University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE
HORN POINT LABORATORY

URGE
Unlearning Racism in Geoscience

DRAFT: Demographic data collection and goals at University of Maryland Center for Environmental Science (UMCES) Horn Point Laboratory (HPL)

This document was composed by the Horn Point Pod at UMCES; it details the historical collection and reporting of demographic data, institutional goals for increasing representation from minoritized groups, and recommends policy changes for the future. We are grateful to Ms. Lisa Ross, UMCES Director of Human Resources, and Dr. Mike Roman, Horn Point Lab Director, for their assistance.

Our answers to the URGE discussion questions are as follows:

● *What demographic data are collected at your institution? What do the numbers tell you?*

UMCES collects age, gender (M/F), race, ethnicity, country of citizenship. Optional information includes disability and veteran status. In general, our institution is less diverse in terms of race than the population of the US and we have work to do.

● *Are data public? If not, who has access? If the data are kept private, what reason is give*n?

Individual employee and applicant demographic data is not public. De-identified (not linked to an individual) and synthetic demographic data is available by request through Human Resources.

● *Are there stated and measurable goals for representation in your organization?*

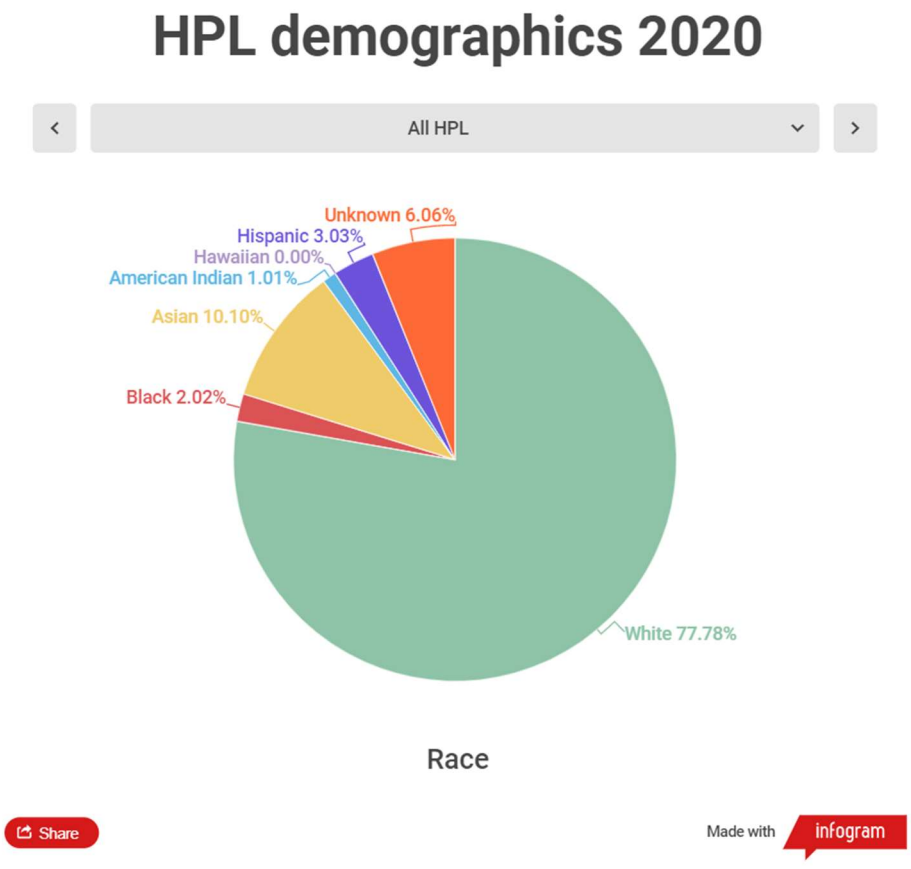
Our organization is committed to increasing diversity. Our 2019 UMCES Strategic Initiatives statement, reads “We will enhance diversity of interns, graduate students, faculty, and staff. We will cultivate inclusivity through professional development and innovative mentoring. We will incentivize change via individual and institutional performance metrics.” In addition, we have a new standing committee at UMCES Horn Point Laboratory on Diversity, Equity, and Inclusion. That being said, we do not yet have quantitative and measurable goals for representation at UMCES HPL to enhance diversity in addition to the Affirmative Action guidelines that we follow.

