists is only moderate at best. There are also many factors not properly accounted for by the SAT/ACT like demographic factors and learning disabilities. All and all, these confounding variables affecting the SAT/ACT scores must first be considered before we can accurately use the SAT/ACT as a predictor of college success in the future, if we use it at all. Maybe then that correlation between the tests and college success won't be moderate, but substantial.

## Citations

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