

SOUTH DAKOTA BOARD OF REGENTS

Academic and Student Affairs

AGENDA ITEM: 6 – H

DATE: October 4-6, 2016

SUBJECT: Dual Credit Outcomes & Cost Analysis

During their June 2016 meeting, the Board of Regents raised a number of questions about the implications for continued expansion of dual credit opportunities in the Regental system. Particularly, two discipline councils had noted in their [year-end report](#) that continued evaluation and discussion should occur during the 2016-17 academic year on the potential adverse impact (academically and financially) for the growing number of students entering their first year experience with a larger portion of their General Education coursework completed. Board central office staff were asked to evaluate a number of performance indicators, and evaluate the fiscal impact to the system resulting from the High School Dual Credit program. The outcomes of this analysis are referenced below.

Academic Quality of HSDC Coursework

One concern emphasized a potential decline in academic quality for General Education offerings in the Regental system, resulting from an increase in the number of high school students enrolled in coursework with full-time college students. The enrollment process for HSDC is designed in such a way to ensure that faculty do not know the status (high school or full-time) of the students enrolled in their course. Unique or standalone HSDC courses are not made available to students or school districts which would offer the primary mechanism for a separate curriculum for high school students. Campus personnel responsible for administering the HSDC program affirm that no “high school” specific sections have been created during the first two years of the program.

To evaluate this further, all HSDC courses that enrolled at least 100 students in AY2015 were evaluated to determine the growth in the total number of sections offered in the Regental system. Data in Table 1 denotes that of the six courses with the highest HSDC enrollments, only SOC 100 and PSCY 101 have experienced an increase in the number of sections offered. The four remaining courses have seen significant declines when compared to the total section offerings in FY12. The general principle for how HSDC enrollments are assigned is for institutions to designate available sections on the enrollment portal developed by the Department of Education.

(Continued)

INFORMATIONAL ITEM

Open seats available after fully admitted students have completed the pre-registration process are then filled with HSDC students. In rare circumstances new sections will be made available as the demand increases, but in all instances these sections will include both HSDC and fully admitted students.

Table 1
Number of Sections Offered in the Regental System for the Courses with more than 100 HSDC Enrollments in AY2015

course	year					Total
	FY2012	FY2013	FY2014	FY2015	FY2016	
ENGL 101	263	266	261	255	249	1,294
MATH 102	217	216	224	232	199	1,088
POLS 100	54	48	46	47	46	241
PSYC 101	72	73	69	71	75	360
SOC 100	67	72	68	75	77	359
SPCM 101	302	276	248	275	278	1,379
Total	975	951	916	955	924	4,721

Student Academic Performance

Institutional concerns have surfaced suggesting that the academic performance of HSDC students will decline stemming from the increased dual credit offerings. To evaluate this concern data available through the Student Information System (SIS) were evaluated to assess whether students are adversely impacted once they become fully admitted after high school graduation. First, a total of 557 degree-seeking students entered the Regental system in Fall 2015 having earned credit through the HSDC program in AY2015. The overall number of credits earned after their first year and the average GPA were compared against all non-HSDC students who were included in the degree-seeking federal cohort in Fall 2015. As one would expect based on the eligibility criteria established for student entry into the HSDC program, results in Table 2 indicate that HSDC students completed more credit hours (28.4 vs. 25.5) during their first year, with significantly higher GPAs at the end of the first year (3.22 vs. 2.75).

Table 2
Credit Hours Completed and Average GPA During the First Year of Attendance for HSDC and Non-HSDC Students in the Regental System

group	Freq.	mean(bor_cred)	mean(bor_gpa)
HSDC	557.00	28.40	3.22
nHSDC	4,367.00	25.51	2.75

Additionally, when evaluating the academic performance of HSDC students based on the number of courses completed while in high school, there appeared to be a strong positive relationship between course taking frequency and student GPA. Table 3 demonstrates that as the

total number of HSDC courses completed increased, so did the first year GPA for these students (increasing from 3.18 for those only completing one course to 3.49 for those enrolled in 5 or more courses). One noticeable difference is that as the HSDC course taking patterns increased, the average student credit hours completed declined to just under 27 credit hours during the first year of attendance. The highest average credit hours completed appeared to exist for the 90 students who had completed three courses, who then went on to complete just over 29 credit hours during their first year of enrollment.

