ENSURING A SAFE & EQUITABLE WORKSPACE

SERINA DINIEGA (JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY)

LEAD AUTHOR FOR DS WHITE PAPER:

ENSURING A SAFE AND EQUITABLE WORKSPACE: THE IMPORTANCE AND FEASIBILITY OF A CODE OF CONDUCT, ALONG WITH CLEAR POLICIES REGARDING AUTHORSHIP AND TEAM MEMBERSHIP

PRESENTED TO THE PLANETARY SCIENCE & ASTROBIOLOGY DECADAL SURVEY, STATE OF THE PROFESSION WRITING GROUP
FEBRUARY 18, 2021

Jet Propulsion Laboratory
California Institute of Technology

THIS EFFORT INVOLVED A LARGE NUMBER OF DIVERSE & INVESTED COMMUNITY MEMBERS

White paper authors: Serina Diniega[1] (she/her/hers; serina.diniega@jpl.nasa.gov), Julie Castillo-Rogez[1], Ingrid Daubar[2], Justin Filiberto[3], Timothy Goudge[4], Kennda Lynch[3], Alicia Rutledge[5], Julie Rathbun[6], Jennifer Scully[1], Randall Smith[7], Christina Richey[1], Christian Tai Udovicic[5], Mickey Villarreal[1].

[1]Jet Propulsion Laboratory, California Institute of Technology, [2]Brown U, [3]Lunar & Planet Inst, [4]U Texas, Austin, [5]Northern Arizona U, [6]Planet Sci Inst, [7]Smithsonian Astrophys Obs

+ many signatories that indicated support and/or contributed to discussions on this topic

I also learned a lot from the Preventing Harassment in Science Workshop (June 2020, see later slide), especially from presenters/organizers: Aimee Devaris (USGS), Kate Clancy (Illinois U, Urbana-Champaign), and Kristen Bennett (USGS)

Slides with this background are copied from a longer presentation about Code of Conduct and Publication policies (see Backup)

WHY THESE POLICIES MATTER

- The aim is to standardize and make transparent expectations with regards to role, financial/logistical support, scientific contributions, and safety so that all team members are able to have their personal needs and capabilities taken into consideration without the need for large/extra advocacy (i.e., "special treatment").
- **To enable inclusion of a more diverse community, we should aim for the creation of universally accessible, safe, and equitable situations**.

RECOMMENDATION 1: STANDARDIZE THIS TYPE OF POLICY

1) A Code of Conduct-type policy should be a standard documentation of expected behaviors within any organized group endeavor, providing for transparency, common language/expectations, and avenues for enforcement. For research endeavors (e.g., a mission team), a Code of Conduct can be incorporated into a Rules of the Road-type document that also covers definitions such as team membership/roles and other expectations of behavior, such as behaviors related to publication authorship and public outreach/media communications.

RECOMMENDATION 2: UNDERSTAND WHAT MAKES AN EFFECTIVE COC

2) A Code of Conduct should contain at least these four parts:
   - Statement of unacceptable behavior
   - Explanation of how the policy will be enforced
   - Clear instructions about how and to whom to make an incident report
   - Training and reference materials for organizers, staff, and volunteers on how to respond to incident reports.

RECOMMENDATIONS 3 & 4: GIVE THE COMMUNITY A TEMPLATE

3) NASA and NSF should establish template Code of Conduct language and structure for projects and missions that they support. This template should include the reporting mechanisms, potential consequences/enforcement mechanisms, and liability that would be borne by NASA and NSF.
   - Authority/enforcement supported by the umbrella/funding agency would be most effective.
4) Such template language and content would serve as a useful starting place for Code of Conduct-type policies that would be required for all NASA- and NSF-supported endeavors. This template language should also be shared with NASA contractors, such as LPI and SSERVI, who commonly set up meeting and group websites for NASA-supported Planetary Science and Astrobiology endeavors.

ADDITIONAL RELATED ACTIONABLE RECOMMENDATION

Past NASEM reports have made recommendations on institutional accountabilities.

- For example, the 2018 report "Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine" https://www.nap.edu/catalog/24994/sexual-harassment-of-women-climate-culture-and-consequences-in-academic

An element of our white paper's Recommendations 2 & 3 is that a policy is needed regarding how to cover the workload/costs associated with maintaining accountabilities in federally funded projects.

