



DARING TO BE

GREAT



THE NDUS *EDGE*

North Dakota University System Five-Year Plan



WORLDVIEW

MISSION
UNLEASHING POTENTIAL

VISION
INSPIRING OUR FUTURE

Front Cover: At North Dakota State University and the University of North Dakota, researchers continue to make innovative advances in everything from agriculture to unmanned aerial systems.

Inside Cover: Bismarck State College students gathered to study in the brand-new Library, English and Arts building at the heart of the vibrant campus. Officially complete in September 2015, the LEA Building joined three other new structures and an upgraded student union at BSC.



At Dakota College at Bottineau, nursing students are offered a top-quality education through the Dakota Nursing Program. This multi-school consortium has continually provided students who tested above and beyond national rates, earning a 100 percent first-time pass rate in 2016. That education is helping the DNP – and all the future nurses it trains – meet North Dakota’s health care needs.

TABLE OF CONTENTS

NDUS colleges and locations	5
Board Chair Neseet’s report	6
Five-year goals	8
Deliver degrees that are the best value in the nation	10
Provide programs people want	12
Equip students for success	14
Maximize the strengths of the unified system	16
Financial snapshot	18
Chancellor’s Cabinet studies	20
Envision 2030	22
State Board of Higher Education	23



NDUS COLLEGES & LOCATIONS

COMMUNITY COLLEGES

- Bismarck State College
- Dakota College at Bottineau
- Lake Region State College
- North Dakota State College of Science
- Williston State College

REGIONAL STATE UNIVERSITIES

- Dickinson State University
- Mayville State University
- Minot State University
- Valley City State University

RESEARCH UNIVERSITIES

- North Dakota State University
- University of North Dakota



Unified to succeed

Striving higher in educational goals

Now is a great time to take stock of where we are as a system. From the perspective of the State Board of Higher Education, it's a challenging time, but also invigorating.

We as a Board are tasked with shaping the policy that guides the North Dakota University System and its 11 public colleges and universities. Each and every Board member takes that task to heart, and we work together to meet the needs of our students and maintain the trust placed in us by the public.

We know that challenge can help us become more educated, and healthier – as individuals and as a system. When one of those challenges includes overall reductions in the state's 2017-2019 budget because of slumping agriculture and energy prices, we do everything we can to ensure that those cuts do not impact opportunities for student success.

We also understand that diligence is required on our parts to make sure that happens. That diligence was rewarded when the Higher Learning Commission's verified that the SBHE governance system is efficient and accountable. At the campus level, staff has already taken up the charge of combining and sharing services, and providing more opportunities for united efforts. Budget cuts have impacted administration, athletic and academic programs, as well as resulted in reductions in overall university system staff. However, the work our colleges and universities do is vital, which means our staff has taken to wearing a great many hats to accomplish our goals. That is accomplished along multiple lines, from offering collaborative classrooms through distance learning options, to combining staff roles, to sharing services.

It's also accomplished through other means. A revitalization of the NDUS Foundation has offered a statewide path forward for fundraising and scholarship opportunities. More than \$15,000 in Bakken U scholarships has already been awarded through the foundation, with plans for more scholarships in the future. The foundation's work complements initiatives like the Challenge Fund, which was one of the many ways the N.D. Legislative Assembly found to increase philanthropy in higher education. A historic series of meetings between the Interim Legislative Higher Education Committee and the SBHE helped bring educational policymakers closer together to advance higher education for years to come.



Kathleen Neset, Chair, SBHE

“OUR SINGULAR GOAL OF FOSTERING STUDENT SUCCESS IS ONE THAT WILL CONTINUE TO BE MET.”



One of Chancellor Mark Hagerott's first duties was to travel the state and get to know the campuses, its students, and its stakeholders, including legislators and business leaders. During these Listen and Learn sessions, Hagerott was able to solicit feedback on strengths and challenges of the university system.

The SBHE is also striving for continuous improvement. One example of that is the Board's recent action to establish a higher attainment goal. Attainment – the percentage of citizens who have post-secondary education – is under review locally and nationally. We are working with the Lumina Foundation to move toward increasing our current attainment goal to 65 percent by 2025, potentially 75 percent by 2030. We will need to attract students from different demographics and determine how high-quality certificates figure into the mix in order to reach our goal. It will take a great deal of effort, but we are ready to take on the challenge.

Some steps have already been put in place through efforts like collaborative learning. Others will come in time, and can be helped along by conversations within the system and across the state, such as those happening under the Envision 2030 initiative. Many inclusive discussions have already taken place, including those specific issues facing our students. Two such talks – Tomorrow's Student and The Whole Student – were aimed to find ways to create a healthier, more focused environment from which our students can increase their own rate of success.

