Northeastern

NOTIFICATION OF IRB ACTION:
Modification Approval

06/02/2025

Human Subject Research Protection

Mail Stop 560-177
360 Huntington Avenue
Boston, MA 02115

617.373.7570
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research.northeastern.edu/hsrp/

IRB#:	25-03-14
Principal Investigator(s):	Kathleen Lotterhos
Department:	Marine and Environmental Sciences
Title of Project:	Effects of federal policies on ecology, evolution, marine, and environmental scientists
Modification:	- Edit to consent form to clarify risks - Edit to survey to questions
Review Type:	Exempt 2(i)

Investigator's Responsibilities:

1. The informed consent form bearing the IRB approval stamp must be used when recruiting participants into the study.
2. The investigator must notify IRB **immediately** of unexpected adverse reactions, or new information that may alter our perception of the benefit-risk ratio.
3. Study procedures and files are subject to audit any time.
4. Any modifications of the protocol or the informed consent as the study progresses must be reviewed and approved by this committee **prior to being instituted.**
5. This approval applies to the protection of human subjects only. It does not apply to any other university approvals that may be necessary.

Northeastern University
Human Subject Research Protection

northeastern.edu/research/hsrp

Modification Form
Submission Date: April 25, 2025

All modifications to human subject research must receive IRB approval before subjects are involved in the revised protocol. Research activities include, but not limited to: recruiting participants, interacting with participants, collecting data, or analyzing data.

- Submit all revised or new documents that are being changed or added per the amendment.
- Indicate changes on revised documents through track changes.
- Submit all documents in Word format.

Application material need to be submitted to IRBReview@northeastern.edu.

Exempt Projects: Only significant changes need review. Modifications do not need to be submitted for exempt studies so long as the research remains minimal risk and stays within the boundaries of the exemption categories that the IRB found were applicable to the research. For more information, please refer to Exemption: Examples & additional considerations.

PROTOCOL INFORMATION

Principal Investigator: Kathleen Lotterhos
Student Investigator [if applicable]: Click or tap here to enter text.
IRB Number: 25-03-14
Protocol Title: Effects of federal policies on ecology, evolution, marine, and environmental scientists

MODIFICATION DESCRIPTION

Describe the requested changes[1]: We would like to make a couple of modifications to our survey and protocol to reduce the chance that individuals could be identified from their responses in the survey. The following changes were made to the survey: The consent form was edited to clarify risks. Some of the questions were edited to include language that specified if a participant is worried that checking multiple boxes could be used to identify them, to choose the box that best describes them or skip the question. The following sections in the protocol application form were edited: potential risks were updated and expanded; identifiers were updated to include society, state, and career stage; the data anonymity and storage sections were updated to clarify that survey responses will not be stored in their original format, and that the original format will be deleted from Qualtrics following each round of the survey. These changes were also made to the study description.
Describe the rationale for the proposed changes: Although we are not collecting direct identifiers in the survey, concerns were raised that individuals may be identified by indirect identifiers, including

[1] if the modification involves a change in PI, indicate the original PI and the new API on the form. For all other changes to the research team, please update the research team form and submit to IRBReview@northeastern.edu.

their society, state, and career stage. This would only be a concern in the rare event that the survey data in the original format was leaked by Qualtrics and membership data was leaked from societies, or if the survey data and membership lists of societies were subpoenaed by the federal government. In particular, this latter case could create risk to federal scientists, immigrants, and other researchers who participate in the survey if the federal government seeks to fire them, revoke their visas, or cancel their grants, respectively, based on their participation in the survey.
Do the proposed changes affect the risk to benefit ratio: ☒ Yes ☐ No ☐ Unsure The proposed changes should reduce the risk-to-benefit ratio by making the risks clearer in the wording of the survey and clarifying how the data will be stored.

