

# EARTHSCOPE DIVERSITY, EQUITY, & INCLUSION

## ACTION PLAN

October 1, 2022

### OVERVIEW OF CONTENTS

The following EarthScope DEI Action Plan is submitted for consideration by the EarthScope Implementation Steering Committee and Joint Boards. As a starting point for the new EarthScope DEI Committee and in line with the call for "a feasible sequence of actions for implementation based on common priorities", we would also like to identify the actions in the Action Plan as highest priority to address in the near term. These were identified through a voting process and are as follows:

- 7-A: Develop comprehensive staff onboarding, mentoring, and career progression support policies & procedures
- 11-A: Assess PASSCAL culture (using Milestones survey)
- 16-A: Support visa sponsorship and other hiring options for international staff/applicants
- 20-B: Revise and expand the UNAVCO inclusive field safety action plan
- 25-C: Ensure potential new Board of Directors and committee members model ethical behavior
- 37-G: Public statements (revising anti-racism and anti-discrimination statement, permanent link on front page of EarthScope website)

This can be considered a living document and may continue to be refined and changed going forward. We would also like to recognize that this work was developed and improved by contributions from current members (Anika Knight, Annette Tangye, Annie Zaino, Beth Pratt-Sitaula, Holly Rotman, Karl Feaux, Kasey Aderhold, Prina Miller, Tim Ronan, Tori Repetti, Trayce Turner), additional members (Elizabeth Van Boskirk, Krystin Poitra, John Taber, Marlo Swanson, Mary Templeton, Rhonda Porter, Wendy Bohon), and help from additional UNAVCO and IRIS staff and other community members. We appreciate their service in this process.

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## INTRODUCTION

Within this document, the EarthScope Diversity, Equity, and Inclusion (DEI) Committee aspires to meet the direction of the Steering Committee and the charge of the Presidents, to offer a plan of concrete actions that the staff of EarthScope will undertake to reduce inequities, dismantle systemic racism, promote diverse voices, and improve inclusion and belonging amongst the EarthScope staff and scientific community. This plan has been guided and informed by Calls to Action from Geoscientists of Color, incorporates actions relevant to other underrepresented groups (e.g., LGBTQIA+ identifying, people with disabilities), and will engage all directorates and components of EarthScope to execute. We propose both internal facing actions, such as addressing workplace culture, as well as outward facing actions, such as developing educational resources on environmental justice. We also propose regular reporting against measurable goals and timelines. With this Action Plan, engagement of staff and community, and accountability through public reporting, we hope to improve diversity, equity, and inclusion in the Geosciences.

## HISTORY AND PROCESS

In 2019, IRIS and UNAVCO each formed committees (JEDI and IDEA, respectively) to address historic and continuing inequities affecting members of underrepresented groups amongst their staff and their scientific communities.

The first task performed by each of these groups was to develop an Action Plan for their respective organizations. The content of these Action Plans was drawn from published works detailing concrete steps that can be taken by geoscience organizations to reduce the harmful effects of systemic racism and barriers to full participation in the geosciences by members of all underrepresented groups. The primary source materials were the “Calls to Action”<sup>1,2</sup> and “Anti-Racism Action Plans”<sup>3,4</sup>, with additional contributions from a variety of secondary sources researched by members of the IDEA and JEDI committees. The final content of each of these Action Plans reflected the differing needs of their staff and community, based on their organizational operations and culture, and their mechanisms for supporting the geodetic and seismologic communities.

In 2021, both organizations jointly contracted Milestales to conduct a cultural survey and provide training and guidance into improving DEI efforts. Milestales also produced a suggested Action Plan, based on the outcome of that cultural survey and their “best practice” expertise.

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<sup>1</sup> Call for a Robust Anti-Racism Plan for The Geosciences

<https://www.change.org/p/geoscientists-call-for-a-robust-anti-racism-plan-for-the-geosciences>

<sup>2</sup> A Call to Action for an Anti-Racist Science Community from Geoscientists of Color: Listen, Act, Lead -

<https://notimeforsilence.org/>

<sup>3</sup> IRIS Anti-Racism Action Plan - [https://www.iris.edu/hq/files/Science\\_Highlights/IRIS\\_DEI\\_Action\\_Plan\\_v4.pdf](https://www.iris.edu/hq/files/Science_Highlights/IRIS_DEI_Action_Plan_v4.pdf)

<sup>4</sup> UNAVCO IDEA Action Plan -

<https://www.unavco.org/wordpress/wp-content/uploads/2022/02/IDEA-Action-Plan-Executive-Summary-2021-05-31-fig-colorchange.pdf>

In 2022, as part of the planned IRIS and UNAVCO merger into the EarthScope Consortium, the JEDI and IDEA committees began merging, and developed this joint Action Plan.

The Action Plan subcommittee included 2 IRIS/JEDI representatives, 3 UNAVCO/IDEA representatives, and 2 PASSCAL staff. The three initial Action Plans were compared side by side, and similar Action Items were cross referenced and combined. Items which appeared in only one Action Plan were discussed to determine relevance and feasibility for EarthScope. Additional contributions, particularly those relevant to PASSCAL operations or based on work-in-progress by either organization were also considered for inclusion. The draft Action Plan was then shared with the full membership of JEDI and IDEA for approval and prioritization.

It is anticipated that this Action Plan will be revisited by the EarthScope DEI Committee in approximately one year's time, after EarthScope policies are released and the new workplace culture begins to solidify. Some proposed Action Items had been previously addressed by one or both organizations, and may or may not be incorporated into EarthScope policy as part of the merger. In an effort to ensure that these be addressed by EarthScope, they are contained here in the section: Ongoing Activities to Continue into EarthScope Consortium. Additionally, new Action Items may be proposed as our opportunities for workplace and community support expand with our new organizational model and joint workforce. This Action Plan represents a starting point and will continue to adjust, grow, and improve as our knowledge and skills advance.

## **A. Human Resources and Workplace Culture**

### **A.1 Policies & Principles**

#### **1-A. ADOPT MERGER PRINCIPLE #6 AS A LONG-TERM COMPONENT OF EARTHSCOPE CONSORTIUM GOVERNANCE**

**Justification:** Merger Principle #6 was thoughtfully developed by UNAVCO and IRIS staff involved in IDEA, JEDI, and URGE (Unlearning Racism in Geoscience). It was intended by the writers to be a principle that guides the EarthScope Consortium for years to come, not just during the merger itself. It provides a higher level of specificity than the more general EarthScope Governance Principles #6: *Equip advisory groups and the Board for success through intentional onboarding and training (including DEI and culture), clear pathways for communication, and leadership development opportunities for community members of all career stages* and #7: *Diversify the EarthScope Consortium community through education and outreach, especially to underrepresented groups.*

**Action:** EarthScope Consortium Board of Directors adopt Merger Principle #6 into the long-term principles and plans for EarthScope Consortium.

