

**2007-08 South Dakota Board of Regents  
College Assessment of Academic Proficiency Report**

**Executive Summary**

The *College Assessment of Academic Proficiency Report* combines the *Proficiency Examination Report* and the *ACT-to-CAAP Gains Report*. Traditionally, the Proficiency Examination Report was presented in June to facilitate incentive fund reporting. The incentive funding process has changed and the data are no longer required in June. Data used for the ACT-to-CAAP Gains Report are received in October, so historically the ACT-to-CAAP gains report was presented to the Board in December. The reports are being combined because both utilize the same CAAP cohort for reporting. The purpose of this combined report is to provide data on the Regental Proficiency Examination for those students tested during the 2007-08 academic year, to report cohort comparison data depicting longitudinal information from the last five cohorts, and to assess student gains when considering their ACT scores before entering Regental Institutions.

***Proficiency Examination***

A total of 4,547 undergraduate students sat for the proficiency examination during the 2007-08 academic year, and highlights of this year's results include:

- System test score means exceeded national mean scores for 4-year public institutions in all four areas tested.
- For the ten cohorts tested, institutional mean scores have been above the national mean 100% of the time for Science Reasoning, 84% of the time in Mathematics and Writing Skills, and 85% of the time in Reading. Overall, institutions have had mean scores above the national mean 88% of the time.
- On a system basis, more than half of the 2007-08 cohort earned scores above the national mean, and at least three percent earned scores at or above the 99th percentile.
- On a system basis, 9% of the students failed to earn acceptable scores in one or more areas of the exam. On a university basis, the percentage ranged between 8.2% and 0.0% when comparing student performance on specific content areas. The percent of students requiring remediation in Science Reasoning and Mathematics has declined over the past five years (see Table 4).

## 2006-07 College Assessment of Academic Proficiency Report

The *College Assessment of Academic Proficiency Report* detailed student performance on the proficiency examination for the most recent academic year. The Regents Information System generates the list of students who sat for the CAAP exam for the first time each year, as well as scores for students with ACT scores. Using this data the report seeks: 1) to report data on the results of the Regental Proficiency Examination for students tested for the first time during the Fall 2007 and Spring 2008 academic terms; 2) to report cohort comparison data depicting longitudinal information from the last five cohorts; and 3) to assess student gains when considering their ACT scores before entering Regental Institutions.

### *Proficiency Exam Qualifying Scores*

Board Policy 2:28 *Proficiency Exam* was put in place to address several accountability issues related to increased standards, necessary analysis of general education requirements, as well as an ability to compare South Dakota students' performance to national norms. During its pilot period conducted in 1996 and 1997, a total of 2,141 students completed the CAAP exam with students scoring on average above the national norms. Taking these national norms and recommendations made by content area specialists into consideration, a confidence interval was constructed around the cut score to address the issue of test reliability. It was determined that South Dakota students scoring within and above the confidence interval pass the examination. Ultimately, qualifying scores were set at  $\frac{1}{2}$  standard deviation below the national user norms, and using this framework qualifying scores were established for Reading (56), Writing (59), Mathematics (52), and Science Reasoning (54). The exam was first required of baccalaureate degree-seeking students in Spring 1998 and of entering associate degree-seeking students in Fall 1999. The first associate degree-seeking students were tested in Fall 2000.

Each year ACT publishes its *CAAP User Norms* report depicting national student performance across two- and four-year institutions employing the CAAP exam, which have remained consistent over the past ten years for each of the four content areas. In addition to the most recent average scores for students from four year institutions, the CAAP User Norms report also provides an update of percentiles for the range of scores obtained on the CAAP from the previous year. Table 1 provides a year-by-year comparison of percentile rankings for current qualifying scores in the Regental system.

