

Efforts to Define College Readiness in the United States

Thanos Patelis

Wayne Camara

Andrew Wiley

The College Board

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Overview

- Who, what is the College Board?
- Vision of Feedback on College Readiness
- The Research & Development Agenda
- Some Preliminary Results
- Q&A

Overview of Education in the United States

- Federal, state and local government have varying degrees of authority in education.
 - US Department of Education does not control what schools do.
 - Control is decentralized to states and local educational agencies.
 - ✓ The primary control is found in local education agencies (often school districts) controlled by local boards of education who are elected officials representing the community.
 - Districts acquire funding from states and local taxes.
 - ✓ The amount of control over local education agencies varies by state and prescribed by state laws.
 - For example, Connecticut has more control over local education agencies than Texas.
- In 2008-2009, it was projected that there were 74.1 million students enrolled in schools (primary, secondary, post-secondary levels)
 - Private schools comprise approximately 14% of enrolled students in the U.S.
- In 2007-2008, there was \$972 billion in federal, state, & local budgets for education.
 - In primary and secondary schools, only 9% of the revenue in public schools comes from the federal government (2006-2007).
 - In primary and secondary schools, the average expenditure per pupil was \$9,100 (2006-2007).
- In 2005-2006,
 - there were over 97,000 primary and secondary schools.
 - there were over 4,200 post-secondary institutions.
 - 66% of high school completers enrolled in post-secondary institutions.
- The unique position of the College Board as a private, not-for-profit organization permits us to cut across state borders to offer assessments and educational initiatives for secondary and post-secondary schools.

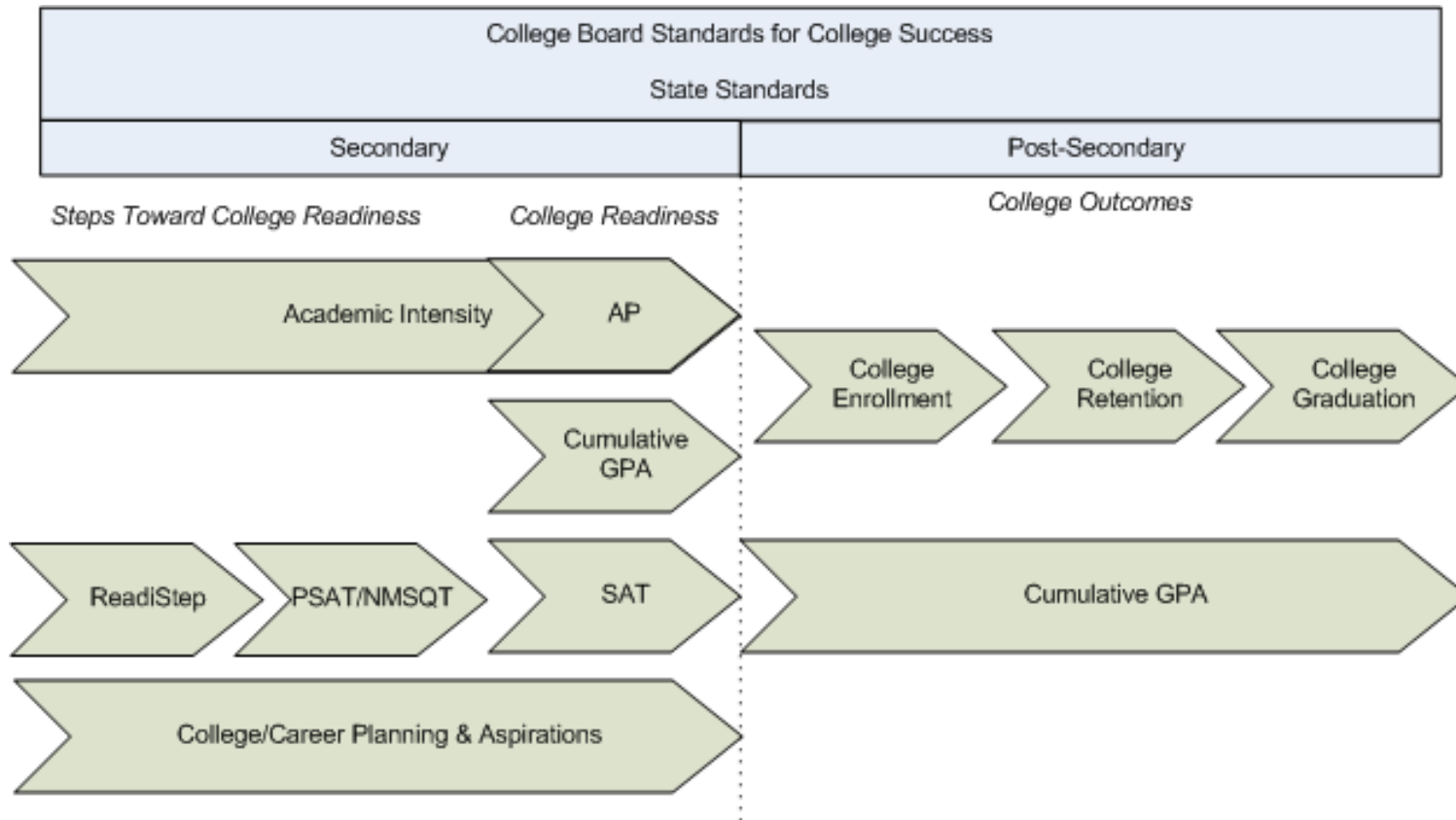
Sources: U.S. Census Bureau (2009). The 2009 Statistical Abstract: The National Data Book. U. S. Census Bureau (www.census.gov). U.S. National Center for Education Statistics, Digest of Education Statistics, annual, and Projections of Education Statistics, annual

