Diversity, Equity, and Inclusion

DOE/HEP PI Meeting

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Alan Stone
Office of High Energy Physics
Our Nation derives strength from the diversity of its population and from its commitment to equal opportunity for all. **We are at our best when we draw on the talents of all parts of our society**, and our greatest accomplishments are achieved when diverse perspectives are brought to bear to overcome our greatest challenges.

— President Barack Obama,
Executive Order 13583 - August 18, 2011
What’s the Difference? Diversity

- **Diversity**: the presence of difference in individual attributes such as national origin, language, race, color, disability, ethnicity, gender, age, religion, sexual orientation, gender identity, socioeconomic status, veteran status, and family structures. Diversity can also refer to differences of thought and life experiences.

  - “How can we get more people with marginalized identities into our pipeline?”
  - “How can we incentivize recruiting ‘diverse candidates’”? 
  - “How many more of [pick any minoritized identity] group do we have this year than last?”

Drawn in part from Dafina-Lazarus Stewart, Bowling Green State University

What’s the Difference? Inclusion

- **Inclusion**: a culture that connects each employee to the organization; encourages collaboration, flexibility, and fairness; and leverages diversity throughout the organization so that all individuals are able to participate and contribute to their full potential.

- “What is the experience for individuals who are the minority within the organization?”
- “Do people with marginalized identities feel a sense of welcome and belonging?”
- “What don’t we realize we are doing that is negatively impacting our new, more diverse, teams?”

Drawn in part from Dafina-Lazarus Stewart, Bowling Green State University
What’s the Difference? Equity

Equity: a set of conditions that allows everyone to access the same opportunities. Equity acknowledges that individuals start out with different advantages, and identifies and seeks to mitigate structural barriers.

“What can we do to make sure everyone can succeed?”
“What conditions have we created that maintain certain groups as the perpetual majority here?”
“Are our structures and processes having the intended consequences and outcomes?”

Drawn in part from Dafina-Lazarus Stewart, Bowling Green State University
Interactive Exercise Q1

- Stand up if you were the first person in your family to go to college
Interactive Exercise Q1-Q2

- Stand up if you were the first person in your family to go to college
- Stand up if you or someone in your family is a veteran or active military
Interactive Exercise Q1-Q3

- Stand up if you were the first person in your family to go to college
- Stand up if you or someone in your family is a veteran or active military
- Stand up if you have a family member with a physical disability
Interactive Exercise Q1-Q4

- Stand up if you were the first person in your family to go to college
- Stand up if you or someone in your family is a veteran or active military
- Stand up if you have a family member with a physical disability
- Stand up if a family member is (was) affected by dementia
Interactive Exercise Q1-Q5

- Stand up if you were the first person in your family to go to college
- Stand up if you or someone in your family is a veteran or active military
- Stand up if you have a family member with a physical disability
- Stand up if a family member is (was) affected by dementia
- Stand up if you have a family member with special needs
Reflection

- Stand up if you were the first person in your family to go to college
- Stand up if you or someone in your family is a veteran or active military
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- Stand up if you have a family member with special needs
Enable The Mind, Encourage The Heart

Sophia
There are many groups that remain underrepresented in physics.

This includes women, but also racial, ethnic, and religious minorities, LGBTQ+ people, low-income and first-generation college students, people with disabilities, and others.

In this context, URM refers to African Americans, Hispanic Americans, American Indian/Alaska Natives and Native Hawaiians.
The number of Physics Ph.D.s awarded is orders of magnitude smaller for some groups than it is for white men – particularly for those that hold multiple marginalized identities and face compounded barriers.

This lack of representation presents challenges in forming adequate support networks for these individuals, and raises issues around advocacy, ethical data collection, and the development of best practices.

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8/23/2018
Importance of Champions

- Individual experiences—even within the same environment—can vary substantially, and people with marginalized identities can best describe their own needs.
  - **Disaggregated demographic data** and **qualitative data** (from climate surveys or site visits, etc.) are both important for capturing the full spectrum of experiences.

- Research shows that counterspaces and affinity groups for people who share identities can increase well-being and career success.

(See the NAS Workshop on Women of Color in STEM, http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_183506.pdf)

- However, **building an inclusive culture relies on everyone’s efforts**, not just the actions of marginalized individuals. People who aren’t members of underrepresented groups have the power to influence their environments.
At DOD and DOE, **GAO found evidence of disparities** in success rates for women and men within certain agency components. However, **there were limits to the data** available for review at these agencies.

- GAO analyzed STEM award grants for the period of 2009-2013.

- GAO recommended that DOE (and other agencies) **collect additional data**.

In addition, GAO identified 13 potential actions federal agencies could take to address the underrepresentation of women in STEM research. These actions fell into four areas:

1. Enhancing **agency leadership** and collaboration
2. Establishing **family-friendly policies** for grantees
3. Overseeing the research **proposal review process**
4. Funding and **assisting academic institutions**
The 2016 HEP Committee of Visitors recommended that HEP “develop a plan for increasing diversity in the programs HEP supports.”