Table 3
Credit Hours Completed and Average GPA During the First Year of Attendance for HSDC Based on the Number of Courses Taken While in High School

hsrc_cnt	Freq.	mean (bor_cred)	mean (bor_gpa)
1	252.00	28.13	3.18
2	159.00	28.92	3.22
3	90.00	29.08	3.28
4	34.00	27.32	3.27
5 or more	22.00	26.64	3.49
Total	557.00	28.40	3.22

While one may expect academic performance of HSDC students to be higher than the traditional federal cohort, a relevant concern is whether student completion of dual credit coursework will have an adverse impact on their performance in subsequent coursework in the same discipline. To evaluate this concern, enrollments in math coursework were evaluated. Specifically, all students who had enrolled in HSDC Math 102 College Algebra and then enrolled in a 100-level or 200-level math course (Math 104 or higher) in AY2016 (i.e., 2015FA, 2016SP) were compared against all other students enrolled in those math courses. Math 102 was chosen as the selection criterion since it was overwhelmingly the most common HSDC course in the dataset. Grades in math courses were broken into two categories: C or higher, and everything else. Table 4 below demonstrates that HSDC students performed slightly better in these math courses than the general student population, but not significantly so (69.3% vs. 68.4% pass rate).

Table 4
Math Success Rates of HSDC Students Who Completed Math 102 – College Algebra in High School Compared to Non-HSDC Students

grade_bin2	group		Total
	HSDC	nHSDC	
C or higher	61 69.32	3,749 68.44	3,810 68.45
D, F, DW	27 30.68	1,729 31.56	1,756 31.55
Total	88 100.00	5,478 100.00	5,566 100.00

Pearson chi2(1) = 0.0311 Pr = 0.860

Table 5 below provides a deeper level comparison of these data. Although the sample size is rather small (88 students spread across twelve 100- and 200-level math courses), Math 120 appeared to be the most common course completed by those HSDC students who had enrolled in Math 102 while in high school. Just over 70% of those students successfully passed this particular course. The success of the 88 students across the twelve courses can be found below.

Table 5
Math Success Rates of HSDC Students Who Completed Math 102 – College Algebra in High School
Compared to Non-HSDC Students – Course-by-Course Comparison

STC_COURS E_NAME	group and grade_bin2			
	HSDC C or higher	D, F, DW	nHSDC C or higher	D, F, DW
MATH-104	2 100.00	.	145 67.13	71 32.87
MATH-115	7 77.78	2 22.22	288 67.76	137 32.24
MATH-120	17 100.00	.	450 70.20	191 29.80
MATH-121	9 69.23	4 30.77	502 67.38	243 32.62
MATH-121L	3 60.00	2 40.00	206 59.54	140 40.46
MATH-123	10 55.56	8 44.44	835 70.17	355 29.83
MATH-123L	3 42.86	4 57.14	233 75.40	76 24.60
MATH-125	3 100.00	.	685 67.16	335 32.84
MATH-191	.	2 100.00	11 73.33	4 26.67
MATH-201	.	1 100.00	66 61.11	42 38.89
MATH-221	1 100.00	.	7 87.50	1 12.50
MATH-281	6 60.00	4 40.00	321 70.55	134 29.45
TOTAL	61 69.32	27 30.68	3749 68.44	1729 31.56

HSDC Fiscal Impact

When the HSDC program was developed, the rate was set by the administration at \$145 per credit hour with students paying \$40 of the total cost compared to a \$105 investment by the state. Program fees, General Activity Fees, and University Support Fees are not assessed to HSDC students, resulting in a general savings of \$136.90 for students if they were to enroll in equivalent courses at the State Support Rate (estimated as an average of \$281.90 when including tuition, USF, and GAF). To evaluate the potential fiscal impact of HSDC to the Regental system, analysis was performed to evaluate the credit hours completed by South Dakota high school seniors in Fall 2014 and Spring 2015 during the first year of the program. Seniors during this first year serve as the initial cohort to migrate to postsecondary institutions during the Fall 2015 term. A total of 7,313 credit hours were delivered to this cohort of students during the first year of the HSDC program. Just under half (49.7%) of these credit hours transferred (3,636) into the Regental system in Fall 2015 indicating that the remainder (3,677) were completed by students who matriculated either to a technical institute, private institution, or postsecondary institutions out-of-state in Fall 2015. The revenue generated from those students who matriculated into the Regental system resulted in \$527,222 in tuition, compared against \$533,165 for non-matriculated students. Overall, the Regental system generated \$1,060,385 from this initial cohort of both matriculated and non-matriculated students.