The College Board

- Not-for-profit membership organization founded in 1900:
 - 5,400 members representing schools, districts, colleges/universities, and other educational organizations
 - The College Board is governed by 31-member Board of Trustees with guidance from three national assemblies and six regional assemblies.
- Mission: Connect students to college success and opportunity
- Serves 7 million students and their parents, 23,000 high schools, and 3,500 colleges through major programs and services in college admissions, guidance, assessment, financial aid, enrollment, and teaching and learning.
 - Assessments: ACCUPLACER, Advanced Placement Program (AP), College Level Examination Program (CLEP), PSAT/NMSQT and SAT.
 - Educational Initiatives: AP Summer Institutes, CollegeEd, College Board Schools, Excelsior Program, Florida Partnership, Exam Readiness Program, Professional Development, and Springboard.
 - Advocacy Efforts: National Office of School Counselor Advocacy, Financing Higher Education
 - Services: College Guidance Services, College/University Enrollment Management Services, Student Search Service

Vision in Developing, Validating and Reporting on College Readiness

The College Board is focused on the integrated use of information from our assessments in providing educators with multiple indicators about student college readiness to help them in working with students.



Annually, 50% of the high school graduates in the U.S. have taken the SAT with participation rates at states ranging from a high of 100% to a low of 3%.

The phases in developing and validating the indicators of college readiness

1. Understand the conceptual context from the literature
 - Articulate the conceptual framework of predictors of college success
 - Understand the context
2. Develop the metrics
 - Develop indicators to represent college readiness
 - Examine statistical properties and empirical relationship with other variables
3. Validate the metrics using college outcomes
 - Empirically link the college readiness indicators with college outcomes.
 - Develop benchmarks
4. Produce reports to secondary level educators
 - Represent the college readiness indicators in score reports
 - Use empirical methods to develop
5. Evaluate the use of the information provided in the reports
 - Empirically examine how the information is used by educators

