Goal 1 | Culture

Foster an informed, welcoming, and inclusive culture at NCEAS

1. **Create and maintain a welcoming, inclusive, and equitable work environment**

   Completed actions:

   - Published a 2021 Code of Conduct and added "By joining the NCEAS community, you agree to abide by the Code of Conduct" to all onboarding emails
   - NCEAS staff, students, and researchers collaborated on a paper in PLOS one: "Ten simple rules to cultivate belonging in collaborative data science research teams", which outlined best practices for inclusive data science teams

   Future actions:

   - Given NCEAS service expectations, brainstorm ways for individuals to share, highlight, and celebrate their contributions to incorporate service further into NCEAS culture
   - Print and bind/laminate current versions of the NCEAS diversity statement, Strategic Plan, and/or Code of Conduct to post in NCEAS common spaces
   - Improve internal access to the NCEAS Computing Help Site, which includes support on remote access, computing, printing, etc.
   - As NCEAS teams become more virtual, consider creating guidance for best practices for hybrid meetings and technological access for hybrid and remote residents
   - Given the first and third floor separation at NCEAS building, consider strategies for more inclusion and collaboration, such as clear guidance for non-NCEAS employees on the first floor (e.g., using meeting rooms, event ads) or alternating coffee klatches downstairs

2. **Ensure that NCEAS residents and visitors can report bias and unacceptable behavior**

   Completed actions:

   - Better integrated our 2021 Code of Conduct into the NCEAS website, including creating more space for ways to report incidents and how the university responds to reports

- Integrated incident reporting form into NCEAS onboarding and orientation email

Future actions:

- Review 2021 Code of Conduct and make any needed changes for 2023 version, potentially crowdsourcing ideas from the wider NCEAS community

3. **Ensure that everyone at NCEAS has a forum to engage in DEIJ issues**

Completed actions:

- Held annual roundtables in 2020 and 2021 to discuss updates to the DEIJ strategic plan and solicit feedback from the community outside of the committee
- NCEAS has a standing DEIJ committee with open meetings quarterly

Future actions:

- Reconsider timing and organization of the new DEIJ reading group, which had low attendance on Thursday afternoons - potentially creating a morning or lunchtime standing appointment monthly that anyone can lead
- Host a 2023 roundtable to discuss and receive feedback on the latest strategic plan updates and priorities
- Consider strategies to increase participation on the NCEAS slack #diversity channel
- Consider hosting additional NCEAS wide events to crowdsource action items, energy, or resources on needed topics (e.g., similar to #ShutDownSTEM in 2020)
- Offer opportunities for formal training in DEIJ, leveraging existing UCSB resources
- Brainstorm ways to create community space and time to discuss current topics in DEIJ (e.g., inclusive language)

4. **Center DEIJ in NCEAS leadership decisions**

Completed actions:

- Diversity committee co-chairs presented updates to the Executive Team in Fall 2020, Summer 2021, and Summer 2022
- In April 2023, NCEAS and the LTER hired a new, joint position for community engagement, with a large job focus on internal and external DEIJ activities
- In January 2023, the NCEAS Executive team introduced a no negotiation policy for salaries during the hiring process
- In September 2022, the Executive Team set an official expectation of 1 day a month of service, emphasizing potential DEIJ actions: "Community Contributions to NCEAS"

Future actions:

- Ensure that service expectations are included in onboarding, training, and merit reviews

- Expand the Executive Team to include a DEIJ focused employee, such as DEIJ committee co-chairs or community engagement officers

5. **Provide centralized DEIJ resources around learning and action for NCEAS residents**

Completed actions:

- Compiled URGE deliverables into a folder accessible to the entire NCEAS community
- Created a physical space in the NCEAS office and virtual space on the slack channel (#diversity) to post DEIJ events, resources, readings, etc.

Future actions:

- Revisit organization of resources to ensure residents can and do access them
- Consider compiling existing mentorship programs at UCSB or SB for new or current NCEAS employees to join (e.g. Women Mentoring Women, Business officer mentorship program)
- Consider adding a physical lending library and resource corner in the NCEAS main room, with books on anti-racism, equity in science, etc.

