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OUT ASTRONAUT: ADDRESSING INTERSECTIONALITY AND COMMUNITY-IDENTIFIED CONSIDERATIONS FOR SEXUAL AND GENDER MINORITIES IN SPACE

Abstract

Minority status can have well-documented decrements on health and performance. Social determinants confer the majority of individual medical vulnerabilities and resiliencies. Furthermore, underrepresentation in high-performing fields can be traced to social and institutional factors. For instance, many who identify as sexual and gender minorities (SGMs) in science, technology, engineering, and mathematics (STEM) report higher rates of harassment, attrition, burnout, and unwillingness to disclose their identity as lesbian, gay, bisexual, transgender, or queer/questioning (LGBTQ) despite negative impact on their performance and wellbeing.

To date, no astronaut has freely and publicly identified as LGBTQ. Published literature is devoid of LGBTQ considerations for spaceflight with the exception of discriminatory and medically outdated guidelines, and there are no data on attitudes toward SGMs or their representation in the space industry. If unable to identify, a homosexual astronauts could not involve their family in training. This constitutes a missed opportunity for positive role modeling as well as an impediment to accurate data collection; medical research has characterized specific biological and neurobehavioral trends related to LGBTQ identity, and there are well-established public health considerations to address.

There are well-documented benefits to diversity in high-performance environments, and exclusionary precedents turn away candidates with unique skillsets. The need to address these gaps increases as the industry moves toward longer missions and increased access. The paucity of data and discourse is a barrier to critical elements including data acquisition, optimal performance, and equitable provision of resources.

The Out Astronaut Project is a nonprofit coalition of citizen scientists working to bridge these knowledge gaps and counteract social inequities. The goals are manifold: supporting LGBTQ-identifying professionals in STEM and astronautics, fostering interest in science among SGM youth, generating constructive discourse about explicit and implicit bias, and encouraging positive social change.

The organization's pilot initiative, Phase One, generated positive interest and discourse. During the 2019 competition, the website received 19,890 new users over 33,266 visits, averaging 58 minutes per session. This suggests Out Astronaut is an effective means for engaging the community, inspiring interest and action, disseminating published information, and offering the public positive exposure to SGM professionals in a fresh context.

The ultimate vision for Out Astronaut is to train select research scientists from the LGBTQ community and send them to space to run orbital studies, educate trainees, advocate for other SGMs in STEM, serve as a role model for non-cis/heterosexual youth, and challenge negative perceptions and stereotypes.