

# **Diversity & Inclusion at NRAO**

## **New Mexico Town Hall – April 19, 2018**



# Office of Diversity & Inclusion (ODI)

<https://info.nrao.edu/do/odi/broader-impact-programs/odi/>

## Director's Office

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

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## 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

## 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, multi-cultural 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

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

## 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

In Socorro and  
the VLA



# 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



# Office of Diversity & Inclusion (ODI)

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

## Diversity Advocates & Employee Diversity Group

### Diversity Advocate(s)

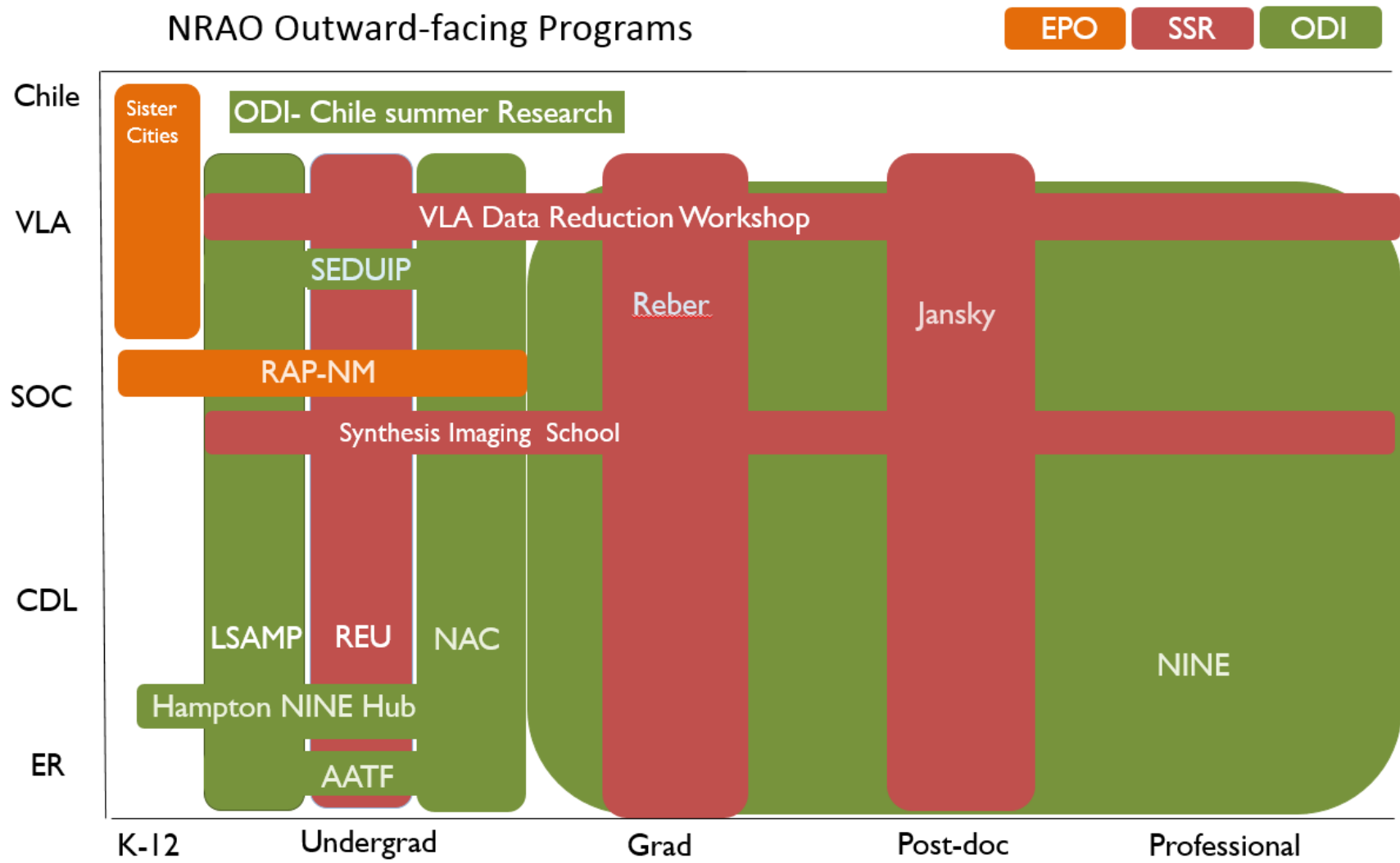
- Point of contact at site
- Chair of Employee Diversity Group
- Represent and champion D&I in everyday actions
- Communicate to Site Director outcomes of D&I meetings
- Work with Site Director and D&I Director to organize site activities
- Manage NRAO D&I activities at site level
- Provide information 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