No matter what, we will keep our noses to the grindstone as we work through challenges, because our goal of fostering student success is one that will continue to be met, no matter what challenges face us as a Board or as a system.

Kathleen Neset
Chair, State Board of Higher Education

DARING



DARING TO EXCEED EXPECTATIONS

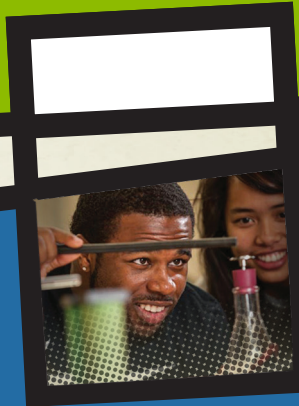
Deliver degrees that are the best
value in the nation

THE NDUS *EDGE*



DARING TO DREAM BIGGER

Equip students
for success



DARING TO DELIVER

Provide programs people want,
where and when they need them

DARING TO STAND TOGETHER

Maximize the strengths of the
unified system



DELIVER DEGREES THAT ARE THE BEST IN THE NATION

The Board's plan for ensuring that NDUS degrees are the best value in the nation includes the following strategies:

- Ensure the price to attend NDUS institutions is clearly stated and regionally competitive.
- Standardize categories of mandatory fees and strengthen fee policies.
- Increase the use of open educational resources.

In determining the priorities of the strategic plan, affordability is at the top. Discussions have involved price, as well as quality. We want to ensure that students throughout the university system's 11 public colleges and universities receive the largest possible return on investment.

The cost of obtaining an education in North Dakota is already favorable when compared to regional and national rates. Tuition and fee averages for doctoral universities in NDUS is \$8,172, compared to the regional average of \$8,883 per year. Our master's degree is \$6,568, below the regional average of \$7,500. An average bachelor's degree in the NDUS is \$6,250, compared to the regional rate of \$7,037. The exception is the NDUS community colleges, where the regional average is \$3,840 and ours is slightly higher at \$4,469. [1]

[1: 2015 data collected from NDUS Dashboards. <http://cts.ndus.edu/sits-departments/institutional-research/>]

“ THE BIGGEST STRENGTH OF THE NORTH DAKOTA UNIVERSITY SYSTEM IS THE HIGH-QUALITY EDUCATION THAT OUR STUDENTS RECEIVE. ”

– FACULTY/STAFF SURVEY



Since 1918, Dickinson State University has been preparing passionate, engaged educators to serve the region. The faculty work closely with prospective teachers to cultivate the critical thinking skills, patience, and caring common to all successful educators. The university exemplifies teacher education and collaborates with other institutions to deliver the best teachers possible.

Affordability strategies have been implemented throughout the system, and they're bringing the Board's commitment to financial responsibility to fruition. One strategy, which involves Open Educational Resources, has potentially saved students millions of dollars in textbook costs. Training opportunities were conducted through the system office through grants funded by the N.D. Legislative Assembly. Those activities have resulted in savings opportunities for students.

The strategy found implementation with widespread support from the state legislature. Mayville State University, University of North Dakota and Valley City State University have saved students more than \$1 million already after implementing OER in only a handful of classes through two

semesters. Faculty at those universities, and others, are looking at ways to expand OER use throughout the system to help increase the amount of savings that's passed on to our students.

The open educational resources that have been implemented on those campuses are electronic textbooks vetted by the University of Minnesota, and other classroom tools, that provide interactive, comprehensive experience that today's students deserve.



At Lake Region State College, students, administration, faculty, and staff celebrated the college's 75th anniversary. The college celebrated the milestone by highlighting the growth that now delivers a range of well-trained professionals, from nurses to police officers to wind tower technicians and more!

PROVIDE PROGRAMS WHEN AND WHERE PEOPLE WANT THEM

This five-year plan helps guide the NDUS in continuing to:

- Ensure programs are relevant, valuable and timely.
- Meet North Dakota's workforce needs through recruitment of students from traditional and non-traditional audiences, both in and out-of-state.
- Expand access to instructional opportunities through non-traditional delivery methods.

Accessibility and availability were among the priorities determined by the Board for the university system. Ensuring those priorities remain no matter how the economic climate of the state changes will have long-lasting and expansive implications for student success in North Dakota.

