

*South Dakota High School to
College Transition Report*

2010 Graduating Class



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Executive Summary

Each year, SDBOR conducts an analysis of the first-year performance of Regental students matriculating from each of the state's school districts. Individualized district-level reports are given to each school district as a means to help ensure that future high school graduates are adequately prepared for postsecondary success. The *South Dakota High School to College Transition Report* is an annual report that caps the above reporting effort by summarizing statewide data for all first-year Regental students transitioning from an in-state high school. The report is divided into four major sections: College Readiness, Second Semester Retention, Remedial Performance, and Performance Indicators.

2010 High School Graduating Class

A total of 3,081 students from South Dakota's high school graduating class of 2010 entered a Regental institution in Fall 2010, 2,940 of whom entered on a full-time basis. These 2,940 students (*who serve as the primary analysis group for this study*) represented 32.9% of all graduates of the state's high schools; this proportion is up slightly from the analogous figure of 31.5% reported last fall.

Given that approximately 72.1% of the state's high school graduates go on to some form of postsecondary education, data indicate that the Regental system attracted approximately 47.9% of all 2010 graduates who continued their educational endeavors beyond high school. A total of 18 counties saw 40.0% or more of their graduates matriculate to one of the six Regental institutions.



Approximately 94.3% of first-time, full-time students matriculating from an in-state high school to the Regental system enrolled in one of the 450 baccalaureate degree programs offered in the system, with the remainder (5.8%) enrolling in an associate's degree program.

College Readiness

ACT Inc. recommends that all students complete a college preparatory core curriculum that includes four years of English and three years each of advanced mathematics, social studies, and science. Students who complete such a curriculum tend to obtain higher scores on the ACT. ACT Inc. also has established *College Readiness Benchmarks*, score thresholds that map ACT subtest scores to future performance in entry-level college courses. These benchmarks indicate the minimum ACT scores a student should obtain to ensure at least a 50.0% chance of scoring a B or higher and a 75.0% chance of scoring a C or higher in related collegiate coursework.

ACT's benchmarks can be used to sort students into one of three categories: those meeting none of the benchmarks, those meeting one to three benchmarks, and those meeting all four benchmarks. Examining these categories within the analysis group, 34.8% met all four benchmarks, with the majority (54.4%) meeting one to three, followed by those meeting none (10.9%).

According to the 2010 *ACT South Dakota Profile Report*, the average composite ACT score for test takers graduating in 2010 was \bar{x} =21.8, slightly higher than the national average of \bar{x} =21.0. The average composite score of those entering the Regental system on a full-time basis was \bar{x} =22.9, down marginally from the 2009 average of \bar{x} =23.0.

Second Semester Retention

Colleges and universities throughout the country place much priority on retaining students beyond the first year of enrollment. NCHEMS national data suggest that – as of 2008 – only 76.6% of first-time, full-time students returned to the same institution for a second year of school. The same dataset indicates that the analogous figure for South Dakota (*all institutions*) was 73.0%.

Because the Regental data analyzed in this report includes only single-year observations, the report focuses on the percentage of students who were retained into their second *term*. Overall, 2,644 (89.9%) members of the analysis group were retained and completed credit in the Regental system beyond the first semester of enrollment. Looking at matched institutional data, 2,589 (88.1%) members of the analysis group were retained and completed credit at their original institutions.

Remedial Performance

Students are placed into remedial English and mathematics courses based on incoming ACT English and ACT mathematics subtest scores. Students with an ACT English score below 18 and/or an ACT mathematics score below 20 are placed into remedial courses. Students designated for remediation may challenge their placement by sitting for the ACT COMPASS placement examinations.

Analyses conducted in this report are based on remediation placements as designated by ACT subtest scores. This being the case, this report likely overstates the number of students who actually enroll in remedial courses, given that a sizable subset of students are able to avert remedial coursework by demonstrating adequate performance on the COMPASS exam.

Thirty percent (act. 29.6%) of the state's 2010 high school graduates entering the Regental system on a full-time basis were designated for remedial education in 2010. This figure represents a slight increase from the all-time low of 26.0% set in 2007. The number of students requiring remedial English ($n=388$ or 13.2%) amounted to a slight decrease from 2009. Those requiring some form of math remediation ($n=736$ or 25.0%) increased slightly from 2009, though overall remediation in this area has declined somewhat from figures reported five years ago.

Table ES.1 (next page) provides trend data from South Dakota high school graduates entering Regental universities over a five-year period.

Table ES.1
South Dakota High School Graduates Entering Regental Institutions (FT): 2006-2010

	2006	2007	2008	2009	2010
# Entering Cohort	2,786	2,665	2,791	2,736	2,940
% of SD Graduates Entering Regental System (FT)	30%	29%	31%	31.5%	32.9%
Avg. ACT Composite Score	22.7	23.2	23.1	23.0	22.9
% Awarded Credit for CBAP	10.0%	10.8%	11.5%	12.6%	12.5%
% with English Remedial Placement	13%	9%	14%	13.6%	13.2%
% with Math Remedial Placement	25%	21%	22%	24.2%	25.0%
% with English (or) Math Remedial Placement	30.0%	26.0%	27.9%	29.1%	29.6%
Avg. Cumu. GPA of Those w/ Remedial Placement	2.30	2.32	2.30	2.33	2.30
Avg. Cumu. GPA of Those w/o Remedial Placement	2.97	2.99	2.93	2.99	2.96
Avg. Cumu. GPA of All (FT) Students	2.82	2.85	2.80	2.84	2.77
# SDOS Recipients	763	890	918	890	937

Recommendations for Parents/Students

An important consideration for parents and students in planning a successful transition into postsecondary education is the need to take the right courses in middle school and high school. For most students, success in college is predicated on the completion of rigorous coursework in high school. Algebra I, for example, is a well-established gateway course, and prepared students should be encouraged by parents (and allowed by school districts) to complete Algebra I in the 8th grade followed by three or more years of advanced mathematics in high school.

Making smart decisions about the courses taken (and effort expended) in high school is important for another reason – *cost*. A three-credit remedial course costs \$831 at any of the state’s public universities, an additional burden for those students who are unable to begin taking general education coursework without prior remediation. Consequently, because remedial courses do not apply toward Regental degree requirements, they increase the total amount of time spent in college.

Report Background

The *South Dakota High School to College Transition Report* summarizes data from the state's 2010 cohort of high school graduates who entered a Regental university in Fall 2010. Specifically, the main dataset used in this report includes those students who were: 1) graduates of a South Dakota high school as a member of the class of 2010; 2) enrolled in 12+ credit hours as of the Fall 2010 census date; and 3) admitted to a baccalaureate or associate degree program. See Appendix A for a brief analysis of students enrolled in fewer than 12 credit hours.

Background and Purpose

District-level performance reporting was initiated in 1995 to bolster the data resources available to the state's school districts. The provision of first-year performance data was seen as a means to foster the preparation of college-seeking students by enriching the high school curriculum planning process. The *Transition Report* – which provides an overview of this broader district-level reporting effort – is rooted in the hope that, by providing high schools with better information about their graduates' readiness for postsecondary education, future students will be more likely to find success in college.

