

# Diversity, Equity, Inclusion (DEI) and Belonging in CEDAR

(<https://cedarscience.org/diversity-equity-inclusion>)

Community

Equity

Diversity

Allyship

Respect



From Jeff Thayer

## Motivation

At the 2020 CEDAR VM, community members participated in a workshop entitled “DEI and CEDAR,” where issues and practices regarding DEI in CEDAR surfaced. From feedback received, it was clear a grassroots effort focusing on addressing DEI issues raised could lead to real progress within CEDAR and the broader Heliophysics communities → DEI Task Force.

## Goals

*Assess and formalize DEI efforts in CEDAR.*

*Establish and normalize a DEI presence in the CEDAR community.*

*Foster improvement in CEDAR through implementation of actionable initiatives that promote diversity, equity, and inclusion.*

## Task Force Members



Julio Urbina



McArthur “Mack” Jones



Katrina Bossert



Komal Kumari



Phil Erickson



Huixin Liu



Angeline Burrell



Susan Nossal



Meghan LeMay



Lindsay Goodwin



Matthew Zettergren



Jia Yue



Katelynn Greer



Andrew Pepper

# Presence at 2023 CEDAR Workshop



Building a safe space: Code of conduct

Continuing a dialogue: DEI Community Tag Up and workshop

Anti-racism literacy

Imposter feelings and stereotype threat

Accessible spaces for scientists with disabilities

Student and early-career opportunities

Supporting women and minorities

Sunday 15:00-15:30	UC academic workers' strike
Sunday 19:15-20:15	DEI Community Tag Up
Tuesday 13:30 - 15:30	DEI at CEDAR Now and into the Future
Thursday 9:00-9:30	DEI Updates and Evidence Based Approaches in the Plenary Session



\*\*\*If interested in joining the CEDAR DEI Task Force please contact: Lindsay Goodwin ([lindsaygoodw@gmail.com](mailto:lindsaygoodw@gmail.com)), Mack Jones ([mcarthur.jones@nrl.navy.mil](mailto:mcarthur.jones@nrl.navy.mil)), or Julio Urbina ([jvu1@psu.edu](mailto:jvu1@psu.edu)) to discuss getting involved!\*\*\*

# Where we've been!

- Members of the CEDAR DEI Task Force have been promoting DEI efforts across the different fields of Aeronomy and Space Physics!
- Some highlights of CEDAR DEI Task Force Member work in the community:
  - Monthly CEDAR DEI Community Tag Ups
  - Equitable Letters for Space Physics (<https://equitableletterssp.github.io/ELSP/>)
  - Membership on the Decadal Survey for Solar and Space Physics State of the Profession Panel
  - Presentations at a number of different national conferences and symposiums detailing the Task Force Efforts (e.g., AGU, EGU, Heliophysics 2050, NASEM Space Wx Infrastructure Workshop, TESS 2022)
  - Multiple journal articles, journal special section, responses to request for information, and DS position papers (e.g., [Burrell et al. 2023](#), [Jones and Maute, 2022](#), "Driving towards a more diverse space physics community", NASA IDEA RFI, etc.)



## Equitable Letters for Space Physics

Resources for writing better recommendation and nomination letters within the space physics community

[Home](#) [Gender Bias Studies](#) [Letter Writing Resources](#) [Addressing Bias](#) [Sample Letters](#) [Code of Conduct](#) [Contact](#)

### Our Mission

Encouraging merit-based recommendations and nominations in the space physics community by providing resources and reviews.

### Our Standards

Equitable Letters in Space Physics strives to provide a welcoming environment for people to learn and grow. We are governed by a [code of conduct](#).

### Our People

#### Directors

- Dr. Angeline G. Burrell, Naval Research Laboratory (Exec. Dir.)
- Dr. John Coxon, University of Southampton
- Dr. Alexa Halford, NASA Goddard Space Flight Center
- Dr. McArthur Jones Jr., Naval Research Laboratory
- Dr. Kate Zawdie, Naval Research Laboratory

#### Reviewers

To become a reviewer, please [Contact us](#).

