The Cost of Diminished In-person Participation in Unsafe Locations: The Necessity of Hybrid Meetings . M. K. Elrod[1,2], J. Roberts[3]], I. J. Daubar[4], and others, and the Professional Culture and Climate Subcommittee of the DPS. [1]University of Maryland College Park, College Park, MD, (meredith.k.elrod@nasa.gov), [2]NASA, GSFC, Greenbelt MD,[3]Johns Hopkins University Applied Physics Laboratory, Laurel, MD, USA, [4]Brown University, Providence, RI, USA.

Introduction: Recent political and social changes across the country have made several states to feel and even to be unsafe for members of our scientific community to attend meetings held in these locations. As a result this has caused several scientists to call for changes in scientific conference locations and planning to allow for better in-person attendance and support of the scientific community[1]. While this is largely due to state laws unrelated to our science, nonetheless, as an inclusive community we cannot ignore the fact of these situations. The health, safety, and welfare of our community should be a top concern for the professional societies. Regardless of the location, we posit that every location will have logistical, safety, accessibility, personal or political difficulties for at least some participants, and for this reason, we are not arguing that any particular city is a perfect location.

Safety Impact: With the passage of recent 'trigger abortion laws' and other equally restrictive anti-lgbt+ laws that have been passed in states like Texas, Florida, and Louisiana. These states are commonly used for large in-person scientific conferences due to the availability of facilities and relative low cost travel to the major cities (Dallas/Houston, Orlando, New Orleans). California state funding has been specifically restricted for states (including TX, FL, and LA among others) that have passed these types of laws.[2] However, many of the scientists that participate in these meetings (from women that may need reproductive health care during a conference, to the LGBT+ community) do not feel that their health and/or safety needs are met when meetings are held in these states due to these laws.

Additionally, with the endemic status of COVID, and the continuing high probability of getting sick at conferences, immunocompromised and other high health risk participants continue to be excluded from conferences that ignore recommendations for health protocols that include mitigations like masks.

In-Person Importance: Despite potential safety risks, there is a strong draw for scientists to attend conferences in person. There is an intrinsic benefit to in-person meetings that is nearly impossible to duplicate in the virtual environment. The networking opportunities, particularly for graduate and early career scientists, the poster hall time to share and discuss science in an organic way that promotes spontaneous conversations, and meal and hallway discussions that can spawn new ideas and collaborations are unique to the in-person environment.

On the other hand, the virtual environment provides opportunities for distant participation from colleagues that cannot travel (e.g. underfunded or conflicted, health, domestic care, disabilities). It should be the goal of professional conferences to be accessible to all member participants.

Conference Organizational Costs: Larger conferences, like the American Geophysical Union (AGU), American Astronomical Society (AAS), Division of Planetary Science (DPS), and Lunar and Planetary Science Conference (LPSC) need to plan meetings well in advance of the meeting, booking sites and resources more than a year in advance. Large conference sites necessary for meetings that require multiple conference rooms and exhibit halls, are often booked 1-2 years in advance. For example, the DPS annual meeting is already committed through 2026. The technology, catering, and equipment companies also require X months of planning and booking well in advance of the start of the conference. In order for a society to select a new venue for a meeting, it takes the organizing committees (LOC/VOC) more than a year, and up to three years to select a new site for an in-person conference. The added cost due to cancellation within a calendar year likely could make an already expensive conference (already expensive) cost beyond the planned budget. (A good example that could be referenced for cost would be the COSPAR canceled due to the coup in Turkey 2016) Given these restrictions, last-minute venue changes in response to rapidly evolving political situations are generally cost-prohibitive.

AAS, AGU, LPSC, and other large meetings in the past two years have all seen significant increases in costs for members and non-member participants. The 2022 conference year saw the largest increase in cost to registration and abstract fees for scientific participation in the past decade. The DPS and AAS meeting prices have been released[4]. AAS released a cost breakdown of the registration fee[3] for the annual fall meeting to the members. While the significant inflation over the past year played a large role in increased costs, holding a hybrid in-person and virtual meeting dramatically increases the costs of holding a science meeting. In-person meetings require paying for the venue, food, personnel, and on-site equipment.

Virtual meetings require paying for the online platform to support multiple virtual meetings at once, iposter platforms, and adequate social communication platforms. A hybrid meeting nearly doubles the cost of both of these meetings as it requires the structure of both to be combined. And while the infrastructure for large virtual meetings has been developed over the last two years, the cost is still relatively high for the technological component of virtual and hybrid meetings.

Conclusion-Necessity of Virtual/Hybrid Component: Due to the difficulties of finding a location that is both low cost for travel, adequate sized, available, well suited for the in-person needs, and accommodating the health and safety needs of all attendees; the best way forward is to continue to have a strong and inclusive virtual component to all in-person meetings despite the increased financial cost. Additionally, as technology and meetings improve, the goal is to continue to make hybrid meetings more inclusive of the virtual participants.

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References:

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