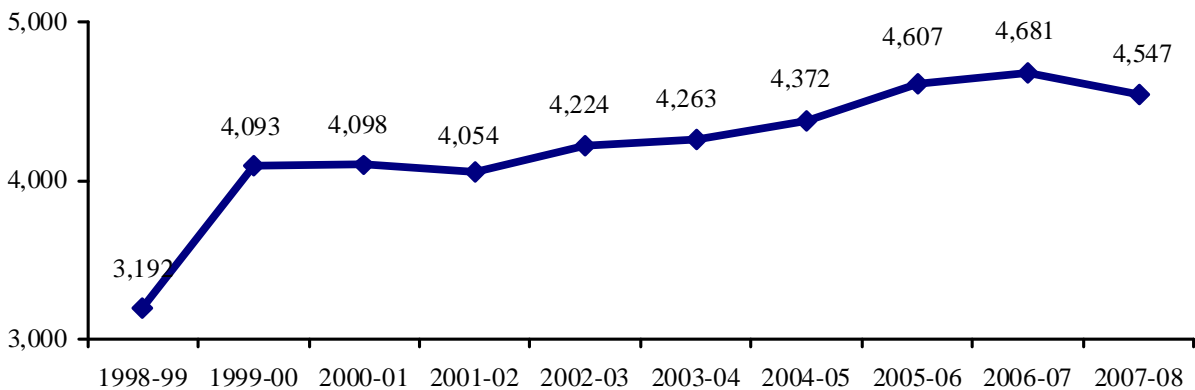
**Table 1**  
***Percentile Rankings for Current Proficiency Examination Qualifying Scores: 1997 through 2006***

<i>Year</i>	<i>Mathematics (52)</i>	<i>Reading (56)</i>	<i>Science (54)</i>	<i>Writing (59)</i>
1997	7	12	9	15
1998	6	12	8	16
1999	6	12	8	16
2000	6	12	8	16
2001	6	13	8	15
2002	7	13	8	15
2003	8	14	8	15
2004	9	14	7	16
2005	9	15	8	17
2006	9	14	7	17
<i>Average</i>	<b>7.3</b>	<b>13.1</b>	<b>7.9</b>	<b>15.8</b>

**Student Participation**

Since its inception, nine cohorts containing a total of 42,131 students have taken the proficiency examination. Within the system, a total of 4,547 baccalaureate and associate degree-seeking students sat for the proficiency exam for the first time during the 2007-08 academic year (see Figure 1). Of those students required to sit for the exam, 9% were not tested for reason of deferment ( $N = 257$ ), exemption ( $N = 29$ ) or failure to sit ( $N = 137$ ). According to BOR Policy 2:28, students who refuse to sit for the proficiency exam are denied enrollment for two academic terms and required to sit for the exam the first semester they resume their enrollment.

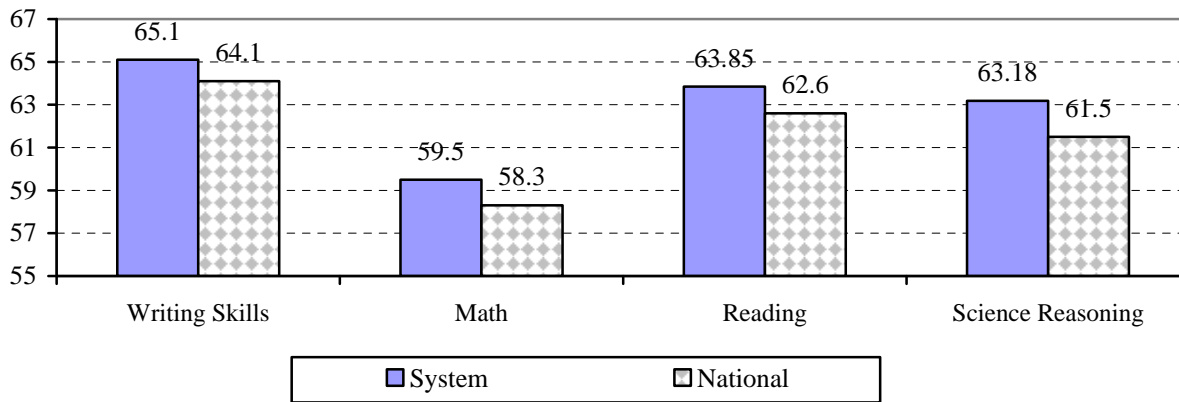
**Figure 1**  
*Student Participation in Proficiency Examinations by Cohort*



**System Test Score Results**

Weighted system mean scores for the 2007-08 cohort exceeded the mean for the national comparison group (4-year public institutions) in all four areas tested (see Figure 2). The system has met this particular benchmark during each year of testing since 1998.