Our main recommendations include 1) deciding on quantitative and measurable goals to enhance diversity, 2) applying these goals to hiring, committee memberships, seminar speakers, and awardees, 3) better tracking of demographics, and 4) reporting progress publically.
The following outline is a work in progress and contains additional information related to these recommendations organized into the following sections: 1) collection and reporting of demographic data, 2) analysis of demographic data over time, and 3) setting and achieving

goals for increasing representation in UMCES/HPL. Each of these three sections contains specific recommendations for developing and tracking quantitative and measurable goals for enhancing representation in our organization. As the pod is based in HPL, most of the historical information herein pertains to HPL rather than UMCES as a whole.

1. **Collection and reporting of demographic data**
    a. **Historical context**
        i. *Employees*
            1. Demographic information is collected automatically via the payroll system since about 2004: race, gender (male/female only), country of citizenship; recording disability and veteran status is optional and voluntary. Employees are grouped into faculty, staff, student, exempt and non-exempt status automatically, but any more granularity (housekeeping, postodcs, office staff) and other information (year of hire, highest degree, etc.) requires going through each file by hand. The Director of HR and VP for Admin submit annual demographic reports (Diversity Report) to the University System of Maryland and Maryland Higher Education Commission. This pod is unsure of the exact content of the reports The reports include annual snapshots of the ethnicity, race, and gender of staff, faculty (exempt and non-exempt), and students. There is also demographic reporting associated with the Middle States accreditation process.
                a. Employee demographic data has not been made public. This is because demographic data is pulled from the payroll system and UMCES/HPL does not have an Institutional Research office or officer to handle the responsibility; public reporting currently requires a specific effort by HR to gather, synthesize, and post data.
        ii. *Applicants*
            1. Demographic data is also logged automatically by a system launched in 2018 that collects self-reported demographic data for contingent II, faculty, and staff positions only. This system tracks demographic information on the applicants for a position and who was ultimately hired, but only the Director of HR can access the system.
                a. Applicant demographics are not reported internally or publicly. This is due in part to the system being new and untested, and in part again due to the process being labor intensive and the burden falling on HR.
        iii. *Administration*
            1. The governing board of the University System of Maryland, the Board of Regents, has not been asked how they self-identify.
            2. At UMCES, the current administrative leadership (President, Vice Presidents, Lab Directors) has not been asked how they self-identify.
            3. At UMCES HPL, the current administrative leadership (assistant director, associate director, and director ranks) have not been asked how they self-identify.
        iv. Staff, students, and faculty

1. For purposes of this deliverable, data were gathered from 2020, summarized, and can be found here: https://infogram.com/hpl-demographics-1h7v4pw39gdp86k
    a. Briefly, HPL is majority white in all categories. The most diverse groups in descending order of diversity appear to be: graduate students, exempt employees, non-exempt employees, non-tenured faculty, and lastly tenured faculty. There is more diversity among self-identified females than males. The highest diversity by education is among people holding Masters and Bachelors degrees, with the lowest among those holding Associates degrees and Business or Trade School degrees.



v. *Speakers and Awardees*
    1. HPL has a weekly seminar series each semester- a seminar chair (faculty member) is appointed by the lab director to select speakers and organize the series. Records of the speakers likely exist but are dispersed; each previous seminar chair is likely the only person with a record of that semester's speakers. The demographics of speakers have not been tracked.
    2. HPL also hosts/awards the Ian Morris Scholar in Residence program every other year, and awards a Chesapeake Champion annually. Ian Morris scholars all been people with European ancestry. 21% were women.
    3. UMCES bestows the President's Award for Excellence in Application of Science annually to faculty. No awards have been

made to people of color. 24% of awardees were women. The information is public, but demographics of awardees has not reported in a centralized area.

vi. *Volunteer leadership boards, committee membership*
   1. The UMCES Board of Visitors (BOV) is a volunteer group that provides advice and counsel to the President on public outreach, development, and policy. Members have not been asked how they self-identify.
   2. The Chesapeake Champion, an award given by HPL to a citizen in the local community, is selected by a rotating committee of faculty, the HPL director, the HPL Assistant Director for Development, and outside community members. We have not requested demographics of these committees or awardees yet.

