SUBJECT: College Assessment of Academic Proficiency Report

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 2005-06 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

The 2005-06 cohort performance is attached, and performance trends over the past five years are noted in the Executive Summary. This section of the report provides institutional and system performance, as well as comparison with national user norms. Highlights of the result include the following:

- System test score means exceeded national mean scores in all four areas (see Figure 2).
- For the first time since the inception of the proficiency exam, all Regental Institutions were above the national mean for each of the four exam subscores (see Table 2).
- On a system basis, the percentage of students requiring remediation is 6.8%, up slightly from 6.5% in 2004-05, but significantly lower when compared with approximately 9.5% between 2001-2004 (see Table 4).

ACT-to-CAAP Gains

The 2005-06 cohort performance is attached, and performance trends over the past five years are also noted (see Table 7). This section of the report compares the gains in achievement of South Dakota students to students across the nation who are attending either a public or a private 4-year college and who have taken the ACT and the CAAP exam. Highlights of the results include:

- In all four areas (Writing Skills, Mathematics, Reading and Science Reasoning) South Dakota students demonstrated a higher percentage of gains in achievement than did students in national reference groups.
- The greatest percentage of South Dakota students had gains in achievement in the area of Science Reasoning (98%), followed by Mathematics (96%), Reading (93%), and Writing (93%).
- The percentage of students showing gains in performance between their ACT and CAAP testing has remained consistent over the past five years varying between only 2 to 3 percentage points from one year to the next.

RECOMMENDED ACTION

Information only.
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 2005-06 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

- Eight cohorts of students have undergone initial proficiency testing and total of 5,100 undergraduate students were required to sit for the proficiency examination during the 2005-06 academic year with 4607 (90.3%) actually sitting for the exam. This percentage is comparable to previous proficiency exam cohorts.
- As with the previous cohorts tested, system test score means for the 2005-06 cohort exceeded national mean scores for 4-year public institutions in all four areas tested. Additionally, for the first time since the inception of the proficiency exam, all Regental Institutions were above the national mean for each of the four exam subscores (see Table 2).
- For the eight cohorts tested, institutional mean scores have been above the national mean 100% of the time for Science Reasoning, 79.2% 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 86% of the time.
- On a system basis, more than half of the 2005-06 cohort earned scores above the national mean, and at least three percent earned scores at or above the 99th percentile.
- On a system basis, 6.8% of the students in the 2005-06 cohort failed to earn acceptable scores in one or more areas of the exam. On a university basis, the percentage ranged between 9.2% and 0.0%. The percent of students requiring remediation in Science Reasoning and Mathematics has declined over the past five years, while increasing slightly in Writing Skills (see Table 4).

ACT-to-CAAP Gains

The 2005-06 cohort performance is attached, and performance trends over the past five years are also noted (see Table 7). This section of the report compares the gains in achievement of South Dakota students to students across the nation who are attending either a public or a private 4-year college and who have taken the ACT and the CAAP exam. Highlights of the results include:

- In all four areas (Writing Skills, Mathematics, Reading and Science Reasoning) South Dakota students demonstrated a higher percentage of gains in achievement than did students in national reference groups.
- The greatest percentage of South Dakota students had gains in achievement in the area of Science Reasoning (98%), followed by Mathematics (96%), Reading (93%), and Writing (93%).
- The percentage of students showing gains in performance between their ACT and CAAP testing has remained consistent over the past five years varying between only 2 to 3 percentage points from one year to the next.
The College Assessment of Academic Proficiency Report combines the Proficiency Examination Report and the ACT-to-CAAP Gains Report. Proficiency examinations were 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. The Regent 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. The purpose of this report is three-fold: 1) to report data on the results of the Regental Proficiency Examination for students tested for the first time during the Fall 2005 and Spring 2006 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.