*Merger principle #6: The Steering Committee affirms the commitment of the EarthScope Consortium to anti-racism and the work toward achieving greater diversity, equity, and inclusion in our organization and the geosciences. The science of geophysics grows when an increasing number of diverse people contribute ideas and approaches. We strive to increase access to the geophysics community itself by cultivating a diverse, equitable culture of belonging, safety, and respect in which our staff and community members of all backgrounds and strengths can thrive, contribute, and lead.*

*To increase the participation of diverse scientists and educators, we provide open access to data, instrumentation, and other resources. We commit to regularly re-evaluating and publishing our policies, procedures, and progress to ensure that the contributions and perspectives of historically and currently marginalized people can achieve full impact within our science, organization, and community.*

**Timing:** 1

**Priority:** High

**Resources Requested:** Staff and board member time needed to discuss and vote. Staff time needed to codify the resulting principle into EarthScope Consortium documentation.

**Time investment:** Low

## **2-A. DEVELOP AND PERIODICALLY REVIEW EARTHSCOPE CONSORTIUM MISSION, STRATEGIC PLAN, BY-LAWS, POLICIES, PROCEDURES, AND CODES-OF-CONDUCT THROUGH A LENS OF ANTI-RACISM AND INCLUSION OF MARGINALIZED GROUPS**

**Justification:** Policies and guiding principles can influence all aspects of an organization. It is essential that they be developed and refined with the lens of diversity, equity, and inclusion as one important component. The historical and current lack of diversity in the geosciences means that anti-racism principles and perspectives of marginalized and underrepresented groups may not have been considered during the development of earlier policies, principles, and procedures. EarthScope Consortium has the opportunity to integrate DEI principles into the core of the organization and ensure that these are extended throughout the organization operations. Regularly revisiting these will protect us from future issues and strengthen the EarthScope Consortium in its commitment to increasing access to all.

**Action:** Develop and periodically review EarthScope Consortium mission, strategic plan, by-laws, policies, procedures, and codes-of-conduct (both internal and external) through a lens of anti-racism and inclusion of marginalized and underrepresented groups (disability, gender, LGBTQIA+). Periodically review reports of discrimination, exclusion, and problematic behavior and use findings to guide changes and further improvements. EarthScope Consortium should continue to have the EarthScope DEI Committee into the foreseeable future to provide input on policies (see EarthScope DEI Committee Charter). When other committees are formed to work on policy or procedure development or revision, at least one member of the committee should have some DEI experience and know they are particularly tasked with providing input on DEI considerations.

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time needed to participate in committee work.

**Time investment:** Low-Medium

### **A.1.1 Benefits**

**Justification:** To ensure benefits and opportunities are equitable for all staff.

## **3-A. EQUITABLE SALARY**

**Justification:** Transparent and equitable pay structure and clear approach for pay raises so that staff feel valued and appreciated for their work and contributions to the organization and are appropriately compensated. Currently, 38% of PASSCAL staff are non-white<sup>5</sup>.

**Action(s):**

- After merger and including PASSCAL staff, review actual job duties (as executed), experience, and job titles/descriptions across organization. Analyze compensation practices and develop an immediate plan to ensure income equity for all, including protected classes (gender, race, etc.). Include staff input as well as management input.
- Promote equitable salaries across EarthScope and evaluate cost of living adjustments for employees who are required to live in areas where the cost of living is above the national average. This promotes equity in standard of living for all employees within the same grade, regardless of where they are required to work.
- Recommend investigating the feasibility that PASSCAL staff receive retro-active pay (to January 1, 2023) at their higher rate when they are actually made EarthScope employees or EarthScope signing bonuses.

**Timing:** 2

**Priority:** High

**Resources Requested:** Fee for outside firm for salary analysis, along with actual payments to staff. Staff time to report job duties vs. job description. Work with merger committees to determine to what extent this is already being addressed for EarthScope positions.

**Time investment:** Medium-High

#### 4-A. EARTHSCOPE FACILITIES LOCATIONS

**Justification:** Cities with militarized police can be hostile to BIPOC and other marginalized groups. It is important marginalized and underrepresented groups feel safe in facility locations. Staff may have different needs for facility infrastructure, for instance a private space for lactation. This will encourage staff retention and will be an important consideration for a remote workforce.

**Action:** When examining cities/states for potential EarthScope facilities, assess local attitudes toward BIPOC and other marginalized groups, how that may impact staff, and how that impact can be mitigated. Also give preference to facilities that have or can be built to have gender-neutral restrooms, privacy rooms, and flexibility for staff requiring other accommodations.

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time for researching potential facilities sites. Consulting and remodel costs for accessibility accommodations.

**Time investment:** Low

#### 5-A. HOLIDAYS

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<sup>5</sup> NMT Human Resources Department Report - <https://www.nmt.edu/hr/Org%20Report%20092022.pdf>

**Justification:** Holidays have traditionally been scheduled around cultural Christian religious practices. If EarthScope's benefits are welcoming of diverse religious practices, it will help attract and retain a diverse workforce.

**Action:** Resolve current holiday schedule discrepancies between EarthScope and PASSCAL. Consider moving one (or more) holidays to be a floating holiday, which staff can self-designate based on their own holiday observations.

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time to work with HR and Benefits Committee to establish this in the new employee handbook.

**Time investment:** Low

### 6-A. PARENTAL/CAREGIVER LEAVE

**Justification:** Increasing parental/caregiver leave will provide an inclusive and likely very competitive benefit which brings EarthScope into alignment with policies in many other countries. For parental leave the American Academy of Pediatrics recommends providing 12 weeks<sup>6</sup> of paid leave. Convention 183 of the World Health Organization states maternity leave should be at least 14 weeks, and Recommendation 191 of the World Health Organization states at least 18 weeks for leave<sup>7</sup>. Women-led households and communities of color face the greatest burden of caregiving for children and elders and this can lead to a disproportionate number of them leaving the workforce or stalling their career paths.<sup>8,9</sup> Paid Family and Medical Leave (PFML) programs have been passed in 12 states<sup>10,11</sup>, including states where EarthScope will possibly employ their staff members. In New Mexico upcoming legislation regarding PFML will be brought to a vote in January, 2023.<sup>12</sup>

**Action:** As a base, we recommend that FMLA practices should be followed and supplemented with PFML that is taken before unpaid FMLA for up to 18 weeks as recommended by WHO. For parental leave, implement paid leave, available for both birthing and non-birthing parents or adopting parents within 1 year of birth/adoption. For caregiver paid leave (can be non-consecutive) for qualifying events: an

<sup>6</sup> American Academy of Pediatrics and the Pediatric Policy Council - <https://theriveter.co/voice/maternity-leave/>

<sup>7</sup> WHO: Convention No. 183 and 191

[www.who.int/data/nutrition/nlis/info/maternity-protection-compliance-with-international-labour-standards](http://www.who.int/data/nutrition/nlis/info/maternity-protection-compliance-with-international-labour-standards)

