AGENDA ITEM: 2 – B

SOUTH DAKOTA BOARD OF REGENTS
PLANNING SESSION
AUGUST 3-4, 2016

SUBJECT: SDBOR Strategic Plan Tracking

In October 2014, the Board of Regents adopted the SDBOR 2014-2020 Strategic Plan. As a formal statement of the board's core goals, this plan provides a blueprint for advancing the university system's major priorities over the coming years. The plan identifies four priority areas – student success, academic quality and performance, research and economic development, and affordability and accountability – and ties each to a set of goals, outcomes, and action steps. Overall, the plan is meant to serve as a framework for facilitating systematic, goal-minded policymaking in the university system.

As part of the new strategic plan, a series of performance indicators was identified that would assist in tracking the university system's progress toward its stated goals. These indicators – which tie directly to the plan's four major priority areas – represent the aspects of the university system's overall performance that merit special focus over the life of the plan:

Table A
Performance Indicators for SDBOR 2014-2020 Strategic Plan

Priority Area	Performance Indicators
Student Success	Degrees Awarded, Undergraduate/Graduate Degrees Awarded to AIAN Students Retention Rate Graduation Rates (4-Year/6-Year) Remediation Rate
Academic Quality and Performance	Percent of Graduates Passing Licensure Exams Number of Accredited Programs Number of New Graduate Programs Students Participating in Experiential Learning
Research and Economic Development	Grants and Contracts Expenditures License Agreements Signed Licenses Signed with Start-Up Companies STEM Graduates
Affordability and Accountability	Three-Year Federal Loan Default Rate Regional Rank for Undergraduate Tuition and Fees Percent of Operating Budget Funded by the State Students Served by Special Schools (SDSD/SDSBVI)

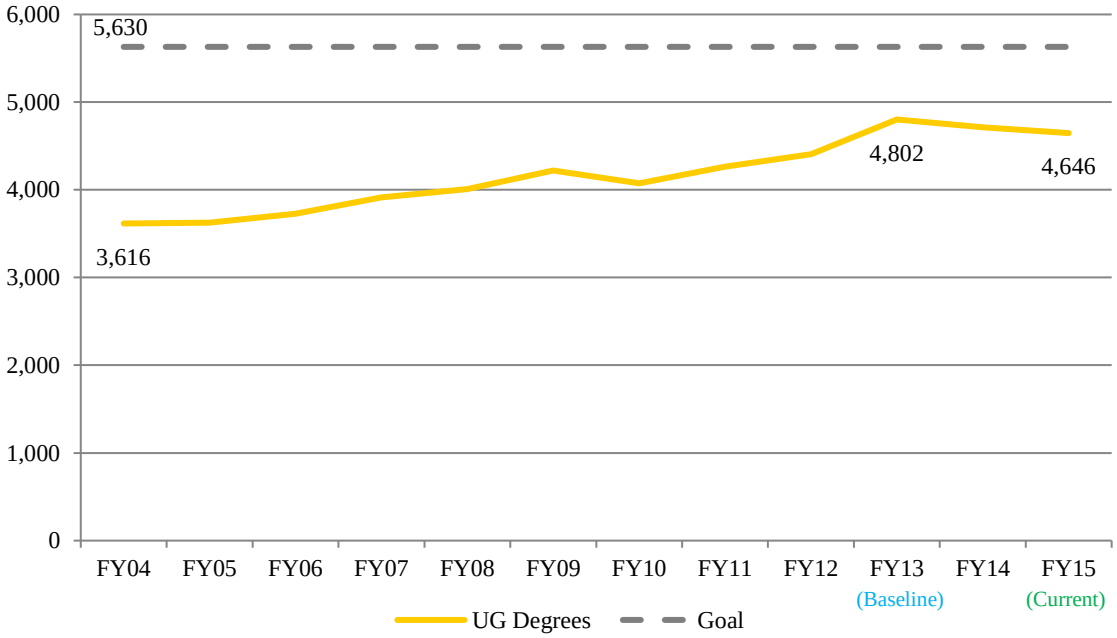
Each indicator is listed in the plan with a baseline (2014) measurement and a 2020 goal. Accordingly, the aim of this report is to update board members on the current status of each indicator, and to discuss factors affecting progress toward each goal. Though similar information is given on the SDBOR Strategic Plan webpage, this report will explore these data in considerably greater detail.

Indicator 1
Student Success: *Degrees Awarded, Undergraduate*[1]

Status: In Progress

Summary: The number of undergraduate degrees awarded by regental universities has climbed steadily over the last decade, rising from 3,616 in FY2004 to 4,646 in FY2015, a change of 28.5 percent. Growth over this period has been strongest in the areas of general studies, health, biological sciences, and agriculture.

Figure 1
Degrees Awarded, Undergraduate



Discussion: Degree awards are a function of – among other things – enrollment. And as indicated in other recent analyses, system enrollment has continued to face considerable downward pressure.[2] Although undergraduate enrollment has increased by 16.6 percent since Fall 2005, the rate of growth has slowed dramatically. In fact, undergraduate enrollment actually fell by 4.3 percent from Fall 2010 to Fall 2015 when high school students are excluded. If this trend continues, undergraduate awards may begin to fall unless advances are made with respect to graduation rates. It is expected that new system initiatives – such as the move to 120-credit degrees, the general education redesign, and the WICHE Passport project – will help to facilitate stronger completion numbers in future years.

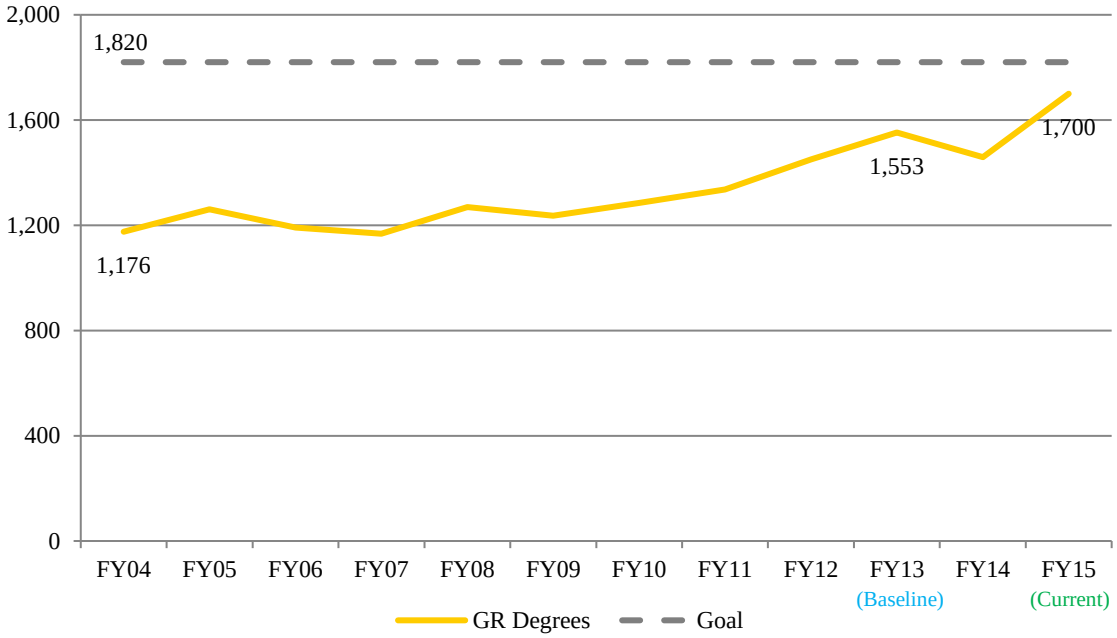
[1] Defined as: Total undergraduate degrees awarded
[2] See https://www.sdbor.edu/the-board/2015AgendaItems/December/5_O_BOR1215.pdf

Indicator 2
Student Success: *Degrees Awarded, Graduate*[3]

Status: In Progress

Summary: Graduate degree awards have grown by a larger relative margin than have undergraduate degrees awards. From FY2004 to FY2015, graduate degree awards grew by 44.6 percent, compared to 28.5 percent growth in undergraduate degree awards. Consequently, the university system awarded about 500 more graduate degrees in FY2015 than it did in FY2004. System-wide increases in graduate degree awards have been led chiefly by health, public administration, and business fields.

Figure 2
Degrees Awarded, Graduate



Discussion: Presently, graduate degree awards seem likely to follow a similar trajectory as is expected for undergraduate degree awards. From Fall 2010 to Fall 2015, graduate enrollments fell by 9.4 percent, from 6,530 to 5,930. Though student counts remain higher now than in Fall 2005, the small but consistent enrollment declines seen since the recession-era peak of Fall 2010 would seem to portend parallel future declines in graduate completer awards.

