
AGENCY OVERVIEW**235 North Dakota State University****Date:** 12/07/2012**Time:** 13:45:56

Statutory Authority

ND Constitution Section 215, North Dakota Century Code Chapter 15-12.

Agency Description

North Dakota State University (NDSU) has in recent years solidified its position as one of the state's two flagship research universities. Perhaps more importantly in terms of its capacity to serve the state's interests, NDSU has become the first and remains the only North Dakota university ranked in the top tier of the Carnegie Commission on Higher Education and the ranks of the National Science Foundation's top 100 research universities (39th of those without a medical school), with over \$134.0 million in annual sponsored scholarly research activity reported for the most recent national survey. Those rankings have opened up a steady progression of new partnership and funding opportunities, with other leading universities, private entities, and federal agencies, never before possible for a North Dakota university.

Nonetheless, NDSU is proud of its tradition as the state's student focused, land-grant, research institution. It embraces that responsibility as a cornerstone of its future productivity, and the contributions it can increasingly provide to North Dakota and the state's residents, as well as the nation's current and future interests.

The University also hosts the largest and most diverse full-time student enrollment in the state. The University enjoys its location in a vibrant and growing area of the state, and with a growing number of major corporate partners has shared a responsibility for creation of an environment that compliments and blends the experiences of its students, faculty and staff with the community in which they live while attending NDSU.

Agency Mission Statement

With energy and momentum, North Dakota State University addresses the needs and aspirations of people in a changing world by building on our land-grant foundation.

Agency Performance Measures

The North Dakota University System publishes an annual accountability measures report each December, in response to the "flexibility with accountability" expectations of SB 2003 passed by the 2001 Legislative Assembly organized according to the five cornerstones of the Roundtable Report. Those annual reports provide a useful framework for focusing the assets of the University System on the high-priority needs of the state. The 2012 annual accountability measures report is scheduled for completion in December 2012, and will be the most current information available to the 2013 Legislative Assembly. This annual document serves as a primary tool for reporting on the agreed-upon North Dakota University System accountability measures and as a vehicle through which the system demonstrates its commitment to enhancing the economic and social vitality of North Dakota.

Major Accomplishments

1. Remained the state's first and only top ranked research university in the nation based on both the Carnegie Commission on Higher Education and the National Science Foundation, the two most recognized objective measures of university success.
2. Increased demand by prospective undergraduate students, in spite of efforts in recent years to slow enrollment growth and the necessitated elimination of most marketing budgets, has been reflected in new full time student enrollment records every year for the past 11 years, which in the fall of 2011 reached 14,399 students.
3. Continued improvement in the diversity of the NDSU student body, including in the fall of 2011 a record 1,282 international students representing 88 countries, and an increasing number of U.S. born students reflecting ethnic, cultural and geographical diversity.
4. Continued steadily increasing segments of NDSU's out-of-state-students are choosing to stay in North Dakota for their first job after graduation and contribute back above state averages to the tax base.
5. Set new records with record enrollment of graduate students reaching 2,376 in the fall of 2011.
6. Initiated efforts to improve the sense of welcome and support; retention and graduation rates; focus on students from historically under-represented populations, veterans, and others; and addressed high risk behaviors and other student issues.
7. Achieved a record 89 percent in student job placement in their major field of study. That success meets and exceeds many of the best universities in the nation.
8. Completed construction of the Beef Cattle Research Center and are nearing completion of the Research Greenhouse Complex's final phase. Both represent "game changing" state of the art facilities, which will draw national and international attention and resources.

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9. Continued the involvement with the Research and Technology Park and emerging technology firms that have created several thousand new jobs, including employment of over 100 NDSU undergraduate and graduate students. Received national and international awards, including the "2010 Outstanding Incubator Graduate of the Year."
10. Enhanced academic computing infrastructure including upgrading the computer fiber network, routing and switching equipment and extending the state's Internet2 connection through the Northern Tier Network.
11. Established NDSU as one of the most successful overall NCAA Division-I athletic programs in the nation, and in the 2011-12 season was tied for most of the year with the University of North Carolina at Chapel Hill and the University of Alabama for the top program in the nation. Early in 2012 the football team won the Division-I national championship, with most other sports going on to post-season league and NCAA championship play.

Future Critical Issues

If to generalize NDSU's future critical issues in one framework, it might be said that the University is a victim of its own success. NDSU's productivity and resulting visibility have led to a decade of unprecedented increases in demand by both undergraduate and graduate students, and an increasing ability to attract scholars and entrepreneurs eager to bring their research and business ideas to an environment that supports their success. The increasing attractiveness and national visibility of NDSU and the surrounding community, and the state's current economic strength, all contribute to a university with substantial and growing capacity to contribute more to the state and nation—but hamstrung by resources designed to support a comprehensive undergraduate institution with only limited research productivity, much less a leading role in statewide economic development. To put a finer point on the challenge, of all 11 North Dakota system institutions, NDSU is the lowest funded four year institution in terms of general fund dollars per student.

Nonetheless, the legislative requirement to replace the past state funding model with a new calculus bodes an exciting recognition and response to past funding inequities. NDSU recognizes the work and support both of the State Board of Higher Education and the state legislature to take corrective action regarding those inequities and enthusiastically looks forward to realizing its full potentials once they are resolved. Already recognized by Moody's Investor Service as one of the leading economic engines in North Dakota, NDSU has historically been a major contributor to the North Dakota economy, and over the past decade has emerging as one of the state's most likely source of future economic diversification, demographic correction, and general prosperity. NDSU's current and future capacity to address those state concerns, while generating a return on investment that has been calculated to approximately \$7 for every \$1 of state general fund support it receives, has become well documented and confirmed.