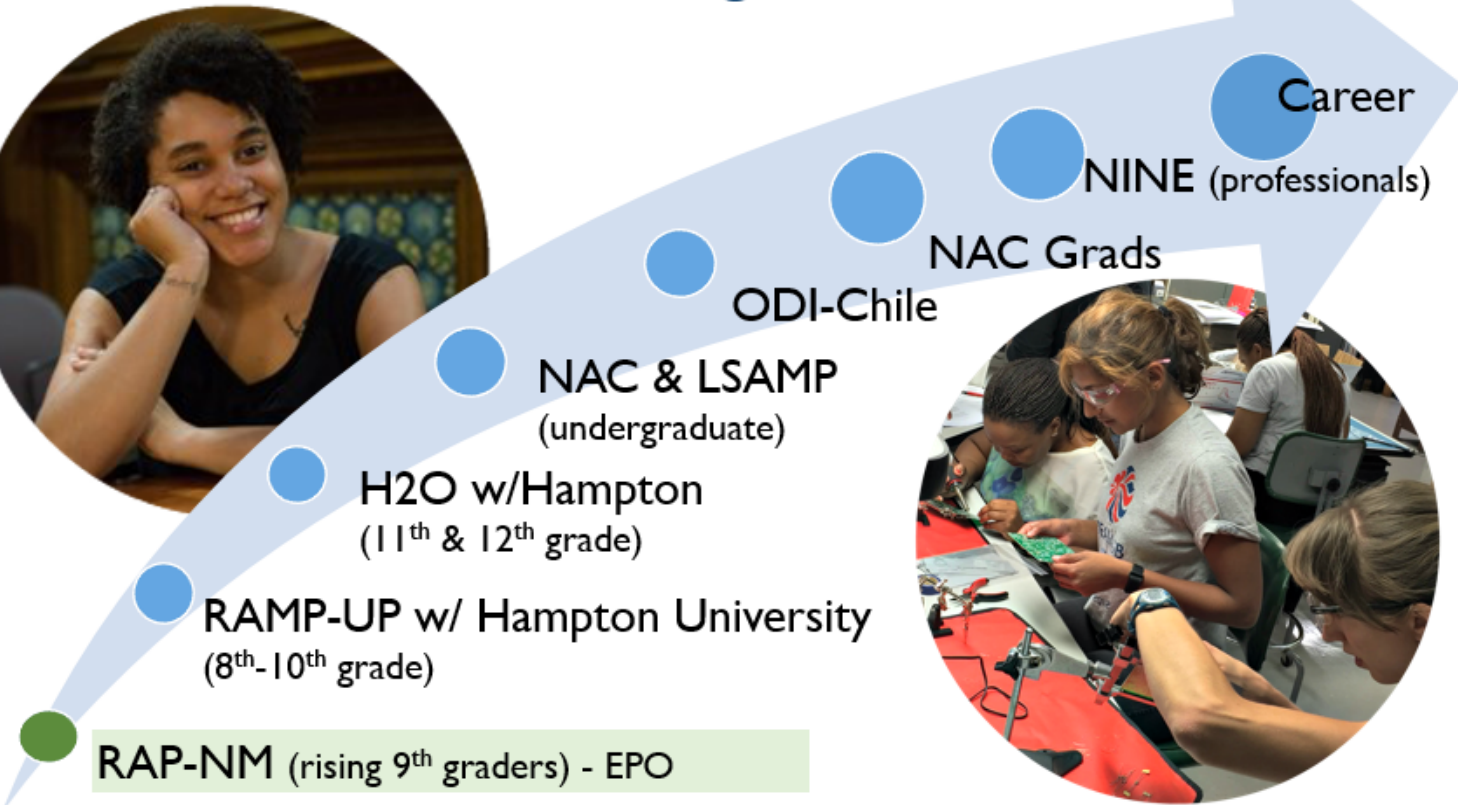
# Broadening Participation



# NRAO Broadening