



Safe and Inclusive Research Environments: A National Priority



"To advance S&T progress and ensure maximum return on taxpayer investment in R&D, the laboratory, the factory, the field, and any other setting where R&D is performed must welcome all individuals without prejudice and enable them to work safely, efficiently, ethically, and with respect, consistent with the American values of free inquiry, competition, openness, and fairness."

Fiscal Year 2021 Administration R&D Budget Priorities Memo, Aug. 30, 2019



High-priority area: Creating safe and inclusive research environments

NIST Core Values



Perseverance: We take the long view. We use science and imagination to create positive impacts for our stakeholders.

Integrity: We are ethical, honest, independent, and objective.

Inclusivity: We work collaboratively. We value diversity of people and ideas to attain the best solutions to multidisciplinary challenges.

Excellence: We apply rigor and critical thinking to achieve world-class results and continuous improvement in everything we do.

Preliminary Data – Call to Action

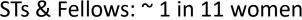
Early analysis by NIST staff Schwarz and Miner indicated:

- 1. Lack of representation of women and minorities among senior scientific and engineering leadership positions
- 2.STEM (ZP) women and minorities promoted at a lower rate compared to their peers

Gender Diversity in NIST's S&T Workforce









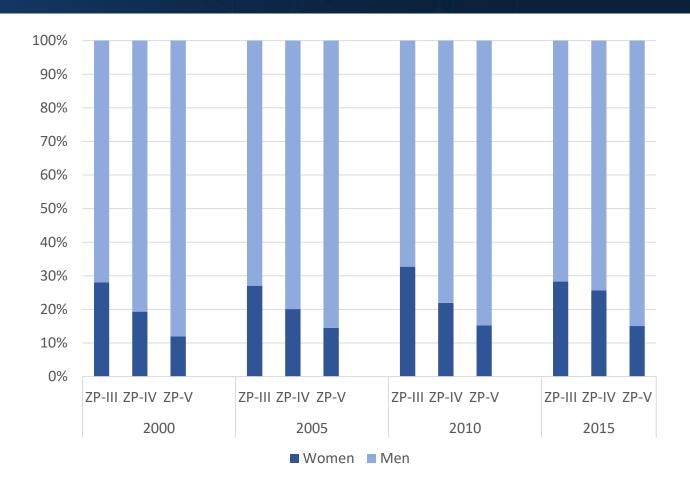
ADLP SES & Deputy Directors: ~ 1 in 9 women



ZP V: ~ 1 in 6 women



ZP III/IV ~ 1 in 4 women



At all points in time, women make up a smaller share of the higher pay bands

Minority Representation in NIST's S&T Workforce





STs & Fellows: ~ 1 in 11 minorities



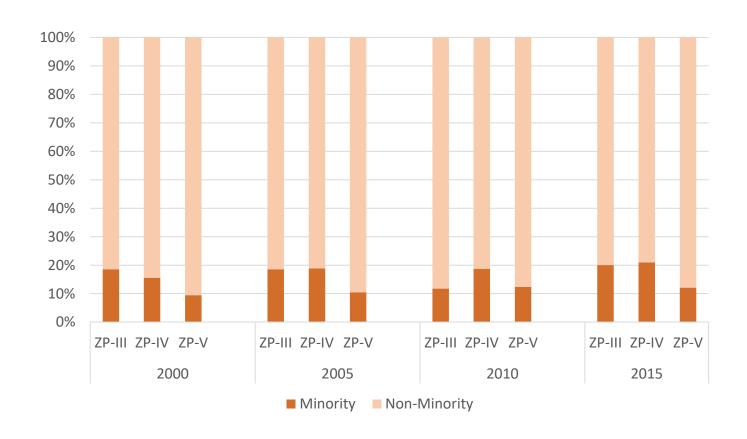
ADLP SES & Deputy Directors: ~ 1 in 9 minorities



ZP V: ~ 1 in 8 minorities

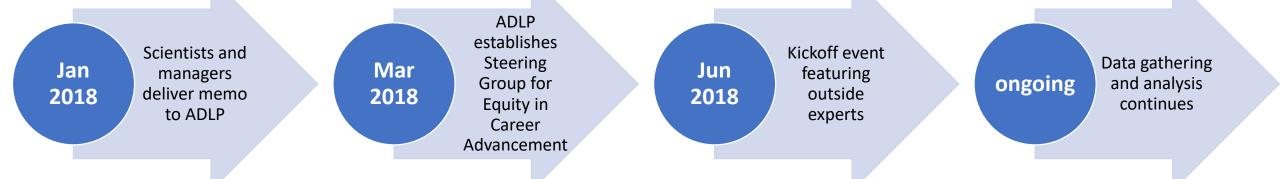


ZP III/IV ~ 1 in 5 minorities



At all points in time, minorities make up a smaller share of the higher pay bands

Preliminary Data – Call to Action



Building Inclusivity Through Equity

NST

Steering Group for Equity in Career Advancement

- Representatives from across NIST career laboratory staff, managers, HR and Civil Rights and Diversity Office
- Key advisor to NIST Director and Associate Director for Laboratory Programs

The mission of the Steering Group is to identify the causes of apparent inequities in promotions at NIST for women and minority researchers and make recommendations.