- HEP is working with Office of Science management to develop strategies for improving diversity in its research programs.
  - HEP is participating in a new SC-wide diversity and inclusion working group that aims to establish shared best practices across program offices.
  - HEP works with the DOE National Laboratories to monitor and encourage diversity and inclusion efforts through its contracts, annual planning processes, and budget briefings.
  - HEP participates in Workforce Development for Teachers and Scientists programs.
    - See back-up slide

Like the 2015 GAO report, the 2016 HEP COV recommended that HEP collect further demographic data for grant applicants:

- HEP should work with the Office of Science to obtain demographic information, including information at the proposal stage. Inadequate demographic information is available to assess the success rate of different populations that apply for funding by HEP.
- Implicit bias in reviews is a concern, but conclusions cannot be drawn without data. Improved demographic information would facilitate tracking of progress in achieving diversity in particle physics.
Grant applicants can voluntarily supply the following information through their PAMS profile at any time: gender, ethnicity, race, citizenship, and disability status.

At the time of the first progress report, you will be asked to provide the names and email address for “significant contributors” on your grant.

Each contributor will be able to report their own demographic information.

HEP is developing a process to track and evaluate the data we collect.
“[S]exual harassment is a serious issue for women at all levels in academic science, engineering, and medicine, and that these fields share characteristics that create conditions that make harassment more likely to occur. **Such environments can silence and limit the career opportunities** in the short and long terms for both the targets of the sexual harassment and the bystanders—with at least some leaving their field. The consequence of this is a significant and costly loss of talent in science, engineering, and medicine.

However, we are encouraged by the **research that suggests that the most potent predictor of sexual harassment is organizational climate**—the degree to which those in the organization perceive that sexual harassment is or is not tolerated. This means that **institutions can take concrete steps to reduce sexual harassment** by making system-wide changes that demonstrate how seriously they take this issue and that reflect that they are listening to those who courageously speak up to report their sexual harassment experiences.”

-http://sites.nationalacademies.org/shstudy/index.htm

- *The National Academies of Science, Engineering, and Medicine, 2018*
NAS Recommendations (I)

- **RECOMMENDATION:** Move beyond legal compliance to address culture and climate. The following five recommendations offer specific ways to progress toward this goal.

- **RECOMMENDATION:** Create diverse, inclusive, and respectful environments.
  - Leaders should prioritize taking actions that will result in greater gender and racial equity in hiring and promotions, thus improving the representation of women at every level.
  - Institutions should combine anti-harassment and civility-promotion programs. They should ensure that training...is tailored for specific populations, teaches how to interrupt and intervene when harassment occurs, and focuses on changing behavior. Critically, institutions must evaluate training programs for efficacy.

- **RECOMMENDATION:** Strive for strong and diverse leadership.

- **RECOMMENDATION:** Diffuse the hierarchical and dependent relationship between trainees and faculty.
NAS Recommendations (II)

- **RECOMMENDATION**: Improve transparency and accountability
  - Academic institutions should develop and readily share **clear, accessible, and consistent policies** on sexual harassment and standards of behavior.
  - Academic institutions should **strive for greater transparency** in how they are handling reports of sexual harassment while balancing a need for confidentiality.
  - Academic institutions should be **accountable for their organizational climate**, and utilize climate surveys to further investigate and address systemic sexual harassment.
  - Academic institutions should consider **sexual harassment equally important as research misconduct** in terms of its effect on the integrity of research.

- **RECOMMENDATION**: Provide support for the target
  - Academic institutions should convey that **reporting sexual harassment is an honorable and courageous action** and provide
    1. **access to support services** (social services, health care, legal, career/professional) regardless of if a formal report is filed
    2. alternative and **less formal ways to record information** about an incident
    3. approaches that prevent the target from **experiencing or fearing retaliation**.
NAS Recommendations for Federal Agencies

- **Increase support for research and evaluation** of the effectiveness of policies, procedures, and training on sexual harassment.

- **Attend to sexual harassment with at least the same level of attention and resources devoted to research misconduct.**
  - They should increase collaboration among offices that oversee the integrity of research (i.e., those that cover ethics, research misconduct, diversity, and harassment issues)...

- **Require institutions to report to federal agencies** when individuals on grants have been found to have violated sexual harassment policies or have been put on administrative leave related to sexual harassment, as the National Science Foundation has proposed doing.

- **Reward and incentivize colleges and universities** for implementing policies, programs, and strategies that research shows are most likely to and are succeeding in reducing and preventing sexual harassment.

DOE Title IX Process

- DOE has **enforcement responsibilities under Title IX**, including issuing regulations, conducting periodic compliance reviews at these institutions, and investigating timely written complaints of sex discrimination against these recipients.
- Title IX of the Education Amendments of 1972 is the primary federal law that addresses sex discrimination in all federally funded grant programs at educational institutions.
- Recipients of federal assistance—in this case, **university grantees**—also have some compliance responsibilities.

- Complaints are filed through DOE’s Office of Economic Impact and Diversity:
  
Thought exercise

Think about a **process at your institution in which you are a key player**.

