

# New England's State of College Readiness

## Adding up academic knowledge, success in college-level courses, SAT<sup>®</sup> performance, and college and career planning

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In continuing its mission of connecting students to college success, the College Board is developing a multi-indicator system that provides educators with a comprehensive view of their students' college readiness. The information used to measure progress toward college readiness comes from the College Board's nationally administered assessments such as the SAT and Advanced Placement (AP<sup>®</sup>) exams. These indicators are validated by research that links them to college performance and success. This system currently reflects four indicators of college readiness: academic knowledge and skills, success in college-level courses, advanced academic skills and college and career planning skills.

The academic knowledge and skills gained through rigorous coursework prepare students for college success. Students who take four or more years of English, three or more years of math, three or more years of natural sciences and three or more years of social sciences/history—collectively known as the core courses—are better prepared for college than students who do not. One way to measure the impact of rigorous coursework on college readiness is to compare performance on the SAT for students who reported taking the core curriculum versus students who did not. Those who took the core courses scored higher on average than those who did not.

A second indicator of college readiness is success in college-level courses taken in high school. To succeed in college-level courses, students must demonstrate in-depth subject area knowledge, higher-order thinking skills, strong

study skills and research skills. Students who succeed in college-level courses in high school are more prepared for college-level coursework than those who do not. One way to assess the level of success on this indicator is to examine trends in the number of students obtaining an AP grade of three or higher on at least one AP exam. Research consistently shows that students who score a 3 or higher on an AP exam typically experience greater academic success in college and improved graduation rates than their non-AP student peers. One example of such a study comes from the National Center for Educational Accountability<sup>1</sup>, which found that an AP Exam score of 3 or higher is a strong predictor of a student's ability to persist in college and earn a bachelor's degree.

Advanced academic skills are a third indicator of college readiness. Students who have developed strong reasoning, problem-solving, analysis and writing skills are more prepared for college than those who have not. One way to assess advanced academic skills is SAT performance. Decades of research studies show that the SAT is a very strong predictor of first-year college performance. The College Board's 2008 SAT Validity Studies concluded that the SAT continues to be an excellent predictor of how students will perform in their first year of college. The best predictor of first-year college GPA is a combination of high school GPA with SAT scores.<sup>2</sup>

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<sup>1</sup> Chrys Dougherty, Lynn Mellor, and Shuling Jian, "The Relationship Between Advanced Placement and College Graduation" (2005), National Center for Educational Accountability.

<sup>2</sup> Jennifer L. Kobrin, Brian F. Patterson, Emily J. Shaw, Krista D. Mattern, and Sandra M. Barbuti, "Validity of the SAT for Predicting First-Year College Grade Point Average" (2008), The College Board.

Even an academically prepared student may not persist and succeed in college without sufficient college and career planning skills. Understanding college and career options, the college admissions process and options for paying for college collectively prepare students for college success. One way to measure these non-cognitive skills is by evaluating data on students' aspirations, intended majors and score-sending patterns collected from the SAT Questionnaire.

The College Board has prepared more than 40 tables and charts exploring New England trends in academic preparation, success in AP courses, SAT performance and college and career planning which may be viewed online.

It is important to note that although the data reflected in this article come from nationally administered assessments, the testing populations are self-selected and often times do not reflect the total population of students; therefore, readers are cautioned not to make inferences beyond the testing population at hand.

Some highlights from the College Board data:

### Academic Knowledge and Skills

- In 2008, the number of SAT test-takers in New England who reported having core academic preparation grew by 19%, while the number reporting non-core academic preparation decreased by 16%. Students having core academic preparation continue to perform better on the SAT than those who do not, widening the performance gap between the two groups. Students with core academic preparation scored, on average, 46 points higher in critical reading, 47 points higher in mathematics and 49 points higher in writing.

- The percentage of New England's SAT test-takers reporting that they had taken four or more years of English, three or more years of math, three or more years of natural sciences, and three or more years of social sciences/history, grew from 78% in 2004 to 83% in 2008.

### Success in College-Level Courses

- In 2008, 79,650 New England students took 135,015 AP examinations. Since 2004, the number of New England exam-takers has increased by 31%.

- The number of New England students earning a grade of 3 or higher on AP exams has increased by 32% since 2004.

- In 2008, the five most popular AP subject examinations in New England (with the percentage of total AP examination shown in parentheses) were as follows:

1. History: United States (14%)
2. English Literature and Composition (13%)
3. Mathematics: Calculus AB (10%)
4. Biology (8%)
5. English Language and Composition (8%)

- When the top five subject areas are examined in conjunction with the most popular college majors, it appears students are most interested in fulfilling college core coursework in high school so they can focus more of their studies in college on subjects directly related to their majors.

### Advanced Academic Skills

- The percentage of New England students taking the SAT reached 80% in 2008, compared with a national participation rate of 45%.

- The SAT mean scores for New England have decreased since 2004, a pattern that is consistent with increasing student participation rates.

### College and Career Planning Skills

- The four most popular intended majors in New England in 2008 (with percent of test-takers shown in parentheses) were as follows:

1. Business Management, Marketing and Related Support Services (16%)
2. Health Professions and Related Clinical Services (16%)
3. Education (8%)
4. Visual and Performing Arts (8%)

- In 2008, 5% of all New England SAT test-takers reported 'Undecided' for their intended major, down from 7% in 2004. The data suggest that more students are entering college with a clearer career path than in the past.

- Nearly 70% of New England students send at least one SAT score report to New England institutions; 32% send score reports *only* to New England institutions.
- The percentage of students outside New England sending at least one SAT score report to New England institutions has increased 1% since 2004.
- Since 2004, the percentage of New England students choosing not to send any score reports to institutions has decreased 1.1%, while this percentage nationally *increased* 2.9%.

All in all, the data suggest that New England high schools and students have made great strides towards college readiness in the past five years. A larger number of New England students are striving to attain the academic knowledge and skills needed to be successful in college as evidenced through increased participation in rigorous coursework. More New England high school students are participating in the SAT and choosing to send their scores to institutions suggesting increased interest in attending college. The increased participation within the AP Program and the subsequent increased success rates (as evidenced by achieving grade 3 or higher on at least one AP examination) among students suggest that more New England students are getting a head start on college-level work.

The New England Board of Higher Education and the College Board enjoy longstanding collaboration on important education issues. Today's deepening use of the AP, PSAT/NMSQT and SAT programs provides valuable data to support the work of the education community and the formation of education policies that will strengthen New England in increasingly competitive and challenging global economic environments.

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