Building Sustainable Capacity within Under-Represented Communities Through A Deep Partnership Model.

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Despite varied programmatic inducements and the documented benefits of Diversity Equity & Inclusion (DE&I), participation rates of underrepresented communities within NASA's planetary sciences activities have remained low and nearly unchanged over the last decade. The lack of success of various efforts may be attributable to factors identified in social science research.

First, the proportionality of under-represented groups has been shown to be critical to achieving the positive impacts of DE&I [1], [2]. When under-represented groups make up less than ~30%, group dynamics such as assimilation or tokenism routinely appear, with destructive and counter-productive results. Additionally, if participation only occurs within limited segments of an organization, benefits may be limited. Proportionality must extend across all levels or layers of the organization for the benefits of DE&I to accrue.

Second, the inclusion of "Third Spaces" in the planning and support of DE&I efforts is critical to the long-term success or "stickiness" of DE&I activities. Third Spaces are those beyond home (First Space) and work (Second Space) where informal, community-building activities occur [3]. Examples include conferences, after-work activities, and weekend social engagements. Without explicitly acknowledging and including "Third Space" interactions, DE&I efforts can fall short of their long-term goals.

In 2014, the Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado Boulder began a partnership with the United Arab Emirates to develop and fly a space mission to Mars [4]. The scientific mission had an explicit goal of training scientists and engineers, and creating a sustainable ecosystem that would spark and accelerate the UAE's space economy. To accomplish this, LASP and the UAE set up a program that matched scientists and engineers in one-on-one mentorship relationships, at all levels of the organization. Over the course of the roughly 4-year project, those partnering relationships fostered not only strong professional relationships and knowledge transfer, but also personal friendships that extended into "Third Spaces." The UAE/LASP partnership now continues through the co-development of an asteroid mission currently in definition phase.

In collaboration with NASA Ames Research Center, LASP is developing the conceptual framework to extend this deep partnership model to domestic opportunities. By implementing a planetary science mission that employs an analogous one-on-one partnership model across all elements of the organization, this project will demonstrate how proportionality and Third Space relationships can enable the development of localized, sustainable communities that are explicitly and deeply engaged with the NASA ecosystem.

References:

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