

## Federal Efforts and Opportunities to Address Racism and Support Equity in Research and Education

*Lewis-Burke Associates LLC – August 14, 2020*

Universities, scientific societies, and research funding organizations around the world are working to address the problem of systemic racism across the scientific community. Following the killing of George Floyd in May 2020 and other similar incidents around the U.S., many organizations have issued statements to acknowledge problems of racism, and have publicly stated the need for more intentional action to remove barriers and ensure diversity, equity, and inclusion across the research and education ecosystem.

On July 29, 2020, Representative Eddie Bernice Johnson (D-TX), Chairwoman of the House Committee on Science, Space, and Technology sent a [letter](#) to Dr. Marcia McNutt, President of the National Academies of Sciences. The letter requests that the National Academies of Science, Engineering, and Medicine (NAEM) establish a study to “assess the influence of systematic racism in academia.” Congressional interest and support for diversity efforts has increased this Congress and is likely to see further increased support if there is a new Administration next year. As an example, one of the few education bills to become law this Congress was H.R. 5363 FUTURE Act, which permanently authorizes funding for minority-serving institutions (MSIs). Additionally, the House has passed H.R. 2528 STEM *Opportunities Act of 2019* and H.R. 4372 MSI STEM *Achievement Act*. Both of these bills represent efforts to support groups historically underrepresented in STEM, increase capacity at MSIs, and address issues like implicit bias in the grant review process. Presumptive Democratic presidential nominee Joe Biden includes a focus on equity in his [Made in All of America](#) initiative, which would include support for Historically Black Colleges and Universities (HBCUs) and other MSIs. The “[Biden-Sanders Unity Task Force Recommendations](#),” which represents a potential source of future policy initiatives for a Biden Administration includes a call for “steps to increase the diversity of principal investigators receiving federal grants, as well as of participants in federally-supported clinical trials, to improve the quality and applicability of our medical research.”

In this document, Lewis-Burke provides updates on recent activities at various federal agencies to address discrimination and disparities across the research and education community. The document also presents examples of new and/or restated funding opportunities at agencies to support broadening participation. Please note that this document does not provide a comprehensive list of all programs available to advance broadening participation. For example, the Department of Education (ED) has numerous programs for MSIs and other programs to support education initiatives aimed at addressing disparities. As agencies review their practices to address systemic racism, organizations and institutions with effective initiatives in place or under development are encouraged to reach out to agencies to share best practices and explore opportunities for engagement.

In summary, presented below are some highlights of recent actions at federal research agencies, including:

1. Federal Agency Commitments to Addressing Racism in the Research Community; and
2. Federal Agency Funding to Support Broadening Participation Activities.

# 1. Federal Agency Commitment to Addressing Racism in the Research Community

## ***National Science Foundation (NSF)***

The National Science Foundation (NSF) and National Science Board (NSB) are both confronting racism in science and engineering and seeking to enhance equity, increase transparency, thoroughly examine policies and practices for racist impact, and address other issues. The NSB issued a [statement](#) condemning racism and expressing their intention to act on June 9, 2020. The Board then held a session titled, “Framing Black Experiences in Science and Engineering Panel Discussion” at their July meeting, hearing from a diverse panel of black scientists and engineers on the issues they have encountered in their careers. Panelists discussed a wide array of challenges, including those related to intersectionality, retention and promotion policies, as well as specific racist or unequal treatment they have faced. Recommendations from the panel included enabling partnerships between Historically Black Colleges and Universities (HBCUs) and primarily white institutions, examining NSF merit review process to ensure transparency and the ability to address any biased judgements, diversifying K-12 and undergraduate pathways into STEM, building capacity or creating an EPSCoR-like focused effort for minority communities, bringing back supplements for hiring underrepresented minorities on a research project, increasing HBCU research funding, getting clear and extensive input from the community and responding to issues with resoluteness, and engaging the public on the false narrative that inclusivity and excellence are at odds with each other. NSB members made additional recommendations such as a mechanism for anonymous reporting of racist issues, increasing diversity of NSF program directors, identifying and amplifying exemplary anti-racist mentors, and increasing use of research experiences for undergraduates at HBCUs.

Also at the July NSB meeting, NSF Director, Sethuraman "Panch" Panchanathan announced that he is launching a Racial Equity Task Force to identify and address all racial barriers at NSF, which will be led by the Office of Diversity and Inclusion. Separately, individual directorates within NSF are considering their own communities and programs. For example, the Directorate for Mathematical and Physical Sciences (MPS) has tasked its Broadening Participation Working Group to come up with recommendations for the directorate and is additionally having a black in science panel on August 18<sup>th</sup>. The Directorate for Education and Human Resources (EHR) is reviewing its broadening participation portfolio and looking at potential adjustments or evolution of some programs. Congress is also considering these questions, and the recent draft NSF authorization released by the House Science, Space, and Technology Committee would create a new program for under-represented minority faculty modeled after the existing ADVANCE program.