- Current resources available to support faculty and staffing of academic areas largely reflect the NDSU of a decade ago. Meeting student demand, while maintaining reasonable faculty to student ratios, has required an increasing utilization of non-tenured, part-time, and other staffing options. While those "bridging" approaches are adequate in some educational settings, they are not complimentary or commonly employed as an on-going approach in flagship land-grant Research University.
- A recent external risk analysis contracted by the State Board of Higher Education singled out NDSU, indicating that understaffing in academic through administrative segments of the University represents the majority of its highest risks.
- Academic support functions meeting the demands of a growing student body, and the more sophisticated academic support needs of an enhanced student profile, have by and large been left unaddressed over NDSU's past decade of development. Existing faculty and academic staff have been stretched beyond reason to meet student demands, and a widening gap is evident in terms of the University's capacity to provide even modestly reasonable levels of support.
- Campus facilities are increasingly falling behind on even minimal levels of maintenance and renovation. NDSU's ability to continue attracting the best students, faculty, staff and outside agencies that support the University's development, and contributions back to the state, are increasingly being inhibited. The situation also results in an inability to pursue measures that would provide important cost savings in the terms of safety, security, energy efficiency and cost containment available through federal facilities and administrative financial support. It is troubling that state physical assets, much less their potential productivity, are hampered by facility conditions that do not provide the opportunity for even minimal much less on-going, long term strategic planning of maintenance, renovation and replacement.

At the same time, NDSU has a responsibility to evaluate and purposefully consider opportunities for efficiencies across its academic programs and all other activities. The University, both individually and as part of the NDUS, cannot appropriately grow and excel on all possible fronts. It has over the past two years undergone a comprehensive strategic planning process to evaluate those areas in which it is best positioned to lead, support, or contribute to the success of its constituencies.

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Reciprocally, NDSU has also identified those areas in which it is not best positioned or cannot efficiently lead with excellence in addressing demands of the state and nation, and must support collaboration with or redirection of state necessities to NDUS institutions better positioned to meet such demands. NDSU's future strategic focus will be toward science, engineering and agricultural fields represented by STEM disciplines.

In fact, NDSU is already pursuing a number of measures designed to do the above through modest state-supported startup initiatives in a variety of STEM disciplines. That has been complimented by external campus master planning, and strategic study of the University's image and marketing.

At the same time, the University has also pursued a number of initiatives ranging from curriculum reviews, and restructuring of tuition, fees and course load expectations to purposeful collaboration with other state post secondary institutions. Just a few current examples of such collaboration include development of undergraduate and graduate programs with Minot State (social work and human development), UND (public health), and NDSCS (the "Pathways" program, and the establishment of a two-year liberal arts preparatory program in the Fargo area). NDSU has also proposed extension of engineering related efforts in transportation and logistics to the Dickinson State University campus.

Mirroring those examples of growing academic collaborations have been system wide support of academic support functions in system IT-based data storage, academic computing, communication, emergency response and support technologies that provide the backbone of many NDUS institutions and the support of their collective academic communities. y blending system resources with the campus-based expertise requisite to major research university environments, NDSU is in many areas best positioned to efficiently provide services to its sister institutions.

REQUEST SUMMARY235 North Dakota State University
Biennium: 2013-2015

Bill#: SB2003

Date: 12/07/2012

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Description	Expenditures 2009-2011 Biennium	Present Budget 2011-2013	Budget Request Change	Requested Budget 2013-2015 Biennium	Optional Budget Request
By Major Program					
North Dakota State University	146,698,091	217,336,396	(37,253,204)	180,083,192	0
Total Major Program	146,698,091	217,336,396	(37,253,204)	180,083,192	0
By Line Item					
Operating Expenses	110,087,802	125,015,305	18,892,310	143,907,615	0
Capital Assets	8,409,934	3,004,927	29,415,650	32,420,577	0
Capital Assets Carryover	3,889,215	7,646,222	(7,646,222)	0	0
Capital Projects - Non-State	232,115	43,402,185	(39,647,185)	3,755,000	0
Capital Projects Carryover - Non-State	19,687,139	38,267,757	(38,267,757)	0	0
Deferred Maintenance	4,391,886		0	0	0
Total Line Items	146,698,091	217,336,396	(37,253,204)	180,083,192	0
By Funding Source					
General Fund	125,006,117	135,666,454	40,661,738	176,328,192	0
Federal Funds					
Special Funds	21,691,974	81,669,942	(77,914,942)	3,755,000	0
Total Funding Source	146,698,091	217,336,396	(37,253,204)	180,083,192	0
Total FTE	562.71	495.21	16.00	511.21	0.00