Overall then, this report is driven by a spirit of collaboration between the state's universities, high schools, parents, and other stakeholders – all of whom have a clear interest in ensuring that our high school graduates are adequately prepared for the demands of postsecondary education. By strengthening this partnership, SDBOR seeks to increase the number of students who are prepared to take full advantage of the academic opportunities offered by our university system.



District-Level Reports

As mentioned above, this report summarizes the targeted reports that are distributed to each of the state's school districts. In addition to this document, a series of supporting materials are provided to the school board president, district superintendent, and high school principal from each school district. District reports cover a wide swath of first-year student outcomes, including but not limited to: institutions enrolled, admissions criteria met, academic performance (e.g., GPA, credit hour completion, retention), remedial placement, and ACT performance. Data are segmented by a variety of population characteristics, such as remediation placement, college readiness predictors, Opportunity Scholarship status, and Advanced Placement (AP) coursework history.

Delimitations

It is important to understand that the *Transition Report* is only one source of information that high schools may use to assess the preparation of their students for postsecondary education. This document does *not* report on districts' entire populations of graduates, does *not* analyze high schools' course offerings, and does *not* compare the quality of high schools.

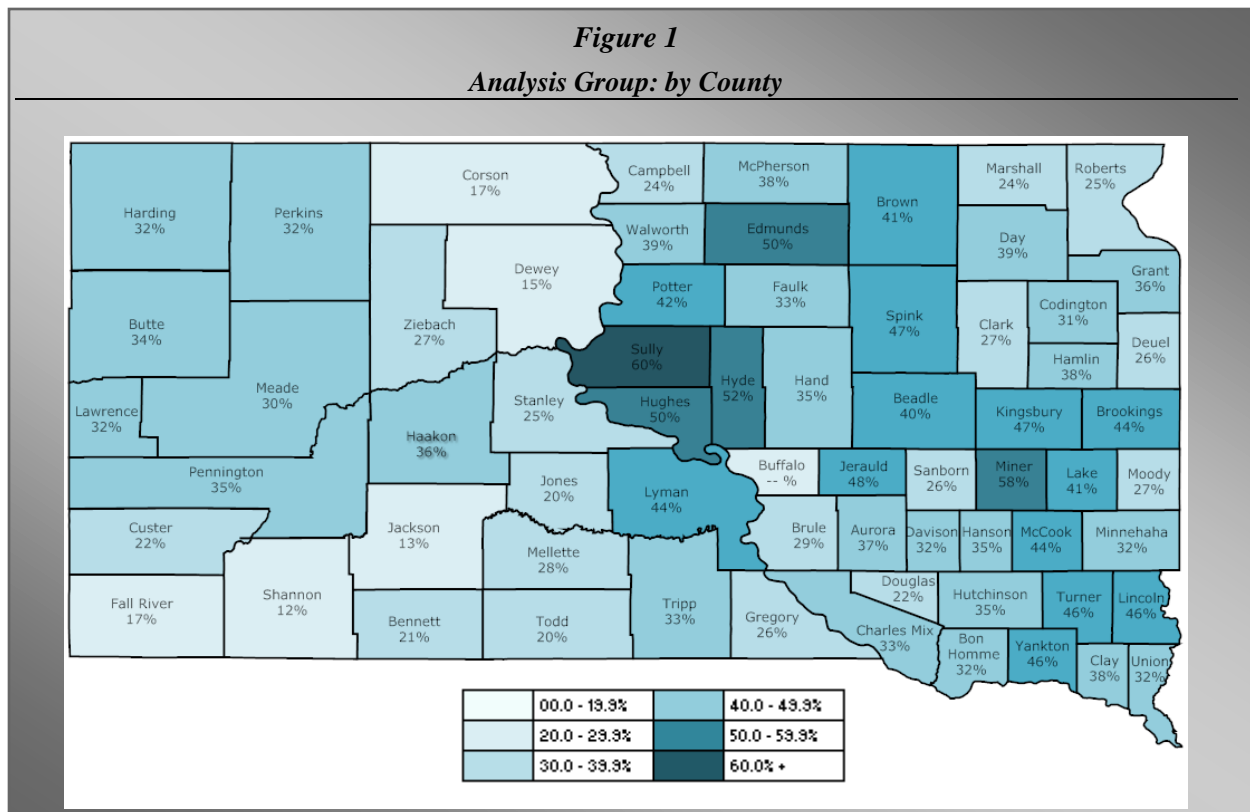
Study Population: 2010 High School Graduating Class

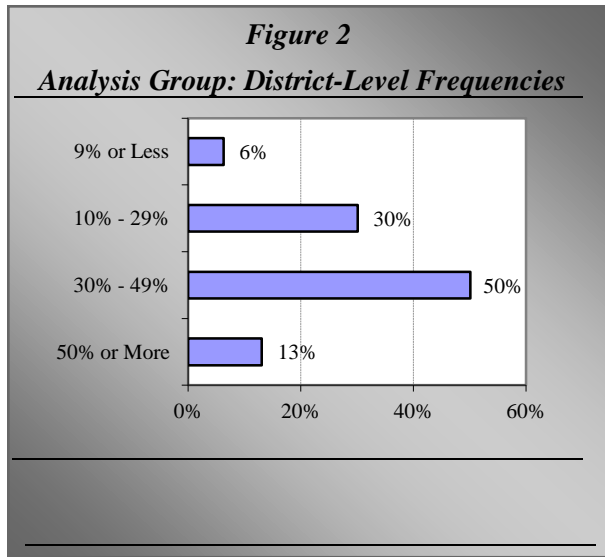
South Dakota's Class of 2010

A total of 8,929 students graduated from an in-state high school in 2010, 3,081 (34.5%) of whom matriculated to an SDBOR university in Fall 2010. Most of these students (2,940) entered the system on a full-time basis. [Note: These 2,940 students constitute the primary **analysis group** of this study, and often are referred to by this label in this report.] While 172 high schools were represented by this population of students, district-by-district rates of enrollment varied greatly. After matching enrollment data from students entering the Regental system in Fall 2010 with 2010 high school graduation records available from the South Dakota Department of Education, it was found that a Regental placement rate [i.e., the proportion of high school graduates enrolling at a Regental institution] of 50.0% or higher was generated

by 23 different school districts (public, private, or tribal) across the state (see Figure 2 for additional data). After re-aggregating by high school county, it was found that a Regental placement rate of 40.0% or higher was produced by 18 different counties (see Figure 1 below).

Data reported by The National Center for Higher Education Management Systems (NCHEMS) indicate that South Dakota ranks fourth in the country (72.1%) in the proportion of high school graduates going on to some form of postsecondary educational experience directly after high school (NCHEMS, 2009a). Triangulating this observation with Regental data, it can be estimated that the system attracted 47.9% of the state's college-going students in 2010.