Participation

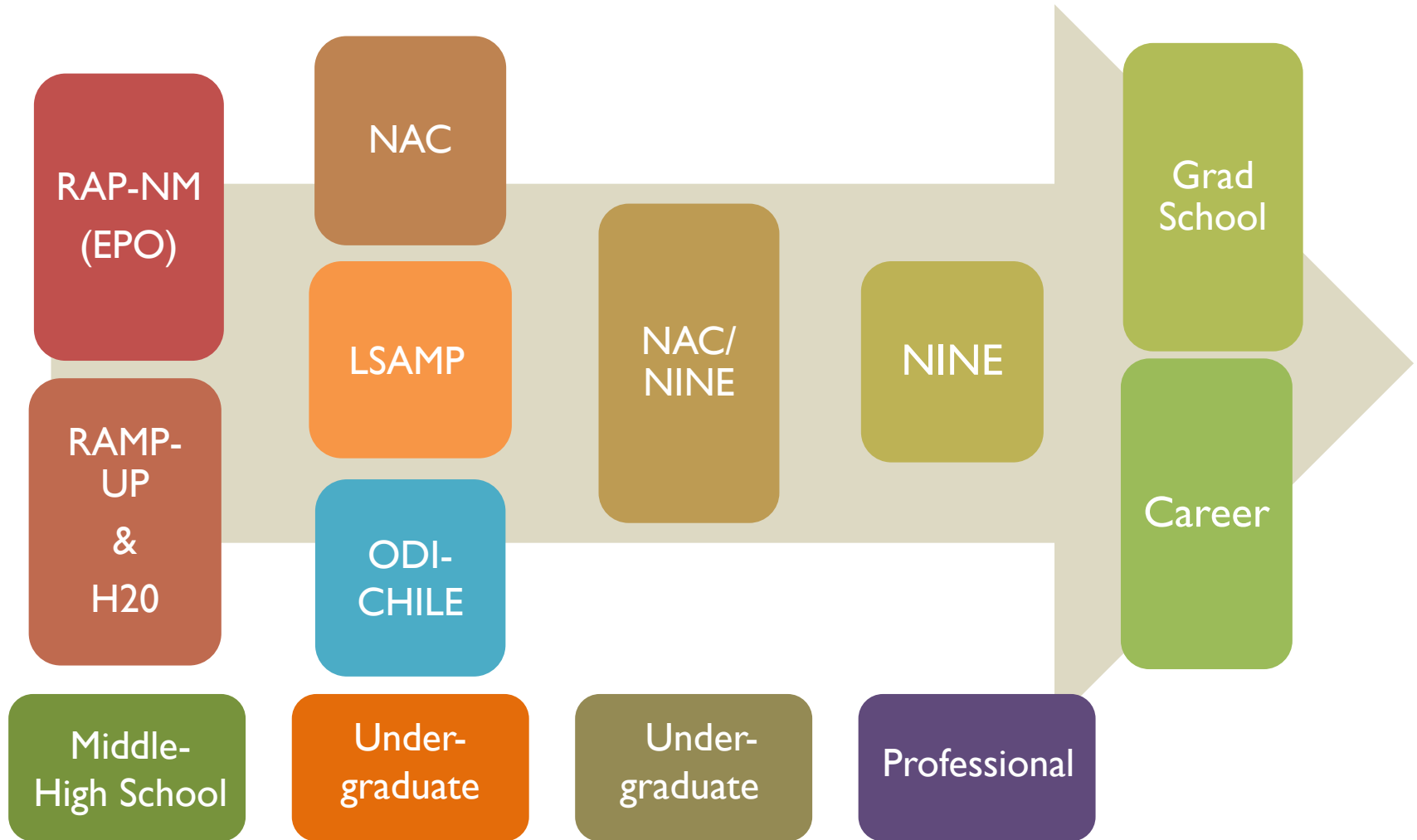
## Research & Training Experiences Pipeline