REQUEST DETAIL235 North Dakota State University
Biennium: 2013-2015

Bill#: SB2003

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Description	Expenditures 2009-2011 Biennium	Present Budget 2011-2013	Budget Request Change	Requested Budget 2013-2015 Biennium	Optional Budget Request
Operating Expenses					
Operating Fees and Services	110,087,802	125,015,305	18,892,310	143,907,615	0
Total	110,087,802	125,015,305	18,892,310	143,907,615	0
Operating Expenses					
General Fund	108,315,082	125,015,305	18,892,310	143,907,615	0
Federal Funds	0	0	0	0	0
Special Funds	1,772,720	0	0	0	0
Total	110,087,802	125,015,305	18,892,310	143,907,615	0
Capital Assets					
Land and Buildings	8,409,934	0	29,600,000	29,600,000	0
Other Capital Payments	0	272,683	(272,683)	0	0
Extraordinary Repairs	0	2,732,244	88,333	2,820,577	0
Total	8,409,934	3,004,927	29,415,650	32,420,577	0
Capital Assets					
General Fund	8,409,934	3,004,927	29,415,650	32,420,577	0
Federal Funds	0	0	0	0	0
Special Funds	0	0	0	0	0
Total	8,409,934	3,004,927	29,415,650	32,420,577	0
Capital Assets Carryover					
Land and Buildings	3,889,215	7,646,222	(7,646,222)	0	0
Total	3,889,215	7,646,222	(7,646,222)	0	0
Capital Assets Carryover					
General Fund	3,889,215	7,646,222	(7,646,222)	0	0
Federal Funds	0	0	0	0	0
Special Funds	0	0	0	0	0
Total	3,889,215	7,646,222	(7,646,222)	0	0
Capital Projects - Non-State					
Land and Buildings	232,115	43,402,185	(39,647,185)	3,755,000	0
Total	232,115	43,402,185	(39,647,185)	3,755,000	0
Capital Projects - Non-State					
General Fund	0	0	0	0	0
Federal Funds	0	0	0	0	0

REQUEST DETAIL235 North Dakota State University
Biennium: 2013-2015

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Description	Expenditures 2009-2011 Biennium	Present Budget 2011-2013	Budget Request Change	Requested Budget 2013-2015 Biennium	Optional Budget Request
Special Funds	232,115	43,402,185	(39,647,185)	3,755,000	0
Total	232,115	43,402,185	(39,647,185)	3,755,000	0
Capital Projects Carryover - Non-State					
Land and Buildings	19,687,139	38,267,757	(38,267,757)	0	0
Total	19,687,139	38,267,757	(38,267,757)	0	0
Capital Projects Carryover - Non-State					
General Fund	0	0	0	0	0
Federal Funds	0	0	0	0	0
Special Funds	19,687,139	38,267,757	(38,267,757)	0	0
Total	19,687,139	38,267,757	(38,267,757)	0	0
Deferred Maintenance					
Extraordinary Repairs	4,391,886	0	0	0	0
Total	4,391,886	0	0	0	0
Deferred Maintenance					
General Fund	4,391,886	0	0	0	0
Federal Funds	0	0	0	0	0
Special Funds	0	0	0	0	0
Total	4,391,886	0	0	0	0
Funding Sources					
General Fund	125,006,117	135,666,454	40,661,738	176,328,192	0
Federal Funds	0	0	0	0	0
Special Funds	21,691,974	81,669,942	(77,914,942)	3,755,000	0
Total Funding Sources	146,698,091	217,336,396	(37,253,204)	180,083,192	0

CHANGE PACKAGE SUMMARY

235 North Dakota State University
Biennium: 2013-2015

Bill#: SB2003

Date: 12/07/2012

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Description	Priority	FTE	General Fund	Federal Funds	Special Funds	Total Funds
Base Budget Changes						
One Time Budget Changes						
A-B 1 Major Capital Projects		0.00	29,600,000	0	3,755,000	33,355,000
A-E 1 Remove One time Funding Spec Assess		0.00	(272,683)	0	0	(272,683)
A-E 2 Remove Capital Projects		0.00	0	0	(35,867,885)	(35,867,885)
Total One Time Budget Changes		0.00	29,327,317	0	(32,112,885)	(2,785,568)
Ongoing Budget Changes						
A-A 1 Cost to Continue		0.00	4,193,068	0	0	4,193,068
A-A 2 Inflationary Increases		0.00	3,062,367	0	0	3,062,367
A-A 20 2011-13 Adjusted FTE		495.21	0	0	0	0
A-A 3 Base Plus Incr for Extraord Repairs		0.00	2,820,577	0	0	2,820,577
A-A 4 State Priorities		15.00	11,451,875	0	0	11,451,875
A-A 5 Security and Emergency Preparedness		1.00	185,000	0	0	185,000
A-F 1 Remove Capital Assets Carryover		0.00	(7,646,222)	0	(38,267,757)	(45,913,979)
A-F 2 Remove Base Funding Extraord Repairs		0.00	(2,732,244)	0	0	(2,732,244)
A-F 3 Remove Addl Cap Proj Authority		0.00	0	0	(7,534,300)	(7,534,300)
Base Payroll Change		(495.21)	0	0	0	0
Total Ongoing Budget Changes		16.00	11,334,421	0	(45,802,057)	(34,467,636)
Total Base Budget Changes		16.00	40,661,738	0	(77,914,942)	(37,253,204)

BUDGET CHANGES NARRATIVE

235 North Dakota State University

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Change Group: A	Change Type: A	Change No: 1	Priority: 1
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Cost to Continue

AA1 Cost to Continue:

The cost to continue adjustment includes the following:

- **\$2,511,934** - Continuation of 12-13 legislatively funded salary increase @ 3%
- **\$1,681,134** – Continuation of 11-13 retirement increases, including **\$55,853** for underfunded increases in 11-13, due to calculation error

Change Group: A	Change Type: A	Change No: 2	Priority: 2
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Inflationary Increases

AA2 Inflationary Increases:

The inflationary increase adjustment includes the following:

- **\$2,421,596** - Operating inflation (excluding utilities) of 2.9% for FY14 and 2.4% for FY15, based on projections from Economy.Co
- **\$640,771** - Projected utility cost increases & buildings coming online in 13-15, based on recent actual and projected cost increases. Increasing demand with existing labs and classrooms, aging plant equipment along with a modest increase to capture fluctuations in student enrollment demand are contributing factors to the utility cost increase request.