Additional data would be necessary to track the academic outcomes of the remaining 52.1% of South Dakota high school graduates who matriculated to institutions outside the Regental system. Accordingly, SDBOR continues to collaborate with the South Dakota Department of Education to obtain a more comprehensive picture of our graduates' postsecondary participation. Despite the lack of an all-inclusive set of data on South Dakota graduates, the current *Transition Report* does provide a useful snapshot of Regental students as they transition into their first year of in-state college.

Enrollment Characteristics

The Regental system in South Dakota is steered by a unique mission to provide opportunities for both *baccalaureate* and *associate's* degree study. As of the 2010-2011 academic year, there were a total of 24 active associate degree programs in the Regental system, and more than 450 different baccalaureate degree programs.

For admission to baccalaureate degree programs, high school graduates must meet the minimum course requirements with an average grade of C and:

1. Rank in the top 60 percent of their high school graduating class;
(or)
2. Obtain an ACT composite score of 18 (SAT-I score of 870) or above;
(or)
3. Obtain a high school GPA of at least 2.6 on a 4.0 scale.

Students not meeting these baccalaureate degree programs can be admitted as exemptions. Each university may admit a group of admission-by-exception students to baccalaureate programs, limited in size to three percent of the previous year's freshman class, at the discretion of the university.

Of the 2,940 members of the 2010 analysis group, 2,771 (94.3%) were admitted to baccalaureate degree programs. The remaining 169 (5.8%) students were admitted to associate degree programs (see Table 1).

Table 1
Analysis Group: Fall 2010 Institutional Enrollments

Institution	Bachelor	Associate	Total
<i>BHSU</i>	356 ^(89%)	43 ^(11%)	399
<i>DSU</i>	210 ^(96%)	8 ^(4%)	218
<i>NSU</i>	198 ^(89%)	24 ^(11%)	222
<i>SDSMT</i>	192 ^(98%)	4 ^(2%)	196
<i>SDSU</i>	1,254 ^(98%)	22 ^(2%)	1,276
<i>USD</i>	561 ^(89%)	68 ^(11%)	629
System	2,771 ^(94%)	169 ^(6%)	2,940

College Readiness

Rigorous Preparatory Curriculum

ACT Inc. (2005a) recommends that all students take a preparatory core curriculum that includes four years of English and three (or more) years each of mathematics, social studies, and natural science. Research continually has demonstrated that students who complete such a curriculum tend to achieve higher scores on the ACT.

A rigorous college preparatory curriculum has been a cornerstone of SDBOR since it implemented its Regents Scholar curriculum in 1990. This curriculum was later adopted by the state legislature when it established initial eligibility requirements for the South Dakota Opportunity Scholarship program in 2004. In 2005 the South Dakota Department of Education implemented new minimum graduation requirements that came into effect beginning with the graduating class of 2010. The *Advanced* graduation pathway meets the ACT college preparatory core curriculum, and the *Distinguished* pathway

Table 2
“Advanced” and “Distinguished” High School Graduation Pathways

<i>Coursework</i>	<i>Advanced</i>	<i>Distinguished</i>
<i>English</i>	4	4
<i>Social Science</i>	3	3
<i>Mathematics</i>	3	4
<i>Science</i>	3	4
<i>Fine Arts</i>	1	1
<i>PE/Health</i>	½	½
<i>Economics</i>	½	½
<i>Foreign Language</i>	} 2	2
<i>Computer Studies</i>		½
<i>Other</i>		-
<i>Electives</i>	5	2½

exceeds these recommendations to align with the South Dakota Regents Scholar curriculum. [Note: The South Dakota Department of Education once again fashioned new minimum graduation requirements in 2009; these guidelines will take effect for students entering high school in 2010-11.]

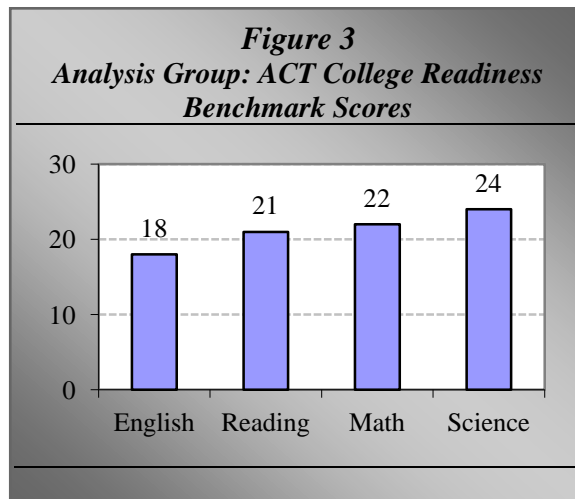
“ACT has long held that the core curriculum best prepares students for college or other forms of postsecondary training. The courses that constitute ACT’s definition of the core curriculum, by subject area, are.” (ACT, 2005a, p. 34)

- *English (four years or more) – One year credit for English 9 through English 12.*
- *Mathematics (three years or more) - One year credit each for Algebra I, Algebra II, and Geometry. One half-year credit each for Trigonometry, Calculus, or other mathematics courses beyond Algebra II.*
- *Social Studies (three years or more) – One year credit each for American History, World History, and American Government. One half-year credit each for Economics, Geography, Psychology, and other History.*
- *Natural Sciences (three years or more) – One year credit for General/Physical/Earth Science, Biology, Chemistry, and Physics.*

College Readiness Benchmarks and Standards

In conjunction with its endorsed college preparatory curriculum, ACT Inc. established *College Readiness Benchmark* scores in 1997 to aid students and high school administrators in their efforts to draw practical inferences from ACT exam scores (see Figure 3). Using data from enrolled college students, ACT Inc. developed benchmarks in English, reading, mathematics, and science that predict a high likelihood of success in entry-level college courses. These benchmarks indicate the minimum ACT scores a student should obtain to ensure at least a 50.0% chance of scoring a B or higher and a 75.0% chance of scoring a C or higher in related collegiate coursework (ACT, 2010a; Allen & Sconing, 2005a). For example, a student who obtains an ACT mathematics subtest score of 22 or higher has a 50.0% chance of earning a B or higher in college algebra.

Separate from the readiness benchmarks, ACT also has published a comprehensive set of *College Readiness Standards* that indicate the skills and knowledge likely to be possessed by students scoring in pre-specified ACT score ranges. Organized by topical “strands,” these standards are intended for use by high school students, teachers, and administrators in tailoring curriculum plans that will help students prepare for postsecondary coursework.



2010 Benchmark Data

After examining longitudinal ACT data from in-state high school students, it was found that the total percentage of students meeting the ACT benchmarks has increased steadily across all content areas. In 2003, 71% of South Dakota students obtained a score at or above 18 on the ACT English subtest. This compared to a national figure of only 67%. By 2010, the state’s rate had risen to 74% while the national average had dropped to 66%.

Table 3 provides eight-year trend data for the percentage of South Dakota students meeting the ACT benchmarks. The strongest growth has occurred in the *science* subtest (+5.0 percentage points) and those students meeting *all four* readiness benchmarks (+5.0 percentage points).

