Inclusion & Diversity Plan

Oct.1, 2018 – Sept. 30, 2019

BROOKHAVEN
NATIONAL LABORATORY

U.S. DEPARTMENT OF
ENERGY
Office of
Science

In accordance with DOE Contract Clause I.104, DEAR 970.5226-1, Diversity Plan (December 2000), this report is prepared by the Brookhaven Science Associates, LLC for the Brookhaven Site Office and DOE Office of Science. The report is formatted to meet the Annual DOE Laboratory Diversity and Inclusion Plans, Fiscal Year 2019 Guidance dated February 25, 2019.

Inclusion & Diversity at Brookhaven

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SECTION 1: INTRODUCTION

Brookhaven National Laboratory delivers discovery science and transformative technologies to drive scientific breakthroughs and innovation today and for tomorrow. Primarily supported by the U.S. Department of Energy's (DOE) Office of Science, Brookhaven is a multidisciplinary laboratory with seven Nobel Prize-winning discoveries, 36 R&D 100 Awards, and more than 70 years of pioneering research. Brookhaven's highest-level science initiatives are nuclear science, energy science, data science, particle physics, accelerator S&T, quantitative plant science, and quantum information science. The Laboratory's approximately 2,500 staff members enable discovery as they lead, collaborate, and support research teams that address the DOE mission. For example, Lab staff builds and operates facilities that house unique tools used by researchers from Brookhaven, other national laboratories, academia, and industry. DOE Office of Science User Facilities located at Brookhaven Lab include the Relativistic Heavy Ion Collider, National Synchrotron Light Source II, Center for Functional Nanomaterials, and others, as well as a growing computational science initiative. Brookhaven attracted 5,374 unique facility users and guest researchers in fiscal year 2018—from all 50 states and countries around the world. Robust STEM education and workforce development programs offered at Brookhaven annually draw more than 30,000 participants, comprising students in grades 1 through 12, their educators, college students, professors, and Ph.D. candidates. Brookhaven Lab is managed for the Office of Science by Brookhaven Science Associates, a partnership between Stony Brook University (SBU) and Battelle, and six core universities, including Stony Brook, Yale, Cornell, Princeton, Harvard, and Columbia.

The evidence is clear: an inclusive environment and diverse workforce are crucial if Brookhaven is to build upon our successes. This Plan outlines the vision, goals, strategies, and promising practices for addressing the critical challenges in recruitment, development, and retention of diverse and talented teams of scientists and support staff at the Lab.

PRIMARY INSTITUTIONAL CHALLENGES TO RECRUITMENT, RETENTION & FOSTERING CULTURE OF INCLUSION & DIVERSITY (I&D)

Brookhaven has identified personnel and programmatic challenges by studying its demographics and the results of its recruitment and retention programs, and from employee feedback. This includes focus groups, the "Coffee & Conversation" live Q&A series with leaders and staff, "Get to Know the Lab" presentations by leaders, senior staff meetings with Employee Resource Groups (ERGs), directorate engagement, Inclusion & Diversity Councils, and a leadership luncheon series with groups of employees for in-depth dialog including discussions on actions that are impactful or ineffective.

The primary challenge is culture change—changing the way people think and behave. To promote culture change, the Lab is addressing the **uneven acceptance among staff and supervisors across the Lab of the importance of I&D**. Senior management is leading by example and represents the change we want to see in all staff. Now supervisors, in partnership with leaders must demonstrate Lab values in face-to-face interactions. **The Lab is addressing structural issues** by continuing to contemporize policies and processes (including legacy business practices) that inhibit I&D.

A second challenge is creating a strong **Employee Value Proposition** that attracts and motivates talent for recruitment and retention, including quality of life issues, professional development opportunities, and high cost of living concerns. We must create an environment where diverse candidates can imagine themselves as part of the Lab community.

Another challenge is **competition for diverse STEM talent** with other labs, universities and the private sector. We must pursue diverse candidate pools for every job opportunity and protect against bias in candidate screening.

Plus, the national labs are not well recognized as leaders in the physical (and other) sciences nor as exciting places to work. The **career and business opportunities** at Brookhaven must be leveraged in recruitment and in opportunities to partner with small businesses.

Finally, we have **an aging workforce**. The average age at Brookhaven at the end of CY18 was 51, with 62% of the workforce over age 60. Older employees have institutional knowledge that is easily lost without transition planning and development programs for early career staff. As noted below, we are developing plans along these lines to create a more diverse talent pool and thereby enable a more diverse workforce over the next decade.

To establish a baseline of our culture, including measures for engagement, morale, and attitudes toward I&D, in January 2019 the Lab contracted with a vendor to administer an all staff climate survey. Based on the survey results we will establish action plans and the activities outlined in this I&D Plan will be adjusted accordingly.

VISION, GOALS, AND STRATEGY

The Lab's vision is to create and advance an inclusive environment that embraces a diverse workforce, ensuring it is well positioned to attract and retain the talent needed to achieve the Office of Science mission. A workplace that values a diversity of people, ideas, cultures, and educational backgrounds is foundational to delivering on the Brookhaven and Office of Science missions. The goal is to assemble a workforce that reflects the nation's demographics within 10 years.

As part of the effort to address its institutional challenges, Brookhaven Lab has identified the following four broad strategic elements necessary to achieving the vision and goals:

Leadership Commitment & Accountability: Shifting culture to embrace I&D starts with the Lab's leaders. They must drive the culture change needed to realize an inclusive and diverse workplace through improved diversity of representation, owning the leadership selection process, improving structural elements, addressing bias, and expanding support to employee-based initiatives through the recently-developed accountability structure (now in its second year).

In FY18, there was a visible increase in the representation of women and underrepresented minorities (URMs) in science and support leadership roles. More is needed, but this will have a positive impact on attracting and retaining a diverse workforce. In FY18 and 19, more women have been hired into division management and Chair leadership roles to develop them for upper management opportunities. This follows a trend over the last fifteen years of women being in scientific and engineering positions. (See Section 2:) The Environment, Safety, & Health Directorate's first African American Associate Laboratory Director was appointed in FY19 and the Lab aims to increase the number of URMs in the leadership track.

Addressing Structural Issues: An organizational culture shift of full inclusion cannot be achieved without adjusting structural elements so that I&D is woven into the fabric of the organization. These structural elements include attracting, developing, and retaining staff; respectful workplace policies; and quality of life. These concerns are addressed by, for example, standardizing the hiring process to reduce implicit bias and its impact; exploring broader application of the Energy & Photon Sciences (EPS) Directorate's mechanism for anonymous reporting of employee concerns; expanding the number of managers and staff with I&D performance appraisal goals; ensuring Lab policies and procedures align with the core mission and communicating this to staff; restructuring the R&D Job Classifications to ensure they offer clear and rapid career progression and competitive compensation; and working with the county and state governments to extend the railway line to expand employee housing choices with reasonable commuting options.

In FY18 over FY17 there was a 19% decrease in the number of the Lab's defined job groups that that did not have representation of women and minorities based on availability in the job market. The Lab is committed to increasing the representation of women and minorities in our applicant pool and workforce.

Engagement: Shifting the culture means communicating with staff through many channels, from all-hands meetings to small group discussions, to articles online. As a central focus of the Lab's engagement efforts, the climate survey will establish a baseline by which we can track culture change over the next decade. We recognize the need for continuous learning and this survey will be an invaluable tool for fostering innovation, insights, and actions.

In FY18, leadership focused on the seven established ERGs and expanded support for quality of life activities. For example, the ERGs have been strengthened by having direct access to leadership, increased leadership participation in events, and increased administrative support. In FY19 a new ERG for the early career workforce was established and is expected to help leadership better understand recruiting, retention, and quality of life issues for early career talent.

We are also promoting all clubs and recreational organizations to enhance quality of life. In October 2018, the Lab hosted "Alive B4 Five," a fair for all employees to meet club and ERG leaders, ask questions, and register. Most clubs saw an increase in mailing list numbers and new members. We plan to host another Alive B4 Five fair in summer/fall of 2019.

Brookhaven has made a concerted effort to ensure cross-Laboratory teams and focus groups are diverse to help break down silos, support inclusion, and promote sharing of different perspectives. Feedback from these teams and groups has influenced the climate survey, how a new sexual harassment training course was designed, and more. Furthermore, workforce demographics are publicly posted on the Lab's webpage and updated annually ensuring transparency in workforce trends.

Outreach and Education: Brookhaven's education programs annually draw more than 30,000 students grades 1-12, their educators, college students, professors, and Ph.D. candidates. Community outreach and a strong economic development/technology transfer profile can help attract and retain a diverse workforce. These programs help the Lab develop talent for itself and the DOE complex. Examples include partnerships with minority-serving institutions (MSIs), professional societies, and universities. The Lab has partnerships with Howard University, the African School of Fundamental Physics and Applications, the National Society of Black Physicists, INCREASE, and other organizations.

Community partnerships are established with programs like Summer Sundays—the annual summer open houses hosted for all community members. The Lab's Community Advisory Council meets monthly with local leaders to share information, discuss issues of concern, and gather feedback.

A partnership between human resources (HR), the line organizations, and the Office of Educational Programs (OEP) is helping to build diverse pipelines for hard-to-fill positions, including technicians, health physicists, and controls engineers. Also, HR and OEP partnered to create a mechanism to source talent and maintain connections to the DOE sponsored talent pool, such as through the Science Undergraduate Laboratory Internships (SULI) program.

Overviews of Sections 2, 3, 4, 5, and 6

Section 2: Recruitment, Development & Retention

Vision: To increase the diversity of the Lab's workforce and create a culture that embraces I&D where all employees feel respected and engaged.
Goals: To effectively compete for diverse STEM talent by ensuring an agile but rigorous selection process, provide professional development opportunities, and to build a diverse STEM talent pipeline. These goals will help resolve the critical challenges of the Lab's aging workforce and competition for talent.
Strategies: The Lab is standardizing the hiring process to reduce implicit bias and increase efficiencies, as delays can result in missed opportunities with desired candidates. Strong communication and partnership between hiring organizations and the talent acquisition team is central to this effort. To further attract a diverse talent pool, the Lab is redesigning its career portal, strengthening outreach efforts, strengthening partnerships between Talent Management, OEP, and the I&D Office, and seeking out mechanisms for reducing biased language in job descriptions. To address the aging workforce and transfer of institutional knowledge, the Lab is developing apprenticeship programs, expanding mentoring and other professional development programs, and establishing closer relationships with universities and community colleges. Tools such as a phased retirement program can facilitate knowledge transfer while providing more opportunities to hire and advance early career staff.

Critical Challenges
Fierce competition for Talent: drives challenges in recruitment and professional development
Aging Workforce: drives the need for the Lab to recruit new talent and develop early career workforce
Employee value proposition: affects ability to attract, retain, and develop talent
Uneven Commitment to I&D across workforce: affects ability of Lab to drive culture change and retain talent

Section 3: Preventing Discrimination & Profiling

Vision: A safe work environment where every employee's perspective is considered and valued so they can maximize their contributions to the Lab's mission. We aim to embrace diversity, equity, and inclusion from the perspective that considers the full range of distinct but also overlapping differences among people.
Goals: Evaluate existing policies and develop new policies, practices, and training to create the framework of a safe, open, and welcoming work environment.
Strategies: We have developed custom-designed training to address respectful work environment issues, harassment and sexual harassment, and other standards for interpersonal behavior that supports an inclusive culture. In addition to the Lab-wide Employee Concerns Program (ECP), I&D Councils in several directorates have established anonymous feedback procedures to ensure employees feel safe sharing concerns. The Lab will also review the ECP and implement actions to assure fairness and equity for all employees who report concerns.
The Lab will continue to focus on implicit bias education by hosting speakers with diverse backgrounds. Partnerships with the ERGs bring speakers to the Lab who can address I&D topics including LGBTQ+ issues, perspectives from URMs, and more. These talks help to increase openness to other communities and enhance morale.

Critical Challenges
Uneven Commitment to I&D among entire workforce: affects the Lab's ability to ensure a workplace that is free from harassment. It is crucial to have 100 percent buy in by all staff
Employee Value Proposition: an environment that is free from harassment promotes the free exchange of ideas and perspectives

Section 4: Supporting Diverse & Talented STEM Pipeline

Vision: To contribute to the development of a diverse and talented STEM pipeline that increases broader workforce participation at the Lab, DOE, and the nation.
Goals: Develop durable relationships with academic institutions, other labs, and STEM consortiums to formulate the transition of these relationships into research collaborations. These relationships and the associated talent pipeline will help the Lab bring in early career workers as our aging workers retire.
Strategies: Through OEP's portfolio of programs, help participants strengthen research capabilities and expand their network at the Lab and DOE complex. For example: The Louis Stokes Alliances for Minority Participation (LSAMP) program places participants in research environments with advanced technology not available at home institutions. We aim to attain representation in our pipeline programs exceeding participation from previous years, during which we enjoyed 47% female and 35% underrepresented minority participation. We will also expand partnerships with other DOE facilities and academia, including partnerships with Workforce Development for Teachers and Scientists (WDTS), Howard University, Stony Brook University, other Minority Serving Institutions, and InCREASE.
Critical Challenges: Fierce Competition for Talent and Maturing Workforce drives the need to develop STEM talent.

Section 5: Subcontracting, Economic Development & Tech Transfer

Vision: In support of the Lab's I&D commitments, achieve full participation of diverse business enterprises exceeding targeted participation in various socio-economic categories. We are also committed to sourcing from this diverse group of socio-economic categories, realizing the value they deliver to the Lab and DOE.
Goals: Achieve target participation in Small Business, Small Disadvantaged Business, Small Women-Owned Business, Small SBA certified HUB-Zone Owned Business, Small Veteran-Owned Business, and Small Service Disabled Veteran-Owned Business. Diversifying the Lab's partner and procurement mix will improve competition for contracts and will likely burnish the Lab's reputation as a business partner with positive community impact.
Strategies: The Lab will increase participation in expos and trade fairs to strengthen its reputation and attract a diverse group of partners. The Lab intends to establish partnerships with a broader base of regional organizations such as the NY/NJ National Minority Supplier Development Council to expand its contracting opportunities. Discovery Park (expected ground breaking in 2021), with offices, meeting spaces, and hosting facilities, will be a tech transfer gateway.
Critical Challenges: Business Opportunities: lack of awareness of partnership opportunities impedes our ability to partner with businesses; Uneven Commitment to I&D: legacy practices hinder broader engagement with targeted communities.

