

U.S. Environmental Protection Agency Board of Scientific Counselors

Executive Committee

Virtual Meeting Summary

July 6, 2021

Dates and Times: July 6, 2021, 12:00 to 5:00 p.m. Eastern Time

Location: Virtual

Executive Summary

On July 6, 2021, the Environmental Protection Agency's (EPA's) Board of Scientific Counselors (BOSC) Executive Committee (further referred to as the Committee or EC) convened in a virtual meeting. The goals of the one-day meeting were to hold discussions about the [Executive Order \(EO\) on Advancing Racial Equity and Support for Underserved Communities through the Federal Government](#)¹, with a focus on barriers to equity in EPA research and community science. The meeting format allowed for presentations, open dialogue between members of the EC and the public, Committee deliberations and questions, and EPA responses.

Mr. Tom Tracy, Designated Federal Officer, Office of Science Advisor, Policy, and Engagement (OSAPE) welcomed the BOSC EC members and thanked them for their attendance. Dr. Chris Frey, Deputy Assistant Administrator, Office of Research and Development (ORD) acknowledged the attendance of the public and public service officers. Dr. Frey emphasized the Biden Administration's commitment to public health protection and the environment, and President Biden's EO 13985¹ in January 2021. Dr. Frey shared EO 13985's goal to advance racial equity and support for underserved communities regarding environmental issues. Dr. Frey shared that EO 13985's definition of equity and underserved communities includes communities of color, religious minorities, lesbian, gay, bisexual, transgender, and queer (LGBTQ) persons, persons with disabilities, people residing in rural areas, and those in persistent poverty. Agencies are to review programs and policies to assess whether underserved communities and their members face systemic barriers in accessing benefits and opportunities available pursuant to those policies and programs.

Dr. Frey highlighted ORD's commitment to underserved communities and the need to apply an environmental justice lens to its work. He reiterated ORD's science-based approach to identify and characterize key problems, as well as target interventions to solve problems. He explained how ORD aims to use bias-for-action science so that the science informs decisions that will lead to action.

Introduction to Executive Order on Advancing Racial Equity and Support for Underserved Communities through the Federal Government: Barriers to Equity in Research and Community Science

Dr. Bruce Rodan, Associate Director for Science, ORD, highlighted the Agency's efforts to identify barriers to equity in EPA research and community science, and support for

¹ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>

environmental justice issues and advancing racial equity to support underserved communities. Dr. Rodan explained that ORD's applied research program seeks to anticipate and solve environmental problems where they occur, and that many of these issues disproportionately affect minorities and poor and disadvantaged communities. Dr. Rodan discussed seven points relevant to the meeting's discussion, including equity barriers, research and community science, BOSC member appreciation, distributed expertise, the meeting's timeliness, the importance of differing perspectives, and cumulative risk and impact. Dr. Rodan described the distinction between EPA Research: Research activities conducted or sponsored by EPA and subject to relevant EPA science policies and quality and peer review standards; and Community Science: Research conducted by the community and/or a third party on their behalf to inform decision making, and not necessarily beholden to EPA policies and standards.

Dr. Andrew Geller, Executive Lead for Environmental Justice Research, ORD, provided background information and context about the meeting, and provided definitions and recommendations about environmental justice issues. Dr. Geller explained that EO 13985 (Advancing Racial Equity and Support for Underserved Communities through the Federal Government) directed federal agencies to pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality.

Dr. Geller added that EO 14008 (Tackling the Climate Crisis at Home and Abroad) emphasized the importance of scientific integrity and directed agencies to focus on achieving environmental justice and address disproportionately high and adverse human health, environmental, and climate impacts on disadvantaged communities. Each federal agency, including EPA, must conduct an equity assessment of its programs and policies to determine if underserved communities and their members face systemic barriers in accessing benefits and opportunities available and then develop a plan to mitigate these barriers. Dr. Geller explained EO 12898, which requested agencies identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Dr. Geller highlighted ORD's mission to integrate an equity lens into its environmental research programs and the equity barrier analysis process. He presented the National Environmental Justice Advisory Council (NEJAC) and the White House Environmental Justice Advisory Council's (WHEJAC) recommendations for overcoming barriers to research on equity and environmental justice and emphasized the importance of community engagement for setting research goals.