Table 3
Percentage of All SD Students Meeting ACT College Readiness Benchmarks

ACT Subtest	2003	2004	2005	2006	2007	2008	2009	2010
<i>English</i>	71%	71%	72%	74%	75%	75%	74%	74%
<i>Reading</i>	55%	56%	55%	58%	58%	59%	60%	58%
<i>Mathematics</i>	47%	47%	46%	50%	50%	50%	49%	50%
<i>Science</i>	30%	31%	31%	34%	34%	35%	36%	35%
All Benchmarks	23%	25%	24%	26%	27%	28%	28%	28%

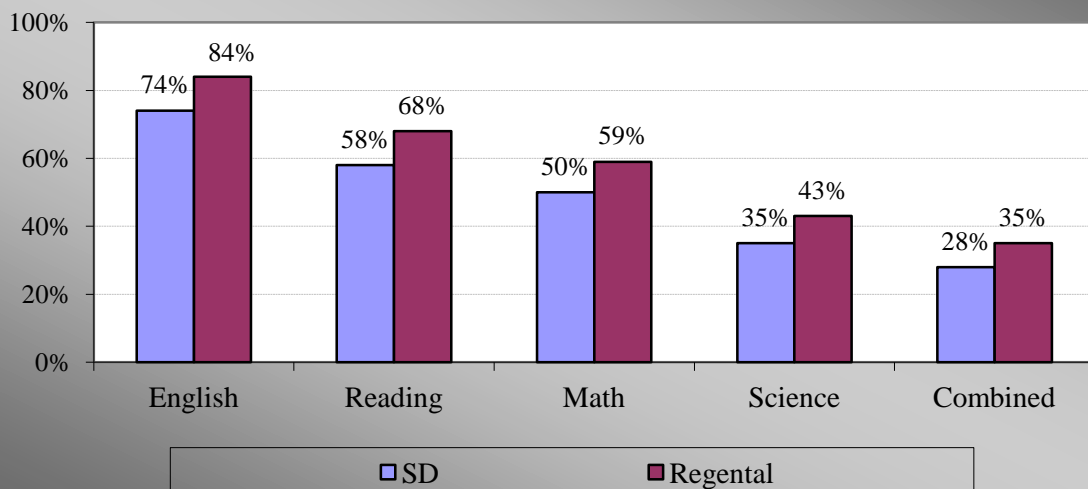
Data demonstrate that the 2,940 members of the 2010 analysis group tended to meet *College Readiness Benchmarks* at higher rates than did the full population of statewide test takers (see Figure 4). The largest difference occurred on the English and reading subtests, where the analysis group and the total statewide population of test takers were separated by ten percentage points (84% to 74% and 68% to 58%, respectively). Regental test takers exceeded the benchmark attainment rates of all test takers by lesser degrees on the math (59% to 50%) and science (43% to 35%) subtests. Similarly, graduates entering Regental institutions also were more likely to meet ACT benchmarks on *all four* subtests (35% to 28%).

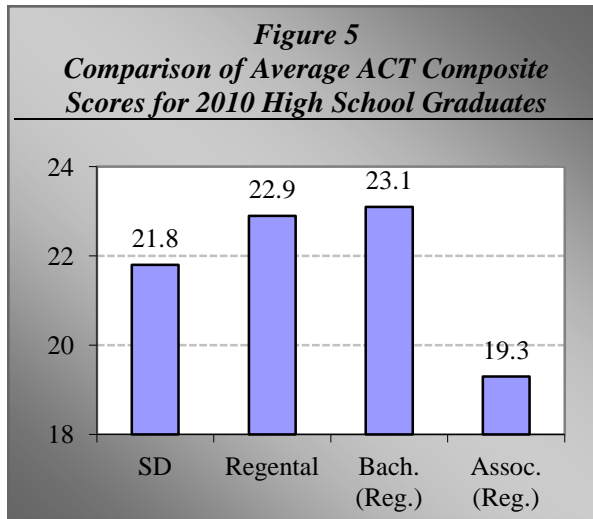


cross-tabulation in a number of tables and figures. This reporting device is meant to equip school districts with student performance data segmented by three possible test taker groups: those meeting all four benchmarks, those meeting one to three benchmarks, and those meeting no benchmarks. Of the cohort of in-state 2010 high school graduates entering the system in Fall 2010 on a full-time basis, the largest fraction comprised those students meeting one to three benchmarks (54.4%), followed by those meeting all four (34.8%), and those meeting none (10.9%).

As mentioned above, *ACT College Readiness Benchmarks* have demonstrated strong empirical support in predicting later scholastic outcomes. This report recognizes the usefulness of ACT benchmark data in making sense of other academic performance indicators. Consequently, the remainder of this report uses benchmark attainment strata as a basis for demographic

Figure 4
ACT College Readiness Benchmarks: Analysis Group versus All SD Test Takers





ACT Performance

Each September, ACT provides a state *Profile Report* that details the performance of South Dakota's ACT test takers in relation to students throughout the country. According to the latest report, a total of 6,871 in-state graduating high school seniors sat for the ACT examination; these students accounted for 77.0% of the state's total population of high school graduates (ACT, 2010b). In total, South Dakota's test takers produced a mean ACT composite score of $\bar{x}=21.8$, a figure that outpaced the national average of $\bar{x}=21.0$. South Dakota's test takers also exceeded the national mean score on all four ACT subtests: English ($\bar{x}=21.1$ to $\bar{x}=20.5$), mathematics ($\bar{x}=21.6$ to $\bar{x}=21.0$), reading ($\bar{x}=22.0$ to $\bar{x}=21.3$), and science ($\bar{x}=21.9$ to $\bar{x}=20.9$).

The in-state figures cited above include all of the state's test takers, including those who did not matriculate to the Regental system. Looking only at students enrolling full-time at a Regental university in Fall 2010, the analogous mean ACT composite score was $\bar{x}=22.9$ ($n=2,940$).

Considerable variation in ACT composite scores was found across demographic groups, and in particular, student degree level. Graduates enrolling in baccalaureate degree programs produced a mean composite score of $\bar{x}=23.1$, compared to a figure of $\bar{x}=19.3$ for associate's degree-seeking students. By institution, the highest mean ACT composite scores were found among students at SDSMT and USD (see Table 4). This finding should be unsurprising given that in 2006 both SDSMT and USD elected to raise the minimum ACT score required for admission from 18 to 21. Finally, ACT traditionally reports composite score data by student race. Among statewide test takers in 2010, vast disparities existed between Caucasian American/White students ($\bar{x}=22.3$) and American Indian students ($\bar{x}=17.1$). A smaller gap was found between these groups among Regental test takers, with white students obtaining a mean composite score of $\bar{x}=23.1$, and American Indian students generating an analogous score of $\bar{x}=20.3$.