Change Group: A	Change Type: A	Change No: 3	Priority: 3
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Base Plus Incr for Extraord Repairs

AA3 Base Plus Incr for Extraord Repairs:

Currently, the campuses and Forest Service receive \$11,169,089 in base funding for extraordinary repairs, which is equivalent to an overall average of 14.7% of the OMB building and infrastructure formulas. In the IBARS process, we are required to remove base funding for extraordinary repairs (see change code **AF2**). The 2013-15 NDUS budget request includes a total increase of \$281,600 to provide increased base funding for facilities and infrastructure repairs and maintenance, equivalent to 15% of OMB building and infrastructure formulas. The AA3 budget change code includes restoring the base amount removed in change code AF2, as well as the requested increase to reach 15% of OMB formula. **NDSU's portion of the request is \$2,820,577. Base funding currently received in 2011-13 is \$2,732,244, and the requested increase in base funding for extraordinary repairs for 2013-15 is \$88,333.**

A prioritized listing of extraordinary repair projects is included in the extraordinary repairs subschedule (because of IBAR's requirement to do so), however these priorities can very easily change, due to unforeseen circumstances and emergencies. The priority listing is only a best estimate at this time. The actual use of these dollars will be left to the discretion of the institutions (with appropriate approvals by the SBHE where required for projects greater than \$250,000). All NDUS entities will be given the authority to allocate dollars to repair and replacement priorities for regular repair and replacement projects as determined by each entity.

NDSU's prioritized list is as follows:

- 1). Building Exterior: roof and window replacement \$1,000,000
- 2). Mechanical/Electrical Upgrades: chiller replacements and electrical service \$500,000

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- 3). Utilities and Infrastructure: steam, sewer and water lines \$800,000
- 4). Structural Repair: foundation support improvements \$100,000
- 5). Paving and Area lighting: sidewalks and lighting \$100,000
- 6). Misc Small Projects: classroom upgrades \$220,577
- 7). Interior Finishes: walls, flooring, ceiling improvements \$100,000

Change Group: A	Change Type: A	Change No: 4	Priority: 4
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State Priorities

AA4 State Priorities:

Included in the SBHE's approved biennial budget request is a component for base funding to support initiatives tied to state needs/priorities, based on the following criteria:

A. 10% of initiative must be funded by campus through demonstrated campus-specific efficiencies, which may not adversely affect the following areas:

- 1. Student Success
- 2. Campus mission, including essential academic programs
- 3. Essential student services
- 4. Repairs and maintenance

B. Initiatives must address the following:

- 1. ND workforce needs
- 2. Demonstrated student demand
- 3. Demonstrated business need
- 4. Is consistent with SBHE strategic goals
- 5. Is compatible with campus mission, strategic plan, etc.

C. In addition, priority will be given to requests that meet one of the following:

- 1. Addresses one of the high potential program areas identified in Goal 3 of the SBHE Strategic Plan--Agriculture, Energy, Health Care, Life Sciences and Advanced Technology.
- 2. Addresses one of the Department of Commerce 5 targeted industries for growth--Advanced Manufacturing, Energy, Value-Added Agriculture, Technology-Based Business and Tourism.
- 3. Collaboration/partnerships (internal or external)

D. No infrastructure projects (building or remodeling) will be considered

The following initiatives are included in this budget request:

Priority 1

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Library collaboration with UND

- Total cost of initiative \$280,845
- 10% match \$42,166
- Net requested for initiative \$238,679

Description

This is a joint, collaborative initiative between NDSU and UND Libraries to purchase shared electronic access to Nature Publishing Group titles in Health Care/Life Sciences and Advanced Technologies.

Supports programs such as Materials and Nanotechnology/Coatings & Polymeric Materials at NDSU and the School of Medicine & Health Sciences at UND. Economic development across the state benefits from the impact of these programs, and shared access to these journals will enhance the classroom and research efforts of both students and faculty at NDSU and UND.

For example, NDSU users requested 2,531 articles from January 1-December 31, 2011, from the desired titles list. Users requesting articles from these titles either did without the articles, accessed them through Interlibrary Loan at a cost to NDSU Libraries, or purchased the articles themselves. Twenty-five percent (25%) of the requests were for articles published in two of the titles, Nature Material (10.83%) and Oncogene (14.26%). On average, NDSU paid \$18.00 per article from Nature Material and \$32.00 per article from Oncogene. Subscriptions to Nature titles have been requested by faculty in each of the Physics, Polymers & Coatings, Nursing, and Pharmacy Departments.

Supports faculty teaching and research at NDSU and UND enhances classroom assignments and research leading to completion of baccalaureate, graduate and professional degrees. Joint purchase of needed databases allows NDSU and UND to purchase at half the cost each would otherwise pay purchasing alone. Enhances quality of academic programs by providing resources necessary for students in completing their degrees, and in facilitating student and faculty production of quality research. Accommodates students and faculty both on and off campuses by providing online full text journal resources available at all times.

This initiative will provide support for educational activity in the following fields at NDSU and UND: Chemistry, Biotechnology, Coatings and Polymeric Materials, Medicine, and Pharmacy.

Shared electronic access to these research journals will result not only in reduced annual institutional subscriptions costs in support of NDSU and UND's Health Care and Life Sciences & Advanced Technology programs, but will reduce the costs students and faculty incur for per article purchases of non-subscribed journal content.

NDSU and UND will share access to the attached list of Nature Publishing Group journal titles. They will share the total cost of \$126,778, which includes 5% inflation to sustain current subscriptions.

