The SAT: A Robust Predictor of College Success

The SAT’s validity rests not only in its ability to predict a student’s first year college grades, but its capacity to also predict grades into the later years. And even beyond grades, the SAT can help identify which students are likely to return to college in their 2\textsuperscript{nd} and 3\textsuperscript{rd} years.

- **Our research shows that** there is a strong relationship between SAT scores and a student’s first year grade point average in college.

- **The relationship between SAT scores and cumulative GPA remains strong and consistent as** students progress through their college career.

- **As SAT scores increase**, so does the likelihood of a student returning for the second and third year of college.

**First Year Grades in College**

Our research shows that there is a strong relationship between SAT scores and a student’s first year grade point average in college.

![First Year GPA by SAT Score Band](chart.png)

The figure above depicts the strong positive relationship between SAT scores and grades in the first year of college. We see, for example, that on average students who score in the 2100-2400 range finish their first year of college with a 3.53 GPA, whereas students who score in the 600-1190 range finish on average with a 2.29.
This chart depicts the ability of SAT scores to predict a student’s likelihood of attaining 3.00 or better grade point average. Almost 90% of students in the uppermost score band earned a 3.00 or higher in the first year of college, as opposed to less than 20% of students at the lower end of the score bands.

Both of graphs above are based on the 2008 college-bound cohort, which included 173,963 students across 129 institutions (Patterson & Mattern, 2010).

Grades in Years 2 and 3 of College

The relationship between SAT scores and cumulative GPA remains strong and consistent as students progress through their college career.

Two recent studies have demonstrated the strong relationship between SAT test scores and cumulative GPA through the second and third year of college (Mattern & Patterson, 2010d, 2010e). Some of the findings are highlighted in the graphs below.
The graph above shows how students in higher score bands have, on average, higher cumulative GPAs through their third year of college (i.e., grades from their first, second, and third years of college combined).

Similarly, students in that same upper score band have an almost 90% chance of earning a 3.00 GPA or higher in the first years of college combined, as opposed to the under 40% of students at the lower end of the score bands.
Retention through Years 2 and 3 of College

SAT scores help predict which students are likely to return for the second and third year of college.

Research studies on the relationship between SAT scores and college retention consistently reveal a positive relationship (Mattern & Patterson, 2009; 2010a; 2010b; 2010c).

As the graph above illustrates, less than half the students in the lowest score band return for the third year of college, but the retention rate climbs steadily with SAT score.

*Retention results from Mattern & Patterson (2010c) and Mattern & Patterson (2010b).*

For more detailed information, complete research reports are available at [http://www.collegeboard.com/research](http://www.collegeboard.com/research)

The findings presented in this document mirror results found by researchers external to the College Board, including Agronow & Studley, 2007; Cornwell, Mustard, & Van Parys, 2008; Sackett et al., 2009; and Zwick, 2007.
References