Predictors of College Success

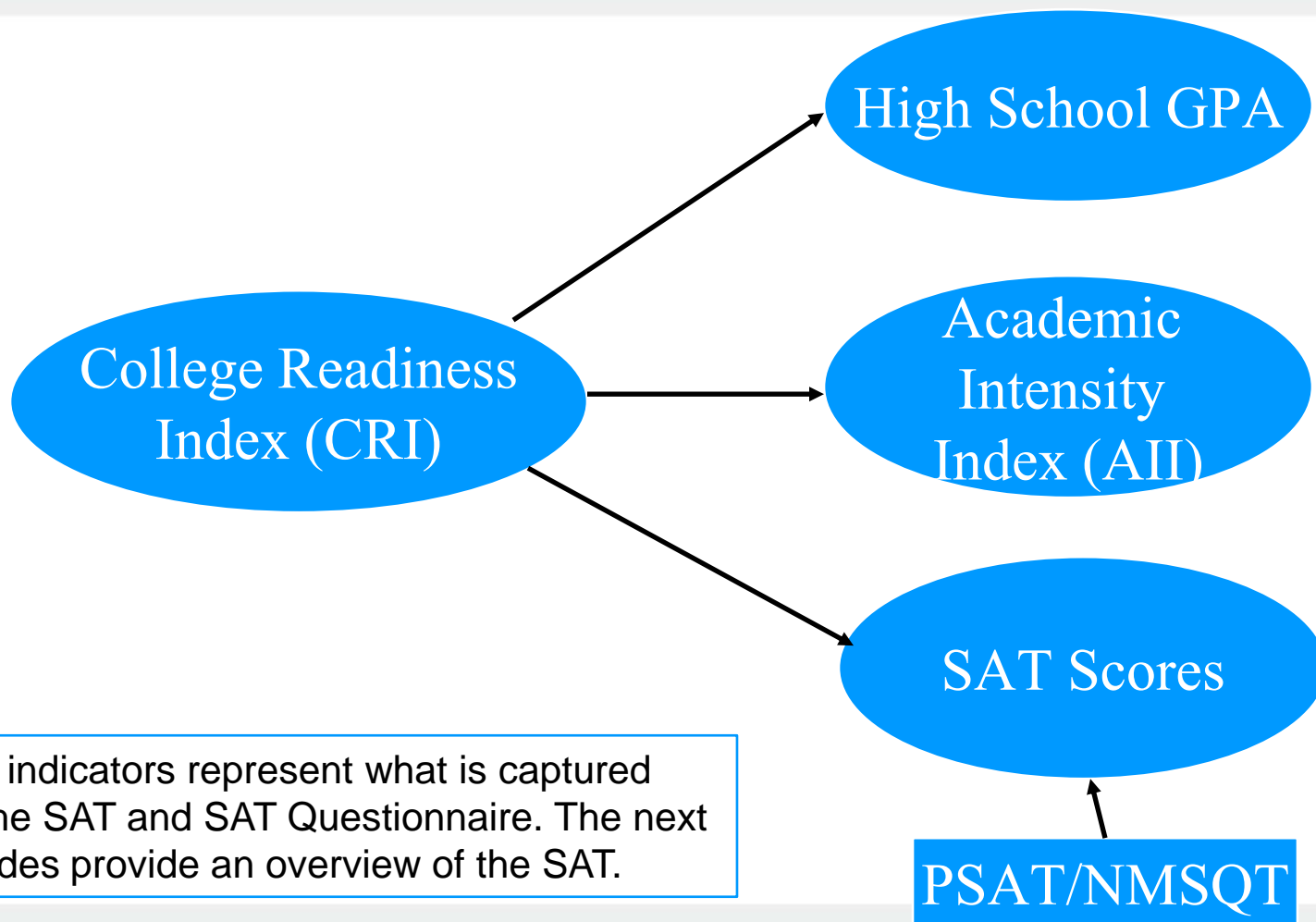
College Skills	Content Knowledge Achievement	Non-Cognitive	Personal Qualities, Experiences, Characteristics	School Characteristics & Context	Guidance
Verbal Reasoning	Math	Motivation	Letters	Grades	Career Interests
Math Reasoning	Language Arts	Follow-through	Essay	GPA	Study Skills
Writing	Science	Communication	Community Service	Weighted GPA	Interest in Major
Metacognition	Social Studies/ Humanities	Conscientiousness	Extra-curricular	Rank	Self Efficacy
Creativity	Foreign Language	Leadership	Work Experience	Courses Completed	Aspirations
Practical Knowledge	Language Proficiency	Other Personality	Literacy in Second Lang	Academic Rigor	Realistic Self-concept
Spatial Relations			Teacher Ratings	AP/Honors Courses	
Intellectual Curiosity			Gender	School Size	
			Ethnicity	School Quality	
			Residence		
			Age		
			Family Education/ Income		
			Ability to Pay		
			Ability to Benefit		

Source: Camara, W. J. & Kimmel, E. W. (2005). *Choosing Students: Higher Education Admissions Tools for the 21st Century*. Mahwah, NJ: Lawrence Erlbaum Associates.

College Success

- Research has shown that 3 factors account for **academic success**:
 1. HS grades
 2. HS courses
 - ✓ The number of courses (4 vs 3 years of math)
 - ✓ The highest level completed (Calculus vs Algebra II)
 - ✓ The rigor of the courses (honors, AP vs standard)
 3. College Admissions Tests
- Studies by Cliff Adelman, Education Trust, National Center of Educational Statistics and other groups have been widely cited and accepted by policymakers.
 - References offered at the end
- But...no one has developed a comprehensive set of metrics that report on these 3 metrics for students and schools, YET

College Readiness Conceptualization



These indicators represent what is captured from the SAT and SAT Questionnaire. The next few slides provide an overview of the SAT.