Section 6: Educational & Community Outreach

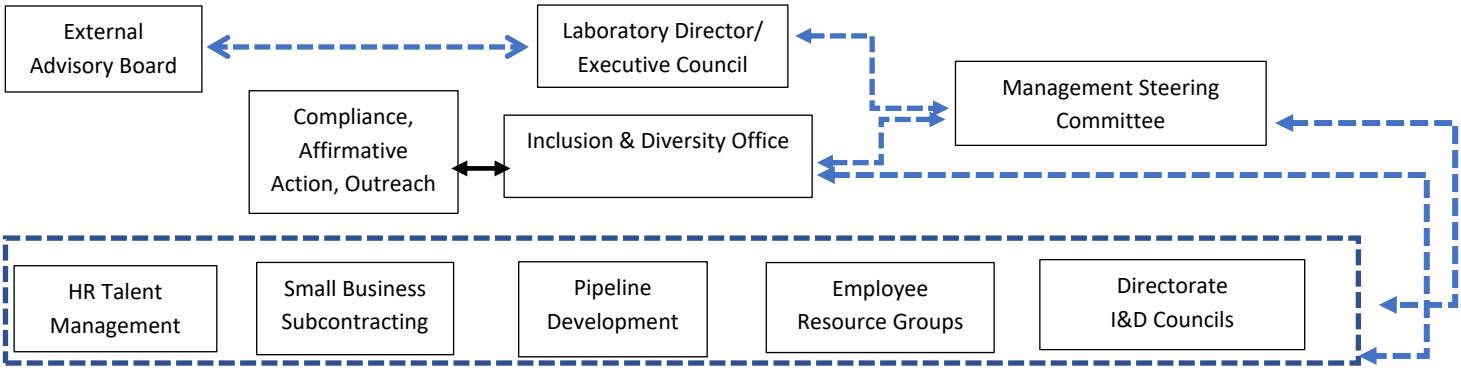
Vision: Build trusting and long-lasting partnerships with local and regional organizations to share in the creation of a diverse and inclusive community.
Goals: To engage local, regional, and national communities through educational outreach and community relations programs and activities to increase awareness of Brookhaven and DOE opportunities. Establish and strengthen relationships with business organizations, community, regional, state, national leaders, and the science community.
Strategies: The Lab will develop collaborative activities such as integration of Summer Sundays and English for Speakers of Other Languages; employees' passion for community service efforts; the Brookhaven Employee Recreational Association clubs' engagement with staff and local communities to advance cultural sharing, boost morale, and improve quality of life. We will strengthen partnerships with the Long Island Association and the Town of Brookhaven in support of local business and municipality initiatives. Other community outreach is with organizations such as The Long Island STEM Hub; the National Urban League; the United Way of Long Island; Habitat for Humanity; and Neighbors Helping Neighbors.
Critical Challenges: Lack of Reputation: hinders the Lab's ability to attract a diverse group of educational/community organizations. Employee Value Proposition: employee volunteerism/outreach activities are important for morale.

Key Personnel Responsible for Developing and Implementing the I&D Plan

Leadership responsibility for developing and implementing the I&D Plan flows from the Laboratory Director and Deputies, across the remainder of Level 1 and Level 2 management. See the I&D Roles and Responsibilities Chart (See Appendix C) that identifies the key personnel and internal/external groups involved in advancing these efforts. The Lab has also developed cross-functional I&D councils and committees throughout its operations to effectively advance I&D efforts at central and local levels.

Executive Council (EC) for I&D: The EC structure created in FY18 has succeeded in initiating a Lab-wide I&D Strategy by reducing silos, integrating inter-disciplinary work teams, and championing structural improvements to process and procedures. The EC also interacts regularly with the Management Steering Committee and an External Advisory Board, as defined in the text below and in Figure 1. The I&D Functional structure created in FY18 now includes the Lab's two Deputy Directors in the EC as part of continuous assessment and development. This change has proven to be valuable as we address both the science and operational sides of the Lab.

Brookhaven's Inclusion & Diversity Advisory/Functional Structure. (Not an org chart.)



Management Steering Committee (MSC): A clearing house for ideas, the MSC consists of the EC, the Deputy Directors and ALDs, and the ERG leaders. The MSC meets quarterly to discuss progress, issues, and policies—and align Lab and directorate-level policies. The ERGs provide ALDS with feedback, providing a measure of middle-management's support.

Directorate I&D Councils (DC): Directorate-level I&D Councils have been established within directorates to help ALDs solve challenges with incorporating I&D into directorate management practices. This includes developing and implementing strategies for hiring and retaining a diverse workforce consistent with Lab policies. The Energy & Photon Sciences I&D Council established a peer counseling program in FY18 and the Nuclear & Particle Physics Directorate in FY19 created a peer counseling program to encourage the integration of I&D within their organizations.

External Advisory Board (EAB): The EAB includes directors and leaders from external organizations such Con Edison, IBM, SBU, CUNY-Medgar Evers, NYU, and Stanford. It held its first meeting and provided feedback to the EC with recommended actions for Lab leadership, such as creating a deliberate effort to diversify the leadership team; providing adequate resources and staffing to a Chief Diversity Officer role; and hiring a consultant to conduct a diversity audit to determine strengths and opportunities to establish new goals.

Mechanisms to Hold Management Accountable to I&D Goals

I&D Incentive Compensation goals continue to be set for every Level 1 leader (now in place for three years). In FY19, we are revising the performance management process to build in I&D goals for management and staff. We are currently doing this in one scientific directorate and will expand this to the rest of the Lab. In some directorates, managers review applicant pool data prior to approving a hire to ensure sufficient effort has been made around I&D. The I&D Manager has direct access to laboratory senior management as a voice on the Laboratory's Policy Council—the committee that determines Lab-level policy.

Policies and Procedures Aligned With EEO and AA Requirements That Are Foundational for I&D

As an EEO/AA employer, we reaffirm our commitment to a climate of inclusion where everyone is treated with respect and dignity through policies, procedures, and practices for the prevention of harassment, discrimination, retaliation, and profiling based on race, color, religion, gender, national origin, ethnic group, age, disability, marital status, sexual orientation, or veteran status. We apply the Lab's core values in our actions and decision-making and adhere to policies and procedures on Equal Opportunity & Affirmative Action, Anti-Harassment, and Anti-Retaliation. These core values, policies, and procedures are regularly communicated to employees through the internal website, newsletters and emails, manager and supervisor training, the employee handbook, and new hire orientation.

The Respectful Workplace policy aims to foster a climate of inclusion where everyone is treated with respect and dignity. Work-life Balance policies and programs make it possible for employees to more easily manage family and work responsibilities. The Lab's policies and engagement programs (http://www.bnl.gov/HR) are a critical part of creating a safe work environment where every employee's perspective is considered and valued, and no employee's voice is silenced.

SECTION 2: Laboratory Strategy for Recruitment, Development and Retention of a Diverse and Talented Laboratory Workforce

a. Laboratory Goals, Strategy, Critical Challenges

To increase diversity at the Lab, we are creating and implementing strategies to attract, develop, and retain a more diverse workforce as well as reduce biases that may exist in talent management processes, including selection, promotion, and leadership development. A core element of the Lab's culture change is ensuring all staff members embrace a diverse workforce. Critical to this effort is creating an environment where all employees feel respected and included and our hiring supervisors are committed to increasing workforce diversity.

In fiscal year (FY) 2019, the Laboratory will focus efforts on strategies to enhance recruitment and selection processes to attract talent in a highly competitive market. In some STEM (science, technology, engineering, and math) fields there is great competition for the diverse STEM professionals. Also, many of these potential candidates do not recognize the DOE national laboratories either as international leaders in physical sciences or as inviting places to work. The pressure to build a pipeline and recruit new talent is heightened by the Lab's mature workforce. The Lab must address the challenge of creating a strong employee value proposition that will attract and retain talent. Strategies will include improved outreach, clearer avenues for professional development, and career advancement.

I. Recruiting from diverse candidate pools for new talent for leadership, staff, and postdoc positions

The Talent Management Office develops and implements strategies to recruit, develop, and retain staff. Close alignment between Talent Management and the Inclusion and Diversity (I&D) Office, Office of Educational Programs (OEP), and the Lab's line organizations is critical to the success of these strategies. Building these partnerships is an ongoing effort and represents a significant change from the silos that existed in the past and the perceptions about HR's value in recruitment and outreach. Because of a more unified approach to diversity recruitment, the Lab is engaging in the following activities:

- Talent Management and OEP are partnering with line organizations to build diverse pipelines in several hard-to-fill job roles, including technicians, health physicists, and controls engineers. These efforts include exploring apprenticeship and internship programs and establishing closer relationships with universities, community colleges, and professional associations. We plan to monitor the effectiveness of these initiatives by compiling data on participation rates in the apprenticeship and internship programs and tracking rates of job offers to participants. Talent Management is working with OEP to capitalize on the diverse pool of students who have
  participated in U.S. Department of Energy (DOE) funded and other programs at Brookhaven. As a mechanism for recruiters to more readily source candidates within this diverse talent pool, students will register in a searchable career portal. Additionally, recruiters will attend a career fair and we will sponsor training in interviewing and resume preparation.
- Sharing the responsibility for outreach between Talent Management, the I&D Office, and the line organizations represents a shift in approach. In the past outreach efforts were conducted independently by each group, often duplicating efforts and limiting the return on investment. To rectify this, we have established a combined outreach calendar where we track results. Additionally, we strive to have STEM professionals support our efforts at career fairs and conferences.
- In collaboration with the Community & Stakeholder Relations Office, we are redesigning the Lab's career portal to make it more attractive to diverse talent and clearly communicate the employee value proposition. This is an opportunity to showcase the science mission as well as the Lab's I&D efforts.

Major Accomplishments

- In FY18, the Lab invested in additional resources for recruiters to source diverse candidates. This included expanding seats on LinkedIn Recruiter and training to source candidates within Brookhaven's applicant tracking system. This positions the Lab to have an impact on a diverse candidate pool and the Lab will track the return on these investments.
- This fiscal year, the Lab made several hires that enhanced the diversity of the leadership team. The head

of the Superconducting Magnet Division, chairs for the Climate and Environmental Sciences and the Nuclear Science and Technology departments, and Facilities & Operations Directorate Chief Operating Officer are women. The Associate Lab Director for Environment, Safety & Health and the Manager for Procurement & Property Management are African American.

II. Fostering recruitment and hiring processes that are open, transparent, and fair

The Lab is consistently seeking opportunities to improve its hiring processes to ensure they are fair, equitable, and structured in a way that positions us to compete for diverse STEM talent. This year the Lab will tackle this challenge by further standardizing and streamlining our recruiting processes. Specific strategies for improvement include:

- Talent Management working with the Office of Institutional Improvement to remap the recruiting process to identify efficiencies, opportunities for standardization, and clarify roles and responsibilities of all stakeholders. This process will more clearly define the role of the hiring manager and recruiter in attracting a more diverse talent pool.
- Restructuring the talent acquisition team to align recruiters with departments to build a closer partnership with hiring managers, gain a better understanding of future workforce needs, and to educate managers on rigorous hiring practices that reduce bias. As part of the restructuring the Lab hired two recruiters with expertise in STEM recruitment.
- Piloting a software tool, such as Textio, to ensure job descriptions are written with inclusive language free from gender bias and in a manner that is most likely to attract a diverse applicant pool. This initiative is viewed as a promising practice in I&D.

<u>Major Accomplishments</u>

- In the Energy & Photon Sciences (EPS) Directorate, recruiters now provide hiring managers and leaders with diversity data for applicants and interviewees before a hiring decision. Proactively reviewing these metrics has shifted the culture in the directorate, where leadership questions outreach efforts when the applicant pool is not diverse. This is a promising practice that we will implement more broadly.
- Continued expansion of business intelligence reports to provide more just-in-time metrics in areas such as diversity of applicant pools, evolving diversity metrics, and determining return on investment of outreach efforts.
- Piloted search and selection committee orientations focused on the role of the search committee, importance of standardization, and tactics to reduce bias. This effort is expanding in FY19.
- Introduced formal classroom training on effective interviewing skills. The training includes tactics to reduce implicit bias and best practices for rigorous selection processes.

III. Fostering a professional, supportive, and inclusive work environment

The Lab has many mechanisms for soliciting informal feedback on the culture of inclusion, such as focus groups, all hands meetings, and leader-led small group lunches. Based on staff input, Lab leadership recognizes there are opportunities to improve the culture and quality of work life at Brookhaven. As such, the Lab is engaged in:

- Launching a Lab-wide climate survey to measure aspects of the Lab's culture, including engagement, and attitudes toward I&D. Survey vendor CultureIQ has expertise in survey design and implementation, as well as culture change. Their technology platform will allow us to assess changes in employee attitudes using follow-up pulse surveys. The survey results will lead to action plans targeted at culture issues at institutional and local levels.
- Conducting once again the pay equity studies in FY 19 under attorney-client privilege. Due to the impact in early FY18 to an unprecedented reduction in force by BSA, no salary adjustments were enacted due to the instability of the workforce demographics. In FY 19, with a more stable workforce, the pay equity analysis is targeted to be concluded on or before August 1, 2019. Salary adjustments, if indicated, will be considered when significant inequities arise out of the analysis that cannot be reasonably explained. Summary results will again be shared with the Laboratory Director.
- Benchmarking other labs to evaluate the need to increase the number of lactation rooms to further the lab's family friendly practices.
- The Lab is using cross-departmental, diverse committees to gather input on actions to improve work-life

balance for employees. For example, the Work-Life Balance committee has been reactivated and the Deputy Director for Operations is leading a team to define and implement structural and social strategies to positively impact work life.

- As part of the Discovery Park project, Lab leadership is working with the county and state governments to extend the railway line to a new Brookhaven train station. This will allow employees to expand their housing choices with reasonable commuting options. Furthermore, this will allow more opportunities for family members to find employment. To that end, the Lab is also working on a formal program with employment agencies to help spouses find employment in the area.
- Building skills for supervisors and employees by expanding the frequency of training designed to create a more inclusive work environment. For supervisors these include: Putting the Law to Work, Crucial Accountability, Leading through Trust, and various performance management courses. For employees the courses include: The Speed of Trust, Understanding and Managing Style Differences, Crucial Conversations, Respectful Workplace, and a custom designed online video-based sexual harassment training (required training course for all employees).

Major Accomplishments:

- All senior leaders have an incentive compensation goal tied to specific actions intended to foster culture change and a more inclusive work environment. In the EPS Directorate, all employees are expected to have a performance goal tied to I&D. In FY19 we will use the learning from the EPS Directorate to develop a plan to require all supervisors and managers to have a performance goal tied to I&D.
- Although Brookhaven's onsite childcare center closed in May 2017, BSA investigated the availability of alternate childcare centers near the Lab and near where many staff members live. Acknowledging that childcare fees rank as one of the top expenses for working families, the Lab established arrangements with nearby childcare centers including waivers of registration fees, tuition discounts, and discounts for enrollment of a second child. Some centers offer hot lunch and drop-in care programs.
- To help employees combat the high cost of living, the Lab partnered with the Long Island Housing Partnership, Inc. to assist qualified employees by providing down payment assistance to purchase a primary new or pre-existing home on Long Island.