vii. *General*
   1. University System of Maryland has a site where demographic information for each institution and the system as a whole is reported (IRIS: https://www.usmd.edu/IRIS/Dashboard/Diversity-and-Inclusion/. UMCES is missing from the site, however, because the data was not collected by UMCES and it was not accurate..

b. Recommendations

i. Employees and applicants
   1. Work with the Director of HR and VP for Admin to include an option for more nuanced gender and ethnicity identities in formal demographic data collection for employees and applicants
      a. Current demographic categories are determined both by federal requirements and USM, which follows federal requirements. The importance of more nuanced categories is recognized and has been discussed at length but there's no resolution yet.
   2. Consider an annual or biannual anonymous web survey of employees that includes both campus culture and demographic data. Cross reference this with HR data to account for disparities in reporting response level.
   3. Work with the Director of HR and VP for Admin to build a workflow to retrieve and report annual employee and applicant demographic data
   4. Report demographic data publically in a centralized area of the UMCES website.

ii. Speakers, Awardees, and Hires
   1. Develop a practice of intentional selection as applied to seminar speakers, awardees, leadership boards, hiring, and student recruitment.
      a. Include as part of the duties of all selection groups to report gender, race, and career stage of seminar speakers invited to HPL.
         i. Seminar chairs should record this information in a shared, centralized list starting in spring 2021.
      b. Develop an intentional approach to creating a pool of individuals from which to select.
         i. Begin with a request for diverse individuals.

ii. Do not rely on just internal individuals as these are not (yet) diverse.
iii. Seek out individuals from HBCU's
iv. Save funds for travel for diverse speakers.
v. Available seminar slots (i.e. those not used for faculty promotion seminars, etc.) should be broadened to include diverse groups.
vi. Develop a metric l for the diversity of the pool of applicants, and report it.

iii. General

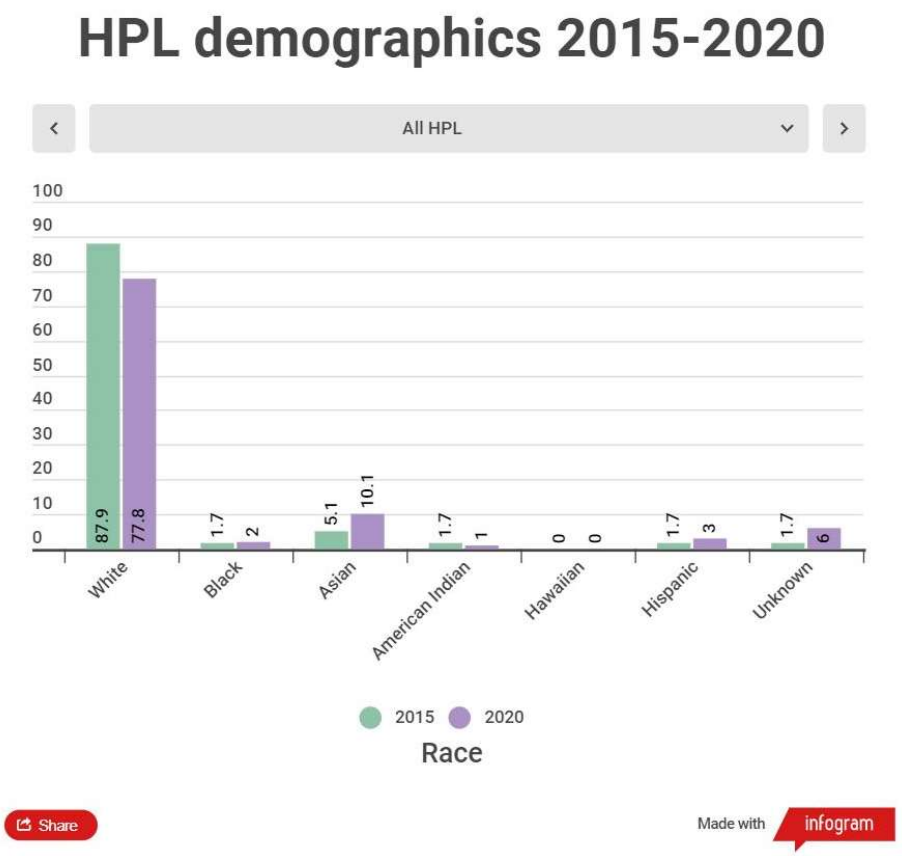
1. Piggyback off existing efforts to collect and summarize data in USM Diversity Report in order to collect and report demographic data on UMCES website with a minimum additional burden to HR
2. Diversity Equity and Inclusion Committee should have, as one of its responsibilities, that of tracking demographics at Horn Point Laboratory, including employees, new hires, and seminar speakers, and reporting every other year to the HPL Community.