Priority 2

Senior Global Ambassadors

- Total cost of initiative \$200,000
- 10% match \$20,000
- Net requested for initiative \$180,000

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Description

Develop 20 in-country Senior Global Ambassador positions (NDSU alumni or previous affiliation) in key regions and countries to promote NDSU as a college option and recruit students through normal/standard admission processes, strengthen NDSU's global presence and standing, and build collaborations with local industry and businesses to provide internships and international employment opportunities for students. U.S. citizen students will be able to access postgraduate international opportunities and potential new international markets resulting in job creation in North Dakota.

International internships/networking opportunities/employment provide NDSU students with opportunities for global connections and experience and position them more effectively for career options within the state of North Dakota, regionally, nationally and internationally.

Support depopulation concern through increased student enrollment, improve alumni and student satisfaction with academic preparation and acquisition of skills necessary to succeed, and increase employer satisfaction through globally prepared graduates.

NDSU's mission addresses the needs and aspirations of those we serve to thrive and succeed in an ever changing world with a vision to be identified as a global, contemporary land-grant institution and values that include a commitment to diversity and serving the global community.

This initiative intends to leverage historical patterns of international student pursuit of advanced degrees in Science, Technology, Engineering and Mathematics (STEM fields) areas of graduate study drastically underrepresented by U.S. students, thereby sustaining academic programs that provide timely research as well as skilled workers in manufacturing, energy, and value-added agriculture critical to the North Dakota economy.

NDSU will develop international relationships in targeted regions with: international high schools and post-secondary institutions for undergraduate and graduate recruitment; international companies for internship and employment opportunities for NDSU students, graduates and alumni; industry and educational institutions for collaborative research and projects.

Priority 3

Transportation and Logistics Initiative for Sustainable Energy Development

- Total cost of initiative \$482,500
- 10% match \$48,250
- Additional supplemental match \$40,000
- Net request for initiative \$394,250
- FTE 2.5

Description

This initiative envisions the establishment of transportation and logistics outreach, education, and research programs in western North Dakota. In collaboration with Dickinson State University, the Upper Great Plains Transportation Institute of North Dakota State University will develop and offer programs and services sorely needed in western North Dakota, including the establishment of technical training programs in transportation and logistics for the oil, gas, and manufacturing industries and local governments being impacted by oil development. The establishment of undergraduate certificates and minors are also potentially envisioned, with many of the new NDSU courses being offered on-line or in compressed on-site format. The same courses could be used for NDSU and potential DSU programs.

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Logistics, supply chain management, and transportation planning are critically important for sustained oil and gas production and the development of tertiary enterprises that supply and serve these basic industries. According to most forecasts, oil production is likely to continue in western North Dakota for the foreseeable future, with rapid growth occurring during the next 5 to 10 years. This extensive growth is fueling demands for workers in oil, gas, and ancillary industries, including the need for transportation and logistics experts. These needs are most evident in the trucking sector, where there are pressing needs for fleet managers and transportation specialists. Additional workforce demands are manifest in companies that supply the oil and gas industries. In many areas, specialists are needed to plan and manage supply chains and optimize logistical networks. Scheduling, routing, the location of facilities and inventory management are critical issues that impact economic efficiency and the pace of growth. Long-term changes in agriculture, the development of biofuels industries, and growth in the manufacturing sector are creating similar demands in other segments of the economy.

Initial demand and strong interests has been expressed by the advisory board of the Strom Center at DSU, including manufacturing in western North Dakota, city officials, and energy industry personnel.

Collaboration/partnerships (internal or external) Internal: NDSU departments participating in the Transportation & Logistics Program. External: Dickinson State University

Initiative efficiencies stem from several sources. (1) An extensive catalogue of transportation and logistics courses (roughly 60 credit hours) have already been developed and are being offered at NDSU. It would cost roughly \$400,000 to independently develop these courses or their equivalent at Dickinson State University, since DSU currently has no transportation and logistics faculty or courses. (2) The same courses could be used for DSU and NDSU online programs, thus contributing to the estimated cost savings. (3) The location of UGPTI faculty and outreach personnel in Dickinson would save roughly \$40,000 per year in travel from Fargo to western North Dakota.

If the initiative is established, supplemental funding will be requested from the oil and gas industries, who will be prime beneficiaries of the new program. Grant funding may also be possible from the U.S. Department of Energy, as well as from state agencies such as Department of Commerce, with missions in workforce development and the improvement of infrastructure in western North Dakota.

Priority 4

Research Compliance Management

- Total cost of initiative \$546,600
- 10% match \$54,660
- Net requested for initiative \$491,940
- FTE 1.5

Description

Federal regulations require compliance review and management for research projects, including but not limited to those involving human subjects, animals and biohazards. NDSU, as a top-ranked Carnegie research institution, has ongoing quality improvement of policies and procedures to manage numerous compliance processes. The proposed initiative would transform many current labor-and paper-intensive processes to an efficient paperless web-based process, while enhancing record access and security for faculty and student researchers, as well as compliance staff and reviewers. In addition, the proposed initiative would centralize and enhance export control reviews and determinations.

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Time and resources saved by streamlining the compliance management and review processes may be focused on pursuing additional research endeavors and potentially create new funding opportunities and partners due to recognition of enhanced compliance capabilities. Additional funding and opportunities for collaborations or new sources of funding could advance economic development efforts.

Graduate students whose research requires compliance review would benefit from the electronic submission/review process, and enhanced access to compliance records, allowing them to focus on research endeavors. In addition, the U.S. Citizenship and Immigration Services Form I-129 nonimmigrant visa petition that is required for international students to be hired by academic departments contains export control determinations that need to be addressed prior to H-1B visas being granted. This initiative would greatly enhance and expedite the current system providing quicker assistance to international student inquiries, and provide quality control of data to the U.S. Department of Commerce and the U.S. Department of State.