Our institutions have a history of working closely with partners in business and industry to provide a curriculum to our students that provides as much background and theory in our many programs as it does in providing practical skills. The relationships that have been fostered through the decades between our institutions and companies throughout the state continue to enable student success. When they graduate, our students find themselves with opportunity to succeed wherever they may go.

Working collaboratively with business, industry, and other campuses enables our institutions to seamlessly meet students' needs as a team, while at the very same time fulfilling their own unique missions.

The fall enrollment report showed that 56 percent of NDUS undergraduates listed their home state as North Dakota, 30 percent listed Minnesota, Montana and South Dakota, and the remaining students were from other states and international locations. Needs identified in the NDUS facilities master



plan and in Job Service North Dakota's 10-year job projections indicate that student recruitment is essential to fulfill the needs of our state. Research shows students who are educated in the state are more likely to seek employment here, and businesses are aggressively recruiting our students.

Based upon established relationships with various two-year colleges and industry partners, Mayville State University's online RN-to-BSN program will continue to assist with expanding the level of education for registered nurses across the state. Since MaSU's first RN-to-BSN students began their studies in the fall semester of 2014, enrollment in the program has grown to 50 students. The first 24 students graduated in 2016.

The Workforce Education and Advisory Council and NDUS are coordinating efforts to find trends identifying when and where

workforce needs and education intersect. Further studies have been commissioned by WEAC that will help provide contextual data aimed at increasing programmatic success.

Historically, about three-fourths of students in the university system have been of traditional age. However, the number of non-traditional students continues to grow as people expand their skillsets, go back for higher degrees, or just take courses to round out their job marketability.



Minot State University values its tradition of educating elementary, middle school and secondary teachers. Education majors work with students in classrooms at multiple points during their studies, beginning the first semester, allowing them to gain experience with different age groups in a hands-on approach in preparation for teaching students.

Business leaders highlight being “fast and flexible in the delivery of educational offerings” as vital for students and the workforce, and that well-rounded students make flexible employees. A flexible system can move quickly toward meeting the needs of students. It can also help members of the workforce to quickly retool their skillset to meet the demands of an evolving economy.

One example is with the Master of Arts in Teaching graduate degree, which is being offered throughout the system. While it was first offered at Minot State University, the degree is now available at Mayville State University and Valley City State University. This program will provide further education to today’s teachers and for those members of the workforce who want to train students in their own specialty.

In the past year, enrollment in online and Interactive Video Network-delivered courses has increased by nearly 10 percent. With more collaborative efforts on the horizon, that number is sure to allow more people to access our academic programs than ever before.

In the fall of 2015, Bismarck State College and North Dakota State College of Science launched a Pharmacy Tech program partnership to help address workforce needs and deliver valuable job training to interested students. The program includes face-to-face general education classes at BSC combined with video format for NDSCS classes. The collaborative program includes classroom time, laboratory time and practical experience that has resulted in a 100-percent placement rate.

**“IN WORKFORCE WE’RE SEEING A REAL NEED FOR EMPLOYEES WHO ARE TECH-
NICALLY SKILLED, AND THOSE WHO ARE MORE WELL-ROUNDED. HIGHER ED
HELPS TO MEET THAT NEED.”** – BUSINESS LEADER INTERVIEW

EQUIT STUDENTS FOR SUCCESS

After extensive consultation and deliberation, the Board determined the following strategies would continue to foster success:

- Improve admissions standards at NDUS institutions.
- Increase students' overall attainment rates through increased participation, retention and completion.
- Streamline registering and advising transfer students.

Through the past five years, considerable and exhaustive study has gone into student success, particularly in the subject areas of admissions standards and retention and graduation rates. We've collaborated with the

