

IRIS Anti-Racism Action Plan

Version 2

02/03/2021

This is IRIS' working plan to address anti-Black racism as well as diversity, equity, and inclusion (DEI) in the geosciences domain, and specifically seismology. This plan is referenced in the [IRIS Statement on Racism in Geoscience](#) and is our response to the "[Call for a Robust Anti-Racism Plan for the Geosciences](#)", with each of 15 calls quoted verbatim, followed by IRIS' proposed actions. This plan is a work-in-progress, open to publicly collected/shared feedback from the community (email jedi@iris.edu), and should be considered not for review but for input. This plan should be considered in the context of the actions of other sciences, agencies, and organizations. It can serve as a means to centralize feedback from our community and stakeholders, and for holding IRIS accountable to its stated goal of expanding diversity of the geoscience workforce.

This plan is not divided by IRIS directorate-specific actions, as this plan must work across the organization and encourage communication and collaboration among IRIS staff. The intent is for specific people within IRIS to be responsible and accountable for achieving progress in different areas, and for collective progress to be measured and reported.

We recognize that there has been significant previous work to address racism and DEI in geosciences—especially work done by minoritized people. We benefit from the resources that many other people put together to develop this plan and initiatives. We also recognize that this work, policies, and plan are long overdue.

We recognize that it is not enough to say we are committed to creating a diverse workforce or we are working on issues related to DEI. We must say "We condemn racism".

We recognize that some of these actions address recruitment of minoritized people into science, which is where we have traditionally focused, and some of them address retention in science. These are different but related problems. **Retention is the most difficult problem as it requires structural and cultural change.**

Text from a *Call for a Robust Anti-Racism Plan for the Geosciences* ([source](#)) is in Time New Roman font (preserving bold font of source). Text describing IRIS actions in response to the "Call for Action" is in Arial font.

1. ***"Post anti-racism statements publicly and accessibly, and incorporate anti-racism into codes of ethics.*** As an example, all organizations and societies should post anti-racism statements on public-facing websites."

- 1.1 Determine what is currently on the IRIS website related to anti-racism, and place a link to IRIS anti-racism statement in a permanent location on the front page.

- 1.2 Examine IRIS by-laws, mission, and strategic plan in the context of anti-racism as well as increasing diversity, equity, and inclusion of other underrepresented groups in seismology.

Review the language and statements of similar organizations for positive examples. Propose changes, as needed, to reflect the importance of this initiative.

1.3 Review the IRIS Code of Conduct for IRIS-facilitated meetings and revise as necessary to ensure that it addresses expectations for attendees, how to report racism and discrimination, including problematic behavior regarding “unspoken rules” about what is considered professional attire/appearance, behavior, language, and diction. For reference, use resources such as Favaro et al. (2016) and the codes of other organizations like Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS). Require an explicit agreement to the code of conduct (checkbox) for online meeting registrations. Ensure the above considerations are extended to virtual meetings.

2. ***“All members and all levels of leadership, in particular, should actively work to understand the lived experiences of Black, Indigenous, Latinx, and other minoritized groups including how racism and discrimination have impacted their ability to succeed and feel belonged in the geosciences and other science disciplines. Societies should invest in hiring Black, Indigenous, and Latinx experts on issues related to minoritized groups (e.g. Black anti-racism experts, sexual harassment and anti-bias experts, bystander intervention trainers) to offer ongoing training to educate leaders and members on the identification and removal of structural and implicit biases within the geosciences.”***

2.1 Provide implicit bias training and racism/discrimination education for IRIS staff and membership.

2.2 Allow all IRIS employees two hours a month for self-directed or organized reading or training, or participation in diversity, equity, and inclusion topics. The goal of this effort is to encourage non-BIPOC (Black, Indigenous and People Of Color) staff to better understand the experience of minoritized people and for BIPOC staff to explore the perspectives of other minoritized people.

3. ***“Identify ways each society and organization has previously failed Black, Indigenous, and Latinx People and other minoritized groups both structurally and individually. Consider the ways they have failed in protecting, supporting, mentoring, and retaining members of these groups to correctly identify how to make progress with specific actions. In addition to the national organizations, this is especially salient in local and regional chapters of societies, where organizations can leverage and learn from the diverse experiences of members in their local chapters. Through listening to these local communities, local and regional chapters may serve Black, Indigenous, and Latinx People and other minoritized groups in ways that are relevant to their needs.”***

3.1 Evaluate long-term retention success of minoritized people in the Research Experiences for Undergraduates (REU) participants, including reasons for staying or leaving Science, Technology, Engineering and Mathematics (STEM) fields when applicable. Summarize the results in reporting documents.

3.2 Include questions on IRIS internship exit interviews asking if there were any troubling behaviors (discrimination, sexism, bullying, etc.) that occurred during their internship.

