

IN PURSUIT OF CONFERENCE EQUITY

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Scientific meetings and conferences are a cornerstone of scientific culture. By bringing people together around a shared purpose, meetings serve as a platform for knowledge exchange and can often foster a sense of belonging. As some will argue, conferences can become “counterspaces” to affirm a person’s identity, provided they have adequate access to resources and support (Nakajima et al., 2024). From students to retirees, scientific meetings and conferences provide engagement and professional development opportunities for people from various career tracks and stages and serve as engines of innovation and collaboration. As a major source of revenue, meetings and conferences are also integral to the business models of many professional societies, publishers, exhibitors, businesses, and local economies.

However, scientific meetings and conferences are not always inclusive, equitable, and accessible to all. A variety of social and economic barriers prevent some groups of people from fully participating and engaging in a meaningful way, including those with disabilities, people from resource-limited communities and nations, students and early career professionals, faculty at two-year colleges and non-R1 universities, K–12 teachers, nursing mothers, and caregivers. A key barrier to participation is access to funds to defray the considerable costs associated with registration, travel, and lodging. Some professional societies offer discounted registration rates and travel grants to people in need; however, this funding is rarely enough to cover travel costs and often arrives as delayed reimbursement post-travel. People may

need to break into their savings and contingency funding to support their travel.

The cognitive and psychological load experienced by foreign-born individuals is even greater, as they are subject to sometimes difficult-to-navigate visa requirements of Western nations. Further exacerbating their problems are the expenses associated with obtaining visas. The obstacles don’t end there. Even when people from marginalized groups can travel, they often don’t experience the same feelings of belonging at professional meetings that attendees from North American and Western European countries, or those from majority groups, do. A lack of diversity among the speakers and panelists presenting scholarship at academic conferences may also create the perception that individuals from certain groups are not valued members of the conference community (Chautard, 2019).

To increase the participation of marginalized groups in ocean science conferences, the Coastal and Ocean STEM Equity Alliance (COSEA) tested some strategies and derived some learned lessons that can be amplified to make scientific meetings and conferences more equitable. Our test case was the ASLO 2023 Aquatic Sciences meeting in Mallorca, Spain. COSEA recruited as new members two students and two early career faculty, all of whom identified as Black, Indigenous, or People of Color (BIPOC). Next, COSEA obtained a grant from the US National Science Foundation (NSF) to provide travel support for its members to attend the ASLO 2023 conference. All four new recruits and five existing members of COSEA were supported by the NSF award. There were two additional COSEA

members, including a federal employee, who participated in the ASLO meeting and supported their own travel. The lead institution that received the NSF travel award provided administrative support to process pre-paid conference expenses, such as travel, lodging, and registration.

In collaboration with the new recruits, COSEA members designed a town hall entitled “Building a Collective Vision for Resilience and Recovery in Aquatic Sciences.” The purpose of this town hall was to engage meeting participants in a discussion around three themes: (1) creating opportunities for career development and enhancement in ocean and coastal sciences, (2) identifying improvements needed in workplace culture to enable full participation of people from different backgrounds, and (3) building safe, accessible, and inclusive spaces for civic dialogue and public engagement. New COSEA members brought unique perspectives and experiences to the town hall design. The two new student members designed a COSEA logo. All COSEA members led small group discussions and participated in a strategic retreat. These shared experiences led to building meaningful connections and fostering teamwork. More seasoned participants of ASLO met newer participants before, during, and after the meeting to offer peer-to-peer mentorship, professional guidance, and support necessary for effective participation in the meeting. This led to a more holistic and comprehensive experience for all COSEA members participating in the conference.

We also learned some lessons. For example, federal funding could not be used to support visa-related expenses

incurred by a foreign-born member of COSEA, so this was a significant out-of-pocket expense for them. We also learned that complex systems of reimbursement at universities can result in delays, causing financial strain to some. Lastly, we learned that there are administrative challenges to having a third party pre-pay for meeting registration and accommodations, highlighting an opportunity for professional societies to provide an alternative mechanism for front-end conference procedures.

There are additional examples of how professional societies are working to improve the cultures at conferences and meetings (e.g., Jack-Scott et al., 2023; Meyer-Gutbrod et al., 2023, and references therein). The National Diversity in STEM conference hosted by SACNAS (Society for Advancement of Chicanos/Hispanics & Native Americans in Science) provides an exciting example. This conference offers tailored programming specifically designed to address the needs and interests of diverse participants, including individuals from marginalized groups. Sessions cover topics such as overcoming barriers, building inclusive environments, and promoting diversity in STEM disciplines. The conference also facilitates mentorship and networking opportunities that connect participants with established professionals and leaders from diverse backgrounds. These interactions provide support, guidance, and career development opportunities for attendees, particularly those who may lack access to traditional mentorship networks. In addition to interactive workshops and experiential learning opportunities, the National Diversity in STEM conference also provides accommodations such as sign-language interpreters, captioning services, and wheelchair-accessible facilities. It also offers virtual participation options for individuals who are unable to attend in person due to geographical or logistical constraints. Additionally, programs such as Geo-Futures, funded by NSF, collaborate with SACNAS to provide professional and career development opportunities

to students before, during, and after an annual scientific conference. Efforts at several recent meetings, including the 2023 Coastal Estuarine Research Federation (CERF) annual meeting and the 2024 Ocean Sciences Meeting (OSM), offer encouraging examples of broader support for inclusive participation.

Drawing on the lessons learned from our experience participating in scientific meetings and conferences, the author team offers some ways in which meeting organizers can promote conference equity:

- Intentionally assess and address barriers that prevent participation of people from marginalized groups.
- Choose inclusive meeting locations (Jack-Scott et al., 2023).
- Collaborate with people from diverse backgrounds to design and implement sessions at meetings and conferences.
- Provide mentorship and networking opportunities.
- Thoughtfully diversify the program agenda and meeting format (i.e., offer hybrid or virtual options) in consultation with people from diverse groups.
- Ensure that accessibility is prioritized in conference planning. Consider the Universal Design for Learning framework (<https://udlguidelines.cast.org/>).
- Provide larger funding awards (>\$1,000) to defray travel and lodging expenses as well as costs related to services such as family care that may also prevent a student from fully participating in a conference.
- Ensure early dissemination of visa support letters.
- Provide reimbursement in a timely fashion.
- Build partnerships with local communities and businesses by inviting community members to fully participate in meetings as guest speakers and by joining high profile sessions.

Centering equity in meetings and conferences means that *all* participants—regardless of their country of origin, location, income, or affiliation—are provided with an equal opportunity to contribute,

be seen, and heard. Organizers of scientific meetings and conferences should commit to making their convenings more inclusive, equitable, and accessible to all, with the acknowledgment that our ocean sciences community continues to work on many fronts to broaden participation in the field. Members of professional and scientific societies can support these efforts through service on meeting planning committees and award selection committees, nominating panelists, making financial contributions to travel awards, and serving as ambassadors of social and scientific culture.

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