Funding cuts threaten early career researchers

BY ABBY HUTSON



Abby Hutson uses atmospheric modeling to study Great Lakes weather and improve precipitation simulations, helping to predict impacts on lake levels, ice cover, flooding, and harmful algal blooms. Photo courtesy of the Cooperative Institute for Great Lakes Research.

A LOVED ONE recently said to me: "Why are you getting so stressed about research funding? You shouldn't let it affect you this much." I love my job, and I care deeply about Great Lakes research. The problem is that I am a federally funded early career research scientist at the University of Michigan, specifically the Cooperative Institute for Great Lakes Research. To keep my job, I need to meet specific requirements within the next four years, including securing external funding, publishing peer-reviewed research, and developing collaborative relationships in my field. Unfortunately, my progress toward these requirements is being hindered by the current U.S. administration. As my colleagues and I experience these road blocks, I realize that many people outside of academia may not fully grasp how deeply recent policy shifts are affecting our work. The state of U.S.-based scientific research is being attacked and erased, and it hits us early career researchers hard.

The most obvious way federal actions are impacting my professional career is through funding cuts. In my current role within U-M, research grants pay 90% of my salary. I am responsible for finding funding sources, leading project proposals, and applying for competitive external funding to show that I am capable of being an independent researcher. In my field of research, funding is typically sponsored by federal entities like the National Oceanic and Atmospheric Administration, U.S. Environmental Protection Agency, and the Department of Energy, among others, but current administrative actions have turned the once-reliable funding cycle on its head. Some previously funded projects have been handed stop-work orders, while others have had awards impounded. Grant proposals in review, which take months of work by the researchers, are stuck somewhere unknown in the process. To top it off, there currently are no open opportunities due to departments and offices within the government being closed, gutted, or completely reorganized. I'm repeatedly seeing that even late-career, tenured scientists are losing and missing out on grants. If they can't get funding, how will we early career researchers get our foot in the door?

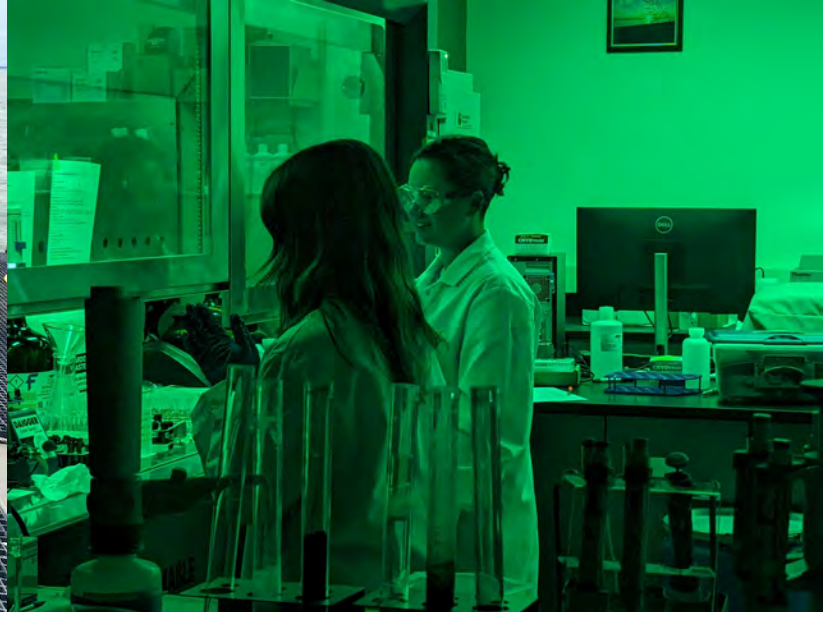
Beyond funding, collaboration and professional relationships are another important piece of my career progression. This makes sense—great science thrives in multidisciplinary teams with a broad range of experience. But in the past six months, doing collaborative work has been incredibly difficult. My position at a cooperative institute allows me to work often with federal colleagues, but probationary firings, early retirements, and a significant loss of institutional knowledge have led to a "brain drain" that compromises collaborative efforts. The federal researchers who remain are spread thin, covering projects left behind by former colleagues, leaving little bandwidth to form new collaborations. How can I, even with funding opportunities, form proposals without the co-investigators I need to make them strong and competitive?

I'm sure I'm not the only one who has been told, more than once, that: "You're smart! If you lose your job, you'll be able to find another one." When I hear that, I can't help but feel a sense of dread. If I lose my job due to federal funding cuts, it's not just me—most researchers in atmospheric science would be facing the same fate. We are not talking about one company performing lay offs; we're talking about the dismantling of a critical scientific profession that supports national environmental and public health efforts. The academic job market will become oversaturated, and the number of positions for academic researchers in the U.S. will shrink, leaving few opportunities for new talent. I would feel hopeless about finding other jobs anywhere in the country, let alone in the place I've made my home.

Again, I love my job. Despite all of these setbacks, I am putting my head down and continuing to do Great Lakes research. Not only because federally funded research makes the Great Lakes *safer* by improving forecasting and environmental monitoring, *stronger* by advancing policy recommendations, and *more profitable* by ensuring sustainable industries like fisheries, tourism, and agriculture. We don't do this work for money or job security. We do it because we believe in the Great Lakes. Our devotion to the Great Lakes region runs deep. We recognize its importance and beauty. Above all, it's our home, driving us to protect and preserve it for future generations.

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At left, Paris Schofield (front) and Jasmine Mancuso (back), both from CIGLR, process Lake Erie water samples on the boat deck during the 2025 harmful algal bloom (HAB) field season. **At right**, Mancuso (left) and Schofield (right) work under green light at NOAA GLERL to process chlorophyll-a samples. The green light protects the samples so scientists can accurately measure the amount of algae in the water.

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At left, Rima Upchurch (CIGLR) operating a SEAL Analytical AQ400 discrete analyzer to measure nutrient concentrations in water, such as phosphorus, nitrogen, or other chemical parameters. **Middle**, Maddie Tomczak (CIGLR, front), Cory Brant (USGS, middle, left), Lindsie Egedy (USGS, middle, right), and Greg Faneuff (USGS, back) collect ultraviolet light data from Lake Michigan's lake whitefish nursery habitats to investigate how sunlight exposure may affect young fish during their critical larval development stage. **At right**, Brianna Ellis (CIGLR) filters lake water to measure total suspended matter and carbon, hydrogen, and nitrogen content, which help scientists understand water quality and ecosystem health. All photos, courtesy of the Cooperative Institute for Great Lakes Research.