<sup>8</sup> Paid Family and Medical Leave: A Racial Justice Issue – and Opportunity:

<https://www.nationalpartnership.org/our-work/resources/economic-justice/paid-leave/paid-family-and-medical-leave-racial-justice-issue-and-opportunity.pdf>

<sup>9</sup> AARP Public Policy Institute on Paid Family Leave and Caretaker definitions:

<https://www.aarp.org/content/dam/aarp/ppi/2018/08/breaking-new-ground-supporting-employed-family-caregivers-with-workplace-leave-policies.pdf>

<sup>10</sup> Study finds that paid family leave does not hurt employers

<https://siepr.stanford.edu/news/study-finds-paid-family-leave-does-not-hurt-employers>

<sup>11</sup> bipartisanpolicy.org : State Paid Family Leave Laws Across the U.S.: Chart: Features of State PFL Programs:

<https://infogram.com/features-of-state-pfl-programs-1ho16vovez7884n>

<sup>12</sup> HOUSE MEMORIAL 3, 55TH LEGISLATURE - STATE OF NEW MEXICO - SECOND SESSION, 2022:

<https://www.nmlegis.gov/Sessions/22%20Regular/memorials/house/HM003.pdf>

employee's serious health condition, a serious health condition of a child, parent, spouse, domestic partner, grandparent, grandchild, sibling, or any individual with whom the employee has a significant personal bond that is like a family relationship, caring for a family member who was injured serving in the armed forces and managing affairs while a family member is on active duty.

**Timing:** 2

**Priority:** Medium-High

**Resources Requested:** Staff time to work with HR and Benefits Committee to establish this in the new employee handbook. Budget for this in an all-inclusive benefits package.

**Time investment:** Low-Medium

## A.2 Workplace Culture and Retention

### A.2.1 Promoting Inclusivity and Belonging

**Justification:** While working towards the goal of higher staff diversity, an organization must also work on fostering a sense of belonging among employees. This can include improvements in the onboarding process as the first experience for a new staff member joining the organization, investing resources in the workplace to make it more accessible, and revising processes to remove conscious or unconscious promotion bias.

#### **7-A. DEVELOP COMPREHENSIVE STAFF ONBOARDING, MENTORING, AND CAREER PROGRESSION SUPPORT POLICIES AND PROCEDURES**

**Justification:** All staff should feel welcomed and supported when starting a new role, and should have equal opportunity to become familiar with all EarthScope operations and become a part of the community, regardless of their role. As we move to a majority-remote workforce, clear expectations for manager support of new staff will become even more critical.

Opportunities for advancement in the organization often depend on mentoring and training opportunities and increasing one's understanding of operations across directorates. Equal access to these opportunities is necessary to ensure fair career progression for all staff. Additionally, opportunities to work closely with staff from other directorates helps build community and empathy between all staff, and helps align our culture and joint mission.

**Action:** Formalize the on-boarding process for all staff. This should include all standard necessary training, plus "get to know you" opportunities across the organization, and general "what is EarthScope" content to learn about work that is done by other directorates. Expectations for ongoing regular check ins and appropriate mentorship should be regularized across the organization, for the first six months of employment. This should go beyond just HR onboarding to consistent practices across all departments.

**Action:** Ensure staff are informed of all available resources for mentorship, professional development, and career pathways programs, particularly for internal mobility within the organization and opportunities for cross-training. Revise selection, approval, promotion processes to ensure equitable access to these resources, not just at the discretion of a single manager.

**Action:** Provide opportunities for staff to gain cross training in the operations of other directorates, and encourage participation in appropriate group activities. This may include, for example, opportunities for

non-field staff to participate in fieldwork, or for non education/outreach staff to participate in science fairs as EarthScope representatives.

**Timing:** 1

**Priority:** High

**Resources Requested:** Staff time, potential travel/per diem costs

**Time investment:** High

#### **8-A. OMBUDSPERSON**

**Action:** Ensure staff have access to an ombudsperson through the professional employer organization (PEO) that is selected for EarthScope. Provide information to staff on how this external representative can facilitate resolution of issues raised by employees, managers, contractors, and community members in addition to the organizational conflict management policy.

**Timing:** 3

**Priority:** Low

**Resources Requested:** Staff time

**Time investment:** Low

#### **9-A. WORKPLACE ACCESSIBILITY**

**Action:** Seek ways to go beyond the Americans with Disabilities Act compliance to integrate accessibility and universal design principles into organizational practices. This can take the form of physical access as well as visual and audio practices and technologies. Assess the feasibility of hiring an ADA specialty consulting firm to advise on design and implementation.

**Timing:** 2

**Priority:** High

**Resources Requested:** Outside consulting and staff time

**Time investment:** Medium

#### **A.2.2 Staff Training Related to DEI**

**Justification:** Initiating new organizational practices and making and sustaining cultural changes can be challenging. Simply stating intentions is not sufficient. Staff and managers need professional development in order to learn new skills and expand their understanding of diversity and inclusion issues, just as they do in other areas of their work.

#### **10-A. DEVELOP AND EXECUTE A MULTI-YEAR STAFF TRAINING PLAN RELATED TO CULTIVATING AN ORGANIZATIONAL CULTURE IN WHICH DIVERSITY, EQUITY, AND INCLUSION CAN THRIVE**

**Justification:** Professional development and training is most effective when carried out as part of a longer-term coherent plan.<sup>13,14</sup> In early 2022, after the UNAVCO/IRIS cultural assessments, staff from both organizations participated in joint professional development related to “Creating and Fostering a Culture of Diversity, Equity, and Belonging within the EarthScope Facility” which included DEI background

<sup>13</sup> National Research Council. 1996. National Science Education Standards. Washington DC: National Academy Press.

<sup>14</sup> Rhoton, J., and P. Bowers. 2001. Professional development planning and design. Arlington, VA: NSTA Press.

concepts, cross-cultural communication, and mindfulness. It is important that this not be considered accomplished through just a single training. Instead, a multi-year plan will allow staff to revisit DEI topics with different emphases over time. Other topics proposed by Milestales based on cultural survey outcomes include: implicit bias, microaggressions, cross-cultural communication, and workplace harassment. Self-directed diversity training or reading up to a couple hours a month could also be included as an option for interested employees in an individual or small-group format.

**Action:** Develop a multi-year plan (suggested target three years) for staff professional development and training related to promoting an institutional culture of diversity, equity, and inclusion. Should include on-boarding training for all new employees, annual or semi-annual training events for all staff, and possibly additional individual or small-group learning for people with greater interest.

**Timing:** 2

**Priority:** Medium

**Resources Requested:** ~\$16,000 per year. ~3 hours per person per year of staff time (more for first year employees and HR).

