REALIZING THE DREAM: Using Data to Increase Achievement

Dream Deferred Conference
Los Angeles, California
April 24, 2008

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African American Students

- African American are one of the largest minority groups in the United States, and continue to have a growing population.

- Overall, African Americans are less likely to enroll in college than students of other ethnicities.

- African American students have been found to be at a disadvantage in terms of post-secondary access and degree attainment.
African American Students

- African American students, on average, do not perform at the same level as students of ethnic groups even when income and parental education are taken into account.

- African American students need access to programs and initiatives that will increase their achievement and open up opportunities for college success.

- By using data, it is possible to develop methods for schools and communities to increase the achievement of African American and all students.
The Numbers – Nation

• In 2007, nearly 1.5 million students graduated having taken the SAT®

• When students register to take the SAT, they are asked to fill out a 42-item questionnaire

• About 75% of students who took AP also filled out the SAT questionnaire
The Population & The Instrument

• The SAT is primarily taken by juniors and seniors in high school

• The SAT is a test that measures critical reading, math, and writing

• The SAT questionnaire includes questions about:
  • demographic information
  • high school coursework and activities, and
  • college preferences and aspirations
Overview of Students in the 2007 SAT® Cohort

- Description of First Generation Students
  - Size and Growth
  - Gender
  - Ethnicity
  - Income

- Academic Preparation, College Plans and Aspirations
  - SAT Mean Scores
  - Degree Level Goals
  - Core Curriculum
  - Rigorous Math and Science Courses
  - College Location Choice
  - Housing Plans
  - Plans to Work Part Time
Students in the 2007 SAT® Cohort by Ethnicity

- White: 55%
- Hispanic: 11%
- African American/Black: 11%
- Asian: 9%
- Other: 4%
- No Response: 9%
- American Indian or Alaskan Native: 1%
California: Students in the 2007 SAT® Cohort by Ethnicity

- Hispanic, 25%
- White, 35%
- African American/Black, 7%
- Asian, 21%
- American Indian or Alaskan Native, 1%
- Other, 5%
- No Response, 6%
Students in the SAT® Cohort by Ethnicity 2003-2007

In Thousands

- American Indian or Alaskan Native
- Asian
- African American/Black
- Hispanic
- White
- Other

Dream Deferred Conference, April 24, 2008
Students in the SAT® Cohort by Ethnicity 2003-2007

In Thousands

- American Indian or Alaskan Native
- Asian
- African American/Black
- Hispanic
- Other

[Graph showing changes over time for each ethnicity group]
Students in the 2007 SAT® Cohort by Gender

- Female: 54%
- Male: 46%
California: Students in the 2007 SAT® Cohort by Gender

- Female: 55%
- Male: 45%
Students in the 2007 SAT® Cohort by Ethnicity and Gender

- American Indian or Alaskan Native
- Asian
- African American/Black
- Hispanic
- White
- Other

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Asian</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>African American/Black</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>57%</td>
<td>43%</td>
</tr>
<tr>
<td>White</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Other</td>
<td>56%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Legend: Female, Male
California: Students in the 2007 SAT® Cohort by Ethnicity and Gender

American Indian or Alaskan Native
Asian
African American/Black
Hispanic
White
Other

Female
Male

0% 10% 20% 30% 40% 50% 60%
Students in the 2007 SAT® Cohort by Ethnicity and CB Region

- New England
- Middle States
- South
- Midwest
- Southwest
- West

- American Indian or Alaskan Native
- Asian
- African American/Black
- Hispanic
- White
- Other
First Generation and Non-First Generation Students in the SAT® Cohort 2002-2007 by Ethnicity

**Percent of First Generation**
- White: 49%
- Hispanic: 20%
- African American/Black: 17%
- Asian: 9%
- Other: 4%
- AI/AN: 1%

**Percent of Non First Generation Students**
- White: 68%
- Hispanic: 10%
- African American/Black: 9%
- Asian: 8%
- Other: 4%
- AI/AN: 1%
Household Income by Ethnicity for Students in the 2007 SAT® Cohort

<table>
<thead>
<tr>
<th>Income Range</th>
<th>African American/Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>$30K or Less</td>
<td>36%</td>
<td>36%</td>
<td>8%</td>
</tr>
<tr>
<td>$30K-$50K</td>
<td>28%</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>$50K-$70K</td>
<td>14%</td>
<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td>$70K-$100K</td>
<td>13%</td>
<td>13%</td>
<td>24%</td>
</tr>
<tr>
<td>$100K</td>
<td>9%</td>
<td>11%</td>
<td>30%</td>
</tr>
</tbody>
</table>