3.3 Compile resources describing the history and occurrence of exploitation in seismology as well as failures to protect BIPOC people in STEM and make these available on the IRIS website and through teaching materials (this also applies to section #6 below).

4. ***“Interrogate written policies and procedures to identify bias, then revise and redesign policies and evaluation criteria to be anti-discriminatory.*** For example, procedures for becoming a GSA or AGU Fellow are biased against anyone who does not know an existing Fellow. Lengthy nomination procedures also put an undue burden on minoritized people who generally have fewer connections within the larger primarily white community.”

4.1 Document and make available selection criteria for IRIS interns, speakers, travel scholarships, hiring policies, meeting selection criteria, etc.

4.2 Provide IRIS selection committees with a "considerations list" to help counter implicit bias so they can see whether voices and perspectives are missing from their candidate group.

4.3 Provide IRIS selection committees and the broader community with resources for identifying and contacting minoritized scholars.

4.4 Provide training and resources to IRIS staff and intern mentors on how to avoid racial and gender bias in their writing. Cross-reference to task 2.1.

4.5 Create a database of speakers / topics, the audiences they are tuned to, their topics, etc. This can influence the selection of speakers in many different forums and improve representation and inclusion.

5. ***“Question unspoken rules.*** Racism and other forms of discrimination can manifest in unspoken “rules” as well. These rules often dictate how members are expected to behave, what is considered professional attire and hair, and what passes for appropriate language and diction. Societies should reflect on how these rules negatively impact Black, Indigenous, and Latinx People and other minoritized groups.”

5.1 Work with a professional society (e.g., the Seismological Society of America) to survey the seismology community to try and identify unwritten rules or other barriers to full inclusion at meetings, in the field, and in the classroom/office.

5.2 Periodically review reports of racism, discrimination, exclusionary "unspoken rules", or problematic behavior associated with IRIS activities and update the IRIS Code of Conduct. Do a review after meetings or workshops to see if there were “formal” incidents or complaints, or perceptions / concerns that there may have been some issues. Add a question along these lines to any post-workshop surveys of participants.

5.3 See item action 1.3 for actions related to the *IRIS Code of Conduct*.

6. ***“Acknowledge and address the impacts of historical and ongoing exploitation in the geosciences.*** The colonialist project of exploration and exploitation has negatively impacted – including death and loss of land – Indigenous people in North America and all over the world. Geologic exploration has also been used to take natural resources (e.g., rare rock, mineral, and fossil samples) to populate US museums and private collections, instead of respecting the

autonomous rights of indigenous communities and nations to their natural resources. Furthermore, modern-day geology is pervaded by a research model which extracts geological knowledge from remote locations with little to no respect for, engagement with, or participation by Indigenous communities. This research model is racist and exploitative and limits the scope of science done to a narrow band of questions solely dictated by the white majority. We must affirm that achieving robust representation of Indigenous communities in our research community will improve our science and must take action to ensure this.”

6.1 Review the experiences in the Transportable Array in the Lower 48 and Alaska/Canada working with or around Indigenous communities. Compile the experiences, lessons learned, and best practices suitable for public distribution.

6.2 Survey and interview PASSCAL primary investigators (PIs) and GSN network operators who executed deployments and experiments working with or around communities that are underrepresented in seismology in the U.S. (e.g., Indigenous communities), or in “non-Western” cultures overseas. Develop tool kits for PIs to help identify and address cultural implications of their experiments and best practices for incorporating and leveraging value of local knowledge and experiences.

6.3 Begin meetings with recognition of the Indigenous land on which the meeting is conducted, incorporating this into our standard meeting planning process. Where possible, consider the broader concept of discussing the relevance of the meeting’s science themes to the needs of the local and regional populations.

6.4 Facilitate inclusion of native land acknowledgements for field areas or station sites in seismologic publications by assembling and providing the information needed to construct them to the research community via the IRIS website.

7. ***“Acknowledge environmental injustice in geoscience***, including the disproportionate lack of funding for environment-focused work compared to hydrocarbon (petroleum, gas and coal) and mineral mining. Geoscience is intimately tied to fossil fuels, mining, environmental contamination, atmospheric pollution, water quality, natural hazards, parks and tourism, and climate change. Black, Indigenous, and Latinx People and other minoritized groups are disproportionately impacted by limited access to these resources, and the negative impacts of each of these. In addition, although these sectors have helped to attract Black, Indigenous, and Latinx People and other minoritized groups into geosciences, societies should recognize, acknowledge and work to resolve the fact that Black, Indigenous, and Latinx People and other minoritized groups are often the first to leave these industries during downturns. This means minoritized communities do not always have people within industries to advocate for and sponsor them.”