**Figure 2**  
*Comparison of System and National Mean Scores for the 2007-08 Cohort*



Weighted system mean scores have exceeded national mean scores for every cohort of students tested. However, no statistically significant difference exists when comparing cohort and national means across any of the nine academic years. Additionally, a common system trend exists for student scores on each of the five testing indicators. Students have consistently scored highest on the Writing Skills portion of the exam, followed by Reading, Science Reasoning and Mathematics respectively (See Table 2).

**Table 2**  
**System Mean Scores for Writing Skills, Mathematics, Reading, and Science Reasoning for Past 5 Cohorts**

	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
<b>Writing Skills</b>	65.3	65.2	65.2	65.1	65.1
<b>Reading</b>	63.7	64	63.4	63.4	63.9
<b>Science Reasoning</b>	62.9	63.1	63.1	62.9	63.2
<b>Mathematics</b>	59.2	59.3	59.6	59.5	59.5

### ***Institutional Results***

Institutions scored higher than the national mean across each of the exam subscores (see Table 3).

**Table 3**  
**Institutional Means Above and Below National Means By Institution and Area**  
**2007-08 Cohort**

	<b>Writing Skills</b>	<b>Mathematics</b>	<b>Reading</b>	<b>Sci. Reasoning</b>
<b>BHSU</b>	<i>Above</i>	<i>Above</i>	<i>Above</i>	<i>Above</i>
<b>DSU</b>	<i>Above</i>	<i>Above</i>	<i>Above</i>	<i>Above</i>
<b>NSU</b>	<i>Above</i>	<i>Above</i>	<i>Above</i>	<i>Above</i>
<b>SDSMT</b>	<i>Above</i>	<i>Above</i>	<i>Above</i>	<i>Above</i>
<b>SDSU</b>	<i>Above</i>	<i>Above</i>	<i>Above</i>	<i>Above</i>
<b>USD</b>	<i>Above</i>	<i>Above</i>	<i>Above</i>	<i>Above</i>

For the ten cohorts of students tested, all institutional means in science reasoning have been above the national means. Institutional means scores have been below the national mean in math ten times, below the national mean in writing skills ten times and below the national mean in reading nine times (see Table 4). NSU accounts for approximately half (14/40) of the instances an institutional mean was below the national mean followed by DSU (9/40) and BHSU

(6/40). All of the institutional means that were lower than national means were still within one standard deviation of the specific national mean.

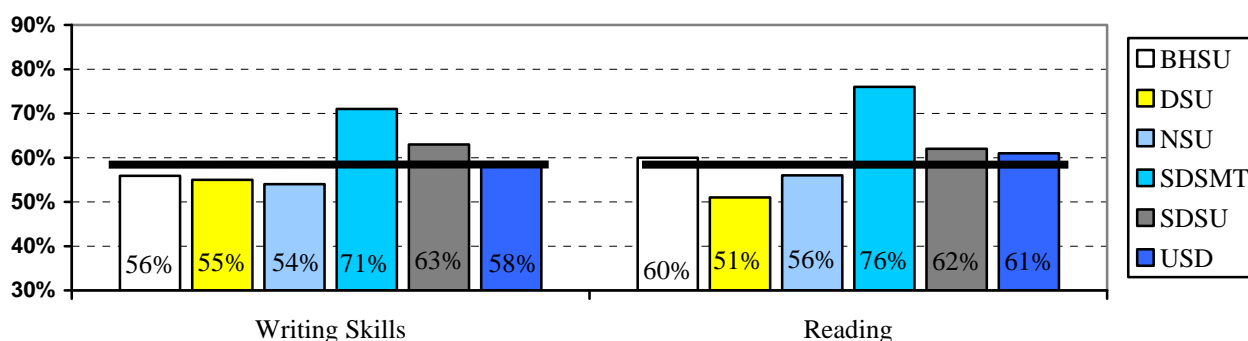
**Table 4**  
**Frequency and Percentage of Institutional Means Falling Below National Mean Across Nine Cohorts**