Student Participation

Since its inception, eight cohorts containing a total of 32,903 students have taken the proficiency examination producing a 90.2% pass rate on their initial attempt. Within the system, a total of 4607 baccalaureate and associate degree-seeking students sat for the proficiency exam for the first time during the 2005-06 academic year. Of those students required to sit for the exam, 9.7% were not tested for reason of deferment (N = 320), exemption (N = 22) or failure to sit (N = 151). 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. The 4,607 students in the 2005-06 cohort represented the largest increase in the number of students tested since the addition of associate degree-seeking students in the 1999-00 academic year (see Figure 1).
**System Test Score Results**

Weighted system mean scores for the 2005-06 cohort exceeded the mean for the national comparison group (4-year public institutions) in all four areas tested (see Figure 2).

**Figure 2**
*Comparison of System and National Mean Scores for the 2005-06 Cohort*

![Comparison of System and National Mean Scores for the 2005-06 Cohort](image)

Weighted system mean scores have exceeded national means scores for every cohort of students tested. However, no statistically significant difference exists when comparing cohort and national means across any of the eight academic years. Additionally a common system trend exists for student scores on each of the 4 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 1).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>System Mean Scores for Writing Skills, Mathematics, Reading, and Science Reasoning for Past 5 Cohorts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Writing Skills</strong></td>
<td>65.2</td>
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<tr>
<td><strong>Reading</strong></td>
<td>63.9</td>
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<tr>
<td><strong>Science Reasoning</strong></td>
<td>62.9</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>59.4</td>
</tr>
</tbody>
</table>
Institutional Results

For the first time since the inception of the proficiency exam, all institutions scored higher than the national mean across each of the exam subscores (see Table 2).

Table 2
Institutional Means Above and Below National Means By Institution and Area
2005-06 Cohort

<table>
<thead>
<tr>
<th>Writing Skills</th>
<th>Mathematics</th>
<th>Reading</th>
<th>Sci. Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHSU</td>
<td>Above</td>
<td>Above</td>
<td>Above</td>
</tr>
<tr>
<td>DSU</td>
<td>Above</td>
<td>Above</td>
<td>Above</td>
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<tr>
<td>NSU</td>
<td>Above</td>
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<tr>
<td>SDSMT</td>
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<tr>
<td>SDSU</td>
<td>Above</td>
<td>Above</td>
<td>Above</td>
</tr>
<tr>
<td>USD</td>
<td>Above</td>
<td>Above</td>
<td>Above</td>
</tr>
</tbody>
</table>

For the eight 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 seven times (see Table 3). NSU accounts for approximately half (14/27) of the instances an institutional mean was below the national mean followed by DSU (7/27) and BHSU (6/27). All of the institutional means that were lower than national means were still within one standard deviation of the specific national mean.

Table 3
Percent Institutional Mean for a Cohort Was Above National Mean By Institution and Area

<table>
<thead>
<tr>
<th>Writing Skills</th>
<th>Math</th>
<th>Reading</th>
<th>Science Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHSU</td>
<td>87.5%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>DSU</td>
<td>50%</td>
<td>62.5%</td>
<td>100%</td>
</tr>
<tr>
<td>NSU</td>
<td>37.5%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>SDSMT</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>SDSU</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>USD</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>79.2%</td>
<td>85%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Percentage of Students Scoring Above the National Norm

On a system basis, more than half of the students testing for the first time in 2005-06 performed above the national means for public 4-year institutions in all four areas of the exam. For the system, 68% of the students scored above the mean for science reasoning, followed by mathematics (61%), writing skills (59%), and reading (58%). 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 2005-06

Note: Percentage of students scoring above the national mean was 58% for writing skills and 58% 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 2005-06

Note: Percentage of students scoring above the national mean was 61% for mathematics and 68% for science reasoning, as depicted by the black indicator line used for comparisons across institutions.
Percentage of Students Scoring At or Above the 99th Percentile

On a system basis, at least three percent of the students testing for the first time in 2005-06 performed at or above the national scores set at the 99th percentile (see Figures 5 & 6). Again, this performance level was similarly among the six South Dakota public universities. SDSMT had a higher percentage of students in the 99th percentile for Writing Skills, Mathematics and Science Reasoning. These figures are consistent with results earned by previous cohorts.

