DAKOTA STATE
UNIVERSITY

Research & Economic Development

ANNUAL REPORT

2024

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This past year at Dakota State University has been one of impressive growth and momentum in research and economic development. I'm excited to share the highlights in this annual report, as we've seen exceptional progress across our programs, partnerships, and key initiatives.

In a year where we celebrated the 40th anniversary of DSU's mission change, we are embracing the future with forward-looking initiatives like President Griffiths' success in securing SB 45 to establish the Center for Quantum Information Science and Technology (C-QIST). This initiative positions DSU as a leader in quantum research and solidifies our strength in cybersecurity and artificial intelligence—three fields that will propel us forward and shape the future of technology. We've also seen impactful developments with the College of Arts & Science S-STEM program and the College of Education & Human Development's Technology Apprentice Program (TAP), which are creating hands-on, applied research and career-focused opportunities for our students in high-demand areas.

A major milestone this year was breaking ground on the Applied Research Lab (ARL), which promises to shape the future of cyber research in South Dakota. The ARL will provide a state-of-the-art environment for advanced cybersecurity research, empowering our faculty, students, and industry partners to pioneer solutions to today's most pressing cyber challenges.

Our research teams continue to push boundaries, especially in cybersecurity, digital forensics, health informatics, and smart technology, adding real value to South Dakota's economy. The programs showcased in this report—including CybHER®, the Paulson Center for Cyber and Economic Development, MadLabs®, and the new Applied Research Lab (ARL)—demonstrate our commitment to practical, innovative research, each success laying a stronger foundation for future growth. Within the Paulson Center for Cyber and Economic Development, initiatives such as the Google Cybersecurity Clinic and the SBA Cybersecurity for Small Business Program are advancing cybersecurity readiness for small businesses and critical public infrastructure across the region.

Looking forward, DSU is on track for even greater impact in 2025. With our dedicated faculty, staff, and students, along with a growing network of partners, we are building a powerful environment for discovery and progress that will elevate DSU and South Dakota as a whole.
Thank you for your support and belief in our mission. Together, we are shaping a bright, resilient future.

Dr. Ashley Podhradsky
Vice President for
Research & Economic Development

As you peruse the rest of this RED Annual Report for Fiscal Year 2024, we encourage you to follow links to our labs and institutes. We hope you are as inspired as we are by these, our fellow Trojans. Along the way, if you wish to support Research at DSU in general or any specific topic, lab, or institute herein, please contact the DSU Foundation or send a message to research@dsu.edu.

For more on Undergraduate Research at DSU or to support these students' nascent research careers with a donation, see https://trojansunite.org/giving/give-now/index.html.

RESEARCH AND ECONOMIC DEVELOPMENT STAFF

Affectionately dubbed the "RED Team," we are the Research and Economic Development team at DSU. From grant pro¬posal development to compliance to the project management that powers research-driv¬en innovation, the RED team stands ready to support every researcher through every project and partnership.

Dr. Ashley Podhradsky
Vice President for
Research &
Economic Development

Pete Hoesing, Ph.D.
Associate Vice
President for
Research &
Economic Development

Director of
Economic
Development
(Vacant)

Teresa Maier
Sponsored
Programming Analyst

Beth Delzer
Program Assistant
IRB Administrator

DEPARTMENT OVERVIEW | CAMPUS PROGRAMMING

One of the pillars of Dakota State University's ADVANCE Strategic Plan calls for DSU to "grow scholarship, research, intellectual property, and Economic Development." In addition to a few long-standing committees and other features of our campus research life, Research & Economic Development (RED) staff have continued working this past year to actively develop and stimulate a vibrant research culture across DSU's online, in-person, and hybrid operational presence.

- **Research Brownbags**, now after a third annual cycle, offer faculty, staff, and student researchers regular opportunities for professional development. Sessions range from compliance matters to library databases to grant writing and much more. All sessions are recorded and archived for faculty to repurpose in research methods courses and for all users to find as necessary. Faculty and staff from the Karl Mundt Library collaborate with RED staff to produce this series, which we coordinate to complement faculty development offerings from DSU's Center for Teaching and Learning.

- **Research Colloquia** feature a rotating cast of faculty who share their research with colleagues. It's a great environment for faculty to examine complex concepts with an audience that usually mixes fellow specialists with non-specialists.

- **Research Rising** brings external speakers to DSU to discuss their work, challenging, inspiring, and motivating DSU researchers to reach new heights in our own fields.

- DSU's **Annual Research Symposium** features research by undergraduate and graduate students, as well as faculty. All student and faculty recipients of internal DSU grant funds present their work at the symposium, where the entire campus community and guests from near and far come to celebrate their work, its findings, and the progress of science and technology during DSU's annual Research and Doctoral Residency Week.

DEPARTMENT OVERVIEW | COMMITTEES

University Research Committee has been a longstanding feature of campus research culture where faculty come to influence and shape research programming.

Institutional Review Board members review research involving human subjects to ensure their interests are appropriately protected according to both regulatory guidance and widely accepted ethical principles. IRB Administrator Beth Delzer organizes committee materials, and Dean Stacey Berry has now passed the leadership of this group to new Chair David Kenley, Professor of History. When you see Dr. Kenley on meetings or on campus, please join us in thanking him for taking on this important role in research compliance leadership!