The screenshot shows a Frontiers journal article page. The article is titled "Tips for writing a good recommendation letter" and is categorized as a "PERSPECTIVE article". It was published in "Front. Astron. Space Sci." on 25 January 2023, in the "Sec. Space Physics" section. The authors listed are Angeline G. Burrell<sup>1\*</sup>, McArthur Jones Jr.<sup>1</sup>, Kate A. Zawdie<sup>1</sup>, John C. Coxon<sup>2</sup>, and Alexa J. Halford<sup>3</sup>. The article is part of a research topic "Driving Towards a More Diverse Space Physics Research Community – Perspectives, Initiatives, Strategies, and Actions". A "Check for updates" button is visible. The page also includes a "Check for updates" button and a "Check for updates" button.

frontiers | Frontiers in Astronomy and Space Sciences

TYPE PERSPECTIVE  
PUBLISHED 29 November 2022  
DOI 10.3389/fspas.2022.1074460

Check for updates

#### OPEN ACCESS

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## Assessing the demographics of the 2021 and 2022 CEDAR workshop

McArthur Jones, Jr.<sup>1\*</sup> and Astrid Maute<sup>2</sup>

<sup>1</sup>Space Science Division, U.S. Naval Research Laboratory, Washington, DC, United States, <sup>2</sup>High Altitude Observatory, National Center for Atmospheric Research, Boulder, CO, United States

# Ways to get involved with DEI in CEDAR

- Sign the CEDAR DEI Statement and Call to Action  
(Link: <https://docs.google.com/document/d/1kimmOV95pJud2smbYrx0UrPdcOpvEKrfeQjw0UPXQQ/edit?usp=sharing>)
- Provide input on CEDAR DEI Action Items  
(Link: [https://docs.google.com/document/d/1rl29P-lmXHIFon\\_2oxm2PYNdrBGKOGhKISxKfROGKXk/edit](https://docs.google.com/document/d/1rl29P-lmXHIFon_2oxm2PYNdrBGKOGhKISxKfROGKXk/edit))
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- Link for the Call to Action for an Anti-racist Science Community from Geoscientists of Color (<https://notimeforsilence.org/>). Please sign and continue to add suggestions!
- Contact the CEDAR DEI Task Force about participating (maybe even joining 😊 the Task Force)

**\*\*Please contact ANY of the DEI Task Force Members if have any questions, or just need a kind and empathetic ear to listen.\*\***

# 2021 and 2022 CEDAR Demographic Information

# Why do this?

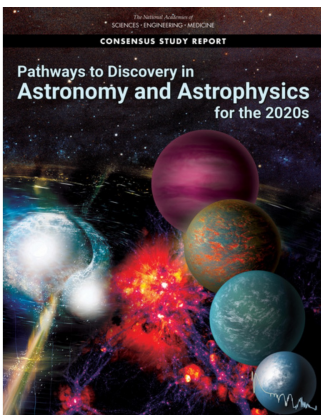
*Without data, scientific organizations, policymakers, programs, and stakeholders have had difficulty implementing structural interventions that could be the catalyst for change. Put simply by **Pendergrass et al. (2019)**, “demonstrating progress requires data.”*

- [National Academies of Sciences and Medicine \(NASEM\) Committee on Increasing Diversity and Inclusion in the Leadership of Competed Space Missions:](#)



**“There is currently no strategy and methodology being employed to effectively gather demographic data on participation in the Earth and space sciences along the whole career pathway—from undergraduate and graduate programs to academic departments and the professional workforce.”**

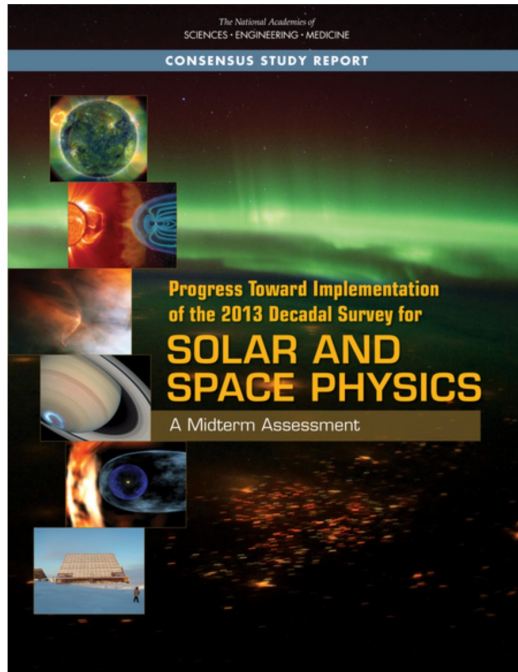
- [Pathways to Discovery in Astronomy and Astrophysics for the 2020s:](#)



**“Collect and report consistent demographic data from organizations that support astronomical research, education, and training. Data are key to identifying promising practices, measuring progress, and holding agencies and institutions accountable to equity-advancing values.”**

# Why do this?

- [Progress Toward Implementation of the 2013 Decadal Survey for Solar and Space Physics](#)