IV. Providing opportunities for personnel professional development, promotion, and advancement, and other measures to improve personnel excellence and retention

The Lab is committed to fostering the professional growth of all staff. Through our engagement and feedback from our staff, we recognize that clarity around career growth is important to retention. Strategies to support this effort include:

- Reviewing job classifications for research and development staff to ensure they meet their changing needs, offer more rapid career progression opportunities, and competitive compensation guidelines.
- Continued implementation of a phased retirement program to facilitate knowledge transfer and to generate positive turnover to hire early career staff and build the talent pool. To date, nine employees have, or are, participating in phased retirement.
- The Lab continues to participate in several Battelle-sponsored cross laboratory development programs for high potential talent. These programs provide exposure to senior management through workshops and one-on-one mentoring. We are continuously improving Brookhaven's formal leadership development programs, such as the Supervisor Development Program, mentoring and cross Laboratory, and Battelle sponsored programs, including Laboratory Operations Leadership Academy (LOLA), designed for research and operations leaders with the potential to assume senior leadership positions, and the Business Leadership Program (BLP) and the Early Career Development Program (ECDP) targeted to future business leaders. The Lab has strong female participation in these programs and continues to make progress in minority participation. To date, we have had 18 leaders participate in LOLA, 11 of which were female and three were male URMs. Nine of these participants have been promoted or assumed more responsibility. Seventeen Lab employees have participated in the BLP. Eleven of these participants are women and four are URMs. Three women have attended ECDP, two of whom are URMs.
- Expanding the mentoring program to target positions where mentoring can provide the strongest ROI,

such as facilitating project management knowledge sharing. The mentoring program will be slightly revamped this year to incorporate just-in-time mentoring relationships. The opportunity for mentoring and its value will be introduced during employee orientation.

- Using the Lab's formal succession planning process in FY19 to identify high-potential talent across the Lab and build robust development plans for this group. Implicit bias awareness discussions will be incorporated into the process and the diversity of the talent will be monitored.
- Lab leadership is committed to providing exposure for managers to advance their development. These efforts include inviting managers to attend board dinners.
- Partnering with Brookhaven Women in Science (BWIS) to build on the programs offered during Women's History Month (March) with two workshops intended to build confidence, influence, and leadership skills for women as well as help men to understand their role in creating an inclusive environment.
- Continuing to provide forums to enhance everyone's understanding of the impact that implicit bias has on creating an inclusive work environment and diverse workforce—and, more importantly, to engage individuals in implementing solutions. As part of this initiative to foster an inclusive and diverse workplace, the Lab hosted Dr. Caroline Simard of Stanford University's Clayman Institute for Gender Research on Monday, July 30, and Tuesday, July 31.

b. FY18 Employment Statistics

Table 2: Summary of Laboratory Workforce Demographics for FY 2018

	% Women	% Under-represented Minorities[1]	% Other People of Color[2]	% Two or More Races/Ethnicity[3]	% White
Overall (all Employees)	24.99%	11.93%	14.81%	0.37%	72.90%
Lab Senior Leadership (LD, DLD, ALDs)	18.18%	0%	0%	9.09%	90.91%
Research/Technical Management (first-line and mid-level)	13.40%	3.44%	23.02%	0%	73.54%
Operations Management (or Research Support)	36.26%	13.19%	2.20%	0%	84.62%
Technical Research Staff	10.22%	7.17%	19.24%	0.22%	73.37%
Operations Support Staff	41.53%	18.15%	3.63%	0.40%	77.82%
Postdocs	22.31%	11.57%	62.81%	0%	25.62%
Graduate Students[4]	22.73%	45.45%	27.27%	4.55%	22.73%
Undergraduates[4]	23.53%	11.76%	5.88%	5.88%	76.47%

1. Under-represented minorities defined as African American/Black, American Indian/Alaska, or Hispanic/Latino (or combination).
2. Other people of color include Asian/Asian American and Native Hawaiian or Other Pacific Islander.
3. Employees identifying themselves with two or more racial categories, or at least one non-white racial category and Hispanic/Latino, should be counted here.
4. Graduate students and undergraduate students are those students who work at and are paid by the Laboratory. Numbers for graduate students and undergraduates should be provided as cumulative counts for the fiscal year.

c. New Hire statistics

Table 3, as part of Appendix B of the Plan, is a table with an overview of the demographic data for all new Brookhaven Lab employees for the fiscal year. These data include all employee classifications.

d. Outreach for Recruitment and Retention of a Diverse Workforce

Brookhaven Lab participated in a variety of outreach efforts in FY18 specifically related to the recruitment and promotion of diversity in qualified candidate pools for open employee positions. Major efforts include participation in the career fair at the 2018 Richard Tapia "Celebration of Diversity in Computing Conference" where four interviews were conducted and two candidates were presented for consideration for an open position; attendance at the SACNAS National Diversity in STEM Annual Conference—the largest diversity in STEM conference in the country on Oct. 19-21, 2017; and participation at the 2018 Scientista Symposium in New York City that focuses on empowering pre-professional women in STEM as they enter the workforce. Additionally, the Lab continued to partner and has worked to build new partnerships with veteran and disability groups for the purposes of recruitment. For example, the existing partnerships with the Suffolk County Veterans Services Agency and Suffolk County United continued in FY18, and Lab representatives met with the National Business & Disability Council (NBDC) of The Viscardi Center to discuss a partnership in FY19.

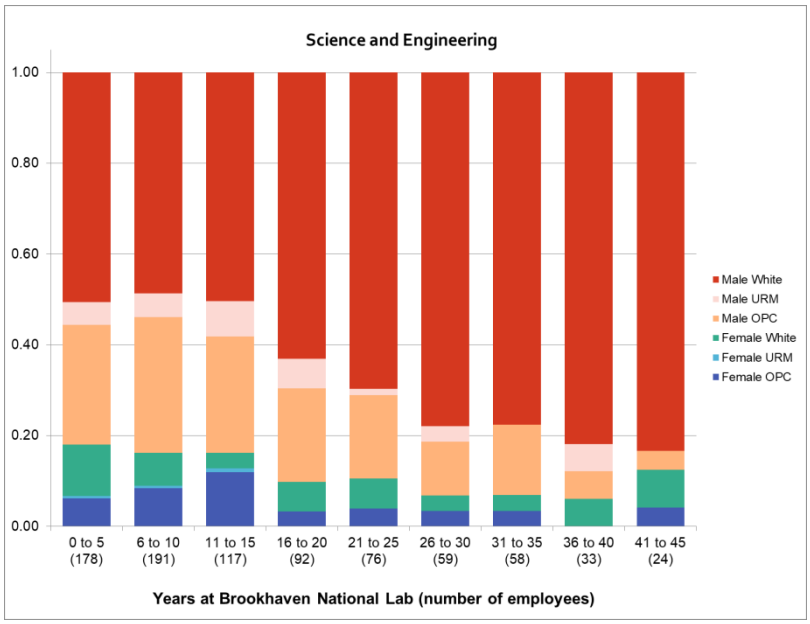
The EPS and Nuclear & Particle Physics (NPP) Directorate I&D Councils supported Women's International Day by providing funding and hosting the inaugural pre-International Women's Day workshop at the Lab the day prior to the traditional program held at Stony Brook University (SBU) in partnership with BWIS, Women in Science and Engineering (WISE) and SBU. Also, with funding support from several senior leaders, ten employees participated in the second offering of the SBU Women in STEM Leadership workshop Spring 2019. BSA employees from the NNP, EPS, and Environment, Biology, Nuclear Science & Nonproliferation (EBNN) directorates and the Stakeholder & Community Relations Office participated in this high value and popular professional development opportunity.

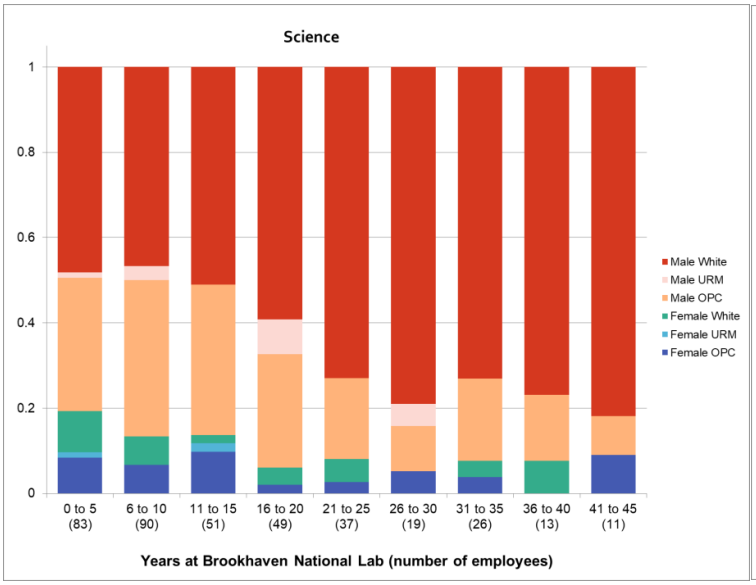
Furthermore, the Lab subscribed to services and participated in training sessions to help foster diverse recruiting efforts. In FY18, the Lab continued its partnership with the Local Job Network, which manages job postings distribution to organizations serving veterans, minorities, persons with disabilities, and state employment agencies as mandated by the VEVRAA/Jobs for Veterans Act and in accordance with the OFCCP recommendations. Members of Brookhaven's Talent Acquisition Group also participated in webinars hosted by America's Job Exchange regarding federal contractor obligations, enforcement procedures, and regulations.

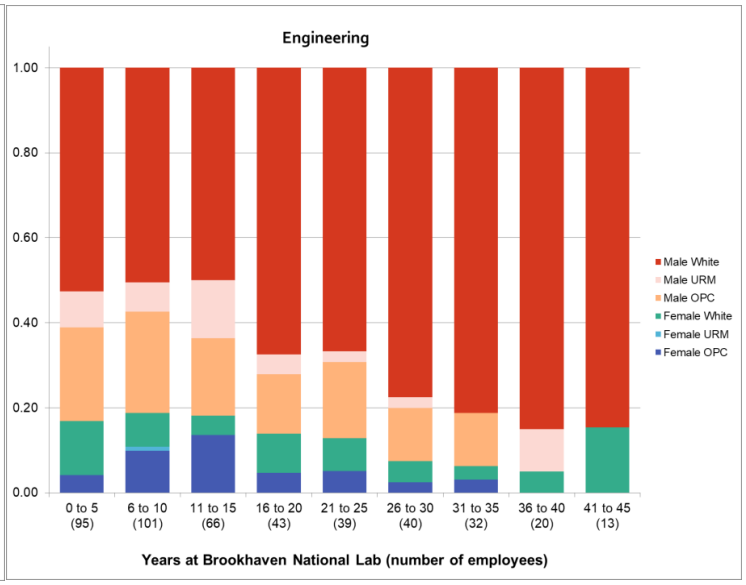
To retain current employees that ensure a diverse and inclusive workforce, the Lab has participated in several on-site efforts. One major effort is providing financial and structural support to Employee Resource Groups ("ERGs") such as the Hispanic Heritage Group, the African American Advancement Group, the Asian Pacific American Association, the Gay, Lesbian, or Bisexual Employees group, the Indo-American Association, the Brookhaven Veterans Association, and BWIS. In FY 19, Lab leadership has committed additional funding in support of ERG activities which has led to an increase in the number of scholarships offered by the ERGs as well as increasing the number of guest lecturers that speak on various I&D topics. Furthermore, the Lab will be exploring the participation of Senior Leaders as executive champions for all of the Employee Resource Groups. Currently we have one Associate Laboratory Director identified as an executive champion for the early career resource group.

To measure the success of the Lab's I&D efforts in retaining a diverse talent, we tracked the progress of current employees with respect to length of service for scientific and engineering job classifications in the past four decades. The data below suggests that there is a steady increase in the representation of multiple groups including women and under-represented minorities.

The figure below shows all 828 scientists and engineers employed by BNL with 0 to 45 years of service at BNL. The groups are broken down by male/female and then further by white/URM/OPC. Recent hires in the last two decades reflect greater diversity when compared to the workforce of employees with more than twenty-five years of service.







SECTION 3. Laboratory Prevention of Discrimination and Profiling

a. Laboratory Policies and Procedures

An essential component of culture change is the creation of a climate of inclusion where everyone is treated with respect and dignity. This leads to the best contributions from all employees. Our policies and practices are in place to assure a safe environment and prevention of harassment, discrimination, retaliation, and profiling based on race, color, religion, gender, national origin, ethnic group, age, disability, marital status, sexual orientation, or veteran status. All the policies are intended to be consistent with the provisions of applicable state and federal laws. Our policies are the foundation for creating a productive work environment where a wide variety of ideas and solutions are embraced.

Brookhaven's Equal Opportunity & Affirmative Action Policy commits to providing equal employment opportunities to all employees to ensure every employment decision is free from illegal discrimination. The Anti-Harassment Policy commits the organization to providing its employees a workplace free of intimidating, threatening, or harassing conduct, including sexual harassment. The Policy outlines specific behaviors that constitute harassment—sexual or other—how to report it, and what the protocol is if there is an incident that might constitute harassment. All complaints of a sexual nature, directly or indirectly, will be investigated and appropriate corrective measures taken. It is the responsibility of each manager and supervisor to create and maintain a harassment-free workplace and promptly bring all matters to designated personnel. If an employee is hesitant to share concerns with line management, they have the option to report issues to the department's assigned Human Resources Manager (HRM) or any other manager across the Laboratory, even if that manager is not in the employee's reporting structure.

The Anti-Retaliation Policy prohibits unlawful retaliation against an employee who in good faith questions actions or inactions toward any employee for raising a concern around a work-related issue. This policy defines retaliation, protected activity, and adverse actions and other terms to assure clarity. Also, the policy assures the complainant of a measure of confidentiality, provides guidance as to reporting mechanism and how to file a complaint.

All these policies, policy statements, and resources are publicly available on the Human Resources (HR) homepage.

Employees who experience conduct they consider discriminatory are encouraged to contact any senior leader, Lab manager, the I&D Manager, or department HRM.

The annual review of the policies includes the Lab Director, Chief Human Resources Officer, and I&D Manager.

i. How policies are communicated to Laboratory personnel.