Table 6
Potential Revenue Generation from HSDC Program in the Regental System

	Matriculated Students	Non-Matriculated Students	Total HSDC Credits
<i>Credit Hours Generated</i>	3,636	3,677	7,313
<i>Revenue Generated</i>	\$527,220 ¹	\$533,165	<i>\$1,060,385</i>
<i>Potential Revenue Loss from State Support Tuition</i>			<i>\$1,024,988²</i>
<i>Total Revenue from HSDC</i>			<i>\$35,397</i>

In order to determine the potential lost revenue to the system, the number of matriculated credit hours were multiplied against the State Support tuition rate of \$281.90. The basic assumption behind this calculation is that students paid a lower rate for General Education courses they would have otherwise completed once they arrive at their home institution. When comparing the 3,636 credit hours against this tuition rate, the potential lost revenue would be \$1,024,988, suggesting that the Regental system generated \$35,397 in revenue from the program when considering the tuition revenue from both matriculated and non-matriculated HSDC students (see Table 6). Note that this revenue does not consider any direct/indirect costs associated with managing the HSDC program at the campus level. While the system did generate revenue from

¹ Total Matriculated HSDC students at the \$145 per credit hour rate.

² Total Matriculated HSDC students at the \$281.90 self-support rate.

HSDC during the first year of operation, there are sizable differences in the revenue generated at each of the Regental institutions (see Appendix A).

Regardless of the projected loss/gain from tuition revenue in the Regental system, the impact of the broader policy implication from the continued expansion of the HSDC program is certainly evident when considering the effect it has on improving student affordability. When considering the data depicted earlier in Table 3 regarding student course taking patterns, the benefits to students/families in the state are significant. For instance, those students who only enrolled in one HSDC course obtained a saving of \$411 (assuming a 3 credit course) toward their total educational costs. The 22 students who enrolled in at least 5 courses, produced a savings of \$2,054 which is equivalent to one-third the value obtained from the Opportunity Scholarship program over the life-time of the award (see Table 7).

Table 7
South Dakota High School Student Cost Savings from HSDC Course Completion

<i>Number of Courses Completed</i>	<i>State Support Tuition Rate</i>	<i>HSDC Rate</i>	<i>Student Savings</i>
1	\$846	\$435	\$411
2	\$1,691	\$870	\$821
3	\$2,537	\$1,305	\$1,232
4	\$3,383	\$1,740	\$1,643
5	\$4,229	\$2,175	\$2,054

These cost savings are expected to increase in future years as the number of students with access to HSDC during their junior and senior year of high school is likely to increase the total number of credits matriculating into their home postsecondary institution. The ability to complete a sizable portion, if not all of the required 30 credit hours of General Education has the potential to reduce the time to degree by up to a year resulting in more than \$20,000 in savings for students/families through this program.

College Credit Opportunities in South Dakota High Schools

During the [October 2015](#) Board of Regents meeting, an informational item on the Fall enrollments for the High School Dual Credit (HSDC) program was presented to the board in order to provide an overview of the programs growth since it was established in Fall 2014. During discussion of the item, a number of questions emerged from Board members seeking: 1) clarification for the distinction between HSDC and Concurrent Credit opportunities for students; 2) information on the guidance provided for South Dakota high school students completing Advance Placement; and 3) analyses on the subsequent enrollments of HSDC students. This informational item seeks to provide the Board of Regents with the requested information reference above.

When the Governor Dugaard advanced a proposal during his 2013 budget address to provide South Dakota high school students with college bearing coursework opportunities, the administration used High School Dual Credit (HSDC) to describe the program. Under the program, students in their Junior or Senior year of high school are allowed to enroll in courses offered through the six Regental institutions (and the four Technical Institutes) if the participating school district agrees to transcript the credit earned on the student's high school transcript. Students are assessed a \$40 per credit fee for their enrollments, and the South Dakota Department of Education provides \$105 per credit at the end of the term to the participating institution.

When the program was initially discussed, representatives from the Board of Regents staff sought to develop a series of parameters that would facilitate student success, and ensure that credit earned would apply toward a student's degree program once they entered the Regental system after high school. To accomplish these ends, a stringent set of admission criteria³ were established for both Junior and Senior students, and enrollments were restricted to those courses approved in Board policy to meet System General Education requirements. Representatives from each of the campuses were identified to work directly with individual students/districts as they have students enroll in their courses. During the Fall 2014 term, a total of 1,133 students enrolled in the program with a 91% increase for the Spring 2015 term resulting in 2,173 students. When initially approved, the Governor requested \$300,000 in base funds to support student enrollments which was approved by the Legislature during the 2014 session. Following the success of the program in the Fall 2014 term, the Legislature approved an additional \$700,000 in one-time funds to cover expenditures for FY15, and approved an additional \$700,000 in base funds for FY16. Based on current projections for both the Regental system and Technical Institute enrollments, the Governor is expected to

³ To be eligible a High School Junior must earn an ACT composite score of 24³ reflective of the 70% percentile; OR rank in upper one-third of their graduating class; OR earn a cumulative GPA of at least 3.50 on a 4.0 scale. High School Senior must earn an ACT composite score of 21³ reflective of the 50% percentile; OR rank in the upper one-half of their graduating class; OR earn a cumulative GPA of at least 3.25 on a 4.0 scale. As an alternative, high school junior or senior eligible to enroll in a high school in South Dakota meeting Undergraduate admissions requirements: ACT score of 18 (or 21 for USD & SDSM&T); and Successful completion of coursework requirements. Following the Administration's desire to provide access routes for home school students who had no opportunity to establish class GPA or rank, equivalent ACCUPLACER scores aligned with placement criteria were also approved.

request additional base funds for FY17 which will result in approximately \$1.7 million in annual funding for the HSDC program.

