Federal grant cuts upend life-saving research, careers at UMN

sahanjournal.com/education/federal-grant-cuts-impact-university-minnesota

Becky Z. Dernbach

August 19, 2025

Space robots. Malaria vaccines. Labor stability in the Middle East. Undergraduate research opportunities. Science careers. University morale.

These are a few of the things Minnesota — and the world — stand to lose, following federal research cuts to the University of Minnesota.

Research grants make up a substantial part of the University of Minnesota's budget — and the majority of those research funds come from the federal government. In the 2024 fiscal year, the University received $628 million in federal research grants — about 14% of the university's total budget. But like other universities around the country, the U has seen federal agencies pull some of these funds as President Donald Trump attempts to exert greater control of higher education institutions.

As of July 17, 98 federal grants have been terminated or suspended at the University of Minnesota, according to a list provided by the university in a public records request.

The total cost of lost funds has fluctuated as some grants have been reinstated via court order or appeal, and additional grants have been terminated or suspended. As of Aug. 15, the total value of lost funds from federal grants is $22 million, according to a university spokesperson; when anticipated future funds are included, the total is nearly $34 million.

“Financially, the impact doesn’t stop in fiscal year 2025. We are projecting that these costs associated with termination will extend all the way up to fiscal year [2029] with cascading effects year over year. And this is only a snapshot of disruptions because almost every day we receive some kind of order from a different agency,” Shashank Priya, vice president for research and innovation, told the board of regents in a May 8 meeting.

Sahan Journal reached out to principal investigators for all the terminated grants on the list — and interviewed researchers representing 20 grants in departments across the university, from medicine to economics to library science.

The researchers who spoke with Sahan Journal described worry about losing collaborative relationships with other universities or countries they’ve built over many years. They worry their colleagues will lose their jobs. They fear these cuts will upend the future careers of young researchers. And they worry about the important research projects that may never be completed.

Ryan Caverly, an assistant professor of aerospace engineering and mechanics at the U, was excited for the opportunities for undergraduates that his federal grant presented. Through a partnership with Cornell University, he had received a grant to develop robotic technology to simulate the motion of a spacecraft. His undergraduate students would build the prototype for the robot, and then it would be built at a large scale at Cornell.

But toward the end of the spring semester, the funding was suspended. The Trump administration had frozen $1 billion in funds for Cornell amid an investigation into diversity programs and anti-semitism.

Caverly’s students had just completed a prototype of the robot. But now they had to stop their work.

“I don’t think there’s much of a controversial aspect to me trying to get undergrads experience that they can use and go out into the workforce and do great things,” Caverly said. “This is really limiting opportunities for students.”

If Cornell strikes a deal with the Trump administration, as some other Ivy League universities have done in recent weeks, Caverly’s funding may return. But other researchers may not be so lucky.

“There’s a very different feel at the university,” said Emma Molls, director of open research and publishing for the University of Minnesota Libraries. Molls was the principal investigator of a grant about how to most effectively share data collected from other federally funded research projects.

“Undergraduates especially have their own perspective on the university, but I think they’ll feel it, of how incredibly stressful it is to be on campus right now.”

Abby Gold, a health and nutrition extension specialist at the university’s St. Paul campus, has always had something to look forward to at work. She works on grant-funded projects while applying for more grants and waiting for others to be reviewed. But now, her whole workflow has been upended — including her project about vaccination for people in rural substance abuse recovery centers.

“You feel really depressed, because the innovation that you have and the creativity that you have — and of course you need resources to move forward with those — is being stifled,” she said.

Nadia Sam-Agudu, a professor of pediatric infectious diseases in the University of Minnesota Medical School, was studying whether an app could help prevent HIV infection among young men who have sex with other men in Nigeria and other African countries. These young men often face discrimination seeking resources from clinics. The project required deep relationship-building in these highly stigmatized communities across four African countries before the study could begin.