	<b>Writing Skills</b>	<b>Math</b>	<b>Reading</b>	<b>Science Reasoning</b>
<b>BHSU</b>	1 (10%)	5 (50%)	0 (0%)	0 (0%)
<b>DSU</b>	4 (40%)	0 (0%)	5 (50%)	0 (0%)
<b>NSU</b>	5 (50%)	5 (50%)	4 (40%)	0 (0%)
<b>SDSMT</b>	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<b>SDSU</b>	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<b>USD</b>	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<b>Total</b>	<b>10 (16%)</b>	<b>10 (16%)</b>	<b>9 (15%)</b>	<b>0 (0%)</b>

### **Percentage of Students Scoring Above the National Norm**

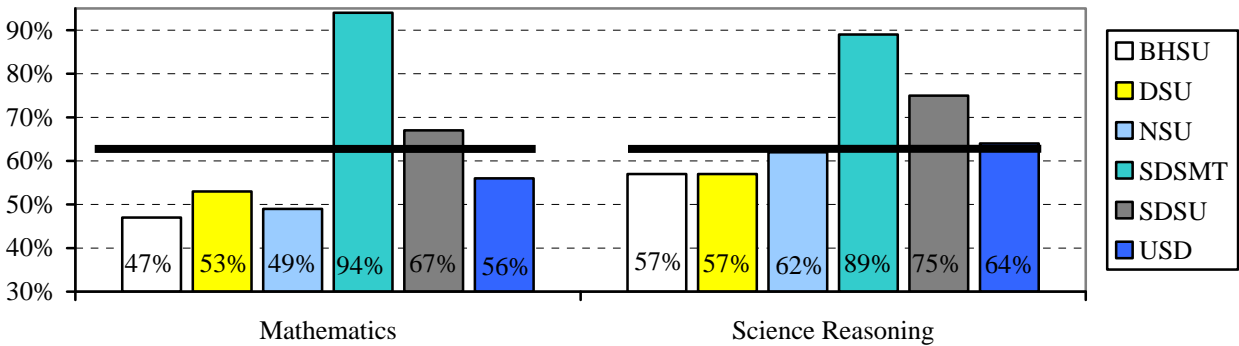
On a system basis, more than half of the students testing for the first time in 2007-08 performed above the national means for public four-year institutions in all four areas of the exam. For the system, 69% of the students scored above the mean for science reasoning, followed by reading (62%), mathematics (61%), and writing skills (60%). This performance level was statistically consistent among the Regental Institutions (see Figures 3 & 4). However, SDSMT had the highest percentage of students perform above the system percentage for all four exams.

**Figure 3**  
**Percentage Performing Above National Mean in Writing Skills and Reading in 2007-08**



*Note: Percentage of students scoring above the national mean was 58% for writing skills and 60% for reading, as depicted by the black indicator line used for comparisons across institutions.*