6. **Clarify our public commitment to improving DEIJ**

Completed actions:

- Created a new page on the NCEAS website for the annual DEIJ seminar series
- Refreshed the public facing NCEAS DEIJ website page, including revisiting the main statement, centering the code of conduct, highlighting the updated strategic plan, including recent projects

Future actions:

- Create a new "Visiting NCEAS" website page with information on building accessibility, parking information, contact information, and a land acknowledgement
- Consider sharing the link to the 2023 Strategic Plan and/or new DEIJ website page in the next annual Director's letter

7. **Identify new funding streams for DEIJ programs**

Completed actions:

- Compiled discretionary funds (~$10-15k) for the Director's fellowship, which sponsors virtual and/or in person spots for NCEAS data science training courses (coreR)

Future actions:

- Brainstorm with the DEIJ committee other larger DEIJ projects to propose to the executive team for funding

- Create a pathway for NCEAS employees to request funding support for small budget DEIJ projects, for example a google form request to the Executive team
- Consider how to leverage internal [funding from UCSB](#) for DEIJ initiatives


8. **Support Indigenous data governance in NCEAS research**

   Completed actions:

   - In the February 2023 [EDS Summit](#), NCEAS hosted Elisha Yellow Thunder as a keynote speaker, who discussed 'Lakota Data Sovereignty and Community-Based Research'
   - Centered Indigenous data governance in annual DEIJ seminar series, including 2021: Lydia Jennings '[Indigenous Data Sovereignty: How Scientists and Researchers can Empower Data Governance](#)' and 2023: Sara Cannon 'Doing the Work to Unsettle Ecology'
   - Posted a blog on [CARE principles](#) on the Arctic Data Center Social Science Resources website and published a book on '[Indigenous Data Sovereignty and Open Data in Environmental Sciences](#)'
   - For working group calls with the NCEAS [Morpho Initiative](#), language for promoting RFPs specifically encouraged partners to include tribal leaders

   Future actions:

   - Incorporate FAIR/CARE principles for indigenous data governance into a guidance doc for all NCEAS Working Groups
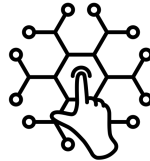
Goal 2 | Working Groups

Support more diverse and inclusive working groups at NCEAS

1. **Write and advertise calls for proposals to encourage applications from diverse groups**

   Completed actions:

   - In 2022, NCEAS started offering office hours for individual feedback and support during working group proposal submission windows
   - Since 2022, each working group call for proposals has had an online webinar (recorded and later posted to YouTube) with information about the proposal call and process
   - Revisited proposal language to improve clarity and call out specific audiences to engage in with working group composition (e.g., explicitly mentioning tribal leaders as partners)

   Future actions:

   - Create guidance for proposers on what makes successful working group applications, with annotated examples of each required section
   - Consider best reward/payment structure for non-academic working group participants

2. **Evaluate diversity and inclusion plans as part of working group selection process**

   Completed actions:

   - Working groups are required to submit a diversity and inclusion statement (1-2 paragraphs) and a collaboration plan (1-2 paragraphs)
   - As part of the working group selection process, diversity and inclusion are each considered as merit criteria, accounting for 20% of the evaluation rubric

   Future actions:

   - Revise the solicitation language and evaluation criteria for the diversity and inclusion statements/collaboration plans to follow the NASA Inclusion Plan model, with groups identifying barriers to diversity and inclusion, actions they will take to address them, and metrics of evaluating if their actions are successful (Notes on this so far here)
   - Consider having members of the DEIJ committee or the DEIJ committee co-chairs review working group diversity and inclusion statements to provide feedback before awards are issued

3. **Provide resources for working groups to maximize diversity, inclusion, and productivity**

Completed actions:

- The NCEAS Code of Conduct and reporting strategies are shared with working groups
- Carrie Kappel created guidance for working groups to have more effective collaborations
- In April 2023 Carrie Kappel hosted a facilitation training for other NCEAS staff and scientists to improve internal capacity to assist working groups in inclusive collaboration
- In 2022, Alex Phillips developed a menu of science communication workshops that can be offered to working groups at or between meetings

Future Actions:

- Revisit organization and contents of current working group resources on the NCEAS website and consider adding more resources on data science and inclusion
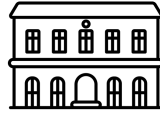
4. **Evaluate the diversity and inclusion of NCEAS working groups**

Completed actions:

- NCEAS implemented anonymous surveys for working group participants after each meeting, including questions on demographics, inclusion, and productivity

Future actions:

- Create and execute an analysis plan for working group survey data

Goal 3 | Recruitment

Increase the diversity of NCEAS employees through equitable hiring

1. **Increase the diversity of applicant pools for NCEAS recruitments**

   Completed actions:

   - Created lists of recruitment channels, including [job boards](), [academic institutions](), and [twitter accounts/hashtags]()

   Future actions:

   - Collaborating between the communications and admin teams, build out/[consolidate]() our current [best practices guide for equitable hiring](), including language in job ads, timeline of recruitment activities, and onboarding process from paperwork and community sides
   - Explore mechanisms to evaluate the diversity of applicant pools before, during, or after searches, in accordance with UC policies

2. **Consider commitment to DEIJ during application reviews and interviews**

   Completed actions:

   - All job applicants are asked to include "experience supporting diversity, equity, and inclusion" in their cover letters
   - Began to compile a list of [potential interview questions]() to assess DEIJ commitment

   Future actions:

   - For employees that are expected to have a significant DEIJ focus, consider including a DEIJ co-chair on hiring committee
   - Continue to explore UC policies for evaluating DEIJ efforts as part of applicant merit review and operate at that maximum evaluation power
   - Consider DEIJ trainings (e.g. reducing bias) for hiring committee members (and if successful, widen these trainings to the broader NCEAS community)

3. **Increase the transparency of the hiring process**

   Completed actions:

- In January 2023, NCEAS staff hosted a <u>roundtable discussion</u> to increase transparency around the UCSB hiring and promotion process (viewable to NCEAS residents only)

Future actions:

- Revamp the <u>NCEAS Employment</u> website page to better highlight resources and policies (like <u>service requirements</u> and <u>no negotiation policy</u>)

Goal 4 | External

Engage with diverse perspectives and communities external to NCEAS

1. **Encourage individuals at NCEAS to engage in community outreach**

Completed actions:

- NCEAS leadership released a [service expectation](#) for employees; DEIJ co-chairs edited the document to include several examples for engaging in community outreach
- Multiple individuals in the NCEAS community participated in individual outreach, examples of which are featured on our website in the "[Kudos Corner](#)"

Future actions:

- Curate a [list of opportunities](#) for Santa Barbara and virtual NCEAS employees to engage in existing community outreach
- Consider creating a new committee or subcommittee for NCEAS Community Outreach to better centralize efforts to engage with K-12 schools, non-profits, and volunteer networks

2. **Organize the annual DEIJ in environmental data science seminar series**

Completed actions:

- Following two years of success in the DEIJ in environmental data science seminar series (previously: "Advancing Ecology and Environmental Data Science for a More Just and Equitable Future") we organized a [third installment](#) of this series
- To better integrate the seminar series into NCEAS' online presence, a [new website page](#) was added under "Participate"
- The NCEAS community was more involved in the third installment, from selecting speakers to organizing (for the first time, a MEDS student was on the committee)
- To create institutional memory we generated more transparent [marketing templates](#), and [timelines](#), and lists of [potential speakers](#)

Future actions:

- Continue holding the annual seminar series and secure additional funding for honoraria (currently: $250 per speaker)
- Consider streaming talks in the lounge to host NCEAS watch parties to build community
- Consider further expanding committee to other NCEAS residents (e.g. TNC employees)

3. **Organize the annual Environmental Data Science Summit**

Completed actions:

- NCEAS hosted the first [EDS Summit](#) in February 2023, with a goal of building out the environmental data science community. The first year's conference had a theme of "Harnessing Diversity in Environmental Data Science" and brought 100 people across career stages, backgrounds, and fields.
- The EDS Summit featured diverse plenary speakers and panels, including Dawn Wright, Lourdes Vera, and Elisha Yellow Thunder

Future actions:

- Migrate the EDS Summit [github website](#) to the NCEAS webpage
- Continue hosting the EDS Summit through a lens of DEIJ
- Brainstorm continuity plan for funding as EDS Summit is currently only funded for five years through an NSF Research Coordination Network grant

4. **Integrate art and science perspectives at NCEAS**

Completed actions:

- In 2022, NCEAS re-launched the Artists in Residence program, funding two artists for 2023 residencies: [Leila Youssefi](#) (muralist) and [Bonnie Peterson](#) (embroidered textiles & maps)
- In Winter 2022, local artist [Elkpen](#) visited NCEAS and completed a series of murals around a "sense of place," connecting Santa Barbara ecology and art together on NCEAS walls
- Courtney Scarborough commissioned a [set of watercolor paintings](#) by Cayote Brush Studios for NCEAS meeting rooms, featuring Chumash, common, and scientific names

Future actions:

- Revamp the current NCEAS Art + Science website to better integrate DEIJ, highlight recent work, and the artist in residence program
- Consider evaluating the artist in residence application process, potentially integrating questions on commitment to DEIJ in applications and evaluations
- Consider methods beyond social media to attract more diverse artists for art and science opportunities at NCEAS
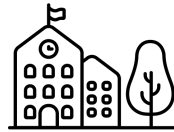
Goal 5 | Education

Improve access to environmental data science learning

1. **Create scholarships for underrepresented groups to participate in NCEAS paid courses**

   Completed actions:

   - Launched the Director's Scholarship in 2022, which funds one participant for every in person coreR course and two virtual participants for virtual courses
   - In April 2023, in addition to funding one full in person spot, we offered a half scholarship to a UCSB graduate student, covering tuition (but not lodging and per diem)
   - With the Vice Chancellor's office at UCSB, we developed a [questions form and rubric](#) for anonymously evaluating Director's Scholarship applications
   - Updated the Learning Hub website with more clarity towards the Director's Scholarship

   Future actions:

   - Consider formalizing the addition of a half scholarship for a UCSB graduate student with each Director's Scholarship call
   - Explore other funding paths to expand existing scholarship offerings

2. **Publicize open-access resources on the NCEAS website and other communication channels**

   Completed actions:

   - The Learning Hub website was redesigned to better showcase resources in [data science curriculum](#), [science communication](#), and [working group collaboration](#)
   - [Initial planning](#) to create mini tutorial videos and publish them on the NCEAS YouTube Channel
   - Beginning in Summer 2022, the NCEAS newsletter was updated to include DEIJ, science communication, and data science [resources](#), which are crowd sourced from NCEAS

   Future actions

   - For Learning Hub classes, develop and share curriculum module around data ethics based on [Academic Data Science Alliance](#) Data Science Ethos
   - Continue the video tutorial project, potentially also offering videos in Spanish
   - Continue to evaluate the sharing and collection of resources on the Learning Hub website and beyond (e.g., social media accounts like Instagram) to reach wider audiences

3. **Engage with other data science teaching and pedagogy communities**

Completed actions:

- In summer 2022, Alex Phillips and Carmen Galaz-Garcia met with SBCC professors in Earth Science (Stephanie Mendes; sdmendes@pipeline.sbcc.edu) and Computer Science (Nathalie Guebels; nfguebels@pipeline.sbcc.edu), respectively, to establish connections to NCEAS for guest speakers and events.
- Carmen Galaz-Garcia sat on a career panel in February 2022 for SBCC Computer Science

Future actions

- Continue to build connections with SBCC and consider other collaborations with groups like UCSB's CITRAL, the BEDE Network, and EDSIN
- Grow relationships and collaborations with UCSB teaching faculty (LPSOE's) and temporary lecturers (Unit 18s), especially those in data science (e.g., MEDS LPSOE)

4. **Increase accessibility of NCEAS educational materials and courses**

Completed actions:

- In 2022 Alex Phillips created a public science communication resource for color blind safe data visualizations

Future actions:

- Ensure that NCEAS Learning Hub training materials are compatible with assistive technologies (e.g. screen readers)
- Identify best practices to aid participants with remote learning, including closed captioning options, poor internet access, and other barriers/interventions