When the grant was terminated, Sam-Agudu was “devastated.” The young men her team had hired in Africa had to be laid off. After an appeal, her grant is on track to be reinstated. But the termination came with a cost.

“We lose trust,” she said. “We’re back several steps behind where we started.”

The grant cuts have affected Sam-Agudu personally, too.

“It really, really hits my motivation,” she said. “And I’m one of the most researchy people.”

Here are some of the people behind the cuts — and the costs for the University of Minnesota.

Nadia Sam-Agudu, a professor of pediatric infectious diseases in the University of Minnesota Medical School, was studying whether an app could help prevent HIV infection among young men who have sex with other men before her federal grant was terminated. It's now on track to be reinstated, but the termination set back her research — and her motivation. Credit: Dymanh Chhoun | Sahan Journal

'Life-saving therapies won't be tested'

Kristina Burrack, an assistant professor at the Hennepin Healthcare Research Institute and University of Minnesota, was hoping to develop a better malaria vaccine. She was "ecstatic" when the National Institutes of Health approved her grant proposal to study ways to boost immune responses in malaria patients.

"This was the first big grant for my lab," she said.

She'd applied under a funding opportunity meant to support increasing workforce diversity in the sciences, and included a statement about her commitment to diversity, equity and inclusion — she'd co-founded a group called Empowering Women in Science at the University of Minnesota.

She planned to study whether boosting T-cell immune response could kill off a malaria infection. If so, her findings could have immediate implications for the development of a new and more effective vaccine for malaria — an illness that kills 600,000 people a year, mostly young children in sub-Saharan Africa. And those findings could also have implications for cancer treatment.

“What we’re doing is giving a big dose of the molecule to really give immune cells a big boost, like a big kick in the pants, so to speak, so that the immune cells can help kill the malaria parasite if a person gets infected, or to kill tumor cells if a person has cancer,” she said.

Burrack had completed the first year of a five-year grant, and initial results from her experiments looked promising.

“A lot of the data that we’ve generated so far suggests that these therapies that we’re testing could have really significant impacts on the efficacy of a new malaria vaccine that’s under development,” she said.

Then she got an email from the NIH that her grant had been terminated. The funding pathway meant to increase workforce diversity was over.

“Even though my research studies really important medical field information, it was terminated because of the language in that letter about DEI activities,” she said.

For Burrack, the termination was “heartbreaking.”

“I’ve been staying up at night, trying to figure out how I can pay my staff and keep the lights on in the lab,” she said.

The University of Minnesota provided bridge grants for researchers whose funding was disrupted, and has provided nearly $1 million to researchers as of Aug. 12. Burrack’s project received a $20,000 grant from this program, which her team was able to use to continue paying a graduate student. And she has a few smaller grants. But the NIH grant was the main source of funding for her lab.

“We’ve cut back on our research quite a bit,” she said. “It’s really hampering our ability to be curious and try new things and do that high-risk, high-reward experiment, because we just don’t have the money to do it.”

Burrack has appealed the termination, and has also reapplied for new funding. She hopes she will be able to complete her research and inform efforts toward a new malaria vaccine. But it depends on funding.

