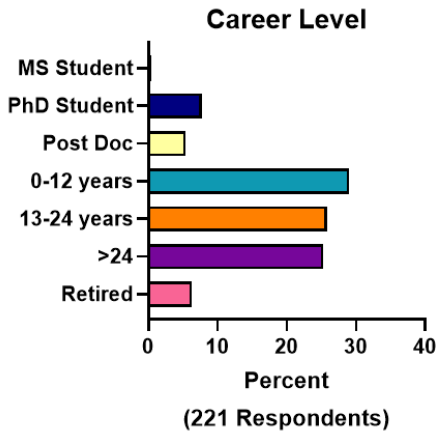
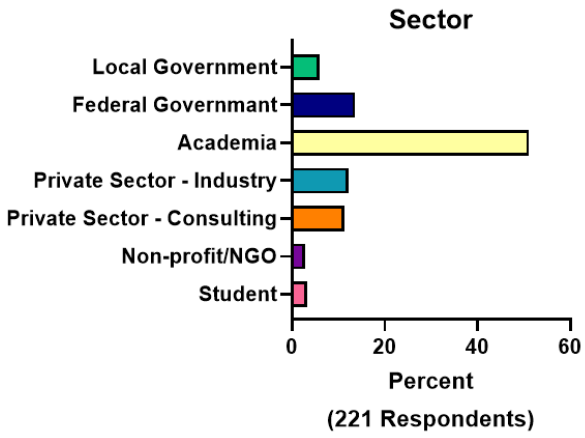
Current Challenges for Environmental Science Survey - Results Summary and Responses to Open-Ended Questions

September 26, 2025

Significant changes in the landscape of the environmental science and management in the U.S. during the past year are having wide-ranging effects on the professional community in North America. In response, a coalition of scientific societies that cover environmental sciences, led by SETAC, prepared a survey to collect data to better understand the current state of the field and develop ways to better support the professional community, navigate current challenges and plan for the future. A summary of results, as of Sept 14, 2025, is presented below. A more in-depth analysis and discussion also occurred during a SETAC Café on 9 September with additional key outcomes from this meeting included herein as well.

A total of 221 respondents have replied to the survey so far representing a wide range of career levels and sectors. 86% of respondents were from the U.S., 12% from Canada, 1% from Mexico, and 1% other countries. Notably, very few replies were received from Master's level students while 6% of respondents were retired indicating their continued engagement. Among sectors, the greatest response was from academia and students representing 54% of the total respondents, 20% were from local and federal government combined, and 23% were from the private sector (industry and consulting combined). Only 3% of the respondents represented non-profit/ NGOs.





Key Highlights:

<u>Direct Impacts on Careers and Funding</u>

- 64% of respondents indicated having more uncertainty in the current career situation while 30% indicated no change. Interestingly 6% of respondents indicated they have more clarity with their current career situation.

- Negative impacts to individuals have been wide-ranging as summarized in **Table 1** below with the loss of funding and associated repercussions at the top of the list affecting 37% of those responding to this question. Of those losing funding (87 respondents) only 14% have indicated finding a new source.
- 7% of respondents indicated that they have unfortunately lost their job, stipend, or appointment. Of these individuals (n=38) only 18% have found a new position at the time of the survey.

Other Impacts Shared:

- Other negative impacts noted outside those listed in the table include: lost collaborators; restriction on communications for federally-funded work; overall uncertainty; travel restrictions; workplace hostility; lost projects due to DEI focus or goals; need to relocate outside the U.S.; forced early retirement also leading to loss of institutional knowledge; loss of expertise to other countries; constant threat of being fired; fear of not being able to teach climate-related topics; increased competition for existing jobs and funding; fewer international students also applying to graduate programs and those accepted having difficulty getting visas approved; restricted communications between federal agencies hampering decisions. Concerns were also expressed about the potential loss to data access provided by Environmental Justice, IRIS and potentially other databases maintained by US EPA (CompTox and Ecotox).