- E.g., this could be covered by relevant grants/contracts either in the form of direct cost or indirect cost.
- Proposing institutions individually could follow the well-established practice to negotiate costs that should be covered by indirect cost in determining the overhead rate. And if this the cost of accountability is not covered in the indirect cost contract, it should be allowed to be covered under the direct cost category.
- Similar costs are currently included in federal grants/contracts to cover the workload of accountants and IT managers to responsibly manage federal grants and to manage grant-purchased IT infrastructure. FTE costs associated with accountabilities with respect to enforcing any Codes of Conduct could be treated similarly.

Contributed by community member

RECOMMENDATION 8: REVIEW & UPDATES OF THE POLICY

8) To aid evaluation of a NASA- or NSF-supported activity or group's Code of Conduct (and other policies), NASA and NSF should provide standardized ways and tools for determining if the group's workspaces and practices are safe and equitable.
   - E.g., summary of any complaints made under the CoC and the group's resolution, and 'metrics' of inclusive/equitable/safe environment and processes

ACTIVITY IN COMMUNITY CODE OF CONDUCT POLICIES

Since the white paper

- There's a lot more space to grow, but there's been good progress in community attention. White paper guidance on CoC has been well-received by the community, and is feeding into many efforts:
  - Presented with Dr. Randall Smith at NASA SMD "Brown Bag" seminar on December 14; this was well-received.
  - MSL has developed and used a Code of Conduct for its Science Team Meetings.
  - Europa Clipper is undergoing a regular review of their Rules of the Road, and consideration of the Code of Conduct recommendations are part of that work.
  - LEAG, as led by their new EDI committee member, is developing a Code of Conduct for all LEAG-sponsored events and a template for broader LEAG-related efforts.
  - The DPS Professional Climate and Culture Subcommittee is developing a Code of Conduct for their members/activities.
- However, yet how the funding agencies will incorporate and develop these policies, and provide community guidance, is not yet clear.
  - NASA has released a call for proposals for organization of PAG (Planetary Analysis/Assessment Group) meetings, under ROSES E.2 Topical Workshops, Symposia, and Conferences (TWSC).
    - It is not clear if such meetings would also need to have a Code of Conduct policy and who would set that policy (the relevant PAG? The PAG Steering Committee? NASA?).

ADDITIONAL EXCELLENT WHITE PAPERS FOR CREATING SAFE AND EQUITABLE WORKSPACES

See following slides

Lead Author	Title	Abstract
Jacob Richardson (University of Maryland College Park / NASA Goddard Space Flight Center)	Building Safer and More Inclusive Field Experiences in Support of Planetary Science	Field work in support of planetary science faces unique safety risks and barriers to entry. We call on NASA and the NSF to foster resilient field teams by requiring safety plans, providing training, developing codes of conduct, supporting early career field experiences, engaging with local communities, and updating NASA safety regulations.
Kristen Bennett (U.S. Geological Survey)	The Preventing Harassment in Science Workshop: Summary and Best Practices for Planetary Science and Astrobiology	The NASA-funded Preventing Harassment in Science workshop took place in June of 2020. Here we describe the workshop and summarize the best practices for reducing harassment that were discussed. We include a list of recommendations that can be used to take steps towards reducing harassment in the planetary science and astrobiology community.
Julie Rathbun (Planetary Science Institute)	Who is Missing in Planetary Science?: Strategic Recommendations to Improve the Diversity of the Field	Racial and ethnic minorities (particularly those of African American, Latinx, and Native American background) are significantly underrepresented in planetary science. Here, we provide actionable recommendations that can be implemented to improve the climate for members of underrepresented groups in planetary science.
Kathleen Vander Kaaden (Jacobs - NASA JSC)	Creating Inclusive, Supportive, and Safe Environments in Planetary Science for Members of the LGBTQ+ Community	It is critical that we foster an interdisciplinary, diverse, equitable, inclusive, and accessible environment over the next decade in the field of planetary science, especially for members of the LGBTQ+ community. This white paper provides recommendations on how to create such an environment, across the planetary sciences, for LGBTQ+ members.
Beck Strauss (NIST & NASA Goddard Space Flight Center)	Nonbinary Systems: Looking towards the future of gender equity in planetary science	Most studies of gender equity in planetary science are performed by space scientists with no background in gender studies or sociology. As a result, their methods harm planetary scientists whose genders do not fit into a male/female binary. We recommend better survey practices and institutional policies based on a more profound approach to gender.
Jennifer Piatek (Central Connecticut State University)	Breaking Down Barriers: Accessibility in Planetary Science	Planetary science relies on a diversity of disciplines to explore the solar system, but we are missing diversity in our community due to barriers erected by inaccessible workplaces and negative perceptions about required accommodations. We address why accessibility should matter to planetary science and how to address barriers within our community.
Steven Vance (Jet Propulsion Laboratory, California Institute of Technology)	Addressing Mental Health in Planetary Science	As NASA strives to be more inclusive, it must also work to address a compounding crisis of mental health. We summarize the available evidence for a mental health crisis among academics. We describe how this problem intersects with and amplifies problems of equity, diversity, and inclusion.
Julie Rathbun (Planetary Science Institute)	Ensuring Inclusivity in the 2023 Planetary Science and Astrobiology Decadal Survey	Inclusivity is a necessary goal of any process that aims to represent the consensus of a large group as it is "â€‹the practice or policy of including people who might otherwise be excluded or marginalized, such as those who have physical or mental disabilities and members of minority groups."