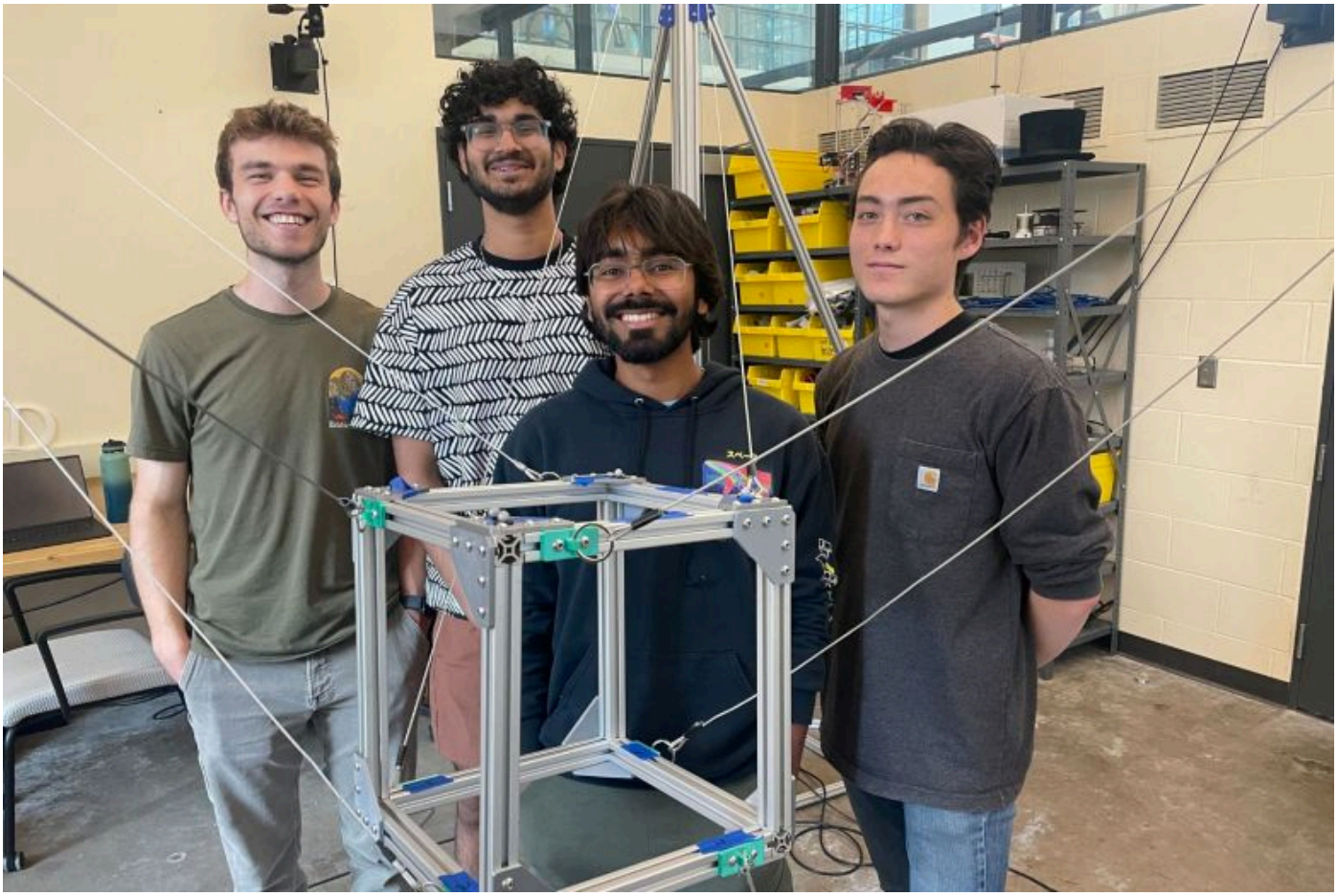
A coalition of states, including Minnesota, filed a lawsuit in April over NIH funding cuts, alleging that many were terminated over their connection to topics like diversity, equity and inclusion, transgender issues, vaccine hesitancy, “or another topic disfavored by the current Administration.” U.S. District Judge William Young in Massachusetts ruled in their favor in June, ordering a list of grants compiled by the states to be reinstated. The University of Minnesota told Sahan Journal it expected that all terminated NIH grants related to DEI either had been or would be reinstated, due to the court order. But Burrack’s grant was not included on the judge’s list.

Brian Evans, a spokesman for Minnesota Attorney General Keith Ellison, said that the list of grants the judge ordered reinstated was not comprehensive, but rather represented “terminated grants that plaintiff states were aware of at the time.”