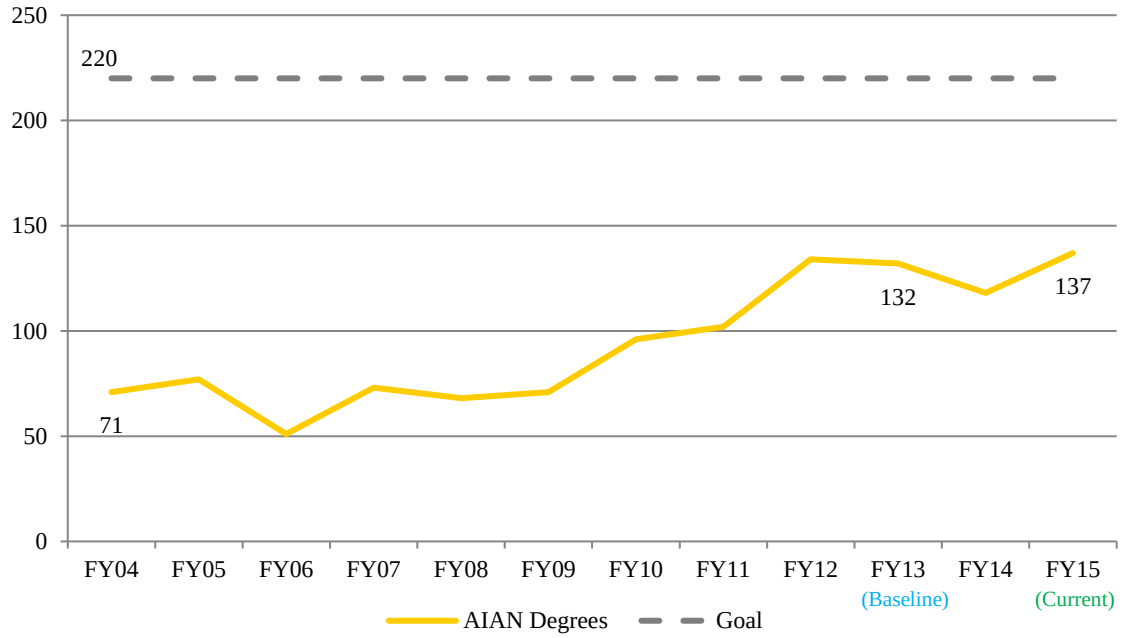
[3] Defined as: Total graduate degrees awarded

Indicator 3
Student Success: *Degrees Awarded to American Indian Students*[4]

Status: In Progress

Summary: From FY2004 to FY2012, the number of degrees awarded by regental universities to American Indian students nearly doubled (i.e., 88.7 percent growth). This measure has leveled somewhat in the interim, but currently stands at an all-time high. Generally, this trend closely mirrors the lines seen above for total undergraduate degree awards and total graduate degree awards.

Figure 3
Degrees Awarded to American Indian Students



Discussion: College-age American Indians will continue to be among the most important student demographics for the university system in coming years. These students not only have been historically underrepresented in the university system, but also are expected to grow considerably in number over the next decade.[5] Consequently, the board has begun to place substantial emphasis on this group through targeted programs such as South Dakota Jump Start and South Dakota GEAR UP. These efforts will be crucial in driving progress toward the board's degree production goal.

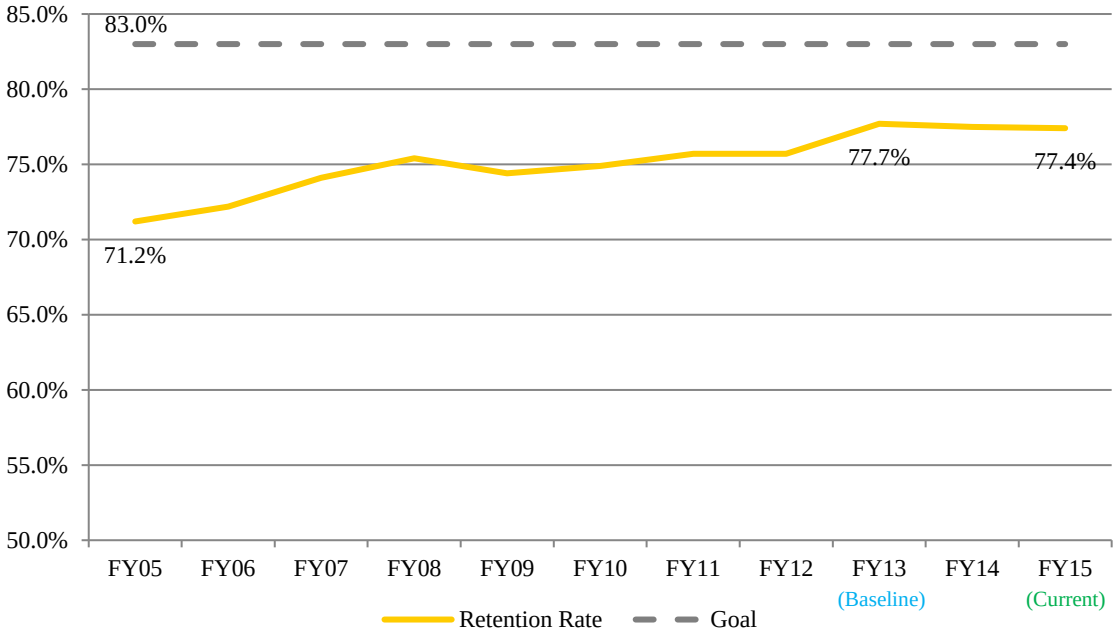
[4] Defined as: Degrees awarded to students whose self-reported racial classification is (1) American Indian or Alaska Native alone, or (2) multi-racial including American Indian or Alaska Native
[5] See https://www.sdbor.edu/the-board/agendaitems/Documents/2013/August/PlanningSession/1.pdf

Indicator 4
Student Success: *Retention Rate*[6]

Status: In Progress

Summary: The in-system retention rate (i.e., the percentage of students returning to any regental university) has climbed steadily over the last ten years. Whereas only about seven in ten freshmen returned for a second year of study in FY2005, nearly eight in ten did so by FY2015. In fact, had retention rates remained at levels seen a decade ago, nearly 300 fewer students from the most recent starting cohort would have returned for a second year.

Figure 4
Retention Rate



Discussion: Retention rates are a classic immediate-term performance indicator. Due to the strong correlation between retention rates and graduation rates, retention rates can be understood as a bellwether for eventual student success. It is hoped that a combination of existing and new initiatives – like the Starfish Early Alert System and the SDSMT MathSpark program – will continue to expand the tools available for fostering student success during the crucial first year.

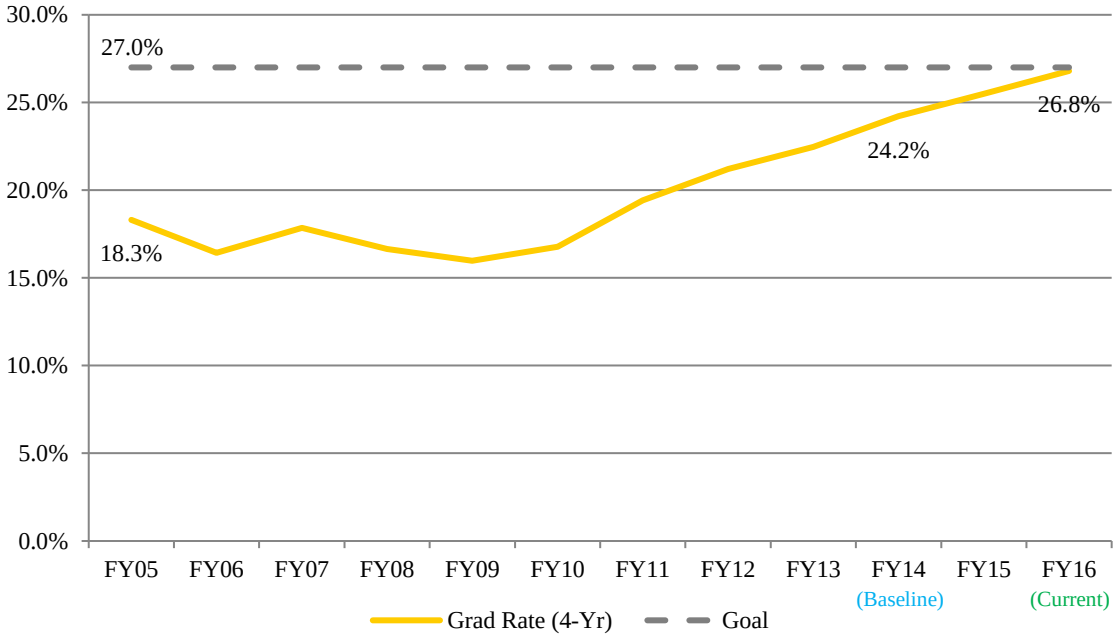
[6] Defined as: Percent of first-time, full-time, bachelor's degree-seeking students returning to any regental university for a second fall semester

Indicator 5
Student Success: *Graduation Rate, Four-Year*[7]

Status: In Progress

Summary: Regental universities have made significant gains over the last decade with respect to four-year graduation rates (also known as "100 percent" graduation rates). While the system-wide rate stood at only 16.0 percent as recently as FY2009, considerable effort by the universities has raised this rate to more than 25 percent as of FY2016. These improvements are a major contributor to the consistent uptick in undergraduate degrees mentioned earlier. Continued strides in this area may allow the system to meet its stated 2020 goal of 27.0 percent.