Intellectual Property Committee was founded by DSU's first-ever Director of Economic Development, Katherine Cota, and this group supported Katherine through the development of DSU's Intellectual Property Policy, which incorporates governing influence from the SDBoR IP policy. Both policies support the development and protection of IP generated by DSU's personnel. We were sad to say goodbye to Katherine this spring, but she left a strong legacy for DSU to continue developing entrepreneurs and intellectual properties. We now warmly welcome Scott Morstad, JD, as our new IP Committee Chair.

DEPARTMENT OVERVIEW | COMMITTEES

Internal Grant Programs continue to provide a basis from which many, many student and faculty researchers launch and revitalize research careers.

Faculty Research Initiative (FRI) offers faculty modest amounts of funding for a wide variety of research needs in trade for a single deliverable: recipients must present their findings at the DSU Annual Research Symposium.

Supporting Talent for Research Trajectories (START) is a seed funding program with two deliverables: recipients must submit a proposal for external funding valued at $50,000 or more, and they are also expected to present findings at Research Symposium.

DEPARTMENT OVERVIEW | BUILDING INTELLECTUAL COMMUNITY

This programming all supports the goal of increasing DSU's productivity in research and scholarly activities. The milestones supporting that goal within Pillar 3 of the ADVANCE Plan include increases in peer-reviewed publications and research jobs, as well as in the number of faculty, staff, and students participating in research activities. To that end, our faculty are publishing quite actively in genres from scholarly articles to academic books to fiction, poetry, and film. They are being invited to speak—often as keynote speakers—on a wide range of matters both technological and educational from the influence of Artificial Intelligence across a wide variety of academic disciplines, automation, digital forensics, and cyber agriculture to learning differences, health information management, and even the history of our one-time namesake, General Beadle.

Meanwhile, DSU's Undergraduate Research machinery continues to offer students access to research experiences they would have a hard time finding at our peer institutions. In part, whereas students at so many institutions get their start at massive, multidisciplinary conferences designed for undergraduates, Trojans often find themselves presenting at disciplinary conferences more typically populated by graduate students, postdoctoral fellows, and faculty. Some recipients of the DSU Student Research Initiative even find themselves on a larger national stage.

As one of our long-time colleagues, Professor Stacey Berry, steps away from her roles as Chair of the Institutional Review Board and Undergraduate Research Coordinator to become Dean of Arts and Sciences, we are so pleased to welcome biologist and plant pathologist Dr. Andrew Sathoff as our new Undergraduate Research Coordinator.

This is a role has moved around various colleges since it began a few years ago, Dr. Sathoff's work in motivating and mentoring so many undergraduate researchers has positioned him distinctively to continue growing the research presence in DSU's College of Arts & Sciences.

SPONSORED PROGRAMMING

The goal of increasing DSU's overall research productivity also includes growth in sponsored programs, and particularly in research expenditures. A highly active FY24 for DSU faculty and staff showed ambitious work in pursuit of funding for programs from federal, state, private, and other sponsors.

Out of 41 proposals submitted through the Office of Sponsored Programs, 14 have been funded, 13 have been rejected, and another 14 remain pending as of the publication of this report. Year over year, that total number of proposals submitted grew from 26 in FY23. That 37% increase reflects a normal ebb and flow in the dynamic activity that tends to follow faculty/staff capacity, and the difference is not directly proportional to a difference in total dollars pursued.

Many factors impact that variability in the number of proposals developed and submitted. One is sheer availability of funding from DSU's likeliest and best-aligned sponsors. Years in which faculty in particular secure funding for large projects involving multi-year funding tend to be followed by years of waning proposal activity as those same faculty work to implement their funded work.

As a constant through these and other variables, teaching and disciplinary research drives our strategic alignment efforts with current and potential funding partners interested in the work of DSU's supremely capable faculty.

CYBERSECURITY PART OF FARMING WITH TECHNOLOGY

DSU-Case partnership provides hands-on experience in digital security.

Technology, for better or worse, is here to stay.

"Honestly, it's just the new way of living," Dakota State University student Joseph Boyd said.

With everything from farming tools to kitchen appliances becoming more digitized, the more people can understand how to use it at a deeper level, the better they'll be able to operate independently, especially when it comes to security, the DSU senior said.

Boyd is studying cyber operations at DSU.

He's part of a team of students and faculty who are collaborating with Case New Holland to explore potential cybersecurity risks with precision agriculture equipment.

Boyd's project focuses on assessing security vulnerabilities in precision farming. He's specifically looking for potential risks that could occur from either a data breach or a distributed denial of service (DDoS), which is a cybercrime that overwhelms a server, service or network, making it inaccessible to users.

These types of cybercrimes are not limited to laptop computers or smart phones. Many modern vehicles, including tractors, have small computers built into them which can be hacked and halted from anywhere in the world.