2. Analysis of demographic data over time

a. Historical context

i. UMCES/HPL context

1. USM and Middle States accreditation analyses of UMCES annual demographic reports are accessible to UMCES but not reported publicly.
2. The graduate student committee representative and HR Director compiled UMCES demographic information for 2020: https://infogram.com/umces-demographics-1hke60dxdoq525r
3. Demographic data and analyses are mostly used for reporting requirements rather than decision-making.
4. For purposes of this deliverable, HPL demographic data were gathered from 2020 and 2015 and can be found here https://infogram.com/hpl-demographics-comparison-1hnp27mkoeoyy2g
    a. Briefly, HPL appears to have increased slightly in overall diversity since 2015. This is a living document; given the short timeframe for collection the data for 2015 may not be accurate.



ii. Trends in geosciences in general

1. BIPOC, women per AGU 2020 webinar: https://www.youtube.com/watch?v=Pm7PTFUQyuY&feature=emb_logo
    a. Graduate-specific information from the Council of Graduate Schools: https://cgsnet.org/minority-graduate-students-remain-substantially-underrepresented-graduate-education-particularly
    b. https://cgsnet.org/ckfinder/userfiles/files/CGS_GED19_Report_final2.pdf
    c. AGU data as of 2020: https://www.americangeosciences.org/sites/default/files/DB_2020-023-DiversityInTheGeosciences.pdf
    d. NSF data (includes disabled people) https://www.nsf.gov/statistics/women/
2. LGBTQIA+
    a. https://eos.org/features/the-challenges-of-fieldwork-for-lgbtq-geoscientists
    b. https://static1.squarespace.com/static/56b14b283c44d80f317c5948/t/56e1bf7f37013b87984bbbeb/1457635202124/Queer+in+STEM.pdf
3. Disabled, neurodivergent
    a. No demographics data found for neurodivergent people

b. Recommendations

i. Designate a committee (DEIC) to process data into graphs on the UMCES website which track demographics over time.
ii. Report data, the goals for diversity, and geosciences overall publically on a diversity website.

3. Setting and achieving goals for increasing representation in UMCES/HPL

a. Historical context

i. Stated goals

1. Although UMCES is committed to increasing diversity, the goals are not quantitative and measurable.

ii. Actions to increase and support diversity

1. Job posting

a. Handled separately by each lab unit. The Director of HR approves the post and puts it on the UMCES website, but the lab unit determines if and where else it's posted. A large determinant of posting is the cost to post; a larger audience usually means higher cost. Job applications likely currently include an option to report where the applicant saw the offer, but as yet there is no data gathered on effective posting.
b. USM might be creating guidance for institutions to perform targeted hiring.

2. Student recruiting and support

a. Prospective students contact the PIs that they are interested in working with directly; active recruiting of students or posting of positions is at the discretion of the PI.
b. IMET forms relationships with HBCUs to recruit students through the Living Marine Resources Cooperative Science Center
c. The primary advisor must secure 1-2 years of funding to support a student before taking them on.

3. Reaching out to local communities to encourage careers in science (HPL only)

a. Touchtank to local schools (discontinued sometime around 2013)
b. Host Middle School STEM Days for all 6-8th grade students in Dorchester County
c. Participation in Career and Professional Days of local grade schools
d. HPL representatives at local public festivals and events e.g. judging local school Science Fairs
e. Summer camps offered annually with partner organizations including:
    i. Henry Hall camps with the National Aquarium- for middle school and high school students, with emphasis on recruiting underrepresented students from Baltimore. Offered as funding permitted.
    ii. Toadfish Adventures STEM summer programming for 3-8th grade (2019); Foundation funding to expand in 2021-2022.

iii. NorthBay Adventures in summers prior to 2020.

f. Partnerships with ShoreRivers
   i. YMCA Take the HELM
   ii. Dorchester YMCA STEM Days and canoeing program each summer
   iii. Meaningful Watershed Environmental Education (MWEE) education program for teachers of grades 3-12; summer 2020.

g. SWMS chapter at HPL; outreach and mentorship programs

h. Internships
   i. Sea Grant REU program
   ii. HPL Oyster Hatchery
   iii. Chesapeake Community College.

i. Overall: UMCES and HPL are mostly "striking the spark" in K-12 age groups, but then not offering programs later in school so we're losing people in the pipeline there. This is mostly due to lack of funding and personnel to manage efforts.