**Time investment:** Medium

### A.2.3 Assessing Workplace Culture

**Justification:** Organizational culture comes from both stated goals, core values (leadership, DEI committee) and from interactions in the workplace. These cultures may differ and do so in ways that are exclusionary or actively hostile to marginalized and underrepresented groups. If feedback is not routinely solicited, evaluated, and acted upon, this difference can have a detrimental effect on overall workplace diversity as well as staff satisfaction and retention, and may ultimately lead to a toxic organizational culture.

#### 11-A. ASSESS PASSCAL CULTURE

**Justification:** PASSCAL staff will be added to EarthScope staff, but as university employees organizationally separate from IRIS and UNAVCO, may have a different workplace culture than either organization. A cultural survey will identify areas of concern and differences in workplace culture when PASSCAL staff start onboarding to EarthScope. The results of the survey will provide opportunities to address issues associated with onboarding PASSCAL staff. It will also have the 'soft' benefit of increasing PASSCAL's sense of belongingness and involvement in EarthScope.

**Action:** Conduct a workplace cultural assessment for staff at the PASSCAL Instrument Center. This action has the approval of PASSCAL's Director. The committee recommends utilizing the survey already developed with Milestales for UNAVCO and IRIS, and offering relevant post-survey training.

**Timing:** 1

**Priority:** High

**Resources Requested:** External consulting firm (est. ~\$15,000), staff time.

**Time investment:** Low

#### 12-A. ROUTINELY EVALUATE CULTURE

**Justification:** In order to ensure we are meeting our workplace cultural goals, it is both useful and important to examine cultural shifts and trends. This will be an important component of assessing the DEI efforts and working for continued improvement.

**Action:** Conduct organization environment and culture assessments among all staff every 2-3 years, and form recommendations (e.g., training or policy changes) based on the assessments and trends over time. Opportunities for one-on-one discussion for each member of an operational group with an external consultant every 1-2 years to determine if exclusionary subgroups are developing or already exist that will create an unwelcoming environment for other member(s) of the group.

**Timing:** 2

**Priority:** High

**Resources Requested:** External consulting firm (est. \$25,000-\$50,000 depending on actual services and price changes), staff time.

**Time investment:** Low

### 13-A. CALL OUT UNWRITTEN RULES

**Justification:** Many workplaces have unwritten rules, which may include expectations of dress, hair styling, speech patterns, or other behaviors, which are typically defined by the current and historic majority groups. Unwritten/unspoken rules may negatively impact employee satisfaction and performance, and are more likely to have a disproportionate impact on staff from minorities and underrepresented groups. The enactment of these rules can therefore lead to unnecessary staff turnover and impede opportunities (e.g., promotion).

**Action:** Ensure that written Codes of Conduct (EarthScope staff, Employee handbook) are clear and implementation/enforcement does not lend itself to enforcement of unwritten rules. Consider soliciting feedback on experiences with unwritten rules in exit interviews and yearly evaluations. This action intersects with one or more action items under Section C.

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Low

## A.3 Hiring

### A.3.1 Increasing Candidate Diversity

#### 14-A. BROADEN RECRUITMENT

**Justification:** Positions posted primarily to broad spectrum and community-specific job boards may not attract applications from diverse candidates. As the UNAVCO and IRIS communities are also working to increase the diversity of their communities, applicants primarily drawn from these existing communities are likely to reflect the current low levels of minority representation. Currently at UNAVCO, funding to support targeted distribution of position postings to minority-serving job boards must come out of individual project/departmental funds, which acts as a disincentive to broaden recruitment efforts.

**Action:** Extend the reach of EarthScope job postings to ensure that a diverse potential candidate pool is aware of the opportunities with our company. This should be accomplished by:

- Providing dedicated funding to publish job postings to job boards that reach diverse audiences, and mandate use for every new job posting
- Provide dedicated funding to support staff participation in job fairs that will reach diverse audiences
- Pursue recruitment efforts at minority serving institutions, and investigate ways to reach more diverse applicants from outside the core academic community

**Timing:** 1

**Priority:** High

**Resources Requested:** Staff time; \$10,000 pool to support staff travel to job fairs and other events in order to develop relationships and build trust, plus \$500 dedicated per new position for posting to engage diverse groups.

**Time investment:** Medium

### **15-A. ENSURE INCLUSIVITY IN JOB POSTINGS**

**Justification:** Structured education and career pathways have not historically been equally accessible to all, which has contributed to underrepresentation of certain minority groups and those from lower socioeconomic backgrounds in the geosciences. Additionally, the use of certain phrasing (e.g. gendered, competitive vs collaborative, etc.) in job postings has been associated with greater or reduced application response by members of underrepresented groups.

**Action:** Develop new job postings with active dedication to reducing barriers to application and qualification by diverse candidates

- Examine job requirements to target to a wider audience of applicants, and consider non-traditional career paths that may provide relevant job skills and experience as an alternative to formal education
- Examine language used in job posting to rephrase wording which might feel unwelcoming or otherwise discourage members of underrepresented groups from applying. Include strongly phrased statements in support of inclusive hiring practices.
- Publish employment practices in an easily accessible public location

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time

**Time investment:** Low-Medium

### **16-A. SUPPORT VISA SPONSORSHIP AND OTHER HIRING OPTIONS FOR INTERNATIONAL STAFF/APPLICANTS**

**Justification:** Some current PASSCAL staff are not US citizens, and require visa sponsorship by New Mexico Tech (NMT) for their employment. Historically neither UNAVCO or IRIS has offered visa sponsorship and has limited job applicants to those with existing US work approvals only. To support these PASSCAL staff through the transition and ensure that EarthScope can continue to benefit from their vast experience and expertise, EarthScope must also provide an avenue to visa sponsorship. Additionally, though our primary funding is through US government support, our community, field operations, and the impacts of the research we support are global. Therefore a long term strategy of visa

sponsorship will ensure that we attract top talent worldwide, who can bring that global perspective to our internal operations.

**Action:** Investigate options to support current international subawardee staff and commit to ensuring their transition to full employment with EarthScope. Pursue long term strategy of visa sponsorship to support ongoing hiring of international applicants.

**Timing:** 1

**Priority:** High

**Resources Requested:** Request immediate funding to investigate options to support current international subawardee staff and ensure their transition to full employment with EarthScope

**Time investment:** Low-Medium

### A.3.2 Selection Committee Best Practices

#### 17-A. RESEARCH AND IMPLEMENT EVIDENCE-BASED WAYS TO REDUCE BIAS IN CANDIDATE EVALUATIONS

**Justification:** Initial assessments of candidates can become subjective without structure and strong objective analysis expectations in place. Unconscious bias can play a role in downgrading minority candidates or committee members gravitating towards candidates with common backgrounds or interests.