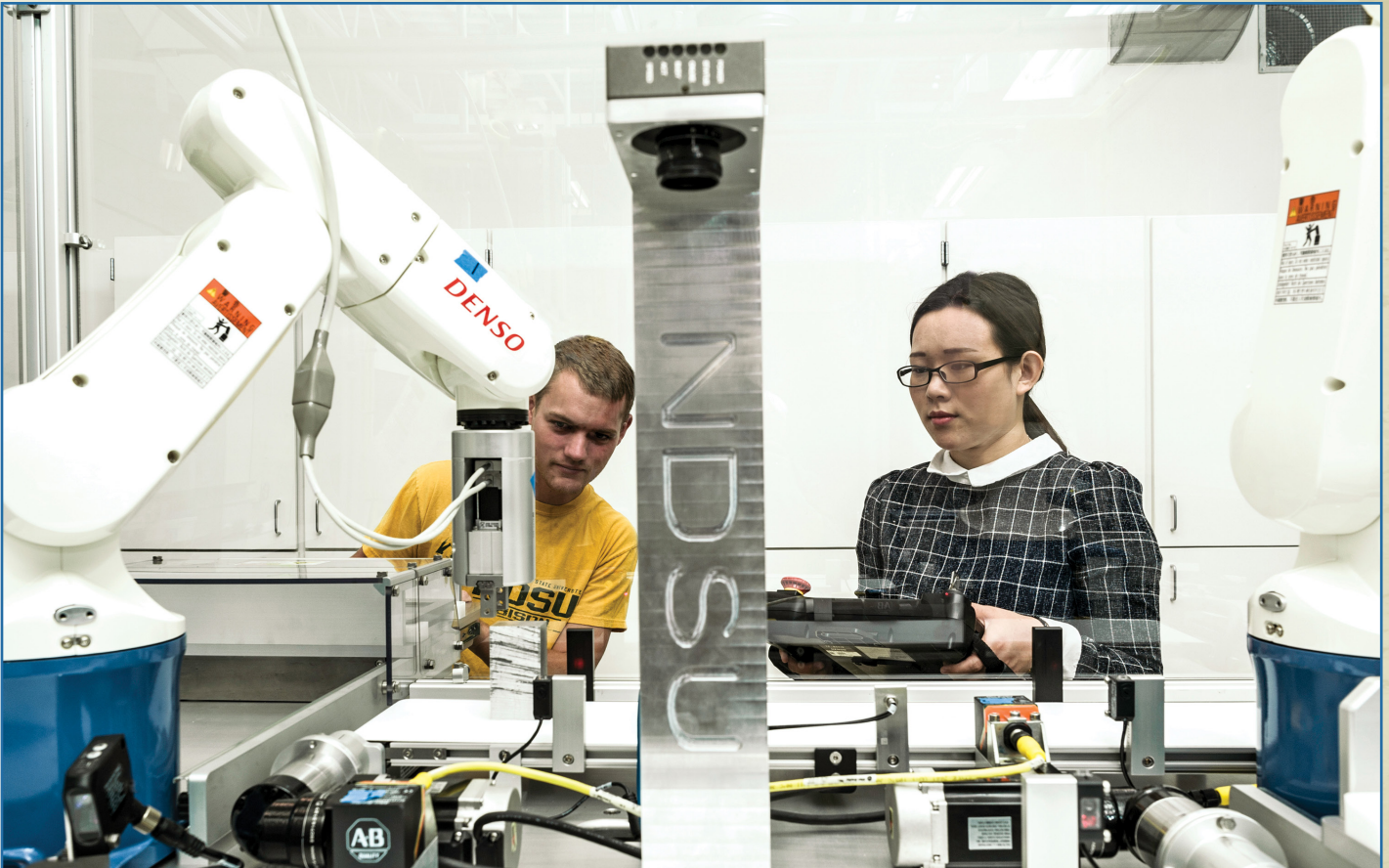
Department of Public Instruction to work toward a future where the transition between high school graduation and the first day of a student's freshman year of college are as seamless as can be. New tools have been implemented throughout the system that will help advisors and counselors intervene on a student's behalf faster than ever. These tools combined with university system Dashboards and Predictive Analytics Reporting give us a data-based foundation to which challenges can be systematically met.



North Dakota State College of Science offers degrees, certificates and diplomas in more than 80 academic options in traditional career and technical studies as well as liberal arts. And, students are treated to a bit of history as well, with plenty of study room available in the recently renovated Old Main building (pictured above).

Other measures were implemented in recent years that helped track progress in a number of areas, including improved retention rates for first-time, full-time students; improved four-year and six-year graduation rates; the number of degrees awarded to Pell Grant recipients; and exceeding national averages for first-time pass rates on professional licensure exams.

While those numbers are useful for measuring outcomes and progress over time, student success is bolstered by much more. Student-to-faculty ratios, classroom sizes, and course delivery methods are vital to today's student. Thanks to our three-tiered system of colleges and universities, our students have a diverse range of options from which to choose.



North Dakota State University is a student-focused, land-grant, research university. NDSU is listed in the National Science Foundation's top 100 in several areas, including: agricultural sciences, social sciences, physical sciences, chemistry, psychology and computer sciences. In May 2016, the university renamed its Science, Technology, Engineering and Mathematics facility the A. Glenn Hill Center, after one of its former professors who had a profound impact on generations of STEM students through a four-decade career at NDSU.