It is important to note that, despite the creation of the HSDC program in 2014, the Regental system has been engaged in Concurrent Credit activity for almost two decades. As a point of distinction, “Dual Credit” as used to describe the HSDC program reflects college coursework completed by high school students which simultaneously enroll traditional/non-traditional college students. “Concurrent Credit” however represents high school students enrolled in college coursework that is delivered by a qualified high school teacher, using the syllabus developed by the partner institution, under the mentorship of a qualified faculty member. Similar to dual credit activity, students earn both high school and college credit through their experience, yet only high school students are enrolled in the course. Regental institutions are allowed to offer concurrent credit opportunities to participating high schools in South Dakota, and must operate under Board of Regents [Policy 5.3.3 Tuition and Fees: Special Course Types](#) seeking a request for an externally sponsored tuition rate of \$40 per credit hour.⁴

Prior to the creation of the HSDC program a significant number of the credit hours brought in by students who earn “dual credit” represented concurrent credit activities either by Regental institutions or external institutions who abide by Board of Regents requirements. When dual/concurrent credit activity began to increase more than a decade ago, the Board of Regent established that before a Regental institution could accept dual/concurrent credit from an institution external to the system, the institution must enter into an agreement that affirms the standards outlined by the Board. These requirements were most recently revised by the Board during their [March-April 2010](#) meeting, and have now been carried forward into the [AAC Guidelines](#) that manage both HSDC and Concurrent Credit activities in the Regental system. Currently, the institutions depicted in Table 7 below have either signed agreements with the South Dakota Board of Regents, or have earned National Alliance of Concurrent Enrollment Partnerships (NACEP) accreditation consistent with guidelines approved by the Board of Regents and the Academic Affairs Council.

Table 7

Regional Institutions with Signed Agreements with the South Dakota Regental System or Having Established National Alliance of Concurrent Enrollment Partnerships (NACEP) Accreditation

<i>Institutions with Signed Agreements</i>	<i>Regional Campuses with NACEP Accreditation</i>
<ul style="list-style-type: none"> • Dakota Wesleyan University (SD) • Kilian Community College (SD) • Mount Marty College (SD) • Iowa Western Community College (IA) • Western Iowa Tech Community College (IA)* • Metropolitan Community College (NE) • Wyoming Community Colleges (WY) 	<ul style="list-style-type: none"> • Minnesota State Community & Tech College • Eastern Iowa Community College • Hawkeye Community College • Indian Hills Community College • Iowa Valley Community College District • Kirkwood Community College • Northeast Iowa Community College • North Iowa Area Community College

⁴ Under this model, the instructional costs associated with delivery the course are provided by the school district as an exchange in services provided by the districts designated high school teacher.

Table 7 Continued

<i>Institutions with Signed Agreements</i>	<i>Regional Campuses with NACEP Accreditation</i>
<ul style="list-style-type: none"> • Riverland Community College (MN)* • North Dakota University System (ND) • University of Mary (ND) • Minnesota State University, Mankato (MN)* • Fond du Lac Tribal & Comm. College (MN) • Sitting Bull College (SD) • Iowa Central Community College • Southwest Minnesota State University 	<ul style="list-style-type: none"> • Northwest Iowa Community College • Southwestern Community College • Central Lakes College • Mesabi Range Community and Tech College • Northland Community and Technical College • St. Cloud State University • University of Minnesota ~ Crookston • University of Minnesota ~ Duluth • University of Minnesota ~ Twin Cities • Nebraska Wesleyan University • Laramie County Community College • Sheridan College •

**Institution has also established NACEP Accreditation.*

As the HSDC program has continued to expand, it has produced a number of discussions at individual campuses and the system related to the impact of this state level policy change to expand dual credit. The fiscal impact of providing credit at the reduced rate considering that a sizable number of students will enter with 30 or more credits hours of coursework completed will need to be assessed. Additionally, institutional approaches to advising need to be reconsidered when a larger portion of entering students have the majority of their General Education credits completed. Finally, the agreement with the Technical Institutes to offer the Regental systems General Education coursework to students in Sioux Falls, Mitchell, Watertown and Rapid City has significant implications as those students eventually matriculate into the Regental system. Current projections from the SDDOE indicate that one-third of the credit hours generated by the Technical Institutions through the HSDC program are system General Education courses. Each of these issues will require considerable evaluation as the HSDC program continues to expand to ensure that South Dakota students are being effectively served under the current parameters for the program.

