The Preventing Harassment in Science Workshop: Summary and Best Practices. K. Bennett¹, M. McAdam², M. Milazzo³, P. Garcia¹, J. Shelton¹, P. Gardiner¹, S. Diniega⁴, C. Martinez⁵, T. Roberts-Ashby¹, A. Etheridge¹, A. Rutledge⁶, C. Richey⁴. ¹U.S. Geological Survey (corresponding author: kbennett@usgs.gov); ²NASA Ames Research Center; ³OtherOrb; ⁴Jet Propulsion Laboratory, California Institute of Technology; ⁵NOAA; ⁶Northern Arizona University

Introduction: The Preventing Harassment in Science: Building a Community of Practice for Meaningful Change (PHIS) virtual workshop took place June 24-25, 2020. This highly successful, NASA-funded workshop brought leaders of anti-harassment efforts together to share ideas and discuss best practice methods to reduce harassment in the scientific workplace. Here we summarize the best practices for reducing harassment that were discussed at the workshop. We include a list of actions that can be used to reduce harassment and increase inclusion in the planetary science community. Additionally, a list of resources from the workshop can be found here [1].

A Historic Moment: Throughout the workshop, we explicitly acknowledged the historic moment through which we are collectively living. The global COVID-19 pandemic loomed large for this event. In the days and weeks before the workshop, the protests sparked by the killings of George Floyd, Breonna Taylor and Ahmaud Arbery were ongoing and fresh in our minds. Dr. Aradhna Tripati of UCLA described this moment as 'the Third Reconstruction.' Like previous moments in history, such as after the Civil War and during the Civil Rights Era, we as a society are in tension between the struggle to bend the moral arc of history towards justice and the resistance to change in favor of the status quo. This workshop was in and of itself another site of this struggle. Implicit in the conception of this event was the injustice of the systems and structures in Science, Technology, Engineering, and Math (STEM) that have created and continue to support the slow rolling crisis of harassment and lack of diversity in our fields. Many people in STEM are struggling against these systems and structures. This workshop was a chance for us to gather and collectively 'reimagine our spaces' as Dr. Tripati put it and work towards justice in STEM. We heard from many registrants that they were motivated to attend the PHIS workshop because of the recent global protests and the newly elevated discussion around systemic racism. The PHIS workshop embraced this challenging discussion, and we believe that workshops such as this can be utilized to address major issues and work towards positive change.

Brief Summary of the Workshop: The PHIS workshop originated as an effort to centralize anti-harassment efforts in STEM and share best practices, primarily focusing on government and academic spaces.

Many people in science are individually combating harassment and creating inclusive spaces. One goal of this workshop was to facilitate conversations between people who have developed strategies to reduce harassment, including social scientists. Participants could share their work and experiences, and best antiharassment practices would be compiled for widespread use. This workshop focused on harassment but necessarily also addressed diversity, inclusion, and accessibility. A hostile or non-inclusive environment leads to harassment. For this reason, we determined it was critical to include discussion of inclusivity practices in an anti-harassment workshop.

There were >400 total registrants with >150 people dialed into the workshop at any given time. An online discussion platform was used to engage participants, share ideas, network, and solicit questions for the speakers. The full schedule and additional information are available on the workshop website [2]. The first day focused on actions that people and institutions have taken and can take to reduce harassment. The second day focused on anti-harassment training and inclusion.

Key Takeaways and Best Practices for Reducing Harassment in Planetary Science: Here we list a compilation of the recurring themes and action items that were discussed during this workshop.

"Legal compliance is necessary but not sufficient."
-Dr. Alex Helman, NASEM

Demonstrating that harassment will not be tolerated through codes of conduct and policy is incredibly important for institutional leadership. Without open support for anti-harassment efforts from institutional leaders, the culture and climate of the community likely will not improve. That said, having anti-harassment policies is not enough to reduce harassment. If a workplace has appropriate policies and culture statements in place, it is still possible for a negative or toxic climate to exist.

"If you don't make a big deal out of the small things, when the big things come, your voice will be too small." -Erica White-Dunston, Chief Diversity Officer of Department of Interior

Allowing small inappropriate behaviors, such as racist or sexist jokes, to become normalized then allows the inappropriate behavior to escalate to become more severe forms of harassment.