“OUR FOCUS IS THE WHOLE STUDENT BECAUSE THEY’RE HERE FOR MORE THAN CLASSES. WE’RE INTERESTED IN DEVELOPING WELL-ROUNDED INDIVIDUALS, AND PEOPLE ON OUR CAMPUS UNDERSTAND THIS. THEY CARE ABOUT THE WHOLE PERSON.”

— NDSU STAFF INTERVIEW

MAXIMIZE STRENGTHS OF A UNIFIED SYSTEM

In order to maximize the strengths of a unified system, the Board approved these strategies:

- Strengthen academic collaboration among the institutions.
- Create efficiencies through shared programs and services where cost-savings and/or performance enhancements are achievable.
- Strengthen the system's ability to respond quickly to changing needs.
- Enhance the research reputation of the research institutions.

Each campus within the North Dakota University System has its own mission and its own unique set of programs. Those characteristics can be advantageous for the campuses and their communities, but especially the students. However, there are even more advantages when the members of this group work together as a system. Advances in shared services and collaboration have propelled the system forward and proven how much can be done by a unified team. More efforts are likely to be found in the near future to help maximize that team effort and get the largest return on investment possible.

Collaborative research efforts have moved forward significantly in Unmanned Aerial Systems, with staff and faculty at NDSU and UND focused on new technology and its many applications.



University of North Dakota's School of Medicine and Health Sciences took a leap into the future in 2016 with the opening of a new, \$124 million facility fully funded by the state of North Dakota. The four-story, 325,000 sq. ft. structure allows plenty of space for new medical and health sciences students to learn the latest healthcare techniques. In particular, the facility was designed to train medical and health students in interprofessional healthcare teams, making healthcare delivery more efficient for future generations. of their current and future teams.

Academic collaboration and administrative shared services are a constant focus across the system. The implementation of Strategic Planning Online offers instantaneous access to systemwide data. Numerous memoranda-of-understandings have placed dozens of formal agreements in place. For instance, Dickinson State University and Minot State University each provide bachelor degree opportunities for Bismarck State College students. Similar agreements exist between North Dakota State College of Science and North Dakota State University, and between Mayville State University and University of North Dakota. Other offerings, like the Dakota Nursing Program, create an academic training consortium where nursing faculty at one institution can help train nursing students at another. New collaborative programs are announced each semester, all with one common goal in mind – to

deliver the programs that students need, when and where they need them, and do so as a unified system. Starting in the spring of 2017, Dakota College at Bottineau and Williston State College began offering a collaborative program aimed at training new medical assistants to address health care industry needs. A similar partnership among Bismarck State College, Mayville State University and Dickinson State University allows future

educators to take coursework in early childhood education.

