

National Science Foundation Sexual Orientation and Gender Identity Data Action Plan

This document presents the U.S. National Science Foundation Sexual Orientation and Gender Identity (SOGI) Data Action Plan. As required under Section 11(c) of [Executive Order 14075 on Advancing Equality for Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex Individuals](#), this document details how NSF plans to use SOGI data to advance equity for LGBTQI+ individuals and how NSF plans to implement the recommendations in the [Federal Evidence Agenda on LGBTQI+ Equity](#) (referred to as "Evidence Agenda" throughout this document).

NSF's statutory mission is to "promote the progress of science; to advance national health, prosperity and welfare; and to secure the national defense" among other purposes. NSF's "2022-2026 Strategic Plan" describes how the agency will meet this mission over this five-year period, including framing three strategic goals. This data action plan aligns with NSF's strategic goal to "empower STEM talent to fully participate in science and engineering" and two strategic objectives underpinning that goal: "ensure accessibility and inclusivity" and "unleash STEM talent for America." This data action plan also aligns with the "Economic Security and Education" topic identified in the Evidence Agenda.

As described in the Evidence Agenda, any evidence-building or use activities must be carried out in accordance with federal best practices and applicable law to safeguard privacy, security and civil rights. It is important to note that some activities described in this plan may be reconsidered or modified accordingly based on evidence developed as the plan is implemented.

The "Learning Questions," "Evidence-Building Activities" and "Evidence-Use Activities" described in this plan provide a framework for action that aligns with the executive order and the NSF strategic plan. The Learning Questions represent three foci for the NSF mission: the internal NSF workforce; public access to and engagement in NSF programs, activities and opportunities; and the U.S. science, technology, education and math environment supported by NSF. Answers to these questions, gathered through the Evidence-Building Activities described below, will improve NSF's ability to make evidence-based decisions and undertake Evidence-Use Activities related to its programs, policies and/or operations. Insights from efforts to address NSF's Learning Questions may also prove useful to the agency's federal partners as they develop evidence-informed decisions pertaining to their programs.

Learning Questions, Evidence-Building Activities and Evidence-Use Activities

Learning Question 1: How can NSF promote equitable outcomes for LGBTQI+ staff in the NSF workforce?

To **build** evidence related to this Learning Question, NSF anticipates carrying out the following **activities** over the next six to 18 months:

- EB 1. The chief diversity and inclusion officer (CDIO) will establish a listening program for NSF designed to increase multicultural competence and inclusion as members of the NSF

workforce continuously share personal experiences, barriers to employment and/or advancement and other issues. The goal of the program is to foster an environment in which individuals across the agency are encouraged, recognized and rewarded for their contributions and ideas. This goal requires, among other things, an understanding of perceptions, perspectives and expectations surrounding NSF's support of LGBTQI+ staff in the NSF workforce.

- EB 2. NSF's LGBTQI+ and Allies Employee Relations Group (ERG), in collaboration with the chief diversity and inclusion officer and the Office of Equity and Civil Rights, will consult with NSF staff to better understand how the agency's LGBTQI+ staff and allies perceive the culture at NSF. This will operate in parallel with the activities under EB 1 and provide an opportunity for more focused, in-depth conversation and sharing of personal experiences and perceptions.
- EB 3. In collaboration with the Office of Personnel Management (OPM) and other federal agencies and in coordination with NSF's Evidence Act and Data Governance Steering Committee, the CDIO will conduct a pilot survey of the NSF workforce to test potential questions for collecting SOGI information from federal employees. This pilot will assess: (a) comprehension of OPM-approved SOGI questions and response choices; (b) attitudes towards the questions and response choices; and (c) reactions to the collection of SOGI and other demographic data on federal employees and job applicants.