## ***Institute of Education Sciences (IES), Department of Education***

Mark Schneider, Director of IES, recently released a blog entitled “[Acting on Diversity](#).” The blog is somewhat unique for a government communique, in that it directly addresses the murder of George Floyd, Breonna Taylor, and others. Director Schneider notes, “We are trying to find actions not just words,” to address “established present-day patterns of inequities.” He goes on to reference the legislation that created IES and its directives that require IES to address “racial, cultural, gender, or regional bias.” In meeting this mission, IES intends to:

- Expand the diversity of its peer reviewers;
- Support more training for to increase the diversity of education researchers;
- Ensure that data collection efforts reflect “today’s world of education;”
- Support community colleges, Career and Technical Education (CTE), and adult education;

- Improve the delivery of special education;
- Develop analytics to support positive interventions for students of color and low-income students; and
- Build on existing internships and other programs for students at HBCUs and Minority Serving Institutions.

Director Schneider closes his post noting, “IES has been working on some of these issues for years—but not always with the appropriate sense of urgency.” Efforts to address systemic racism include resolving the inequities in disparities in our K12 and higher education systems. IES plays an important role in developing evidence-based interventions to address the gaps in achievement experienced by students of color and low-income students.

### ***National Institutes of Health (NIH)***

The NIH is taking a strong stance against racism and discrimination in biomedical research and in the biomedical research workforce. At the most recent Advisory Committee to the Director (ACD) [meeting](#) held in June, NIH Director, Dr. Francis Collins, addressed the recent civil unrest during the Director’s Report. Dr. Collins emphasized that the biomedical research community must take a stand and focus on fostering a more inclusive culture, nurturing the diversity of the biomedical research workforce, and recommit to addressing health disparity and racial challenges in the biomedical research agenda.

The ACD meeting also provided the ACD Working Group on Diversity an opportunity to provide an [update](#) surrounding this issue. Dr. M. Roy Wilson, co-chair of the ACD Working Group on Diversity, stated that diversity in biomedical research has always been a crisis but the COVID-19 pandemic and the recent acts of social injustice and racism in America has brought this issue into sharper focus. Over the past three months, the Working Group has held two *ad hoc* meetings to address the actions NIH should take to sustain diversity in biomedical research during the COVID-19 pandemic and to reflect on the impact of social injustice on scientific workforce and diversity. The Working Group plans to leverage existing extramural programs that support the scientific workforce and trans-NIH collaboration to identify opportunities to provide additional support and resources for underrepresented groups. The Working Group made monitoring and mitigating the impact of COVID-19 on diversity, equity, and inclusion an emergency priority. The Working Group also provided the following suggestions for the ACD to consider:

- Openly acknowledge the problem of blackness in science;
- Promote community-based research focused on external validity;
- Support our black peers during this time of emotional turmoil and feelings of hopelessness;
- Adjust the factors that admissions and other selection committees value;
- Monitor and report acts of racial bias; hold perpetrators accountable; and
- Empower “allies” to be actively anti-racist

In addition to the comments provided by the NIH Director and the ACD Working Group on Diversity at the ACD meeting, several NIH Institute Directors have also released their own public statements. Some of those statements can be found below.

- [Racism and the Health of Every American](#), *Eliseo J. Perez-Stable, M.D., Director of the National Institute on Minority Health and Health Disparities*

- [A time for change: NINDS' commitment to diversity and eliminating racial bias](#), *Walter J. Koroshetz, Director of the M.D., National Institute of Neurological Disorders and Stroke*
- [Racism and Mental Health Research: Steps Toward Equity](#), *Joshua Gordon, M.D., Ph.D., Director of the National Institute of Mental Health*

### ***Department of Defense (DOD)***

Defense Secretary Mark Esper directed this summer that the Department establish a near-, mid-, and long-term initiative against discrimination, prejudice, and bias across the Armed Forces. The DOD Board on Diversity and Inclusion chaired by Air Force Secretary Barbara Barrett met July 15 for the first time, and a new Defense Advisory Committee on Diversity and Inclusion in the Armed Forces will be established. The Board's efforts include obtaining and analyzing data on prejudice and bias within the force, developing educational requirements to educate service members on the signs and effects of unconscious bias, and reviewing the effectiveness of military service equal opportunity offices. While these efforts will cover the entire DOD, there may be future impacts for DOD research labs and DOD research more broadly.