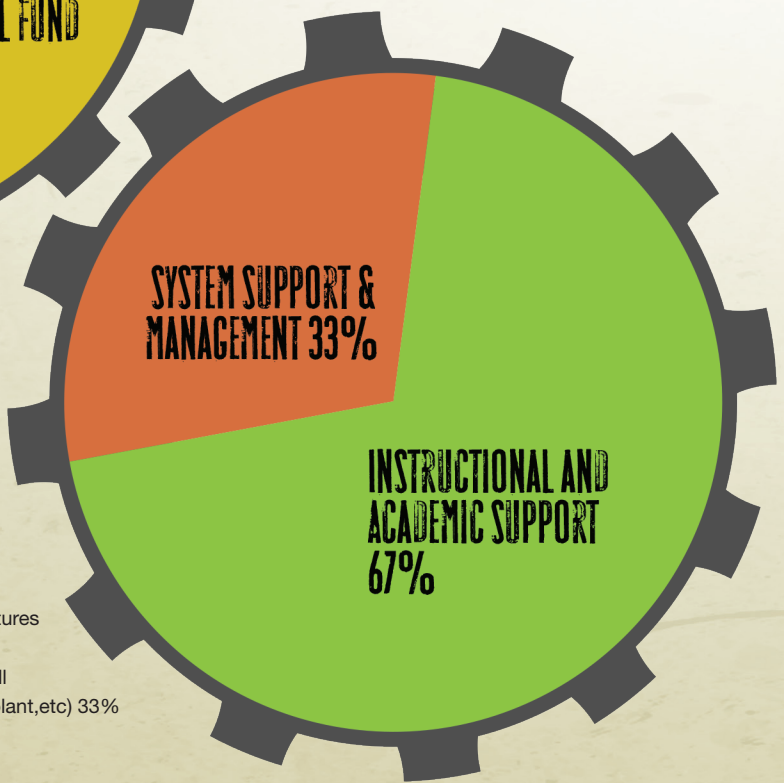
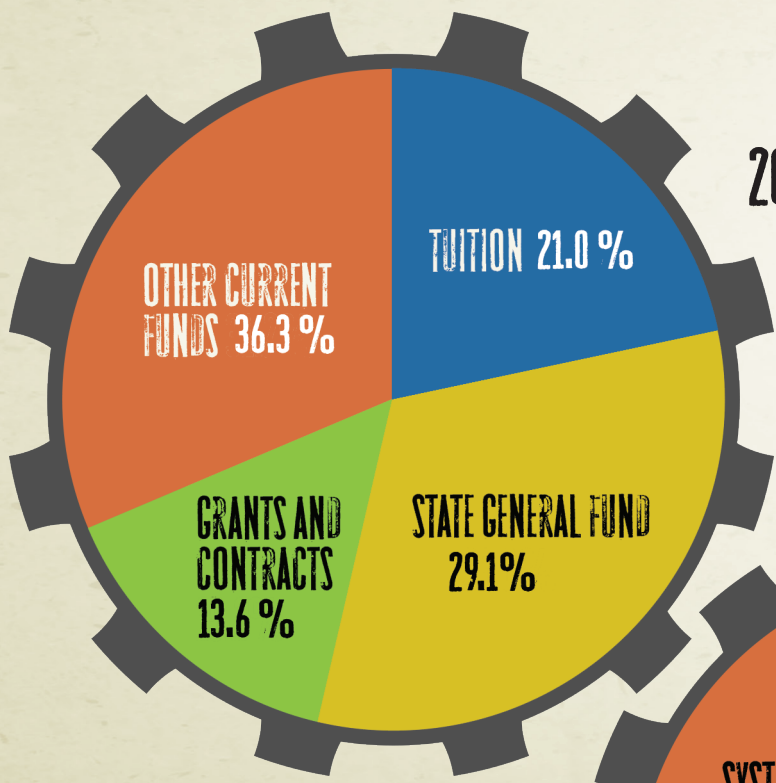
Further efforts have been made to increase collaboration on the technical side of things. Core Technology Services, the organization within university system that provides IT services, has elevated collaboration to a technical art form to create efficiencies of process and standardized data systems throughout the 11 colleges and universities. One major project was the email consolidation project that brought all 11 colleges and universities under the same email system, which made it both easier to manage and secure.

Additionally, a systemwide facilities master plan was initiated to give the Board a long-term tracking system that keeps one eye on the ground, and one eye toward the future, for the many facilities that exist on the campuses.

One notable milestone in collaboration and accountability was the creation of the strategic plan's "NDUS Dashboards," which serve as public repositories for data related to higher education in North Dakota. The Dashboards were launched to replace a yearly, static document on accountability measures with a far more dynamic, up-to-the-minute analytics tool you can view through your browser. Now, anyone can look up the most current information through Dashboards.