**“NASA, NSF, and NOAA should develop strategic plans for the heliophysics community with goals and metrics to improve the diversity of race, gender, age, and country of origin ... The next decadal survey should include a State of the Profession Panel, similar to the Astro2020 decadal survey. The State of the Profession Panel should have in advance the demographics and diversity survey data recommended.”**

# Collection of Demographic Information and Methodology

All registrants (either virtual or in-person) to the CEDAR Workshop from 2021 and 2022 were asked to provide voluntary answers to a series of questions about their career stage, race/ethnicity, gender identity, and association with the LGBTQIA+ (lesbian, gay, bisexual, transgender, queer (or sometimes questioning), intersex, asexual, and others) community.

## For career stage the following categories were used:

- Students (including both undergraduate and graduate students)
- Early Career (0–5 years after your terminal degree)
- Mid-Career (6–15 years after your terminal degree)
- Senior Career (>15 years after your terminal degree)
- Non-scientist (Citizen Scientist, DEI Experts, Experts outside the CEDAR Community)

For gender identity, the following question was asked, **“To which gender do you most identify with?”** The following options were listed:

- Female (she,her,hers)
- Male (he,his,him)
- Nonbinary (they, them)
- Not listed, please specify
- Prefer not to answer

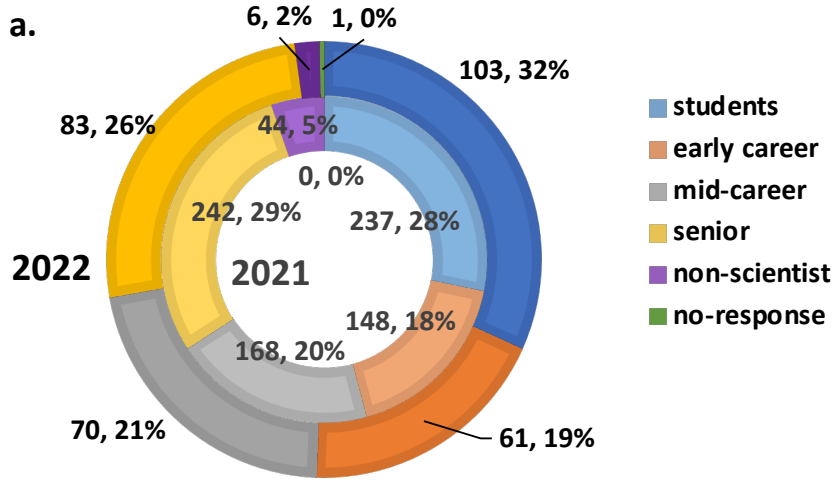
For race/ethnicity the following question was asked, **“What race(s) and/or ethnicities do you identify with? Select all that apply.”** The following options were listed:

- White (Hispanic, Latinx or Spanish)
- White (Not Hispanic, Latinx or Spanish)
- Non-white Hispanic, Latinx or Spanish
- Asian or Middle Eastern
- Black or African American
- African
- American Indian or Alaska Native
- Native Hawaiian or Pacific Islander
- Not listed, please specify
- Prefer not to answer

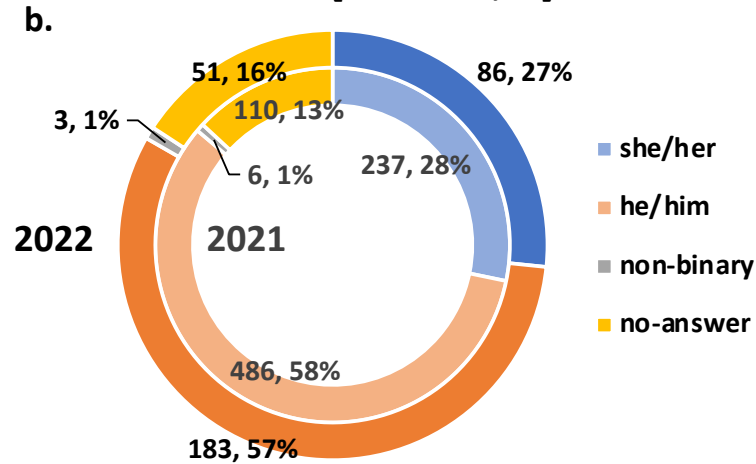
*\*Note the above races and ethnicities were slightly different in 2021 and 2022, as a result of feedback from CEDAR registrants in 2021.*