### ***Department of Energy (DOE)***

DOE has long had policies in place prohibiting discrimination and harassment by DOE employees and institutions funded by DOE, including academic institutions, small businesses, and DOE national labs. To raise awareness of DOE's policies regarding the prohibition of discrimination and harassment, the DOE Office of Science recently established a new [website](#) that consolidates DOE's policies and procedures as they apply to recipients of financial assistance (e.g., grants and cooperative agreements), DOE national lab contract staff and lab visitors, and DOE federal employees. The DOE Office of Science also updated its [statement of commitment](#) to diversity, equity, and inclusion declaring that it is "fully and unconditionally committed to fostering safe, diverse, equitable, and inclusive work, research, and funding environments that value mutual respect and personal integrity" and that it "does not tolerate discrimination or harassment of any kind."

The DOE Office of Science also established an internal working group to review its business practices to identify opportunities to better promote diversity, equity, and inclusion in its award making and awards management processes. The working group made 15 recommendations for improving business processes to ensure they are supportive and inclusive of women and underrepresented minorities in STEM fields; allow for more rigorous tracking of diversity of applicants, awardees, and reviewers; limit and mitigate implicit bias behaviors; and encourage inclusive and professional behaviors in all DOE sponsored activities. The recommendations are being reviewed by senior leadership and should be approved within the next several months.

Separately, the DOE Office of Science issued guidance to the 10 national labs it manages to develop strategies for diversity, equity, and inclusion that would require describing their assessment of the lab's DEI challenges, DEI goals, leadership and staff roles and responsibilities, planned actions, measures of progress and accomplishments, and workforce data. Over the last three years, DOE has reviewed the labs' strategies and provided detailed feedback to the contractor leadership through in-person meetings with SC senior management and detailed written feedback. For the first time, in November 2019, DOE decided to commence an external peer review of experts to evaluate the laboratories' DEI efforts. The laboratories are now required to address the findings from the peer review as part of their FY 2020 and FY 2021 contractor performance plans.

## 2. Federal Agency Funding to Support Broadening Participation Activities

While many federal agencies have programs to support broadening participation, many of these are focused on K-12 education activities and support for Historically Black Colleges and Universities/Minority Serving Institutions (HBCUs/MSIs). Examples of new programs and activities are presented below.

### ***National Science Foundation (NSF)***

Within the NSF Directorate for Education and Human Resources (EHR), the Division of Human Resource Development (HRD)<sup>1</sup> coordinates NSF efforts in broadening participation of historically underrepresented groups, including minorities, women, and persons with disabilities. The cross-NSF INCLUDES<sup>2</sup> initiative (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science) aims to “to catalyze the STEM enterprise to work collaboratively for inclusive change, resulting in a STEM workforce that reflects the population of the nation.” The NSF Committee on Equal Opportunities in Science and Engineering (CEOSE) is a congressional mandated NSF advisory committee that advises NSF “on policies and programs that encourage full participation by women, underrepresented racial and ethnic groups (African Americans, Hispanics/Latino Americans and Native Americans), and persons with disabilities” at all levels of the U.S STEM enterprise.

### **NSF CISE: Pursuing Meaningful Actions in Support of Broadening Participation in Computing (BPC)**

In July 2020, the National Science Foundation’s (NSF) Directorate for Computer and Information Science and Engineering (CISE) issued a set of frequently asked questions ([FAQs](#)) in support of their Broadening Participation in Computing (BPC) pilot initiative. The aim of the CISE BPC pilot activity is “to enhance the community’s awareness of and barriers to broadening participation in computing (BPC), as well as to provide information and resources to principal investigators (PIs) so that they can develop interest, skills, and activities in support of BPC at all levels (K-12, undergraduate, graduate, and postgraduate).” This DCL builds on previous efforts to support BPC. More information on the BPC initiative is available [here](#).

### ***National Institutes of Health (NIH)***

NIH is committed to broadening participation in the biomedical research workforce across all its institutes. Many funding opportunities focused on broadening participation at NIH are for undergraduate, graduate, and postdoctoral researchers but NIH recognizes there are many issues surrounding expanding diversity in the biomedical research workforce at the faculty level. We may see more funding opportunities focused on increasing diversity at the faculty level soon and two new programs are listed below. A list of diversity related funding opportunities can be found [here](#). This list contains funding opportunities that address broadening participation in the biomedical research workforce and the health of diverse populations.

