67TH NORTH DAKOTA LEGISLATIVE ASSEMBLY (2021)

2021-23 Biennium Budget Considerations

UND Caucus Information (Current as of March 2021)

Impact of 2021-23 Needs-Based Budget on UND

Needs-based budget submitted by the State Board of Higher Education for legislative consideration includes the following:

- · 2019-21 base funding of:
 - \$148,332,155 (less \$1,730,595*) or \$146,601,560 for UND.
 - \$64,883,502 (plus \$2,142,502*) or \$67,026,004 for UND School of Medicine & Health Sciences.

*Based on total student credit hours in the funding formula.

- The State's share of 3% salary increases on appropriated salaries which equate to \$4,006,364 (UND) and \$1,435,634 (SMHS).
- Includes 2% annual tuition increases to cover the studentfunded, tuition portion of the 3% salary increases.

Optional budget requests submitted by the SBHE for legislative consideration include the following:

- The students' share of the salary increases of \$4,350,356 (UND) and \$881,428 (SMHS). If funded, this likely would be in lieu of the tuition increases noted in the needs-based budget.
- Funding the Dakota Nursing Consortium from the NDUS Office.
 - Funding has traditionally come from UND's operating budget but is used to support all the nursing programs in the State.
 - The \$1,356,000 funding request would come from a NDUS appropriation rather than UND's funding formula.
 - If passed, it results in a budget increase to UND of the same amount.
- NDUS is requesting \$13.2M system-wide for a formula rate increase of 2.5% that could be used for student services, workforce initiatives, new program start-ups, Title IX implementation costs and other institutional needs. The impact on UND and SMHS is additional funding of \$5,073,785.

What's Not Covered for UND in the Needs-Based Budget?

- The current proposed funding for salary increases (\$10,673,782) does not include funding for the necessary increases in associated fringe benefits, such as the 7.65% increase in FICA and the increase in retirement contributions.
 - Since fringe benefits are not included in the proposed base, 100% of the increased expenses would be funded internally through reallocation or as an additional tuition increase.
 - The FICA impact on UND and SMHS is estimated to be \$816,544 for the biennium.
 - The retirement contribution increase is estimated to be \$1,280,854 (12% average) for the biennium.

NOTE: This issue has been addressed in the SB2003.

- Due to COVID-19 and other factors, UND budgeted for a \$20.9M reduction in revenue for FY21.
 - UND reduced spending by \$13.2M and plans to use \$7.7M in reserves to cover the budget deficient in FY21.
 - If the Executive recommendation of a 7.5% reduction in state appropriations for higher education in FY22 passes, UND would be forced to cut another \$7.4M from its budget per year.



Impact of 2021-23 Engrossed SB2003

Engrossed SB2003 budget endorsed by the State Board of Higher Education for legislative consideration includes the following:

- 2019-21 base funding of:
 - \$148,332,155 (less \$1,730,595*) or \$146,601,560 for UND.
 - \$64,883,502 (plus \$2,142,502*) or \$67,026,004 for UND School of Medicine & Health Sciences.

*Based on total student credit hours in the funding formula.

- The State's share of 2% salary increases on appropriated salaries which equate to \$2,153,457 (UND) and \$1,156,033 (SMHS).
- Includes approximately 1.7% annual tuition increases to cover the student-funded, tuition portion of the 2% salary, fringe and health insurance increases.

Optional budget requests engrossed in SB2003 include the following:

- Funding the Dakota Nursing Consortium from the NDUS Office.
 - Funding has traditionally come from UND's operating budget but is used to support all the nursing programs in the State.
 - The \$1,356,000 funding request would come from a NDUS appropriation rather than UND's funding formula.
 - If passed, it results in a budget increase to UND of the same amount.
- Increase of \$19,824 (UND) and \$8,175 (SMHS) for State's share of the health insurance increase of .1% or \$2.03 per month per employee.
- \$2,253,590 increase due to a change in the funding formula resulting from an increase in the computer science factors.