ADDITIONAL EXCELLENT WHITE PAPERS FOR CREATING SAFE AND EQUITABLE WORKSPACES

Lead Author	Title	Abstract
Britney Schmidt (Georgia Institute of Technology)	Diversity in action: Solutions for a more diverse and inclusive decade of planetary science and astrobiology	We make ten recommendations for changes to NASA programs, institutional structures, and incentives that have the potential to improve diversity and achieve equal opportunity. These changes range from small to requiring infusion of new resources. Diversity improves both science and the science community, and lasting change requires strong action.
Christina Richey (Jet Propulsion Laboratory, California Institute of Technology)	Lessons Learned on IDEA from the Astro2020 Decadal Survey	Summarized here are the recommendations from several of the DEIA (Diversity, Equity, Inclusion, and Accessibility) White Papers from Astro2020 that could also be applicable and critical to the Planetary2023. This white paper is submitted as part of a collaborative effort organized by the EDIWG, a cross AG committee.
Christina Richey (Jet Propulsion Laboratory, California Institute of Technology)	A Call to Planetary2023 Panels to Implement Actionable Recommendations from Recent National IDEA Studies	We summarize five major reports and studies and highlight the findings that would be critical to push forward in the planetary science community. This white paper is submitted as part of a collaborative effort organized by the Equity, Diversity, and Inclusion Working Group (EDIWG), a cross Assessment Group (AG) committee.
Daniella Scalice (NASA Ames Research Center)	Power and Responsibility	Agencies have the responsibility use their power, via a novel, stepped-implementation solicitation process, to influence and support how institutions to whom they send tax-payer money to fund scientific research, technological developments, and educational programs conduct themselves with respect to Diversity, Equity, Inclusion, and Access (DEIA).
Julie Rathbun (Planetary Science Institute)	Enabling the Planetary Workforce to do the best science by funding work that is a service to the Profession	Service work is required to keep science moving and improving. Being involved in the decadal survey process is a service to the profession. Doing work to understand the state of the profession is a service to the profession. Here, we present ways to enable these service jobs to be equitably distributed, valued, and funded in our community.
Ryan Watkins (Planetary Science Institute)	Professional development in the next decade: Supporting opportunities in all career paths and life events	Planetary Science and Astrobiology need scientists from a variety of backgrounds and institutions. Support is particularly needed for caregivers, people who work at Primarily Undergraduate Institutions and Minority Serving Institutions, and people who choose career paths that do not include research at large universities or NASA centers.

Why are *field science* Codes of Conduct important for NASA?

White paper: Building Safer and More Inclusive Field Experiences in Support of Planetary Science, by Jacob Richardson (*jacob.a.richardson@nasa.gov*) *et al.*

NASA generally funds at least a dozen field studies each year with several field participants, primarily through SSW & PSTAR, but also through SSERVI, FINESST, etc. to address major questions in planetary science (*Whelley et al., The Importance of Field Studies for Closing Key Knowledge Gaps in Planetary Science [Decadal White Paper];* table below)

		2014	2015	2016	2017	2018
Selected Proposals with a significant field component*	SSW	5	2	5	8	3
	PSTAR	7	8	6	6	0†
	Total	12	10	11	14	3

Selected NASA Science Mission Directorate proposals with a significant field component*

Data were tabulated from "Abstracts of Selected Proposals" [nspires.nasaprs.com].

** These are proposals where the field component was mentioned in the publicly available abstract.*

† Not solicited

Remote field investigations have different challenges from office/conference settings, which uniquely effect 1) physical and mental well-being, 2) barriers to entry, and 3) response to and accountability for grievances and emergencies.