Table 1. Negative Career Impacts

Answer Choices (Choose one or more)	Responses	
	%	n
Lost job, stipend, or appointment	7	14
Lost grant, award or funding	36	70
Lost clients or projects	10	37
Had to lay off staff	14	27
Increased workload due to hiring freeze	30	58
Had to take on less students	28	54
Unable to find job, post-doc, internship opportunity	7	14
Unable to secure fellowship for MS or PhD student	13	24
Lost Fullbright opportunity	1	2
Unable to submit work to present at meetings and conferences	30	58
Lost access to data, samples, or research sites	27	51
Had to change research focus to get funding	21	41
Are you finding less interest in the number of potential students pursuing degrees in the	14	27
Other	12	23

Total Respondents: 190

Positive Outcomes

- Despite the substantial negative impacts noted nearly 50% of the respondents (n = 107) indicated having some positive career outcomes recently with 22% of these individuals finding a new job or promotion, 3% finding a new internship or fellowship, 64% indicating a new

opportunity or client, and 22% another positive opportunity. Private industry opportunities continue to grow overall with increasing salaries.

Conferences and Meetings

- The ability to attend and present at conferences and meetings has been significantly impacted with 28% of total respondents (n=218) indicating not being able to attend due to funding, 15% not able to attend due to institutional restrictions, and 9% indicating an unwillingness to attend U.S.-based conferences. 40% of respondents indicated being able to attend conferences with permission.
- Among 218 respondents, 54% indicated submitting and still planning to present at conferences or meetings this year, 17% indicated submitting a presentation this year but possibly not being able to present, and 13% indicated not being allowed to submit a presentation.

The following two open-ended questions solicited a wide range of responses. Key phrases and themes associated with these questions beyond those presented above are summarized below. Responses are combined and paraphrased with some full quotes included.

1. **What are your thoughts on the state of the environmental science and management field and profession in North America?**

Negative or Neutral Responses:

- Many adjectives and brief phrases were provided such as saddened, tragic, heartbreaking, irresponsible, frustration, demoralizing, tenuous, and precarious; destructive path; crumbling support, attack on critical thinking, uncertainty and despair, embarrassment on the world stage; lost opportunities and innovation.
- Brain drain/ loss of institutional knowledge, concern about the future lack of skilled practitioners able to perform risk assessment.
- We have a long recovery time ahead.
- We have a strong but fragmented community.
- Loss of critical jobs and career opportunities.
- Less attention to climate change and environmental science.
- Loss of international diversity.
- Embracing renewable energy is needed or we will become less relevant.
- Canada is also seeing large cutbacks in federal government and potential funding.
- It is a difficult time to recruit.
- Decreased attendance at conferences.
- Sectors are becoming unbalanced.
- Many colleagues just getting started are overlooking the current challenges.
- Reduced support from the federal government but state and local needs remain important.
- Lack of interest of elected leaders to address environmental problems.
- Loss of U.S. as a global leader in science; cutting edge science is being thrown into upheaval and curtailed.

