
Brookhaven
National Laboratory
U.S. DEPARTMENT OF
ENERGY
DEIA initiatives &
Code of Conduct
A. Mattera (BNL)
on behalf of and with contributions from USNDP members
@BrookhavenLab

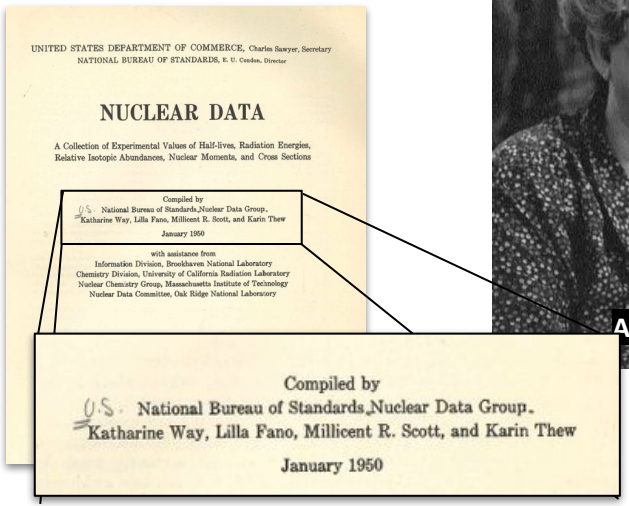
A brief history of diversity in Nuclear Data

From the earliest times, professionals from under-represented groups (URG) have worked in nuclear data. They advocated for improvements and facilitated the careers of the people that followed in their footsteps

Fay Ajzenberg-Selove (ENSDF, TUNL)
Yurdanur Akovali (ENSDF, ORNL)
Agda Artna-Cohen (ENSDF, ORNL)
Coral Baglin (ENSDF, LBNL)
Mikey Brady-Raap (ENDF, LANL)
Edgardo Browne (ENSDF, LBNL)
Samuel Hoblit (ENDF, BNL)
Luis Leal (ENDF, ORNL)
Victoria McLane (EXFOR, BNL)
Augustus (Gus) Prince (ENDF, BNL)
Sathia Ramavataram (NSR, BNL)
Yasuko Sanborn (Computing, BNL)
Virginia Shirley (ENSDF, LBNL)
Connie Walker (ENDF, TUNL)
Katherine Way (NDS, TUNL)

… and many more

Victoria McLane


UNITED STATES DEPARTMENT OF COMMERCE, Charles Sawyer, Secretary
NATIONAL BUREAU OF STANDARDS, E. U. Condon, Director

NUCLEAR DATA

A Collection of Experimental Values of Half-lives, Radiation Energies, Relative Isotopic Abundances, Nuclear Moments, and Cross Sections

Compiled by
U.S. National Bureau of Standards, Nuclear Data Group,
Katharine Way, Lilla Fano, Millicent R. Scott, and Karin Thew
January 1950

with assistance from
Information Division, Brookhaven National Laboratory
Chemistry Division, University of California Radiation Laboratory
Nuclear Chemistry Group, Massachusetts Institute of Technology
Nuclear Data Committee, Oak Ridge National Laboratory

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Fay Ajzenberg-Selove

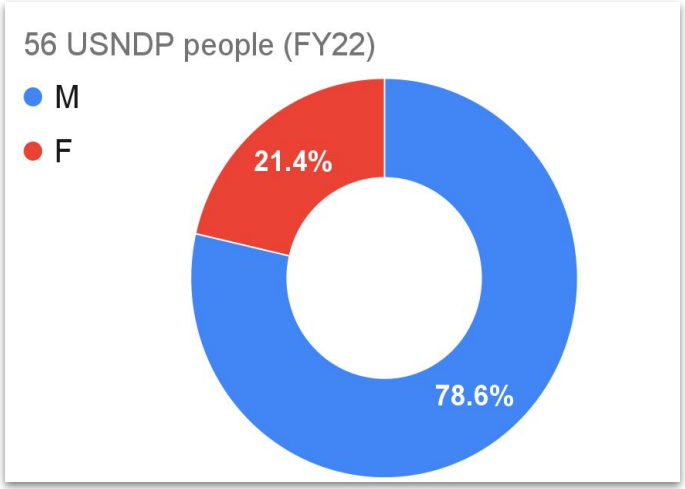
recipient of the President's National Medal of Science 2007