When Russians attempted to steal Ukrainian John Deere tractors in the early days of the conflict, cyber professionals at John Deere used a remote killswitch to prevent the tractors from running, thwarting the Russians' plans.
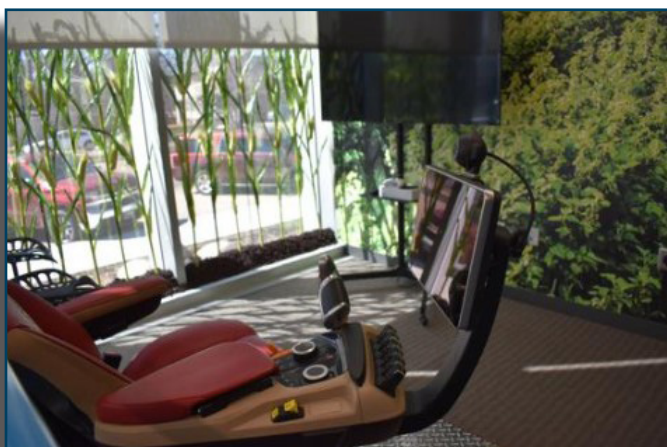
In a data breach, hackers access data stored on individual devices, such as crop maps, yield data, machine locations and diagnostic codes. The full artical can be found: https://agupdate.com/tristateneighbor/news/state-and-regional/cybersecurity-part-of-farming-with-technology/article_196e22d8-fc13-11ee-94bb-e794375e0633.html

SPONSORED PROGRAMMING
AI Sweden

DSU is headed into its fourth year of our graduate student research exchange program as a part of AI Sweden.

This past summer, 23 students (12 from Dakota State and 11 from Swedish universities) participated in the 10-week program, with students spending time in Sweden and at DSU. Students spend four weeks at AI Sweden's facilities in Gothenburg before spending four weeks at MadLabs®.

This year the program partnered with LeakPro, Volvo Group, Swedish Defence University with Swedish Navy, Alixia AB, Sahlgrenska University Hospital, and Case New Holand. Students worked with these companies and organizations to conduct innovative and groundbreaking research that have real world implications. Throughout this process they learn research methods and gain

experience with the social, political, and ethical aspects of working with technology.

Students pursuing their M.Sc. or Ph.D. in computer science, cyber operations, cyber defense, or related fields can apply for the program. Participants accepted into the program receive a stipend, academic credit, lodging, and airfare. Learn more about AI Sweden at: https://dsu.edu/research/research-exchange-program.html

SPONSORED PROGRAMMING

Here's a look at longitudinal trends to demonstrate dynamism in the portfolio over time:
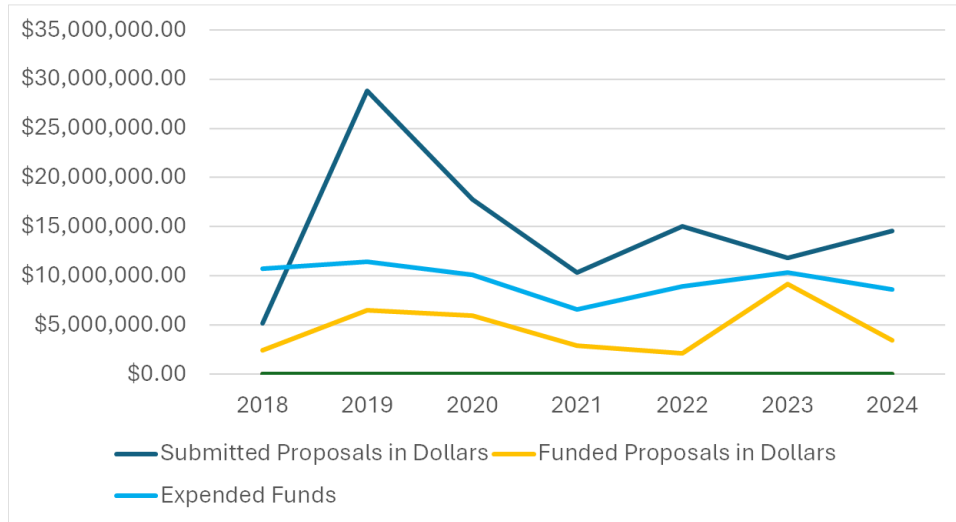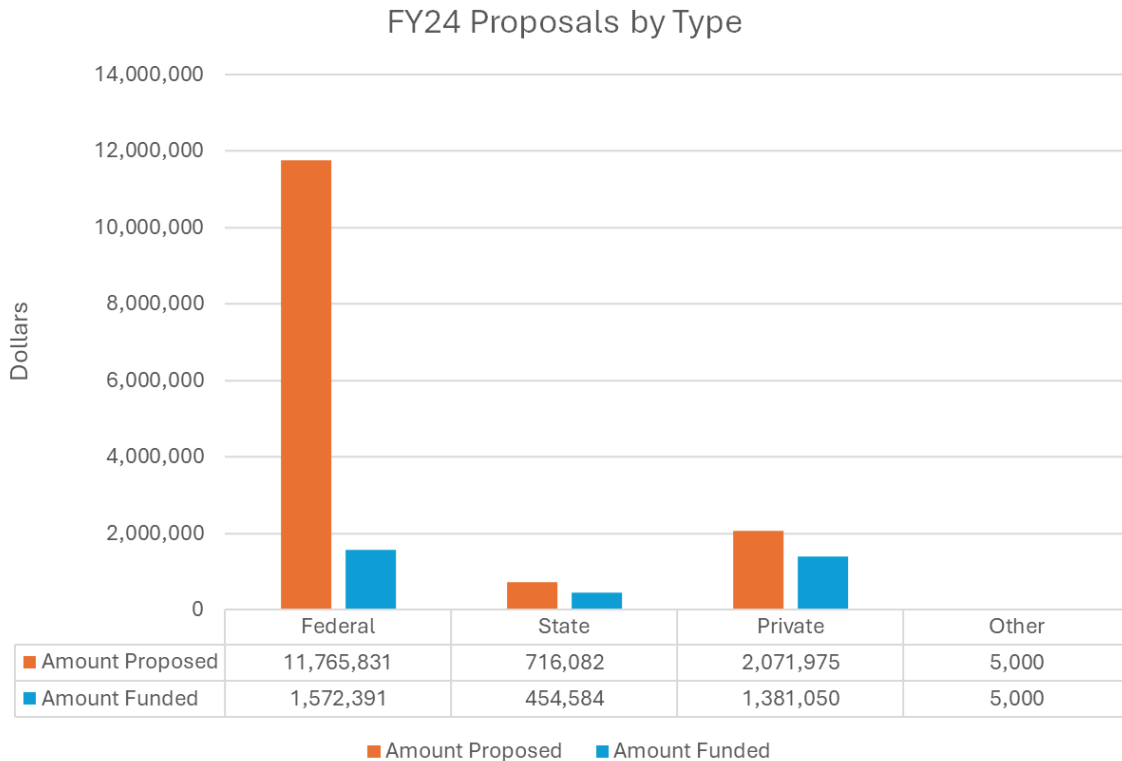