Dr. Geller discussed barriers to community science (defined above) and emphasized that community science should be a core tenet of environmental protection. The National Advisory Council for Environmental Policy and Technology (NACEPT) and WHEJAC both recommended that EPA collaborate with external organizations to create community science goals. Dr. Geller suggested that potential discussion questions could focus on barriers to the creation of an Agency-wide strategic approach and barriers to aligning community science work with the priorities and capacities of local, state, and federal governments. He emphasized that

EPA has used citizen science, but it is not widely recognized as an effective and critical tool. NACEPT and WHEJAC recommended that EPA support science education efforts. Dr. Geller noted that the Committee should discuss resource barriers to community science engagement.

Public Comment and Question Period

Feedback received from public commenters included several discussion topics and questions. Topics included Rights to Basic Public Health Amenities for Black, Indigenous, Latinx, and people of color (POC) communities, climate, environmental justice, and clean energy initiatives to protect and sustain POC communities in the front line of mega-highway corridor construction, mega-industrial park expansions, systemic barriers associated with navigating higher education, small rural communities under climate change impacts, the public's perception of the systemic failure of EPA and allied agencies to assess and address the domestic mercury vapor exposures resulting from ritualistic mercury use in Caribbean and Latinx communities, and equity in funding (as described in the federal government's Justice 40 initiative) for community-based organizations (CBOs) and minority serving institutions (MSIs) including historically black colleges and universities (HBCUs), cumulative impacts, and use of community science in decision support tools. Public comment included extensive discussion of community science, noting that for environmental justice, community science must focus on the health and well-being of human beings, that community-participatory action research can be done with rigor across paradigms that use qualitative, quantitative, experiential, and/or cultural data, and that this science can be both translational and transformative, that is, leading to actions to address social justice. Issues of workforce development and diversity and representativeness in the science and public health work force were also raised.

Following the public comments, the Committee engaged in discussion. Discussion topics included workforce development issues, community science, collaboration with EPA and tribal colleagues using Traditional Ecological Knowledge (TEK), acknowledging that racism has caused health disparities, how to integrate criteria to enhance participation in community science and consider environmental justice issues as part of day-to-day scientific obligations, understanding lived experiences and incorporating them into cumulative assessment metrics, how ORD could contribute and advance work on biological indicators of pollutants and stressors impacting health, how to best help individuals learn and use EPA tools to communicate data, examples of how the Agency can play a role in helping communities by making connections while not being the main contributor, cumulative vulnerability, and how environmental pollutants and social stressors may perturb the same biological pathways in the human body leading to adverse environmental health impacts, including impacts on mental health.

Charge Question Discussion and BOSC Deliberation

Dr. Paul Gilman, Chair, BOSC EC, introduced Charge Question 1 and Charge Question 2. The EC engaged in discussion. Discussion topics on Charge Question 1a included: ensuring that efforts withstand administrative changes; identifying and overcoming barriers to ensure people of color in underserved communities have a voice in the identification, prioritization, funding, and conduct of EPA's research; collaborations within and external to EPA; intersectionality of identities and issues amongst underserved communities; and the trust barrier between

underserved communities and government agencies; and the critical nature of problem formulation for community-focused and engaged research. The group also discussed the issue of funding participants for participating in research and the legal regulations related to this issue. Discussion topics on Charge Question 1b included EPA's promotion process incentivizing community-engaged research, re-expanding the Science To Achieve Results (STAR) grant program, ways to incorporate different types of knowledge (e.g., social science) into EPA's research efforts, and the barrier of laboratory scientists not actively collaborating with communities.

Discussion topics relating to Charge Question 2 included engagement and relationship building to make EPA's research more effective, development of usable database tools that are freely accessible, the need to establish long-term working relationships with communities, barriers to collaborations between federal agencies, community science and co-produced knowledge being used for high impact decisions, community science concerns, EPA addressing the issue of engaging communities in the research planning process, and the challenges of receiving grants.