REVISED & NEW MATERIAL

For modifications to currently approved procedures or to add new procedures, resubmit the protocol application incorporating the revisions throughout. Modifications may require changes to informed consent/assent documents, recruitment materials, data collection instruments, measures, etc. Ensure that all new and revised documents are submitted with the modification.
List all revised documents that are submitted with the amendment: Revised survey; Revised protocol application form; Revised study protocol
List all new documents that are submitted with this amendment: Click or tap here to enter text.

PRINCIPAL INVESTIGATOR ASSURANCE

I have reviewed the contents of this form, with attachments and certify the information provided is complete and accurate.

Signature: K Lotkhos Date: Apr 27, 2025

Principal Investigator / Faculty Advisor

Signature: _____ Date: _____

Student Investigator

Northeastern University
Human Research

northeastern.edu/research/hsrp

EXEMPT PROTOCOL APPLICATION FORM

Complete and submit this form, including all study materials, to request an exemption determination from the Northeastern University Department of Human Research. Are you using the correct form? See Protocol Application Flowchart: what form do I need to submit if unsure.

Before completing this application, please familiarize yourself with the Investigator Manual to understand the responsibilities for which you are accountable as an investigator in conducting research with human participants. For more information on exemption determination, eligibility criteria, and regulatory requirements for exempt studies, visit the DHR Guidance Page.

Application materials need to be submitted to IRBReview@northeastern.edu.

PROTOCOL INFORMATION

Principal Investigator: Kathleen Lotterhos

NU College/Department: Marine and Environmental Sciences

Student Investigator [if applicable]: Click or tap here to enter text.

Protocol Title: Effects of federal policies on ecology, evolution, marine, and environmental scientists

Funding Sources (list agency and grant ID/title): None

1. INVESTIGATOR INFORMATION

Principal Investigator *(PI cannot be a student)*: Kathleen Lotterhos

CITI Human Subjects Research course completion date: 03/07/2025
Investigator is: X NU Faculty ☐ NU Staff ☐ Other:
NU Email: k.lotterhos@northeastern.edu

Dual Appointments: does the PI also have any non-NU appointments or positions at any other universities, hospitals, or other institutions that conduct research or may be related to this research?
X No other appointments or positions
☐ Has one or more other appointment(s) or position(s). Please explain the position and how the position might or might not relate to this research project: Click or tap here to enter text.

Is this student/postdoc/trainee research? ☐ Yes ☒ No
If yes, please provide the following information:

Student/postdoc/trainee Name: Click or tap here to enter text.
CITI Human Subjects Research course completion date: Click or tap to enter a date.
☐ Undergrad ☐ Grad Student ☐ Postdoc ☐ Other: Click or tap here to enter text.
College: Click or tap here to enter text.
NU Email: Click or tap here to enter text.

Dual Appointments: does this investigator also have any non-NU appointments or positions at any other universities, hospitals, or other institutions that conduct research or may be related to this research?
☐ No other appointments or positions
☐ Has one or more other appointment(s) or position(s). Please explain the position and how the position might or might not relate to this research project: Click or tap here to enter text.

Oversight Plan: How will communication occur between the PI and student/postdoc/trainee researcher to ensure appropriate oversight of study conduct, unexpected problems, project modifications, and interim results?: Click or tap here to enter text.

Other NU Investigators
Are there other NU-affiliated investigators working on the human subjects research project?
☒ No. Only the PI and student (if listed) will be working on the project.
☐ Yes. Submit a **Research Team Form**.

Other non-NU Investigators
Are there any non-NU investigators working on the human subjects research project?
No.
☒ Yes. Please outline their affiliations and roles in the project, outline any potential conflicts of interest the collaborators may have related to the project, and detail the training, oversight, and communication plan for collaborators outside of NU. If the collaborators will be obtaining exemption determinations from another IRB, outline that plan. Please note that the NU IRB does not typically provide oversight for non-NU investigators on Exempt research:
~~**See attached research plan.**~~
Non-NU investigators will only work with aggregated, de-identified data.

2. CONFLICTS OF INTEREST

Does the PI or student investigator have a financial interest or fiduciary relationship to the research or research sponsor?

