Diversity & Inclusion at NRAO
New Mexico Town Hall – April 19, 2018
Director’s Office

The NRAO is fully committed to creating a culture and environment that is rich in diversity and naturally inclusive.
Purpose of Town Hall

• Review NRAO’s commitment to Diversity and Inclusion

• How NRAO works to achieve our D&I goals

• Review of Diversity Advocate and Employee Diversity roles

• Brainstorming Activity
NRAO

https://info.nrao.edu/do/odi

**Strategic Vision**

To enable diversity to thrive in all areas of the Observatory in a seamless manner, wherein diversity becomes a natural part of the way we think about work, in the decisions we make, and in our behavior towards others.
Diversity Policy Statement

Our employees, essential to our success, are to be valued, treated with respect, and have opportunities to work in an inclusive, multicultural and gender diverse environment.

NRAO staff and management are responsible and accountable for achieving the above goals.
What do we mean by “Diversity”? 

• Understanding that each individual is unique, and brings a set of unique skills and experiences to NRAO.

• Along the dimensions of race, ethnicity, gender, sexual orientation, gender identity, age, and physical abilities.

GOAL: To ensure that NRAO is producing the best outcomes. Diverse groups make better decisions.
What do we mean by “Inclusion”?

- Recognizing and valuing individual identities and experiences
- Consciously including those who might otherwise be excluded
- Exploration of our diversity in a safe, positive, and nurturing environment
- Understanding the power of diverse ideas and experiences
What does NSF mean by “Broader Impact”?

• Building STEM Talent
  RAP-NM, RAMP-UP, H2O, NAC, REU, Grad programs, PD programs

• Innovating for the Future
  Science, research opportunities

• Improving our society

• Reaching beyond borders
  NINE, ODI-Chile, Sister Cities

• Engaging a wider audience
  EPO

More about this!
NRAO

https://www.nsf.gov/od/oia/special/broaderimpacts/

In summary, NRAO is addressing several goals:

• Meeting NSF’s mandates toward Broadening Participation

• Building a diverse workforce that is representative of the larger U.S. and local communities
  • NRAO reports race and gender information to NSF

• Creating and maintaining a culture of inclusion so that a diverse workforce can flourish – and so that NRAO operates at its best
ODI and HR

https://www.nsf.gov/od/oia/special/broaderimpacts/

Training and Educational Opportunities

• Unconscious Bias – required…
• Online Courses
• In-person Courses
  • Unconscious/Implicit Bias
  • Safe Space/LGBT Cultural Awareness
  • Disability Awareness & Etiquette
  • Post-traumatic Stress Disorder (PTSD)
  • Mentoring Students from a Diverse Background
  • Imposter Syndrome
  • Professional Skills Development for Women
  • Anti-Harassment and Anti-Bullying
Office of Diversity & Inclusion (ODI)

https://info.nrao.edu/do/odi/diversity-advocates

Diversity Advocates & Employee Diversity Group

• Actively promote the benefits of diversity
• Speak up to address issues that fail to meet our standards of inclusion
• Value the power of diverse ideas and experiences

VOLUNTEERS NEEDED!
Office of Diversity & Inclusion (ODI)

https://info.nrao.edu/do/odi/diversity-advocates

Diversity Advocates & Employee Diversity Group

Diversity Advocate(s)
• Point of contact at site
• Chair of Employee Diversity Group
• Represent and champion D&I in everyday actions
• Communicate to Site Director outcomes of D&I meetings
• Work with Site Director and D&I Director to organize site activities
• Manage NRAO D&I activities at site level
• Provide information on site S&I activities for NSF reporting
• More (see Position Description)

Employee Diversity Group
• Participate in NM D&I meetings
• Assist with sharing Observatory-wide D&I communications
• Serve as D&I role model
• Communicate D&I-related information to Diversity Advocate
• Be attentive to opportunities to advocate for D&I
• Complete assigned suite of training classes
• Solicit ideas from employees regarding diversity oriented events/issues relevant to site
Broadening Participation
Broadening Participation

NRAO Outward-facing Programs

Chile
- Sister Cities
- ODI-Chile summer Research

VLA
- SEDUIP
- VLA Data Reduction Workshop

SOC
- RAP-NM
- Synthesis Imaging School

CDL
- LSAMP
- REU
- NAC

ER
- Hampton NINE Hub
- AATF

K-12
Undergrad
Grad
Post-doc
Professional

EPO
SSR
ODI
NRAO Broadening Participation
Research & Training Experiences Pipeline
Grade School through Professional

NINE (professionals)

Career

ODI-Chile

NAC Grads

H2O w/Hampton
(11th & 12th grade)

NAC & LSAMP
(undergraduate)

RAMP-UP w/ Hampton University
(8th-10th grade)

RAP-NM (rising 9th graders) - EPO

New Mexico Diversity & Inclusion Town Hall – April 19, 2018
Broadening Participation
Education & Training “Pipeline”

