

GETTING TO THE TABLE: ACTUALIZING AND SAFEGAURDING IDEA IN PLANETARY SCIENCE.

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Introduction: NASA's Science Mission Directorate (SMD) is laser-focused on achieving its mission to actualize an environment where ways of working and being encompass IDEA principles. Historically marginalized groups face barriers and obstacles, societally and in our industry. We are relieving these inequities with forward-leaning practices for systemic and lasting change. The Directorate has implemented structural, procedural, and cultural changes that are making tangible impacts. As these practices take firmer hold, we anticipate and welcome a scientific future that reflects the diversity of the nation.

Taking Action: Listening first: Our first series of actions was to listen – both inside SMD and the broader scientific community. Feedback was received from roundtable style sessions among SMD team members in Spring 2020. Since then, more formal, consistent methods of engagement have informed a strategic path forward. This includes a Request for Information titled: *Enhance Grants and Cooperative Agreements to Advance Opportunities, Access, and Representation for Underserved Communities* which was delivered to the public. This material was scoured for themes, yielding 194 responses. Coupled with our internal demographic data and lack of diversity represented in proposal submissions, barriers were made more evident. This work continues with a planned discussion tour with Historically Black Colleges and Universities (HBCUs) across the country. The outcome will be a co-created engagement model to establish a consistent, symbiotic approach to ensure opportunity access and eradicate barriers.

Forming: Establishing infrastructure: SMD created an IDEA Leadership Council (formerly co-chaired by Planetary Science representative) focused on seven areas of opportunity for IDEA principle examination and change. They include: **Engagement, Recruiting & Hiring, Programming, Inclusion & Culture, Leadership Development, Missions, Programs and Projects, Research & Analysis.** Planetary scientists contribute across these teams and roles in both the Leadership Council and larger Working Group – ensuring that IDEA concerns, findings and next steps are inclusive across science disciplines. This well-fortified body produced a strategic plan, adopted by SMD leadership featuring priorities, goals, activities, and clear, multi-pronged success measures.

Transforming: Collectively, IDEA efforts have offered tangible changes in the form of:

- increased diversity on proposal panels;
- inclusion plans requested in proposal submissions;
- re-evaluation of Code of Conduct messaging for missions and research proposals;
- internal IDEA-focused learning curriculum
- deployment of an internal Climate Survey measuring psychological safety/inclusion;
- internal shadowing mentoring opportunities

Pilot, Test, Deploy:

The Directorate is also dedicated to testing and reporting efficacy of IDEA efforts wherever it is found. For instance, the piloted Dual-Anonymous Peer Review (DAPR) process has yielded positive results in its attempt to mitigate unconscious bias. Prior to adopting DAPR, the Astrophysics division noted that women constituted 26% of the applicant pool, only finishing in the top two places in the panels' rankings 16% of the time. Following adoption, women constituted 31% of the pool and finished in the top two places 32% of the time. The success rate of early-career investigators eclipsed that of more seasoned investigators – further enriching the talent pool. SMD looks forward to implementing DAPR across the Directorate, as is currently in practice in Planetary Science, given its proven ability to increase diversity and equity.

This is the same approach that is being taken related to the new initiative called the Open Science Plan which is dedicated to making data accessible while offering the resources needed to ensure the information is understood and translatable.

Measuring Progress:

Measuring IDEA progress is challenging but achievable and necessary. SMD with the inclusion of Planetary Science is tackling this leveraging four methods:

- Narrative analysis (i.e., equity dialogue sessions, qualitative feedback from surveys)
- Demographic analysis (i.e. furthering diversity representation)
- Communication efficacy (i.e., IDEA material usage, analytics on IDEA-specific SMD-hosted websites)

- Delivery and implementation of plans (i.e., scoped deliverables project managed and socialized effectively)
- Plan assessment and learning transference (i.e., surveys on learning material and usage)

Our team looks forward to sharing our momentum, lessons learned and best practices in this critical space.