☐ Yes ☒ No
Click or tap here to enter text.

3. RESEARCH SUMMARY

In lay language, summarize the objective of the research.

The objective of this research is to understand the effects of federal and state policies since January 20, 2025 on scientists and their research in the fields of ecology, evolution, marine science, and environmental science. We aim to understand the types of impacts, the distribution of impacts across states, and the distribution of impacts across career stages. This information will be summarized and published on a webpage **https://www.firsthandaccounts.org/home**

4. RESEARCH LOCATIONS

A ***research location*** is a location or place where the NU researchers will conduct the research procedures. Examples: lab space, schools, community centers, public venues

Where will study activities occur? Outline each location, describe what activities will occur at each.

The study activities will occur in an online survey distributed through Qualtrics.

Will any study activities (data collection, recruitment, or other) occur internationally, or is it likely that participants and/or their data will be subject to GDPR, PIPL, or another international privacy law?

☐ Yes ☒ No

If yes, complete the International Research Form. Please note that this process is to ensure that relevant laws, policies, and regulations are being applied such as: GDPR, PIPL, country specific regulations, and other relevant policies. Please see globalsafety.northeastern.edu and security.its.northeastern.edu for support.

5. PARTICIPANT INFORMATION

Describe all inclusion and exclusion criteria/the population being recruited.

Participants will be included if
(1) They are a member in professional societies, including but not limited to: the American Society of Naturalists; the Society for the Study of Evolution; the Western Society of Naturalists; the Ecological Society of America; Black Women in Ecology, Evolution, and Marine Science; Women of Color in Ecology and Evolution; the Coastal & Estuarine Research Federation; American Ornithological Society; Society for Conservation Biology North America; National Shellfish Association

Select all participant populations that will be recruited, either intentionally or are likely to be included:

Age & Enrollment goal
☒ Adults (18+ years old), specify age range: Click or tap here to enter text.
☐ Minors (≤17 years old), specify age range: Click or tap here to enter text.

6. RECRUITMENT PROCEDURES

Select all types of recruitment materials that will be used. Be sure to attach all recruitment material with your application.

☐ Student subject pool posts e.g., Psychology subject pool, *please specify*: Click or tap here to enter text.
☐ Social Media posts (Facebook, Twitter, etc)
☒ Emails
☐ MTurk, Qualtrics Panel, or similar online population posts
☐ Postal Mail
☐ Flyers
☐ Website ad, online announcement, internal or external to NU
☐ Verbal announcement or scripts, *please specify where*: Click or tap here to enter text.
☐ Other, *please specify*: Click or tap here to enter text.

For each group of participants, describe the details of the recruitment process.

- **How will potential participants be identified?**

Participants will be identified through their membership in participating professional societies.

- **How will participants be recruited and using what materials?**

Participating professional societies will be provided with an anonymous link to the survey, which they will distribute to their members.

- **How will participants be screened?**

The first page of the survey has a consent question that asks participants to certify they are at least 18 years of age and are based in the US.

- **Who will recruit participants?**

The PI will recruit professional societies to participate.

7. STUDY PROCEDURES

Select all research methods and/or data sources that apply.

X Surveys, questionnaires, or writing prompts
☐ Interviews
☐ Focus groups
☐ Observations
☐ Cognitive or aptitude tests
☐ Physiological measurements, e.g., EEG, MRI
☐ Mobile applications or devices (fit bits, etc.)
☐ Intervention (behavioral or biomedical)
☐ Using custom devices or custom software developed by the study team
☐ Recording audio and/or video and/or taking photographs
☐ Data that have already been collected or already exist
☐ Other, *please specify*: Click or tap here to enter text.

Describe EACH research procedure checked above. Include the order in which they will be conducted, the duration of each procedure, and the total duration of participating in the study.

An anonymous link will be created in Qualtrics and sent to the contact person for each professional society. Each society will then distribute the link to its list of members.

Please see attached survey for a list of specific questions.