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<sup>1</sup> NSF Directorate for Education and Human Resources (EHR), the Division of Human Resource Development (HRD): <https://www.nsf.gov/div/index.jsp?div=HRD>

<sup>2</sup> NSF INCLUDES Big Idea: [https://www.nsf.gov/news/special\\_reports/big\\_ideas/includes.jsp](https://www.nsf.gov/news/special_reports/big_ideas/includes.jsp)

**NIH MOSAIC Postdoctoral Career Transition Award to Promote Diversity for Early Career Faculty** – The Maximizing Opportunities for Scientific and Academic Independent Careers (MOSIAC) (K99/R00) award is a career development funding opportunity for postdoctoral researchers from underrepresented backgrounds to transition into independent faculty careers at research institutions. This program will also place the scholars selected into cohorts to participate in mentoring, networking, and professional development activities that are coordinated by scientific professional societies. Applicants must have no more than four years of postdoctoral research experience in order to apply. More information is available on the [MOSAIC program page](#) and the full funding opportunity announcement can be viewed [here](#).

#### **NIH FIRST Program Cohorts and Coordination and Evaluation Center**

NIH has released a notice of intent to publish the Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program Cohort and FIRST Coordination and Evaluation Center funding opportunities. The FIRST program is designed to support institutions in developing and implementing faculty cohort models that will advance the hiring of diverse groups of research faculty. This is the first time the funding opportunity will be offered, and it is a direct product of NIH's efforts to support diversity and inclusion in the biomedical research workforce. NIH anticipates allocating a total of \$26.2 million for 12 awards under the Cohort Hiring program at prescribed levels over the course of six years. NIH will also allocate a five-year, \$9.4 million award to manage the Coordination and Evaluation Center. The notice of future funding opportunity for the Cluster program can be found [here](#). The notice of future funding opportunity for the Coordination and Evaluation Center can be found [here](#), and the concept clearance for this program, approved by the NIH Council of Council on January 24, 2020 is available [here](#).

#### ***Institute of Education Sciences (IES), Department of Education***

The [Pathways to the Education Science Research Training](#) program exists to “develop a pipeline of talented education researchers who bring fresh ideas, approaches, and perspectives to addressing the issues and challenges faced by the nation's diverse students and schools.” Grants are awarded to minority-serving institutions (MSIs) and their partners that create education research training programs.

#### ***Department of Defense (DOD)***

The Historically Black Colleges and Universities/Minority-Serving Institutions (HBCUs/MSIs) Science [Program](#) within the DOD Basic Research Office, aims to “increase the research and educational capacity of HBCUs/MSIs, and to foster workforce diversity and entry of underrepresented minorities into STEM disciplines important to national defense.” The Office of Naval Research (ONR), Air Force Office of Scientific Research (AFOSR), and the Army Research Office (ARO) all support dedicated HBCU/MSI programs. DOD also supports a variety of STEM education [programs](#) from K-12 through the graduate programs, which include a focus on broadening the “participation of historically underserved groups.” In addition, a number of programs across DOD require or encourage participation of HBCUs and MSIs.

#### ***Department of Energy (DOE)***

DOE funds a Minority Education [Institution Student Partnership Program](#) that offers talented high school, undergraduate, and graduate student summer internship positions at DOE Headquarters and its 17 national laboratories. Positions involve scientific research or a focus on policy, business, and

government relations. Students receive an 8-10 week assignment to help their careers and develop their potential for future opportunities within the federal government. Students work side-by-side with leading scientists, engineers, and other top professionals to develop professional skills and enhance leadership capabilities.

DOE also supports grant programs each year to expand educational, training, and research capabilities at Minority Serving Institutions (MSIs). For example, the National Nuclear Security Administration, a semi-autonomous agency within DOE focused on national security missions, funds a [Minority Serving Institution Partnership Program](#). The purpose of this program is to connect students from MSIs in STEM disciplines to the NNSA labs and sites. The program currently supports 10 consortium-based teams that partner with national labs and sites and focus on priority research areas, such as additive manufacturing and high energy density science. DOE's Office of Fossil Energy also issues a yearly solicitation for its Support of Advanced Fossil [Resource Utilization Research](#) for Historically Black Colleges and Universities (HBCUs) and other MSIs. DOE has also taken steps to encourage applicants for many of its center-level and consortia-related solicitations to partner with HBCUs and other MSIs.

*Sources and Additional Information:*

- The National Science Board panel discussion "Framing Black Experiences in Science and Engineering" is available at [https://www.nsf.gov/nsb/news/news\\_summ.jsp?cntn\\_id=300935&org=NSB&from=news](https://www.nsf.gov/nsb/news/news_summ.jsp?cntn_id=300935&org=NSB&from=news).
- NIH Scientific Workforce Diversity Website is available at <https://diversity.nih.gov/>.