“The Minnesota Attorney General’s Office is still working with research institutions in Minnesota to identify grants that were illegally terminated so we can work to get them reinstated,” he said. Evans said that other NIH grant recipients who lost funding over DEI or another topic disfavored by the administration should contact the Attorney General’s Office.

For Burrack, the stakes of getting her grant reinstated are high.

“I think we have some pretty clear evidence that if these projects end completely, that some really important potentially life-saving therapies won’t be tested,” she said.



University of Minnesota undergraduates Henry Mahnke, Shaumik Kalwit, Dhruva Pingale, and Michael States with the robot prototype they built through federal grant funding, in a partnership with Cornell University. The project had to pause when the Trump administration froze $1 billion in funding to Cornell. Credit: Provided

Peace-making and development efforts in the Middle East

Can a labor force program in Jordan help create political stability in the Middle East?

The world may never know, now that funding to study the question has been cut — and so has the labor force program itself.

Two professors from the University's Humphrey School of Public Affairs, Ragui Assaad and Caroline Krafft, were studying the efficacy of a program, funded by the U.S. Agency for International Development (USAID), to help young Jordanians train for and begin remote tech jobs. Their research, too, was funded by USAID. They hoped that if the program were successful, it could scale up across the region.

But right after the presidential inauguration, their funding came to a halt. Trump had declared ending USAID a top priority. Assaad and Krafft's research funding was pulled, and so was the funding to connect the young Jordanians with jobs.

Most of the training was complete by the time the funding was cut. But the part of the program to place the Jordanians in jobs remains frozen. Assaad and Krafft have found a potential funder for their research — but that funding is contingent on the job placement work in Jordan finding a funder, too.

Assaad believes that it's in the long-term interest of the U.S. to have a stable and prosperous Jordan. "Jordan has been a shock absorber in a very turbulent neighborhood surrounded by Iraq, Syria, Israel, Gaza and the West Bank," he said. "If young Jordanians cannot find jobs, it'll potentially destabilize a country that has been an island of stability in the region, which creates all kinds of problems for U.S. policy."

Great Lakes environmental, energy efforts

Bonnie Keeler is an associate professor at the Humphrey School of Public Affairs. She was leading a five-year, $10 million project in the Great Lakes region spanning six Midwestern states, including Minnesota. Her project provided technical assistance, like pro bono engineering services, and grant-writing support for communities for environment and energy improvement projects.

But the Environmental Protection Agency (EPA) terminated her funding in February, halting all operations over a weekend. The termination letter stated that DEI and environmental justice initiatives are "no longer consistent with EPA funding priorities." While it did not provide further details, Keeler thinks the project was flagged as DEI because it involved disadvantaged and tribal communities.

"People still need clean water, there's still huge issues with degraded energy and water infrastructure," she said. "These problems aren't going to go away just because they're not the priorities of the current administration; they're only going to get worse with lack of investment and set us back decades in advancing climate goals across the Midwest."

Her other projects focused on acquiring data for the EPA to have better estimates of the impacts of water quality changes along the Mississippi River, and training graduate students across EPA labs and getting them exposure to university research; the funds for both have also been terminated.

Making science education more accessible for diverse students

A. Kelly Lane's research on making biology education more inclusive for trans and nonbinary students was featured on Ted Cruz's database of NSF funding for "woke DEI grants" under the Biden administration last September. So when the first round of federal grant terminations was announced, the assistant professor of biology teaching and learning was waiting for the shoe to drop.

"There's absolutely no way a study focused on sex and transgender inclusion was going to survive," she said. "We knew it was coming, so we were basically paralyzed all week, waiting for the cancellation to hit."

Lane was able to put together a patchwork of funding from future projects to be able to use the data already collected and pay her research team. But the funding for future projects is unclear.

"Six months ago, I had the next three to five years of my career all figured out. And now I don't know what I'm going to be doing in the spring," she said. In the meantime, Lane continues her project in a reduced capacity. "I know that the work we're doing is really important; they're going to have to try harder to shut me up."