7.1 Incorporate environmental justice topics into current and future projects

7.2 Create web resources for learning / training in environmental justice / ethics in geophysics. We could also consider teaming with Science Education Research Center ([SERC](#)) or others to create relevant content.

7.3 Consider ethics training, at the corporate and societal level, as part of the intern training (i.e., not so much personal ethics such as plagiarism).

8. “Acknowledge the inequities inherent to field work while affirming that cutting-edge geoscience happens in many different spaces. Black, Indigenous, and Latinx People and other minoritized groups are not safe in the field – because of traditions and systemic discrimination and racism in place in our discipline, country, and world. A glaring example is that Black geoscientists are not safe to engage in fieldwork everywhere that white and other privileged geoscientists are able to. Whereas, a white geologist with a rock hammer will be seen as “safe”, a Black geologist may be seen as a threat. Holding “suspicious” objects has been used as a defense to call the police on Black People in recent history and it has led to the death of unarmed Black individuals, purely because of racial profiling, discrimination, and unjustified fear of Black People. Field work requirements for degree attainment also inherently block many disabled people, poor people, and women from engaging in geoscience work due to limited accessibility, harassment, and expense. Societies can lead by disseminating best practices to make all field programs safe for and accessible to everyone. They should also encourage the reevaluation of training requirements for rising geoscientists. Indeed, cutting-edge geoscience happens not only in the field but in laboratories, on computers, and in classrooms.”

8.1 Explicitly acknowledge the barriers and dangers that field work can pose for Black students, POC, women, the disabled, the economically disadvantaged, and others.

8.2 Provide resources to assist PASSCAL PIs in developing experiment and safety plans that include measures to protect all participants, with particular attention to issues that may impact participants from minoritized groups. For reference, use resources such as Anadu et al. (2020) and Demery and Pipkin (2021) and facilitate sharing best practices.

8.3 Partner with people creating and running virtual field classes and field experiences for people with disabilities.

8.4 Create a PI training resource by compiling best practices from PIs that have succeeded in balancing the racial, ethnic and gender make-up of field teams.

8.5 Ensure meeting locations are in areas where diverse participants can all feel safe, comfortable, and accepted (e.g., areas with a history of diversity and inclusion).

8.6 Ensure that selection criteria for future facility locations includes factors to ensure that staff and visitors feel safe, comfortable, and accepted and addresses long-term considerations such as state and city laws on demilitarizing police and other measures for reducing police violence.

9. “Address issues of workplace culture that are active threats to safety, wellbeing, and careers, and acknowledge, address, and promote the safety and success of Black, Indigenous, Latinx, and other minoritized geoscientists and students who have been historically marginalized in education and the workplace. Professional organizations can bring their power to bear on universities, colleges, and other academic spaces to enact change. By creating no-tolerance policies, societies and organizations are holding academics accountable for their actions and inactions.”

9.1 Engage in an assessment of workplace environment and culture in the context of anti-racism and DEI, with associated training based on assessment results.

9.2 Ensure we have appropriate and legal “no-tolerance for racism” policies in the IRIS employee handbook, etc.

9.3 Evaluate adding requirements for IRIS member organizations to have suitable DEI policies, and consider adding this as a criterion for becoming a member.

9.4 Evaluate adding an organizational policy that findings of academic, sexual or racial (etc.) misconduct can result in the removal of a member representative or member institution.

10. “Geoscience societies and organizations must *actively advocate and create accountability for income parity for Black, Indigenous, Latinx and other minoritized geoscientists*, especially women, trans, genderqueer, and disabled geoscientists of color.”

10.1 Analyze compensation practices and develop an immediate plan to ensure income equity across IRIS.

10.2 Encourage professional societies in geosciences that do income surveys to gather data on income parity as a benchmark and to stimulate and encourage solutions that address these issues.

11. “*Actively diversify nominations and awards committees* who in turn work to nominate diverse Board members, Leadership candidates, Committee chairs, and awards recipients. Purposefully populate Boards and Chairships with Black, Indigenous, and Latinx, and other minoritized geoscientists and students to be better representative of the membership and ensure all voices are heard.”

11.1 Examine the current and past diversity of our boards and committees (racial, ethnic, gender, career stage, etc.) and put together a publicly available report.

11.2 Establish goals for the diversity of membership on the IRIS Board of Directors and governance committees (with due consideration to legal requirements and with transparency about the goals and needs).

11.3 Develop guidelines / recommendations for the IRIS Board of Directors Nominating Committee to use to identify Board candidates (this is an essential first step in achieving a Board of Directors with greater diversity). Ensure that members on the nominating committee are comfortable with and committed to the objective of diversifying the Board.