Figure 5
Graduation Rate, Four-Year



Discussion: Completion rates are in many ways a cumulative measure of an institution's entire academic enterprise. More than that, activities related to affordability, admission practices, financial aid, curriculum, academic support, student support, and a wide variety of other areas may ultimately affect an institution's cumulative completion rate. Given that regental admission processes have not changed radically in the last decade, the steadily advancing graduation rate shown above should be taken as evidence of holistic improvement in the overall effectiveness of university processes.

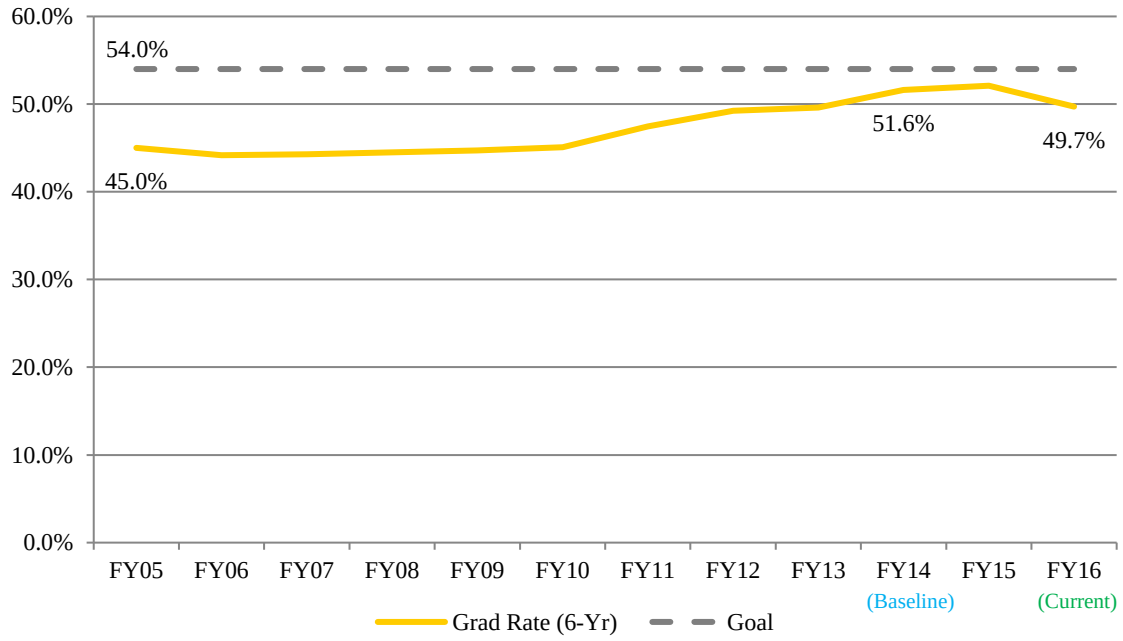
[7] Defined as: Percent of first-time, full-time, bachelor's degree-seeking students graduating in four years or less at the starting institution

Indicator 6
Student Success: *Graduation Rate, Six-Year*[8]

Status: In Progress

Summary: As with the four-year rates shown above, six-year graduation rates in the regental system have seen a modest upswing in recent years. Starting from a recent low of 44.2 percent in FY2006, the university system's six-year (or "150 percent") completion rate now stands at 49.7 percent.

Figure 6
Graduation Rate, Six-Year



Discussion: Though a six-year graduation rate of just under fifty percent may not seem immediately impressive, it should be noted that this rate is quite strong in the broader context of public higher education. Indeed, all six regental universities currently report a rate that is near – and typically above – analogous rates for US peer universities.[9] This comparison is especially positive given the continued absence of a traditional community college system in South Dakota. Much like four-year rates, these six-year rates can be treated – despite their somewhat limited scope – as summative indicators of overall institutional effectiveness.

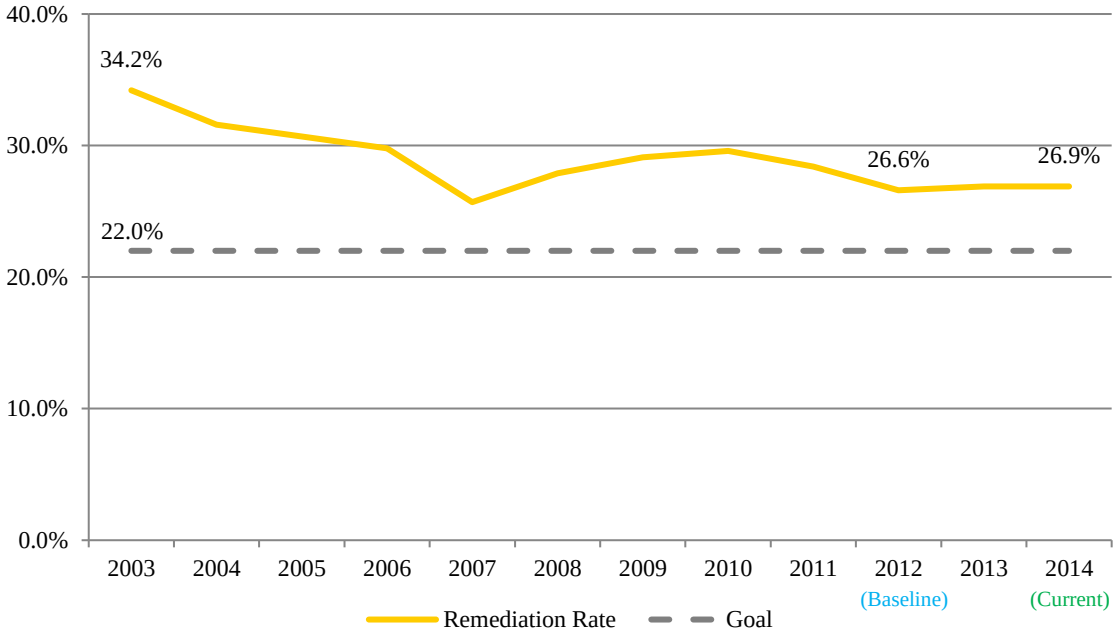
[8] Defined as: Percent of first-time, full-time, bachelor's degree-seeking students graduating in six years or less at the starting institution
[9] See https://www.sdbor.edu/dashboards/Pages/Peer-Analysis-Dashboard.aspx

Indicator 7
Student Success: *Remediation Rate*[10]

Status: In Progress

Summary: System remediation rates – the percentage of incoming students requiring developmental coursework in math or English – have shown a somewhat uncertain pattern over the last decade. Though rates declined consistently from 2003 to 2007, little change has occurred in more recent times. Consequently, a modest gap continues to exist between observed (26.9 percent) and targeted (22.0 percent) rates.

Figure 7
Remediation Rate



Discussion: Remedial placement is, fundamentally, a reflection of secondary (not postsecondary) education efficacy. Accordingly, remediation rates have a significant impact on university operations despite being largely beyond the control of the universities themselves. However, because the university system works collaboratively with the state's Department of Education on a number of joint initiatives (e.g., Smarter Balanced integration, College Readiness Coursework program), this measure of student preparedness does reflect the university system's effectiveness in working cooperatively with other educational partners to address a major threat to college success.