RELATED STORIES

Teacher training grants to UMN, St. Thomas on hold again after SCOTUS ruling

Following judge's order, ICE releases detained University of Minnesota MBA student

Freeze on University of Minnesota DEI position alarms students, faculty

Sarah Eddy, associate professor in the same department is also part of Lane's research team, while leading another research project on making science education more affirming to Hispanic students. Although Hispanics make up about 19% of the U.S. population (as of 2022), they remain underrepresented in STEM education, accounting for only 13% of STEM graduates in 2021-22.

Their study aims to encourage students to continue education in STEM fields by studying how they engage in the classroom and what influences that engagement including the climate of the classroom, the material being taught, and how those relate to their motivation in the classroom.

One simple way to increase engagement is to offer “scientist spotlights,” featuring scientists who align with the identities of the students.

“It’s a way of affirming to that student that just because you don’t see people like you in science doesn’t mean that science isn’t for you,” Eddy said. “Science is strengthened when you have students from all backgrounds with unique perspectives. The more ideas that are in dialogue with each other, the stronger the science is going to be, the faster the discoveries are going to be made.”

Eddy’s grant was terminated at the same time as Lane’s, halting the project before data collection could be completed. Eddy is also continuing their research, now with fewer resources and minimal support from research assistants.

Lane and Eddy worry that beyond stalling their projects, the cuts will weaken education research at large and limit support for students from diverse backgrounds.

“The best I can hope for is somebody to slow down the runaway train,” said Lane.

‘This is a part of the American story that really needs to be told’

The question Kate Derickson explores in her research with the Gullah/Geechee people is: “What does it mean for historically marginalized communities to practice self-determination?”

When Derickson, a University of Minnesota geography professor, first learned about the Gullah/Geechee community, she was astonished she hadn’t heard their story before. Growing up in anti-racist circles in Boston, she’d never learned the story of how formerly enslaved people in South Carolina island communities were able to buy land they had been enslaved on from the federal government during the Civil War.

“I had never heard of this group of people who owned the land that they had been enslaved on and had their own language,” she said. “I felt very committed to the idea that this is a part of the American story that really needs to be told. We need to understand the sharecropping and Great Migration story that is what we mostly understand to be the history of race and geography in the United States isn’t the only story, and so that struck me as a really profound absence from our shared understanding of history.”

Derickson has been working closely with the Gullah/Geechee community for 15 years. Today, they face challenges from sea level rise threatening their island homes and tax increases that come with gentrification. It’s important to the community to tell their own stories; Derickson has been working with them on collecting and archiving oral histories, as well as identifying and documenting burial grounds.

“A big part of the Gullah/Geechee narrative by outsiders is that it’s a dying culture,” she said. “And it’s important to them to say, no, there are still people living as Gullah/Geechee people, speaking Gullah.”

Gullah/Geechee participants in a focus group in Yulee, Florida reflect on art created by Reverend Johnnie Simmonds, a Gullah/Geechee artist. The artwork depicts an encounter between a Gullah/Geechee fisherman and the game warden. Participants reflected on whether the art resonated with their own experiences trying to practice their livelihoods. Credit: Provided

The Gullah/Geechee community organizations she worked with had previously balked at applying for a federal grant, because it was difficult to understand why so much of it would go to the university. But after 15 years of looking for funding, and coming to understand that the university could provide technical and accounting support that community organizations often don’t have, they decided to apply for a grant from the National Endowment for the Humanities — and received it.

Then in April, Derickson got a letter that her grant had been terminated — along with virtually all other NEH projects. She didn’t receive the notice immediately; the message came from a nongovernmental email address and was addressed to someone who no longer works at the university.

“Your grant no longer effectuates the agency’s needs and priorities,” the notice read. “The termination of your grant represents an urgent priority for the administration, and due to exceptional circumstances, adherence to the traditional notification process is not possible.”