- $30K or Less: 36% African American/Black, 36% Hispanic, 8% White
- $30K-$50K: 28% African American/Black, 27% Hispanic, 22% White
- $50K-$70K: 14% African American/Black, 13% Hispanic, 16% White
- $70K-$100K: 13% African American/Black, 13% Hispanic, 24% White
- $100K: 9% African American/Black, 11% Hispanic, 30% White
Household Income of African American Students in the 2007 SAT® Cohort

- 36% of African American/Black students have income of $30K or Less
- 28% have income of $30K-$50K
- 14% have income of $50K-$70K
- 13% have income of $70K-$100K
- 9% have income of $100K or more

African American Students
California: Household Income of African American Students in the 2007 SAT® Cohort

- $30K or Less: 31%
- $30K-$50K: 26%
- $50K-$70K: 14%
- $70K-$100K: 15%
- $100K: 13%

African American/Black
SAT Performance of Students in the 2007 SAT® Cohort

- SAT Performance
- Academic Preparation
- College Aspirations
- AP Course Taking Patterns to Increase Achievement
## 2007 SAT® Mean Scores by Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Critical Reading</th>
<th>Mathematics</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>487</td>
<td>494</td>
<td>473</td>
</tr>
<tr>
<td>Asian</td>
<td>514</td>
<td>578</td>
<td>513</td>
</tr>
<tr>
<td>African American/Black</td>
<td>433</td>
<td>429</td>
<td>425</td>
</tr>
<tr>
<td>Hispanic</td>
<td>458</td>
<td>461</td>
<td>449</td>
</tr>
<tr>
<td>White</td>
<td>527</td>
<td>534</td>
<td>518</td>
</tr>
<tr>
<td>Other</td>
<td>497</td>
<td>512</td>
<td>493</td>
</tr>
</tbody>
</table>
2007 SAT® Mean Scores by Ethnicity

Critical Reading | Mathematics | Writing

American Indian or Alaskan Native:
- Critical Reading: 487
- Mathematics: 494
- Writing: 473

African American/Black:
- Critical Reading: 514
- Mathematics: 513
- Writing: 433

White:
- Critical Reading: 527
- Mathematics: 534
- Writing: 518

Scores range from 200 to 800.
### 2007 SAT® Mean Scores by Gender-Ethnicity

<table>
<thead>
<tr>
<th>National: 2007 SAT Mean Scores by Gender and Ethnicity</th>
<th>Critical Reading</th>
<th>Mathematics</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African American/Black</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>436</td>
<td>423</td>
<td>433</td>
</tr>
<tr>
<td>Male</td>
<td>429</td>
<td>437</td>
<td>414</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>526</td>
<td>519</td>
<td>524</td>
</tr>
<tr>
<td>Male</td>
<td>529</td>
<td>553</td>
<td>511</td>
</tr>
</tbody>
</table>
2007 SAT® Mean Scores by Gender-Ethnicity

African American Students

- Critical Reading
  - Female: 436
  - Male: 429

- Mathematics
  - Female: 437
  - Male: 423

- Writing
  - Female: 433
  - Male: 414

Legend:
- Female
- Male
College Aspirations of Students in the 2007 SAT® Cohort

- SAT Performance
- Academic Preparation
- College Aspirations
- AP Course Taking Patterns to Increase Achievement
Degree Level Goals by Ethnicity of Students in the 2007 SAT® Cohort
College Location Preference by Ethnicity in the 2007 SAT® Cohort

<table>
<thead>
<tr>
<th>Preference</th>
<th>African American/Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undecided</td>
<td>15%</td>
<td>17%</td>
<td>25%</td>
</tr>
<tr>
<td>Outside US</td>
<td>3%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Beyond States Bordering Mine</td>
<td>28%</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>In States Bordering Mine</td>
<td>27%</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>In My Home State</td>
<td>49%</td>
<td>51%</td>
<td>46%</td>
</tr>
<tr>
<td>Close to Home</td>
<td>24%</td>
<td>33%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Legend:
- African American/Black
- Hispanic
- White
College Location Preference by Ethnicity in the 2007 SAT® Cohort