What is the SAT?

- Since its launch in 1926, the SAT helps college admissions officers make fair and informed admissions decisions.
- The SAT tests the subject matter learned by students in high school and how well they apply that knowledge—the critical thinking skills necessary to succeed in college.
- The SAT is offered seven times a year in the United States and six times at international sites. It last three hours and 45 minutes. Consists of 10 separately timed sections:
 - Three sections test critical reading (70 minutes total)
 - Three sections test mathematics (70 minutes total)
 - Three sections test writing (60 minutes total)
 - One variable (unscored) section tests critical reading, mathematics, or writing (25 minutes total)
- The SAT assesses critical thinking and problem solving skills in three areas:
 - Critical reading
 - Mathematics
 - Writing
- The SAT includes three kinds of questions:
 - Multiple-choice questions
 - Student-produced responses (mathematics only)
 - Essay question
- The SAT Questionnaire contains more than 100 questions on demographic information course taking, course performance, aspirations, educational goals, self ratings of ability and extra-curricular activities,

Why Do Colleges Value the SAT?

- Along with high school grades, the SAT is the best predictor of college success.
- Helps them overcome the challenges of unequal opportunities, variable standards and grade inflation.
- Provides a valid, nationally consistent measure of what students have learned and how well they apply that knowledge.
- Helps colleges match the right student with the right institution to maximize student success.

Admissions officers in colleges use a variety of indicators for college entrance

- Strong majority of college admissions officers say that test scores are of “considerable or moderate” importance in their decisions
 - 94% Grades in college prep courses
 - 92% Grades in all courses
 - 90% Strength of curriculum
 - **89% Admissions test scores**
 - 67% Class rank
 - 64% Essay / writing sample
 - 61% Recommendations (counselor / teacher)
 - 52% Extracurricular activities
 - 52% Student’s demonstrated interest