Grade School through Professional



# Broadening Participation

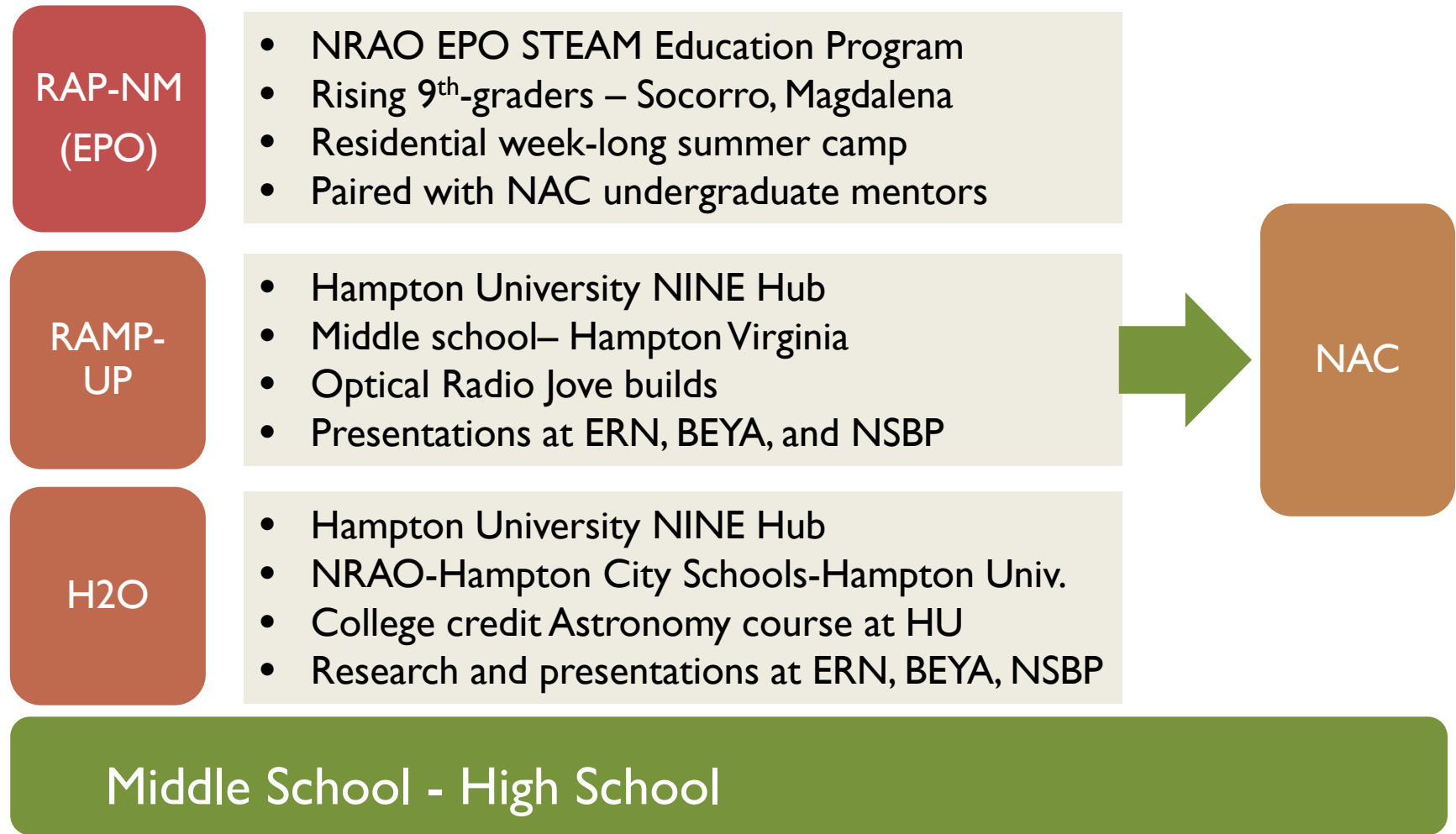
## Education & Training “Pipeline”





# Broadening Participation

## Education & Training “Pipeline”



# Broadening Participation

## Education & Training “Pipeline”

RAP-NM  
(EPO)