<table>
<thead>
<tr>
<th>Location</th>
<th>African American/Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Home</td>
<td>8%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>On-Campus</td>
<td>21%</td>
<td>36%</td>
<td>30%</td>
</tr>
<tr>
<td>Off Campus</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Do Not Know</td>
<td>26%</td>
<td>18%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Plans to Seek Part Time Job by Ethnicity in the 2007 SAT® Cohort

- American Indian or Alaskan Native: 64%
- Asian: 58%
- African American/Black: 67%
- Hispanic: 70%
- White: 61%
Academic Preparation of Students in the 2007 SAT® Cohort

- SAT Performance
- College Aspirations
- Academic Preparation
- AP Course Taking Patterns to Increase Achievement
Academic Preparation by Ethnicity of Students in the 2007 SAT® Cohort

- American Indian or Alaskan Native: 73% Core, 27% Non-Core
- Asian: 74% Core, 26% Non-Core
- African American/Black: 68% Core, 32% Non-Core
- Hispanic: 72% Core, 28% Non-Core
- White: 82% Core, 18% Non-Core
- Other: 74% Core, 26% Non-Core
PSAT Taker by Ethnicity of Students in the 2007 SAT® Cohort

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>PSAT Taker</th>
<th>Non-PSAT Taker</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Asian</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td>African American/Black</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>White</td>
<td>82%</td>
<td>18%</td>
</tr>
<tr>
<td>Other</td>
<td>74%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Level of College Preparation by Ethnicity in the 2007 SAT® Cohort – Calculus Course Taken

- American Indian or Alaskan Native: 37% Calculus Taken, 63% No Calculus Taken
- Asian: 66% Calculus Taken, 34% No Calculus Taken
- African American/Black: 75% Calculus Taken, 25% No Calculus Taken
- Hispanic: 49% Calculus Taken, 51% No Calculus Taken
- White: 48% Calculus Taken, 52% No Calculus Taken
- Other: 52% Calculus Taken, 48% No Calculus Taken
Level of College Preparation by Ethnicity in the 2007 SAT® Cohort – Calculus Course Taken

Mean SAT Math Scores by Calculus Course Taken

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Calculus Taken</th>
<th>No Calculus Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>580 460</td>
<td></td>
</tr>
<tr>
<td>African American/Black</td>
<td>643 506</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>553 437</td>
<td></td>
</tr>
<tr>
<td></td>
<td>614 495</td>
<td></td>
</tr>
<tr>
<td></td>
<td>597 467</td>
<td></td>
</tr>
</tbody>
</table>
Level of College Preparation by Ethnicity in the 2007 SAT® Cohort – Physics Course Taken

- American Indian or Alaskan Native: 65% (Physics Taken), 35% (No Physics Taken)
- Asian: 81% (Physics Taken), 19% (No Physics Taken)
- African American/Black: 59% (Physics Taken), 41% (No Physics Taken)
- Hispanic: 65% (Physics Taken), 35% (No Physics Taken)
- White: 72% (Physics Taken), 28% (No Physics Taken)
- Other: 73% (Physics Taken), 27% (No Physics Taken)
Level of College Preparation by Ethnicity in the 2007 SAT® Cohort – Physics Course Taken

Mean SAT Math Scores by Physics Course

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Physics Taken</th>
<th>No Physics Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>529</td>
<td>455</td>
</tr>
<tr>
<td>Asian</td>
<td>605</td>
<td>513</td>
</tr>
<tr>
<td>African American/Black</td>
<td>459</td>
<td>407</td>
</tr>
<tr>
<td>Hispanic</td>
<td>495</td>
<td>433</td>
</tr>
<tr>
<td>White</td>
<td>569</td>
<td>492</td>
</tr>
<tr>
<td>Other</td>
<td>547</td>
<td>463</td>
</tr>
</tbody>
</table>
AP Course Taking Patterns of Students in the 2007 SAT® Cohort

SAT Performance

Academic Preparation

College Aspirations

AP Course Taking Patterns to Increase Achievement
Percent Taking AP English and Scoring 3+ By English Indicator By Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td>Black</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Asian</td>
<td>7%</td>
<td>15%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>White</td>
<td>6%</td>
<td>12%</td>
</tr>
</tbody>
</table>