Table 4
Analysis Group: ACT Composite and Subtest Scores by Institution

ACT Subtest	BHSU	DSU	NSU	SDSMT	SDSU	USD
English	20.7	20.6	21.0	24.5	22.4	22.6
Reading	22.1	21.7	21.7	26.0	23.2	23.8
Mathematics	20.6	21.7	21.2	26.4	22.8	22.7
Science	21.7	22.7	21.7	25.8	23.2	23.3
Composite	21.4	21.8	21.5	25.8	23.1	23.3

Second Semester Retention

Colleges and universities throughout the country place much priority on retaining students beyond the first year of enrollment. Yet despite institutions' best efforts, second year retention continues to be a critical concern as data suggest that many first-time students do not persist past the first year. NCHEMS (2009b) reports that only 76.6% of national first-time, full-time students returned to the same institution for a second year of study. Data for all South Dakota institutions show that the state falls below the above national average, with only 73.0% of students returning for the sophomore year.

Retention at the Same Institution

The methodology employed by the National Center for Educational Statistics (NCES) seeks to track the retention of first-time, full-time students into the second year of study. In an effort to provide South Dakota school districts with data on the postsecondary persistence of their alumni, a similar methodology is employed in the current report.

National data indicate that more than 23.0% of all first-time, full-time students do not return to the same institution for a second year of college (NCHEMS, 2009b). However, many students who fail to persist at their original institutions do not drop out permanently, but rather will return to the same institution at a later time, or will transfer to a different one. Consequently, it is important to remember that students who "stop out" are likely to reemerge for some other form of degree completion (American Council on Education, 2002).



In Table 5, data are used to depict the number of students who were retained at the same Regental institution. Of the 2,940 South Dakota high school graduates that entered the system on a full-time basis in Fall 2010, 2,589 (88.1%) were still enrolled in Spring 2011 at the same institution. SDSMT and USD produced the highest retention rates in the system, with 93.9% and 91.9% of students (respectively) returning for a second semester. Unmatched data indicate that 2,644 (89.9%) students were retained into the second semester at *any* Regental institution.

<i>Institution</i>	<i>FA10</i>	<i>SP11</i>
<i>BHSU</i>	399	320 (80%)
<i>DSU</i>	218	184 (84%)
<i>NSU</i>	222	202 (91%)
<i>SDSMT</i>	196	184 (94%)
<i>SDSU</i>	1276	1121 (88%)
<i>USD</i>	629	578 (92%)
<i>System</i>	2,940	2,589 (88%)

Remedial Performance

Remedial Coursework

Remedial course taking at the college level has become a growing concern in the United States. *Getting Past Go*, a recent research report by the Education Commission of the States, notes a gamut of challenges associated with remedial education. This report indicates that more than one third (34%) of students entering college require some form of remediation; among those entering a community college, this figure rises to 43% (Vandal, 2010, p. 4). The cumulative financial costs associated with this large-scale remediation effort recently were estimated by the Bill and Melinda Gates Foundation to exceed \$2.3 billion annually (Ibid).

In addition to the costs – both in time and in financial expense – that remediation incurs to college students, enrollment in remedial courses often delivers another undesirable consequence: obstructing students’ progress toward the completion of a degree. Only a handful of students pegged for remedial coursework are able to successfully complete a degree program. Nationally, a mere 17% of high school graduates requiring reading remediation and only 27% of those requiring math remediation eventually complete a bachelor’s degree (Vandal, 2010, p. 4).

In the Regental system, remedial courses do not count toward degree completion and are delivered at a higher cost to students.



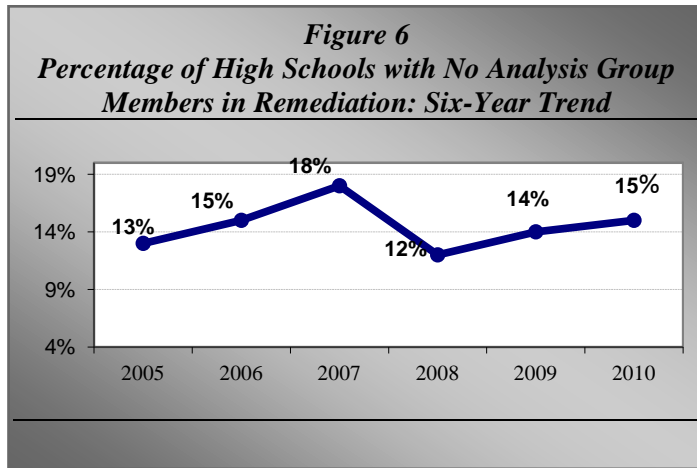
Because all remedial courses are delivered at the self-support tuition rate, students face the “double whammy” of being required to complete non-credit-bearing coursework at a steeper tuition rate of \$277 per credit hour (or \$831 for a three-credit course).

All students entering the Regental system are assessed in English and mathematics to determine their readiness for college-level general education coursework. Students with an ACT English score below 18 and/or an ACT mathematics score below 20 are designated for corresponding remedial coursework. Students flagged for remediation may challenge their placement by sitting for the ACT COMPASS placement examinations. Those students who are unable to successfully challenge their remedial placement are required to enroll in and show adequate proficiency in English and/or mathematics remedial course(s).

Among the 2,940 members of 2010 analysis group, a slightly higher proportion of students required remedial coursework compared to the 2009 cohort (29.6% vs. 29.1%). The number of students requiring remedial English (371 or 13.2%) was down slightly from 2009, but amounted to a 4.2 percentage point increase from the all-time low recorded in 2007 (see Table 6 for longitudinal data). Those requiring some form of mathematics remediation increased slightly (736 or 25.0%) from the figures reported for the 2009 cohort; overall remediation in mathematics has been relatively unchanged since 2005. The proportion of analysis group students requiring *any* remediation (English *or* mathematics) has declined from 31.0% in 2005 to 29.6% in 2010. Had this proportion remained constant, approximately 86 more students would have enrolled in remedial courses in Fall 2010. That these students were *not* placed into remedial coursework resulted in a direct cost savings of more than \$46,000 for these students and their families. [Note: This scenario assumes that these students would need to enroll in only one remedial course and would pass on the first attempt.]

Remedial Placement by High School

Data for the 2010 analysis group were further analyzed to examine the originating high schools of those students placed into remedial coursework. Of the 172 high schools



in South Dakota who sent at least one student to the Regental system in Fall 2010, 14.5% generated a remedial placement rate of 0.0%. As seen in Figure 6, this proportion improves on the level set by the 2005 cohort (13%), but falls short of the all-time high recorded by the 2007 cohort (18%).

Note: Beginning in 2005, data depicted in Figure 6 and Table 6 were modified to reflect *all* schools, regardless of *n*-value. This modification – while providing more complete data – also has had the effect of producing relatively large year-to-year fluctuations in aggregate remedial placement figures. This new reporting strategy also has driven up the percentage of high schools with no remedial students, an unsurprising occurrence given that schools with a small student pool (e.g., one or two students) are arithmetically more likely to have no students designated for remediation.