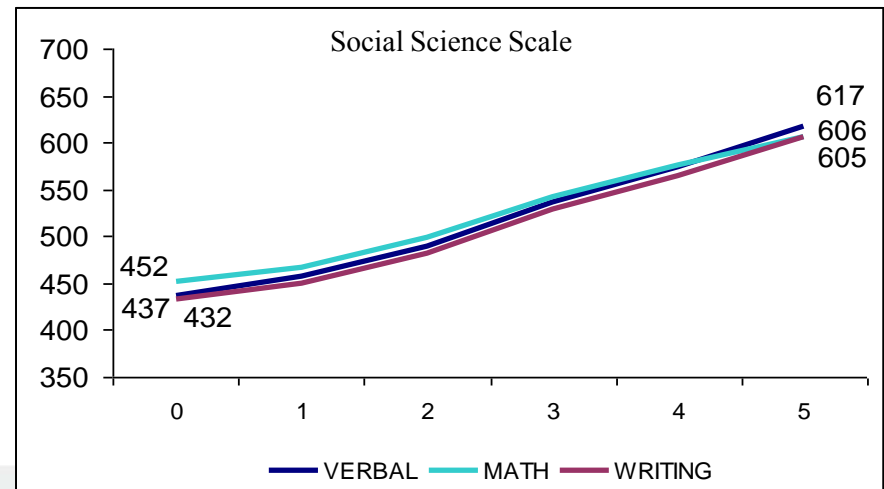
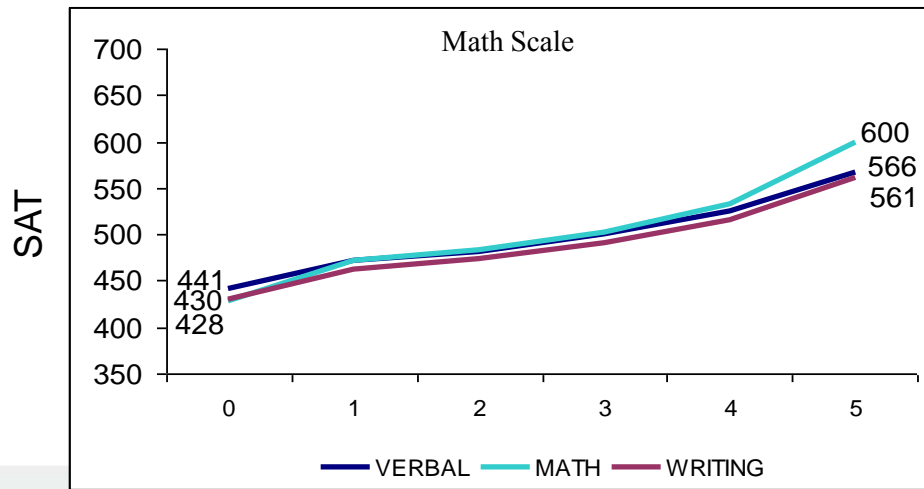
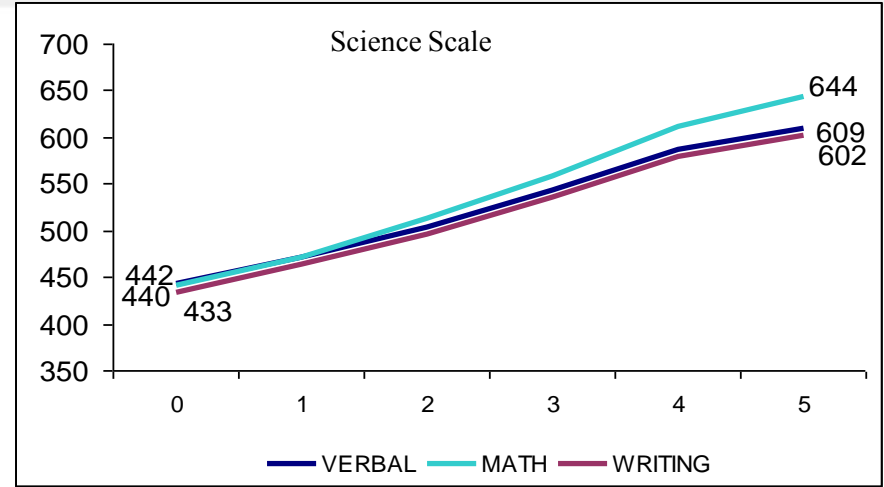
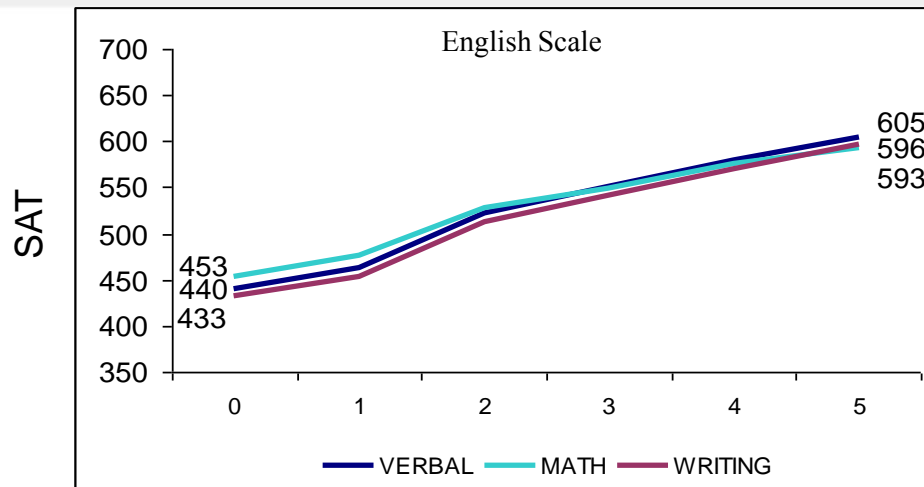
Source: *NACAC Admission Trends Survey, 2007*. Arlington, VA: National Association of College Admissions Counseling (www.nacacnet.org).