**Figure 4**  
**Percentage Performing Above National Mean in Mathematics and Science Reasoning in 2007-08**

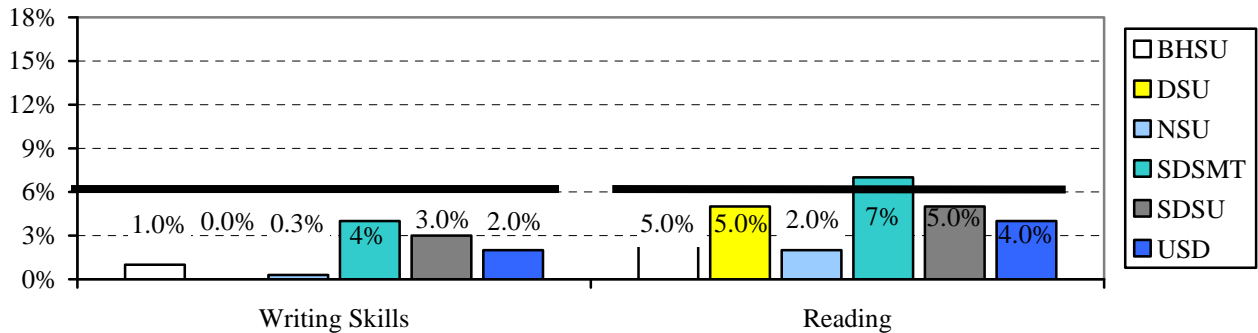


Note: Percentage of students scoring above the national mean was 61% for mathematics and 66% for science reasoning, as depicted by the black indicator line used for comparisons across institutions.

### **Percentage of Students Scoring At or Above the 99<sup>th</sup> Percentile**

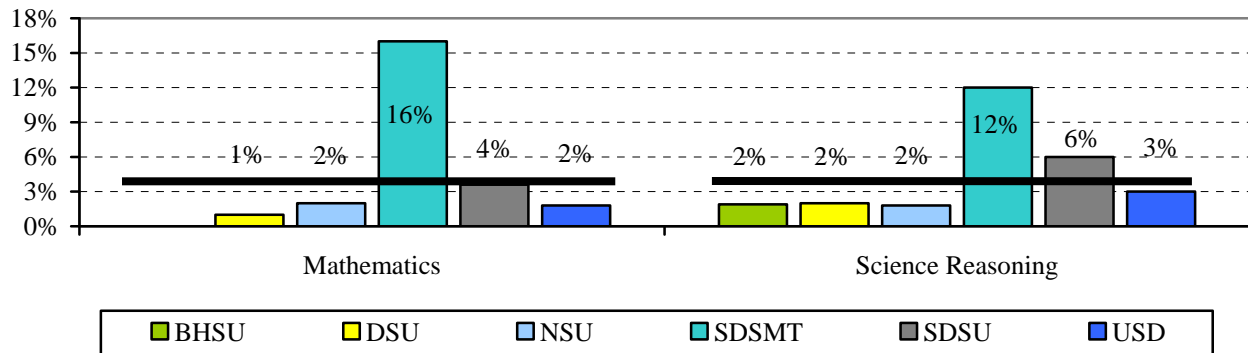
On a system basis, at least 2% of the students testing for the first time in 2007-08 performed at or above the national scores set at the 99<sup>th</sup> percentile (see Figures 5 & 6). Again, this performance level was similar among the six South Dakota public universities. SDSMT had a higher percentage of students in the 99<sup>th</sup> percentile in all four areas. These figures are consistent with results earned by previous cohorts.

**Figure 5**  
**Percentage Performing At or Above the 99<sup>th</sup> Percentile in Writing Skills and Reading in 2007-08**



Note: Percentage of students in the system scoring at or above the 99<sup>th</sup> percentile was 2% for writing skills and 2% for reading, as depicted by the black indicator line used for comparisons across institutions.

**Figure 6**  
**Percentage of Students Performing At or Above the 99<sup>th</sup> Percentile in Mathematics and Science Reasoning for 2007-08 Cohort**