- Dismissal of science in pursuit of other political objectives/politicizing of science; a reliance on pseudoscience in areas with more uncertainty; ignoring or suppressing scientific evidence; decisions are being made by politics and public outrage, not science.
- A significant hit to the trustworthiness and respect of scientists, federal agencies, and science itself; we are actively entering a dark age of disinformation and strategic biases.
- We are under a long-lasting recalibration of what environmental science and management professions look like in the future including loss of informed decision making and negative impacts on regulation.
- We need to communicate better to non-scientists.
- The pendulum is swinging back to the precautionary principle placing the responsibility on those proposing an activity (e.g., industry, government) to prove that their action will not cause harm, rather than on the public or regulators to prove it will.
- Cuts to funding for students will have long-term impacts on the next generation
- Feeling that protecting human health by studying ill-effects of pollutants is not valued by people in the U.S.
- Lack of courage of political leadership to stand up for environmental issues and defend sound environmental policies that have worked for years.
- Deregulation is concerning; when people start dying from dirty air and water, it will be too late to reemploy all the workers that have been fired and the labs that have been dismantled.
- I'm concerned and worried about how science fields and professions are being impacted. Everyone is doing amazing work in their respective fields and it's sad thinking about how progress is pausing or ending due to funding impacts.
- I am deeply concerned about the long-term implications of the dismantling of science institutions and disregard of science promoted by the current administration in the U.S.
- The U.S. choosing to withdraw a lot of funding for environmental science research is going to stymie research for a number of years. I had also been considering a job in a federal government research setting after graduation, such as at the US EPA, but now I would not want to apply for a job there considering the entire research & development office at the US EPA was just dismantled. I am saddened by the dramatic withdrawal of resource investment in environmental science and management in the U.S.
- We are currently undervaluing our government workforce in North America. We critically need government representation in our scientific societies. They are often viewed as the pragmatic and unbiased representatives in their field.
- Environmental science is a low priority for the Trump administration. However, there is still a lot of environmental work that needs to be and is being done by environmental professionals that are trying to do more with less and potentially facing burn out and disenchantment in the future.
- The state of the field remains as important as ever, although environmental science and management has always depended on federal support - both policy and funding support. That support is crumbling. Most funding currently hinges on the personalities of individuals, rather than contracts and agreements.
- Weak is the best description. My focus is environmental toxicology and cancer development, and we are continuing to roll back regulations on chemicals that are known carcinogens.
- I am senior enough to have been around at the time U.S. EPA was in its infancy and have worked with US regulatory authorities since 1980. What is happening at the federal level with rollbacks to historically accepted legislation, staff reductions at the federal level and funding cuts towards

research is going to create a gap, larger than ever, between current and future expertise needed for effective env protection. My suspicion is that regulatory uncertainty will result in lower levels of chemical innovation in the U.S. and shipping of work to non-U.S. locations. Denial of climate change makes the U.S. the laughingstock of the world. I just returned from French Polynesia where sea level rise is already impacting sea level atolls. It is alarming.

- I am concerned about the loss of institutional knowledge and capabilities at government laboratories. Even if EPA research labs are brought back in subsequent administrations, it will take years, if not decades, to rebuild them to where they once were. In addition, the precedent has been set for the gutting of these institutions which is a major loss to the public's trust in them, but also the confidence of early career scientists that they can find stable employment as environmental scientists in the United States.
- In the academic world, most of my senior colleagues seem to overlook the challenge the current climate presents for those of us just getting started. We lack endowed chairships and extensive funding networks to make up for the gaps. Nor is there any acknowledgment that standards for tenure should change. I fully expect that we will be losing many talented early-career faculty. Increasingly, research careers are high-barrier, low-reward endeavors.

Positive Responses:

- The field is very strong.
- It is an exciting time for those involved in PFAS.
- Trying to remain hopeful and optimistic.
- Potential increased opportunities in the private sector.
- The state of the field remains as important as ever.
- Encouraged by new directions for economic growth in the U.S. - new factories mean additional employees in the environmental and EHS fields.
- OK in Canada with new CEPA amendments and Environmental Justice Laws, as well as record turnout at CEW conferences.
- With new environmental reporting requirements (CSRD) internationally for global organizations it feels like there is more work not less.
- Keep persevering - particularly studies related to climate change and wildfire risk.
- Short-term impacts due to the current administration’s positions, but the global business view is that sustainability is essential for businesses to thrive.
- Applied research continues to satisfy ongoing business and regulatory needs.
- The science field is strong and growing.
- A growing strong backlash in the U.S. and elsewhere will succeed in pushing forward new opportunities and a realization that the U.S. government will need to change course to protect our planet.
- Environmental science and management in North America is evolving rapidly - while facing serious environmental and political challenges, it also offers exciting opportunities for innovation, collaboration, and meaningful impact; especially for those who are adaptable, interdisciplinary, and equity-minded.
- Remain optimistic that the field of environmental sciences will continue to be strong, but it would be wise to come up with creative solutions and initiatives - starting with rethinking current academic curricula in the environmental sciences field.
- Scientists and policymakers will need to shift tactics to adapt to the current political climate, but there will be new avenues to achieve research goals.