FINANCIAL SNAPSHOT

2016-2017 ANNUAL BUDGET



SALARY EXPENDITURES

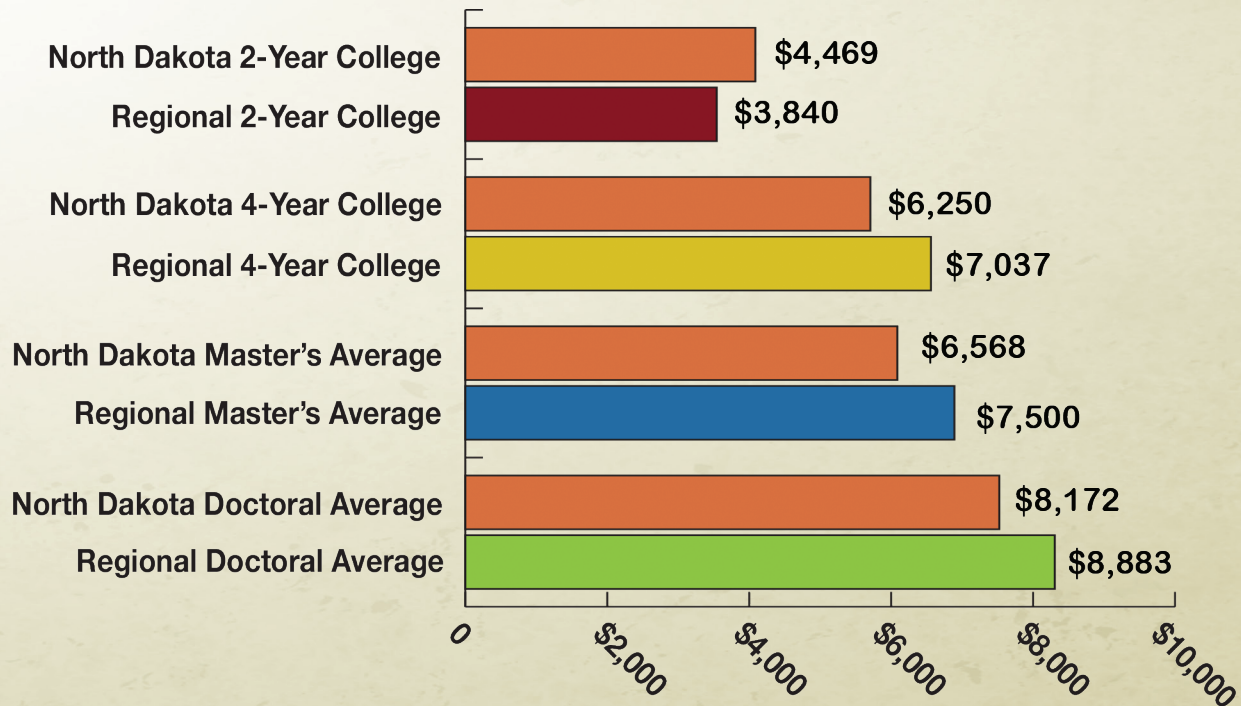
FY 2015 State and Tuition Salary Expenditures by Function.
 Instruction and Academic Support 67% All
 Other Support (eg. student, institutional, plant,etc) 33%

TUITION

SNAPSHOT



2016-17 ACADEMIC YEAR NORTH DAKOTA TUITION & FEES VS. REGIONAL AVERAGES



Data Sources: Tuition & Fees In Public Higher Education in the West 2016-17 Detailed Tuition and Fee Tables (All states except North Dakota and Minnesota); Minnesota rates from <http://www.ohe.state.mn.us/sPages/TuitionChart.cfm?State=MN&pageID=101>; North Dakota rates from 2016-17 Institutional Charges Schedule; U.S. Census Bureau, 2014 American Community Survey (ACS) One-Year Public Use Microdata Sample (PUMS) File (Provided by NCHEMS)

STUDYING STUDYING LONG-TERM NEEDS

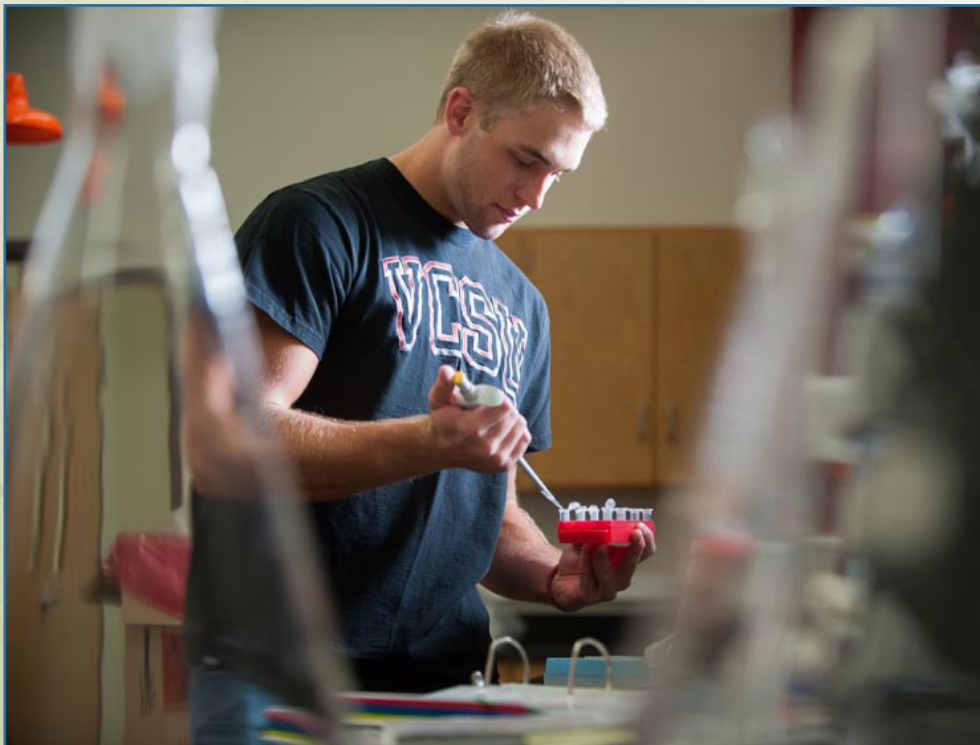


In addition to the strategic look the Board takes of the long-term of higher education in North Dakota, the Chancellor's Cabinet has undertaken six studies to help inform the university system on what needs to be done. Encompassing the topics of Governance, Cost Containment, Mission, Tuition and Fees, Shared Services, and Retention, these studies will seek out new ways to streamline the system and make it every bit as fast and flexible as our students and state need it to be.