- Where in that process does **individual decision-making** come into play? How might unconscious biases effect the outcome at those points?

- Does the process look the same to different people? What **challenges and risks** are involved, and do they impact everyone in the same way?

- Have you sought out the information you need to make that process more equitable? Are you **aware of your own biases**, and have you **asked others about their experiences**?
Case Studies: Advantages, Barriers, and Risks at All Career Stages

- An **undergraduate from a low-income background** receives a full-tuition scholarship to your institution, but needs a job to pay for housing, books, and other expenses. He also tries to send money home to his family.

- A **senior at an HBCU** has been accepted into your graduate program. She has strong research experience and recommendation letters because of summer internships. Your institution has a notoriously difficult comprehensive exam process – half of the students drop out. She’s worried about being able to pass the exams.

- A promising **assistant professor** wants to have a child. However, she’s only a couple years from tenure and is concerned about maintaining her productivity. When some of her male colleagues had children, they were back at work full-time within a few days – that wouldn’t be feasible for her.
Discussion

Diversity

Race
Respect
Awareness
Community Culture
Human-Rights
Equity
Inclusion
Nationality
Sex
LGBTQI

Gender
Military
Socioeconomic
Equality
Dialogue
Caring
Service
Religion
Identity
Social-Justice
Disability
Affirmative-Action
Empathy
At DOE labs and facilities, WDTS supports >1,000 students and faculty annually:

- 100 graduate students engaged in Ph.D. thesis research for 3-12 months at a DOE laboratory (SCSGR)
- 100 Community College Interns (CCI)
- 800 Science Undergraduate Laboratory Interns (SULI) placed at one of 17 DOE labs or facilities
- 60 faculty and 25 students in the Visiting Faculty Program (VFP)

Support for the National Science Bowl®

- The Department of Energy (DOE) created the National Science Bowl® in 1991 to encourage students to excel in mathematics and science and to pursue careers in these fields. More than 250,000 students have participated in the National Science Bowl® throughout its 25-year history
- The National Science Bowl® regional winning teams receive expenses-paid trips to Washington D.C. to compete at the National Finals in late April. SC manages the National Science Bowl®, provides central management of 116 regional events, and sponsors the NSB Finals competition

Support for 6 Albert Einstein Distinguished Educator Fellows

Support for online business systems modernization

- This activity modernizes online systems used to manage applications and review, data collection, and evaluation for all WDTS programs.

Support for program evaluation and assessment

- This activity assess whether programs meet established goals using collection and analysis of data and other materials, such as pre- and post-participation questionnaires, participant deliverables, notable outcomes, and longitudinal participant tracking.

http://www.science.energy.gov/wdts
LGBTQ+ in Physics

- Climate and protections for LBGTQ+ people are highly variable
- Two recent publications provide guidelines for creating an inclusive climate, many of which are broadly applicable to other underrepresented groups
How does implicit bias influence evaluations?

A few key characteristics of implicit biases
- Implicit biases are pervasive and robust. Everyone possesses them
- Implicit and explicit biases are generally regarded as related but distinct mental constructs
- The implicit associations we hold arise outside of conscious awareness
- We generally tend to hold implicit biases that favor our own ingroup
- The implicit associations that we have formed can be gradually unlearned and replaced with new mental associations


In a perfect world, peer review would require scientific research to pass a uniformly high bar based solely on its merit
- Physicists, like all people, will find it difficult to set aside all of their biases
- Single-blind peer review allows conscious and unconscious biases regarding the author’s professional reputation, age, gender, race, or institutional affiliation to influence reviews
- In theory, concealing the identity of the PI(s) would remove these biases
- However, the high degree of specialization in particle physics makes the preservation of anonymity very challenging

Test for implicit bias
- https://implicit.harvard.edu/implicit/selectatest.html
Dimensions of Diversity

- Personality includes an individual's likes and dislikes, values, and beliefs.
  - Shaped early in life and is both influenced by, and influences, the other layers throughout one's lifetime and career choices.

- Internal dimensions include aspects of diversity over which we have no control
  - Layer in which many divisions between & among people exist and which forms the core of many diversity efforts.
  - These dimensions include the first things we see in other people, such as race or gender and on which we make many assumptions and base judgments.

- External dimensions include aspects of our lives which we have some control over, which might change over time, and which usually form basis for decisions on careers & work styles.
  - Layer often determines with whom we develop friendships & what we do for work. This layer also tells us much about whom we like to be with.

- Organizational dimensions concerns the aspects of culture found in a work setting.
  - While much attention of diversity efforts is focused on the internal dimensions, issues of preferential treatment and opportunities for development or promotion are impacted by aspects of this layer.

- While the "Internal Dimensions" receive primary attention in successful diversity initiatives, the elements of the "External" and "Organizational" dimensions often determine the way people are treated, who "fits" or not in a department, who gets the opportunity for development or promotions, and who gets recognized.
Take-Home Questions

- How does equity support diversity and inclusion?
- For whom are you creating more inclusive environments?
- What systematic barriers exist that may limit or impede any diversity efforts you’re taking?