- Hopeful that outside the U.S., environmental science and management fields are thriving.

Please also see the following editorials published in IEAM on this subject:
https://doi.org/10.1093/inteam/vjae020 , https://onlinelibrary.wiley.com/doi/10.1002/ieam.4194

2. **Do you have suggestions on how scientific societies can assist the environmental science and management professional community in North America at this time?** Responses to this question were broken into 3 main categories 1) Advocacy and Communication; 2) Collaboration and Training; and 3) Funding:

Advocacy and Communication

- Advocate - SETAC-NA and members need to be a loud voice at the federal level; continue to speak up and provide letters of support for science and environmental protection policies; and leverage senior members to assist. Be vocal and connect with the general public to improve perception of science, academia, and engineering through social media and news outlets - communication is key, and staying silent will not help our scientific community. SETAC needs to be a positive leader and forward looking through this period of change and uncertainty. Communicate effectively to our U.S. representatives. Continue advocating for clean air, clean water and a healthy planet. Support legislation to maintain current and proposed research.
- Continue to advocate for research and funding for water and sanitation in developing countries impacted by cuts to foreign aid; help connect displaced scientists with new positions.
- The general public needs to understand the basics of science: methods, study design, bias, interpretation of results, safety assessment, and extrapolation. Studies that report sensational and exaggerated results should not be published, and more scrutiny is needed during the peer review process. The public needs to know that the scientific community, and scientific consensus, do not agree with current regulatory decisions. Hold public campaigns to garner support and trust. The public needs to see how the science can positively impact them, their health, and the health of their children. Bring people together and build community.
- Encourage us to join together and act as one voice and one body for what we believe in and the future we want. Scientific societies can continue to provide a venue for important scientific and representation/belonging discussions.
- Scientific societies should unite to reassure our scientific community and trainees to stay strong even with the challenges. Additionally, it is important for our societies to develop relationships with our federal leaders to ensure they trust the work of the environmental science community and understand its importance. Support our early career colleagues to stay strong.
- Encourage voting - focus on mid-term elections.
- Avoid agendas that say climate change. We can talk about wildfires, flooding, extreme heat, etc., and effects on public health. We need people in the various disciplines who are in positions to be able to do so (perhaps SETAC could focus on its retired cadre to help, which its mostly ignored to date), to advocate for science, for learning, for better public health (connecting ecosystems to public health and not limited to talking about ecosystems). Write, give talks, march, teach the next generation, etc. We need courage -- but also a strategy. Be fun, not dour.
- Scientific societies can continue to provide a venue for important scientific and representation/belonging discussions. Thank you for conducting this survey. It is a good step in figuring out a path forward. This survey is a good step in figuring out a path forward.
- Share information and challenges. Knowing you aren't alone in difficult times is uplifting.

- Scientists/science need visibility now more than ever. Promotion/advocacy of good science, calling out the bad, and providing scientists safe places to collaborate and network are some ways to help.
- Engage in coordinated publicity about the importance of environmental protection, the net benefits (in dollars) of regulations, and the long-term impacts that reduced funding in this area might have on public health.
- Provide meaningful forums to discuss how to address ongoing headwinds in the sciences; emphasis on how we can solve problems through working together across sectors and disciplines.
- Networking between state regulatory authorities may become much more important, opportunities for states to learn from each other will be increasingly important. SETAC-NA needs to be a loud voice at the federal level, leveraging senior level people (like myself) who have less to sacrifice at this stage of their careers, to swing state congressional representatives about the harm they are being complicit in. I am a lifelong Republican and have found myself switching allegiances and being increasingly vocal about my position.