8. PARTICIPANT INFORMATION SHEET (or "Exempt Information Sheet")

If a study is granted exemption from IRB review, a signed consent is typically not required, but the study will still require that that participants receive information about the study and indicate affirmative agreement to take part in the study. This is achieved via a participant information sheet in place of an informed consent form.

Describe how the participant information sheet will be distributed to participants and how the research team will ensure participants agree to take part in the study.

Each participant will receive an email with an anonymous link to the survey from their professional society. The survey contains the participant information sheet as a cover page that describes the study and asks for their consent to take part in the survey.

Will the participant information sheet describe all research activities?

X All study activities will be disclosed in the information sheet

☐ The study involves deception or incomplete disclosure but the information sheet describes this. Please note that, to remain eligible for exemption, the subject must authorize the deception through a prospective agreement to participate in research in circumstances in which the subject is informed that he or she will be unaware of or misled regarding the nature or purposes of the research.

9. SUBJECT COMPENSATION

Will subjects receive compensation or rewards for participation?

☐ Yes X No

If yes, provide a brief description of compensation or rewards, including amount, payment frequency/schedule (including pro-rating), payment method (e.g., gift card, cash), and any odds of winning a raffle/etc.

Click or tap here to enter text.

10. SECONDARY DATA ANALYSIS

Does the study include secondary analysis of data that was or will be collected for a different purpose? Please note that this is for research studies that both collect prospective data AND use secondary data or data collected for non-research purposes. ***(If you will not be able to access any identifiers, consider whether this project meets the definition of Human Subjects research.)***

☐ Yes X No

If yes, what is the original source of the data?

Describe the variables of the dataset(s) or provide a code book containing only the data elements you will be analyzing:

What permission(s) do you have to access and analyze the dataset?

11. RISKS AND BENEFITS

Select all potential risks that may result from taking part in the study:

X Emotional (e.g. discussing sensitive topics, reliving troubling experiences)
☐ Physical discomfort (including temporary pain, soreness, or discomfort by being touched by research staff)
☐ Health or physical injury risks
X Privacy and confidentiality risks
x Social or financial risks
x Professional risks
☐ Population specific risks
☐ Risks to individuals who are not the research participant (e.g. family members, research staff)
☐ Potential for perception of coercion due to existing relationships (student/professor, employee/employer, etc.)
☐ Other risks not covered

For any potential risks checked above, describe what safeguards will be implemented to minimize each risk.

Emotional risks. The Participant Information Sheet will explains this survey will ask them about how federal policies have impacted their research, which may carry the emotional risk of reliving a troubling experience.

Privacy and confidentiality risks.
The Participating Information Sheet will explain that this survey is confidential and anonymous, and that participants may risk their privacy or confidentiality in the level of detail they decide to include in the open-ended responses. Any identifying information in open-ended responses will be removed prior to publication or analysis.
Although we are not collecting direct identifiers in the survey and we do not have access to the society membership lists (societies will distribute anonymous links to the survey), a person with access to society membership lists may be able to identify individuals by their society(ies), state(s), and career stage reported in the survey. This would only be a concern in the rare event that the survey data in the original format was leaked by Qualtrics and membership data was leaked from societies, or if the original survey data and membership lists of societies were subpoenaed by the federal government.

Social or financial risks and Professional risks.
If the original survey data and society membership lists were subpoenaed by the federal government, there could be a risk to federal scientists, immigrants, and other researchers who participate in the survey if the federal government seeks to fire them, revoke their visas, or cancel their grants, respectively, based on their participation in the survey.

12. CONFIDENTIALITY AND PRIVACY

Select all identifiers collected or used at any stages of the project (including recruitment, data collection, and transmission):

☐ Names
☐ Dates (date of birth or other dates)
☐ Emails, phone numbers, or usernames
☐ Street address or other location data
☐ Audio recording
☐ Video recording or photographs
☐ Detailed demographic data
x Other identifiers
☐ No identifiers used or collected

Briefly describe the identifiers checked above:

Although we are not collecting direct identifiers in the survey and we do not have access to the society membership lists (societies will distribute anonymous links to the survey), a person with access to society membership lists may be able to identify individuals by their society(ies), state(s), and career stage reported in the survey.