SGECA Actions to Date

Created additional **training** and staff **engagement** opportunities

Developed and shared new data analysis tools and other best practices

Advised NIST Director and ADLP on promotion criteria, inclusivity summit, and more

Established external **contract** and internal **detailees** to conduct datadriven investigations

Additional Training Offered



Partnership with SGECA, Office of Human Resources Management, and Civil Rights and Diversity Office. Sample courses:

"Unconscious Bias"

"Generations in the Workplace"

"Recruiting
Through a
Diversity Lens"

"What's your Micro Trigger"

"Building Trust in the Workplace"

"Assertiveness and Influencing Skills"

Engaging Staff

Equity Cafes

Informal, structured staff discussions of challenges and opportunities for promoting equity and inclusion

- 1. What does a NIST with good equity in career advancement look like?
- 2. What can staff members do to achieve this vision?
- 3. What can leaders do to inspire and enable staff to achieve this vision?



Equity-NIST Vision

- Hiring and promotion practices feel fair; selection criteria are transparent
- Paths for career advancement are creative and dynamic, and include mentoring and training programs





- Opportunities for career advancement are clearly/broadly communicated
- We make the effort to be aware of and minimize biases
- The workforce is diverse, and a pool of diverse ideas benefits the organization

Inclusivity Summit April 30, 2019

Advised NIST Director and senior staff on leadership summit centered on NIST core value of inclusivity

- Director Copan reinforced the importance of inclusivity and the role of managers and supervisors
- Featured invited speaker Dr. Freeman Hrabowski, President of University of Maryland Baltimore County
- Interactive panel discussion with leaders of a variety of NIST affinity and community groups



Ongoing Data-Driven Efforts to Advance Equity NIST

External Contract to conduct "STEM Equity Disparity and Resolution to Known Equity Disparity"

- University of Oregon will analyze career advancement process for STEM disciplines
- Identify critical factors in promotion disparity, including causes and trends
- Develop sustainable approaches, methods, and models that can be replicated and/or built upon by NIST
- Final presentation targeted April 2021



About the team:



Dr. Geraldine Richmond

Presidential Chair in Science and Professor of Chemistry at the University of Oregon, member of the National Academy of Sciences and a National Medal of Science Laureate. Founding and current director of COACh, a grassroots organization based out of UO with mission to increase the number and success of women and underrepresented groups in science and engineering.

Dr. Celeste Rohlfing

COACh board member and senior executive with broad experience in federal agencies, nonprofits, and national laboratories.

Dr. Jean Stockard

Professor Emerita at UO and senior research director for COACh. Mathematics and sociology expertise, author on equity issues.

Ms. Priscilla Lewis

COACh coordinator.

Other team members include Dr. Pamela Cook, UNIDEL Professor of Mathematical Sciences at the University of Delaware; Dr. Mary Silber, Professor in the Statistics Department at the University of Chicago; Dr. Jane Tucker, Principal at J. Tucker Associates; Dr. Barbara Butterfield, Senior Consultant at Sibson; and Ms. Ernestine Taylor, Principal at ET Consulting and Executive Coaching.

Ongoing Data-Driven Efforts to Advance Equity

Rotational Assignments to Study Equity, Diversity and Inclusion

- All NIST staff invited to apply for opportunity to spend up to one year on detail to NIST Associate **Director of Laboratory Programs**
- Pilot effort is partnership between SGECA, Office of **Human Resources** Management, and ADLP
- Nine proposals received from staff in Boulder, Charleston, and Gaithersburg



NIST computer scientist Mary Theofanos Project: "Assess the Inclusivity of Women at NIST"



NIST materials scientist Laura Espinal Project: "Inclusivity Network Analysis as a First Step to Harness Human and Social Capital for Innovation at NIST"

Snapshot of Supporting Activities





Salary Analysis by Laboratory Division/ Group

MML-developed methodology working with ORHM to analyze salary and promotion data

Data helps inform leadership – what actions to take and how (and where) to start

Other NIST laboratories building on this approach



Bystander Training for Scientific Workplaces

Working with USGS scientists to bring their training to NIST

Targets scientific workplaces and empowers staff to use bystander intervention techniques

Management-team as well as open training sessions

Recognition



Winner of OSA Foundation's "Diversity and Inclusion Advocacy Recognition"

(Award ceremony September 2019)

NIST steering group recognized for "having significant results within the agency and is an excellent a model for other agencies, companies and universities"

Next Steps



- 1 Follow up on issues from Equity Cafes
- Transparency in pay setting practices/policies
- Multidirectional reviews for managers
- Managers as advocates for career advancement

- **3** Continued Data Gathering & Analysis
- External contract
- ADLP detailee projects
- OU-level studies

- **2** Communication & Information Sharing
- Share best practices
- Infuse knowledge throughout NIST

- 4 Staff Engagement & Training
- Additional training opportunities
- Coordinate with NIST community groups

Questions for VCAT

- What leading best practices to ensure an equitable workforce should NIST be using?
- How do you ensure accountability to these best practices in your organization?
- What are the best indicators for progress in equity?
- Is there something that we should be doing and are not? Did we miss anything?