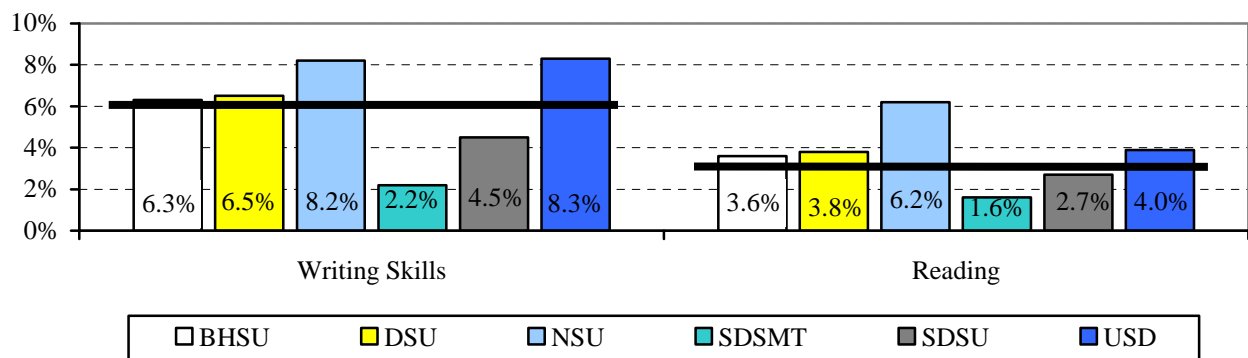


Note: Percentage of students in the system scoring at or above the 99<sup>th</sup> percentile was 5% for mathematics and 4% for science reasoning, as depicted by the black indicator line used for comparisons across institutions.

### Percentage of Students Requiring Remediation

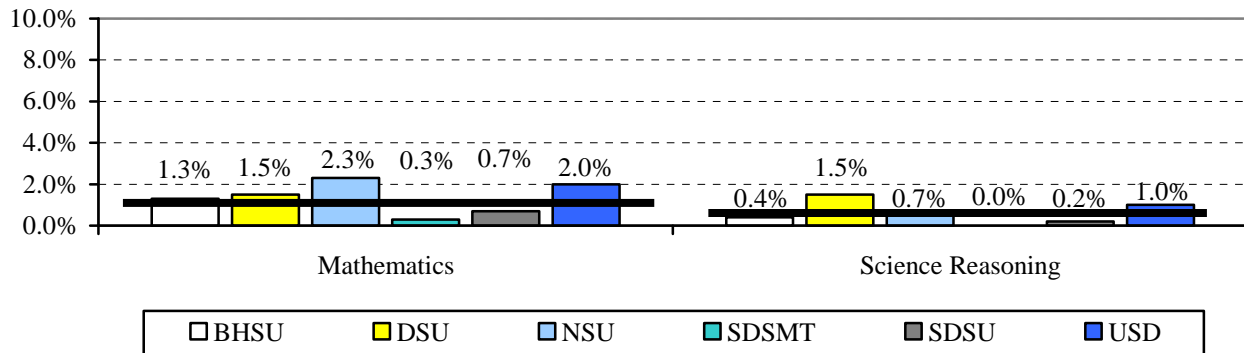
On a system basis, 9% of the students in the 2007-08 cohort required remediation in one or more areas of the examination. The percentage of students requiring remediation varied among the six public universities with NSU (13.4%) producing the highest number of students followed by USD (12%), DSU (10.3%), BHSU (9.8%), SDSU (6.4%), and SDSMT (4.2%), respectively. Data depicting the content areas and percentages of remediated students from each university are provided in Figure 7 and 8.

**Figure 7**  
**Percentage of Students Requiring Remediation in Writing Skills and Reading for the 2007-08 Cohort**



Note: Percentage of remediation for the system was set at 6.0% for Writing Skills and 3.4% for Reading, as depicted by the black indicator line across each institution.

**Figure 8**  
**Percentage of Students Requiring Remediation in Mathematics and Science Reasoning for the 2007-08 Cohort**



Note: Percentage of remediation for the system was set at 1.3% for Mathematics and .5% for Science Reasoning, as depicted by the black indicator line across each institution.

### **Associate and Baccalaureate Degree Seeking Student Performance**

A number of factors have been found to influence pass rates for first-time test takers within the Regental system. This past year a total of 409 students failed to meet qualifying scores on at least one of the four content areas assessed using the CAAP exam. Of these students, 16% (66 of 409) were associate degree students who were almost twice (15% of all associate degree students when compared to 8% of baccalaureate degree seeking students) as likely to require remediation and additional testing before meeting the proficiency examination requirement. Table 5 provides a comparison of the associate and baccalaureate degree seeking student pass rates on the CAAP during the past academic year sorted by Regental institution.