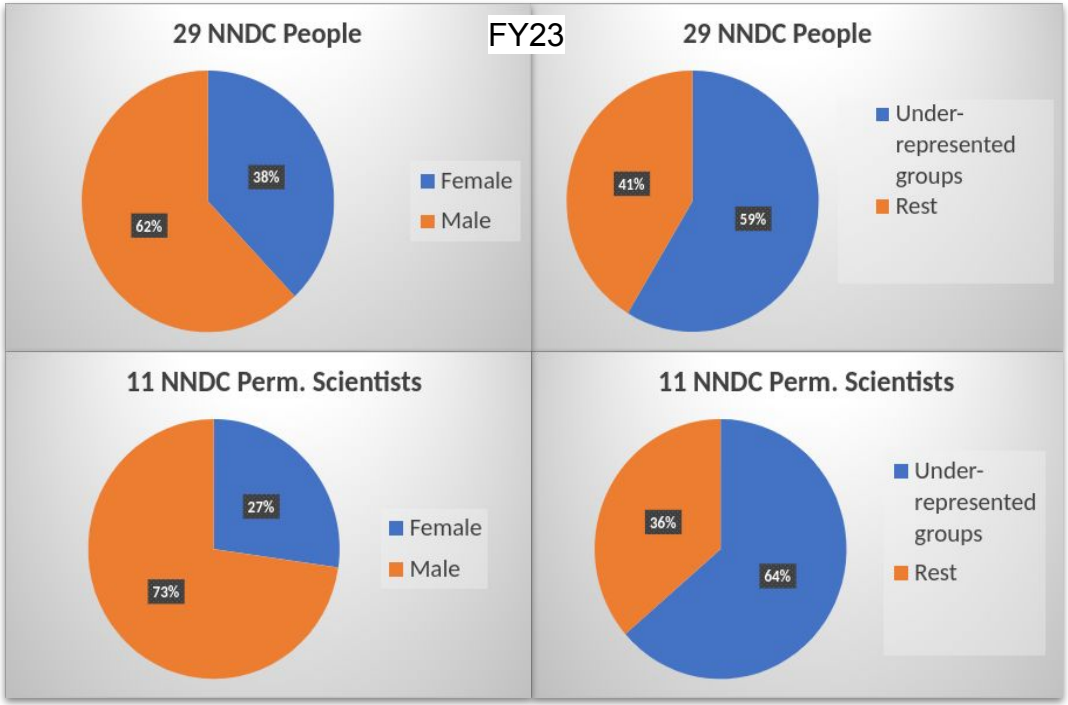

Gus Prince


Katherine Way

Brookhaven National Laboratory

USNDP Demographics





Action Plan on DEIA

Train and **retain** a diverse workforce that can sustain the future Nuclear Data effort

Diversity & **Equity**: expand the pool of candidates to introduce into the workforce path and ensure fairness in hiring and promotions

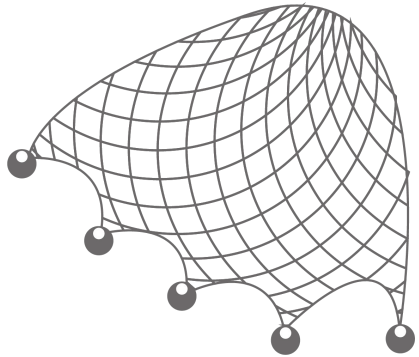
Inclusion & **Accessibility**: develop a healthy workplace culture that fosters mutual respect and ensures talent retention

from: U.S. Department of Energy DEIA Strategic Plan 2022

The strategies and Action Plan follow DOE's

Action Plan on DEIA

Cast a wider net: raise awareness of Nuclear Data production and evaluation as a career option for graduate students, targeting MSIs and URGs as a new source of talent that has not been leveraged in the past