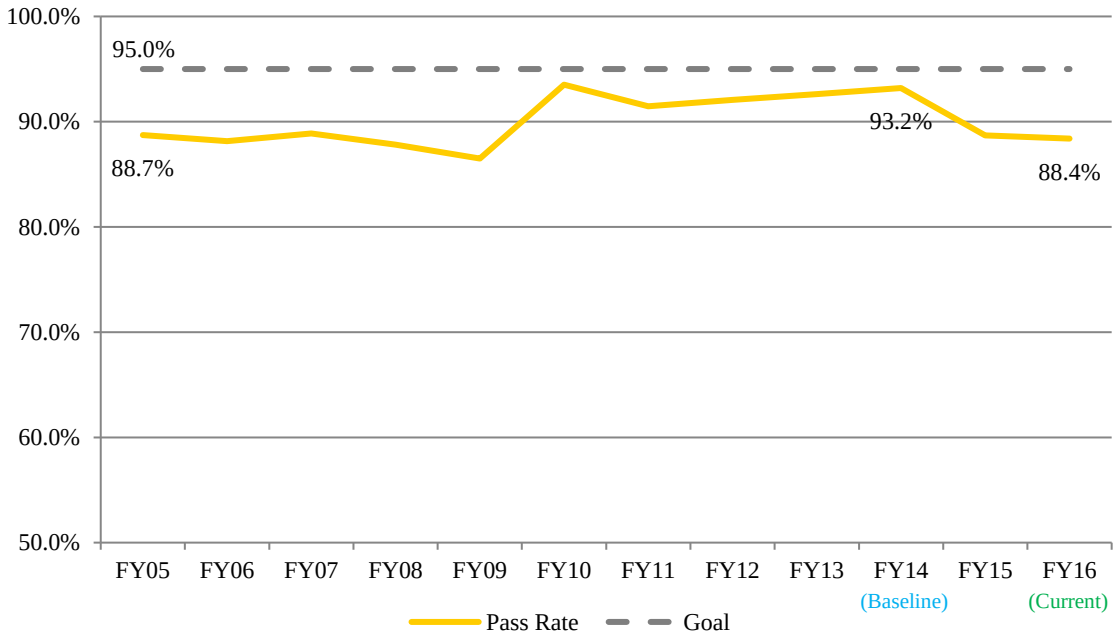
[10] Defined as: Percent of first-time, full-time, degree-seeking students from SD high schools who were designated for remedial coursework in at least one subject (math or English)

Indicator 8
Academic Quality and Performance: *Percent of Graduates Passing Licensure Exams*[11]

Status: In Progress

Summary: Exam pass rates have long been an area of strength for the university system. In every year of the trend line depicted below, regental universities reported a cumulative pass rate above 85 percent. However, a slight dip in rates since FY2014 has resulted in a considerable gap between actual and targeted rates.

Figure 8
Percent of Graduates Passing Licensure Exams



Discussion: University system students consistently outperform national comparison groups on certification and licensure exams. Indeed, many programs routinely report 100 percent passage rates on these assessments. The significant fall in passage rates recorded since FY2014 have resulted from modest declines in several larger programs, including law (USD), BS nursing (SDSU) and AS nursing (USD). Whether these drops were anomalous or part of a longer trend remains to be seen, but pending programmatic changes in some of these programs (e.g., USD law) eventually may result in improved testing outcomes.

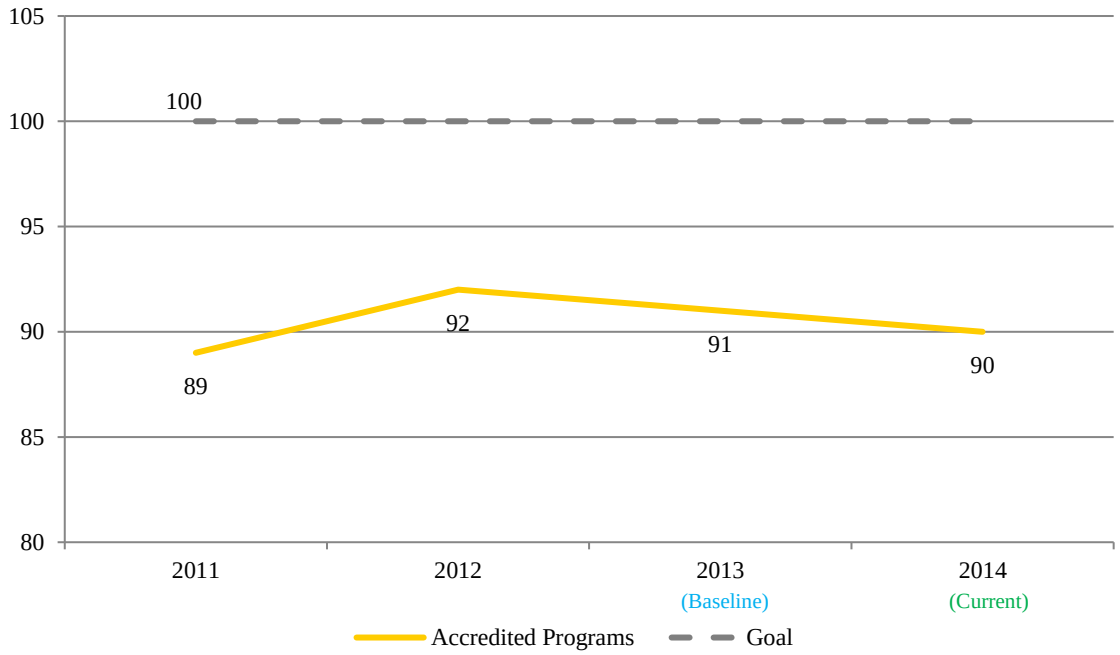
[11] Defined as: Percent of graduates who were tested and passed a licensure or certification exam in a professional field

Indicator 9
Academic Quality and Performance: *Number of Accredited Programs*[12]

Status: In Progress

Summary: The number of accredited programs – that is, the number of regental degree programs that have been accredited or certified as meeting national standards – has hovered near ninety for all years with available data. While the number of nationally accredited programs has remained relatively unchanged in recent years, these counts nonetheless have risen dramatically with the proliferation of opportunities for certification.

Figure 9
Number of Accredited Programs



Discussion: National accreditation provides an objective measure of program quality. As such, regental institutions have begun to pursue these opportunities more vigorously than in the past. SDSU, for example, has identified accredited programs as an important focus of its own IMPACT 2018 strategic plan. As universities continue to advance efforts to acquire program accreditations, the trending seen above is likely to bend upward over time.

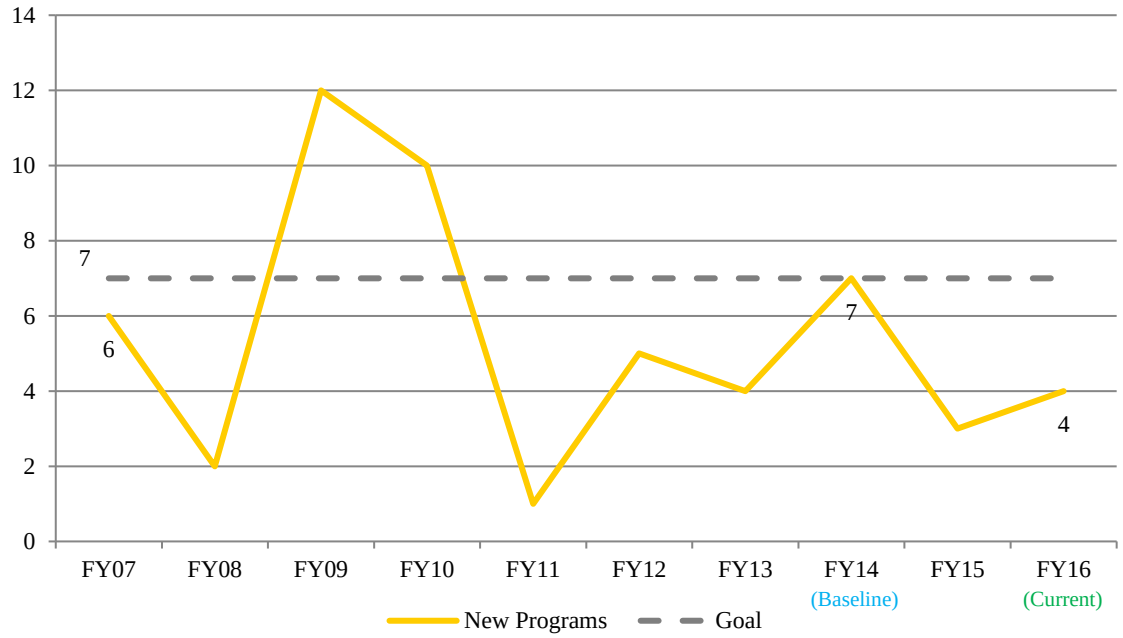
[12] Defined as: Number of degree programs with national accreditation or certification

Indicator 10
Academic Quality and Performance: *Number of New Graduate Programs*[13]

Status: In Progress; (met in FY2014)

Summary: Perhaps more than any other performance goal in the SDBOR strategic plan, the goal of approving seven new graduate programs annually is one that is likely to vacillate between "met" and "unmet" from year to year. Not surprisingly then, the graph below shows that program approvals have indeed varied considerably over the analyzed timespan.