As this long view shows, DSU's aggressive pursuit of available funding does not always translate to proportionate increases in funded proposals. The other item to note here is that the fall off in 2024 is a little misleading when we consider that over 1/3 of all proposals submitted in FY24 remain pending.

SPONSORED PROGRAMMING | FUNDING PURSUED AND SUCCESS RATES

We fully expect the current 34% success rate on proposals submitted to shift as news about those pending proposals continues to roll in.

What we know for now is that the ambition, collaborative spirit, and persistence of DSU faculty and staff show no signs of abating. Here is a summary of FY24 proposed and awarded activity by sponsor type, excluding philanthropic funding pursuits:

FY24 Proposals by Type

	Federal	State	Private	Other
Amount Proposed	11,765,831	716,082	2,071,975	5,000
Amount Funded	1,572,391	454,584	1,381,050	5,000

■ Amount Proposed   ■ Amount Funded

Federal Grant Award Activity	
Total Proposals	20
Proposal Amount	$11,765,831
Proposals Awarded	3
Amount Awarded	$1,572,391

State Grant Award Activity	
Total Proposals	6
Proposal Amount	$716,082
Proposals Awarded	3
Amount Awarded	$454,584

Private Grant Award Activity	
Total Proposals	14
Proposal Amount	$2,071,974.80
Proposals Awarded	7
Amount Awarded	$1,381,049.80

Other Grant Award Activity	
Total Proposals	1
Proposal Amount	$5,000.00
Proposals Awarded	1
Amount Awarded	$5,000

Total proposed: $14,558,887.80 | Total funded: $3,413,024.80

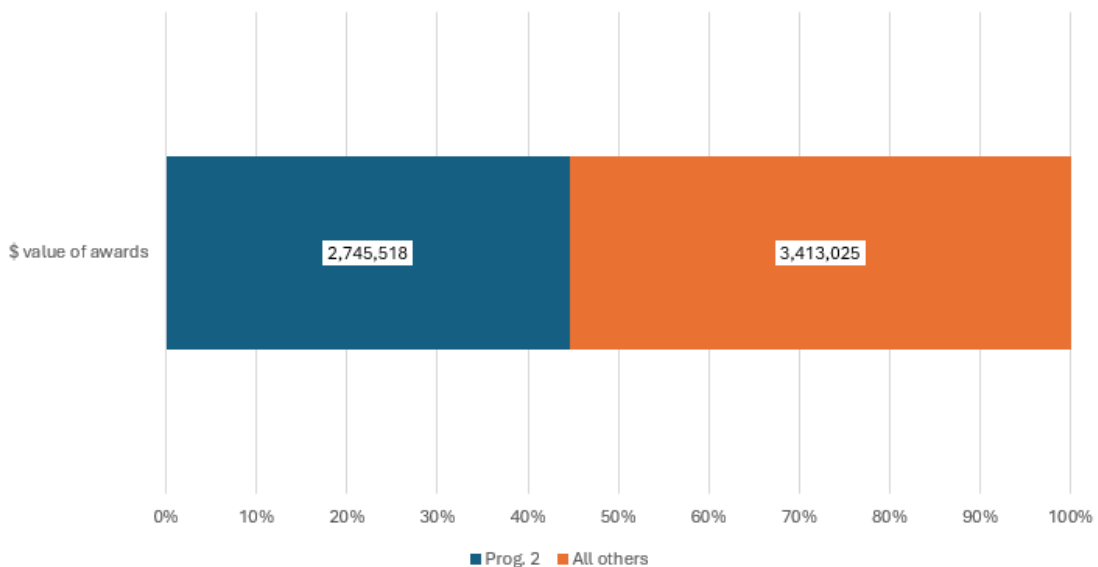# SPONSORED PROGRAMMING | FUNDING PURSUED AND SUCCESS RATES

Correcting for one very large opportunity in FY23, these FY24 figures already show fairly steady year over year growth since a precipitous drop in FY21 that followed the arc of COVID-19 impacts. By the time all results are in, we fully expect FY24 to be a strong year for total dollars newly secured through this sponsored programming portfolio.

