## **Executive Summary**

The National Science Foundation (NSF) supports basic research and education in most fields of science and engineering. In fiscal years (FYs) 2018 and 2019, as part of its commitment to promoting safe and harassment-free research and education environments, NSF augmented its anti-harassment policies, guidelines, and communications. Specifically, this included the anti-harassment term and condition (T&C)—which expanded reporting requirements for NSF awardee organizations regarding incidents of sexual assault, sexual harassment, and other forms of harassment—and the conference policy, which required NSF-sponsored conferences to have clear policies against harassment and means of reporting incidents. NSF initiated this study as the first of several steps to address Question 3 in its current Learning Agenda: *How can NSF help reduce and ultimately eliminate harassment in federally funded research settings*?

## The study has three major components:

- 1. A qualitative review of NSF's anti-harassment-related communication activities, including its communication materials and dissemination strategy.
- 2. A quantitative, descriptive analysis of awardee organizations' public web content on harassment, with an emphasis on whether the organizations include references or links to NSF's anti-harassment policy webpages, using natural language processing algorithms to automate webpage coding.
- **3.** A qualitative and quantitative analysis that relies on text mining approaches to identify and retrieve data from NSF conference proposals, measures how often they include references to anti-harassment policies and practices, and uses an interrupted time series design to estimate changes before and after the new policy.

## Key findings from the study suggest the following:

- Based on a sample of artifacts, NSF communication was most frequent during policy development and rollout, focused on specific policies and consistent framing, and intended for NSF staff and grantees. Outside of those periods, communication was less targeted and less frequent. It sought to engage a broader audience and focused on the need for anti-harassment policy generally.
- Almost 95 percent of institutions of higher education (IHEs) that received an NSF award (as an awardee institution) or were a principal investigator's (PI's) or co-PI's institution on an award since the T&C went into effect disseminate information about their anti-harassment policy through their public website. In comparison, only 22 percent of nonprofit organizations and 6 percent of companies did so. Among IHEs, a large majority of minority-serving institutions (MSIs) have an anti-harassment policy in place, but they are less likely to do so than non-MSIs.
- Relatively few IHEs, non-profits, or companies that received an NSF award (as an awardee institution) or were a PI's or co-PI's institution on an award since the T&C went into effect referenced NSF's anti-harassment policies on their public webpages or directly linked to NSF's T&C-related webpages. Among IHEs, those that received more funding or had very high engagement with research were more likely to reference NSF's anti-harassment policies on their websites. MSIs were less likely to reference or link to NSF's policies than non-MSIs.
- The introduction of NSF's conference policy led to an increase in proposals referencing antiharassment policies and procedures. Conference proposals were 18 percentage points more likely

to mention anti-harassment after the policy. This finding holds regardless of institution type, amount of funding, and minority-serving status. However, the rate of increase differed by some PI and institution characteristics. PIs from MSIs (particularly HBCUs) increased their antiharassment references less than PIs from non-MSIs after the policy. PIs who identified as Hispanic or Latino increased their anti-harassment references more than PIs who identified as not Hispanic or Latino.