Closing Remarks

Dr. Rodan highlighted the importance of discovering community needs to inform research, identifying relevant decision makers, consistently supporting and funding communities, and committing to healing from the past. He thanked Committee members for their participation and emphasized the long-term process required to address the EO and enhance ORD's environmental justice and equity research. Dr. Rodan announced Dr. Geller's role as Executive Lead for Environmental Justice Research in ORD. Dr. Geller emphasized the importance of community engagement for creating structural change and shared his anticipation of the solutions generated. Dr. Gilman thanked the BOSC members and presenters and adjourned the meeting.

Meeting Agenda and Other Meeting Materials

The [agenda](#)² and other meeting materials can be accessed at <https://www.epa.gov/bosc/bosc-july-2021-executive-committee-meeting>.

Meeting Participants

BOSC Executive Committee Members:

Paul Gilman, *Chair*
Lucinda Johnson, *Vice Chair*
Viney Aneja
Shahid Chaudhry*
Kari Cutting*
Courtney Flint
Charlette Geffen*
Matthew Naud
Paul Olsiewski
Joseph Rodricks
Leslie Rubin
Sandra Smith
James Stevens*
Justin Teegarden*
Katrina Waters

BOSC Subcommittee Representatives:

Bart Croes, ACE*
Shawn Gibbs, HS*
Fred Hitzhusen, SSWR*
Juleen Lam, CSS/HERA*
Jennifer McPartland, CSS/HERA*
Donald Nelson, SHC*
Barrett Ristroph, SHC
Louie Rivers, III, ACE
Monica Schoch-Spana, HS
Derek Shendell, SHC*
Gina Solomon, CSS/HERA

* *did not attend*

EPA Designated Federal Officer (DFO): Tom Tracy, *Office of Science Advisor, Policy, and Engagement*

Presenters:

Chris Frey, *Deputy Assistant Administrator, Office of Research and Development*
Bruce Rodan, *Associate Director for Science, Office of Research and Development*
Andrew Geller, *ORD Executive Lead for EJ Research, Office of Research and Development*

² https://www.epa.gov/sites/production/files/2021-05/documents/bosc_ec_may_mtg_final_agenda.pdf

Jennifer Orme-Zavaleta, *Principal Deputy Assistant Administrator for Science, Office of Research and Development*

Other EPA Attendees:

Melissa Anley-Mills
Nikki Bass
David Beddick
Doris Betancourt
Heidi Bethel
Pradnya Bhandari
Eletha Brady-Roberts
Conner Burke
David Bussard
Jennifer Cashdollar
Anna Champlin
Charlotte Coleman
Bayou Demeke

Paelina DeStephano
Kathie Dionisio
Rachelle Duvall
Laura Erban
Jessica Frank
Susan Glassmeyer
Cheryl Hawkins
Bryan Hubbell
Barbara Klieforth
Brittany Kiessling
David Lattier
Sang Don Lee
Danelle Lobdell

Cissy Ma
Keely Maxwell
Beth Owens
Sean Paul
Mary Ross
Ian Rumsey
Ramona Sherman
Darcie Smith
Greg Susanke
Emily Trentacoste
Michael Troyer
Scarlett VanDyke
Eric Villegas

Other Attendees:

Troy Abel
Rebecca Adler
Miserendino
Cherilyn Ashmead
Sandra Baird
Marcella Bondie Keenan
Jennifer Brayan
Margaret Bushko
Nuria Casquero
Daren Caughron
Jayajit Chakraborty
Tracy Corley
Kelly Crawford
Grace Edelen
Michael Egnor
Neeraja Erraguntla
Brett Feldman
Francisco Javier
Soria Galindo
Katie Godding
Ximena Guillen

Aliyyah Hamid
Ariel Hampton
Sabrina Hardenbergh
Tonyisha Harris
Alane Herr
Mary Karius
Mui Koltunov
Tanya Latortue
Heather Lauer
Maddie Lee
Cheryl Little
Carlos Martin
Brendan Mascarenhas
Mary McCarron
Olivia Morgan
Elizabeth Moses
Terrence Mosley
John Mueller
Jonathan Munro-
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Makeda Okolo
David Padgett
Christine Paul
Karen Pierce
Jennifer Reyher
Marvin Robinson, II
Zach Schiller
La Shella Sims
Kristen Sportiello
Deborah Stewart Anderson
Alice Sung
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