Research Proposals vs. Total Proposals

All other proposals 51%

Program 2 49%

■ Program 2 ■ All other proposals
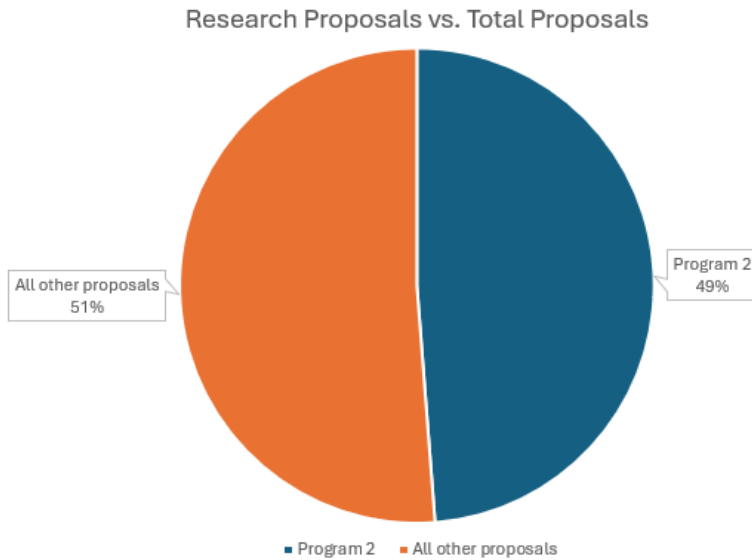
We track the types of work pursued and performed at DSU in one other way as well: the National Association of College and University Business Officers categorizes sponsored programming across all forms of support (grants, contracts, and cooperative agreements) according to seven basic categories: instruction, research, public service, academic service/support, institutional support, and operation/maintenance of the 'plant,' usually meaning the campus physical plant.

As DSU has emphasized the rise of research in our strategic planning, our training and development of faculty and staff, and our pursuit of sponsor dollars both programmatic and philanthropic, we have focused more closely on the proportion of our total sponsored programming devoted to NACUBO program 2, i.e. research. Hypothesis-driven, fundamental research is the lifeblood of any campus research culture, and it goes far beyond sponsored work into faculty and student publications, research mentorship of undergraduate and graduate students, social elements of research programming like workshops and symposia, and support for travel to present research at external conferences and symposia.

How many FY24 awards were for research?

$ value of awards: 2,745,518 | 3,413,025

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Prog. 2 ■ All others

SPONSORED PROGRAMMING | FUNDING PURSUED AND SUCCESS RATES

An interesting comparison with the proposal types—federal, state, private, and other—research potentially overlays all those categories. Here's a look at DSU's overall current FY24 success rate just within that funding specific to research, which is on par with the overall success rate of proposals submitted vs. funded at DSU:

Success Rate
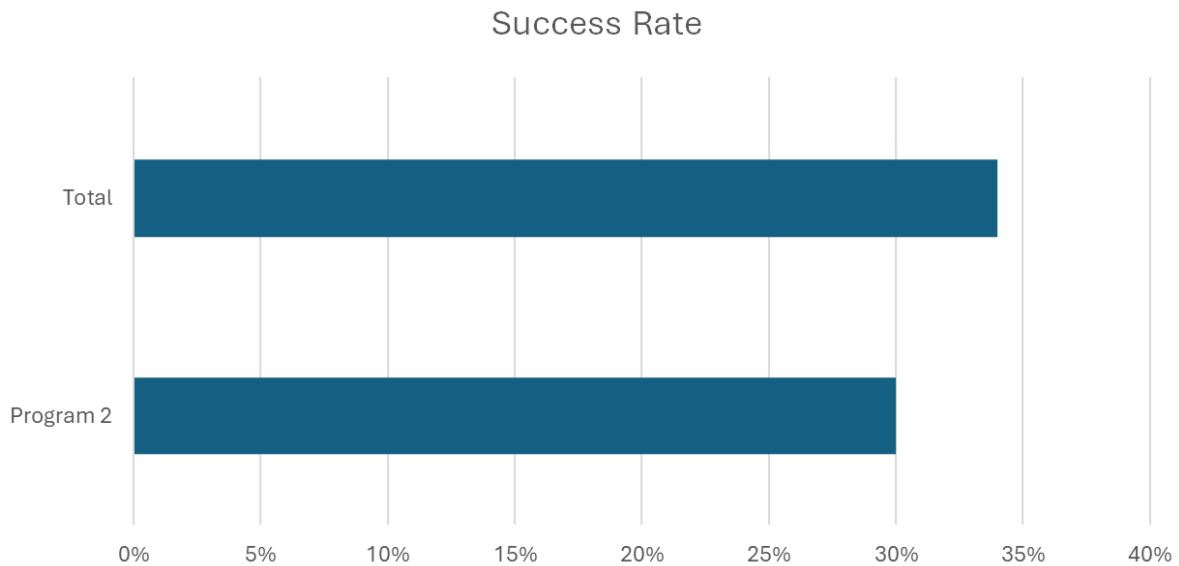
Typically we see the rate about where it is this time of year, often traveling north of 50% when all have been decided...time will tell. Meanwhile, we remain confident in the talents and continuing dedication of our faculty.