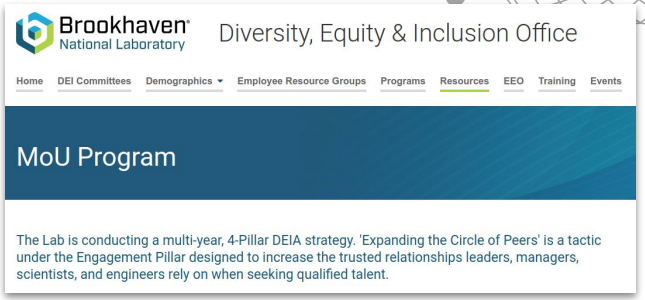


Begin recruitment with outreach events and internship opportunities targeted at undergraduate students to introduce them to Nuclear Science/Nuclear Data careers

Retain a diverse workforce reinforcing a set of core values, *e.g.*, through the adoption of a Code of Conduct (CC) for collaboration meetings

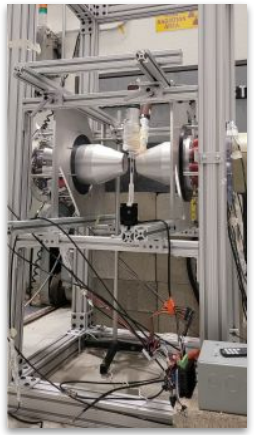
MoU and projects with MSIs

BNL-signed MoU with Wellesley College led to 1 SULI and 1 NPT interns joining the NNDC
(E. McCutchan, S. Ota - BNL)



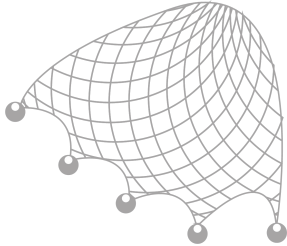
ND Project funded at UMass-Lowell (MSI) as a part of FAIR (Funding for Accelerated, Inclusive Research)
(S. Ota - BNL, co-PI)

- address data needs identified in GRIN
- NNDC detectors will be used at UMass-Lowell
- UMass-Lowell grad student(s) will be trained at NNDC on nuclear structure evaluation



The Mixed Array of Detectors (MAD) at UMass Lowell

Berkeley Lab - UC Berkeley GREAT-NS program



The Nuclear Data Group at Berkeley Lab actively engages with UC Berkeley and other institutions to train students at all stages of their educational journey on a wide variety of projects in nuclear data.

The Berkeley group also worked with the GREAT-NS program - a DOE-supported initiative that provides traineeships for students from HBCUs and MSIs
GREAT-NS trainees work side-by-side with national lab scientists, network with their peers, and attend a series of introductory lectures to learn the basics of nuclear science and nuclear data.

Recent Bay Area Nuclear Data Group URM Students

Deon Demby B.S.
SF State (2022)
"Activation Database for Space Effects" GREAT-NS

C. J. Henderson B.S. (2023)
"GENESIS Air scatter"

C. Apgar Ph.D. (2023)
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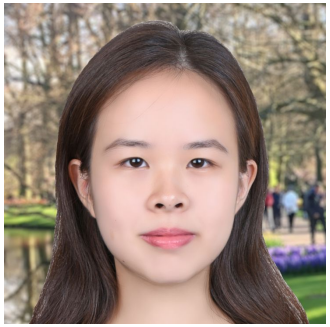

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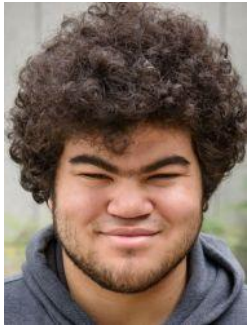


N. Brown UCB B.S. (2026)
"Inelastic Scattering"
GREAT-NS

A. Mammadsoy Cal State (2022)
"NucScholar" GREAT-NS

Outreach activities

Promote Nuclear Science and Nuclear Data as a career path at the Undergrad level

Women **I**n **S**cience & **E**ngineering (2 outreach events in FY23)

A total of 70 STEM students from Stony Brook University visited the NNDC for a full-day of Nuclear Science / Nuclear Data activities

Hands-on labs and presentations

WISE students take part in seminars and lab activities at the NNDC. (March 2023)

Outreach activities

Reaching a New Energy Sciences Workforce

Milind Diwan PI (BNL, NPP)