The studies, listed below, will do just that through their outlined goals.

Administrative Cost: Using institution-by-institution data, the study provides context and guidance on systemwide administrative costs within higher education.

Governance: Operating successfully as a system for the state and as individual colleges and universities requires equal parts teamwork and autonomy. This study helps establish an appropriate balance of independence and governance for all 11 institutions to work toward their respective missions while also finding collaborative options for all.



Valley City State University student Max Kollar is conducting research with professor Hilde van Gijssel, Ph.D., on creating a bacterial mercury sensor using synthetic biology. Kollar's work is being done through VCSU's SOAR (Student Opportunities for Academic Research) program, which pairs a student with a faculty mentor for projects in research, artistry and creativity. VCSU complements this hands-on STEM program for undergraduates with the work of its Great Plains STEM Education Center, which provides professional development opportunities in STEM for K-12 teachers.

Mission: This study analyzes the current missions of the institutions within the system, as well as the economic, education and workforce needs of the state and its regions. That will determine if reallocation of missions, programs or resources should be considered in the future in order to provide programs that students want, where and when they need them.

Retention: A comprehensive analysis of retention rates, this study will help propel positive change throughout the system. In conjunction with Predictive Analytics Reporting and Starfish, data tools that aid student intervention rates, this study will help the system reach the Board's newly adopted goal of achieving 65 percent attainment by 2025.

Shared Services: Through this study focused on efficiencies, this look at Shared Services has already identified numerous opportunities within NDUS where campuses can work more closely together. Numerous areas of study were identified, including collaborative opportunities in accounting, finance, human resources and information technology, to name a few.

Tuition and Fees: By comparing tuition with historic and regional models, the NDUS will seek modifications that help embrace the concept of affordability to our students while also meeting workforce demands. This study pairs with the Board's plan to help deliver degrees that are the best value in the nation.



Williston State College's Petroleum Production program is adapting to meet the needs of an ever-changing industry. Likewise, WSC Foundation has adapted and is giving back through the Williams County Scholarship, which covers tuition and fees for four consecutive semesters for graduates of eight local high schools who enroll and attend as a Teton.

ENVISION 2030



In May 2016, the NDUS held an educational summit called Envision 2030 as an opportunity to provide leaders from throughout North Dakota to gather and discuss direction on higher education's path forward. After input from state and national leadership, nine breakout sessions were held that allowed a diverse group of stakeholders to discuss goals.

Those breakout sessions revolved around six topics – Agriculture, Energy, Health Care, Law, Manufacturing and Technology – related to business and industry. Four related directly to student success – Diversity, Liberal Arts & Humanities, Tomorrow's Student and The Whole Student. After extensive discussion from legislators, faculty, staff, business leaders, and students, goals were drafted for the short-term, mid-term and long-term.

Further review allowed those goals to be modified and analyzed alongside the Board's strategic needs. Ten Pillar discussions were held around the state to continue where those breakout sessions left off. In doing so, the conversation about higher education's future in North Dakota became more inclusive.

The Envision 2030 initiative is well under way. More formal reports are expected in 2017 on the Pillar discussions, how the goals can be realistically met and built into the Board's strategic plan.



More than 200 leaders committed to education from throughout the state met in May 2016 to determine the best way forward for higher education with the Envision 2030 summit. Gov. Jack Dalrymple set the tone of the event with a keynote speech on the direction of higher education in North Dakota.

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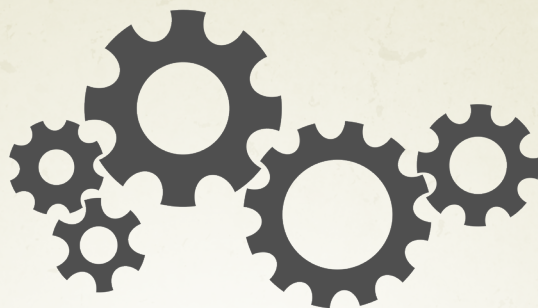
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