Brookhaven communicates and makes these policies available in a number of ways to all staff. They are referenced during the on-boarding process and reinforced through the performance appraisal process. New employees receive hard copies of the Equal Employment Opportunity (EO) and Anti-Harassment Policy and are directed to the Human Resources (HR) homepage where the Policy links are located. Policies and procedures are defined in the Employee Handbook, also available on the intranet. Policies are discussed during required supervisor training. To reach all personnel including facility users, visiting scientists, and students, policies are posted in all site buildings on prominent common bulletin boards, and are accessible in the Lab's Internal Network on the Standards Based Management System (SBMS).

ii. Trainings that are provided to Laboratory personnel.

In order to reinforce the Lab's core values of creating a workplace that is free from discrimination, harassment, and profiling the Lab has developed a suite of mandatory and optional training courses. All employees are required to take the e-learning Employee Policy Refresher course that has a three-year re-qualification. The purpose of the refresher is to ensure employees understand they are required to know what is stated in the

policies and comply with them. Links to each policy is provided in the online course. Policies highlighted in the course are: Lab Values and Respectful Workplace; Anti-Harassment—including Sexual Harassment; Standards of Business Conduct and Ethics; Anti-Retaliation; Social Media; Time Reporting; Family Medical Leave Act; Discipline Policy.

There is a suite of courses designed to enhance leadership skills available for managers and supervisors. The supervisor courses are instrumental in changing the culture because they influence employees' actions and offer role models of the Lab's values in daily interactions. Specific courses include "Introduction to EEO, Affirmative Action, and Diversity Management," which is required for supervisors and managers, and two additional courses that are strongly recommended for all supervisors, "Putting the Law to Work" and "What Supervisors Need to Know about Discriminatory Harassment." We have also established optional courses for hiring committees to ensure hiring decisions are made free from discrimination and profiling. The course "Hiring the Right Person for the Job" reviews best practices in EEO and Affirmative Action (AA) and a standard EEO statement is contained in every job posting to socialize our practice of nondiscrimination. The electronic requisition process incorporates affirmative action placement goals to reinforce the EEO/AA policies at the earliest point in the job creation cycle.

Attached as a separate table are the complete listing of trainings that specify which are required and optional and categorize these trainings for the employee types (See Appendix D).

iii. Procedures for Staff Reporting Incidents or Issues

Brookhaven is committed to addressing the concerns of members of the Laboratory community promptly and in an equitable manner. Employees are encouraged to first address concerns with their supervisors, or next-level-up manager if the concern involves the immediate supervisor. Brookhaven's HR Directorate uses a deployed model where HR professionals are embedded in each directorate, providing advice and direction for all HR issues. This includes support for policies referenced in this section.

The three formal venues are:

1. **HR**: Concerns may be communicated to an HRM, Labor Relations Business Partner, or the Inclusion and Diversity Office.
2. **Brookhaven Advocacy Council (BAC)**: A group of employees selected by the Lab Director. In some cases, employees feel more comfortable approaching this panel of peers to discuss a concern. BAC members participate in formal training on the proper way to investigate employee concerns. Insights from these employees influence policy, practices, initiatives, and development and training programs.
3. **Employee Concerns Program (ECP)**: The ECP addresses concerns related to mismanagement, gross waste of funds, abuse of authority, and environment, safety, and health.

There is also an informal venue through the Employee Assistance Program, which provides no-fee confidential service to help employees and family members solve personal matters affecting health, well-being, or job performance. This venue does not conduct investigations.

iv. Procedures for addressing or resolving reported incidents or issues

Formal concerns are reviewed by the Concerns Review Team (CRT). The CRT is staffed by senior corporate counsel, Chief Human Resources Officer, and the Employee Concerns Program Manager, a cross-functional leadership team with expertise in human capital and business operations. To eliminate duplication of investigations of the same concern and to maximize resources and efficiency, the CRT may redirect the investigation to another venue, based upon the nature of the concern. Matters pertaining to the concern are discussed with those directly involved in an investigation strictly on a need-to-know basis. A standard script is used at the beginning of investigation interviews, regardless of how many witnesses there are to interview, emphasizing the Lab's anti-retaliation policy.

In investigations concluding with a finding where discipline is considered, the CRT engages at least two other senior leaders to ensure impartiality and equity. This process lends itself to keeping leaders aware of the

climate and behaviors occurring in the workplace. It is important for Brookhaven to monitor recurring issues in the workplace environment.

v. Procedures for tracking investigations and for reporting issues and status of resolutions to Lab senior management.

All complaints and concerns are captured in a central Employee Concerns Database. Descriptors of the violations or issues are captured as Discrimination, Respectful Workplace (RWP), Harassment, Retaliation, Safety, etc. after an investigation is concluded, Employee Concerns Program Manager meets with the Deputy Director for Science and Technology (DDST) or Deputy Director for Operations (DDO) to discuss the results of the investigation. The DDST/DDO briefs relevant line management and HRM on investigations and discusses appropriate actions. If the investigation identifies a situation that will require action, which in some instances may include discipline, the HRM will assist the appropriate line manager in actions to be taken and communicating those actions to the employee. This strategy allows an efficient analysis of issues so that trends can be quickly identified, allowing the organization the opportunity to be proactive and put training in place to identify and address the issues.

vi. Practices and procedures for periodically communicating to Laboratory employees summary information (anonymized) on the annual complaints received, investigated, and resolved at the Lab

The Lab recognizes that transparency is the key to fostering a work environment that promotes Inclusion and Diversity. One of the four pillars of our I&D Strategy is Engagement to achieve culture shift that involves open communication with staff through many venues. To that end we promote transparency of our Employee Concerns Program with the HR ALD presenting anonymized data and reports on complaints and investigations to ERGs and other councils to communicate how the Lab takes appropriate action when policies have been violated.

vii. How the Laboratory periodically assesses that its processes are working and how it reviews its policies, procedures, and practices and engages Laboratory management to identify lessons learned and areas for improvement.

To ensure all processes are working well and to identify lessons learned and areas of improvement, the EEO, Affirmative Action Policy, and Respectful Workplace policy are reviewed annually. Incorporated in SBMS are numerous management subsections that are owned by senior leaders who serve as subject matter experts (SMEs). Built into the management systems are periodic reviews that range from one- to five-year intervals. Those policies and procedures pertaining to diversity and inclusion are maintained in the HR Management System under the ownership of the HR ALD. The I&D Office staff is a function within the Human Resource Directorate. As new policies are created, various senior leadership teams review the organizational impacts of the new policy and approve for implementation.

Major Efforts of FY18 and planned Efforts in FY19

All of the Lab's efforts in the area of the prevention of discrimination, harassment, and profiling are tied to addressing the following critical challenges identified in the Overview (Section 1):

As one of the components of our I&D strategy, Addressing Structural Issues ties directly to the efforts in preventing discrimination, harassment, and profiling. To that end, following the successful rollout and implementation of a series of implicit bias training videos in the last two fiscal years, the Lab is looking to expand the catalog of online training courses on various I&D topics. In FY18, the Lab utilized high impact analysis tools including pre and post surveys to collect measurable data. In particular, we measured a quantifiable change in employees' attitudes following the implicit bias training subject matter of LGBTQ+ individuals in the STEM workforce. In celebration of Gay Pride Month and in partnership with GLOBE, the LGBTQ+ ERG, the Lab invited Dr. Michael Ramsey-Musolf to speak on the unique challenges faced by the LGBTQ+ community in the STEM workforce. Approximately 100 Lab staff including Level I and Level II leaders attended this talk. Pre- and post-talk survey data from high impact survey maps showed a 43% improvement among the audience in recognizing that LGBTQ+ members face marginalization in the workplace. (See Appendix E) We will continue to use these high impact analysis tools with the additional online training courses.

Furthermore, the Lab will explore resources including engaging with OutAlliance to provide training and work-friendly practices for the LGTBQ+ and transgender community as some of the Lab's staff are undergoing transition.

In FY19 the Lab will explore other avenues and procedures that will allow personnel to report issues, concerns, and/or complaints in an anonymous manner. By expanding anonymous reporting sources, the Lab will provide more opportunities for personnel to provide leadership with crucial feedback on areas for improvement. The Lab has also completely redesigned the sexual harassment training course that will be mandatory for all Lab employees every two years. The new sexual harassment training course will provide greater awareness of all forms of harassment whether blatant or subtle. This new training course will be implemented in FY19 and will reinforce the Lab's core value of a workplace that is welcoming and free from all forms of harassment and retaliation.

In FY 19, the Lab will continue to engage ERGs to bring a diverse group of speakers to raise awareness to the Lab community. In FY18, the Physics Dept. supported GLOBE by expanding the eligibility criteria for the Leona Woods Distinguished Postdoctoral Lectureship Award to include members of the LGBTQ+ community. Through this action, the Physics Dept. and the GLOBE ERG partnered to bring a guest lecturer, Dr. Michael Ramsey-Musolf, to give a talk titled "Shattering the Lavender Ceiling" to the general Lab population. In FY19, the Lab continues its efforts in raising awareness of the LGBTQ+ community in STEM by awarding Dr. Vivian Miranda, a postdoctoral research associate at the University of Arizona and member of the Dark Energy Survey collaboration, the Leona Woods Distinguished Postdoctoral Lectureship Award. According to Dr. Miranda, "being a transgender woman in a field that is still learning about what that entails can be terrifying. This award has helped me to believe that I work in an open culture of acceptance that will embrace my talent. It gives me the energy to continue cracking the standard model of our universe, and become a model for the transgender community, both in the USA and in my home country."

Section 4: Supporting a Diverse & Talented STEM Pipeline

Brookhaven Lab's Office of Educational Programs (OEP) conducts science, technology, engineering, and math (STEM) programs serving more than 30,000 students, teachers, and faculty, locally, regionally, and nationally, using the Brookhaven Lab and U.S. Department of Energy (DOE) research agenda and mission as the programmatic foundation for these workforce development programs. Inclusion of Under-Represented Minorities (URMs), women, and underserved populations is a long-standing priority for OEP. Utilizing the Lab's world-class facilities and cutting-edge scientific research, OEP prepares and introduces well-qualified, diverse STEM candidates to the Lab's scientific and user communities, the DOE complex and the nation.

4a. *Laboratory Goals and Strategy*

As part of the Lab's overall strategy to develop a diverse STEM talent pipeline, the goal is to implement workforce development programs to train and develop a well-qualified, diverse STEM pool of candidates to ultimately assist in transforming the demographics of the STEM and user communities. Cumulatively, the program participation goals are to fall within +/- 5 percent of the 2010 national census statistics for women (50%) and URMs (30%). The most impactful strategic effort leading to success in meeting the goal has been the establishment of durable relations with Minority Serving Institutions (MSI) and minority faculty and program administrators who lead programs serving communities underrepresented in STEM. These relationships let the Lab call upon a wide network of collaborators to drive URM and women applicants to programs and to suggest high quality candidates for opportunities.

Long Island also has strong high school research programs and Lab staff have developed relationships with educators leading these programs. Collectively, these programs are a core component of the overarching strategy of culture shift at Brookhaven that reduces implicit and unconscious bias while building the inclusion of populations typically less represented in the STEM enterprise.

4b. *Laboratory's STEM Training and Education Programs.*

i. *Graduate and undergraduate activities*:

The Lab continues to support the University Relations and DOE Internship Office within OEP to lead the post-secondary training and educational programs for undergraduates, graduates, and college faculty. These programs, assessed annually to ensure alignment with the Lab Agenda, reflect the Brookhaven/DOE mission and promote sustained engagement with the Lab from undergraduates through graduate students/post docs to employment. Graduate and undergraduate students introduced to core competency areas of the Lab receive one-to-one experiences with scientific and engineering staff. Brookhaven has several undergraduate programs focused on minority groups designed as recruitment programs to diversify the applicant pool for the WDTS program. Participating URMs are encouraged to apply to graduate level Brookhaven and DOE programs. In fiscal year (FY) 2018, the graduate programs totaled 18 participants with eight (44 %) women and 11 (61 %) URMs. The FY18 undergraduate programs included 323 participants with 152 (47 %) women and 130 (40.2 %) URMs (see Table 4).

The following graduate and undergraduate programs have achieved significant levels of success in diversifying the Lab's STEM talent pipeline:

The National GEM Consortium (GEM): Graduate and PhD engineering URM students participate in 10-week internships to introduce them to the Lab and to build competitiveness for employment as post docs and future users of DOE facilities.

Graduate Research Internship Program (GRIP): Graduate Students spend a semester at the Lab with funding from the Lab and/or external programs supportive of URMs such as the National Science Foundation (NSF) Bridges to Doctorate Program or other university programs. GRIP provides a broader engagement of highly qualified URM employment candidates with the Brookhaven scientific community. Many become trained users of the Lab and other DOE facilities while fostering relationships and research opportunities between Brookhaven and their home institutions, many of whom are MSIs.

DOE SC WDTS Internship Programs: The WDTS-funded Community College Internship (CCI), Science Undergraduate Laboratory Internship (SULI), and the Visiting Faculty Program (VFP) attract undergraduates for

10- or 16-week internships. Brookhaven has systematically developed durable relationships with university programs producing a steady flow of diverse applicants for the DOE WDTS program to positively influence the number of diverse candidates selected to participate.

Brookhaven National Lab Internship Programs: The Supplemental Undergraduate Research Program (SURP) and the Virginia Pond Scholarship Programs are Brookhaven Lab-sponsored internship programs mimicking the DOE WDTS SULI program. This program feeds the WDTS programs and/or develops candidates for open positions.

NSF Louis Stokes Alliance for Minority Participation (LSAMP) Scientific Computing Internship: NSF's LSAMP sponsored 20 LSAMP scholars to participate in a 3-week summer scientific computing program with a focus on C^{++} and Python languages. The goal is to expose URMs to coding, diversify the WDTS applicant pool and increase participant competitiveness for internships.

DOE SC WDTS Mini-Semester: This WDTS sponsored program recruits URM students into the WDTS internship programs through a one-week winter break experience that includes a research project, interaction with Lab researchers, lectures, and Lab tours. This program serves as a feeder program to the WDTS CCI and SULI programs. All participants submitted applications to the WDTS internship programs; 52 percent were accepted. In FY19, Brookhaven collaborated and supported Lawrence Berkeley National Laboratory and the National Renewable Energy Laboratory to host the Mini-Semester demonstrating scalability.

To demonstrate Leadership Commitment and Accountability as part of its I&D Strategy, the I&D Executive Council has encouraged all departments to partner in leveraging OEP's internship programs to further diversify the applicant pool. Furthermore, on their first day all graduate and undergraduate interns meet with senior leadership (Lab Director or one of the Deputy Directors) and the I&D Manager who explain the importance of the I&D policies. In order to Address Structural Issues, OEP and Human Resources (HR) collaborated to host a resume and interviewing skills development workshop for OEP interns. This has proven to be a promising practice as recent URM graduates and graduating seniors who participated in the internships now submit their resumes into a database referenced by HR for future job openings. This has resulted in several URMs being interviewed and produced two new URM hires in the Environment, Safety & Health Directorate. HR will monitor this process; workshops are scheduled for the spring and summer interns.