Table 6
Remedial Education (Analysis Group Only): Six-Year Trend

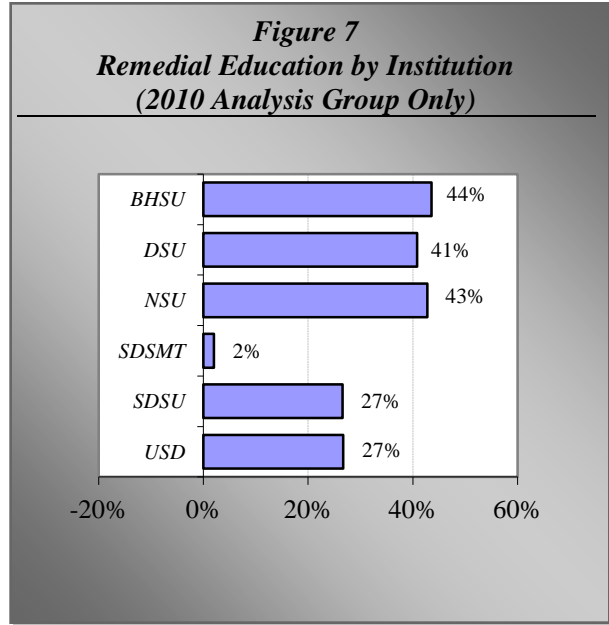
	2005	2006	2007	2008	2009	2010
# Entering Cohort	2,690	2,786	2,665	2,791	2,736	2,940
% Requiring English Remedial Courses	14%	13%	9%	14%	14%	13.2%
% Requiring Mathematics Remedial Courses	25%	25%	21%	22%	24%	25.0%
% of Unduplicated Remedial Enrollments	31%	30%	26%	28%	29%	29.6%

Contextual Factors

Considerable institutional variation was seen in the remedial coursework needs of in-state 2010 high school graduates entering the Regental system. For example, at or near 40.0% of the above students enrolling at BHSU, DSU and NSU were assigned to least one remedial course (see Figure 7). SDSMT (2.0%) showed the lowest incidence of remedial placement, followed by SDSU (26.6%) and USD (26.7%).

Thinking again about the retention figures presented in an earlier section of this report, it is possible to consider remedial placement in the context of student retention. Comparing Figure 7 and Table 5, it can be seen that Black Hills State University had not only the largest percentage of remediated students, but also the lowest percentage of students retained in Spring 2011. A similar confluence occurred at Dakota State University, suggesting that these two institutions may need to develop more effective academic support services to assist those students in need of developmental guidance.

In addition to institutional comparisons, remediation rates also can be explored with reference to student ethnicity. Table 7 indicates that most racial minorities were more likely to require remedial placement than were



whites. Specifically, 72.7% of white non-Hispanic students required no remedial coursework; the analogous rates for American Indians and African Americans were 49.0% and 42.9% respectively. Even wider gaps can be seen in the number of students requiring *two* remedial courses: African Americans and American Indians were more than four times likelier to be placed in two remedial courses compared to their white counterparts.

Table 7
Remedial Education by Race/Ethnicity (2010 Analysis Group Only)

Race/Ethnicity	No Remedial	One Remedial	Two Remedial	Total
American Indian/Alaskan	51 (49%)	24 (23%)	29 (28%)	104
Asian or Pacific Islander	20 (77%)	5 (19%)	1 (4%)	26
African American/Black	15 (43%)	6 (20%)	13 (37%)	35
Hispanic	12 (50%)	6 (25%)	6 (25%)	24
White	1813 (73%)	513 (21%)	169 (7%)	2495
Other/Unknown/Refused	75 (63%)	26 (22%)	19 (16%)	120
Total	1986 (71%)	581 (21%)	237 (8%)	2804

Performance Indicators

In past years, the SDBOR *High School to College Transition Report* has included a rankings-based analysis of average GPA by originating high school. However, it since has been noted that this method of ranking high schools by student GPA fails to account for other important drivers of first-year student performance.

As an alternative approach, the current *Transition Report* offers an analysis of two major performance indicators (cumulative GPA and credit hours attempted/completed) broken out by an array of group characteristics: remedial coursework required, ACT *College Readiness Benchmarks* met, scholarship eligibility and status, and *Advanced Placement* coursework completed. Discussion of each of these cross-tabulation factors is discussed in sequence.

Remedial Coursework

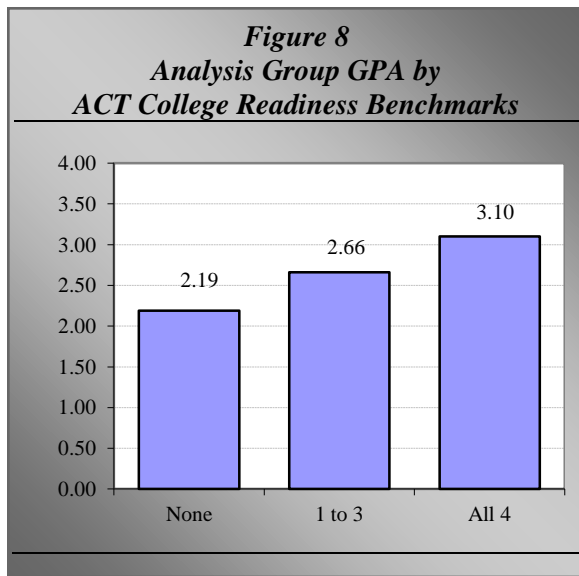
The preceding section of this report discussed the impact of remedial coursework on students' postsecondary persistence. In light of the observations made above, one might expect that students' cumulative GPA and credit-taking behavior would also be influenced by remediation placement.

The top portion of Table 8 provides a snapshot of the 2,940 members of the 2010 analysis group based on their placement in one of four remediation bins: 1) mathematics remediation only, 2) English remediation only, 3) mathematics *and* English remediation, 4) no remediation.

As seen below, cumulative GPA (i.e., fall plus spring terms) was lowest among those requiring remediation in both mathematics and English ($\bar{x}=2.07$),

Table 8
Performance Indicators for 2010 Analysis Group

Performance Indicator	Enrollments	Cumulative GPA	Credit Hours Attempted	Credit Hours Completed
Remedial Coursework Required				
<i>Math Remediation Only</i>	481	2.43	21.3	19.1
<i>English Remediation Only</i>	133	2.26	21.9	19.3
<i>Math and English Remediation</i>	255	2.07	16.2	13.7
<i>No Remediation</i>	2071	2.96	27.8	26.4
College Readiness Benchmarks				
<i>None</i>	319	2.19	17.2	15.0
<i>1 to 3</i>	1594	2.66	24.6	22.8
<i>All 4</i>	1019	3.10	29.5	28.2
Additional Characteristics				
<i>Opportunity Scholarship</i>	937	3.33	30.8	30.3
<i>Regent Scholar</i>	1332	3.19	29.2	28.5
<i>Advanced Placement Coursework</i>	368	3.31	30.6	29.7