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



NAC

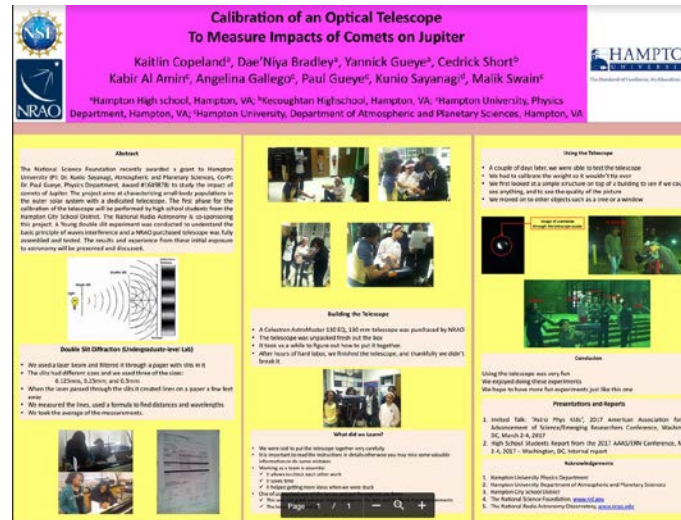
Pathway under  
development

Middle School - High School

# Broadening Participation Education & Training “Pipeline”

RAMP-  
UP

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



NAC

Middle School - High School

# Broadening Participation Education & Training “Pipeline”



NAC  
College

## H2O: Stimulating STEM Career Pathways

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 - College



# Broadening Participation Education & Training “Pipeline”

## The NAC Undergrad Experience



Grad school  
NAC/NINE  
Career



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

Undergraduate Students

# Broadening Participation Education & Training “Pipeline”



NAC  
Grad school  
NAC/NINE  
Career

LSAMP

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

Undergraduate Students

# Broadening Participation Education & Training “Pipeline”



Grad school  
Career

ODI-  
CHILE

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

Undergraduate Students

# Broadening Participation Education & Training “Pipeline”



2018 NAC Fellows

Chima McGruder,  
Harvard '23

Moiya McTier,  
Columbia '22

Sinclair Manning,  
UT-Austin '20



Career/  
Post-doc



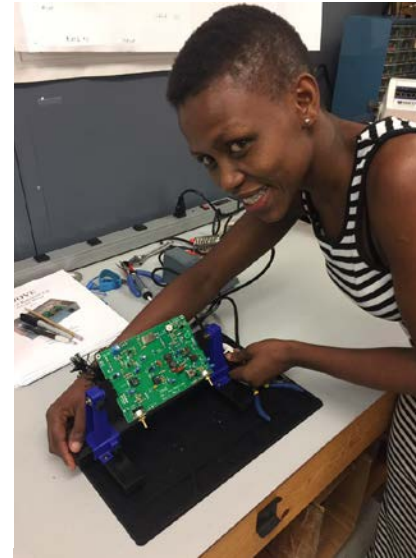
- NAC Alums in graduate school
- Eligible for NAC Fellowships
- Serve as mentors to NAC undergrads
- Support network for fellow graduate students