MADLABS®
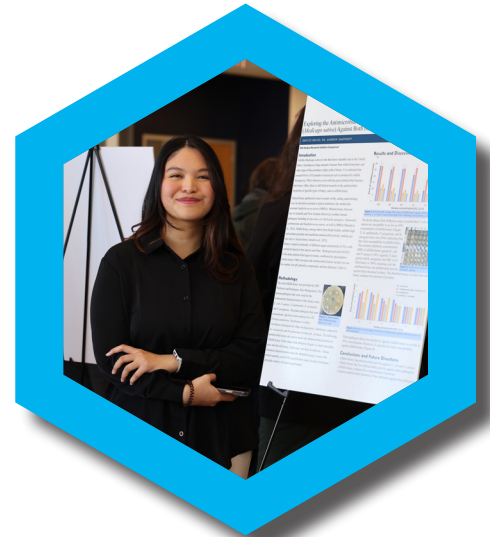
WITH GROUNDBREAKING, DSU ARL BUILDING HITS CRITICAL MILESTONE

DARC

The Dakota State University Applied Research Corporation (DARC) is a non-profit startup business that manages and operates the Dakota State Applied Research Labs.

A day years in the making arrives Friday with the official groundbreaking for Dakota State University's Applied Research Lab.

"To have us get to the point that it's going to become reality is major," DSU president José-Marie Griffiths said, adding there's a sense of relief "that we're finally getting to this critical milestone."

In an era where much highly technical work can and is performed anywhere, this building represents a critical exception. Work requiring high levels of government security clearance can be done only in buildings specifically designed and approved to accommodate it.

Most of those are in the Washington, D.C., area or on the West Coast. Look at a national map of cyberactivity and "there literally was very, very little if anything in the middle of the country," Griffiths said.

"The idea was could we fill in the gap ... not just for South Dakota but into some of the surrounding states as well. And now dirt is out of the ground, and soon we'll see the structure go up, and that will be exciting to people, and they can start planning."

The estimated $62.5 million project was funded with support from a donation by Denny Sanford and is located at the Sanford Sports Complex near Sanford Health's future Virtual Care Center. It officially breaks ground at 3:30 p.m. Friday.

Since it first was announced in 2022, "the need for people to be in a secure facility is still there," Griffiths said. "And nothing else has been built in the region, so the demand for that kind of work is just increasing."

While the ribbon-cutting for the 100,000-square-foot building likely won't be until early 2026, conversations with entities that will partner there with DSU already are ongoing. Visit ARL Ground Breaking for the complete article.

MADLABS®

AdapT Lab
Justin Blessinger, Director
AdapT Lab continued its focus on assistive technology research, developing innovative solutions for individuals with disabilities, particularly wih the Go Baby Go program. They secured $14,000 in funding for hearing loss research and partnered with LifeScape and Ted & Marietta Faszer. Additionally, their outreach efforts included promoting digital content creation and MadLabs at Dakota Dreams Camp, reaching 100 campers.

DigForCE Lab
Arica Kulm, PhD, Director of Digital Forensics Services
Digital Forensics for Cyber Enforcement (DIGFORCE) Lab
Arica Kulm, PhD, Director of Digital Forensic Services
The team of cybersecurity professionals at DIGFORCE Lab provide forensic expertise by conducting analysis on a variety of digital devices submitted to the lab by law enforcement. They utilize validated forensic tools that gather digital artifacts, when might become evidence for criminal investigations. They also conduct open-source intelligence (OSINT) investigations for the SD Division of Consumer Protection and they train law enforcement in proper preservation of digital evidence. Founded in 2018 by Dr. Ashley Podhradsky, DIGFORCE has since completed over 600 cases involving over 1100 devices (and counting), rapidly becoming a trusted source for local, state, and federal law enforcement partners throughout South Dakota.

Protection and Threat Research on the Internet of Things (PATRIOT) Lab
Varghese Mathew Vaidyan, Director and Yong Wang, Founder and Co-Director
PATRIOT Lab conducted extensive research on securing South Dakota's agricultural data. They developed and implemented innovative encryption methods to protect sensitive information, ensuring data confidentiality and integrity. Their research has been instrumental in safeguarding vital agricultural data from potential cyber threats. Additionally, PATRIOT Lab's contributions to precision agriculture have been substantial, with their research leading to the development of secure cyberinfrastructure solutions. Through their efforts, PATRIOT Lab has played a crucial role in advancing agricultural technology while protecting its critical infrastructure. Their research has resulted in 7 proposals and 10 publications, demonstrating their commitment to research excellence and their impact on the field.

MADLABS®

CAHIT MadLab
Patti Brooks, Director
The CAHIT MadLab made significant contributions to the field of healthcare through their research on predicting mortality risk in End-Stage Renal Disease (ESRD) patients using machine learning. Their research involved developing and implementing innovative models, analyzing large datasets, and presenting their findings at conferences. Their ongoing work focuses on integrating social determinants of health data and utilizing electronic health information to improve prediction accuracy.