If data will be coded or anonymized, describe:

- When data will be coded or anonymized in each dataset.
- When and how identifiers will be destroyed (if data will not be coded)
- What identifiers will be removed from the data set
- How data might be processed to remove identifiers in data without clear identifiers (video footage, etc.).

We will distribute the survey via an anonymous link and we will not collect IP addresses.

After the completion of each round of the survey, the data will be aggregated according to the study questions. The aggregated summaries will be downloaded and stored as described below. In addition, responses to each question will be separated from the other questions, scrambled, and downloaded from Qualtrics. The resulting datasets will be stored as described below.

Open-ended responses will be separated from other questions and downloaded from Qualtrics. The PI will remove any identifying information from open-ended responses prior to publication or analysis. Examples of identifying details that would be removed include details like names, dates, and approximate budget impacts (e.g., dollar amounts). Non-identifying details that participants might include executive orders and the number of personnel impacted. The resulting narratives will be qualitatively analyzed by generalizing the impacts. Participants will have the option to give us permission to quote their narratives anonymously on the website https://www.firsthandaccounts.org with all identifying information removed prior to such publication. The de-identified narratives will be stored as described below.

After completion of these data separation, anonymization, and storage steps after each round of the survey, the original responses will be deleted from Qualtrics.

If the study will code (i.e. de-identify) the research data by replacing subjects' names and/or other identifiers with assigned subject IDs, explain the following aspects of the coding process:

- The process for how subject IDs will be generated/assigned (e.g. random, sequential)
- Whether there will be a key that links subject ID with direct identifiers. If there will be no linkage key, state that.

We will not keep track of individual subjects.

If a key will be created linking identifiers to subject IDs, describe:

- How the key will be stored separate from research data
- The role(s) of all individuals who will have access to the key
- When the key will be destroyed

Not applicable.

Please describe how all data will be collected and stored.

Offline Digital Data Collection and Storage (tablet, laptop, thumb drive, etc):

X Offline digital data is collected and stored only using NU secured and owned devices, *please specify:*

The de-identified narratives, aggregated summaries, and scrambled datasets for individual questions will be stored according to Northeastern data storage policies.

Some analyses may be performed on the laptop. When this is the case, data collected in Qualtrics may be downloaded to an NU secure laptop and stored in a password protected folder, aggregated for data visualization, then deleted after the analysis is complete.

☐ Offline digital data is collected and stored using personal or other non-NU owned devices, *please specify and outline how these devices will be secured:*

☐ Data will not be collected or stored using an offline device.

Online or Cloud Digital Data Collection and Storage (Discovery Cluster, Google Drive, Qualtrics, etc)

X Online or cloud digital data is collected and/or stored using NU-approved platforms using only NU-official account login credentials, *please specify:*

Qualtrics will be used to conduct the survey. When this is the case, data collected in Qualtrics may be downloaded to a secure google drive, aggregated for data analysis, then deleted after the analysis is complete. After completion of the data separation, anonymization, and storage steps after each round of the survey described above, the original responses will be deleted from Qualtrics.

Aggregated data and de-identified narratives may be shared with other scientists for feedback and analysis.

☐ Online or cloud digital data is collected and/or stored using personal or other non-NU owned devices, *please specify and outline how these devices will be secured:*

☐ Data will not be collected or stored using an online or cloud platform.

Physical Material Storage (paper consent forms/surveys/notes, flash drives, physical specimens, etc)

☐ Yes: describe where physical materials will be collected or stored*:*

X No physical materials will be collected or stored.

Other methods to secure data not described above:

Click or tap here to enter text.

Please check to indicate that you have read and agree to comply with NU's document management guidelines, which outline how research data can be collected, stored, and analyzed.