Figure 5
Percentage Performing At or Above the 99th Percentile in Writing Skills and Reading in 2005-06

![Figure 5](image_url)

Note: Percentage of students in the system scoring at or above the 99th percentile was 3% for writing skills and 3% for reading, as depicted by the black indicator line used for comparisons across institutions.

Figure 6
Percentage of Students Performing At or Above the 99th Percentile in Mathematics and Science Reasoning for 2005-06 Cohort

![Figure 6](image_url)

Note: Percentage of students in the system scoring at or above the 99th percentile was 3% 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, 6.8% of the students in 2005-06 cohort required remediation in one or more areas of the examination. The percentage of students requiring remediation varied among the six public universities with BHSU (9.5%) producing the highest number of students followed by DSU (8.6%), NSU (8.4%) USD (7.8%), SDSMT (5.6%), and SDSU (5.5%) 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 2005-06 Cohort

Note: Percentage of remediation for the system was set at 6.6% for Writing Skills and 4.0% 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 2005-06 Cohort

Note: Percentage of remediation for the system was set at 1.3% for Mathematics and .3% for Science Reasoning, as depicted by the black indicator line across each institution.
On a system basis, the percentage of students requiring remediation in one or more areas of the examination has declined over the past two years (see Table 4). Based on percentages, more students were 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 4).

<table>
<thead>
<tr>
<th>Table 4</th>
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</thead>
<tbody>
<tr>
<td><strong>Percentage of Students Requiring Remediation Across Cohort Groups</strong></td>
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<tr>
<td></td>
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<tr>
<td><strong>Writing Skills</strong></td>
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<tr>
<td><strong>Reading</strong></td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
</tr>
<tr>
<td><strong>Science Reasoning</strong></td>
</tr>
<tr>
<td><strong>System Remediation (Unduplicated)</strong></td>
</tr>
</tbody>
</table>

**Overall Passing Rates**

Board policy 2:28 allows students who failed to perform at a satisfactorily 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 those eight cohorts of students who have completed their initial testing and any required re-testing. Of those students (6.5%) required to retake one or more sections of the proficiency exam for the 2004-05 cohort, only 1.0% 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 5).

<table>
<thead>
<tr>
<th>Table 5</th>
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<tbody>
<tr>
<td><strong>Overall Passing and Retesting Rates for Past Six Cohorts</strong></td>
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<tr>
<td><strong>% Passing First Test</strong></td>
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<td><strong>% Passing First Retest</strong></td>
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<td><strong>% Passed Readmit Retest</strong></td>
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<tr>
<td><strong>Alternate Certification</strong></td>
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<tr>
<td><strong>% Denied Re-Enrollment</strong></td>
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Page 9
ACT to CAAP Gains

Gain Categories and Reference Group Percentages

In order to interpret gains in achievement, students are differentiated into 3 categories including: 1) students making lower than expected progress; 2) students making expected progress; and 3) students making higher than expected progress. Students are placed into these categories based on decile ranking of their ACT score and corresponding CAAP score. The reference group against which South Dakota students’ performances are compared consists of all students nationally who have taken both the ACT and the CAAP. When comparing performances between a particular institution and the reference group, ACT weights the reference group gain percentages to reflect the same ACT distribution of the university’s group of students. This insures that the level of expected gain is similar between the two reference groups.

System Results

Students enrolled in Regental Institutions had greater gains in achievement in all four areas examined when compared with students in the national reference groups (see Table 6). The difference between the percentage of students who made expected or higher than expected progress in the South Dakota System and the percentage in the national reference group was highest in the area of Science Reasoning, followed by Mathematics, Writing Skills, and Reading, respectively. Table 7 also provides trend analysis data for the past 5 cohorts, demonstrating that students in the six Regental Institutions have consistently obtained higher ACT-to-CAAP gains when compared to national reference groups.

Table 6

<table>
<thead>
<tr>
<th></th>
<th>BHSU</th>
<th>DSU</th>
<th>NSU</th>
<th>SDSMT</th>
<th>SDSU</th>
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Note: Percentages represented students making expected progress and higher than expected progress.
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</table>

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