Advanced Placement Coursework

For more than a decade the SDDOE has aggressively encouraged increased participation in Advanced Placement coursework by school districts and have partnered with the Board of Regents to offer training opportunities for qualified teachers. Growing the number of students who participate in the AP program has been a significant issue for the DOE as they have advanced this as a workforce development issues addressed in the Governor’s SDWINS program. The program sponsored by the SDDOE called “Learning Power⁵” makes the seven most common AP courses available across the state via an online delivery system at no cost to the students. Since the program was initiated, more than 250 students each year have participated in the program with an overall passage rate of 56%.

⁵ Learning Power provides AP coursework in Biology, Calculus, Chemistry, English Language & Composition, English Literature and Composition, Physics and Statistics.

When comparing the trend over the most recent set of five year data⁶, the number of students completing AP examinations as increased by 60%, indicating that 12.9% of South Dakota 2013 high school graduating class participated in at least one AP course prior to graduation. Each year the High School to College Transition report developed by the Board of Regents has provided school districts with aggregated information on the first year performance of those students who enter the Regental system having earned AP credit while in high school. These data firmly demonstrate that the presence of AP coursework on the high school transcript is a significant predictor for student progression and completion once they enroll in postsecondary. To provide the appropriate guidance for students/families about the acceptance of dual credit coursework, the Board has established an equivalency matrix that identifies the AP Examinations with courses in the system's common course catalog. When new or revised examinations are develop, faculty representatives from the respective discipline are asked to review the course and examination materials and make a judgment about course equivalencies. Once an equivalencies has been established, American Council of Education (ACE) score recommendations are applied to the examination. Historically, those students who complete the required curriculum through their high school, and earn a three or higher on the examination are awarded college credit. Despite this increase over the past decade, school district participation in Advanced Placement coursework has remained flat or declined over the past two years with the advent of the HSDC program for a number of reasons depicted below:

1. When compared with “dual” or “concurrent” credit opportunities, AP coursework has an additional layer of assessment that has made dual/concurrent courses more appealing for students. While a student may successfully complete the AP course, college credit is contingent on the successful completion of the designated AP examination. While all students in a school district may complete the course and earn high school credit, roughly 80% of students eventually take the corresponding AP examination, with only 61% of students who took the examination earning a three or higher that warrants college credit;
2. Although the Regental system is quite clear in the acceptance of AP coursework to meet General Education or Program requirements, students are often discouraged from having AP credit transcribed for coursework that may be necessary for entry into graduate or professional programs. A number of medical, physical therapy, and dentistry programs strongly encourage students earning AP credit for required “science” coursework to either repeat the designated course, or complete additional coursework in the subject area. This issue was discussed during the [November 2013](#) AAC meeting, and the council affirmed that the system policy regarding acceptance of AP coursework was not open to interpretation by faculty or academic advisors. However, since some post-baccalaureate programs do state that AP coursework in high school will not substitute for entry level college work, students need to be advised about this issue. As a result, academic advisors

⁶ Trend information is available in the “10th Annual AP Report to the Nation: South Dakota” available at: <http://media.collegeboard.com/digitalServices/pdf/ap/rtn/10th-annual/10th-annual-ap-report-state-supplement-south-dakota.pdf>

have been forthright with students who have indicated one of these potential post-baccalaureate degree paths⁷, and they are opting to not have the credit transcribed;

3. Grades earned through dual/concurrent credit opportunities are transcribed equivalently on the college transcript. As a result, a student who enrolls in a HSDC course and earns an “A” will have that recorded on the high school transcript. Additionally, an official transcript from the Regental system also depicts the “A” grade on the transcript along with all other coursework that may have been completed. Students performing well in dual/concurrent credit courses have the added advantage⁸ of a positive impact on his/her cumulative GPA. Similar to other credit by examination course options (i.e. CLEP, Dantes, IB, Project Lead the Way, etc.), students earning AP credit receive an “EX” grade in the Regental grading structure. Credit earned through this approach do not count toward a student’s cumulative GPA calculation, placing students at odds with determining whether they should repeat the course to earn a grade that is equivalent to their performance in the AP course.

As students evaluate their options for dual/concurrent credit they are confronted with the challenges outlined above, and by default school districts have noted concerns with maintaining their AP curriculum under the HSDC program.

