

**Evaluation of the NIST Foreign Guest Researcher Program:
Survey Instrument for Foreign Guest Researchers**

FOUR STANDARD SURVEY QUESTIONS

1. Explain who will be surveyed and why the group is appropriate to survey.

NIST Foreign Guest Researcher Program enables mechanisms for the foreign guest researchers to come to NIST campus and participate in research collaborations with NIST researchers. This survey is part of a larger evaluation of the program that looks at the experiences of the program participants and outcomes of those research collaborations.

The purpose of this survey is to help to answer the following research questions:

1. What are the typical experiences of the guest foreign researchers engaged with NIST?
2. What conditions may enable high-value collaborations between NIST researchers and foreign guest researchers?
3. How do foreign guest researchers and their home institutions benefit from their participation in the program, if any?
4. What are impacts of collaborations of the NIST researchers with the guest foreign researchers on NIST?

The data collection will acquire direct perspectives from foreign guest researchers who engaged in research collaborations and research projects at NIST within the last 10 years. This diverse group will be able to provide the study with information on:

- the overall experience of the foreign guest researchers at NIST and different activities they are engaged in during their time at NIST;
- perceptions on the impact of their engagement on their career, their home organization, and NIST.

The survey is part of the International and Academic Affairs Offices' ongoing evaluation and monitoring of the Foreign Guest Researcher Program. The foreign guest researchers are the main target population that the program serves and getting their direct feedback is important in understanding the program and its impacts.

2. Explain how the survey was developed including consultation with interested parties, pretesting, and responses to suggestions for improvement.

NIST followed a systematic process in designing the survey instrument and data collection plan which included:

- Review of the NIST data sets to understand the data available on foreign guest researchers, its quality, and completeness.
- In-depth consultations with NIST staff on the alignment of the survey methodology with the needs and points of inquiry of NIST's International and Academic Affairs Office (IAAO).
- Interviews with NIST hosts and laboratory directors, and other NIST stakeholders to inform the survey.
- A set of internal review sessions to incorporate the feedback from the steps above and internally test and review the survey to adhere to the best standards in survey research, including, assessment of the clarity of the questions and respondents' ability to provide accurate and credible information; revisions to the questions and response options based on specific recommendations and priorities from NIST stakeholders.

3. Explain how the survey will be conducted, how customers will be sampled if fewer than all customers will be surveyed, expected response rate, and actions your agency plans to take to improve the response rate.

The survey data collection will be conducted using an online-based survey on the NIST Qualtrics survey platform; the survey, and the collected data, will be managed exclusively through NIST IT resources.

The steps in the data collection include:

- Identifying the unique number of the foreign guest researchers engaged with NIST over the past 10 years. For example, from 2010 and 2020 NIST engaged with 5,191 unique associates.
- IAAO staff will send an introductory email to the list of researchers, introducing IAAO, and the purpose of the survey and encouraging their participation.
- Following the introductory email, the IAAO staff will send the survey request email with the survey link.
- The survey will be open for one month. Over the course of the one-month response period, the IAAO staff will send 3 follow-up emails.

Burden is calculated to be: 5191 responses * 10 minutes = 865 burden hours.

We expect a 25% to 50% response rate, yielding 1,298 to 2,596 responses.

The survey is short, simply structured into 3 sections, and its questions are specific to the

experiences of the foreign national associates at NIST. Names will not be collected in this survey. All respondents will receive a generic survey link which will not be linked to a specific respondent's email. During data collection, the Qualtrics function that collects respondents' location information based on their device's IP address will be disabled. Finally, the introductory message from the NIST IAAO staff about the survey will help to reinforce a message that the survey is specific to the researchers' experience at NIST and it is not designed for the purpose of collecting PII or information irrelevant to their NIST experience.

4. Describe how the results of the survey will be analyzed and used to generalize the results to the entire customer population.

NIST does not expect statistically significant results and generalizable findings to a broader population as the survey is part of recurring evaluation and monitoring of the Foreign National Associates program.

The information collected will be analyzed using Excel, R, and Tableau software tools. These tools permit efficient thematic analysis that will allow NIST to evaluate overall trends and benefits. The results will be aggregated to understand the typical experience with the program and aggregate its impacts. NIST- data and input from NIST experts will be utilized to analyze to what extent the distribution of respondents' home countries, labs, and groups within NIST, and other available parameters reflect the distributions of the overall population.

The results of the survey will be used by IAAO to assess the effectiveness of the program in supporting the NIST mission. Survey participants will receive copies of the report only if approved for public release by NIST.