Computing the Academic Intensity Index

- Using information collected from students about their academic courses taken in high school (SAT Questionnaire) develop scales by discipline – preliminary and draft!
 - English (0 to 5)
 - ✓ Zero was awarded if a student did not take at least 3 years of English
 - ✓ Points added if more honors and AP courses taken
 - Math (0 to 5)
 - ✓ Zero was awarded if a student did not take at least Algebra 1 by 8th grade
 - ✓ Points added if more specific types of math courses taken and honors/AP
 - Science (0 to 5)
 - ✓ Zero was awarded if a student did not take any science.
 - ✓ Points added if more specific types of science courses taken and honors/AP
 - Social Science (0 to 5)
 - ✓ Zero was awarded if a student did not take at least three or more courses in social science
 - ✓ Points added if more specific types of math courses taken and honors/A

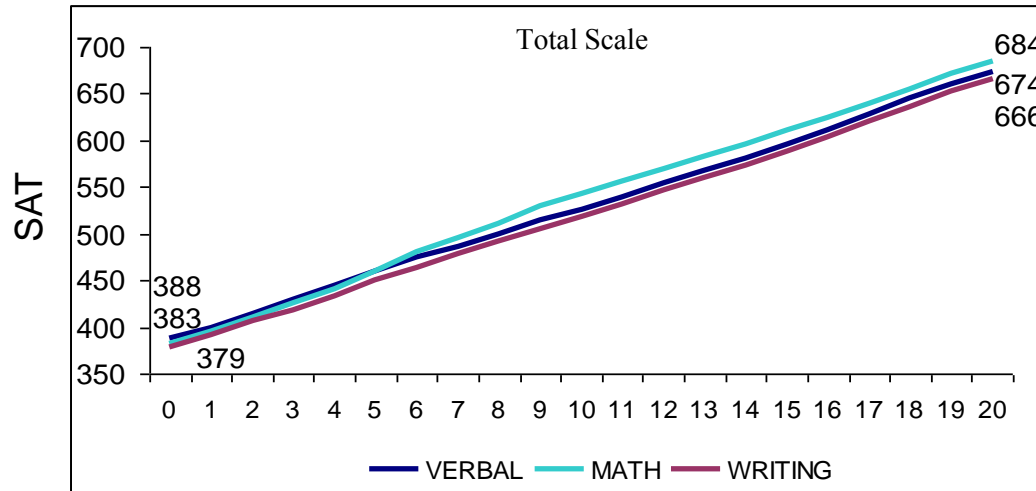
Source: Wyatt, J. & Wiley, A. (December, 2008). Preliminary Results of an Academic Intensity Scale. Unpublished technical report. New York: The College Board.

Some Preliminary Results of the Academic Intensity Index



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Some Preliminary Results of the Academic Intensity Index



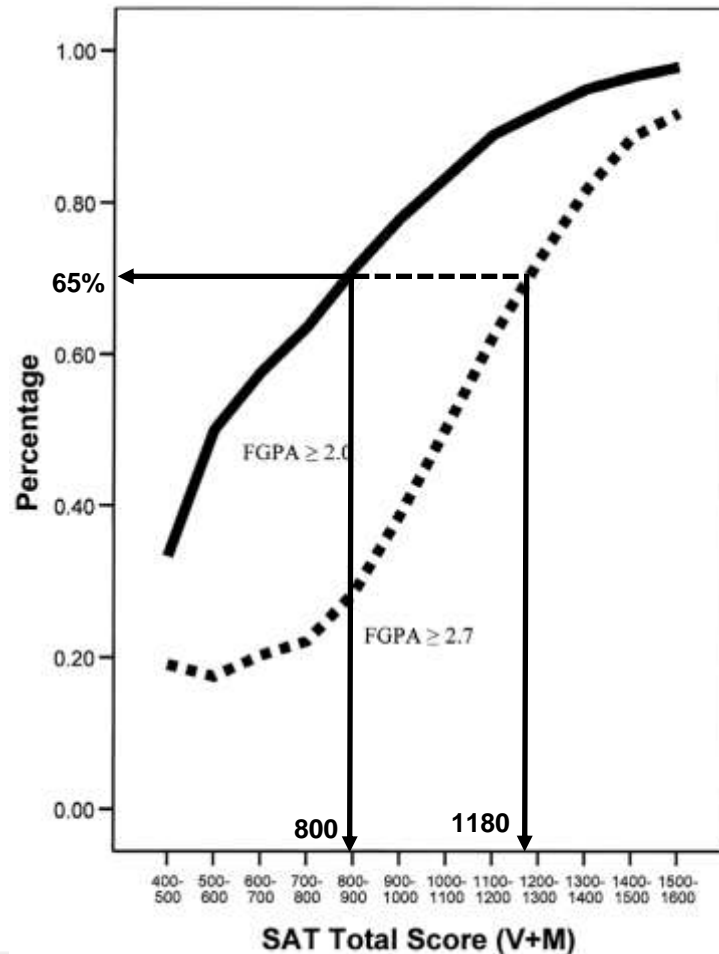
Source: Wyatt, J. & Wiley, A. (December, 2008). Preliminary Results of an Academic Intensity Scale. Unpublished technical report. New York: The College Board.