Building Safer and More Inclusive Field Experiences in Support of Planetary Science, [Richardson et al., Decadal White Paper] provides three recommendations related to how Codes of Conduct can address workplace challenges in field settings.

Rec. 1: **Require Field Safety Plans from NASA/NSF funded field projects** that outline physical and mental safety, strategies for reducing barriers to fieldwork, and coordination with local communities.

Rec 3: **Develop a Field Work Code of Conduct specific for all funded field work**. Codes of Conduct require clear definitions and reporting procedures. Procedures that are not field accessible risk being ignored by field teams.

Rec 6: **Hold NASA and NSF funded teams accountable for safety** by broadening existing anti-harassment reporting requirements.

Slide contributed by Jacob Richardson

THE PREVENTING HARASSMENT IN SCIENCE WORKSHOP: SUMMARY AND BEST PRACTICES FOR PLANETARY SCIENCE & ASTROBIOLOGY

By Kristen Bennett, Maggie McAdam, Moses Milazzo, Patricia Garcia, Jenna Shelton, Peggy Gardiner, Serina Diniega, Catalina Martinez, Alex Etheridge, Alicia Rutledge, Christina Richey.

The goal of this workshop that took place in June 2020 was to share ideas and discuss best practice methods to reduce harassment in the scientific workplace. Here we list several key action items that were discussed in the workshop:

1. Bravery, boldness, innovation: Harassment is entrenched in our fields and it is imperative that new approaches are used.

2. Trainings: Trainings are an essential tool for supporting positive and inclusive workplace cultures and climates.

3. Utilize codes of conduct.

4. Work with social scientists: Skilled professionals in the social sciences have the tools and experience to capture the nature and extent of harassment.

5. Value service work: Women in STEM, especially Black, Latina, and Indigenous women, are asked to do significantly more service work than their peers, and then are punished for this during evaluation and promotion. NASA could include service as a success metric in proposals, or could encourage including funding for trainings, etc. in grants.

6. Fund antiharassment workshops in the future: This work is ongoing. Brave, bold, innovative changes are being attempted all the time in our field and new guidance and "best practices" are evolving.

Slide contributed by Kristen Bennett

RACIAL & ETHNIC MINORITIES ARE THE MOST UNDERREPRESENTED GROUP IN PLANETARY SCI

White paper: Who is missing in Planetary Science?: Strategic recommendations to improve diversity in the field, by Rathbun, Rivera-Valentín, Keane, Lynch, Diniega, Quick, Richey, Vertesi, Tucker, and Brooks

Highlighted Recommendations

1. The decadal survey report should explicitly recognize the statistically significant underrepresentation of people of color—particularly Black / African Americans, Latinx / Hispanics, and American Indian / Indigenous / Alaskan Native people—and that the diversity initiatives of the past several decades have not succeeded in substantially changing this
2. NASA should create new programs aimed specifically, and exclusively, to members of underrepresented racial and ethnic minority groups, similar to the programs they currently have for women and girls.

Plus, many other recommendations about partnering with HBCUs and MSIs, tying funding to diversity initiatives, implementing climate surveys, tracking demographics, making meetings inclusive, etc.

Slide contributed by Julie Rathbun

CREATING INCLUSIVE, SUPPORTIVE, AND SAFE ENVIRONMENTS IN PLANETARY SCIENCE FOR MEMBERS OF THE LGBTQ+ COMMUNITY

by Kathleen Vander Kaaden (Kathleen.e.vanderkaaden@nasa.gov) et al.

WHAT'S WORKING AND SHOULD BE CONTINUED

- Employee Resource Groups (ERGs) that have institution-level support
- Inclusion of LGBTQ+ events in the full program for conferences and workshops
- Creating and enforcing codes of conduct
- Encouraging distribution and wearing of LGBTQ+ NASA pride pins
- Creation and support of IDEA WG

BROAD RECOMMENDATIONS (SEE PAPER FOR ADDITIONAL DETAILS)

- Initiate NASA-supported funding opportunities for IDEA studies
- Develop clear anti-harassment policies for awarded grants
- Request additional demographic information upon submission of NASA-supported proposals
- Ensure clearly marked all gendered restrooms are available
- Provide sufficient health care benefits and domestic partner benefits
- Advertise positions in LGBTQ+ spaces
- Encourage use of pronoun statements

"I believe that no one should ever have to choose between a career we love and living our lives with authenticity and integrity." - Selisse Berry (Out and Equal Executive Director)