"Bad apples vs. rotten barrel framing" -Dr. Kathryn Clancy, University of Illinois, Urbana-Champaign

We habitually see high-profile and commonplace incidents of sexual harassment in a 'bad apples' framework. This framework focuses on the individual who targets people with their power. The individual person is 'bad' and their removal is the solution to the problem of harassment in the workplace/organization. Conversely, the 'rotten barrel' framing looks at the people around a harasser as well as the systems and structures that enable their bad behavior. Harassers exist in communities of complex systems that are not set up to support targets of harassment or effectively challenge existing power structures. Such a system may e.g., lack a clear channel to report harassment or have reporting/investigating processes that take a very long time. When we start thinking of the rotten barrel, we are moved to use our voices differently and to restructure our workplaces to ensure everyone can work in freedom and safety from harassment.

Action Item 1: Bravery, boldness, innovation. Organizations are challenged to be brave and bold and to develop innovative ways to address systemic and structural factors that allow harassment to occur in STEM. Harassment is entrenched in our fields and it is imperative that new approaches are used. This requires organizations to take risks and along with this the need for bravery and boldness.

Action Item 2: Trainings. Trainings are an essential tool for supporting positive and inclusive workplace cultures and climates. By requiring these trainings, we indicate that our workplaces value and prioritize equity, inclusion and justice. Programs focusing on managers and supervisors are necessary as well as awareness programs for all employees. Specific suggested trainings included Trauma Informed Responder Training for managers and mandatory reporters, and Bystander Intervention Training and Micro-aggressions focused trainings for all employees.

Action Item 3: Codes of conduct. A code of conduct policy is another method for creating an inclusive and just workplace culture and climate, particularly when they are designed with intentional, appropriate ramifications for violations thereof. Codes of conduct define the values of the institution/workplace and give everyone a touchstone to recognize and help respond to both unintentionally harmful and malicious behaviors. Codes of conduct help organizations to connect with their values in an intentional and transparent way.

Action Item 4: Work with social scientists. While the sciences community knows there is a crisis of harassment within STEM, the impacts and experiences of those impacted are not fully understood. In order to understand and develop evidence-based strategies for mitigating issues, speakers at the workshop emphasized

the importance of working with social scientists. Skilled professionals in the social sciences have the necessary tools and experience (that physical scientists often lack) to capture the nature and extent of harassment and related structures that support a culture of harassment. Social scientists can provide insights on how to address harassment in STEM. Crucially, the work of social scientists investigating STEM will enable us to better pursue the scientific enterprise.

Action Item 5: Culture and climate assessments. Comprehensive organizational culture and climate assessments with associated implementation plans and measurable rubrics to determine effectiveness and improvement can specifically address the ongoing crisis of harassment. This work builds on Action Items 1 - 4 and could greatly improve organizations in STEM with respect to solving the crisis of harassment.

Action Item 6: Value service work. Service work consists of non-scientific duties that allow science to happen. Duties include reviewing papers, serving on committees, mentoring, education and public outreach, and doing the meaningful work described in this list above (i.e., giving and taking trainings, creating a code of conduct, working with social scientists). This work is usually unpaid but much of it is an expectation of paid scientific employment. One key observation from the workshop, backed by research [e.g. 3, 4], is that women in STEM, especially Black, Latina, and Indigenous women, are asked to and often do significantly more service work than their peers, and then are punished for this during evaluation and promotion. One bold idea is to allow scientists to do service work as a part of their funding proposals and include this in success/promotion criteria. Furthermore, normalize or encourage proposers to budget time and money for trainings (see above).

Action Item 7: Continue holding and funding antiharassment workshops in the future. The work of this vibrant community of resistance is ongoing. Brave, bold, innovative changes are being attempted all the time in our field and new guidance and "best practices" come from social science. Holding workshops such as this one annually or bi-annually can allow more focused discussion, including smaller topical workshops intended to address specific aspects of harassment and/or inclusion.

Acknowledgments: We thank NASA and USGS for funding this workshop and LPI for providing technical support. Additionally, we thank Kendall Moore and NOAA for screening the "Can We Talk?" documentary.

References: [1] PHIS Workshop Resource list [2] https://www.hou.usra.edu/meetings/anti-harassment2020/program/ [3] Buch, K. et al. (2011) Change, 43(6), pp.38-45. [4] Miller, C. and Roksa, J. (2020) Gender & Society, 34(1), pp.131-152.