HSDC Subsequent Enrollment Analysis⁹

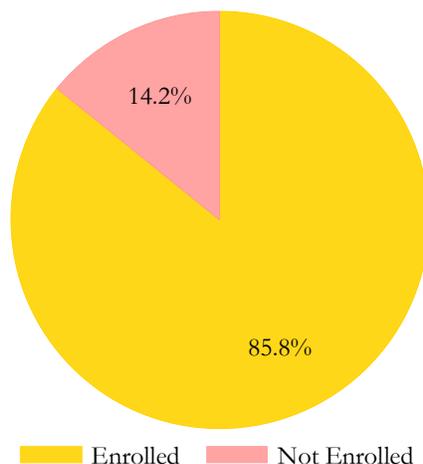
⁷ The following language was added to the SDBOR Advanced Placement (AP) Policy Appendix depicting a special advising note for students pursuing graduate and professional degrees outside of the Regental system upon graduate. “Upon student application all AP credits will be applied to student’s transcripts following the *Advanced Placement Guidelines for Regental Institutions* and *BOR Policy 2:5 Transfer of Credit*. Although Regental institutions accept AP credits there are many professional schools throughout the country that do not accept AP to satisfy the pre-requisite requirements for admission to their program. For example, some programs simply state that they do not accept AP and other programs specify that courses completed through AP can be used to meet pre-requisites *only* if the student has completed upper division coursework in that content area and/or demonstrates evidence of competency in that academic area via scores on professional school admissions exams. Due to these varying degrees of value placed on AP courses by professional programs throughout the country, and in order to not unfairly limit students options upon graduation, it is advised that students be informed of this variation upon admission and initial course registration. Additionally, students should seek guidance on this matter from the professional programs to which they intend to apply as well as seek the counsel of their campus’ Health Professions Advisor.”

⁸ It is important to further note here that the inverse is true for dual credit students. Those students earning a “D” or “F” in a course are also confronted with the adverse impact this/these grades could have on their GPA once they enter postsecondary. This has been identified as an issue with the HSDC program, and students failing coursework through this program are required to sit out a semester and then upon their return, repeat the course to ensure that academic deficiencies are addressed prior to their entry as a degree seeking student.

⁹ This analysis includes all high school seniors completing at least one HSDC course offered by a Regental university during the Fall 2014 or Spring 2015 terms.⁹ These students constitute the first “cohort” of seniors to complete HSDC courses following the state’s systemic expansion of dual credit offerings. To track the postsecondary matriculation outcomes of these students – including those who may have enrolled outside the university system – a roster of HSDC course completers was submitted to the National Student Clearinghouse, a national repository of enrollment data for nearly all American postsecondary institutions. To be counted as “enrolled” in this analysis, a student must have been enrolled (at least part-time) at any postsecondary institution in the United States during the Fall 2015 term. Because this analysis includes only one cohort of HSDC students, and because only one subsequent term (Fall 2015) could be

A total of 1,077 seniors from South Dakota high schools completed at least one dual credit course (offered by a Regental university) in Fall 2014 or Spring 2015. By gender and race, this group reflected a composition of 66.7 percent female students and 94.5 percent white students. Both of these proportions were substantially higher than in the statewide population of high school seniors.¹⁰ As depicted in Figure 2, data from the National Student Clearinghouse indicate that an overwhelming majority of these students (85.8 percent) enrolled in a US postsecondary institution in Fall 2015.

Figure 2
Fall 2015 Postsecondary Enrollments



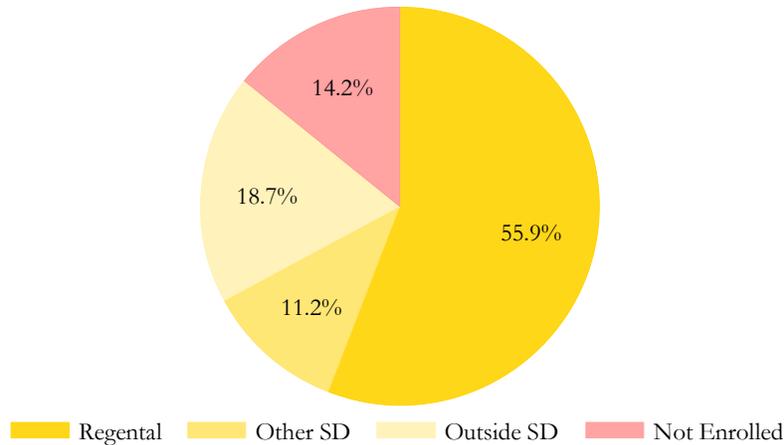
Data indicate that the likelihood of students to enroll in a postsecondary institution in Fall 2015 did not vary appreciably by course-offering institution, or by the number of HSDC courses completed. By course-offering institution, enrollment rates ranged from 82.1 percent (NSU) to 87.9 percent (SDSMT). By number of HSDC courses completed, enrollment rates ranged from 85.3 percent (for students completing only one HSDC course) to 87.8 percent (for students completing five or more HSDC courses). Figure 3 (below) displays a more detailed breakdown of these students' enrollment destinations. Overall, more than half of these students (55.9 percent) enrolled in a Regental university during the Fall 2015 term.¹¹ Just over ten percent (act. 11.2 percent) enrolled at an in-state institution other than a Regental university, and almost twenty percent (act. 18.7 percent) enrolled at an institution outside South Dakota.