Figure 10
Number of New Graduate Programs



Discussion: Graduate programs epitomize the notion of university education. Graduate students – who receive instruction, teach courses, and conduct research – underpin much of the scholarly activity taking place at the state's four-year universities, and are in many ways one of the university system's most distinguishing features. Graduate degree completers also hold a special place in the modern knowledge-based economy by filling many of the high-paying, high-growth occupations in the state and national workforce. Consequently, the board continues to encourage universities to seek out new opportunities for graduate offerings that respond to market demand for well-educated and highly-skilled practitioners.

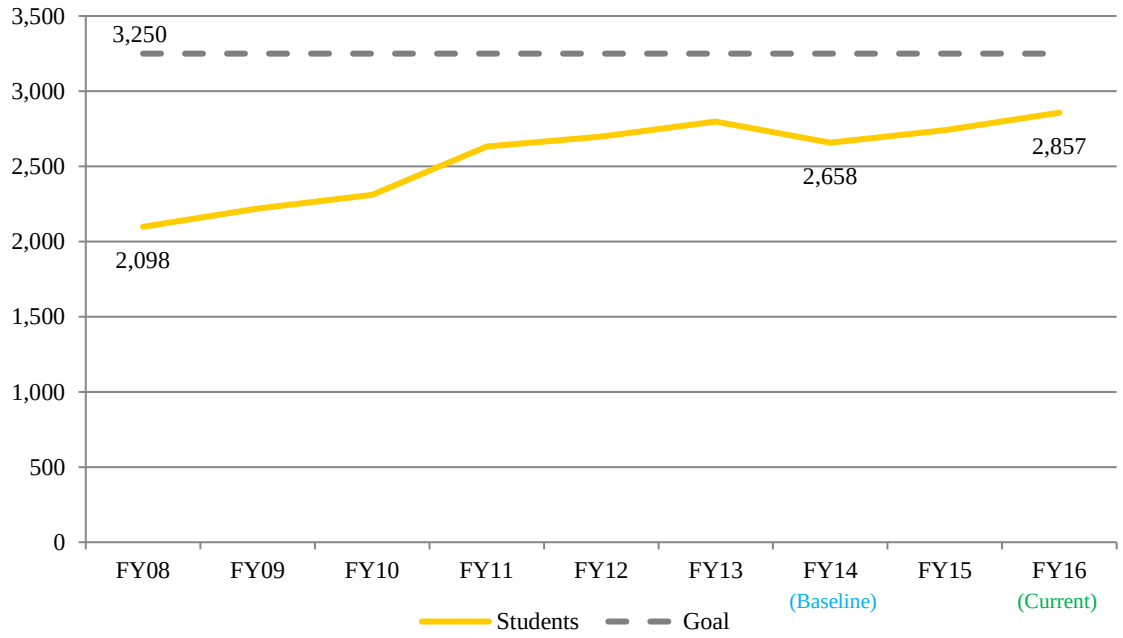
[13] Defined as: Number of new graduate degree programs receiving final approval (per year) from the Board of Regents

Indicator 11
Academic Quality and Performance: *Students Participating in Experiential Learning*[14]

Status: In Progress

Summary: "Experiential learning" is a blanket concept that encapsulates all forms of "on-the-job" educational opportunities offered in the university system, including internships, practicums, field experiences, and cooperative learning offerings. The number of regental students engaging in these opportunities has risen gradually over time, with more than 2,800 students participating during the most recent year.

Figure 11
Students Participating in Experiential Learning



Discussion: As the current trend toward skills-based education continues to rise, so too do related opportunities for experiential study in the state's universities. Academic programs in the university system, including some of the system's largest programs (e.g., nursing, teacher education), increasingly require students to complete an internship or practicum as a requirement for graduation. In many cases, these experiences also are required as a condition for professional certification. In this light, participation in these opportunities is expected to become more common among university students.

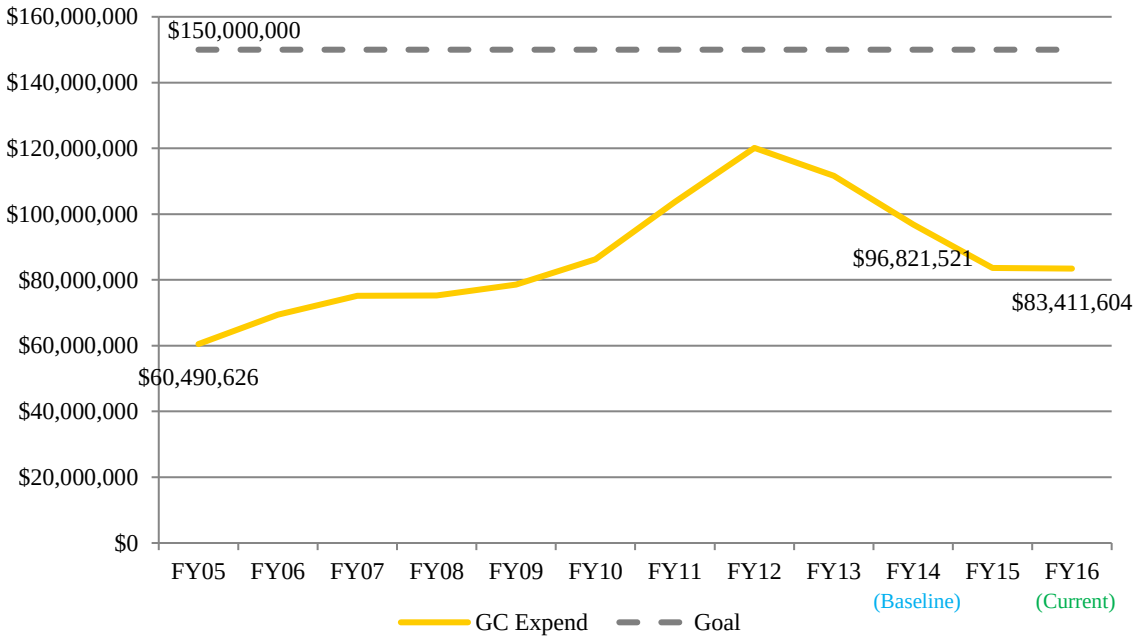
[14] Defined as: Number of students enrolling in at least one internship, practicum, field experience, or cooperative learning experience

Indicator 12
Research and Economic Development: *Grants and Contracts Expenditures*[15]

Status: In Progress

Summary: Expenditures on federal, state, and private grants and contracts have contracted precipitously in the regental system in recent years. Spending in FY2016 stood at $83 million, down 30.6 percent from the all-time high of $120 million recorded in FY2012. However, this amount ($83 million) represents respectable growth from the pre-recession figures seen in the chart below. While these figures are expected to make gradual gains in the coming years, the adopted 2020 goal of $150 million in spending may not be attainable.

Figure 12
Grants and Contracts Expenditures



Discussion: Two important observations should be made about the data shown above. First, trends in research spending by regental universities largely mirror systemic trends seen at the national level. Following a swell of stimulus spending by the federal government during the economic crisis, federal sequestration and other budget challenges have impeded the availability of additional research investment. Second, because *expenditures* (as opposed to *awards*) are shown above, the steep downward trend depicted above shows the somewhat delayed effect of tightened federal spending in the years just after the peak of the recession.

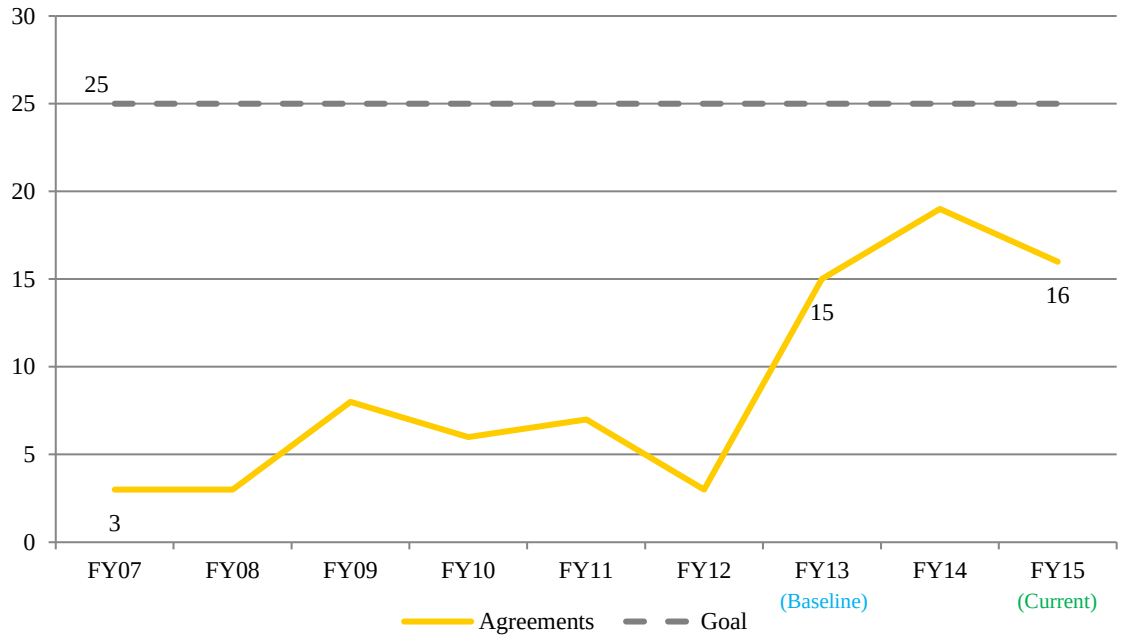
[15] Defined as: Total spending on all federal, state, private, and other grant and contract research

Indicator 13
Research and Economic Development: *License Agreements Signed*[16]

Status: In Progress

Summary: The number of signed license agreements has spiked since FY2012, reaching a new all-time high of 19 in FY2014. After averaging only five signed agreements per year from FY2007 to FY2012, the university system has averaged 16.7 new signed agreements over the last three years. This striking departure from past trending signifies a major shift in emphasis for the university system's research enterprise.