At that point, Derickson and her collaborators had spent more than half the grant funding. They had planned to create an online story map so that people could access the archives online. They hoped that creating a digital archive could help share their story with the world — and preserve the materials from future hurricanes.

“Now we don’t have the funding to do that, and so what we collected is just going to sit in an archive,” she said.

The university provided a $20,000 bridge grant so Derickson could continue paying undergrads to collect data. But the termination has slowed down the process of sharing their work publicly.

Over the summer, several court orders have ruled in favor of humanities groups challenging the sweeping cuts. But it is not clear to Derickson whether these court orders will result in ultimately reinstating her grant. In the meantime, the NEH has announced a new round of grant funding focused largely on more traditionally told parts of the American story, like the Declaration of Independence and the American revolution.

Regardless of funding, Derickson says she will find a way for her work to continue. But she worries about people earlier in their careers who have received prestigious grants — only to have them pulled away.

“If I were in a different stage in my career, it would have been devastating,” she said.

‘Catastrophic for getting diverse perspectives into research’

For Jovany Betancourt, a student in the University of Minnesota’s dual M.D./Ph.D. program, losing his grant from the National Institutes of Health was personal.

Betancourt researches Cryptococcus neoformans, a brain infection that is often fatal in people with weakened immune systems from HIV/AIDS. But the F31 grant’s primary purpose was not the research — it was to support individuals like Betancourt. The grant can be used to cover expenses like professional development, health insurance premiums and child care.

“There’s a lot of things that these F-awards cover that just allow us to focus on doing the work and not have to focus on penny-pinching while also doing some of the hardest science there is,” he said.

Jovany Betancourt, an M.D/Ph.D. student at the University of Minnesota, researches Cryptococcus neoformans, a brain infection that is often fatal in people with weakened immune systems from HIV/AIDS. Credit: Provided

Betancourt, who is Cuban American, had applied under a grant opportunity designed to increase diversity in health research, a longtime goal in science. But in April, the Trump administration abruptly terminated the grants.

The primary impact for Betancourt was “emotional and mental,” he said. He’d spent two years writing that grant application, and was in the first year of a four-year grant cycle. He’d hoped the grant would keep him afloat if other opportunities fell through. But other grants were drying up, too. He realized that as a backup plan, he might have to take out private loans for the whole eight years of his dual degree program.

“Not allowing students to have financial stability during the hardest training of their lives will cause them to focus more on ensuring their survival, more so than focusing on the science,” he said.

Beyond that, though, he worried about the implications to global research. His Cryptococcus neoformanssamples came from Uganda — a partnership that helped fund clinics in that country. Now, some of those clinics are laying off staff and cutting back on programming, after losing U.S. funding. And that could mean patients won’t be able to find treatment.

“There are likely thousands of Ugandans with brains herniating from their brain stem from this infection that can’t get treatment because we’ve cut their funding,” he said. “I’m thinking of the patients that are now going to die, because we decided to save a couple million dollars here and there, which to the American taxpayer, is negligible.”

Betancourt’s grant funding was reinstated following a federal court order in June. But the Trump administration has appealed to the Supreme Court, which has previously allowed the administration to terminate grant funding while litigation continues, and Betancourt knows that his restored funding could be temporary.

The process has upended Betancourt’s dreams for his future career. He became interested in academic medicine through NIH-funded programs in college. He’d dreamed of working for the NIH after completing his program. Not anymore.

“Losing all these grants, especially the ones that are for minorities, is catastrophic for getting diverse perspectives into research,” he said.

What does he hope happens next?

“In my opinion, what needs to happen is the entire scientific community needs to observe, bear witness to what’s going on, and remember it,” he said. “That way we would never make this mistake again.”

Correction: This story has been updated to more accurately reflect how Gullah/Geechee people purchased their land during the Civil War.