Significant efficiencies would be attained in regards to faculty time spent on compliance protocols and management, as well as for RCATT/SPA in the campus-wide administration of these compliance review functions. Faculty researchers are increasingly interested in the capability to electronically route and submit protocols for review, monitor protocol status, and access protocols for all their projects in one online location. In addition, online access to the most recent currently approved documents greatly facilitates compliance with federal requirements.

While the current paper-based processes do meet compliance standards, they are highly inefficient in terms of time and resources. Compliance functions would benefit from this proposal with the streamlining of multiple manual and redundant processes involved in managing the submission, review, communication and record-keeping tasks. Protocol log-in, administrative screening, review assignment, communications with PI and reviewers, and approval documentation would be accomplished in a single web-based environment, rather than use of multiple programs and equipment: (Excel, email, Word, Blackboard, scanner, copier, and printer). The savings realized in use of paper, storage space, copiers, and printers alone would be significant. The storage space for a single committee (IRB, for example) currently occupies some 50 linear feet, which would gradually be eliminated upon implementation of an electronic system.

Streamlining these manual steps would allow compliance staff and reviewers to focus on key issues of compliance review, and better address other rapidly emerging research compliance issues. Today's fast-paced research environment demands more accessible, secure and auditable records and processes to achieve stringent federal standards, and maintain competitiveness for research funding.

This initiative would provide valuable infrastructure to support the NDSU research mission, as a top Carnegie-ranked research institution. By enhancing support for critical compliance functions, our researchers gain competitive funding advantages. Streamlining the compliance review process improves access, security and quality of records, allowing faculty and student researchers to be more productive conducting the research.

The initiative would provide efficiencies and enhanced compliance, access and security for compliance management and reviews required in many research projects across the entire University. One significant example is in the College of Agriculture where two-thirds of all active animal research projects are currently under management. The time and effort saved in streamlining the process of review and management of compliance matters would allow these researchers to focus more attention on vital research activities, while enhancing NDSU's compliance with federal requirements for humane animal care and use in research.

This initiative would strengthen internal collaborative efforts with those faculty and students conducting research involving human and animal subjects, human specimens, and recombinant DNA technology. Through streamlining the management and process (protocol submission, review and storage) compliance reviewers, staff and faculty can work together to better focus their time and attention on more critical aspects of compliance to ensure protection of subjects and the environment. Similar collaborations would presumably result in the areas of animal care and biosafety. Specifically in regards to dedicated centralized activity for compliance matters in the export control arena, a broad cooperative effort is required. This would include a network of internal offices at NDSU, including the Office of General Counsel, Admissions, Technology Transfer, Sponsored Programs, Purchasing, Human Resources, International Programs, IT security, Safety, Finance and numerous academic departments. This initiative could also enable NDSU to enhance external collaborations with the ND Trade Office Director of Global Business Development on outreach efforts.

Priority 5

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Energy Specialist

- Total cost of initiative \$163,340
- 10% match \$16,334
- Net requested for initiative \$147,006
- FTE 1.0

Description

In continued efforts to maximize efficiencies in utilities, NDSU is requesting a new position to provide support for utilities efficiencies across campus and provide support to student groups. If funded, this position would provide support for, but not limited to, the following:

Student awareness and involvement in energy conservation is a positive and important part of the overall university's utility savings. The U.S. Green Building Council (USGBC) student group participated in the Campus Conservation Nationals contest which is committed to engage, educate, empower and motivate students to conserve utility consumption in their residences. While the group has a faculty advisor, the energy specialist would provide additional support.

The students in Renaissance Hall requested and received funding from a Student Technology Fee Grant. The funds will use technology for measuring, displaying and predicting the energy efficiency of buildings, specifically Renaissance Hall. Students will benefit from access to technology which improves their ability to design, construct and manage energy efficient buildings. Although faculty advisors are helping in this area this energy specialist would provide additional support.

In June 2011 NDSU entered into a performance contract that addresses water conservation and building air infiltration on half of the buildings along with major controls, lighting, steam trap and other energy conservations on 13 buildings. While energy conservation has been an ongoing effort, this is the first comprehensive major energy project for NDSU. To insure the expected savings, an energy specialist position is important in order to monitor the consumption and oversee the occupancy schedules. The contract installs new equipment and includes labor to address the energy projects identified and includes the initial verifications for savings as per ND Century Code; the current project underway includes 733,176 sq ft. After the initial verification period is completed under contract, this position would verify the energy savings through monitoring and calibration as outlined in the contract.

Due to current lack of resources, Facilities Management does not have a Preventive Maintenance program for steam traps and air handler damper controls. This position would be responsible for creating and implementing that program, which will result in energy savings based on the current contract projected savings for the steam traps, is approximately \$27,000 per year, this position would be able to expand this monitoring to include more buildings which could result in estimated yearly savings of approximately \$70,000.

According to the Department of Energy not calibrating controls system once installed can cost the campus \$.30/ square foot. The performance contract project is expected to be completed during 2012, and it will be important to set up a preventive maintenance plan for the new controls. Some of this work will be completed by existing HVAC trades staff but the program will be set up, monitored and implemented by this position. If this request is not approved the comprehensive preventive maintenance plan will not be implemented and the expected savings might not be realized due to a lack of monitoring and timely maintenance and repairs.

The utility savings will be monitored and documented, which should meet the required 10% efficiency needed by the campus.

This request is consistent with SBHE and NDSU's strategic goals for efficiencies, conservation and student involvement. If this request is approved, the position will be created, posted and filled. The savings should be realized within the first year (possibly months) of hire. At this time the estimated savings is difficult to calculate, however with greater efficiency through utilities it is expected that more than 10% could be realized during the 2013-15 biennium with the addition of this position.