searched for this group, the matriculation figures presented in this analysis should be viewed as tentative. Other postsecondary matriculation analyses conducted by SDBOR typically employ a 16-month search window and multiple cohorts of graduates. Consequently, the results discussed here are more limited – and perhaps less generalizable – than those produced in other related analyses. Future efforts will be made to reexamine this research question as additional data become available.

¹⁰ Fall enrollment data from SDDOE indicate that females constituted 49.1 percent of the state's 12th graders in Fall 2014. Approximately 80.4 percent of the state's 12th graders were white.

¹¹ Detailed groupings seen in Figure 2 are assigned hierarchically. Students enrolling at multiple institutions are reported in the "Regental" category if applicable, followed by the "Other SD" category if applicable, followed by the "Outside SD" category.

Figure 3
Fall 2015 Postsecondary Enrollments, Detailed



Because the analyzed dataset contains entries for HSDC students only, no opportunity exists for directly comparing the enrollment outcomes of HSDC students (shown above) to those of students *not* completing HSDC courses. However, data from the SDBOR College Matriculation Dashboard, which reports postsecondary enrollment outcomes for all South Dakota high school graduates, provides at least a limited basis for such a comparison.¹² Looking only at students with an ACT composite score of 22 or higher, the dashboard indicates that 91.1 percent of all in-state high school graduates in South Dakota (over the three most recent graduating cohorts combined) enrolled in a postsecondary institution within 16 months of high school graduation.¹³ Further, 57.4 percent of these students enrolled in a Regental institution specifically.

While both of these values appear somewhat higher than the figures reported above for HSDC students (85.8 percent and 55.9 percent respectively), it must be recalled that the HSDC analysis relies on a much more restrictive search window.¹⁴ Given the tougher standard imposed in the HSDC analysis, results suggest that the long-run matriculation rate for HSDC students may be higher than that of the overall population of high-achieving students. It is hoped that future analyses will be able to offer additional information about the matriculation outcomes of these student groups.

¹² The SDBOR College Matriculation Dashboard is available at <https://sdbor.edu/dashboards>

¹³ This ACT scoring threshold corresponds roughly to the eligibility benchmark established for participation in the HSDC program.

¹⁴ Again, the HSDC analysis considers enrollments in Fall 2015 only; the dashboard analysis relies on a wider (16-month) search window.

Appendix A Institutional Fiscal Analysis

In addition to depicting the system level data for the Fall 2015 cohort, Table 6 displays the institutional credit hours generated for both matriculated and non-matriculated students. For the system a “non-matriculated” student represents those that attended an institution outside one of the six Regental institutions. Internally, non-matriculation also represents a student served through HSDC, enrolled in the system, but did not enroll at the home institution where credit had been delivered (i.e., completed HSDC at BHSU but eventually enrolled at SDSU). When the internal matriculation is considered, an institution that serves a higher percentage of non-matriculated Regental students will generate a greater return for their delivery of HSDC coursework.

As an example, BHSU delivered 1,597 credit hours to the Fall 2015 cohort, yet only the equivalent of 23% of those credit hours (363) matriculated into BHSU in Fall 2015. Thirty-six percent of the credits (n = 568), matriculated outside the Regental system, while the remaining 41% matriculated to one of the other five Regental institutions. As a result, for BHSU the revenue lost from state support tuition was \$102,330, compared against \$231,565 earned from HSDC tuition revenue. The total revenue generated when subtracting projected lost revenue is \$129,235.

Table 6 depicts similar projections for each of the six Regental institutions with SDSM&T and SDSU both experiencing revenue shortfalls under the current model. Those institutions that have a disparately higher internal matriculation rate of HSDC students decrease their potential revenue gains through the HSDC program. As noted in Figure 1 below, those institutions with the higher matriculation percentage enroll a higher percentage of students with HSDC credit, much of which is earned at other Regental institutions within the system.