Reinstate 96% "Hold Harmless" Threshold for the Funding Formula

- Though UND would not benefit in the current biennium from the reinstatement of the 96% hold harmless clause, UND is extremely supportive of including permanent language in this clause.
- This clause protects all NDUS colleges and universities who have swings in enrollment by giving them time to make adjustments that are not possible in one year due to multiple considerations such as:
 - Tenure status.
 - Teach-out requirements if programs are stopped.
 - Curriculum redevelopment, etc.

Support for State-Funded Capital Projects

Based on UND's 2018 Master Plan, our goal is to reduce square footage, improve the space we retain and strategically utilize diverse funding sources. Improving work-study environments will positively impact UND's mission of teaching and learning.

Priority #1: Merrifield and Twamley Halls Renovation

This request leverages UND's recently approved and funded Nistler College of Business & Public Administration (Nistler Hall) by making further investments into an academic "Four Building Ecosystem" located within UND's historic academic quad. The result will physically connect Chester Fritz Library, Nistler Hall, Merrifield Hall and Twamley Hall and allow further decommissioning of Columbia and Gamble halls.

Modified Funding Request

• \$5M State Appropriations Request for Design Work.

Requested Funds Will Be Used To:

Fund professional services and testing needs for the Merrifield Hall and Twamley Hall renovation project.

- · Design work would be finished by Summer 2022.
- Provide a compelling story and design work needed for a successful fundraising effort, similar to when design work started early on the Nistler project.
 - The UND Alumni Association & Foundation could start fundraising now, but have a year to fund raise with designs (i.e. images, videos, naming opportunities finalized, etc.).
- · Provide actual costs to present to the legislature in 2023.
- If UND received funds from the legislature in 2023, the project would be under construction in Spring 2023 — a whole year ahead of most capital project funded by the State in 2023.

Additional Benefits

Starting the design with a year delay in the start of construction will coordinate with other UND construction project timelines and reduce stress on local contractors/trades.

- A \$150M P3 housing construction project will take place over the next three years.
- The Nistler College is projected to open Fall 2022, months before the potential Spring 2023 start of construction on the Merrifield Hall and Twamley Hall project (if UND receives design funding in 2021).
 - This timelines allows UND to move Gamble Hall occupants to Nistler Hall and Merrifield Hall occupants into Gamble Hall for the full Merriefield Hall remodel.
 - Trades working to finish Nistler Hall would be the same trades looking for work the Merrifield Hall remodel since the remodel would be at the carpentry stage.

Complete Project Funding

- \$56M State Appropriations.
- · \$23M Local Funds.

Improved Space Utilization (4 Connected Buildings)

- New Construction = 112,000 GSF.
- · Demolition = 436,947 GSF.
- · GSF Net Reduction = 324,947.

Eliminates \$132.1M in Deferred Maintenance

- Demolition eliminates \$88.5M in deferred maintenance.
- Renovation corrects \$43.6M in deferred maintenance.



			Eliminated		
	GSF		Capital		
Building	Change	FCNI		Renewal	
Montgomery Hall	(36,626)	0.44	\$	6,048,144	
Nistler Hall	112,000	0.00	\$	-	
Merrifield Hall	-	0.46	\$	33,548,687	
Twamley Hall	-	0.32	\$	10,045,592	
Gamble Hall	(120,119)	0.51	\$	42,131,857	
Columbia Hall	(280,202)	0.34	\$	40,288,177	
	(324,947)			132,062,457	

Support for State-Funded Capital Projects (continued)

Priority #2: John D. Odegard School of Aerospace Sciences Health and Safety Projects

Consistent with UND's campus facilities master plan, strategic plan and budget planning, this request targets deferred health and safety maintenance associated with the John D. Odegard School of Aerospace Sciences. ISES's 2019 facility condition assessment data computed \$65.6M in capital renewal needs. The funding will make significant investments to stabilize the buildings' deterioration rates and address capital renewal needs.

Modified Funding Request

• \$5M State Appropriations Request for the Flight Apron.

Requested Funds Will Be Used to:

 Complete the replacement of its deteriorated flight operations apron. The first phase of replacing the flight operations apron was funded in 2015 and completed in 2016.

