Funding and oversight for diversity initiatives

As the importance of diversity, equity and inclusion within teams grows, large organizations are starting to commit to funding and data-driven action to build on and sustain the momentum.

dvancing inclusion, diversity, equity and accessibility (IDEA) in astronomy and planetary science is underpinned by social justice and has been scientifically shown to reap benefits. Academia was built as a white space, as a male space, as a colonialist space, and there is a growing realization particularly in the Western world — that homogeneity needs to be replaced with heterogeneity. For real change, long-term sustained investment along the entire academic career pathway will be critical, along with clearly defined responsibility and accountability. In our field, minoritized groups are underrepresented on every axis of social differentiation: gender, ethnicity, sexuality, physical and mental ability, and so on. While waiting for institutions and universities to take the lead, many groups of individuals have been redressing the gender imbalance and improving minority representation from the bottom up. Recent examples of these initiatives are recorded in Astro2020 — the first decadal survey to establish a Panel on the State of the Profession and Societal Impacts for astronomy and astrophysics — and the Planetary Science and Astrobiology Decadal Survey 2023-2032. Both recommend major top-down initiatives. In the case of the Planetary Science and Astrobiology Decadal Survey, there is no dedicated panel to oversee the translation from word to deed. However, we know, for example, from conferences such as Advancing IDEA in Planetary Science that the planetary science community in the United States, at least, is working hard to ingrain the principles of IDEA in the workforce.

Another conference, on Breaking Barriers for Gender Equity Through Research, hosted by editors from across Springer Nature in March 2022, looked at ways to achieve gender equity locally that could be scaled up and accelerated through the involvement of institutions and funding bodies (Nature **603**, 362; 2022). We need both grassroots and organizational approaches to ensure that different communities don't keep reinventing the wheel, that momentum is maintained through mentorship and support, that there is sufficient funding and awareness for levelling-up initiatives and targeted hiring, and that there is accountability as well as meaningful measures of success. All of these approaches need to include representatives from the impacted communities — "nothing

about us without us" — but the burden of responsibility for the changes should not lie with these already-over-taxed groups.

A recent Consensus Study Report from the National Academies of Sciences, Engineering and Medicine includes both short-term and long-term goals for increasing IDEA at the leadership level of space mission proposals for competed space mission programmes in NASA's Science Mission Directorate. It lists 15 recommendations. These include putting in place a fully transparent and accessible proposal process; improving demographic data collection, monitoring and reporting to find the baseline and expand the pool of potential principal investigators; and providing training and mentorship opportunities for women and historically underrepresented communities. Substantial barriers for women and minoritized groups begin well before university, so investing in science, technology, engineering and mathematics (STEM) education is vital. The report recommends full oversight of these actions by a NASA Advisory Council committee that reports directly to NASA leadership. Given the scale of the recommendations, the same actions would apply as well to the rest of NASA for meeting its stated diversity and inclusion goals, and indeed to any large organization.

In this issue of *Nature Astronomy*, we feature an interview with Black in Astro, a growing community of early-career Black astronomers offering mutual support, opportunities and resources. We hear from founder Ashley Walker and other members on their experiences of isolation and hardship, and their joy at experiencing a sense of belonging. Their stories reinforce the need for research institutions to build supportive environments, so that a diverse workforce can feel included, with equal opportunities and access.

Building on these themes, we also look at how we might avoid spreading harmful attitudes into space. Emily Martin provides a summary of the Kavli Frontiers of Science symposium on the Ethics of Space Exploration, 8–10 April 2022. The speakers discussed how centuries of colonialism on Earth have led to the marginalization of groups of people based on their race, and how we need to acknowledge past harms and redress them before carrying our baggage into space, propagating the

same inequities in future generations. For example, the same disregard for the environment is at odds with the principle of planetary protection enshrined in the UN Outer Space Treaty. Just look at what humans have done to the low Earth orbit environment (A. Lawrence et al. *Nat. Astron.* 6, 428–435; 2022). Who will stop greedy Earthlings landing on pristine planetary bodies, contaminating them and plundering their resources? These topics are under active discussion but it takes time to find palatable compromises among all the stakeholders across the space sector.

Closer to home, in the research world, we know what works in terms of righting past wrongs, some of which we showcased in a focus on diversity, equity and inclusion best practices and solutions. It is time for data-driven decisions. We must have an honest assessment of the status quo in the research community while taking positive steps to build and retain diverse teams. Otherwise it would not be possible to quantify improvement. At Springer Nature, we have been monitoring the gender, seniority and geographic location of our reviewers based on information they provide voluntarily (Nat. Astron. 5, 1081–1082; 2021). But reviewers only make up a small proportion of the wider community. Thus, we would like to cast a wider net and survey as diverse and global a population as possible using this questionnaire: https://go.nature. com/3zqsMCj. The aim is to gather the perspectives of diversity, equity and inclusion across a wide range of research environments, and to hear about researchers' experiences of their workplace as being inclusive or not. Please help us by completing the survey before 30 June; it should only take 10 minutes.

We can see how diversity benefits teams and organizations, and equity reflects fairness and justice for everyone, with no favouritism or bias. But simply getting underrepresented people through the door is not enough for them to feel included and to thrive, especially if they feel part of a box-ticking exercise. A supportive environment is critical, and we are delighted to see that large organizations are stepping up to help focus and amplify the efforts of so many disparate groups.

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