Figure 1
Matriculation Ratios for Institutions When Comparing HSDC Credit Hour Production Against Matriculation into the Institution for the Fall 2015 Cohort

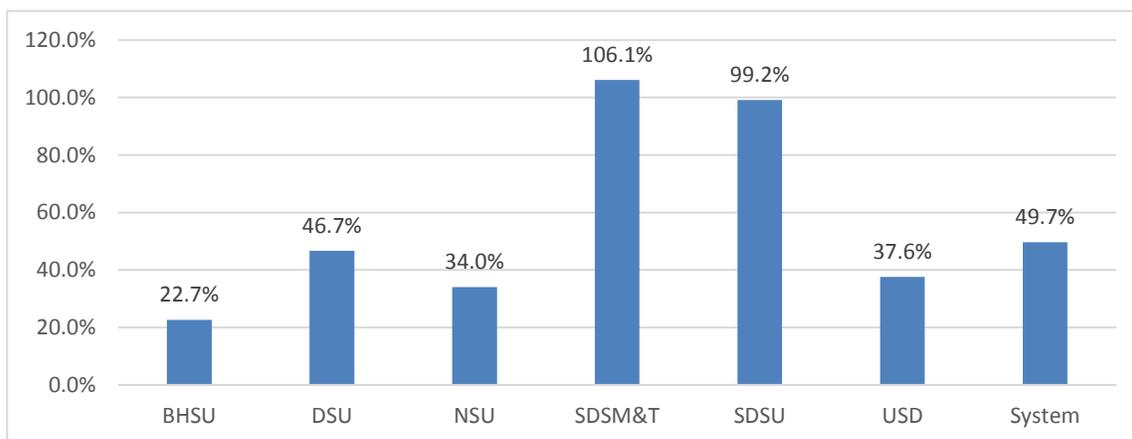


Table 8
Revenue Loss/Gain from High School Dual Credit (HSDC) Enrollments

	<i>Total HSDC Credits Delivered</i>	<i>HSDC Credits Delivered to Regental Matriculated Students</i>	<i>HSDC Credits Earned by Regental Matriculated Students</i>	<i>HSDC Credits for Non-Matriculated Students</i>
<i>BHSU</i>	1,597	666	363	931
<i>DSU</i>	546	324	255	222
<i>NSU</i>	952	489	324	463
<i>SDSM&T</i>	229	78	243	151
<i>SDSU</i>	1,545	819	1,533	726
<i>USD</i>	2,444	1,260	918	1,184
	7,313	3,636	3,636	3,677

	<i>HSDC Revenue Regental Matriculated Students</i>	<i>HSDC Revenue for Non-Matriculated Students</i>	<i>Total HSDC Revenue for FY15 Seniors</i>	<i>Revenue Lost from State Support Tuition</i>	<i>Total Revenue from HSDC</i>
<i>BHSU</i>	\$96,570	\$134,995	\$231,565	\$102,330	\$129,235
<i>DSU</i>	\$46,980	\$32,190	\$79,170	\$71,885	\$7,286
<i>NSU</i>	\$70,905	\$67,135	\$138,040	\$91,336	\$46,704
<i>SDSM&T</i>	\$11,310	\$21,895	\$33,205	\$68,502	-\$35,297
<i>SDSU</i>	\$118,755	\$105,270	\$224,025	\$432,153	-\$208,128
<i>USD</i>	\$182,700	\$171,680	\$354,380	\$258,784	\$95,596
	\$527,220	\$533,165	\$1,060,385	\$1,024,988	\$35,397

Total HSDC Credits Delivered: Total HSDC credit hours completed by Seniors enrolled in FY15.

HSDC Credits Delivered to Regental Matriculated Students: Total credits earned by students from the institution regardless of their matriculation into the Regental system.

HSDC Credits Earned by Regental Matriculated Students: Total number of credit hours completed by FY15 seniors who matriculated to the institution.

HSDC Credits for Non-Matriculated Students: Number of credit hours complete at the institution for all students who did not matriculate into the Regental system in Fall 2015

HSDC Revenue for Regental Matriculated Students: Total revenue earned by the institution at the \$145 rate for all Regental matriculated students offered by the institution.

HSDC Revenue for Non-Matriculated Students: Revenue for all credits earned from students not matriculating into the Regental system in Fall 2015 at the \$145 rate.

Total HSDC Revenue for FY15 Seniors: Combined revenue for matriculated and non-matriculated FY15 seniors.

Revenue Lost from State Support Tuition: Anticipated lost revenue at \$126.50 per credit hour for state support tuition for students who matriculated to the institution.

Total HSDC Revenue: Total institutional revenue when considering state-support tuition losses and HSDC revenue generated from matriculated and non-matriculated students.