

ENGAGING DIVERSE COMMUNITIES IN PLANETARY SCIENCE. C. Shupla¹, G. Beaudoin¹, A. Shaner¹, S. Webb¹, ¹Lunar and Planetary Institute, USRA (shupla@lpi.usra.edu),

Introduction: The Lunar and Planetary Institute (LPI) Education and Public Engagement (E/PE) team and science staff are working to continually increase our awareness of and capacity for engaging diverse audiences. Houston is home to many diverse populations; Houston is one of the most ethnically diverse metropolitan regions in the United States [1]. To better serve students and families from lower socio-economic and marginalized communities, we endeavor to create and maintain authentic partnerships with individuals and organizations already embedded in those communities.

Partnerships: LPI works with partners to reach and serve students and families through its public engagement programs. These authentic partnerships take time to build, require ongoing respectful communication, and build upon recognition of each partner's strengths, resources, and mission [2]. Libraries are an excellent community partner; we have a long-standing partnership with the Pasadena Public Library system in Texas, where the majority of the population is Latinx. We have conducted both Spanish and English programs at their libraries, with input and assistance from the library staff. We also work with the Girl Scouts of San Jacinto Council in Houston, often with education colleagues at NASA Johnson Space Center's Astromaterials Research and Exploration Science. We are also partnering on new projects with the Texas Alliance of the Boys & Girls Clubs. Many of these Clubs are national leaders in the provision of enrichment, intervention programs, Latinx outreach, STEM and other academic-related programming.

Engagement Examples: Our education and public engagement team and science staff conduct in-person and virtual programs that engage diverse audiences, with input from these and other partners. Prior to COVID, we regularly conducted interactive tours of the solar system using a portable planetarium at libraries, schools, Girl Scout programs, and public events, such as the Toys for Kids event held annually in downtown Houston (Figure 1). We have also gone to Girl Scout camps and to public and school events to conduct hands-on activities as part of larger community programs. It is often more important to go to where diverse communities already are, at these locations, than to expect them to always come to us.



Figure 1. In 2018 and 2019, LPI joined the NASA booth for the Toys for Kids event, providing virtual tours of the solar system for Houston families. This free annual event is largely attended by thousands of children and their families, largely from inner city populations.

It is also important to invite a community into our space. Prior to COVID, we held occasional SkyFest public events at LPI that were dedicated to Spanish-speaking audiences, with facilitators who spoke both English and Spanish at each activity station and with presentations in English and Spanish. Through a program with Best Buy's Geek Squad Academy and partnering with Fondren Middle School and Yellowstone Academy, we invited students to a day of planetary STEM at LPI (Figure 2).



Figure 2. In 2019, students shown here with LPI Postdoctoral Fellow Sean O'Hara participated in a day of planetary STEM.

Since COVID, we have been conducting virtual programs with our partners, including space science badge programs for the Girl Scouts, programs with and for our library partners, and many more. In our virtual family programs, we have been inviting "host

families” to join on-camera and conduct the activities live, while others can participate from their homes or watch. We have conducted virtual presentations in English and Spanish, with help from our Spanish-speaking science staff.

Representation matters: we invite women and scientists of color and scientists who speak Spanish to join our virtual and in-person programs, give presentations and share their experiences with different audiences. We have invited diverse families to serve as “host families” in our virtual programs.

Conclusion: While we are taking steps to better reach and serve diverse audiences, there is always room to improve. We are also learning more about the research-based best practices in engaging diverse communities. Our first step is to do so from a position of humility, learning from partners and members of the communities we engage. In this presentation, we hope to share what we are learning, and to learn from the others attending this meeting.

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References: [1] Rice Kinder Institute for Urban Research (2019) [Kinder Houston Area Survey: 2019 Results](#). [2] Shupla, C., Hawkins, I., Aponte-Hernandez, B., Peticolas, L. (2018) [Authentic Partnerships for Engaging Diverse Audiences](#), ASP Conference Series Vol. 524, Astronomical Society of the Pacific.

Additional Information: If you have any questions or would like additional information regarding LPI’s education and public engagement efforts, please contact Christine Shupla at shupla@lpi.usra.edu.