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Priority 6

Genomics and Bioinformatics Linking

- Total cost of initiative \$10,000,000
- 10% match not required by SBHE
- Net requested for initiative \$10,000,000
- FTE 10.0

Description

This project would immediately catalyze the cross-discipline linking of genomics and bioinformatics between the NDSU Colleges of Agriculture, Food Systems & Natural Resources; Pharmacy, Nursing & Allied Sciences; Science & Mathematics, and; Engineering & Architecture which was anticipated to develop in the future but on a much slower timeline. This initiative addresses program areas of agriculture, health care, life sciences and advanced technology.

Estimated costs for this initiative include equipment and furnishings, faculty salary and start up funds, student and postdoctoral stipends, graduate student tuition, undergraduate research scholarships in life sciences, lease of facilities located in NDSU Research and Technology Park.

Preliminary budget estimate for this initiative:

- \$2M for startup
- \$2M for equipment, furnishings and on-going operations
- \$2M for 10 faculty lines
- \$1M for hard student and postdoctoral stipends
- \$1M for graduate student tuition
- \$1M on undergraduate research scholarships in life sciences
- \$1M for fit-up and long-term facilities leases in the NDSU Research and Technology Park (vacant shell facility is already available)

Change Group: A	Change Type: A	Change No: 5	Priority: 5
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Security and Emergency Preparedness

AA5 Security, Emergency Preparedness (\$185,000 1FTE at NDSU):

This request is intended to assist the NDUS in meeting federal and state and/or gubernatorial directives and to protect the lives of students, employees and the public as it relates to emergency preparedness planning and campus security.

To facilitate appropriate emergency preparedness planning on each campus, which must be tailored to each individual campus and local and regional law enforcement and emergency services, but coordinated systemwide, the budget request includes funding to support an efficient systemwide approach, where a small team of employees would provide both system and individual campus assistance. The 2013-15 request includes a total of **\$555,000 (\$185,000 each) for 3.0 new FTE positions, one each at**

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UND, NDSU and the NDUS office. These three employees, in addition to limited current campus resources, would serve the entire system. In addition, **\$50,000** is included for a systemwide train-the-trainer approach for planning and readiness.

The NDUS currently has over 37,000 headcount students who attend class on campus; about 12,000 residential students living in campus housing; approximately 12,000 full and part-time headcount employees, necessitating adequate 24x7 full-time campus security at each NDUS institution to ensure a safe and secure environment in which to study, live and work.

Campus security staff fulfill many critical roles, including: 1.) Building Security (building lock/unlock, access control, key control, central alarm and surveillance monitoring); 2.) Public Safety (fire prevention education, fire inspection, emergency medical services, sexual assault and theft prevention); 3.) Communications (call intake – 911, dispatching services); 4.) Crime Investigation; 5.) Special Security (crowd control, high profile speakers); 6.) Parking Regulation and Control; 7.) Response

Several factors influence number of security staff: 1.) Student population; 2.) Age and gender profile; 3.) Location of institution; 4.) Number of buildings both on and off campus; 5.) Extent of on-campus housing; 6.) Days/times of classes; 7.) Campus size; 8.) Institutional and public expectations.

Given the above need and variables, the budget request includes the following total number of security staff (some of which are currently funded through allocation of campus resources): LRSC, MaSU, VCSU, DCB - 3 @ 24x7; BSC, WSC, NDSCS, DSU, MiSU - 6 @ 24x7. UND and NDSU currently provide limited 24x7 coverage, thus no additional campus security funding is requested for UND and NDSU.

Given the amount of current campus resources dedicated to this effort and in consideration of three eight-hour shifts to achieve 24x7 coverage, **the net 2013-15 state funding request for nine campuses (except UND and NDSU) is \$4,905,687, and 29.75 new FTE. as follows: BSC \$671,900 (4 FTE); LRSC \$450,000 (3 FTE); WSC \$785,000 (5 FTE); NDSCS \$428,948 (1.75 FTE); DSU \$673,870 (4 FTE); MaSU \$450,000 (3 FTE); MiSU \$545,969 (3 FTE); VCSU \$450,000 (3 FTE); DCB \$450,000 (3 FTE).**

Change Group: A	Change Type: A	Change No: 20	Priority: 1
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2011-13 Adjusted FTE

Per HB1003 (Section 13), "the state board of higher education may adjust full-time equivalent positions as needed, subject to the availability of funds, for institutions and entities under its control. The university system shall report any adjustments to the office of management and budget before the submission of the 2013-15 biennium budget request." A report was run as of 4-30-2012 to determine the total "appropriated fe" as of that date. Consistent with the methodology used in previous biennia, the current year's annual budgets were used to estimate the amount supported by general fund only, based on the percentage of budgeted general fund revenue to total appropriated revenue.

Significant changes in FTE occurred between FY11 and FY12. In developing the annual budget for FY12, the NDUS mandated that all continuing education (DCE) activity move from local funding to appropriated funding. This directive was designed to ensure that all system institutions account for instructional activity in a consistent manner. As a result of this change, the appropriated funds now include the DCE revenue, and as such, the general fund percentage of total appropriated funds (including DCE) has decreased. When that reduced percentage is applied to total appropriated FTE, it results in a decrease in the estimated FTE that are supported by the general fund.

Change Group: A	Change Type: B	Change No: 1	Priority: 1
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Major Capital Projects

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AB1 Major Capital Projects:

All details of the major capital projects will be included in the Capital Assets subschedule.