Slide contributed by Kathleen Vander Kaaden

NONBINARY SYSTEMS: LOOKING TOWARDS THE FUTURE OF GENDER EQUITY IN PLANETARY SCIENCE

B.E. STRAUSS, S. R. BORGES, T. FARIDANI, J. A. GRIER, A. KIIHNE, E. R. MAIER, C. OLSEN, T. O'NEILL, E. G. RIVERA-VALENTÍN, E. L. SNEED, A. WALLACH, D. WALLER, V. ZAMLOOT

Nonbinary, gender non-conforming, and transgender people have often been excluded from and harmed by efforts toward gender equity in planetary science and related fields. However, **we want to be included!**

Best Practices & Recommendations

1. Gather gender data through **voluntary self-identification**. Do not use any other means, particularly automated gender classification methods.
2. Employ or consult trained **social scientists** when studying marginalized people in planetary science. Funding sources must enable this type of collaborative work.
3. Shift focus from women to **people of marginalized genders**.
4. Do not let suggestions, conversations, or platitudes be the extent of your work toward equity and justice – **the only thing that will bring about change is action**.

https://arxiv.org/abs/2009.08247 | beck.e.strauss@gmail.com

Slide contributed by Beck Strauss

ACCESSIBILITY IN PLANETARY SCIENCE

White paper: Breaking Down Barriers: Accessibility in Planetary Science, by Jen Piatek (piatekjel@ccsu.edu)
Full text includes additional recommendations and links to resources

- Broad demographics indicate individuals with disabilities are less likely to earn doctorates in the physical sciences or to be employed in science/engineering related fields
  - One factor may be inaccessiblity of workspaces and related activities like conferences
- We make some broad categories of recommendations to improve access, such as:
  - Promote inclusive practices at all sponsored conferences, team meetings, panels, and other professional gatherings.
  - e.g. Require captioning of presentations at all meetings (live or virtual)
- Promote development of an inclusive scientific community by prioritizing mentoring for students and early career scientists.
  - e.g. Support virtual internship opportunities for students who are unable to live away from home for 6-10 weeks, even with travel funding and/or stipends
- Promote accessibility in planetary science at all educational and professional levels.
  - e.g. Include accessibility-focused activities specifically in grant opportunities such as PSTAR

Slide contributed by Jen Piatek

ADDRESSING MENTAL HEALTH IN PLANETARY SCI

White paper can be found at tinyurl.com/HealthyPlanets
By S. D. Vance, C. Elder, A. Hofmann, S. Howell, M. Milazzo, R. T. Pappalardo, J. Noviello, D. A. Patthoff, J. Rathbun, J. Vertesi, and 64 co-signers

Recommendations

NASA should invest in efforts to understand the scope and impact of mental health problems in its scientific workforce

NASA should … [fund] intervention strategies, [provide] incentives to reward effective mentorship, [foster] healthier work habits, and equitably [support] non-traditional work styles that may suit neurodiverse individuals

Slide contributed by Steven Vance

RECOMMENDATIONS FOR THE 2023 PLANETARY SCIENCE & ASTROBIOLOGY DECADAL SURVEY

White paper: Ensuring Inclusivity in the 2023 Planetary Science and Astrobiology Decadal Survey, by Rathbun, Richey, Cohen, Piatek, Roberts, Daubar, Diniega, Hörst, and Venkatesan

To address 2 major concerns

- How can we ensure that the voices of the most marginalized in Planetary science are represented in the current Decadal Survey Process?
- How can we ensure that DEIA and the state of the profession are given the consideration they require in order to make recommendations that will improve the inclusivity of the Planetary Science and Astrobiology communities?

Recommendations

1. Involve social scientists in the "state of the profession" panel
2. Ensure that voices of underrepresented groups are represented in the final report (implicit bias training, equity facilitators)
3. Self-reported demographic data about committee membership should be explicitly shared in the final report
4. Realize the limitations of National Academies rules (ie, does academy membership represent the field)

Slide contributed by Julie Rathbun

Link to backup materials/longer presentation focused on the Code of Conduct white paper:

RULES OF THE ROAD:
HOW DO MISSION TEAMS WORK TOGETHER AND HOW TO DO BETTER?

RANDALL SMITH (CENTER FOR ASTROPHYSICS | HARVARD & SMITHSONIAN)

SERINA DINIEGA (JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY)

PRESENTED AT JPL/SVCP SERIES ON NOVEMBER 30, 2020

VIDEO AVAILABLE AT HTTPS://YOUTU.BE/PLC2P4IZT58,
ALONG WITH LINKS TO THE TWO PUBLISHED DOCUMENTS