Additional Funding Needs

- \$5M to complete building envelope repairs to stop excessive water infiltration issues and eliminate indoor air quality risks associated with the water infiltration. In 2010, UND completed similar work to Odegard Hall for \$2.9M.
- \$5M to complete compliance with TSA regulations and Life-Safety-Security related work. TSA compliance work will focus on replacement of exterior doors, electronic door access control and security (cameras, lighting, monitoring). Additional Life-Safety work will address the building's vertical lift systems and fire-systems.

Completed Projects Eliminates \$28.8M in Deferred Maintenance

- Demolition eliminates \$8.5M in deferred maintenance.
- Renovation corrects \$20M in deferred maintenance to building exteriors, hard-surfaces, vertical lift systems and electrical/IT systems.

NOTE: UND's request to invest \$15M into the John D. Odegard School of Aerospace Sciences is separate and in addition to UND's approval to fundraise/invest \$20M in the John D. Odegard School of Aerospace Sciences for a new Flight Operations building.



Research and Development Proposal for Legacy Fund Use

The Legacy Fund Research Proposal presents North Dakota with a game-changing opportunity to invest in its future by enabling the State's higher education institutions to deepen research capacity and increase high-skilled training for students. As other states struggle to fund their universities, now is the time for North Dakota to invest in research for its short- and long-term advantage. The proposed research investment will be directed strategically to build research strength, train students with high-level skills, reach all campuses in the NDUS system, and demonstrate and report measured outcomes and ROI.

The Premise

"Most of tomorrow's economy is being born today in university research laboratories ... the way we train the next generations of ... researchers, so there's an automatic benefit to society" (EMBO, Wiley, 2007).

"The development of new technologies into useful products," such as satellites, supercomputers, artificial intelligence, the Internet, the shale gas revolution, and MRIs, "was accomplished by private companies, but all of these products came, initially, from federal basic research in many fields of science ..." (Industry Week, Collins, 2020).

The Problem

"China increased public R&D by 56 percent between 2011 and 2016, and Russia increased its R&D by 13 percent, but U.S. investment in the same period fell by 12 percent in absolute terms. That is recipe for decline, economically and strategically" (ITIF, Foote & Atkinson, Dec. 2018).

States across the U.S. are disinvesting in research universities.

The Solution

Build capacity in North Dakota research universities to "deepen our bench." Invest strategically, prioritize areas of State significance, expand national reputation and competitiveness, and broaden relevance to existing and new industries.

Develop the next generation of highly skilled workforce. Enhance our ability to extend opportunity for students from every town in North Dakota to learn and develop skills through hands-on experiences as they build their professional future and contribute to the communities and the economic vitality of North Dakota.

Enhance the quality of life of North Dakota citizens and develop solutions to real-time problems.

Focus our research depth in areas critical to North Dakota's citizens and economic development:

- · Energy and Environmental Sustainability.
- · Health Care and Rural Health and Biotechnology.
- · Agriculture and Ag Technology.
- UAS and Autonomous Systems.
- · Advanced Manufacturing and Materials.
- · Cross-cutting National Security Challenges.

The Proposal

Context of Collaboration

- UND and NDSU.
- · Institutions across the NDUS.
- · State of North Dakota.

Legacy Fund Earnings

- Block grants to build capacity in human and physical research infrastructure (excluding new buildings) and for basic and applied research projects, programs and initiatives that will benefit North Dakota.
- Partnerships with industry, other universities and non-profit organizations.
- 10% of the state-awarded amount will be available to fund research proposals submitted by any of the nine non-research NDUS institutions.

Expectations

- · Winning increased federal funding.
- Increasing knowledge creation and the dissemination of research and creative activity.
- · Enhancing multi-university collaborations.
- Increasing industry-university R&D partnerships.
- · Innovating commercial solutions.

Accountability

- Bank of North Dakota panel review and report to the legislature.
- · Internal and external advisory committees.
- · University presidents.
- · SBHE Research & Governance Committee.

We are prepared to excel in research endeavors that span from basic research discovery through enhanced commercial outcomes and to collaborate with partners in the NDUS, in communities, in government and in industry. North Dakota research makes a difference across the State and investing in future R&D will extend the impact on students, citizens' quality-of-life and economic development.