Notable accomplishments in FY18 related to OEP and HR collaboration that demonstrate a successful execution of the strategy to develop our own STEM pipeline include:

1. The addition of another African American female post doc in the Physics Dept.
2. The Physics Dept. hired an African American female scientist from the post doc program
3. Two GRIP graduate students were hired as post docs in the Chemistry Dept. and NSLS II
4. GEM fellow submitted proposals to APS and NSLS II; now an independent user at facilities
5. Two new hires came from the newly instituted URM database for employment

<u>Major efforts planned for FY 2019</u>

OEP will show one of the Steve Robbins implicit bias videos during the Program Managers' meeting to be held the first week of the internship program. Also, URM interns will be encouraged to join and participate in ERGs.

The recruitment of URMs for the physical sciences and more recently computational science has been a challenge over the decades for the Lab. Demonstrated successes in the strong relationship between HR and OEP in recruiting and retaining talented diverse candidates is now leading to the establishment of a Technician Apprenticeship program for high demand tech positions such as Cryo and RF techs. Applicants will be recruited from local community colleges with high URM enrollment. The WDTS CCI program will be leveraged as part of this effort. This type of partnership did not exist in the past, but the fierce competitive environment for well-qualified techs makes the development of in-house programs a necessity to alleviate the talent shortage.

Table 4. Demographics of All Graduate & Undergraduate Student Participants at the Lab in FY 2018

	Total Students[1]	Total Women	% Women	Under-represented Minorities[2]	Other People of Color[3]	Two or More Races/Ethnicity[4]	Total White
Graduate Students[5]	18	8	44%	11	1	0	6
Undergraduate Students[5]	323	151	47%	130	44	4	145

1. Undergraduate/graduate students participating in research and training activities at the Lab the fiscal year, even those not directly paid by the Laboratory.
2. Under-represented minorities: African American/Black, American Indian/Alaska native, or Hispanic/Latino (or combination).
3. Other people of color include Asian/Asian American and Native Hawaiian or Other Pacific Islander.
4. Students identifying themselves with two or more racial categories, or at least one non-white racial category and Hispanic/Latino.
5. Numbers for undergraduate/graduate students provided as cumulative counts for the fiscal year.

ii. *K-12 students and educators*:
OEP continues to foster relationships with organizations that support underrepresented and underserved populations to ensure diverse participation in the K-12 programs. The success of these programs is evident as many participants have subsequently applied to and participated in the university level programs including those funded by DOE. K-12 programs are focused on mission-based work and are adjusted to meet the current Lab Agenda. Programs that engage URM populations include:
NYS Science Technology Entry Program (STEP)/BNL Summer of Science: The STEP/BNL Summer of Science program is an experiential learning-based program for URM students entering grades 8-9 from across NY State.
Girls Inc. of Long Island Summer Program: Provides two weeks of STEM enrichment for girls grades 7-9.
STEM Prep Summer Institute (SPSI): 27 minority 9th grade students in a four-week program that includes chemistry, biology, environmental science, physics, and scientific computing.
High School Research Program (HSRP): Selected high school students collaborate with scientific and technical staff for six weeks on research and engineering projects. Two 2016 STEM Prep Summer Institute alumni secured publication in a peer reviewed journal. The FY19 goal is to increase female and URM participation and ensure a portion of STEM Prep Summer Institute students are in the program.

Through these efforts, OEP continues to provide awareness and access of STEM topics to further Laboratory programs and lay the groundwork for future STEM professionals and the Lab's own pipeline. All of the noted programs provide deep engagement, interaction with the research community, opportunity to learn scientific skills, a sense of opportunity with follow on programs, and an awareness of career options in the DOE complex. These programs, considered to be promising practices, are effective feeders to more advanced STEM education and training opportunities. They are crucial for increasing awareness in this community of opportunities at the Lab.

iii. *Post-secondary STEM educators*:
The most prominent program for attracting underrepresented minority faculty, has been the DOE WDTS Visiting Faculty Program (VFP). The Lab has approached this program as an introductory experience leading to a durable relationship with expectations for long-term collaborations with hosting Lab researchers. The importance in seeking the durable relationship is the broadening of the circle of peers of Lab researchers with the expectation that URM peers will be among those contacted to identify candidates for open positions.

The National Synchrotron Light Source II (NSLS-II) in collaboration with OEP conducted a pilot Advance Synchrotron Online course for 70 graduate students and professors from University of the Witwatersrand, Johannesburg South Africa; University of Puerto Rico; University of the West Indies; Howard University; and Hampton University (both prominent Historically Black Colleges and Universities–HBCUs). Students obtained credits and are encouraged to submit proposals to become users. All five schools plan to participate in the 2019

class with an anticipated 100 graduates and undergraduate seniors from 14 campuses that will include six HSIs and four HBCUs.

OEP has been collaborating with the Interdisciplinary Consortium for Research and Educational Access in Science and Engineering (InCREASE), a consortium of over 30 MSIs with headquarters in Hampton University. InCREASE is focused on creating DOE user facility access for URM professors and professors from MSIs to further their research capacity, making them more competitive for funding. The relationships developed through InCREASE have proven fertile for building URM participation in Lab activities from workforce development programs to facility user meetings. OEP has worked with InCREASE to broaden inclusion and impact to sister labs by hosting user workshops at ANL, LBNL, LLNL and SLAC. InCREASE also recruits for DOE internship programs and WDTS Outreach programs. Dr. Sekazi Mtingwa, InCREASE President, connected the Lab with Lightsources for Africa, the Americas, Asia and Middle East Project (LAAAMP): An International Council for Science to the International Union of Pure and Applied Physics (IUPAP)-funded project. In FY18 LAAAMP supported two faculty and student Teams (one from Uganda and the other from Trinidad, WI) to visit the Lab to become independent users. In FY19, LAAAMP has identified three teams to visit the Lab.

In FY19, the Lab will leverage the existing partnership with INCREASE to solidify a potential partnership with the National Society of Black Physicist (NSBP). The Lab is exploring partnership opportunities as well as a potential sponsorship of future National Society of Black Physicist (NSBP) annual conferences. Such a partnership with the NSBP will broaden our STEM talent pipeline.

c. *Partnerships with Minority Serving Institutions*.
Brookhaven Lab seeks to institutionalize the relationships and engagements between MSIs and the Lab. Examples of such partnerships with MSIs include:
Howard University—a Historically Black College and University (HBCU): In FY18, the Director of NSLS II visited Howard University and delivered a scientific presentation on the NSLS II capabilities and how researchers can become independent users of the facility. Monthly meetings have been established to continue engagement. On 3/29/2019, a delegation of six Howard professors toured the NSLS II and CFN to explore research collaborations opportunities. All six have identified possible collaborators who will prepare proposals and research projects
CUNY Medgar Evers College (MEC)—A New York City MSI: In FY18, a MEC/BNL working group led by MEC's Associate Provost began developing courses in scientific computing, a relevant DOE mission priority. MEC students will be better equipped to conduct research at any DOE facility making them more marketable
University of Puerto Rico (UPR): In FY 18, Dr. Carlos Cabrera, Professor of Chemistry at UPR identified potential collaborators from the Chemistry Dept., the CFN and NSLS-II to partner with professors from (3) UPR campuses. In FY 19, four Faculty and Student teams fully funded by NSF will conduct research activities at these facilities.

The Lab will track the impact of these partnerships by documenting the number of interns, post docs, faculty, users, workshop participants, and resultant employees derived from the activities related to I&D.

d. Outreach for Promoting Diversity in the Laboratory's STEM Training and Education Programs.
The Laboratory has conducted a number of outreach efforts related to STEM training and education programs. The primary strategy has been to develop strong relationships with federal program leaders at NSF that are charged with expanding the national STEM pool of URMs, women and other underserved groups; with administrative leaders at academic institutions who oversee programs serving URM and underrepresented population; and with associations and organizations who are recognized and trusted entities for those underrepresented in STEM careers. These strategies have proven effective at every level of STEM training and education programs.

In summary, the strategies deployed to ensure inclusion and diversity of the Lab's STEM education and training programs are yielding results that achieve participation approximating that of the general population demographics and in many cases, exceeding it. OEP, and the Lab scientific collaborators have been working with this strategy for approximately 14 years and it has reached a level of significant and trusted engagement with the minority community.

Section 5: Promoting Diversity through Subcontracting, Economic Development and Tech Transfer

SUBCONTRACTING:

Brookhaven Lab's Procurement and Property Management (PPM) Division, within the Business Services Directorate, maintains a subcontracting program (Small Business Program) that seeks to purchase quality products and services from responsible and qualified small (including Alaska Native Corporations [ANC] and Indian Tribes), small disadvantaged (including Small Business Administration [SBA] certified 8a firms), small women-owned, small SBA certified Historically Underutilized Business (HUB)-Zone owned, small veteran-owned, and small service-disabled veteran-owned businesses.

Inclusion and diversity are promoted through committed execution of the company-wide policy that supports these six small business categories, as shown throughout the Small Business web site.

Each fiscal year, awards to small businesses are in the millions of dollars and at Brookhaven inclusion and diversity is expressed in large part through a robust, national Small Business Program.

The Lab has established the following Goals to promoting diversity through its subcontracting efforts:

- Establish specific goals, as stated in the Laboratory's Small Business Subcontracting Plan, that represent the Laboratory's commitment to maintaining an effective subcontracting program with small (including ANC and Indian Tribes), small disadvantaged, small women-owned, small SBA certified HUB-Zone owned, small veteran-owned, and small service-disabled veteran-owned.
- Include in the Laboratory's supplier base qualified small businesses in the above small business categories whose demonstrated performance measurably contributes to the Laboratory's success in achieving its mission.
- Maintain an outreach initiative to assure that small businesses in the above small business categories are aware of and compete for available contracts.
- Provide support to educate the above small business categories on the requirements to become SBA certified and additional available resources to help them grow their business.
- Enhance current efforts to guide and encourage buyers to give small businesses maximum opportunity to participate in the Laboratory's subcontracting program.
- Exceed the Laboratory's annual subcontracting goals for participation of the above small business categories.
- The mentor Protégé partnership between Brookhaven National Laboratory (BNL) and the small business vendor "Hold That Scene "mutually ended as reported in June 2018. BNL is currently searching for an appropriate protégé to engage in the program. As such, we have accomplished a successful small business fair and are continuing to engage with the vendors.

Strategies include:

- Utilization of public media by means of the Brookhaven Small Business Program web site, conferences, and forums, to make small businesses aware of the Laboratory's goals, accomplishments, and business and product needs.
- Selected participation in trade fairs frequented by small businesses that meet our current requirements and establish partnership with regional Minority Supplier Development Councils.
- Source data exchange with other U.S. Department of Energy (DOE) facilities, public, and private organizations that foster the identification and qualification of the above small business categories.
- Provision of training through workshops, seminars, the internal procurement newsletter, and other less formal means to educate the buyers/contract specialists and other individuals who participate in the procurement process about their responsibilities with respect to small business participation.
- Targeted outreach to reach Brookhaven Lab's sub-contracting goals in fiscal year (FY) 2019 for Service Disabled Veteran-Owned small businesses networking with other laboratories that have had success in meeting these goals, particularly other labs on east coast.

Table 5: Small Business Sub-Contracting Goals

Small Business Type	FY18 Goals	FY18 Actual	FY19 Goals
Small Business	42%	47.8%%	45%
Women-owned Small Business	5%	6.1%	5%
Small Disadvantaged Business	5%	5.0%	5%
HUBZone Small Business	3%	2.2%	3%
Veteran Owned Small Business	3%	4.2%	3%
Service Disabled Veteran-Owned Business	3%	2.6%	3%

The Small Business Program at Brookhaven National Laboratory serves as the advocate and point of contact for all types of small business concerns (small; women-owned; disadvantaged; HUB-Zone; veteran-owned; and service-disabled veteran-owned) who are seeking contracting opportunities at Brookhaven National Laboratory.

During FY18, Brookhaven made outreach efforts to locate and utilize small businesses in all categories.
Activities included:

- Interacting with small business suppliers and small business organizations on subjects pertaining to:
  - Doing business with Brookhaven Lab and government
  - Assisting in SBA 8(a) & HUB certifications and explaining the differences/advantages between state and federal certifications.
- Providing guidance on:
  - North American Industrial Classification System (NAICS) codes/size standards
  - Subcontracting Plan requirements
- The Lab conducted a Small Business fair on July 17, 2018, with the assistance of the Stakeholder & Community Relations Office. The event was open to the public with nineteen tables of exhibitors, which included fourteen innovative companies showcasing new technologies. In attendance was the Long Island Association and the Chamber of Commerce, among other local businesses and business representatives. On exhibition for information and support was Lab procurement staff, as well as invited staff from Cold Spring Harbor procurement and the Stony Brook Small Business Development Center (SSBDC). This collaboration between Brookhaven Lab and SSBDC established a new relationship we hope to grow. Several connections are forming between the companies and the Brookhaven technical staff. Demonstrations of Lab capabilities and opportunities for companies in FY19 have been scheduled. A survey was submitted to each displaying company and positive feedback was received, i.e. how to do business with Lab presentation very helpful, conference room for private meetings available was conducive to business, meeting with technical staff valuable, whole event was organized and welcoming.
- Participated in September 2018 in the Con Edison -BNL MWBE Technology Summit. Provided a Presentation detailing the small business opportunities at the Lab.
- Attended on Nov 27, 2018, the Second Annual Service Disabled Veteran-Owned Small Business Opportunity Day hosted by DOE OSDBU in Washington, D.C.
- PPM is scheduled to attend the USDOE 18th Annual Small Business Forum & Expo during April 2019 in Pittsburgh.

In FY19 Brookhaven will continue the activities related above to support and assist all small businesses. The Laboratory remains engaged with local Business Advisory Committees to maximize exposure to the small business community.

With regards to the Lab's procedures for ensuring that subcontractors are compliant with EEO and non-discrimination requirements, all of the Lab's subcontracts contain *Flow Down* clauses. The BSA prime contract includes the FAR Clause 52.222.26 which requires contractors to comply with EO 11246 and 41 CFR 60 as well as flow down the clause to subcontractors. PPM has incorporated this FAR clause in our standard set terms and conditions which are included in all our subcontracts.

ECONOMIC DEVELOPMENT & TECH TRANSFER:

The Office of Sponsored Programs is in dialogue with the Interdisciplinary Consortium for Research and Educational Access in Science and Engineering (INCREASE) on methods of increasing partnerships and collaborations with Historically Black Colleges and Universities (HBCUs). In addition, discussions are ongoing with Howard University regarding work at the NASA Space Radiation Laboratory (NSRL).