Graduate Students



# Broadening Participation Education & Training “Pipeline”

## The NINE Professional Experience



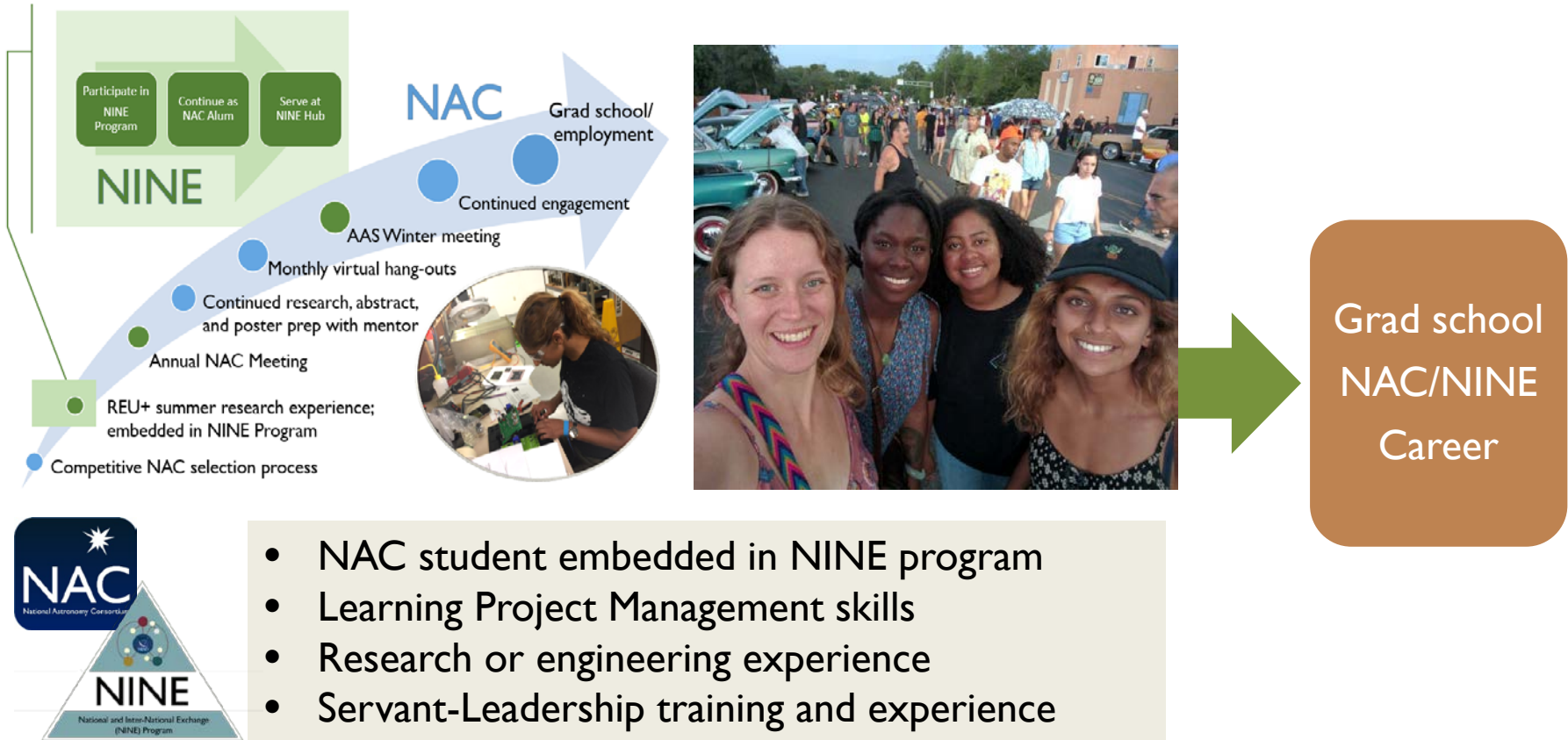
Grad school  
NAC/NINE  
Career



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

Professionals

# Broadening Participation Education & Training “Pipeline”



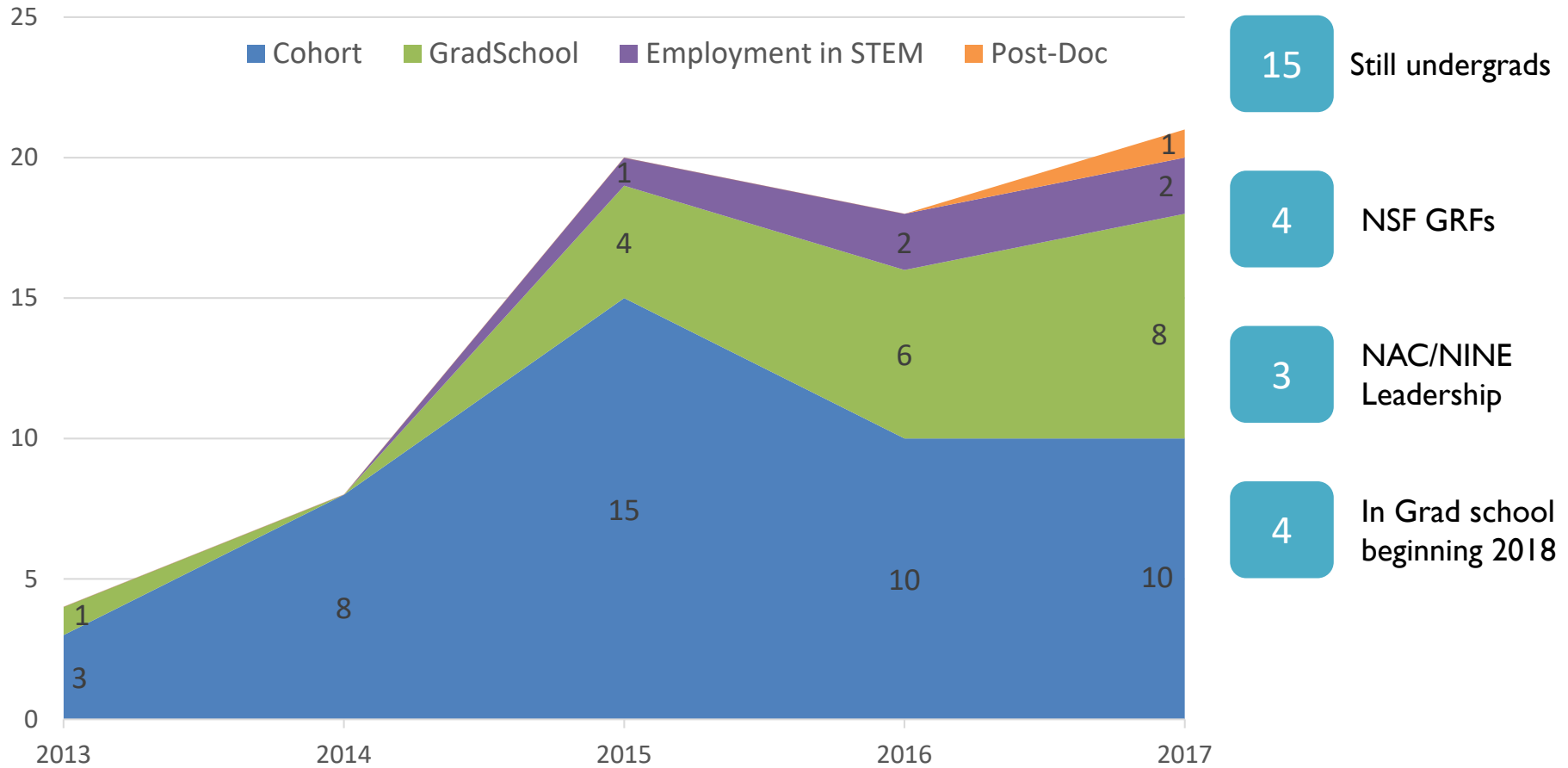
Undergraduate Students

# Broadening Participation

## Outcomes - NAC

### NAC Pipeline

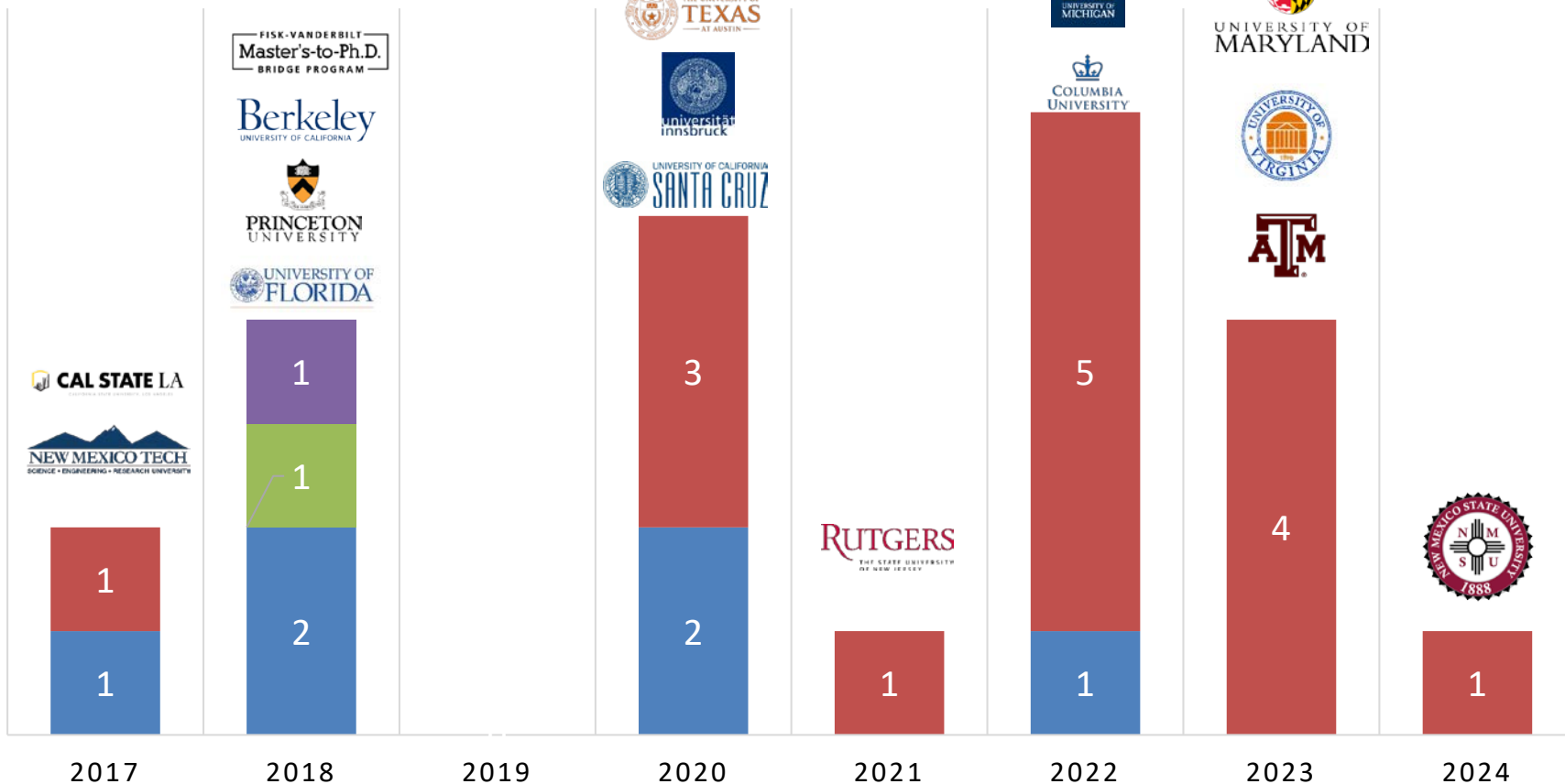
February, 2018



# Broadening Participation Outcomes - NAC

## POST-BAC NAC ALUMS

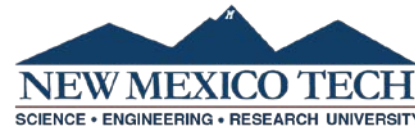
■ MS ■ PHD ■ ENG ■ Post-Doc