- RAP-NM (EPO)
- NAC
- LSAMP
- NAC/NINE
- NINE
- Career
- Grad School

- RAMP-UP & H20
- ODI-CHILE
- Middle-High School
- Undergraduate
- Undergraduate
- Professional
Broadening Participation
Education & Training “Pipeline”

RAP-NM (EPO)
- NRAO EPO STEAM Education Program
- Rising 9th-graders – Socorro, Magdalena
- Residential week-long summer camp
- Paired with NAC undergraduate mentors

RAMP-UP
- Hampton University NINE Hub
- Middle school– Hampton Virginia
- Optical Radio Jove builds
- Presentations at ERN, BEYA, and NSBP

H2O
- Hampton University NINE Hub
- NRAO-Hampton City Schools-Hampton Univ.
- College credit Astronomy course at HU
- Research and presentations at ERN, BEYA, NSBP

Middle School - High School

NAC
Broadening Participation
Education & Training “Pipeline”

RAP-NM (EPO)

- NRAO EPO STEAM Education Program
- Rising 9th-graders – Socorro, Magdalena
- Residential week-long summer camp
- Paired with NAC mentors

Middle School - High School

Pathway under development

New Mexico Diversity & Inclusion Town Hall – April 19, 2018
Broadening Participation
Education & Training “Pipeline”

- Hampton University NINE Hub
- Middle school (8th-10th grade) – Hampton Virginia
- Optical and Radio Jove builds
- Presentations at ERN, BEYA, and NSBP

Middle School - High School
Broadening Participation
Education & Training “Pipeline”

H2O: Stimulating STEM Career Pathways

- Hampton University NINE Hub
- NRAO-Hampton City Schools-Hampton Univ.
- College credit Astronomy course at HU
- Research and presentations at ERN, BEYA, NSBP

Middle School - High School - College
Broadening Participation
Education & Training “Pipeline”

The NAC Undergrad Experience

- Under-represented minority students
- Strong, long-term mentoring and support
- Cohort and network building
- Research, engineering, software, etc. experiences

Grad school
NAC/NINE
Career

Undergraduate Students
Broadening Participation
Education & Training “Pipeline”

Undergraduate Students

- VA-NC Alliance – UVA & NRAO + HBCUs
- Research and engineering experience – CDL
- “Folded into” NAC cohort
- Annual trip to Green Bank Observatory

LSAMP

NAC Grad school
NAC/NINE Career
Broadening Participation
Education & Training “Pipeline”

- Students from universities near ALMA
- Mentored by NRAO/ALMA scientific staff
- 10 weeks during Chilean summer
- Present research at annual SOCIAS meeting

Undergraduate Students

Grad school Career
Broadening Participation
Education & Training “Pipeline”

- NAC Alums in graduate school
- Eligible for NAC Fellowships
- Serve as mentors to NAC undergrads
- Support network for fellow graduate students

2018 NAC Fellows
Chima McGruder, Harvard '23
Moiya McTier, Columbia '22
Sinclaire Manning, UT-Austin '20

Career/Post-doc
Broadening Participation
Education & Training “Pipeline”

The NINE Professional Experience

- Professionals at any career level
- Project Management (PM) & Systems Engineering (SE) training
- Hub development for home institution

Grad school NAC/NINE Career
Broadening Participation
Education & Training “Pipeline”

NINE

NAC

Grad school/employment

AAS Winter meeting
Monthly virtual hang-outs
Continued research, abstract, and poster prep with mentor
Annual NAC Meeting

REU+ summer research experience; embedded in NINE Program
Competitive NAC selection process

Grad school
NAC/NINE Career

Undergraduate Students

- NAC student embedded in NINE program
- Learning Project Management skills
- Research or engineering experience
- Servant-Leadership training and experience
Broadening Participation
Outcomes - NAC

NAC Pipeline

February, 2018

- Cohort
- GradSchool
- Employment in STEM
- Post-Doc

- Still undergrads: 15
- NSF GRFs: 4
- NAC/NINE Leadership: 3
- In Grad school beginning 2018: 4
Broadening Participation Outcomes - NAC

POST-BAC NAC ALUMS

- MS
- PHD
- ENG
- Post-Doc

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Broadening Participation
Outcomes - NAC

GRADUATE SCHOOLS – NAC Students

Berkeley
Universität Innsbruck
Universitat de Barcelona
Universidad de Texas
Universidade de Maryland
Universität of New Jersey
Universidad de Washington

Harvard
Innsbruck
UB
UBB
Fisk-Vanderbilt
Innsbruck
University of California
University of Barcelona
Columbia University
Rutgers
Rutgers
Rutgers
Rutgers
Rutgers
Rutgers
Virginia
## Broadening Participation Outcomes - NAC

<table>
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<tr>
<th>Undergraduate School</th>
<th>Graduate School</th>
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<td>Howard University</td>
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- **Non-R1 School**
- **HBCU**
- **Hispanic-Serving Institution**
- **R1 School**
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