Brookhaven is working with NYSTEC to collaborate on technology transfer efforts with regional small business. Brookhaven Lab is also partnering with Con-Ed to expand strategic partnerships with Minority and Women Owned Small Businesses. The Lab is also working with the City University of New York (CUNY) to expand our working relationship with Minority Serving Institutions (MSIs) and explore partnerships. Brookhaven continues to work with the NSF to expand minority access and achievement in the sciences through Other Federal Agency Strategic Partnerships Projects. Computational Science Initiative's Center for Data-Driven Discovery "C3D" funding and the funding for the cryo-EM have New York State Minority and Women Owned Business Enterprise (MWBE) subcontracting requirements associated with them, which we are also meeting. This set-aside opportunity ensures that MWBE are participating in supporting our science by receiving valued procurement dollars.

In FY18, the Lab issued four licenses to small businesses. There are currently 19 active Small Business Innovation Research/Small Business Technology Transfer agreements with one agreement pending. The Office of Technology Transfer staff continues to participate as an advisory board member for the Clean Energy Business Incubation Program (CEBIP) at Stony Brook University. In FY18, the Office of Technology Transfer was awarded the Energy iCorps site funding to implement an entrepreneurial training program for Lab scientists and engineers. In FY 2019, the Office of Technology Transfer will implement a three-day entrepreneurial workshop for Lab scientists and engineers. The workshop will have sessions on SBIR and customer discovery.

Section 6: Laboratory Educational Outreach and Community Involvement and Outreach

A. Overview of goals and strategy

The Stakeholder and Community Relations Office (SCR) along with the Office of Educational Programs (OEP) work together to foster an environment in which all people with differences are accepted and promotes activities that support two of the components of our I&D strategy: Engagement and Outreach and Education. The organization actively reaches out to inform and educate underrepresented communities of the resources and opportunities the Lab has to offer, and to invite and enable them to participate in these opportunities as part of the Lab's strategy to develop its own STEM pipeline.

The Lab promotes employee volunteerism to expand interactions with diverse stakeholder groups, frequently drawing upon the diversity of the Laboratory staff that reflect the makeup of the stakeholder group. The Lab's community service efforts offer programs that organize employee-volunteer events and assists Brookhaven Employee Recreational Association (BERA) clubs with activities and events that advance cultural awareness and inclusiveness. These programs not only help the URM community, but also serve as an excellent team building opportunity for Lab employees. The employee volunteer programs and multicultural engagement opportunities afforded to employees is an important tool in addressing the challenge of creating a strong employee value proposition. Employee volunteerism and the quality of life programs provided by the Lab strengthens employee morale thereby creating a strong employee value proposition.

The wealth of community and educational outreach activities conducted by the Lab is also a necessary strategy to address the challenge of a lack of awareness of Brookhaven's reputation. One major community involvement program is our Summer-Sundays program. This annual open house program is the Lab's major public tour opportunity and features a different science or operations facility on four Sundays during the summer. This outreach activity also helps increase the employee value proposition as hundreds of Lab employees volunteer to design and host activities and tours for the visiting public. The research facilities volunteers are representative of the diversity of the employee population in terms of service years, job classifications, and academic background. This also demonstrates the range of educational and career opportunities that Brookhaven Lab offers. In FY18, the program drew just under 5,000 visitors from diverse areas across the region. Data collected from attendee surveys show that visitors from local communities with a high concentration of multiracial families and residents such as Mastic Beach, Shirley, and Riverhead, as well as people from areas that reflect more densely populated urban and suburban areas, attended. Many of these communities have significant populations of people from groups who have been traditionally underrepresented in the sciences.

***Metric**:* Of term-appointment staffers hired to work Summer Sundays in 2018, three-quarters were women and fifteen percent were members of underrepresented minority populations. For FY19 we plan to work with members of the various ERGs to identify potential candidates for the tour worker positions to continue the diversity of this team.

To prioritize community outreach and employee volunteer and engagement activities, the Lab utilizes metrics to measure the value and impacts of these efforts. Metrics are defined by the number of events in targeted areas; number of employee volunteers; number of groups to which tours are targeted and provided; with Summer Sundays attendance measured by zip codes recorded by attendees on the annual survey, percentage of underrepresented and female students participating in STEM programs, and establishment of relationships with outside organizations who are known by members of diverse populations. All metrics are compared to the prior year to see if targets have been met and to inform the Lab where outreach is needed.

The Lab's Office of Educational Programs (OEP) provides a significant component to one of the Lab's I&D pillars in Outreach to the general public and to populations underrepresented in STEM fields. Each year more than 30,000 local students, educators, and parents participate in pre-college programs offered by the Lab. These programs serve local schools districts, many of which are those noted above for the Summer Sunday program as having significant populations traditionally underrepresented in the sciences. In the case of Longwood School

District, the closest to the Lab, multiple grades have one hundred percent participation, ensuring equal access to Lab-offered educational programs for those grade levels.

Inclusion and Diversity metrics for the educational outreach programs remain centered around engaging an audience that is representative of the general public, and where possible, exceeding that target for underrepresented minorities and female participants in STEM development programs. These metrics continue to be exceeded for underrepresented minorities and are near 50 percent for female participation. Achievement of this metric is accomplished through key relationships that have been developed over several years and by offering programs that target populations underrepresented in STEM fields. Examples of key relationships include the university administrators for the New York State Science and Technology Entry Program serving underrepresented minority and economically disadvantage students, Girls, Inc which seeks to advance opportunities for young women, the Stony Brook Freedom School that focuses on opportunities for underrepresented minorities, Zion Youth of Elmont that engages with the African American community through faith based relationships, and Girl Scouts of Nassau and Suffolk County. Specific programs have been deployed to ensure engagement with the participants in the programs noted above and these relationships are key to seeking applicants for targeted and general programs offered at the Lab.

B. FY 18 Major Activities and Accomplishments

As one example of a valuable and impactful strategy, several years ago, it was observed that students in the program now referred to as STEM Prep, a Lab program targeted to underrepresented ninth grade students, were not engaging in subsequent programs at the Lab such as the High School Research Program. A deliberate effort was made to transition some of the students from one program to the next. This has yielded about a 25 percent annual rate of participation at higher level programs over the past few years. This significant boost in participation of URM students will be a viable source to feed into our talent pipeline.

The educational programs are conducted to assert Brookhaven Lab as a good neighbor and to build science literacy, but also with an eye toward employment. Often, effort must be exerted one student at a time to meet specific needs. As an example of a success, recently, a student with Asperger's Syndrome was identified as exceptionally talented in math and computing. This student was brought into the educational programs with an awareness of the challenges. Through careful mentor selection, coaching, and guidance, this student was successful. The student participated in the DOE SULI program, earned a baccalaureate degree and has since been hired by the Laboratory at the NSLS-II. One stated mission of OEP is to support and celebrate diversity in STEM–considerable attention and effort is made to ensure that students of every background feel welcome as part of the Brookhaven Lab and DOE family. This is achieved by sensitivity to diverse needs and ensuring that program participation reflects the population at large and nurtures the capabilities of those who would like to join the STEM professions.

In FY19, SCR continues to support programs such as those noted below in the separate table (See Appendix F). Broadening the spectrum of relationships will include building opportunities with the Urban League of Long Island in collaboration with the Long Island STEM Hub and the New York State Workforce Development Institute Long Island representative to develop a URM ambassador program. This program will focus on STEM career opportunities on Long Island, including those at Brookhaven, and will seek to increase the visibility of URM STEM professionals as role models. OEP has collaborated with NSLS-II staff to re-initiate teacher and student participation in authentic research at the NSLS-II in a program called SPARK (Student Partnerships for Advanced Research and Knowledge). The SPARK program, led by a Hispanic female PhD who also oversees the STEM-Prep and High School Research programs, has facilitated the development of several female teachers as users, and also developed accompanying high school students as users. The focus noted above on a pipeline of STEM interested and capable URM students has been realized in the SPARK program by providing continuous engagement for URM high school participants. In FY 19, the SPARK program is expected to continue its growth and rate of inclusion, and to provide greater recognition of those participating through conference presentations on the use of DOE facilities by high school students, and through published work by the SPARK team.

Appendix A: Laboratory Diversity and Inclusion and Relevant Resources, Documents and Policy Statement(s)

i. Public Policy statements, plans and procedures related to D&I

Brookhaven National Laboratory has a long-standing commitment to a policy of equal opportunity and diversity. Our goal is equality of opportunity in all aspects of employment, including placement, development programs, job assignments, transfers and promotions, without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, status as a veteran, disability or any other federal, state or local protected class.

To access the following policies go to http://www.bnl.gov/HR (Click on Inclusion & Diversity Office, select Policies)

Brookhaven's **Equal Opportunity & Affirmative Action Policy Statement** commits to providing equal employment opportunities to all employees to ensure that every employment decision is free from illegal discrimination based on laws or executive orders.

Brookhaven Anti-Harassment Policy is committed to providing its employees a workplace free of threatening, intimidating or harassing conduct, including sexual harassment. The Policy outlines specific behaviors which constitute harassment-sexual or other, how to report it, and what the protocol is if there is an incident that might constitute harassment. Additionally it states that it is the responsibility of each manager and supervisor to create and maintain a harassment-free workplace and to promptly bring all matters to designated personnel.

Brookhaven Anti-Retaliation Policy prohibits unlawful retaliation against an employee who in good faith questions actions or inactions toward him or her for raising a concern around a work-related issue. This comprehensive policy defines retaliation, protected activity, adverse actions and other terms to assure clarity. Additionally, the policy assures the complainant of a measure of confidentiality, provides guidance as to reporting mechanism, and how to file a complaint.

Brookhaven Respectful Workplace Policy embraces the concept of respect as a core value for all employees regardless of their roles and there is an expectation that everyone should demonstrate respect through common courtesy and civility.

Brookhaven Workplace Lactation Policy provides a supportive environment to enable breastfeeding employees to express their milk during working hours. (https://www.bnl.gov/lactationroom/)

Veteran Policy for Disabled Veterans, Recently Separated Veterans, Active Wartime or Campaign Badge Veterans, Armed Forces Service Medal Veterans, and/or Employees with Disabilities.
As a federal contractor, the Laboratory is subject to Section 503 of the Rehabilitation Act of 1973 and to Section 402 of Vietnam Era Veterans Readjustment Act (VEVRAA) of 1974, as amended. BNL takes affirmative actions in employment for qualified individuals with disabilities and qualified veterans in the above mentioned categories. (https://www.bnl.gov/diversity/policies/veteran-policy.php)

Reasonable Accommodation and EEO
Review of "Reasonable Accommodation and EEO is the Law" poster. Brookhaven National Laboratory has a long-standing commitment to a policy of equal opportunity (http://www.bnl.gov/hr/careers/EEO.php) and diversity Brookhaven is an E-Verify Employer (https://www.bnl.gov/HR/careers/eVerify.php).

EEO statement contained in every job posting
Brookhaven National Laboratory (BNL) is an equal opportunity employer committed to ensuring that all qualified applicants receive consideration for employment and will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age, status as a veteran, disability or any other federal, state or local protected class. BNL takes affirmative action in support of its policy and to advance in employment individuals who are minorities, women, protected veterans, and individuals with disabilities.

Employer Assisted Housing Program provides eligible employees with monetary assistance to purchase a home on Long Island. Brookhaven Science Associates (BSA) / BNL is partnered with the Long Island Housing Partnership, Inc. (LIHP) to assist qualified employees by providing financial assistance and housing counseling. https://www.bnl.gov/hr/Benefits/assisted-housing.php

ii. **Internal Policy statements/procedures and resources related to D&I**

Brookhaven National Laboratory provides all new employees with an Employee Handbook that is available internally through the intranet. The following operations, policies, procedures, and resources related to Diversity and Inclusion are provided in this Employee Handbook:

Employee Assistance Program provides free confidential service to help employees and their family members solve personal problems that may affect health, well-being, or job performance.

Flexible Work Arrangements is a family friendly work practice that provides three forms of flexible work arrangements: Compressed Work Schedule, CoreHours, and TeleWork . The Flexible Work Arrangement is one of the Work-Life Balance policies that make it possible for employees to more easily manage family and work responsibilities.

Professional Development programs offered to lab employees include on-site training on administrative, communication, and managerial skills. Other programs address needs in areas such as personal communication skills, time management, business and technical writing, and presentation skills.

Tuition Assistance is provided to eligible employees as an opportunity for professional development that offers a maximum of $4,000 per semester for full-time employees and $2,000 per semester for part-time employees.

Recreational Activities and Facilities provided by the Lab encourages participation in a broad range of social, cultural, and athletic programs. The recreation facilities at BNL are as varied as the activities they support. They include the swimming pool and gymnasium as well as the recreation park with ball fields and picnic facilities.