**Action:** Continue efforts to identify and implement methods of reducing bias in candidate evaluation process

- Implement and refine objective candidate “grading system/rubric” for each posting according to primary role responsibilities, and ensure that “points” are assigned consistently
- Consider limited redaction of information that identifies candidate’s *membership in a protected class* through first round of candidate assessment

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time

**Time investment:** Low

#### 18-A. INSTITUTE IMPLICIT BIAS TRAINING FOR ALL HIRING MANAGERS/COMMITTEES

**Justification:** Awareness of common forms of implicit bias and how they can affect the candidate selection process can help the hiring committee work to avoid these types of biases. Training into acceptable and unacceptable judgements of candidate quality and fit is recommended to assist in growing this awareness

**Action:** Implement training for hiring managers and committees in avoiding implicit bias in the candidate assessment process.

**Timing:** 1

**Priority:** High

**Resources Requested:** Staff time

**Time investment:** Low

### A.3.3 Post-selection

#### 19-A. ASSESSING EFFECTIVENESS OF DIVERSITY OBJECTIVES IN HIRING PROCESS

**Justification:** To determine the effectiveness of our Action Items focused on broadening our recruitment, we must track the diversity metrics of the full applicant pool for posted positions. To determine the effectiveness of our implicit bias reduction and objective candidate assessments, we must assess the diversity metrics of those candidates chosen for advancement to the interview process. In both cases, we have the opportunity to learn from our past experiences and refine our processes to maximum benefit.

**Action:** Assess diversity metrics of both wider candidate pool and candidates selected for interview, to refine posting locations and implicit bias reduction practices.

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Low

## B. Fieldwork and Instrumentation

### B.1 Field Safety - Internal EarthScope

**Justification:** Members of underrepresented groups may undergo greater scrutiny or be disproportionately targeted for harassment or assault while working in the field. Due to remoteness and isolation of fieldwork, these risks need to be carefully assessed and mitigated to ensure the safety of minority field participants.

**History:** In 2021, a UNAVCO subcommittee developed an Inclusive Field Safety Action Plan<sup>15</sup>, which was intended to address these safety concerns for UNAVCO engineers who are minorities or otherwise disproportionately at risk while doing fieldwork. PASSCAL and IRIS have also begun development of external resources for PIs who wish to develop their own field safety plan with an eye to DEI considerations.

#### 20-B. REVISE AND EXPAND THE UNAVCO INCLUSIVE FIELD SAFETY ACTION PLAN

**Action:** Form a Field Safety Subcommittee to reassess the actions presented in the UNAVCO “Inclusive Field Safety Action Plan” to develop an EarthScope Field Safety Action Plan. This subcommittee can be joint or collaborative with existing general safety committees and safety officers at UNAVCO, PASSCAL, and IRIS. This will ensure that the actions are aligned with the scope of field operations that will be performed by the whole of EarthScope. This subcommittee should also examine and include potential additional action items which would educate and support the EarthScope field research community.

**Timing:** 1

**Priority:** High; timing should allow for full (former) subawardee participation to ensure that all future EarthScope field operations are considered

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<sup>15</sup> UNAVCO Inclusive Field Safety Action Plan v.2021

[https://www.unavco.org/wordpress/wp-content/uploads/2021/12/Inclusive-Field-Safety-Action-Plan\\_15NOV2021.pdf](https://www.unavco.org/wordpress/wp-content/uploads/2021/12/Inclusive-Field-Safety-Action-Plan_15NOV2021.pdf)

**Resources Requested:** Staff time

**Time investment:** Medium

## **21-B. IMPLEMENT THE ACTION ITEMS IDENTIFIED IN THE EARTHSCOPE INCLUSIVE FIELD SAFETY ACTION PLAN**

**Action:** Actions identified in the former and future “Inclusive Field Safety Action Plans” will need to be implemented by the Field Safety Subcommittee in coordination with staff on the Safety Committee, in the Engineering and Instrumentation directorate, and in HR. Some internally-focused actions previously identified can be implemented immediately, pending re-approval by the new Senior Management Team. New actions identified by the subcommittee would be deferred until new Action Plan approval.

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time; Initial \$7500 for implementation of staff training and safety materials detailed in the UNAVCO Inclusive Field Safety Action Plan, 2021.

**Time investment:** Medium

## B.2 Field Safety and Instrumentation - Community Support

### **22-B. DEI FIELD RESOURCES FOR THE EARTHSCOPE COMMUNITY**

**Justification:** The EarthScope Consortium has the opportunity to be a standard bearer in encouraging community members doing fieldwork to consider the safety of minority field participants who might experience extra risks beyond the rest of the field team. Currently, there aren’t specific resources for developing specific safety plans for geophysics field work. EarthScope is uniquely positioned to develop and distribute these resources. EarthScope staff who participate in PI-driven fieldwork typically abide by the field safety plan that is imposed by the PI, so ensuring that these PIs develop a well-crafted safety plan that is inclusive of risks to all identity groups will increase the safety of EarthScope staff. Additionally, we wish to promote collaboration with local researchers where possible and encourage appreciation and respect for local knowledge and cultural practices.

**Action:** Multiple actions which can further these goals are detailed here. Community representation on the implementation team is recommended.

- Provide resources to assist EarthScope community PIs in developing field safety plans that include measures to protect all participants, with particular attention to issues that may disproportionately impact participants from minoritized groups.
- Survey and interview EarthScope-supported PIs and network operators who executed deployments and experiments working with or around communities that are underrepresented in geophysics in the U.S. (e.g., Indigenous communities), or in “non-Western” cultures overseas to identify successful strategies for inclusion, mutual support, and collaboration.
- Develop tool kits for PIs to help identify and address cultural implications of their experiments, and best practices for incorporating and leveraging value of Indigenous and local knowledge and experiences. Encourage coauthor relationships with Indigenous and local researchers and formal acknowledgement of all Indigenous and local contributions.

- Review the experiences of field and permitting staff in the Transportable Array and NOTA who have experience working with or around Indigenous communities in CONUS, AK, and Canada. Compile the experiences, lessons learned, and best practices suitable for both internal use and public distribution.
- Partner with groups creating and running virtual field classes and field experiences for people with disabilities.
- 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.
- Require PI's utilizing EarthScope resources (equipment, engineering support) to agree to abide by the EarthScope Code of Conduct for the duration of supported activities, insofar as it is not in conflict with institutional or local requirements

**Timing:** 3

**Priority:** Medium

**Resources Requested:** Significant staff time

**Time investment:** High

## C. Governance and Member Institutions

**Justification:** Leadership can dictate the values, culture, and the people and institutions who make up an organization. To ensure a diverse organization, a robust process must be in place for determining who is in those positions of power and a system of reporting will provide accountability for that nomination and selection process. Individuals must adhere to the EarthScope Code of Conduct and member institutions must uphold it in order to foster an inclusive organizational culture.

### 23-C. ENSURE DIVERSE REPRESENTATION IN THE BOARD OF DIRECTORS AND GOVERNANCE COMMITTEES

**Action:** Track demographics of current and future members of the EarthScope Board of Directors and the five Governance Committees, and establish goals for improving diversity.