Change Group: A	Change Type: E	Change No: 1	Priority: 1
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Remove One time Funding Spec Assess

AE1 Remove One time Funding for Special Assessments: (BSC, UND, NDSU, NDSCS, MaSU, VCSU)

To remove a total of \$819,357, which was appropriated to pay off special assessments at the following campuses in the 2011-13 biennium (HB1003-Section 2): BSC-\$257,933; UND-\$97,146; **NDSU-\$272,683**; NDSCS-\$58,666; MaSU-\$84,513; VCSU-\$48,416.

Change Group: A	Change Type: E	Change No: 2	Priority: 2
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Remove Capital Projects

AE2 Remove Capital Projects:

To remove **\$35,867,885** funding authorized for capital projects for the 2011-13 biennium per HB1003-Section 2, (**\$35,867,885 OF**). Additional other fund authority, authorized by the Budget Section, is adjusted in change code **AF3**. Campuses will report on the status of the individual projects to the appropriations committees of the sixty-third legislative assembly, as required.

The total appropriation authority to be removed is as follows, and all are sourced by Other Funds:

IT infrastructure to be completed in phases \$2,000,000

Bison Sports Arena to be complete in 3 phases \$29,100,000

Indoor practice facility \$5,000,000

For a total of \$36,100,000 less \$232,115 used in 09-11 as allowed per the emergency clause (HB1003-Section11) for a net amount of \$35,867,885.

Change Group: A	Change Type: F	Change No: 1	Priority: 1
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Remove Capital Assets Carryover

AF1 Remove Capital Assets Carryover:

To remove **\$45,913,979** capital assets carryover from 2009-11 (\$7,646,222 GF and \$38,267,757 OF):

- Extraordinary repairs \$16,456 GF
- Deferred maintenance \$963,931 GF
- Minard Hall \$6,459,369 GF; \$424,666 OF
- Telecomm Project \$206,466 GF

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- West Dining \$2,064,365 OF
- Niskanen Apts \$6,217,792 OF
- Research 1 Addition \$29,002,640 OF
- Geoscience Renovation \$558,294 OF

Change Group: A	Change Type: F	Change No: 2	Priority: 2
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Remove Base Funding Extraord Repairs

AF2 Remove Base Funding for Extraord Repairs:

To remove **\$2,732,244** base funding for extraordinary repairs. This base amount, plus an increase to the base, is being requested for 2013-15, and is reflected in **change code AA3**. **The status of this funding to-date is:**

During FY12, the amount expended was \$1,166,462, leaving a remaining balance of \$1,565,782.

Detail of the remaining amount, by broad category, is as follows:

- Building Exterior \$623,494
- Mechanical/Electrical Upgrades \$308,364
- Paving & Area Lighting \$35,025
- Utilities/Infrastructure \$320,000
- Misc Small Projects < \$50k \$278,899

Change Group: A	Change Type: F	Change No: 3	Priority: 3
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Remove Addl Cap Proj Authority

AF3 Remove Additional Capital Projects Authority Authorized in 2011-13:

To remove additional **other fund** authority, authorized by the Budget Section during FY12:

NDSU \$7,534,300 (Indoor Track-\$500,000; Minard Hall-\$4,874,300; Gate City Bank Auditorium-\$410,000; Batcheller Building-\$1,750,000)

Change Group: R	Change Type: A	Change No: 1	Priority:
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Remove Initial Funding Request

Removes the initial funding request for NDSU's portion (if any) of the following budget request items:

- Cost to Continue
- Inflationary Increases
- Increased Extraordinary Repairs
- State Priorities
- Security and Emergency Preparedness

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- Student Mental Health
- Statewide Nursing Consortium
- Healthcare Workforce Initiative

Change Group: R	Change Type: A	Change No: 2	Priority:
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Formula Funding Equalization

The Executive Budget includes funding to move the higher education institutions to a cost-based, per completed student credit hour (SCH) funding model. This adjustment equalizes current funding levels to the highest existing per SCH within each tier of institutions. Total funding provided equals \$21,090,261. Three institutions now at the highest level (University of North Dakota, Minot State University, and Williston State College) do not receive additional funding.

Equalized per Adjusted SCH amounts are as follows:

- Two-year Colleges - \$104.88
- Four-year Comprehensive Universities - \$98.75
- Research Institutions - \$66.35

NDSU's equalization payment is \$6,431,392.

Change Group: R	Change Type: A	Change No: 3	Priority:
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Formula Funding

The Executive Budget includes funding to move the higher education institutions to a cost-based, per completed student credit hour (SCH) funding model. After funding levels were equalized, an inflationary factor of 6.15% per year was added for:

- Cost to continue adjustments
 - Salary and retirement contributions
 - Maintaining extraordinary repair levels at 15% of the OMB formula
 - Medical School class size increases
- 4% annual salary increases
- Health insurance premium increase
- State share of increased retirement contributions
- Operating expense inflation
- Utility cost increases

A factor of 2.5% was added to the non-research institutions for the Student Mental Health and Campus Security initiatives. Additionally, factor of .08% was added to the research institutions to fund the Statewide Nursing Consortium.

The final per Adjusted SCH payment amounts recommended in the Executive Budget are as follows:

- Two-year Colleges - \$117.60
- Four-year Comprehensive Universities - \$110.80
- Research Institutions - \$72.70

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NDSU's formula payment is \$12,841,542.

Change Group: R	Change Type: B	Change No: 1	Priority:
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Capital Project Recommendation

As approved by the SBHE on September 26, 2012, Provides \$35,404,356 in special fund authority for reauthorization of the Sanford Health Athletic Complex (formerly Bison Sports Arena) to be funded entirely through private funds.