Continued Support for EERC as State Energy Research Center

- In 2019, UND's Energy & Environmental Research Center was designated the State Energy Research Center (SERC) for North Dakota through legislation that provides \$5 million each biennium.
- This designation is a platform for exploratory research and development of impactful technologies for North Dakota and is driven by the State's current and future needs, challenges and opportunities. This research puts North Dakota on the forefront of innovation.
- SERC projects ensure the State's energy resources and products remain accessible, affordable and environmentally responsible, and are clearly understood through education and outreach.
- SERC conducts early-stage research that could ultimately lead to commercial application with public and private sector partners. Commercial deployments and demonstrations of mercury control at North Dakota power plants, enhanced oil recovery in the Bakken and carbon capture from lignite coal-fired facilities were all made possible because of this type of fundamental research.
- To date, SERC has funded 22 projects, supported 33
 Energy Hawks research interns, developed six new invention disclosures, and has collaboration from seven North Dakota universities through its E-Portal project.

Support for Center for Innovation: Commerce and InnovateND

- The mission of the UND Center for Innovation is to advance the creation and development of innovative and entrepreneurial ideas, services and businesses by serving as an incubator for faculty, students, businesses and entrepreneurs across North Dakota.
- Center tenants work in a wide-variety of industry sectors

 aerospace/UAS/UAV technologies, investment services,
 biotechnology, defense contracting, agriculture, energy,
 manufacturing, non-profit services, legal services,
 engineering and construction to name a few.
- Currently, the Center for Innovation has 56 tenants that are attracting new businesses nationally and internationally. Seventy-eight percent of tenants since 2014 are still in business.
- In 2019 and to date in 2020, the Center's tenants have:
 - Raised nearly \$5.1M in capital from state, federal and other investment capital sources.
 - Hired 45 employees and 45 interns from local universities.
 - Supported 31 local InnovateND clients who have brought an additional \$1.35M of matching dollars forward as they work to launch their businesses.

- Tenants include organizations that are working on University-sponsored research projects, are using licensed university IP, have spun out research into a business and/or are looking for entrepreneurial resources to support their own small business idea in the state or region. Examples include:
 - Microbeam Technologies (started by former EERC and UND College of Engineering researcher Steve Benson)
 - Elf Technology (energy efficient technology for wind)
 - Mobile Recon Systems (UAS manufacturer moving to Grand Forks)
 - Bee Innovative from Australia (agrelated UAS technology)
 - Airtonomy (involves Xcel Energy's Foxtail Wind Farm, Microsoft TechSpark, Terma, RIAS, UND Aerospace, UND Biology, UND Engineering, UAS Test Site, ND Department of Commerce, Grand Forks Region EDC, ND Renewable Energy Council)
 - Tailorie (founded by UND graduate)
 - <u>ISight RPV Services</u> (former Center for Innovation tenant; merged with Unmanned Applications Institute)
 - <u>SkySkopes</u> (former Center for Innovation tenant founded by UND graduate)

Support for North Dakota Higher Education Challenge Grant

- UND requests returning to the original \$29M level for the North Dakota Higher Education Challenge Grant program, with \$10M for UND, \$10M for NDSU and \$1M for each of the other nine NDUS institutions. That fund offers a state matching grant of \$1 for every \$2 donated to the State's 11 institutions of higher learning.
- The State provided UND \$1.7 million through the North Dakota Higher Education Challenge Grant in the 2019-20 biennium.
- The program has been a win-win for UND, donors and the State. Donors are highly motivated to give when they see the State of North Dakota's commitment to provide matching funds.

- UND has used up its allotment of state matching funds every biennium since the program was established in 2013, with \$38M in private donations matched with \$19M in state dollars. This program is a shining example of a private/public partnership.
- Around 7 in 10 donations to the Challenge Grant program have come from out-of-state, bringing new dollars into North Dakota.
- UND has multiple examples of donors giving

 or giving more than they intended when they learned of the match program.
- UND's level of donor interest continues to this day, as the Challenge Grants are a tremendous incentive for them to give.

Space Force Education and Research at UND

Proposed \$4 million in state funding to kickstart new initiatives for foundational capabilities, including:

- · Infrastructure using UAS to test new satellite computing, communications, and networking technologies
- · Operations center for satellite control and data collection
- · Sensitive Compartmented Information Facility (SCIF) to support classified projects
- · Clean room for designing and building satellites

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