SmartHome Lab/Success Lab
Tom Halverson, Director
The SmartHome Lab/Success Lab made significant progress in their research on smart home technology. They focused on monitoring and displaying electrical usage data, exploring new applications for smart home devices. Their research involved student involvement and established connections with international corporations, opening up new opportunities for future collaborations and research directions.

Cyber Education and Professional Development Lab
Katie Anderson and Luke Chowning, Directors
The Cyber Education and Professional Development Lab played a vital role in advancing cybersecurity education and professional development. They presented at conferences, published papers, and hosted professional development events for teachers, reaching a total of 400 educators and 300 teachers who earned graduate credit. Their efforts have contributed to strengthening cybersecurity education and preparing future professionals in the field.

VERONA Report
Rob Richardson, Director
VERONA continued its focus on research related to industrial control systems (ICS) and Internet of Things (IoT) vulnerabilities. Their undergraduate students conducted in-depth research on various topics, including farming equipment data, TOUCANbus tools, and Flipper Zero devices. VERONA's collaborative efforts with other labs, such as the grant proposal with PATRIOT Lab, demonstrate their commitment to advancing cybersecurity research and education.

CYBHER®

Led by Dr. Ashley Podhradsky and CybHER®Director Kanthi Narukonda, CybeHER® has experienced a remarkable year of growth and impact, successfully reaching and inspiring thousands of students across the United States and beyond. The organization's commitment to empowering women and girls in cybersecurity has been evident in its numerous initiatives and accomplishments.

Significant Reach
Outreach efforts have been impressive, impacting over 1,900 students through in-person events and reaching a global audience of 7,008 viewers through recorded content. The organization's programs have expanded to 40 states and 26 countries, demonstrating its widespread influence.

Comprehensive Programming
CybHER® offers a diverse range of programs designed to engage students of all ages. The GenCyber Girls in CybHER® Security Camp provided a hands-on learning experience for young girls, while the after-school programs, Bricks and Bots and CybHER® Girls Club, offered opportunities for younger students to explore cybersecurity concepts.

Strong Partnerships
CybHER® has forged strategic partnerships with organizations like AT&T and Peraton, which have provided significant financial support and resources. These collaborations have enabled CybHER® to expand its reach and offer valuable opportunities to students.

Community Engagement
A commitment to community engagement is evident in its participation in various events and initiatives. The organization has been actively involved in community outreach programs, fostering relationships with local organizations and inspiring students to explore cybersecurity careers.

PAULSON CYBER AND ECONOMIC DEVELOPMENT CENTER

Youth Camps

The Paulson Center continued its successful youth camp program, expanding its reach to Sioux Falls in addition to Madison for the second consecutive year. Over the past three years, 89 campers aged 8-11 raised over $10,000 for local charities. The camps were supported by SBS Cybersecurity, which provided both sponsorship and mentorship.

- Sioux Falls Lemonade Camp (August 14-17, 2023): 24 campers participated, raising $2,120.42 through lemonade stand sales.
- Madison Lemonade Camp (July 10-13, 2023): 24 campers raised $3,029.79 for four local charities.

Guest Speakers

- **Nick Cash** (November 16, 2023): The Vice President of Engineering at Jam City discussed his entrepreneurial journey and shared valuable life lessons with CEO students and game design students.
- **Dr. Josh Stroshein** (March 19, 2024): A respected researcher presented a luncheon talk on his area of expertise.
- **Alyssa Nolte** (March 21, 2024): A partner at Ology Collective and creator of TruVue spoke to PhD candidates and the community about personal and business strategies for success. She also participated in DSU's Entrepreneurs' Day.

Faculty Funding and Intellectual Property

The Paulson Center played a pivotal role in establishing an intellectual property policy and process for DSU. They have administered IP filings and market assessments for faculty research, resulting in three provisional patents for Drs. Blessinger, Kulm, and Wang.

DSU Entrepreneurs' Day

This annual event, held in partnership with Augustana University and Start-up Sioux Falls, featured guest speakers and pitch competitions for high school and college students.

PAULSON CYBER AND ECONOMIC DEVELOPMENT CENTER

FAST Launch and Launch Lab

These programs provided entrepreneurship education and support to individuals seeking to start businesses. FAST Launch had 26 participants this year, bringing the total to 145 over the grant period. Launch Lab guided participants through the process of developing business plans and pitch decks, with two companies successfully completing the program. A breakdown on clients given technical assistance:

Year	FAST Launch	Launch Lab	Individual Consulting and Workshops	Total Participants
FY22	65	2	41	108
FY23	54	14	32	100
FY24	26	3	15	44

South Dakota Governor's Giant Vision Competition

Paulson Center clients consistently performed well in the Governor's Giant Vision Competition, securing multiple top placements in recent years. In FY24, Paulson Center clients took second, fourth, and sixth places in the Open category. In the Student category, clients took first, second, and fifth places.

Year	Clients Assisted	Fast Launch Funding	Giant Vision Competition	Total Clients Funded
FY22	108	See FY24	7 clients won $41,000	7
FY23	100	See FY24	7 clients $25,500	7
FY24	44	49 received funding	6 clients won $24,000	55

Great Plains I-Corps Hub

DSU joined the Great Plains I-Corps Hub, a program designed to commercialize academic research. Dr. Justin Blessinger and Dr. Chris Olson were the first DSU team to participate, and Dr. Michael Roach served as a mentor for several teams in the region.