The chart shows the percentage of students taking AP English and scoring 3+ by English indicator and ethnicity. The data is broken down into NO and YES categories for each group.
### Average SAT CR Scores for Students Taking AP English Language By Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>ALL</th>
<th>Black</th>
<th>Asian</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT CR (all SAT)</td>
<td>648</td>
<td>581</td>
<td>615</td>
<td>657</td>
<td>610</td>
</tr>
<tr>
<td>SAT CR (with AP English Language)</td>
<td>615</td>
<td>514</td>
<td>599</td>
<td>624</td>
<td>650</td>
</tr>
<tr>
<td>SAT CR (with AP English Language 3+)</td>
<td>503</td>
<td>430</td>
<td>457</td>
<td>529</td>
<td>529</td>
</tr>
</tbody>
</table>

- **ALL**: SAT CR scores for all students.
- **Black**: SAT CR scores for Black students.
- **Asian**: SAT CR scores for Asian students.
- **Hispanic**: SAT CR scores for Hispanic students.
- **White**: SAT CR scores for White students.
Average SAT W Scores for Students Taking AP English Language By Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>ALL</th>
<th>Black</th>
<th>Asian</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT W (all SAT)</td>
<td>495</td>
<td>423</td>
<td>513</td>
<td>449</td>
<td>519</td>
</tr>
<tr>
<td>SAT W (with AP English Language)</td>
<td>582</td>
<td>509</td>
<td>599</td>
<td>522</td>
<td>609</td>
</tr>
<tr>
<td>SAT W (with AP English Language 3+)</td>
<td>636</td>
<td>600</td>
<td>650</td>
<td>600</td>
<td>600</td>
</tr>
</tbody>
</table>

0 100 200 300 400 500 600 700

ALL Black Asian Hispanic White

SAT W (all SAT) SAT W (with AP English Language) SAT W (with AP English Language 3+)
Percent Taking AP Calculus AB By Number of Years of Calculus by Ethnicity

- **ALL**: 35% 49% 11%
- **Black**: 29% 35% 4%
- **Asian**: 40% 47% 9%
- **Hispanic**: 39% 56% 15%
- **White**: 35% 52% 16%

Legend:
- Blue: 1 Year
- Orange: 2 Years
- Yellow: 3 or More Years
Percent Taking AP Calculus AB and Scoring 3+ By Number of Years of Calculus By Ethnicity
Average SAT Math Scores for Students Taking AP Calculus AB By Ethnicity

- **ALL**: 515, 634, 668
- **Black**: 426, 557, 625
- **Asian**: 578, 650, 682
- **Hispanic**: 462, 576, 636
- **White**: 535, 644, 668

Legend:
- SAT M (all SAT)
- SAT M (with AP Calculus AB)
- SAT M (with AP Calculus 3+)
Percent Taking AP Physics B By Number of Years of Physics by Ethnicity
Percent Taking AP Physics B and Scoring 3+ By Number of Years of Physics By Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>1 Year</th>
<th>2 Years</th>
<th>3 or More Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>2%</td>
<td>4%</td>
<td>16%</td>
</tr>
<tr>
<td>Black</td>
<td>0%</td>
<td>1%</td>
<td>5%</td>
</tr>
<tr>
<td>Asian</td>
<td>5%</td>
<td>4%</td>
<td>18%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1%</td>
<td>3%</td>
<td>12%</td>
</tr>
<tr>
<td>White</td>
<td>3%</td>
<td>3%</td>
<td>18%</td>
</tr>
</tbody>
</table>
Average SAT Math Scores for Students Taking AP Physics B By Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>All SAT</th>
<th>SAT M (with AP Physics B)</th>
<th>SAT M (with AP Physics 3+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>515</td>
<td>658</td>
<td>695</td>
</tr>
<tr>
<td>Black</td>
<td>426</td>
<td>570</td>
<td>654</td>
</tr>
<tr>
<td>Asian</td>
<td>578</td>
<td>683</td>
<td>717</td>
</tr>
<tr>
<td>Hispanic</td>
<td>462</td>
<td>596</td>
<td>668</td>
</tr>
<tr>
<td>White</td>
<td>535</td>
<td>664</td>
<td>691</td>
</tr>
</tbody>
</table>

Legend: SAT M (all SAT) • SAT M (with AP Physics B) • SAT M (with AP Physics 3+)
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:
  - jlee@collegeboard.org and/or
  - esawtell@collegeboard.org