**2021 & 2022 CAREER STAGE OF REGISTRANT [NUMBER, %]**



**2021 & 2022 GENDER IDENTITY OF REGISTRANT [NUMBER, %]**



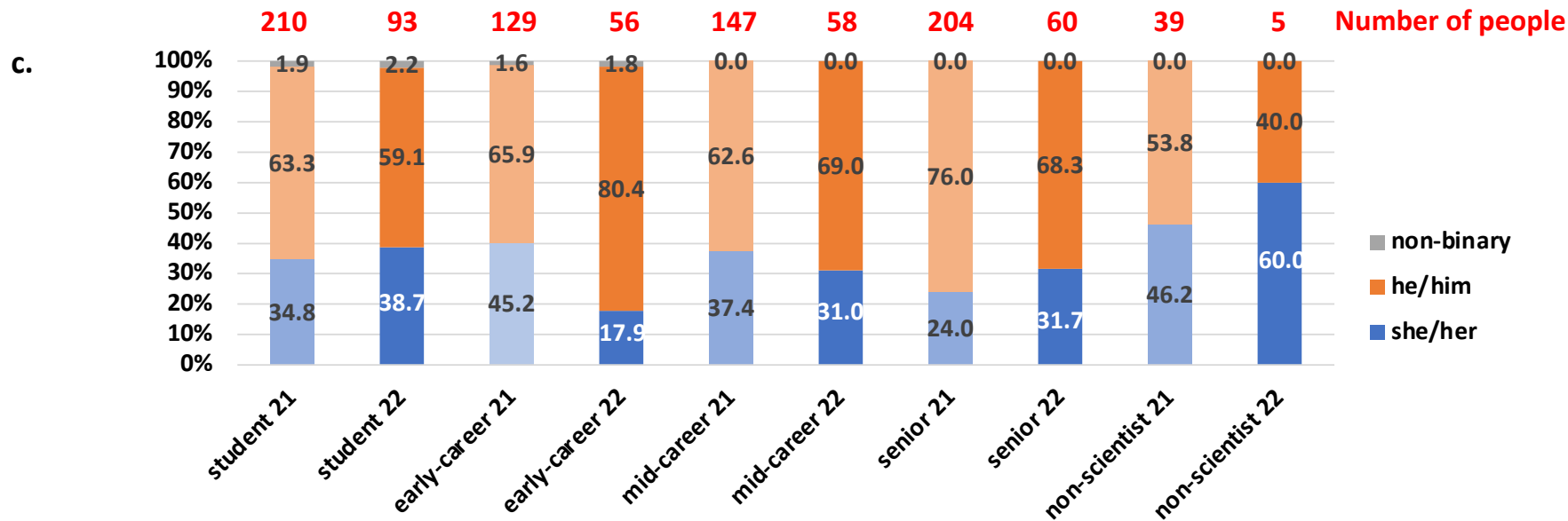
- Total registration:
  - 839 in 2021 (virtual)
  - 324 in 2022

- Career stage distribution consistent between 21' and 22'

- Male registrants outnumber female and non-binary registrants ~2-to-1 in both years

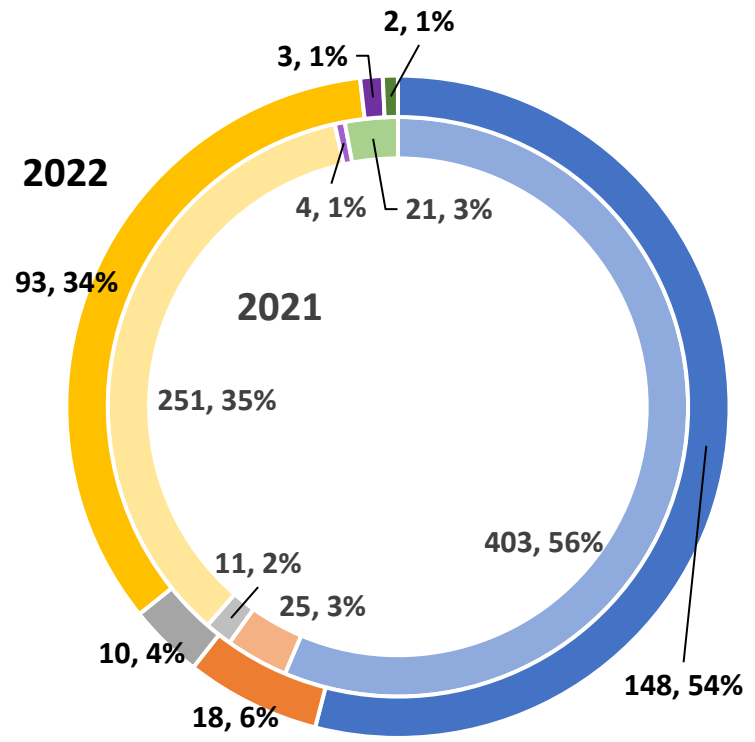
- Female registrants make up ~30-40% of all CEDAR Workshop registrants, consistent with other available demographic data.