Using the evidence collected at NSF through EB 1, EB 2 and EB 3 and related efforts, NSF anticipates undertaking the following Evidence-Use Activities within six to 24 months¹:

- EU 1. NSF will review evidence developed through internal listening sessions (EB 1) and consultation with LGBTQI+ employees and allies (EB 2) to identify actions to enhance equity for LGBTQI+ individuals in the NSF workforce. Specific actions will be identified after EB 1 and EB 2 have begun. NSF anticipates activities could include guidance for leadership and management in fostering equity for LGBTQI+ individuals at the agency, potential enhancements to its internal mentoring program, and development of additional and enhanced pathways for ongoing input from NSF's workforce.
- EU 2. NSF will analyze the results of the pilot workforce survey (EB 3) and related activities to develop any additional policies or practices regarding the collection and use of SOGI data that may be necessary to ensure all such data are collected, analyzed and managed in accordance with federal best practices described in chapter 3 of the Evidence Agenda and applicable law to safeguard privacy, security and civil rights.

¹ Please note that although Evidence-Building and Evidence-Use Activities are presented with each Learning Question, these activities may help address more than one question.

Learning Question 2: How can NSF promote equitable access to and engagement in NSF programs, activities and opportunities for LGBTQI+ individuals?

To **build** evidence related to this Learning Question, NSF anticipates carrying out the following **activities** over the next six to 18 months:

- EB 4. NSF will test prototype questions to collect SOGI data elements from principal investigators and reviewers in program monitoring and assessment surveys and systems.
- EB 5. NSF will conduct a review of the agency's administrative surveys, systems and forms that collect demographic data to identify any additional practices or policies that may be needed for the collection, management and use of such data in accordance with the federal best practices described in chapter 3 of the Evidence Agenda and applicable law to safeguard privacy, security and civil rights.

Using evidence collected through EB 4 and EB 5, activities carried out by federal agency partners, and information developed through ongoing activities related to SOGI data carried out by the National Center for Science and Engineering Statistics (NCSES),² NSF anticipates undertaking the following **Evidence-Use Activities** within six to 24 months:

- EU 3. NSF will prepare to carry out analyses of administrative data and related information (EB 4 and EB 5) to examine: (a) rates of participation by LGBTQI+ individuals in NSF programs and activities; (b) award rates for LGBTQI+ applicants of NSF funding opportunities; and (c) any potential differences that may be found between these rates for LGBTQI+ individuals and their non-LGBTQI+ peers. The data necessary to carry out these analyses will not be available until SOGI data are collected routinely as part of the agency's administrative systems, but the preparatory work can begin before then.

Learning Question 3: How can NSF promote equitable educational and research opportunities, outcomes and experiences for LGBTQI+ individuals in STEM?

To **build** evidence related to this Learning Question, NSF anticipates carrying out the following **activities** over the next six to 18 months:

- EB 6. The Office of Integrative Activities, in collaboration with NSF's research and education directorates, will carry out an inventory of existing NSF programs under which proposals for research, education and other activities related to LGBTQI+ individuals and equity have been funded to date to provide information on the numbers and characteristics of these proposals.
- EB 7. NSF will issue a "Dear Colleague Letter" or other funding opportunity highlighting the agency's interest in receiving proposals for workshops, colloquia and other activities focused

² See [A Public Guide on NCSES's Efforts to Measure, Track, and Report Sexual Orientation and Gender Identity in the U.S. Science and Engineering Population \(June 28, 2022\)](#).

on gathering perspectives from the NSF community regarding promising research, education and other potential areas of interest related to promoting equity for LGBTQI+ individuals.

Using evidence collected through EB 6 and EB 7, related efforts at NSF, and information developed through ongoing activities related to SOGI data carried out by NCSES, NSF anticipates undertaking the following **Evidence-Use Activities** within six to 24 months:

- EU 4. NSF will conduct a gap analysis using the results of EB 6 and information developed through projects funded in response to EB 7 to identify needs for refinements to programs to increase opportunities for research, education and partnerships related to enhancing equity for LGBTQI+ individuals in STEM. These refinements will also be informed by evidence gathered in EB 5 and through related activities at NCSES.
- EU 5. NSF will use nationally representative data and analysis from NCSES and other federal surveys — to the extent available — to understand the overall trends and experiences of the LGBTQI+ population in the U.S. STEM education and workforce. These SOGI data and analysis will provide NSF with a baseline understanding to inform efforts for innovative approaches, policies and practices to promote equitable educational and research opportunities, outcomes and experiences for this population.