2 outreach events in FY23,
2 more years planned

50 URM students visited the NNDC for an afternoon of activities as part of a 1-week stay at BNL

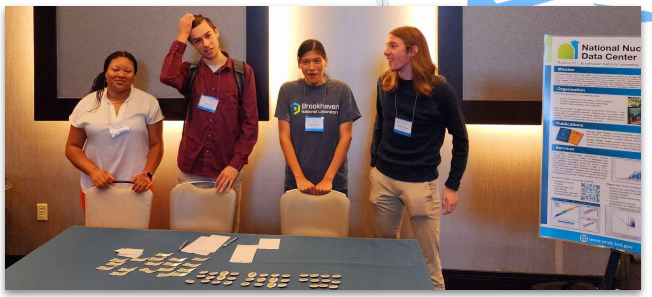
Activities developed for WISE could be quickly deployed and adapted for the larger RENEW cohort

RENEW students visit the NNDC and participate in hands-on activities. (July 2023)

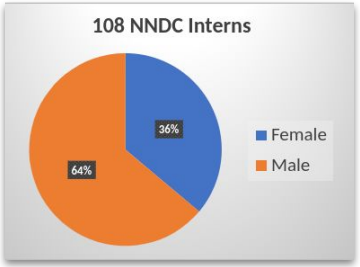
Internships

SULI/SURP internships - 10-16 weeks, 3 terms/yr

Nuclear Physics Traineeships (**NPT**) interns - continued contact throughout the year. NPT is a DOE pilot program to diversify the NP community through research traineeships for undergraduates from HBCUs and other MSIs

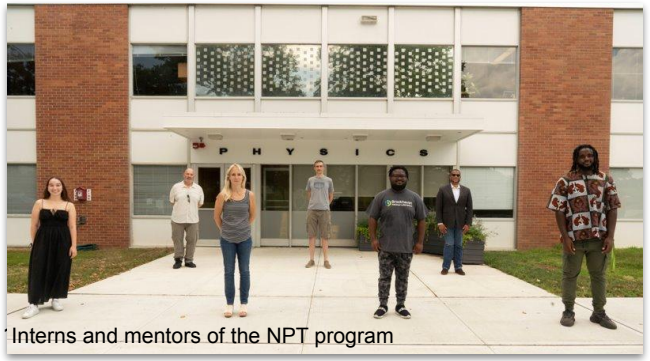


Interns often participate at APS-DNP meetings



28 NNDC interns in FY22, half from URGs
108 interns since 2014 | 53% from URG

NNDC interns and mentors in Summer 2022



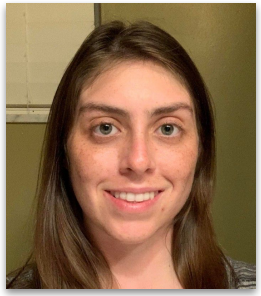
Sept. 2022 Interns and mentors of the NPT program

Internships

Where are they now?