# Broadening Participation

## Outcomes - NAC

## GRADUATE SCHOOLS – NAC Students



# Broadening Participation

## Outcomes - NAC

### Undergraduate and Graduate Schools

Undergraduate School	Graduate School
Texas Christian University	Texas A&M - College Station
Norfolk State University	Cal State Univ LA
College of Idaho	New Mexico Tech
Texas Southern University	Rutgers University
Whittier College	Leopold-Franzens Universität Innsbruck
City College of New York	Princeton
Howard University	University of Michigan Applied Physics
University of Alabama, Huntsville	Princeton
University of California - San Diego	University of Barcelona
Howard University	University of Texas - Austin
University of Tennessee, Knoxville	Harvard University
Harvard University	Columbia University
Howard University	UC Berkeley College of Engineering
University of North Carolina, Chapel	Fisk Vanderbilt Bridge Program - MS
Harvard University	UC Santa Cruz
New Mexico Tech	New Mexico Tech
Old Dominion University	New Mexico State University
Piedmont Virginia Community College	University of Virginia
University of Wisconsin	Banneker Institute at Harvard
CSU - San Bernadino	University of Maryland, College Park
Howard University	University of Washington
Howard University	Penn State

Non-R1 School

HBCU

Hispanic-Serving  
Institution

R1 School





[science.nrao.edu](http://science.nrao.edu)  
[public.nrao.edu](http://public.nrao.edu)  
[ngvla.nrao.edu](http://ngvla.nrao.edu)

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