**2021 & 2022 GENDER IDENTITY OF REGISTRANT BY CATEGORY [%]**



**2021 & 2022 RACE/ETHNICITY OF REGISTRANT**

[NUMBER, %]

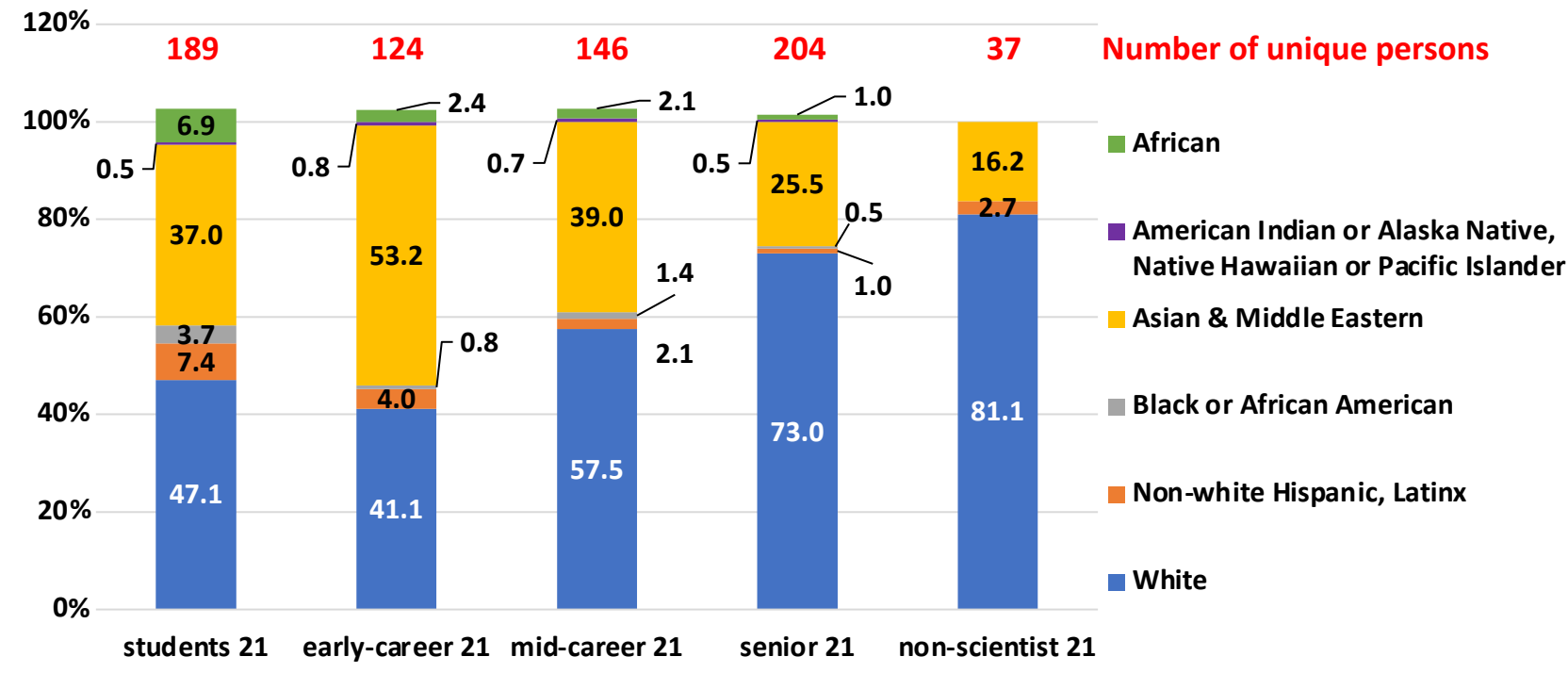


a.

- Those identifying as White and/or Asian and Middle Eastern representing ~90% of all CEDAR Workshop registrants in both years.

**2021 RACE/ETHNICITY OF REGISTRANT BY CATEGORY**

[%]



b.

- All other races that are defined as historically underrepresented in STEM by the National Academies represent 9-12% of all CEDAR registrants.
- In general, earlier career (student and early) CEDAR registrants tend to be slightly more diverse than mid- and senior career levels.

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