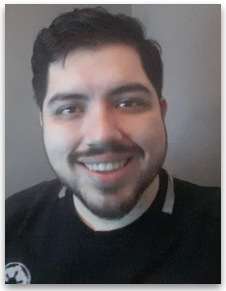
Amanda Lewis

Ben Shu



Elizabeth Rubino

E. Gass



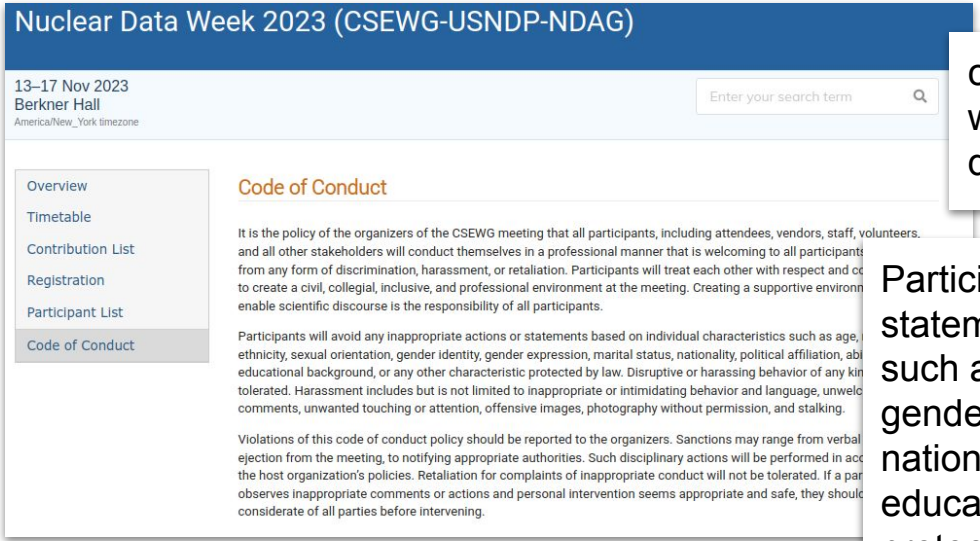
Donnie Mason

About ⅓ of the interns continue in Physics / Nuclear Science

1 in 21 pursued a career in Nuclear Data (~ 1 intern / FY)

An inclusive and respectful work environment

A Code of Conduct (CC) for USNDP & CSEWG meetings was developed in 2021 modeled after APS's



conduct in a professional manner that is welcoming to all participants and free from [...] discrimination, harassment or retaliation.

Participants will avoid any inappropriate actions or statements based on individual characteristics such as age, race, ethnicity, sexual orientation, gender identity, gender expression, marital status, nationality, political affiliation, ability status, educational background, or any other characteristic protected by law.

Miscellaneous USNDP DEIA activities

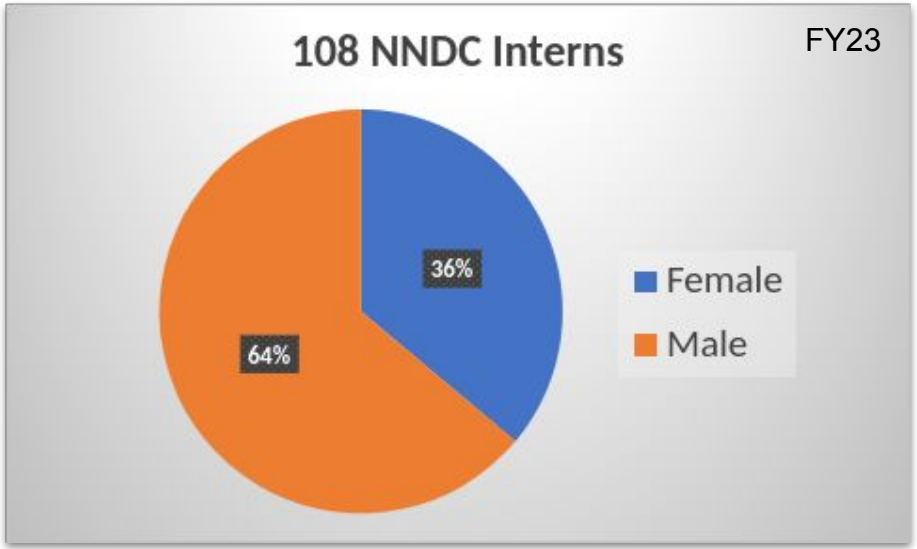
- A. Sonzogni (BNL) was part of the Long-Range Plan DEI committee
- Several NNDC staff play an active role in Employee Resource Groups at BNL
- Visiting Faculty program - faculty from MSIs (D. Brown, G. Nobre)
- 2023 CEU Mentoring program for undergraduate students in collaboration with the DNP Diversity Equity and Inclusion Committee (D. Mason)