4. *Acknowledging discriminatory figures in the geosciences and teaching the context of science*
   a. UMCES used to teach A History of Oceanography
   b. Teaching the context of science is decided by individual instructors

b. Recommendations

i. Stated goals

1. Develop quantitative and measurable goals for HPL.
   a. Consider: what should we aim for? Decide if quantitative goals should reflect county, state, or national demographics.
   b. Factor in our turnover rates for each group- we can only expect to bring people in at the same rate we usually do.

ii. Actions to increase and support diversity

1. General

a. Make guidelines to always consider DEI when making decisions (choosing seminar speakers, information taught in lectures, designing committees, division of labor, etc.); intentionally diversity all aspects of UMCES

b. Make written guidelines for programs which currently have none (seminar structure, etc.)

2. General recruitment recommendations

a. Form more relationships with HBCUs and similar institutions in order to reach more diverse candidates.
   i. Enhance relationships with regional academic institutions like UMES, Hampton University, Morgan State University, and explore other HBCU's that might be in *rural* regions in the mid-Atlantic.
   ii. Join the AGU "Includes?" program.
   iii. National organizations focusing on diversity: Minorities in Shark Science, Black by Nature, Black in Marine Science, Outdoor Afro

b. Set up a database to connect HBCUs with grad school/post doc/faculty opportunities within UMCES and the USM.
c. Add Twitter to outreach, job postings, student and faculty recruiting as part of the standard operating procedure of job advertising.
d. *Job posting, hiring, and evaluation*
    i. Evaluate metrics used to grade applicants and employee performance
        1. Recognize scholarly achievement in Faculty as a function of excellence, rather than quantity of publications. Recognize access to research and internships varies, and recognize alternate work experiences for students.
    ii. Establish a growth mindset culture so that all new hires are mentored to ensure their success.
e. *Student-specific recruiting and support*
    i. Post positions online so prospective students can see them.
    ii. Recruit at job fairs on campuses and through giving talks at student support groups.
    iii. Organize an UMCES network to support students: connect a PI with a prospective student to a PI with funding to create a co-advisorship
    iv. Ask family foundations to provide funds to specifically support diverse students
        1. Midshore Community Foundation
    v. Build relationships with science societies in order to join existing programs which provide funding for students
        1. E.g.: ASLO, AGU, CERF

3. *Reaching out to local communities to encourage careers in science*
    a. Reach out specifically to underrepresented groups in our community
4. *Enhance mentorship*
    a. There are courses, seminars, and workshops within UMCES and UMCP which teach students how to promote and advocate for themselves in their chosen career path, but we need to make those resources more accessible to students.
    b. Continue to build upon existing K-12 programs to offer internship/mentoring programs to undergrads
        i. Counselor In Training Programs where former campers/students/mentees become next generation counselors
        ii. Promote REU program to high school students to show them a path towards a science experience in college

5. *Acknowledging discriminatory figures in the geosciences and teaching the context of science*
    a. Consider relaunching an updated version of the History of Oceanography course
    b. Consider a seminar series on the context and history of geological sciences
    c. Emphasize teaching the context of concepts in each class;
        i. In examples, examine places other than European/Northern Hemisphere when possible
6. *Increasing diversity in leadership, committees, speakers, and awardees*
    a. Expand the pool of qualified individuals
    b. Set goals for diversity of these groups, just as for employees
    c. Ask diverse speakers for their speaker recommendations
7. *Sustaining the movement*
    a. Make change a community-based effort rather than relying on the energy of a few people (who will eventually move on or retire)
    b. Re-evaluate how we currently use our resources (money, people, institutional partnerships, etc.), and how we can leverage them to make space for/encourage diversity at UMCES/HPL
8. *Continued learning and sources of guidance*
    a. Partner/build relationships with HBCUs to learn from their example. Specifically: how to generate a campus and institutional culture of equity and inclusivity, how to recruit, and how to make new, diverse hires/students comfortable.