- Provide "best practices" resources and recommendations to the nominating committees to improve the nomination and selection process to achieve broader representation and ensure that the process is transparent and inclusive. Ensure that members of the nominating committee are comfortable with and committed to the objective of increasing diversity.
- Track the diversity of the current and future Board and Committees (race, ethnicity, gender, sexual identity, career stage), and publicly report metrics
- Establish goals for the diversity of Board and Committee membership, as legally and ethically appropriate and in accordance with EarthScope bylaws

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Low

#### **24-C. ENSURE POTENTIAL NEW BOARD OF DIRECTORS AND COMMITTEE MEMBERS MODEL ETHICAL BEHAVIOR**

**Action:** Add a step in the Board of Directors and Governance Committee nomination process which requires nominees to disclose any past allegations of violation of community standards, or institutional proceedings resulting in a finding of professional misconduct.

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Low

#### **25-C. REQUIRE MEMBER INSTITUTIONS TO COMMIT TO CODE OF CONDUCT WHILE ENGAGED IN EARTHSCOPE ACTIVITIES**

**Action:** As part of the membership application process, require member representatives to read the code of conduct and sign a statement which requires compliance during all EarthScope-sponsored activities. The code of conduct should also be included in all MOU's.

**Timing:** 1

**Priority:** High. Ideally this would be incorporated into the membership transition process as the EarthScope Consortium is formed.

**Resources Requested:** Staff time

**Time investment:** Low

### **D. Conferences, Workshops, and Internships**

#### **D.1 Conferences and Workshops**

##### **D.1.1 Code of Conduct**

**Broad Justification:** Many members of underrepresented groups who attend conferences have reported racism, discrimination, sexual harassment, or microaggressions focused on either unspoken rules or their perceived contributions based on their identity. This negatively affects their safety, comfort, confidence, sense of belonging, and desire to participate in future conferences and/or geoscience work. A code of conduct which clearly lays out expectations for behavior and consequences for those that violate those expectations may reduce these violations, and shows participants who may experience these behaviors that the EarthScope community stands with them.

#### **26-D. DEVELOP AND REFINE CODE OF CONDUCT FOR CONFERENCE PARTICIPANTS**

**Action:** Develop the EarthScope external/community Code of Conduct to ensure that it addresses expectations for attendees, including overt problematic behavior such as racism, identity-based discrimination, and sexual harassment, as well as microaggressions regarding "unspoken rules" about what is considered professional attire/appearance, behavior, language, and diction. Require an explicit "checked box" agreement to this Code of Conduct for all participants.

**Timing:** 1

**Priority:** High

**Resources Requested:** Staff time

**Time investment:** Medium

#### **27-D. CODE OF CONDUCT VIOLATION REPORTING AND RESPONSES**

**Action:** Ensure that mechanisms are in place for reporting Code of Conduct violations during conference activities, including virtual meetings and field trips. Develop a plan for conference organizer intervention and assistance if warranted. Develop an appropriate process for investigating reports, and determining and enacting consequences for those accused of Code of Conduct violations.

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time

**Time investment:** Medium

#### **28-D. POST-CONFERENCE REVIEW**

**Action:** 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 addressing “Code of Conduct violations or problematic behaviors that may have been experienced or witnessed” to any post-workshop surveys of participants. This information should be used in future conference planning to develop mechanisms to further reduce negative experiences by participants.

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Low-Medium

### **D.1.2 Promoting Inclusivity and Belonging at EarthScope Events**

#### **29-D. DEVELOP DEI-RELATED GUIDANCE DOCUMENT FOR EARTHSCOPE EVENT PLANNERS**

**Justification:** Meetings, conferences, short courses, and other EarthScope-associated events are an opportunity for EarthScope to cultivate a culture of inclusion and normalize strategies to make sure more people can positively interact during science events.

**Action:** Prepare a guidance document that staff and community members can reference when planning events such as meetings, conferences and short courses to ensure that recommended practices<sup>16,17</sup> are at least considered, even if not all are actionable for a particular event. This document should be developed by a sub-committee of EarthScope DEI Committee members and other staff involved in events, drawing from the following suggestions and other vetted sources.

- 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)
- Require agreement with code of conduct during registration and have reporting mechanism for complaints (see also D.1.1)

<sup>16</sup> 500 Women Scientists. 2020. Inclusive scientific meetings.

<https://500womenscientists.org/inclusive-scientific-meetings>

<sup>17</sup> UNAVCO Inclusive Meeting Statement - Demographics Data Collection. 2021.

<https://www.unavco.org/wordpress/wp-content/uploads/2021/11/UNAVCO-Inclusive-Meeting-Demographics.docx.pdf>

- Create networking events / town halls for minoritized geoscientists
- Avoid cross-schedule networking / town hall / other DEI sessions against other key meeting activities. Promote DEI events with equal emphasis as technical events
- Provide gender neutral bathrooms
- Provide lactation room and other support for caregivers
- Provide quiet rooms for individuals with sensitivity to over stimulation and noise or in need of a quiet workspace
- Integrate Indigenous land acknowledgements into EarthScope facilitated workshops and meetings
- Consider prorating meeting registration so single-day participation is more affordable for local attendees or people with limited time.
- Include registration question with phonetic pronunciation of names (to be given to session leaders)
- Collect demographic information during registration to provide comprehensive time series data on changes (or lack thereof) in inclusion.
- Provide travel support for students and early career professionals in a way that ensures equity and promotes diversity within attendees
- Include DEI considerations in event feedback and assessment

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Medium-High

## D.2 Cooperative Education Opportunities within the EarthScope Consortium

### **30-D. DEVELOP AND IMPLEMENT A COOPERATIVE EDUCATION PROGRAM FOCUSING ON MINORITY STUDENTS**

**Justification:** Current intern programs within UNAVCO and IRIS tend to focus on bringing under-represented students into the geosciences. Also, the current intern programs tend to last only one or two summer terms. Cooperative education programs, on the other hand, should be designed to focus on developing skills related to work (e.g. engineering, data science, etc.) performed by the EarthScope Facility. Co-op programs typically alternate between one semester at school and one semester at work. The duration of co-op programs is usually more than one year, allowing students to use the lessons learned in class and apply them across a range of day-to-day tasks within the host organization. The goal of the program is to provide students with real-world work experience, giving them better opportunities to compete in the employment market after graduation, potentially even for employment at the EarthScope Consortium.

**Action:**

- Investigate, develop, and implement a cooperative education program within the EarthScope Consortium.

- Investigate using resources from commercial revenues, as part of a donation for use of historic tribal lands for commercial activities, to support native American students hired as part of this program.

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time; funding to support the salaries, lodging, and travel for co-op students.