Figure 13
License Agreements Signed



Discussion: License agreements are a key measure of research commercialization. Until recently, South Dakota was relatively inactive in this area. However, with a newly insurgent emphasis on research and economic development at the university level, the university system now has begun to break into this arena. It is hoped that continued attempts to foster public-private commercialization relationships will produce additional progress in future years. SDSU has been particularly active in this area, and has been the chief driver of the system-wide upswing seen above.

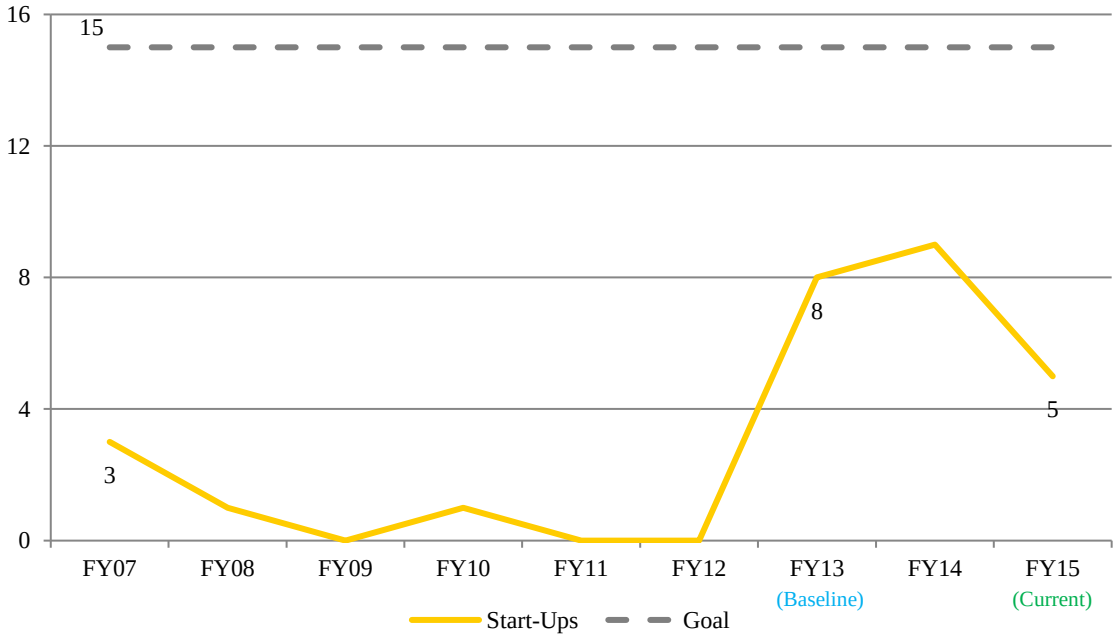
[16] Defined as: Number of signed agreements authorizing a third party to develop university-generated intellectual property

Indicator 14
Research and Economic Development: *Licenses Signed with Start-Up Companies*[17]

Status: In Progress

Summary: As with signed license agreements, a small surge has occurred in the number of start-up companies founded to commercialize university-generated research. Recent counts have at times approached double-digits despite averaging only one start-up company per year over the previous six years.

Figure 14
Licenses Signed with Start-Up Companies



Discussion: The commercialization efforts underlying the increases seen above (both in signed license agreements and in start-up companies) have been driven by several long-term development activities. For example, the Governor's Research Center program was developed to accelerate research competitiveness and strengthen the state's economy by placing a greater emphasis on the translation of basic research into commercial endeavors. Other initiatives, such as the Graduate Education and Applied Research (GEAR) Center are intended to further cultivate a number of nascent entrepreneurial ventures, including start-up companies. Further, the development of research parks in Brookings and Sioux Falls has provided additional opportunities for innovation, commercialization, and entrepreneurship across the university system.

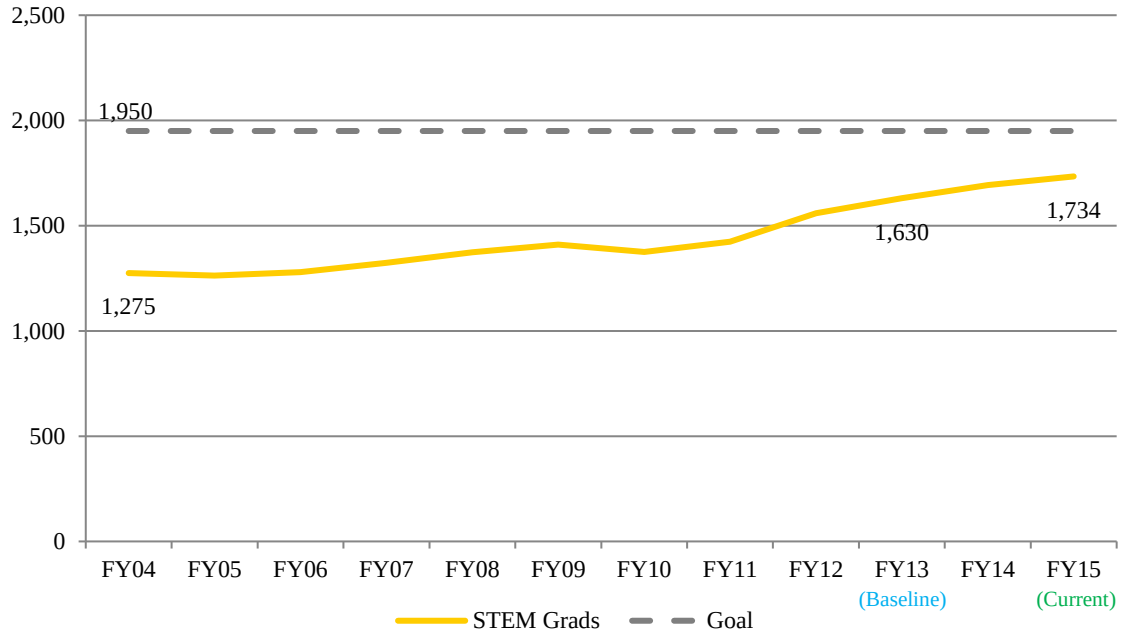
[17] Defined as: Number of new companies launched that are designed to commercialize university-generated research

Indicator 15
Research and Economic Development: *STEM Graduates*[18]

Status: In Progress

Summary: Loosely following the same trend seen for Indicator 1 (undergraduate degree awards) and Indicator 2 (graduate degree awards), the data below indicate a small but continuous rise in the number of students completing STEM-related majors in the university system. Extrapolated several more years, this trend appears poised to eclipse the board's goal of 1,950 STEM graduates by the year 2020.

Figure 15
STEM Graduates



Discussion: A chorus of observers – from policymakers to industry leaders to educators – continues to call for an increased focus on the development of a STEM-oriented workforce. These calls are well-founded in the context of the current skills-based economy, with STEM occupations frequently offering high pay and strong demand. In the regental system, growth in this area has been driven by a wide assortment of disciplines, but has been led mainly by agriculture, engineering, and biological sciences. At the institutional level, SDSU has recorded by far the largest gains in STEM graduates over the last decade, jumping from 538 graduates in FY2004 to 836 graduates in FY2015.