Appendix B: Table 1

Total Laboratory Workforce Demographics (FY 2018)

	Total Employees	# Women	% Women	# African American/ Black [2]	% African American/ Black	# American Indian or Alaska Native [2]	% American Indian or Alaska Native	# Native Hawaiian or Other Pacific Islander [3]	% Native Hawaiian or Other Pacific Islander	# Asian [3]	% Asian	# Two or more Races/ Ethnicity	% Two or more Races/ Ethnicity	# Hispanic or Latino [2]	% Hispanic or Latino	# White	% White	# Persons with Disabilities	% Persons with Disabilities	# Veterans	% Veterans
Overall (all Employees)	2465	616	24.99%	156	6.33%	8	0.32%	3	0.12%	362	14.69%	9	0.37%	130	5.27%	1797	72.90%	59	2.39%	122	4.95%
Lab Senior Leadership (LD, DLD, ALDs)	11	2	18.18%									1	9.09%			10	90.91%			1	9.09%
Research/Technical Management (first-line and mid-level)	291	39	13.40%	3	1.03%					67	23.02%		0.00%	7	2.41%	214	73.54%	3	1.03%	5	1.72%
Operations Management (or Research Support)	91	33	36.26%	5	5.49%	2	2.20%			2	2.20%		0.00%	5	5.49%	77	84.62%	4	4.40%	8	8.79%
Technical Research Staff	920	94	10.22%	23	2.50%	1	0.11%	2	0.22%	175	19.02%	2	0.22%	42	4.57%	675	73.37%	17	1.85%	51	5.54%
Operations Support Staff	992	412	41.53%	115	11.59%	5	0.50%	1	0.10%	35	3.53%	4	0.40%	60	6.05%	772	77.82%	29	2.92%	56	5.65%
Postdocs	121	27	22.31%	6	4.96%					76	62.81%		0.00%	8	6.61%	31	25.62%	5	4.13%		
Graduate Students [4]	22	5	22.73%	4	18.18%					6	27.27%	1	4.55%	6	27.27%	5	22.73%	1	4.55%	1	4.55%
Undergraduates [4]	17	4	23.53%							1	5.88%	1	5.88%	2	11.76%	13	76.47%				

Appendix B: Table 3

Diversity of Laboratory New Hires (FY 2018)

	Total Employees	# Women	% Women	# African American/ Black [2]	% African American/ Black	# American Indian or Alaska Native [2]	% American Indian or Alaska Native	# Native Hawaiian or Other Pacific Islander [3]	% Native Hawaiian or Other Pacific Islander	# Asian [3]	% Asian	# Two or more Races/ Ethnicity	% Two or more Races/ Ethnicity	# Hispanic or Latino [2]	% Hispanic or Latino	# White	% White	# Persons with Disabilities	% Persons with Disabilities	# Veterans	% Veterans
Overall (all Employees)	136	36	26.47%	6	4.41%					45	33.09%	2	1.47%	10	7.35%	73	53.68%	4	2.94%	5	3.68%
Lab Senior Leadership (LD, DLD, ALDs)																					
Research/Technical Management (first-line and mid-level)	5	2	40.00%													5	100.00%	1	20.00%		
Operations Management (or Research Support)	1													1	100.00%						
Technical Research Staff	51	8	15.69%	2	3.92%					11	21.57%	1	1.96%	2	3.92%	35	68.63%	1	1.96%	4	7.84%
Operations Support Staff	24	12	50.00%							3	12.50%	1	4.17%	1	4.17%	19	79.17%			1	4.17%
Postdocs	55	14	25.45%	4	7.27%					31	56.36%			6	10.91%	14	25.45%	2	3.64%		

Appendix C: List of Key Personnel

With Inclusion & Diversity being a core leadership priority, the following personnel are actively involved in promoting and advancing Inclusion & Diversity efforts:

Name/Group	Position Title/Type of Personnel in Group	Reporting Chain	Relevant Roles and Responsibilities
Dr. Doon Gibbs	Laboratory Director	DOE	Leads all aspects of I&D efforts.
Shirley Kendall	Inclusion & Diversity Manager	Chief Human Resources Officer (CHRO)	Coordinates the efforts, measures and reports institutional progress as they relate to the implementation of the I&D Strategic Plan. Collaborates with Leadership and various groups across the Lab. Provides tools, guidance and training to enhance the lab's awareness and education of I&D. Works with managers to ensure diverse candidate pools.
Sr. Lab Leadership	BNL ALDs	Laboratory Director	Creates a culture that values I&D, one in which any individual or group can feel welcomed, respected, supported and valued. This is accomplished through employee engagement, staff development and transparent policies and practices.
Management Steering Committee	Director, DDST, DDO, ALDs, Inclusion & Diversity Manager; ERG leaders	Laboratory Director	Advises on policies, strategies and initiatives in support of the lab's commitment to achieve I&D.
Directorate-Level I&D Councils	Dept/Directorates	Associate Laboratory Directors	Partners with the Inclusion & Diversity Office to roll out the I&D Strategy and provides support for outreach activities.
Joseph Lee	Supervisor, Inclusion & Diversity	Inclusion & Diversity Manager	Supports Affirmative Action Program and I&D Plan –Prepares and has significant input to I&D Plan (SME).
Margaret Sullivan	Talent Manager	CHRO	Prepares and implements recruitment portion of I&D Plan.
Brookhaven Women In Science (BWIS)	Representatives from each Science Division and volunteers from all divisions	CHRO – Inclusion & Diversity Office	Provides input to ensure support of women scientists and engineers.
Diversity Working Group	Lab – Wide Representation	Inclusion & Diversity Office	Shares and learns best practices in I&D.
Employee Resource Groups: African-American Advancement Group; Hispanic Heritage Group; Gay, Lesbian, or Bisexual Employee Group; Early Career Workforce; Indo-American; Asian Pacific Association; Brookhaven Veterans Association	Employees	Inclusion & Diversity Manager	Assists and supports relevant outreach, retention, cultural awareness/sharing. Supports recruiting and assimilation of new hires.

Appendix D: List of Trainings Related to the Prevention of Discrimination, Harassment, and Profiling

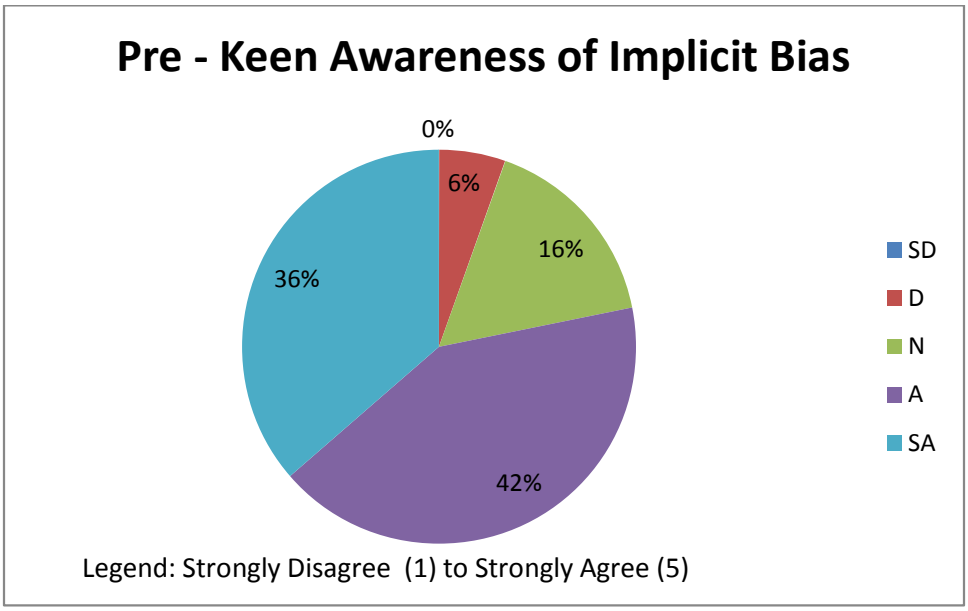
Course Name	Course Code	Audience	Mandatory or Optional	Frequency
Diversity	DV-DIVSH	General	Optional	Initial training only
Sexual Harassment & Mentoring	DV-SHM	General	Optional	Initial training only
Sexual Harassment Awareness and Prevention	TQ-HARASS-PREVENT	All employees and long-term guests	Mandatory	Initial training only (under discussion)
Harassment Prevention in the Workplace	TQ-HPWP	General	Optional	Initial training only
What Supervisors Need to Know About Sex Discrimination	PE-PE108SI	Supervisors	Mandatory	Initial training only
Diversity in Science & Engineering Faculty	DV-DSEF	General	Optional	Initial training only
DV-NEO | Diversity Orientation & SH Awareness	DV-NEO	Summer Sundays Coordinator	Mandatory	Initial training only
Intro. to EEO/Affirmative Action and Diversity Mgt	PE-PE119S	Supervisors	Mandatory	Initial training only

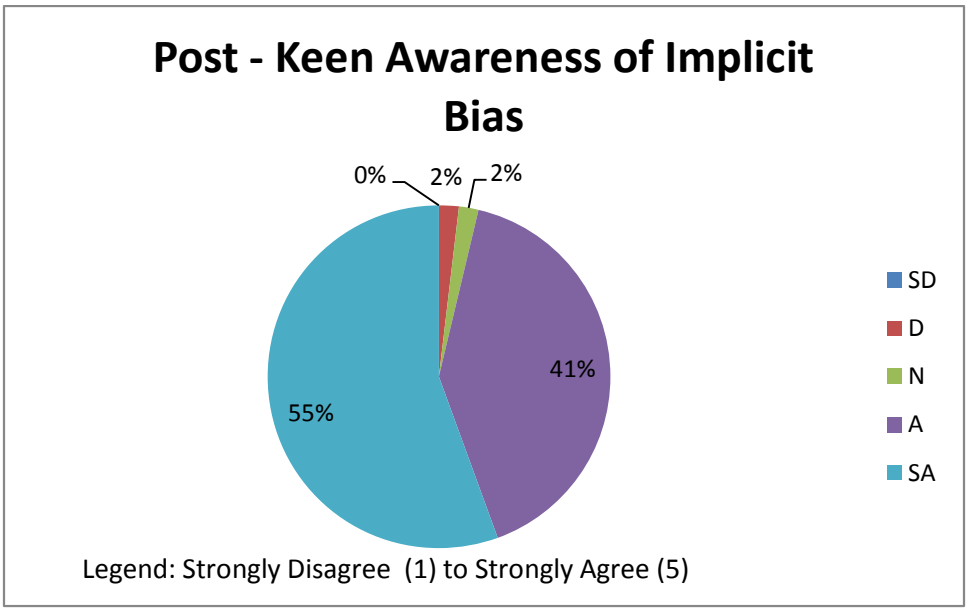
Hubbard & Hubbard, Inc. Statistical Report

Workshop Results

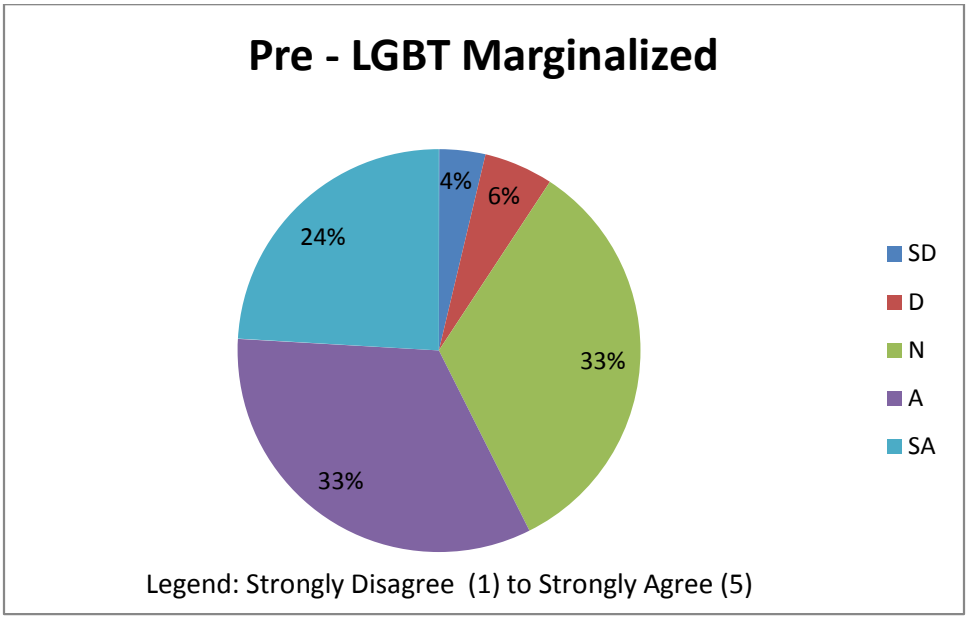
Below, You will find the analysis results from the July BNL Diversity Guest Lecture Series delivered by Michael Ramsey-Musolf in June, 2018. The results shown here reflects the Pre versus Post Percentage of Knowledge Gained during the session.

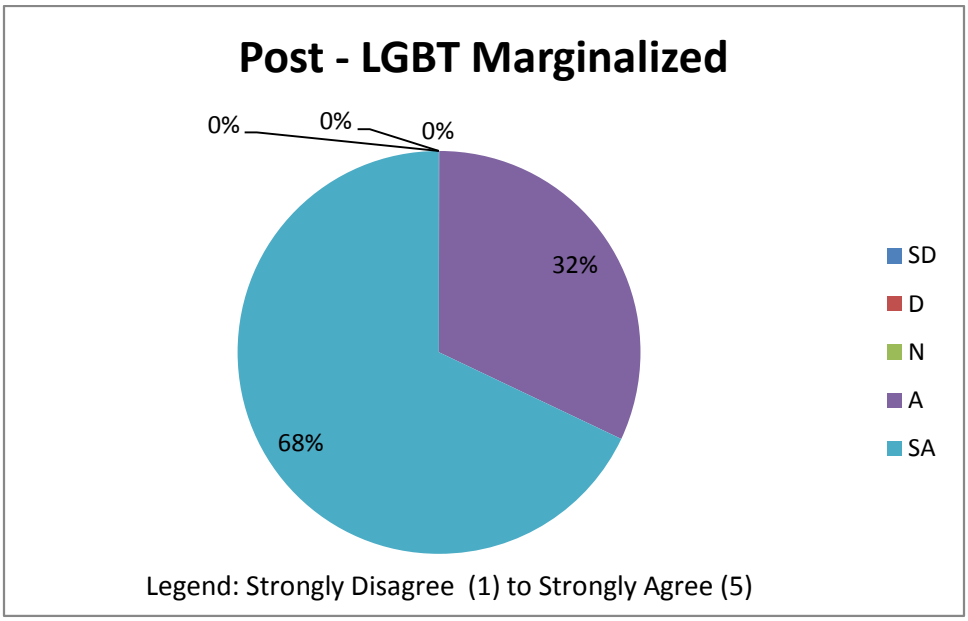
Question: I have a keen sense of awareness and understanding of implicit bias?