11.4 Develop and distribute guidance for IRIS committees for member selection, including processes / procedures, best practices, strategies, training, and language that will ensure greater diversity and better representation. This may include activities such as: maintaining lists of resources that are available; moving the nominations process to the beginning of every agenda (giving it greater visibility and importance); and broadly advertise nominations, including self-nominations.

11.5 Establish a procedure for reporting progress on meeting Board and committee diversity targets (consider creating a baseline from data of some recent years).

11.6 Include nominations for geoscience community awards each year as part of the governance committee tasking, including encouragement for nominations of minoritized geoscientists.

12. “*Actively recruit and pay* Black, Indigenous, Latinx and other minoritized geoscientists as journal editors and reviewers, session conveners, and mentorship event participants. This pay is partially in recognition of the reparations due to all Black and Indigenous People.”

12.1 Review how other facilities and organizations are handling paid positions / honoraria for BIPOC and other minoritized geoscientists as journal editors/reviewers, session conveners, mentors, panelists, and other positions, particularly when individuals are providing training or speaking on their DEI expertise / experiences.

12.2 Ensure that people being asked to serve on committees are appropriately supported. Committee service can be important to advancement, but not all people may be equally able to serve and benefit from the experience.

12.3 Provide stipends / honoraria for DEI speakers.

13. “*Directly sponsor networking events* for Black, Indigenous, Latinx, and other minoritized geoscientists at *all* meetings and other large gatherings. Financial hardship is a reality for many Black, Indigenous, Latinx, and other minoritized students and professionals. Societies and organizations should be doing the utmost to remove financial barriers to events which often result in career-advancing conversations and connections.”

13.1 Create networking events / town halls for minoritized geoscientists at SAGE/GAGE workshops, and strongly advocate for networking events at other meetings.

13.2 Recognizing that professional meetings are key networking and career-building events, work to increase the meeting participation of BIPOC, especially women, trans, genderqueer, and disabled geoscientists of color by ensuring fair criteria for selection and award of travel (or other) funding.

13.3 Include travel support in the budget for workshops that IRIS proposes and organizes, particularly to support increased participation of underrepresented or minoritized groups. Where appropriate, sponsor travel costs up-front to further reduce barriers to participation.

14. “*Publish annual, data-rich reports* of the self-reported, intersectional demographics of members, including demographic data about who is getting awards and who is engaged in leadership in the organization. These reports should be made publicly available and accessible through an annual evaluation. As scientists we know the value of data and must measure progress on properly serving and retaining Black, Indigenous, Latinx, and other minoritized geoscientists using data driven methods.”

14.1 Identify and adopt best practices in reporting by first reviewing how other facilities and organizations are reporting progress towards DEI goals and the effectiveness and success of their actions/initiatives.

14.2 Publish a report of DEI efforts with timelines for completion and records of accountability. Updates to be published biannually on the IRIS website and disseminated through social media.

14.3 Determine and/or develop quantitative and qualitative metrics for reporting in the biannual IRIS report on DEI.

14.4 Engage an external evaluation of DEI efforts (policies, procedures, initiatives, metrics, etc.) every 3 years.

15. “Finally, organizations should no longer relegate “Diversity” to non-technical sessions or fireside chats, but should actively elevate discussions on Diversity, Equity, Inclusion, Access, and Justice to well-attended spaces. Keynote Symposia, Presidential Addresses, and Awards Ceremonies should acknowledge and feature a truly diverse array of speakers representative of the technical community. When these sessions are relegated to secondary time slots or buildings or are scheduled simultaneously with other sessions of interest, attendees are more likely to be members of minoritized groups and allies. *Non-minoritized members need to know that they are expected to show up.*”

15.1 Improve racial and ethnic diversity of presenters at SAGE/GAGE meetings.

15.2 Do not cross-schedule networking / town hall / other DEI events or sessions against other key meeting activities.

Conclusion

We conclude this document by noting that IRIS is well-positioned to increase education and awareness of the contributions of minoritized peoples in the geosciences. Further, IRIS should strive to be a leader in increasing diverse participation in all facets of geoscience education and practice. To these ends, IRIS can:

16.1 Feature the work of minority geoscientists more frequently as Science Highlights.

16.2 Use diverse voices/people in IRIS animations and narrations.

16.3 Create a video series featuring the work of minority geoscientists.

16.4 Create a video series featuring Indigenous knowledge of and contributions to geoscience.

16.5 Build capacity in the geosciences by offering training opportunities, free online classes, or other opportunities that encourage diverse audiences and reduce barriers to participation.

16.6 Seek external funding that can expand our impact by supporting educational, outreach, or other programs that can improve diversity in geosciences.

16.7 Explore creating an IRIS award that will encourage diversity in the geosciences.

Dictionary of terms - <https://www.georeadingforequity.com/intentional-language>

References

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