**Time investment:** Medium-High

## E. Outreach

**Justification:** Much of the previous work in DEI at IRIS and UNAVCO has been executed as part of the education and outreach directorates. This work will continue under the organizational structure and governance. We make suggestions here to add limited scope to the EPO/ECE team and to engage staff EarthScope wide.

### 31-E. ENVIRONMENTAL JUSTICE RESOURCES

**Action:** Compile resources describing the history and occurrence of exploitation, environmental justice, and ethics in seismology, geodesy, and geophysics, as well as the impact to Indigenous and other Communities of Color. If these resources are not available in the community, collaborate with an organization such as GeoContext<sup>18</sup>, SERC, or AGU LANDInG to develop them and produce an educational module that can be incorporated into existing EarthScope educational materials.

**Timing:** 3

**Priority:** Low

**Resources Requested:** Staff time; could also include some work as part of a paid internship project

**Time investment:** Medium

### 32-E. VIDEO SERIES ON INDIGENOUS CONTRIBUTIONS TO GEOSCIENCE

**Action:** Create a video series featuring Indigenous knowledge of and contributions to geoscience. Can be incorporated with ongoing efforts such as the Women in Geoscience video series.

**Timing:** 2-3

**Priority:** Medium

**Resources Requested:** Staff time.

**Time investment:** Medium

## F. Data Services

### 33-F. EVALUATION OF OFFENSIVE STATION NAMES

**Justification:** Traditionally, permanent geodetic and seismic station names have been chosen based on local landmarks. Unfortunately, there are many landmarks in the United States and elsewhere that include racial or ethnic slurs, insensitive phrasing, or that reference racist historical figures or events. The

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<sup>18</sup> GeoContext - <https://geo-context.github.io/>

U.S. Department of the Interior has recently rectified this by renaming >500 places within its jurisdiction.<sup>19,20</sup> Because federal entities are taking steps to rename offensively named places and these steps have increased public awareness of the need to discontinue the perpetuation of harm, EarthScope should follow suit, as is feasible with minimal effects to scientific objectives.

**Action:** A partial evaluation as to the number of offensively named stations installed with SAGE and GAGE award funds has already taken place. The next step is to complete the evaluation to determine the number of affected stations. A subcommittee will re-evaluate to determine this number and write a report on 1) the impact of renaming station identification codes, cited research designations, and/or full station names on both past research/publications and future time-series continuity, 2) feasibility of making these changes across all databases and for all users, 3) alternative options for harm-reduction, such as providing context and acknowledgement in the metadata. This report should also include the operational impact (i.e. staff and computing time) for each of these options. The report will go to the Senior Leadership Team and Board of Directors for necessary discussion, including consulting with collaborative agencies if necessary, with the goal of making a final decision with respect to renaming the affected stations.

**Timing:** 3

**Priority:** Medium

**Resources Requested:** Staff time, possible outside consultants.

**Time investment:** Medium

#### **34-F. CONTINUE ADOPTION OF FAIR AND CONSIDER ADOPTION OF CARE DATA PRINCIPLES**

**Justification:** Adoption of CARE data principles would support The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and work to help redress, in a small way, the lack of sovereignty Indigenous peoples have had in the past centuries. Continuing to adopt FAIR data principles will lower data access barriers, which is likely to have a positive impact on the ability of researchers from underrepresented groups who may not have as many connections or resources to access data for their research. Examining FAIR and CARE together will help provide an appropriate balance between open data and considering the context of data collection.

**Action:** Assess what is involved in adopting CARE data principles for Indigenous Data Governance (Collective benefit, Authority of control, Responsibility, Ethics); acknowledging site locations, Native lands, and/or local history; and addressing past mistakes.

**Action:** Continue to implement FAIR (Findability, Accessibility, Interoperability, Reuse) principles for all data & metadata collected with EarthScope's currently supported instrumentation types. For future instrument types, implement FAIR as part of the process of adding those instruments to EarthScope's pool of equipment for users. Incorporate training on FAIR principles for staff and users.

**Timing:** 2

**Priority:** High

**Resources Requested:** Staff time

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<sup>19</sup> The Wilderness Society and National Association of Tribal Historic Preservation Officers:  
<https://www.wilderness.org/sites/default/files/media/file/Placenamesguide.pdf>

<sup>20</sup> Department of the Interior:  
<https://www.doi.gov/pressreleases/interior-department-completes-removal-sq-federal-use>

**Time investment:** Medium

### 35-F. LAND ACKNOWLEDGEMENTS

**Justification:** Land acknowledgements are a way to show respect and honor the histories and culture of the Indigenous Peoples of the land on which we work and use for research.

**Action:** Analyze whether PBO, NOTA, GSN, TA, etc. siting in the past has ignored or not acknowledged Indigenous lands. Publish recommendations for lessons learned or proposed improvements for future efforts.

**Action:** Assess if it is feasible to include land acknowledgements within meta-data or experiment reports when data are downloaded from the DMC from a particular station or experiment. Additionally, determine if it is feasible to assign a DOI to a station within a network (which already has a DOI) to enable clear citation of stations on historic or current Indigenous land.

**Action:** Facilitate inclusion of Indigenous and 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 EarthScope website. This may, for example, involve expanding UNAVCO's NOTA station land acknowledgement tool<sup>21</sup> to cover international GNSS stations as well as all stations associated with IRIS (TA, PASSCAL, GSN).

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Medium

### 36-F. MAXIMIZE ACCESS TO AND USE OF EARTHSCOPE RESOURCES AND INFRASTRUCTURE BY UNDERREPRESENTED GROUPS

**Justification:** Increased diversity in the geosciences depends in part on the ability of researchers to utilize equipment or existing data sets so they can conduct research and progress in their careers. Current policy may skew resource and infrastructure access toward less diverse mid- and late-career researchers.

**Action:** Form a subcommittee to brainstorm and enact activities to address maximizing access to and use of our infrastructure and data products by underrepresented groups.

**Action:** Survey participants of DEI activities at workshops and conferences, with a question or set of questions focused on what impedes access to metadata & data, and another question or set of questions focused on what impedes access to infrastructure.

**Action:** Revisit the discussion of having a pool of instruments that are reserved for early-career scientists and by extension underrepresented groups. Provide information about % of early career and underrepresented groups that are actively using the pool to give to the Board of Directors to discuss with NSF.

**Timing:** 3

**Priority:** Medium

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<sup>21</sup> UNAVCO Land Acknowledgement Tool Beta: <https://observablehq.com/@unavco/land-acknowledgement>

**Resources Requested:** Staff time, \$10,000 for staff travel to put on short courses at meetings/conferences about accessing resources; funding for separate early career instrument pool, depending on decisions related to cost recovery.

**Time investment:** Medium-High

## **G. Reporting and Accountability**

**Justification:** Measuring progress and distributing reports is necessary for holding our organization and ourselves accountable. Sharing our commitments, strategies, and results is also an opportunity to engage both internal staff as well as external community members.