Collaboration and Training

- Increase virtual meetings, workshops, seminars & decrease meeting/membership costs where possible.
- Organize conferences to have a greater focus on collaboration and joining together to tackle larger projects across multiple institutions.
- Explore the possibility of creating other non-conference in person information exchange opportunities.
- Hold meetings in cities outside of the U.S. that are affordable to travel.
- Networking between state regulatory authorities may become much more important.
- Increase engagement with students (our next generation) and find ways to support and encourage them to pursue careers in the field.
- Invite representatives to campus.
- Have a broader international engagement/network to promote opportunities for current students and postdocs outside the U.S. Be empathetic with scientists from developing countries; circulate additional opportunities, including international ones.
- Ensure attention towards supporting the Canadian & Mexican members who may feel ignored among all the U.S. government drama.
- Develop tracks to give people skills to find jobs, free training opportunities.
- Provide mentorship and training on how to deal with change which can come with great opportunities.
- Much of the work that had been done by U.S. federal agencies may be shifting to states, tribes, and other local government agencies - work with and support those professionals.
- Continue to support free exchange of ideas and information, offer conference attendance/travel support as much as possible.
- Release all content (presentations, posters, etc.) online for free so professionals who did not participate can at least review and perhaps ask questions to authors.
- Meetings need to continue to provide spaces for tri-partite discussions. If one sector is struggling to attend, the scientific society should try to find creative ways to help their attendance and/or facilitate the necessary dialogue. Having government participation is critical to the success and relevance of SETAC.

Funding

- Help connect scientists in academia, early careers, and international students with new funding sources; lobby corporations and foundations to fund environmental science.
- Keep track of what is happening, so there is a record.
- Increase fundraising and mobilize the private sector to invest in environmental science to compensate for the lack of federal funding; more student research/travel support.
- Broker deals between academic or private sector organizations and agencies (e.g., U.S. EPA) to bring agency labs and offices into academic or private sector organizations.
- Provide extra support for students who have lost funding, government employees with restrictions, and researchers who have focused on environmental justice issues.
- Publicize grant and research opportunities from smaller organizations to encourage collaborations and adaptation from larger grant foci.
- Maybe scientific communities could host events or partner with organizations to help donate funds to projects and people in the environmental science and management professional community. Maybe the general public would be interested in donating or participating in an event with more awareness to how these impacts may affect them as well. Maybe coordinate a run/walk event with other environmental companies and the public to raise funds.
- Provide support to ensure that any cuts to U.S. government agencies do not result in complete loss of existing databases, online tools, etc. - specifically, Ecotox database, SeqAPASS, CompTox Chemicals Dashboard, etc. Loss of these tools due to funding cuts would be absolutely devastating to the toxicology community.

Closing Thoughts

It is clear from this survey and the day-to-day news that our Society faces significant unfortunate challenges and uncertainty at this time in North America and nearly everyone has been either directly or indirectly affected in some way. However, a number of exceptional suggestions have been provided on what we all can do – please review and let's act! Notably, there is also a strong indication that a majority of state and regional agencies, and private industries, are not rolling back existing environmental protections; a high proportion of academic and government researchers are continuing to pursue opportunities and persevere despite the cuts; and there is an overall tremendous growing movement to fight these challenges to advocate for good science and policy. There are also so many amazingly bright, motivated scientists, regulators, and environmental managers which gives us confidence and hope too. These are troubling times no doubt, but this is also a golden opportunity to come together, support each other, advocate, and look forward to what we can collectively accomplish in the future. The daily news is often troubling, but we are optimistic that the desire and need to have a clean healthy environment will win over the current challenges we are facing. Please join us for a great opportunity to share further in person at the SETAC annual meeting in Portland.

In the face of all these challenges SETAC North America has been hard at work addressing many of the suggestions provided. Please see the **SETAC Globe Article** published in October 2025 highlighting efforts and resources to support Careers, identify potential Funding sources, and growing advocacy efforts for science-informed research, transparency and oversight, jobs, and funding. Additional information and ways to personally engage are provided on SETAC North America's website: SETAC North America's Advocacy Work Under Current U.S. Political Climate. Members can read all about SETAC North Ameria's advocacy philosophy and effort online.