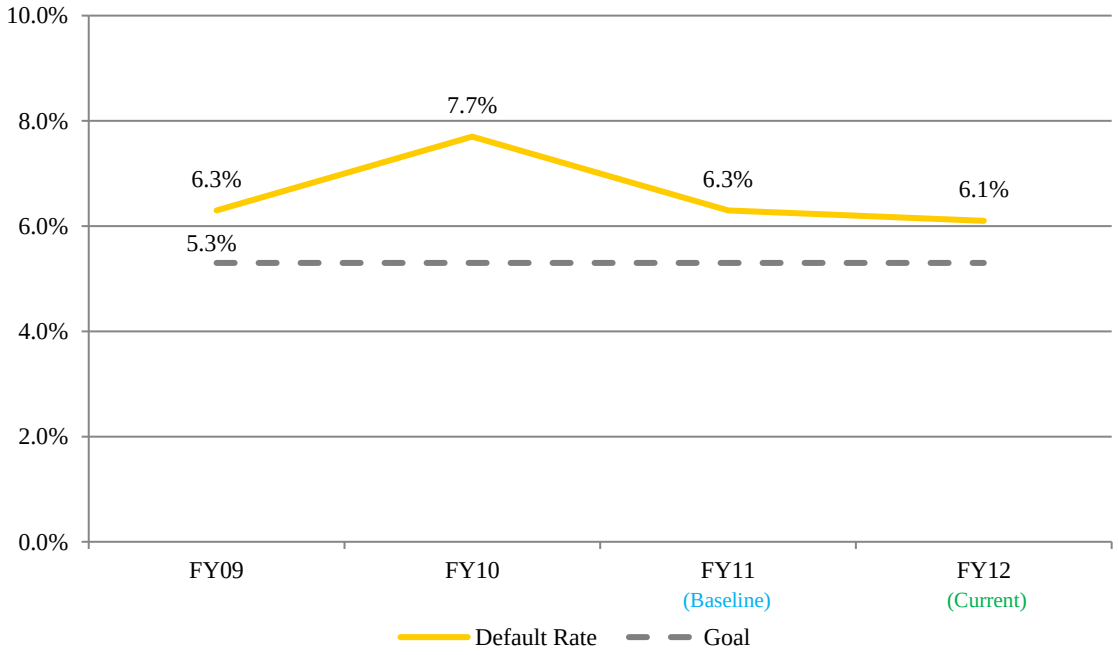
[18] Defined as: Number of students completing a major in a science, technology, engineering, or mathematics field

Indicator 16
Affordability and Accountability: *Three-Year Federal Loan Default Rate*[19]

Status: In Progress

Summary: South Dakota's federal loan default rates (the proportion of students defaulting on federal student loans) have been dependably low for many years. South Dakota routinely ranks among the nation's best with respect to student loan default, and the regental system consistently outperforms all other institutional sectors in South Dakota specifically. For instance, the regental system's 2012 default rate of 6.1 percent was less than half of that recorded for the state's technical institutes (13.6 percent). Trend data continue to suggest the strong possibility of reaching the board's 2020 goal of 5.3 percent.

Figure 16
Three-Year Federal Loan Default Rate



Discussion: Default rates represent a cumulative effect of multiple dynamics, including college affordability, completion rates, and workforce conditions. That said, further improvement in national and state economic conditions may continue to push default rates downward. It should be noted that three-year default rate data have been available for a limited number of years, and hence restrict the scope of available trending. Further, default rates are calculated using cohorts of students who completed degrees more than two years prior, meaning that the data shown above are (by design) lagged somewhat.

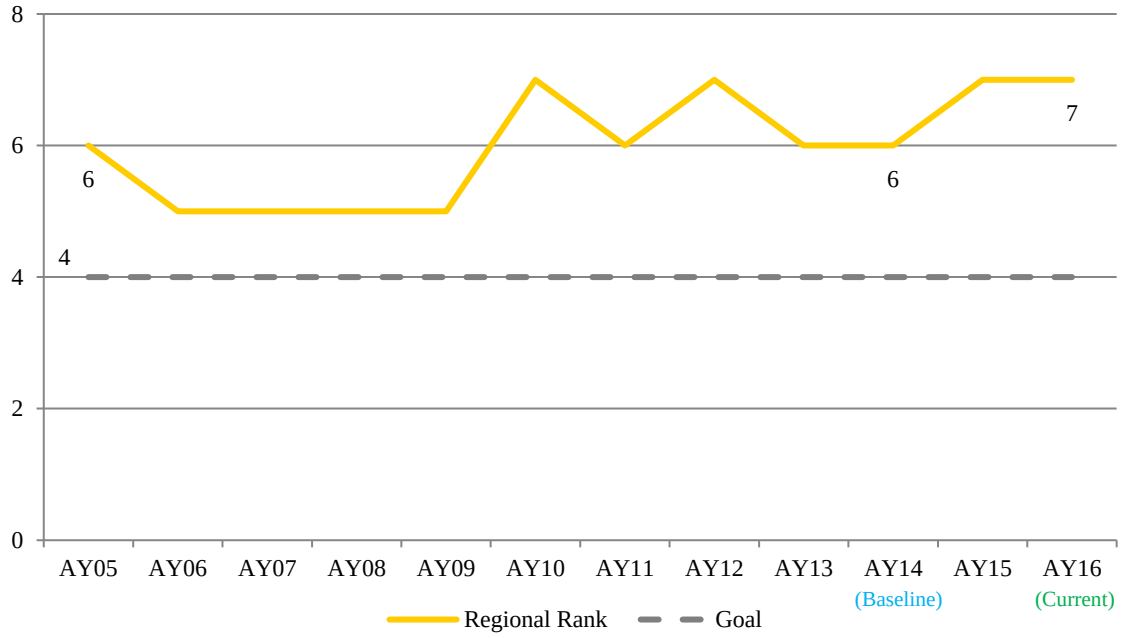
[19] Defined as: Percent of federal student loan borrowers entering repayment in a given fiscal year who default on their loans by the end of the second following fiscal year

Indicator 17
Affordability and Accountability: *Regional Rank for Undergraduate Tuition and Fees*[20]

Status: In Progress

Summary: Data indicate that, under this performance measure, South Dakota universities have become less affordable over the last decade in comparison with regional peers. While South Dakota once ranked near the middle of eight Midwestern states with respect to undergraduate costs, it since has moved decidedly toward the high end of the cost distribution. By 2016, only one neighboring state (Minnesota) charged more to resident undergraduates.

Figure 17
Regional Rank for Undergraduate Tuition and Fees



Discussion: Regional rank is merely a proxy for actual cost, and by the measure of actual cost, South Dakota's eroding affordability appears even more conspicuous. From 2005 to 2016, the eight-state average for resident undergraduate tuition and fees increased by 36.9 percent (from $5,300 to $7,200 per year). Over the same period, the analogous figure in South Dakota rose by 76.6 percent (from $4,800 to $8,500).[21] Additional data suggest that this challenge is exacerbated by the state's comparative lack of student aid. In fact, in terms of average net price (total cost minus grant aid), South Dakota's public universities are now among the most expensive in the country.[22]

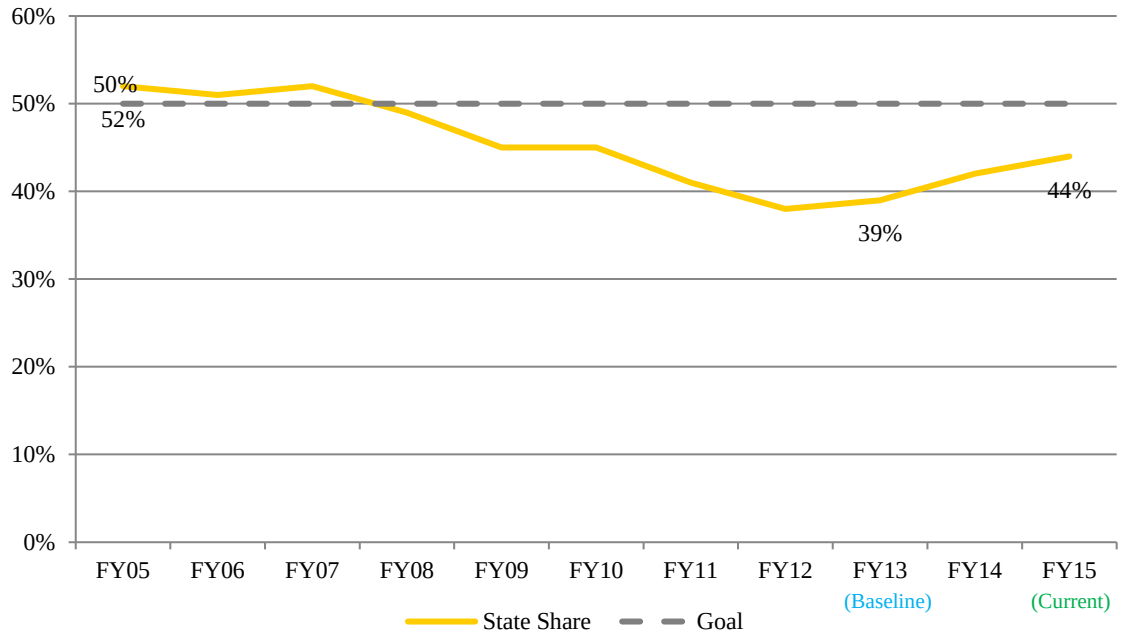
[20] Defined as: South Dakota's regional rank for tuition and fees for resident undergraduates at four-year public universities, out of eight regional neighbors
[21] See https://www.sdbor.edu/mediapubs/student-costs/Pages/default.aspx
[22] See https://www.sdbor.edu/dashboards/Pages/University-Affordability.aspx

Indicator 18
Affordability and Accountability: *Percent of Operating Budget Funded by the State*[23]

Status: In Progress

Summary: Taken from what was once known colloquially as the board's "X-graph" (named for the "X" shape created by crossing trend lines), the data below indicate a distinct closing of the gap between state support and student support in the public university system. After reaching an all-time low of 38 percent in FY2012, several years of renewed investment by the state have led to a slow return of the state's share toward the targeted 50 percent mark.