### **37-G. PUBLIC STATEMENTS**

**Action:** Review and revise anti-racism, anti-discrimination statement for EarthScope and provide direct and permanent link on the front page.

**Timing:** 1

**Priority:** High

**Resources Requested:** Staff time

**Time investment:** Low

### **38-G. REPORTING AND ENGAGEMENT**

**Action:** Engage staff by posting regularly to #inclusive Slack channel or staff-wide emails, as appropriate, to report on EarthScope DEI Committee activities and provide opportunities for involvement and input.

**Action:** Organize webinars with invited speakers for the EarthScope community on anti-racism and anti-discrimination topics in the Geosciences.

**Action:** Review how other institutions and facilities are reporting publicly, then develop an EarthScope DEI Committee report template to be compiled annually and publicly distributed. Included in the report will be progress made on board, governance committee, and staff diversity targets along with comparison to baseline data (if available). This report will also include a timeline for the actions taken and expected completion. Additional measures and metrics should be added as appropriate (e.g. self-reported demographics of people attending/supported at meetings, using instruments/data, featured in science highlights, etc.).

**Timing:** 2

**Priority:** Medium

**Resources Requested:** Staff time

**Time investment:** Low

## **H. Ongoing Activities to Continue into EarthScope Consortium**

**Justification:** UNAVCO and IRIS have already invested considerable effort in promoting DEI through work by the IDEA, JEDI, and URGE groups, as well as other staff activities. We highlight below the activities that have been initiated already and should be explicitly integrated into EarthScope policy, procedures, and practices. These are expected to continue and have not been given specific actions, prioritization, resource allocation, or time investment in this action plan.

### A.1.1 Benefits

#### **RESEARCH ACTIVITIES**

UNAVCO implemented a policy allowing for up to 10% of staff time on research activities. This policy should be reviewed and adopted by EarthScope for all EarthScope staff, expanded to professional development activities for staff not involved in research, and include guidance on allowable access to facility equipment. This may be a significant change for PASSCAL and IRIS staff as a policy like this has not yet been implemented.

### A.2 Workplace Culture and Retention

#### **PROFESSIONAL DEVELOPMENT & SELF STUDY**

Integrate IRIS's policy into EarthScope of allowing up to 2 hours a month of self-directed diversity training, organized reading and discussions, restorative activities, or participation in other diversity, equity, and inclusion efforts as part of staff time. Include and value this work in regular employee evaluations.

UNAVCO implemented a professional development application process to enable more transparent and equitable access to funds for staff seeking professional development beyond the basic training needs for their positions. This fund should be expanded by EarthScope at a rate at least proportional to the increasing staff size. This would suggest at least \$16,000 in the first year of EarthScope and \$22,000 or more by the time PASSCAL staff are joined. Support professional development, training courses, and educational opportunities for staff with selection and approval by a separate group to avoid promotion bias.

#### **REPORTING PROCEDURE**

Continue to support an anonymous reporting system that allows employees to confidentially submit incident reports on all forms of harassment and discrimination. Also expand this option to be available to community members while engaged in EarthScope sponsored activities. Ensure both the mechanism and the process is clearly conveyed to employees and community members.

#### **PERFORMANCE REVIEW CRITERIA**

Continue the UNAVCO practice of including a prompt in performance evaluations to consider mentoring, committee involvement, and community outreach activities outside of core responsibilities as accomplishments.

### C.1 Community interactions/expectations

#### **STAFF PARTICIPATION IN PROFESSIONAL SOCIETY DEI ACTIVITIES**

UNAVCO and IRIS staff have been active participants and even leaders in a variety of professional societies' DEI efforts (e.g., Seismological Society of America, 500 Women Scientists, National Association of Geoscience Teachers). This collaboration and service should be continued into EarthScope.

## E. Outreach

### **BUILDING DEI CAPACITY IN THE GEOSCIENCES**

Continue building capacity in the geosciences by offering free training, online classes and courses, and other educational opportunities. IRIS currently offers the “Seismology Skill Building Workshop”, assists with and hosts ROSES (“Remote Online Sessions for Emerging Seismologists”) in collaboration with AGU, and offers free online course materials on petroleum geology. Teaching resources and internship programs through IRIS and UNAVCO also support broadening participation.

### **FEATURE WORK OF MINORITY GEOSCIENCES**

UNAVCO and IRIS include the work of minority geosciences in science highlights and video serieses like “Women in Geoscience” and “Interviews with Latino/Latina Seismologists.” Both organizations also feature the diversity of staff members and interns on outward-facing pages like “Life at UNAVCO”.

### **USE DIVERSE VOICES AND PEOPLE IN EDUCATIONAL MATERIALS**

IRIS has made a concerted effort to record audio for educational videos using a wider range of voices. UNAVCO has been translating animations and other resources into Spanish. IRIS Teachable Moments are translated into Spanish. These efforts should be continued and expanded.

## **APPENDIX**

### **Charge to IDEA/JEDI Joint Committee**

From June 21, 2022 email sent from Rebecca Bendick <bendick@unavco.org>, cc- Bob Woodward <woodward@iris.edu>)

Based on our working timeline for merger implementation, the management and governance of IRIS and UNAVCO charge the joint IDEA/JEDI committee with a set of tasks that will support the merger principles around equity and inclusion. Specific principles related to both EarthScope operations and EarthScope governance have been developed and approved by the Implementation Steering Committee and the Joint Boards. These include:

- Merger principle #6: The Steering Committee affirms the commitment of the EarthScope Consortium to anti-racism and the work toward achieving greater diversity, equity, and inclusion in our organization and the geosciences. The science of geophysics grows when an increasing number of diverse people contribute ideas and approaches. We strive to increase access to the geophysics community itself by cultivating a diverse, equitable culture of belonging, safety, and respect in which our staff and community members of all backgrounds and strengths can thrive, contribute, and lead. To increase the participation of diverse scientists and educators, we provide open access to data, instrumentation, and other resources. We commit to regularly re-evaluating and publishing our policies, procedures, and progress to ensure that the contributions and perspectives of historically and currently marginalized people can achieve full impact within our science, organization, and community.

- Governance principle #6: Equip advisory groups and the Board for success through intentional onboarding and training (including DEI and culture), clear pathways for communication, and leadership development opportunities for community members of all career stages.
- Governance principle #7: Diversify the EarthScope Consortium community through education and outreach, especially to underrepresented groups.

In order to accomplish these goals, the joint committee should:

Systematically compare the action plans independently developed by each committee and by Milestones,

- Identify common actions and priorities and combine these into a single plan,
- Identify a feasible sequence of actions for implementation based on common priorities,
- Clarify resources required for implementation, especially if external resources are required, and
- Identify priorities already addressed in the merger plan and principles.

The resulting EarthScope Consortium Action Plan should be delivered to IRIS and UNAVCO management by October 1, 2022 for consideration by the Implementation Steering Committee and Joint Boards as necessary.