X I agree to comply with NU's document management guidelines. All data will be collected and stored using platforms consistent with this policy/using services approved by OIS and any approvals required by OIS will be obtained before the research begins. Please note that all research data is considered Lock 4 data per NU policy. Please find guidance here: https://uds.northeastern.edu/wp-content/uploads/New-Document-Management-Guidelines.pdf.

Check provisions that will be used to protect the privacy interests of subjects.

In-person interactions or interventions:

☐ All interactions or interventions will occur in a private setting where others cannot see or overhear activities.

☐ The study team will ask participants if they are comfortable answering questions in that location and setting.

☐ Using generic signs on research rooms and spaces, particularly for research on stigmatizing or sensitive topics.

☒ Other, *please specify*: No in person interactions.

Remote interactions or interventions (Zoom, Teams, phone, etc.):

☐ Conducting activities in a private location by limiting people around to only study staff, closing doors, and wearing headphones.

☐ Asking participants if they feel their own setting is appropriate for the discussion or intervention and that others won't be able to overhear/oversee.

☐ Ensuring that non-participants/individuals who did not consent are not captured in any video or audio recordings.

☐ Offering a way to stop and resume later to the online activity if privacy is compromised.

☒ Other, *please specify*: No remote interactions.

In-person or remote group interactions or interventions (e.g. focus groups, group surveys, or family interactions):

☐ Discussing the importance of not talking outside the group about what other people say during the group activities.

☐ Encouraging participants to use a pseudonym or limit the use of names or other details during the group activity.

☐ Asking everyone in a public group setting (e.g. classrooms, workshops) to turn something in (blank or filled) so participants do not have to self-identify when turning in materials.

☐ Documents will be collected in a box, envelope, etc. to ensure others cannot see responses.

☒ Other, *please specify*: No group interactions.

Communicating with participants via phone, email, text, or mail (including scheduling, follow-up, etc.):

☒ Leaving/sending generic messages, emails, or letters that avoid using study and participant identifiers, such as names, clinics, study topics, etc.

☐ Obtaining permission prior to leaving voicemails or sending letters, emails, or text messages.

☐ Using generic return addresses, labels, or document headers that do not suggest a research topic, lab, or department.

☒ Removing participant identifiers and study topics from voicemails, letters, emails, or text messages.

☐ Other, *please specify*: Click or tap here to enter text.

Analyzing and disseminating data (required for all studies)

☒ Only publishing or presenting aggregate data or results (i.e. no individual-level information published or shared outside the research team).

☒ Analyzing data in a private space by limiting people around to only study staff, closing doors, and wearing headphones.

☐ Permanently blurring, hiding, or redacting any identifiable features (faces, tattoos, birthmarks, etc.) before analyzing data.

☒ Removing any direct and indirect identifiers from any transcripts or open-ended responses before analysis begins.

☐ Other, *please specify*: Click or tap here to enter text.

13. DISSEMINATION AND FUTURE USES OF DATA

Will any identifiers (including audio or video recordings and photographs) be published, shared, or otherwise disseminated?

☐ Yes X No

If yes, the participant information sheet should provide the opportunity for the participant to opt-out of this, or explicitly inform participants that it is required in order to participate in the study.

Will the individual or aggregate results be returned to participants?

X Yes No

If yes, explain the plan to return results. Please specify what information will be returned, how results will be contextualized, how participants might use the results, and how you will ensure participant privacy and confidentiality in any communication attempts:

Participants will be notified when results are posted on the webpage:
https://www.firsthandaccounts.org/home

14. DOCUMENTS AND ATTACHMENTS

Make sure to submit all study materials including:

X A complete protocol application (this form) with all relevant questions answered.
X A signed PI Assurance Form [Note: this is a separate form and can be found on the Forms page of the IRB website].
X All recruitment material, including but not limited to emails, scripts for verbal announcements, flyers, social media posts, etc.
X Participant information materials including exempt information sheet or verbal scripts, debriefing materials.
X All data collection instruments to be used in the study, including but not limited to survey questions, interview guides, and/or other data collection sheets.
☐ Any other participant-facing materials such as a video (or script of a video), still images, etc. If the research includes participant-facing materials you are unsure how to include, please reach out to the IRB team at IRBReview@northeastern.edu
☐ Letters of support from any physical, non-NU locations where research or recruitment will occur.
☐ Research Team Form (if the research team has NU personnel beyond the PI and student listed on this application) [Note: this is a separate form and can be found on the Forms page of the IRB website.]
☐ International Research Form (if conducting research internationally)

Please submit a signed PI assurance form

Tools Saved Apr 27, 2025 at 6:19 AM Draft Preview Publish

You're using the new Survey Taking Experience. Learn more. Give feedback.

Firsthand Accounts of the Impacts of Federal Cuts on Science

ExpertReview score Great

Firsthand Accounts Survey

Info

The American Society of Naturalists (ASN) has partnered with your scientific society to study the impacts of U.S. federal and state policies since January 20, 2025 in the fields of ecology, evolution, marine science, and environmental science. Examples of impacts include the effects of: cuts to the federal workforce, budget cuts, funding freezes, cuts to indirect costs, restrictions on research, hiring freezes, a chilling effect on free speech, effects on international research and funding, uncertainty about the future, human rights violations, and changes to DEI policies.

As a member in a participating scientific society, your insights and responses are essential to our study's success and we would be grateful for your participation. This is a longitudinal study and you will receive this survey every 4-6 months. Your responses in this survey will be completely anonymous.

Your part in this study will be handled in a confidential manner, and you must be at least 18 years old and based in the U.S. to participate. Your participation is voluntary. The decision to participate is up to you, and you may quit at any time. We will not identify you or any individual as being part of this study.

The survey consists of two parts:
- The first part consists of a few multiple choice questions and seeks to quantify the impacts of U.S. federal and state policies since January 20, 2025 on your research program and on your field. This part will take about five minutes to complete. These responses will be aggregated to understand impacts across career stages and states.
- The second part consists of an optional open-ended response question, where you can share a narrative of the specific impacts that you have firsthand experience with. Narratives will be separated from responses to previous questions, any identifying information will be removed, and the resulting text will be qualitatively analyzed by generalizing the impacts.

Your participation carries both benefits and risks.
- Potential benefits: Data from this survey will used by ASN, SSE, your scientific society, and groups like the American Institute of Biological Sciences and Union of Concerned Scientists to communicate impacts to the public, media, and policy makers. Aggregated results from the survey will be published as they become available at https://www.firsthandaccounts.org.
- Potential risks: Completing this survey may carry the emotional risk of reliving a troubling experience. Participants may risk being indirectly identified from their society(ies), state(s), and career stage. This risk will be mitigated in three ways. First, responses to all survey questions are optional. Second, data will not be stored in the format it is collected - responses to potentially identifying questions will be aggregated with other responses, and then separated and scrambled for long-term data storage following each round of the survey. Third, investigators do not have

access to the membership lists of societies, which remain private with the society from which you received this survey link.
In addition, participants may risk their privacy or confidentiality in the level of detail they decide to include in the open-ended responses. Any identifying information in open-ended responses will be removed prior to publication or analysis. Participants will have the option to give us permission to quote their narrative, with identifying information removed, anonymously on the website https://www.firsthandaccounts.org.

This activity is research. The survey and research plan has been approved by Northeastern's Institutional Review Board (IRB# 25-03-14.). All data will be collected and stored in compliance with Northeastern's document management guidelines and federal policies.

If you have questions about this survey, please contact Katie Lotterhos (k.lotterhos@northeastern.edu), an Associate Professor of Marine and Environmental Sciences at Northeastern University. In the event that you have questions about your rights as a research participant, please contact the Northeastern Institutional Review Board (IRBReview@northeastern.edu) .

Please indicate your consent to participate:

- ○ I certify that I am at least 18 years of age, I am based in the U.S., and I consent to taking part in this study

Page Break

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