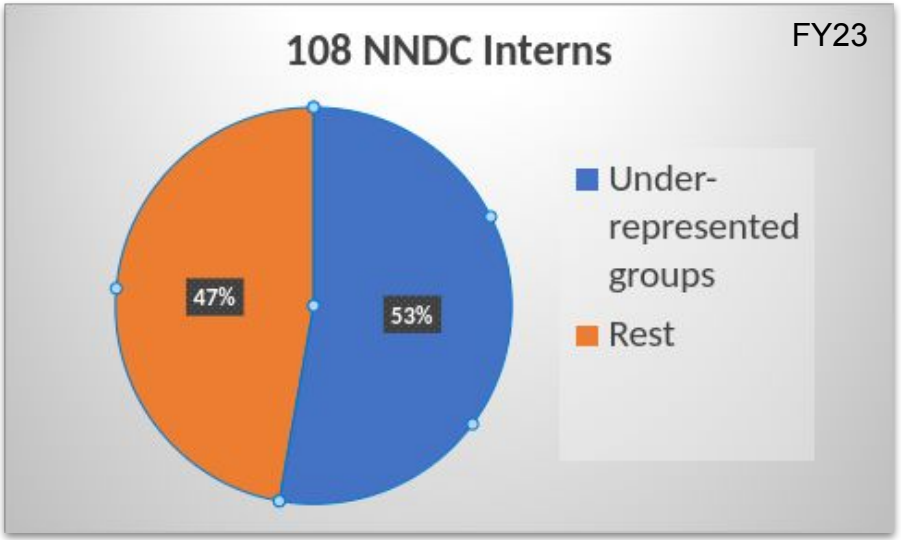
DEIA initiatives & Code of Conduct

A. Mattera (BNL)
with contributions from other USNDP members

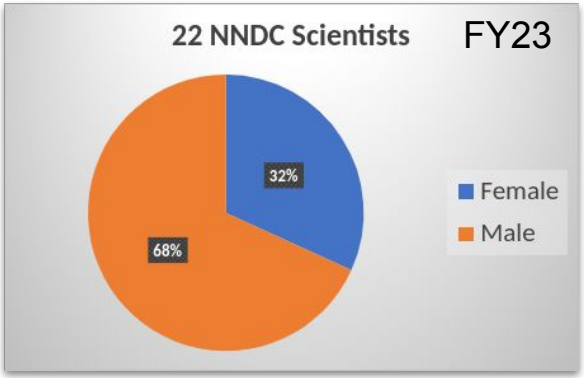
Supplemental Material

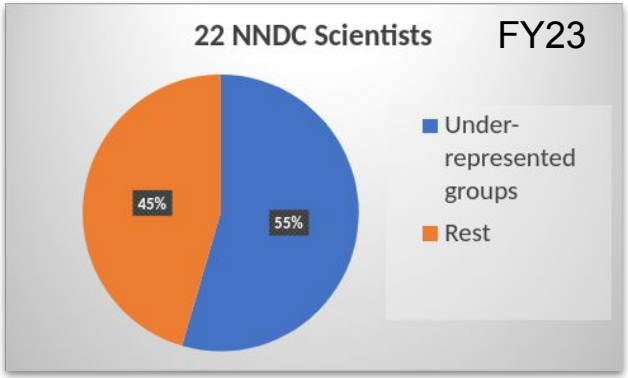
NNDC interns - demographics

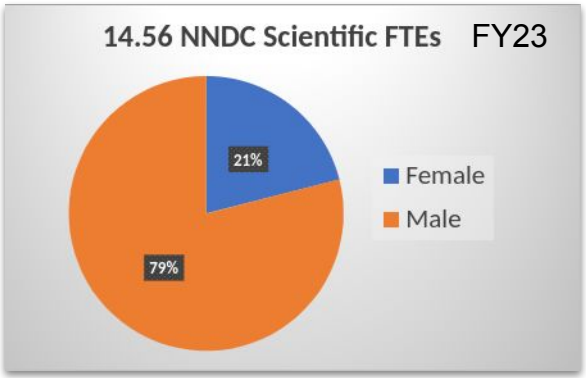


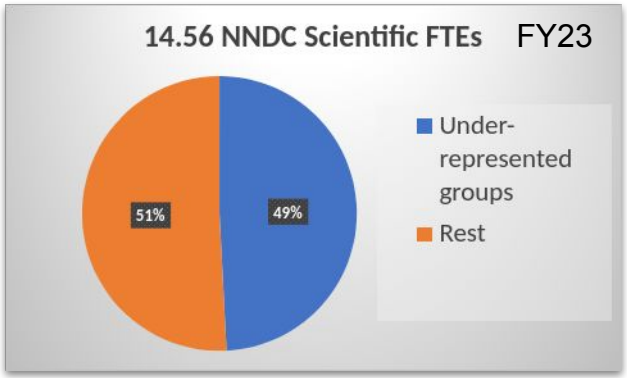


NNDC demographics

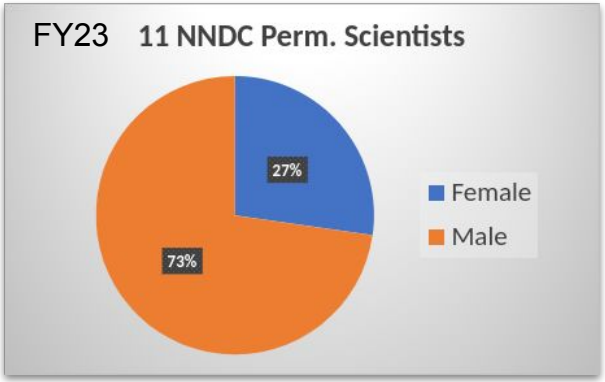


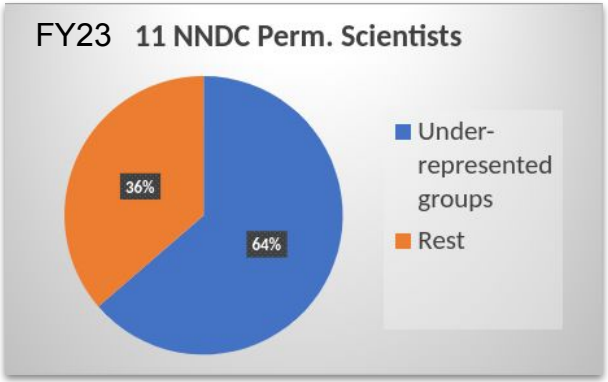


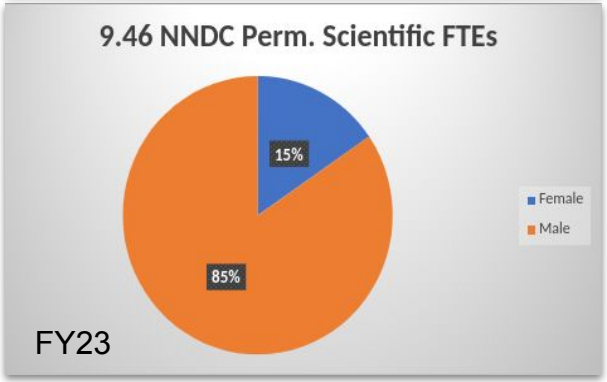


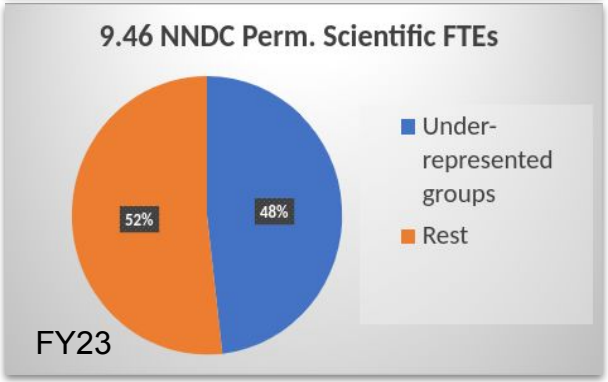


NNDC demographics (ctd.)









DoE DEIA Goals

BERKELEY LAB
Bringing Science Solutions to the World

U.S. DEPARTMENT OF ENERGY
Office of Science

DEIA slides for NDAC

Bethany Goldblum & Lee Bernstein

Department of Nuclear Engineering
UC-Berkeley
Nuclear Science Division
Lawrence Berkeley National Laboratory

Briefing to the NDAC
September 13, 2023

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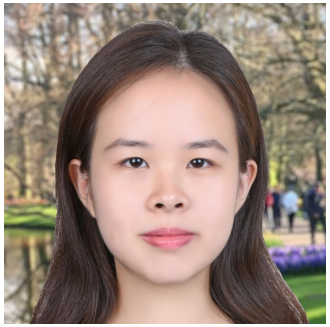

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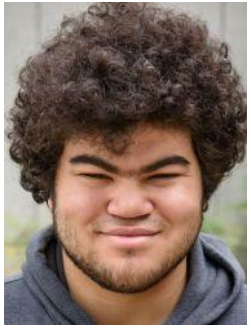

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