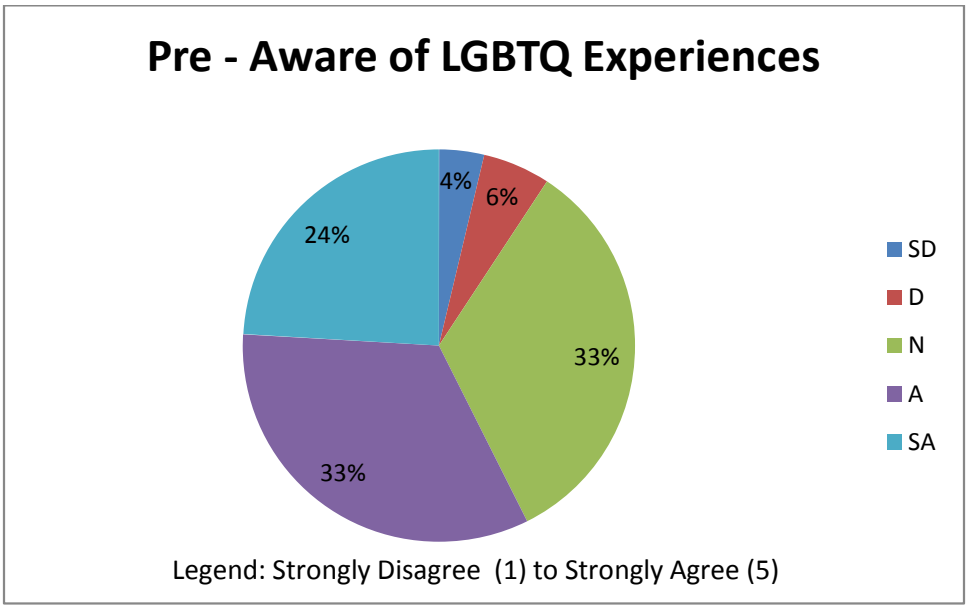


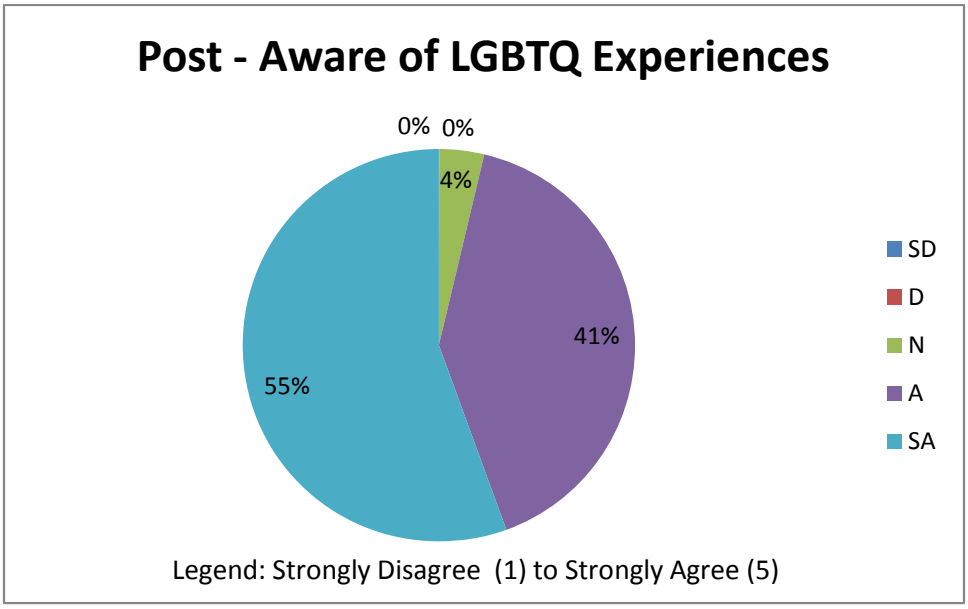
Question: I recognize that members of the LGBTQ community may experience marginalization through implicit or explicit bias in the workplace that can hamper job satisfaction, career success, and workplace productivity.



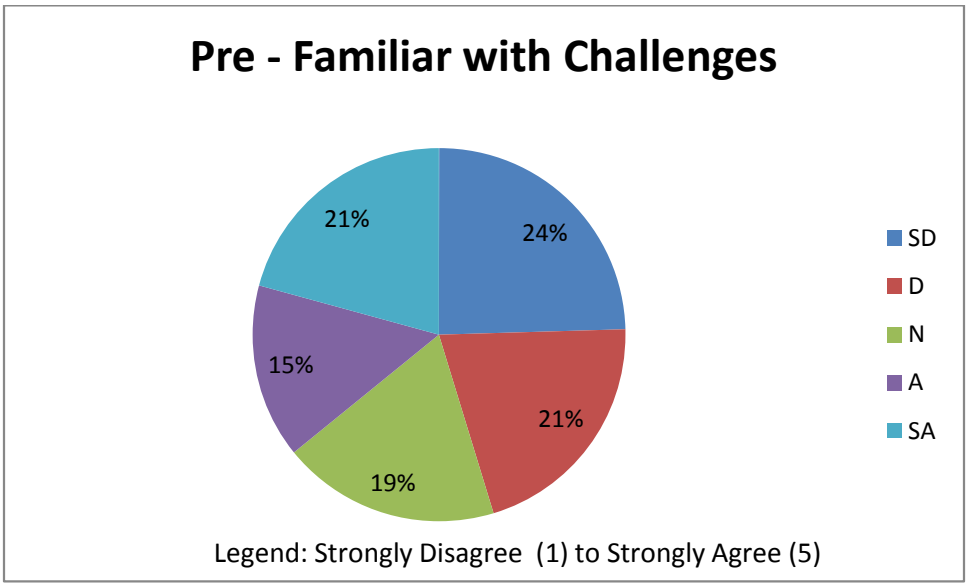


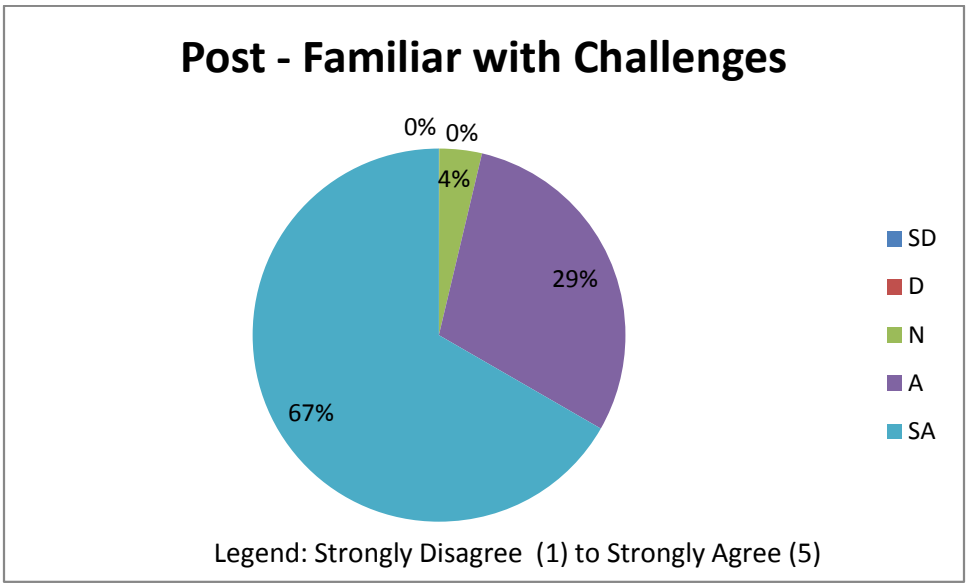
Question: I am aware of specific examples that illustrate LGBTQ experiences of explicit and/or implicit bias



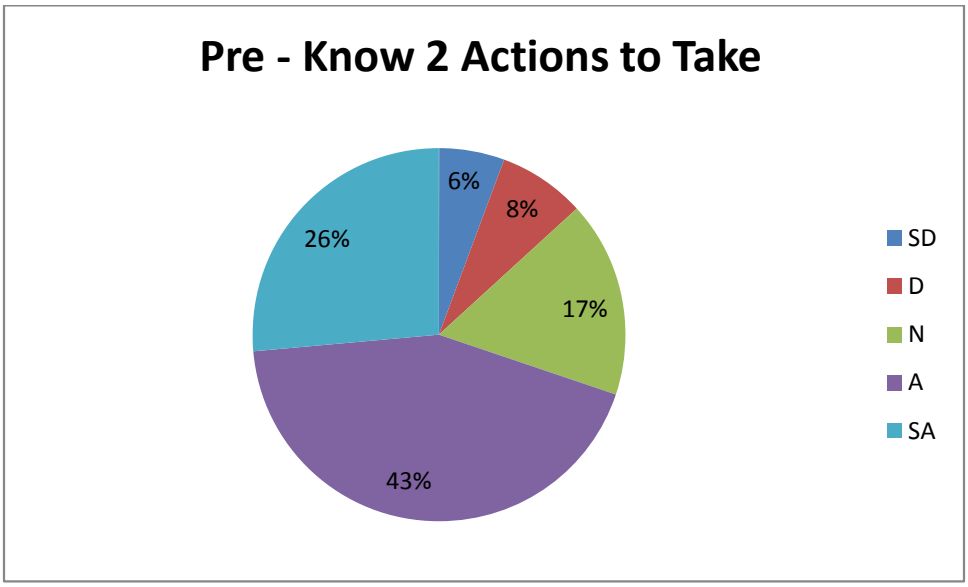


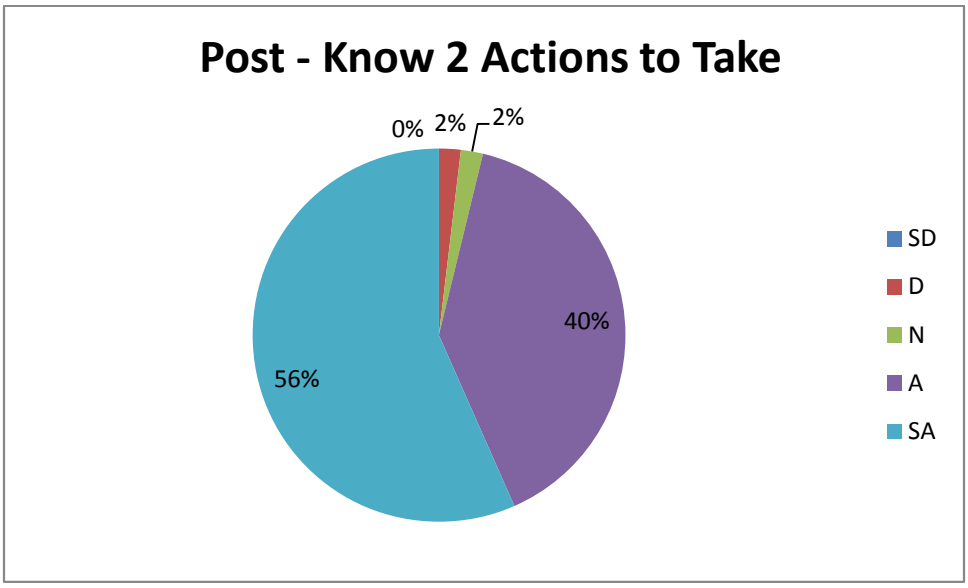
Question: I am familiar with the term "lavender ceiling" and the unique challenges that a member of the LGBTQ community may face in their career path.





Question: I am confident I know at least two actions I can take to promote an inclusive work environment.





Appendix F: List of Community Outreach Activities and Efforts

URM Focused Outreach Programs:	Community Service efforts:	BSA Corporate Philanthropy:
Tour Program: The Lab hosted more than 2,074 visitors on 152 tours during FY18. Groups included and/or represented diverse audiences and interests. The Tour Program supports the Lab's D&I Plan by reaching out to underrepresented stakeholders to inform them of the resources and opportunities the Lab offers, while providing visitors the opportunity to meet with scientists and engineers **World Science Festival**: The World Science Festival gathers great minds in science and the arts to produce live and digital content that allows a broad general audience to engage with scientific discoveries. Lab employees again participated in this event to share the Lab's research themes and interest URMs in STEM. **The City of Science:** Held at the Park Slope Armory YMCA in Brooklyn, New York: Lab volunteers met and shared science with a diverse audience, including children, parents, and teachers **Exploration Programs for NYS STEP:** OEP has developed a solid relationship with the NYS Science and Technology Entry Program that serves underrepresented minority	**Neighbors Helping Neighbors:** reaches out to a diverse Long Island population and others in need of assistance, through employee volunteer efforts and fundraising. These efforts include: Habitat for Humanity; United Way of Long Island; **Colonial Youth and Family Services Adopt- a-Family program**; Town of Brookhaven Interface; and Island Harvest (individual program results listed below). **United Way of Long Island**: In FY18 the Laboratory raised nearly $150,000 from employee contributions and special events that included contests and bake sales, breakfasts, luncheons, a holiday auction, a yard sale, and more. *Metric:* increase employee participation by 5 percent in FY19, in order to increase our annual contribution **Habitat for Humanity** BNL employees – Neighbors Helping Neighbors began building the Velasquez family home in Mastic Beach, N.Y. Volunteers will continue to work on the house throughout FY19. **Colonial Youth & Family Services Organization's Adopt-a-Family** Lab employees provided 102 boxes of holiday gifts such as warm clothing and food—and toys—to needy families via the Colonial Youth & Family Services' (CYFS) Adopt-A-Family program during the FY18 holiday season	**Girl's Inc.** The network of local Girls Inc. nonprofit organizations serves girls ages 6-18 at more than 1,400 sites in 400 cities across the United States and Canada. BSA provided $10,000 to support Girl's Inc. programming. Other regional businesses provided support to enable two weeks of STEM programming for girls in the summer. The relationship was recognized by an award to the OEP manager at their recent gala event. **Brookhaven Town Interface Program** is a partnership between individuals, good corporate neighbors and the Town of Brookhaven united in a common effort to provide help to Brookhaven's less fortunate residents. It provides goods and services to those in need and addresses social issues In FY18, BSA provided $3,000 to support the Town's initiatives **Habitat for Humanity Suffolk** – BSA's Corporate Philanthropy Program provided $10,000 to support the organization. **LI Progressive Coalition** - is a community-based organization dedicated to promoting sustainable development, revitalizing local communities, enhancing human dignity, and achieving

and economically disadvantaged students. Academic year one day and summer multi-day programs are conducted for this audience	**<u>Island Harvest's Feeding Our Families</u> -** Employees collected more than 600 pounds of food, cleaning supplies, and personal hygiene products to help Island Harvest, a local 501(c)3 food bank that provides basic necessities to Long Islanders in need	economic, social and racial justice. In FY18 BSA provided $500. **Island Harvest –** In FY18, BSA provided the organization $2,500
Zion Youth of Elmont/Vaugh College: BNL staff supported a six-month Saturday program for 27 underrepresented minorities middle school students from the Rockaways–a disadvantaged community. The program audience was secured by Zion and met at Vaughn College. Brookhaven Lab and D'Assault Systemes provided expertise and the students spent a day at the Lab.	**Brookhaven Town Interface Program** -In FY18, A dedicated Brookhaven Lab employee again volunteered to serve on its Board, providing support to the organization	
STEM Prep: Twenty-four minority students attended a four-week program at the Lab to learn about life sciences, engineering, physics, computing and integration of these disciplines. These students are encouraged to participate in subsequent programs.	**Brookhaven Town Interface Program** -In FY18, A dedicated Brookhaven Lab employee again volunteered to serve on its Board, providing support to the organization.	
SBU Freedom School: A collaboration with Stony Brook University to provide science enrichment for 50 URM students from low income families.	**Long Island STEM Hub:** The Lab provide co-stewardship of the Long Island STEM Hub, a consortium of Long Island business leaders, not-for-profits and academic institutions focused on encouraging Long Island students to prepare for and pursue careers in STEM. Many of the efforts are focused on diversity such as the Farmingdale State College STEM Diversity Summit that the Lab supported.	

WISE Guys and Gals: This NSF funded collaboration with Hofstra University provides STEM training for Boys and Girls Clubs of America educators with the intent of reaching underprivileged communities.		