Other Items

The Paulson Center conducted a workshop at the Men's Prison in Sioux Falls, teaching participants about intellectual property. They also participated in a presentation on copyrights hosted by the SD Humanities Council.

PAULSON CYBER AND ECONOMIC DEVELOPMENT CENTER

DSU receives $1 million to join Google's Consortium of Cybersecurity Clinics

Google has awarded DSU $1 million to establish a Cybersecurity Clinic as part of its Consortium of Cybersecurity Clinics. The clinic will provide free digital security services to under-resourced organizations while enhancing cybersecurity education for DSU students. This initiative will strengthen protections for small businesses, schools, and critical infrastructure throughout South Dakota. There will also be training opportunities to improve community resilience to cyber threats. The Consortium of Cybersecurity Clinics is a part of Google's $25 million investment in cybersecurity nationwide. The goal is to address a growing demand for skilled professionals and support underserved communities.

By ensuring startups consider cybersecurity from their roots, we give birth to a new generation of more cybersecure businesses. By continuing to help existing small businesses and non-profits, we help ensure that South Dakota continues to be a great place to build and grow small businesses."

AWARDS AND ACCOMPLISHMENTS

Merrill Hunter Award for Excellence in Research
Cherie Noteboom, PhD, ED, MBA
Professor/Coordinator for Ph.D. Info Systems/Coordinator for Center of Excellence
The Merrill Hunter Award for Excellence in Research was presented to Dr. Cherie Noteboom, a Professor in the College of Business & Information Systems.

The Hunter family sponsors the award to honor Merrill, long-time Madison newspaper publisher, veteran, and former president of the DSU Foundation. He was a serving as president of the DSU Foundation at the time of his death in 1990.

DSU joins new SD Cybercrime Prevention Consortium
Arica Kulm, PhD, Director of Digital Forensics Services
Cyber threats and challenges are a normal part of today's digital landscape. Addressing

them requires a dedicated effort from everyone in society, including governmental agencies and academic institutions.

A new consortium between Dakota State University (DSU), the South Dakota Fusion Center (SDFC), and the state Bureau of Information and Telecommunications (BIT) will blend their capabilities to effect cybercrime prevention, intelligence, digital forensics, and open-source intelligence (OSINT) operations.

"As cybercriminals increasingly target our local governments and essential services, the South Dakota Cybercrime Prevention Consortium is critical for South Dakota," said Dr. Ashley Podhradsky, Vice President for Research & Economic Development. "This partnership strengthens our defense against those who threaten our security and daily life. Together, we are building a safer, more secure future for every citizen in our state." Visit https://dsu.edu/news/2024/06/prevention-consortium.html for the complete article.

National Science Foundation = $1 MILLION Dollar Grant
Rich Avery, PhD, Professor of Mathematics
A new scholarship opportunity is available for Dakota State University students majoring in the STEM fields of computer science, cyber operations, artificial intelligence, or math.

Through a National Science Foundation grant of almost $1 million, Dakota State University students will have the opportunity to receive financial assistance and other support with Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) funding. This initiative is designed to support the academic and professional growth of talented STEM students, particularly from low-income backgrounds, such as those eligible for Pell grants. Visit https://dsu.edu/news/2023/11/dsu-awarded-grant.html for the complete article.

AWARDS AND ACCOMPLISHMENTS

DSU to join Cybersecurity Clinic Consortium
Ashley Podhradsky, DSc,
Vice President for Research & Economic Development
Dakota State University has been selected to receive $1 million in grant funding and wraparound support from Google's Cybersecurity Clinics Fund to establish the Dakota State University Cybersecurity Clinic.

Dakota State University has been selected to receive $1 million in grant funding and wraparound support from Google's Cybersecurity Clinics Fund to establish the Dakota State University Cybersecurity Clinic. The funding from Google.org, the company's philanthropic arm, is part of a $25 million collaboration with the Consortium of Cybersecurity Clinics.

Cybersecurity clinics at higher education institutions provide free digital security services to under-resourced organizations, similar to how law or medical schools offer free community clinics. The new DSU Cybersecurity Clinic will give Dakota State University students the opportunity to learn cybersecurity and AI skills in an effective, hands-on manner while simultaneously helping to protect vulnerable organizations and critical infrastructure, such as local small businesses, hospitals, schools, and energy grids, from cyber-attacks.

According to the World Economic Forum's 2024 Global Risks Report, cyber insecurity remains one of the top 10 global risks over the next 10 years. Currently, there are nearly 450,000 open cybersecurity jobs available in the U.S, including over a thousand in South Dakota, and demand for cyber professionals is projected to grow 32% by 2033. To ensure that communities, critical infrastructure and businesses big and small across the U.S. are secure, we need a skilled, diverse and AI savvy cybersecurity workforce.

"DSU's participation in this clinic links our existing work with the U.S. Small Business Administration to DSU's Paulson Cyber Incubator and Economic Development Center.

Visit https://dsu.edu/news/2024/06/cybersecurity-clinic-consortium.html for the complete article.

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