

Predictive Validity of the SAT[®] for Higher Education Systems and Consortia

The Value of Validating Admissions and Retention Predictors

Recently, the University of California (UC) System conducted an SAT[®] predictive validity study that provided insights into its admissions, placement, and retention policies. Although such studies are typically conducted by single institutions, there are compelling reasons why a systemwide analysis is useful:

1. UC wished to understand the predictive value of the SAT since the 2016 redesign and gain insight into the use of the assessment across all campuses in the system.
2. As a state-supported system, UC must regularly and publicly review its admissions policies to ensure they are fair and consistently applied to all applicants, regardless of campus selectivity, popularity, or location.

System Profile

UC is a public, multicampus, land-grant university system. Campuses are located across the state in cities, small towns, and rural areas. UC has a systemwide admissions policy, although campuses have flexibility in who they admit. The academic profile of students admitted by individual campuses may differ somewhat, although all students must meet a minimum eligibility threshold. The system prides itself on accommodating all eligible California resident applicants. It does this by employing an admissions policy that uses multiple indicators of talent and potential, including high school GPA (HSGPA); standardized test scores; completion of college-preparatory courses; and responses to “personal-insight” questions, among a number of other factors.

Key Validity Study Outcomes

- The combination of HSGPA, SAT, and average AP[®] Exam performance was the most predictive of first-year college performance.

Key Takeaways:

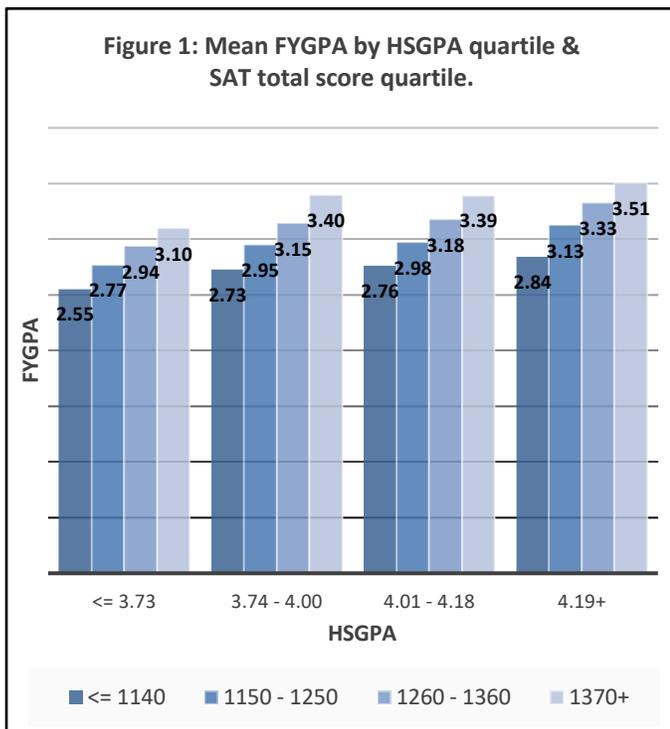
- Validating systemwide policies is increasingly required for public accountability and transparency.
- A large university system recently conducted an SAT predictive validity study to verify the effectiveness of the new SAT and other predictors, such as HSGPA and AP courses, in its admissions policies.
- Results demonstrated that the SAT and HSGPA were the strongest predictors of student college performance respectively; but that a combination of SAT, HSGPA, AP scores, and the SAT Essay were the most predictive of first-year college performance.
- Systemwide validity studies are effective in providing data that contributes to greater public accountability, more consistent application of systemwide policies, and expanded institutional capacity to identify students needing academic assistance.
- Combining SAT and HSGPA provided a 16% boost in predictive power over using HSGPA alone. When AP scores were included, the boost in predictive power is 21% over HSGPA alone.
- There is a positive relationship between students' achievement on the SAT Math section and first-semester grades in college math courses. For students with similar HSGPAs, a higher SAT score can mean a better chance of earning a 2.50 or higher in a college math course.
- The SAT Evidence-Based Reading and Writing (ERW) section is a strong predictor of first-year college success overall and success in English and writing coursework.

Students who have higher SAT ERW section scores have higher GPAs in college English courses.

- Each SAT Essay subscore is positively correlated with first-term college English course grades.
- Among students with very similar HSGPAs, students with a higher SAT score are more likely to return to college for their second year.
- Students who earn grades in college that are much lower than predicted based on their high school performance and SAT scores have a far lower retention rate than those who earn grades at or higher than their predicted level.

Implications for Enrollment Leaders

These results have practical implications for campus faculty and administrative leaders who must select students from among thousands of applicants with strong and often similar HSGPAs (the average HSGPA of students in this sample was 3.95). Figure 1 shows that students who apply with very similar HSGPAs have different academic trajectories in college that are captured when additional information, such as SAT scores, are included.



Advantages of Systemwide Predictive Validity Studies

Key advantages for university systems or consortia to conduct predictive validity studies include the following:

- **Promotes consistency and operational uniformity:** Although each UC campus has a distinct history, institutional profile, and admissions selectivity, UC is required to apply a single admissions policy across the system. Consistency is essential since all qualified state residents are eligible to apply to any or all campuses (and, in theory, could be admitted to all of them). Individual elements—such as the validity of HSGPA and SAT scores—must be regularly assessed to determine if they are effective in predicting student success in college at all campuses.
- **Bolsters public accountability and transparency:** UC is among the most popular college destinations for students within the state. Given this public interest, it must report admissions and enrollment outcomes regularly. Studies on predictive validity show how objective measures used in the evaluation of applicants are based on a sound empirical footing.
- **Extends capability by assessing student retention risk:** As retention and completion have become benchmarks of institutional success, UC is increasingly reliant on data gathered at the point of admission that may be useful in identifying students who need additional academic assistance. Research shows that metrics such as HSGPA and SAT scores can be used effectively to predict students' academic performance in college by comparing predicted performance with actual performance. This provides colleges and universities with a powerful strategy to determine which students may be at risk for departure, linking them with the academic support they may need to succeed in college.
- **Informs learning in K–12 schools and in related college courses:** Predictive validity data show that SAT Math and ERW section scores, as well as the SAT Essay scores, are related to higher grades in corresponding math and English courses in college, highlighting the instructional sensitivity of the test. The SAT also includes two cross-test scores, Analysis in Science and Analysis in History/Social Studies. These are designed to assess students' ability to apply college readiness skills in reading, writing, and math to the social science and science disciplines. Analyses show that both scores are positively related to students' first-year performance.