Benchmarks for the Academic Intensity Index

- Conduct regressions to identify the best combination of predictors for different scaling options (FGPA, persistence).
 - Do these separately for each indicator
- Compute the % of students meeting different benchmarks (by ethnicity, SES, language) to estimate impact.
- Use a policy capturing approach (or standard setting) with external educational experts to determine final levels.

SAT Benchmark Study (2007)

- Based on old SAT
- Class of 1995 (41 institutions representing 167,000 freshmen)
- Logistic regressions utilized to predict probability of getting a FGPA of C (2.0) and FGPA of B- (2.7).
- Settled on 65% probability for C (2.0) and B- (2.7)
- Two benchmarks at 800 and 1180.
- We will utilize similar approach in establishing benchmarks for each of three indicators.



Source: Kobrin, J.K. (January, 2007). Determining SAT Benchmarks for College Readiness. RN-30. New York: The College Board. Web link: <http://www.collegeboard.com/research/pdf/RN-30.pdf>

A new SAT benchmark study

- Use the new SAT validity data from 118 colleges to generate data for a benchmark study. This involves determining apriori the % of students in the sample (and cohort) that would be college ready at each probability level (50%, 60%, 65%...) and each criterion level (C, C+, B-, B...)
- Next, determine likely impact of various benchmarks by comparison to other metrics and by examining results based on college selectivity and for underrepresented students.
- Identify an appropriate panel to make decisions about CR and train them in the decisions that need to be made.
 - These will be policy experts in college readiness, primary, secondary, and post-secondary education.
 - These will not be pure content experts but college readiness experts.
- Bring experts together for a one-day benchmark setting exercise at a selected site and ask for recommendations.
- Final approval made by the College Board based on the panel's recommendations.
- Publication and Dissemination of these college readiness indicators and benchmarks → August 2009.

College Readiness Reports

1. Three metrics:
 - SAT benchmark
 - Academic Intensity benchmark
 - HS Grades (GPA adjusted or not adjusted by school)
2. Compensatory Model will provide an overall metric of college readiness for students, schools, districts and states (using each metric alone, and combined in model).
 - Three performance levels of College Ready (not CR, CR, CR Plus).
3. Reporting – Beginning in late summer of 2009, we hope to release a college readiness report to the nation with state level information, as well.
4. Begin providing diagnostic-type information – When students do NOT meet the college readiness levels, we will provide reports trying to understand some reasons for this and (at some point in the future) offer suggestions for improvement.

Some thoughts on Reporting

At the end of the day – we will roll out reports that illustrate:

- The number and % of students at each Academic Intensity level
- The number and % of students reaching the SAT benchmark
- The number and % of students reaching an HSGPA benchmark (2.7, 3.0, 3.5)
- The number and % reaching 2 and all 3 benchmarks
- The probability of college success for each of these marks in terms of (completing freshmen year, FGPA of B- or higher, no remedial courses) for individual students, subgroups, schools and states.

Fictitious Data

Benchmarks (Example)	Your Sch.%	State %	US %	Prob. Of College success
HSGPA (3.0)	85	82	83	61
SAT (1180)	30	26	29	71
Acad. Intensity (11-12)	40	39	38	72
All Three	21	16	22	78

Additional Work

- The College Board has developed two instruments that measure non-cognitive predictors.
 - We are piloting these with 16 post-secondary institutions
 - We hope these offer information about students in other areas.
- We will examine relationships and establish benchmarks using these college readiness indicators with other types of college outcomes:
 - Cumulative GPA
 - Grades in specific disciplines
 - Retention and graduation
- Once reports are delivered, the College Board will examine how information is used by educators (Fall 2009)

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Questions, Comments, Suggestions

- Researchers are encouraged to freely express their professional judgment. Therefore, points of view or opinions stated in College Board presentations do not necessarily represent official College Board position or policy.
- Please forward any questions, comments, and suggestions to: Thanos Patelis tpatelis@collegeboard.org or 212-649-8435
- Please go the College Board's web site for much more information: www.collegeboard.com/reserach.

Thank you!!