Figure 18
Percent of Operating Budget Funded by the State



Discussion: Like so many performance measures in higher education, the "state share" indicator is subject to a host of moving parts, only some of which are under the direct control of the university system. The rebound in state support depicted above is attributable mainly to two recent tuition freeze requests supported by the governor and legislature. With a similar proposal pending in the upcoming legislative session, this performance indicator has the potential to move nearer still to a 50-50 balance with student support. Given the affordability data presented on the previous page, this support from the state appears increasingly crucial.

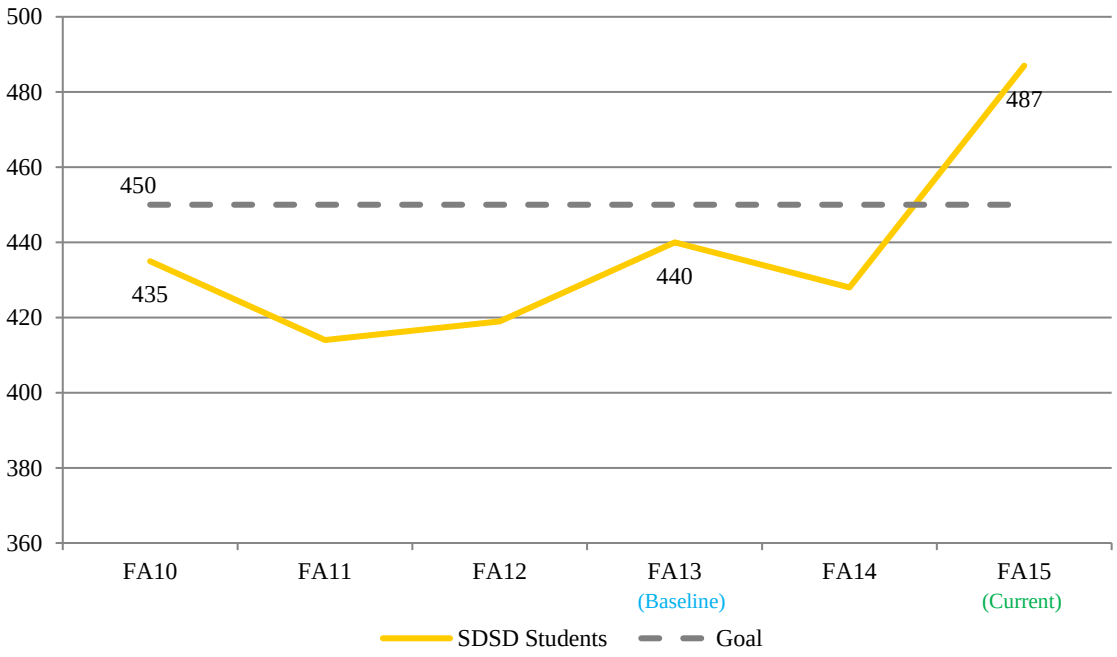
[23] Defined as: Percent of university operating budgets sourced from state general fund appropriations

Indicator 19
Affordability and Accountability: *Students Served by Special Schools, SDSD*[24]

Status: Met

Summary: The South Dakota School for the Deaf serves students through partnerships with the Brandon Valley School District (Auditory-Oral program), the Harrisburg School District (Bilingual – American Sign Language and English program), and through various outreach services to families and schools. The graph below displays the combined fall participation history for all educational and consultative program areas offered by SDSD. In Fall 2015, participation numbers surged to 487, a number surpassing the board's 2020 goal, and also setting a new recent high. Typically, students participating in SDSD's outreach programs represent upward of 90 percent of the students depicted here. It should be noted that the above figures do not include students served by SDSD's Mobile Hearing Lab program, which provided audiological screenings to more than 13,000 children in FY2016.

Figure 19
Students Served by Special Schools, SDSD



Discussion: It should be noted that the board's strategic goal of increasing student participation in SDSD programs aligns well with SDSD's own strategic objectives, which include a focus on raising both the scope and the quality of services offered through the school.[25]

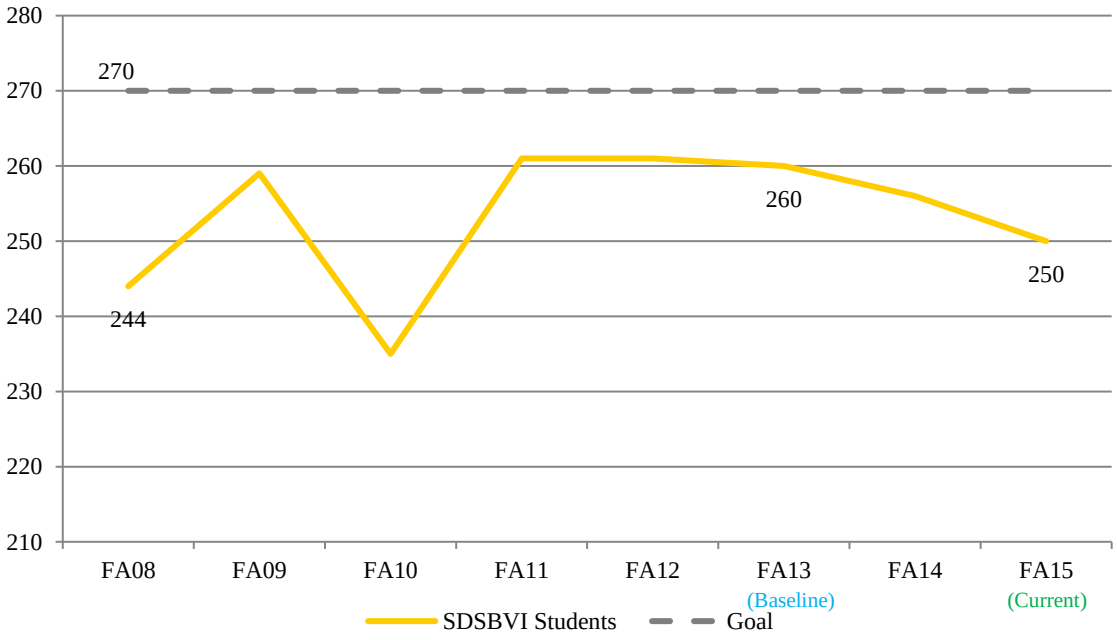
[24] Defined as: Number of students served in any capacity by the South Dakota School for the Deaf
[25] See http://sdsd.sdbor.edu/documents/SDSD-Strategic-Plan.pdf

Indicator 20
Affordability and Accountability: *Students Served by Special Schools, SDSBVI*[26]

Status: In Progress

Summary: The range of services offered by the South Dakota School for the Blind and Visually Impaired includes on-campus instruction and residential services at SDSBVI's campus in Aberdeen, summer school programming, off-campus outreach services, and diagnostic evaluations. Combined fall participation data for these program areas are shown below. On average, approximately 250 students are served each year by SDSBVI, led mainly by those participating in the school's various outreach programs. These figures do not include diagnostic evaluations delivered by the school.

Figure 20
Students Served by Special Schools, SDSBVI



Discussion: As with the South Dakota School for the Deaf, the South Dakota School for the Blind and Visually Impaired has established the expansion of statewide services as a major strategic objective.[27] So while both SDBOR and SDSBVI have placed an emphasis on increasing student participation, SDSBVI is careful to point out that other goals – such as building resource networks, fostering public awareness, and collaborating with partner institutions – are likewise important.

[26] Defined as: Number of students served in any capacity by the South Dakota School for the Blind and Visually Impaired
[27] See http://sdsbvi.northern.edu/documents/Strategic-Plan.pdf