**Table 5**  
**Overall Pass Rate on the CAAP Examination for Associate and Baccalaureate Degree Students**

<b>Institution</b>	<b>Associate Degree Students</b>		<b>Baccalaureate Degree Students</b>		<b>System Total</b>
	<b>Passed All 4 Areas</b>	<b>Required Remediation</b>	<b>Passed All 4 Areas</b>	<b>Required Remediation</b>	
<i>BHSU</i>	18 (85%)	3 (15%)	487 (90%)	52 (10%)	<b>560</b>
<i>DSU</i>	31 (86%)	5 (14%)	205 (90%)	22 (10%)	<b>263</b>
<i>NSU</i>	19 (83%)	4 (17%)	245 (87%)	37 (13%)	<b>305</b>
<i>SDSM&amp;T</i>	5 (100%)	0 (0%)	294 (96%)	13 (4%)	<b>312</b>
<i>SDSU</i>	44 (86%)	7 (14%)	1,631 (94%)	108 (6%)	<b>1,790</b>
<i>USD</i>	259 (85%)	47 (15%)	900 (89%)	111 (11%)	<b>1,317</b>
<b>System</b>	<b>376 (85%)</b>	<b>66 (15%)</b>	<b>3,762 (92%)</b>	<b>343 (8%)</b>	<b>4,547</b>

### Overall Passing Rates

On a system basis, the percentage of students requiring remediation in one or more areas of the examination has declined over the past three years (see Table 5). Based on percentages, more students required remediation in writing skills when compared to other sections of the exam, and this has remained consistent over the past five years (see Table 5).

**Table 5**  
**Percentage of Students Requiring Remediation Across Cohort Groups**

<b>CAAP Exam</b>	<b>03-04</b>	<b>04-05</b>	<b>05-06</b>	<b>06-07</b>	<b>07-08</b>
<b>Writing Skills</b>	5.8%	6.5%	6.6%	5.7%	6.0%
<b>Reading</b>	4.6%	3.6%	4.0%	4.5%	3.4%
<b>Mathematics</b>	2.6%	2.0%	1.3%	1.6%	1.3%
<b>Science Reasoning</b>	1.0%	.4%	.3%	.5%	.5%
<b>System Remediation (Unduplicated)</b>	<b>9.9%</b>	<b>9.7%</b>	<b>9.3%</b>	<b>9.5%</b>	<b>9.0%</b>

Board policy 2:28 allows students who failed to perform at a satisfactory level during their initial testing, the opportunity to re-test twice during the following calendar year. Students who are unable to earn satisfactory scores during re-testing are no longer permitted to enroll in courses at any of the six public universities. Students who are denied enrollment may apply for certification of their proficiency through an alternate method. The performance of each cohort of students sitting for the proficiency examination for the first time in a given academic year has been tracked over time to determine the number of students who eventually meet the Board's proficiency requirement. The following information is provided for the last six cohorts of students who have completed their initial testing and any required re-testing. Of those students (9.5%) were required to retake one or more sections of the proficiency exam for the 2006-07 cohort, 3.2% percent were unable to demonstrate an acceptable level of proficiency, either through re-testing or alternate methods, and were denied permission to re-enroll. The percentage of students denied re-enrollment has decreased slightly (see Table 6).

**Table 6**  
**Overall Passing and Retesting Rates for Past Six Cohorts**

	<b>02-03</b>	<b>03-04</b>	<b>04-05</b>	<b>05-06</b>	<b>06-.7</b>	<b>07-08</b>
<b>% Passing First Test</b>	90.8%	90.1%	90.3%	90.7%	90.5%	90.0%
<b>% Passing First Retest</b>	4.9%	5.7%	5.6%	5.5%	4.6%	**
<b>% Passed Readmit Retest</b>	2.0%	1.6%	2.3%	2.0%	1.3%	**
<b>Alternate Certification</b>	.3%	.3%	.1%	.3%	.4%	**
<b>% Denied Re-Enrollment</b>	2.0%	2.3%	1.7%	1.5%	3.2%	**