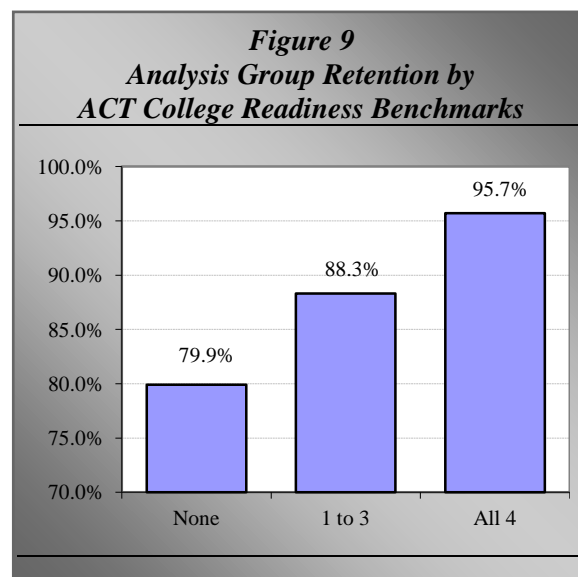
followed by English-only (\bar{x} =2.26) and mathematics-only (\bar{x} =2.43). Similar findings emerged when examining credit hours attempted and credit hours completed. Students not placed in remedial coursework made substantially better progress on college coursework (attempting \bar{x} =27.8 and completing \bar{x} =26.4 hours) than did those taking any combination of remedial courses. Students required to take remedial coursework in both mathematics and English generated dramatically fewer credit hours than any other group (\bar{x} =16.2 attempted and \bar{x} =13.7 hours completed).

College Readiness Benchmarks

An earlier section of this report discussed the pre-established target scores on the ACT English, reading, mathematics and science subtests that are used to determine students' readiness for completing college-level courses. In an effort to explore student performance in relation to these benchmarks, the 2010 analysis group was segmented into three benchmark categories: *None* (i.e., students failing to meet any of the ACT benchmarks scores), *1-3* (i.e., students meeting one to three benchmark scores), or *All 4* (i.e., students meeting all

four benchmark scores). Cumulative GPA and credit hour generation data are presented in Table 8 (above) and Figure 8 (above) for each of these clusters. Data values are suggestive of a strong positive relationship between benchmark success and subsequent academic performance. Students meeting all four ACT benchmarks obtained a vastly higher cumulative GPA, and also attempted and completed considerably more credit hours.

Of potential interest here but not detailed in Table 8 is the retention of students based on the above benchmark clusters. Data were further explored to probe this relationship, and Figure 9 provides relevant analytic output. Overall, 89.9% of the analysis group (those entering in Fall 2010) were retained in the Regental system into the Spring 2011 semester. Among students who met all four ACT benchmarks, this figure was 95.7%. Comparatively fewer (88.3%) of those meeting one to three benchmarks were retained, while only 79.9% of those meeting no benchmarks enrolled in Regental courses during the Spring 2011 term. These findings would seem to provide additional evidence for the apparent interconnections between readiness, retention, and collegiate success.





Opportunity Scholarship and Regents Scholar Recipients

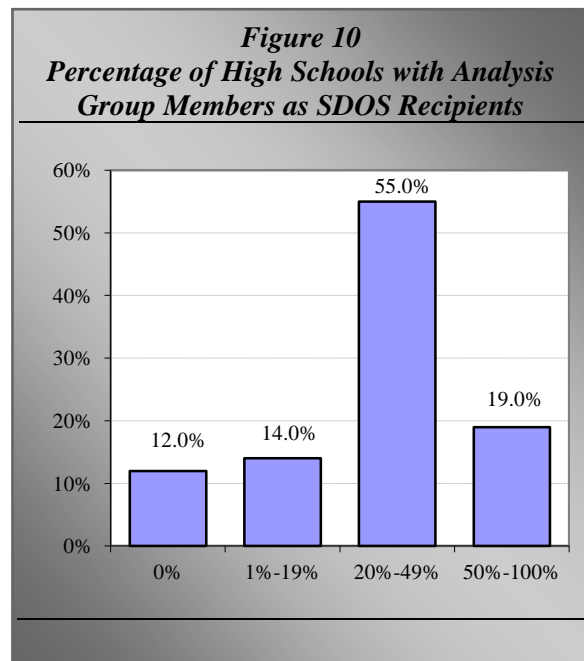
The South Dakota Opportunity Scholarship program was established in 2004 by the South Dakota Legislature to provide up to \$5,000 in financial aid to qualified in-state high school graduates. Students seeking to establish eligibility for the program must:

- 1) Be a resident of South Dakota at the time of high school graduation;
- 2) Obtain an ACT composite score of 24 before beginning postsecondary education;
- 3) Complete the required number of high school courses (Regents Scholar curriculum) with a minimum cumulative GPA of 3.0;
- 4) Attend an accredited institution that provides instruction from an in-state campus; attendance must begin within five years of high school graduation or within one year of active military service.

In Fall 2010, 937 (31.9%) of the 2,940 in-state 2010 high school graduates entering South Dakota public universities on a full-

time basis were recipients of the South Dakota Opportunity Scholarship. Of the 172 high schools with graduates entering Regental institutions in Fall 2010, 33 (19.2%) had at least fifty percent their BOR-bound graduates receive an Opportunity Scholarship award (see Figure 10). By contrast, 20 high schools (11.6%) produced no South Dakota Opportunity Scholarship recipients.

The average cumulative GPA for analysis group members participating in the Opportunity Scholarship program was \bar{x} =3.33, and these students completed \bar{x} =30.3 credit hours during AY2010-11. Among students who were not SDOS recipients, cumulative GPA (\bar{x} =2.48) and credit hour completion (\bar{x} =20.7) were substantially lower. That SDOS recipients completed slightly more credit hours may stem from the fact that the SDOS program requires recipients to complete 15 credit hours each semester to maintain ongoing eligibility in the program. Students failing to meet this requirement become permanently ineligible to receive future Opportunity Scholarship funding.

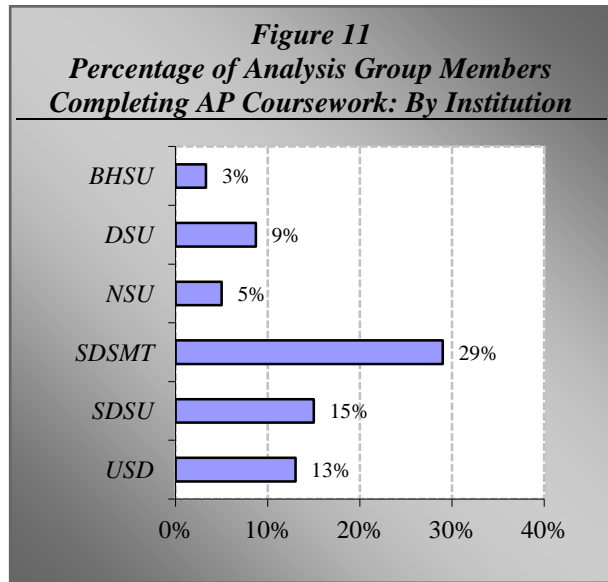


Advanced Placement

The *Advanced Placement Program*® is offered in many of the state's school districts and is supported by both the South Dakota Department of Education and the South Dakota Board of Regents. The *Advanced Placement* – or “AP” – program is operated by the College Board (the same organization that administers the SAT and CLEP testing programs), and provides motivated high school students an opportunity to complete one or more of 34 college-equivalent courses while still in high school. Though nationally standardized, AP courses are taught in South Dakota high schools by local high school teachers, and culminate with a final exam, scoring on which is used to establish college credit.