Evidence-Building Infrastructure

NSF's data action plan will require policy and training changes at the agency over the next six to 24 months:

1. NSF will refine existing policies governing the collection and use of demographic data in administrative surveys, systems and forms to ensure such policies align with federal best practices described in chapter 3 of the Evidence Agenda and to ensure that such data are managed in accordance with the applicable law and best practices to safeguard privacy, security and civil rights.
2. NSF will develop enhanced training for staff and outreach materials for reviewers, proposers and awardees regarding its policies and use of demographic data in administrative surveys, systems and forms.
3. The CDIO, in interpreting and applying the definition of diversity,³ will ensure that the agency and its leaders look at diversity, equity, inclusion, and accessibility (DEIA) from an intersectional perspective and not solely from single diversity dimensions, as many individuals, including in the LGBTQI+ community, identify with more than one social category.
4. The CDIO has designed a DEI maturity model for implementation across the agency. The model will enable NSF to assess inclusive leadership behavior and the efficacy of its DEIA efforts. The model is a five-phase continuum that uses both qualitative and quantitative data and will help NSF measure the progress and impact of activities (individually and organizationally) while

³ Section 2(b) Executive Order 14035 on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce (June 25, 2021) defines "diversity" as "the practice of including the many communities, identities, races, ethnicities, backgrounds, abilities, cultures, and beliefs of the American people, including underserved communities."

enabling the agency to champion leadership behaviors that promote an inclusive environment and increased belonging.

Monitoring Progress

NSF anticipates using the following milestones or metrics to track and evaluate progress in implementing the activities laid out in this plan.

Within one year of the initiation of this plan, NSF anticipates the agency will:

1. Conduct at least two listening sessions as described in EB 1 and EB 2.
2. Complete an initial inventory of existing NSF programs that have funded research, education and other activities related to LGBTQI+ individuals and equity (EB 6).
3. Complete the review of all administrative systems that gather, manage or use demographic data and identify required enhancements (EB 5).
4. Release at least one "Dear Colleague Letter" or other funding opportunity highlighting NSF's interest in receiving proposals for workshops, colloquia and other activities focused on gathering perspectives from the NSF community regarding promising research, education and other potential areas of interest related to promoting equity for LGBTQI+ individuals (EB 7).

NSF anticipates testing prototype questions to collect SOGI data elements (EB 4) through program monitoring and evaluation surveys. NSF also anticipates conducting analyses of SOGI and other demographic data collected through enhanced surveys (EU 3) starting within six months of the completion of the initial enhanced survey. Such analyses may require up to a full year for completion. Where applicable, the above timelines may be extended in cases where prior Office of Management and Budget (OMB) clearance for information collection activities is required under the "Paperwork Reduction Act."

NSF anticipates carrying out the following ongoing activities as part of this data action plan:

1. Track response rates in administrative systems, gaps in participation and, where possible, outcomes among different demographic groups.
2. Provide progress reports and updates to NSF senior leadership twice each fiscal year beginning six months after the initiation of this plan.
3. Provide required annual reports to the National Science and Technology Council's Subcommittee on Equitable Data beginning one year after the initiation of this plan.

National Center for Science and Engineering Statistics

[NCSES](#) is a principal statistical agency located within NSF. NCSES is the nation's official source of information on the U.S. science and engineering enterprise and is responsible for the collection, analysis and dissemination of objective statistical data in several areas of interest including but not limited to the S&E workforce and the condition and progress of STEM education in the U.S.

NCSES complements NSF's mission to support the U.S. S&E enterprise and follows the [directives and standards set forth by OMB](#) and the [principles and practices](#) for federal statistical agencies as part of its role within the U.S. federal statistical system. To ensure adherence to these standards in the collection of objective data, its activities and investments must remain largely independent from that of the agency.

NCSES has invested considerable efforts in testing the feasibility of collecting information regarding the LGBTQI+ population represented within its national education and workforce surveys. These efforts align with [OMB's "Recommendations on the Best Practices for the Collection of Sexual Orientation and Gender Identity Data on Federal Statistical Surveys."](#) For more information on these ongoing activities, see the [SOGI FAQ page](#) on the NCSES website.

NCSES will work closely with NSF to advise, support and coordinate where appropriate in the implementation of the NSF SOGI Data Action Plan.