The AP curriculum is intended to closely approximate the depth and rigor of actual undergraduate coursework. A recent report by the College Board (2011) noted that “Performing well on an AP Exam means more than just accomplishing college-level work; it is a pathway to success in college. Research consistently shows that students who score a 3 or higher on AP Exams typically experience greater academic success in college and have higher graduation rates than otherwise comparable non-AP peers,” [p.2; see also Hargrove, Godin, & Dodd (2008) and Mattern, Shaw, and Xiong (2009)].

Students seeking to obtain college credit for an AP course must sit for an AP exam and attain a score of three or higher (out of a maximum score of five). Of all AP test scores generated in the United States in 2010 ($n=3.1$ million), 57.5% met or



exceeded a value of three. This percentage was slightly higher in South Dakota ($n=3,900$ test scores), where 63.7% of AP test scores reached this performance level (College Board, 2010). A total of 368 members of the 2010 analysis group earned an AP exam score of three or more prior to enrolling in a Regental institution. The institution with the highest proportion of AP credit-earning students was SDSMT, with 28.6% of its in-state 2010 entering class arriving with AP credit. See Figure 11 for an institutional comparison of incoming students with AP credit.

Analysis group students who were awarded AP credit generated a robust mean GPA of 3.31 during the 2010-2011 academic year. Similar results were observed for AP students for first-year progression toward graduation. Analysis group AP students completed an average of 29.7 credit hours during 2010-2011; in comparison, all other students completed only $\bar{x}=22.9$ credit hours.

References

- Allen, J., & Sconing, J. (2005). *Using ACT assessment scores to set benchmarks for college readiness*. Iowa City, IA: ACT, Inc.
- American Council on Education (2002). *Access and persistence: Findings from 10 years of longitudinal research on students*. Washington, DC: American Council on Education Center for Policy Analysis.
- ACT (2005a). *Crisis at the core: Preparing all students for college and work*. Iowa City, IA: ACT, Inc.
- ACT (2005b). *Courses count: Preparing students for postsecondary success*. Iowa City, IA: ACT, Inc.
- ACT (2010a). *What are ACT's college readiness benchmarks*. Iowa City, IA: ACT, Inc..
- ACT (2010b). *ACT profile report – South Dakota*. Iowa City IA: ACT, Inc.
- College Board (2010). *National summary report: 2010* [Data File]. Retrieved August 12, 2011: http://www.collegeboard.com/student/testing/ap/exgrd_sum/2010.html
- College Board (2011). *The 7th annual AP report to the nation*. Retrieved August 10, 2011: http://apreport.collegeboard.org/sites/default/files/downloads/pdfs/AP_RTN_2011.pdf
- Hargrove, L., Godin, D., & Dodd, B. (2008). *College outcomes comparisons by AP and non-AP high school experiences*. New York, NY: The College Board.
- Mattern, K.D., Shaw, E.J., & Xiong, X. (2009). *The relationship between AP exam performance and college outcomes*. New York, NY: The College Board.
- National Center for Higher Education Management Systems [NCHEMS] (2009a). *College-going rates of high school graduates directly from high school*. Retrieved August 1, 2011: <http://www.higheredinfo.org/dbrowser/index.php?submeasure=63&year=2008&level=nation&mode=data&state=0>
- National Center for Higher Education Management Systems [NCEMS] (2009b). *Retention rates – first-time college freshman returning their second year*. Retrieved August 3, 2010: <http://www.higheredinfo.org/dbrowser/index.php?submeasure=223&year=2008&level=nation&mode=data&state=0>
- Vandal, B. (2010). *Getting past go: Rebuilding the remedial education bridge to college success*. Denver, CO: Education Commission of the States.

Appendix A: Part-Time Students

Although in-state high school graduates entering the Regental system directly after graduation tend to enroll on a full-time basis, a small number of graduates attend only part-time. A total of 141 in-state 2010 high school graduates entered Regental institutions on a part-time basis (i.e., registered for fewer than 12 hours) in Fall 2010. These students represented approximately 4.6% of all in-state 2010 high school graduates entering Regental institutions during this term. Of these 141 students, 75.9% were admitted into baccalaureate degree programs and 24.1% were admitted into associate's degree programs.

Academic Performance

After examining academic performance indicators for these students, it was found that their average ACT composite score was lower ($\bar{x}=20.7$) than that of full-time students ($\bar{x}=22.9$). Similar distinctions were revealed with respect to cumulative GPA ($\bar{x}=2.42$ versus $\bar{x}=2.77$) and credit hours completed during the first full academic year ($\bar{x}=15.1$ versus $\bar{x}=23.8$).

Retention Rates

Table 9 provides (intra-institutional) second semester retention data for in-state 2010 high school graduates entering the Regental system on a part-time basis in Fall 2010. SDSMT produced a second semester retention rate of 100.0%, while BHSU retained only half of its analogous student group. [Consideration of small *n*-values is important here; SDSMT had only two in-state students enrolled part-time in Fall 2010]. Unmatched data suggest that, system-wide, 104 (73.8%) of the original 141 students in this group were still enrolled in the Regental system as of Spring 2011.

Table 9
PT Analysis Group: Second Semester Retention

Institution	FA10	SP11
BHSU	12	6 ^(50%)
DSU	13	9 ^(69%)
NSU	6	5 ^(83%)
SDSMT	2	2 ^(100%)
SDSU	49	27 ^(55%)
USD	59	43 ^(73%)
System	141	107^(65%)

Appendix B: Regent Scholar Curriculum

In order to receive distinction as a South Dakota Regents' Scholar, students are asked to complete the required number of high school courses in the following subjects:

Four units of English: Courses with major emphasis on grammar, composition, or literary analysis. One year of debate instruction may be included to meet this requirement;

Four units of algebra or higher mathematics: Algebra, geometry, trigonometry, or other advanced mathematics, including accelerated or honors mathematics (algebra) provided at the 8th grade level; not included are arithmetic, business, consumer or general mathematics, or other similar courses;

Four units of science, including three units of approved laboratory science: Courses in biology, chemistry, or physics in which at least one regular laboratory period is scheduled each

week. Qualifying physical science or earth science courses (with lab) shall be decided on a case-by-case basis;

Three units of social studies: History, economics, sociology, geography, United States or South Dakota government, American problems, and similar courses;

Two units of a modern or classical language, including American Sign Language. The two units must be in the same language;

One unit of fine arts: One unit in art, theatre, or music. Such credit may be in appreciation, analysis, or performance;

One half unit of computer science: Students will have basic keyboarding skills, and have had experience in using a personal computer including word processing, database, and spreadsheet software, and in using the Internet or other wide area networks.

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