

OMB Control #0693-0043

Expiration Date: 03/31/2022

NIST Generic Clearance for Usability Data

Forensic DNA Technical Leader Survey (Federal Survey)

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

The Forensic DNA Technical Leader Survey has been designed to assess consistency and variability between forensic DNA lab with respect to laboratory management, tasks performed, DNA data interpretation, cognitive bias, internal and external training and research, testimony and reporting practices, quality assurance and quality control measures, and stakeholder engagement opportunities. This survey will provide insight into where standardization of DNA practices is being utilized and the role of technology in forensic DNA interpretation. The results of the survey will inform standards and best practice recommendations for the discipline, aid in the identification of research gaps, and assist the National Institute of Standards and Technology (NIST) in its mission to support the forensic science community. This survey also seeks to illuminate potential differences in protocols and practices between crime laboratories.

This survey will be disseminated to a variety of forensic science service provider types including publicly funded local, county, state, and federal laboratories along with private practitioners and consultant groups or individuals within the U.S. and abroad. A separate submission for each affected public type will be entered in ROCIS.

The survey will be completed by one person in each participating laboratory – the DNA unit technical leader or equivalent. This is the individual who is responsible for the technical oversight of the DNA laboratory, which may include (but is not limited to) day-to-day quality assurance and accreditation compliance, design and implementation of methods development, verification of analytical instrumentation function, and validation of new technologies. Because of the breadth of topics being asked in this survey, the technical leader is the most fit individual to serve as the targeted respondent as they will possess the greatest expanse and understanding of their laboratory's protocols and practices

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

This survey was developed in consultation with the National Institute of Standards and Technology (NIST)/National Institute of Justice (NIJ) Expert Working Group on Human Factors in Forensic DNA Interpretation (EWG). This is a group of 29 stakeholders who represent federal, state, and local forensic science agencies and private organizations, as well as legal and academic practitioners with a vested interest in forensic DNA interpretation and communication. The EWG helped to develop, vetted, and refined the initial survey topics and questions. The NIST Usability Team reviewed the questions and provided feedback to improve the survey instrument.

Once the questions were complete, they were entered into Qualtrics (a survey development platform that allows for rapid analysis of responses). The instrument was pre-tested with a small subset of 11 respondents (including fewer than 9 non-federal laboratory respondents). The respondents were able to provide general survey and specific question feedback at the close of the pilot survey. Suggestions for improving the survey based on the pre-testing feedback were discussed with the EWG and integrated into the survey given full group consensus and approval.

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 will be sent electronically to

- U.S.-based laboratories – the technical leaders within the 203 laboratories that participate in the National DNA Index System (NDIS) via the NDIS Custodian at the Federal Bureau of Investigation (FBI) Laboratory. The FBI has agreed to disseminating the survey for the U.S. targeted respondents due to FBI restrictions surrounding the non-interagency release of contact information for NDIS participating laboratories and their associated point of contacts. Thus, the NDIS custodian will oversee sending the survey link to these individuals privately. The email will contain links to the NIST website where the survey instrument can be completed. It should be noted that some of these NDIS participating laboratories are overseen by the same technical leader, therefore the

total number of technical leaders is slightly less than the number of NDIS participating laboratories. Based on previous surveys sent through this avenue, it has been found that response rates can be as high as 80% for surveys distributed via this chain.

- Non U.S.-based laboratories – contacts within the National Institute of Forensic Science (NIFS; a directorate within the Australia/New Zealand Policing Advisory Agency (ANZPAA)), International Society for Forensic Genetics (IFSG), and European Network of Forensic Science Institutes (ENFSI).

Based on the data collection and analysis of the pilot test, we expect this survey to take an average of 45 minutes to complete. We anticipate reaching 400 labs total which would result in a total burden time of 300 hours total. Because there are three types of “affected public”, separate submission in the ROCIS system will be completed to accurately capture the burden hours for each cohort:

**Federal (contractors may complete): 10% of responses =
40 respondents * 45 minutes = 30 burden hours**

**State / Local/ County Government: 85% of responses =
340 respondents * 45 minutes = 255 burden hours**

**Private Sector: 5% of responses =
20 respondents * 45 minutes = 15 burden hours**

By using the FBI, NIFS, IFSG, and ENFSI to disseminate the survey links to their respective group lists, we are hoping to increase our response rate because we have limited access to technical leader contact information. Reminder emails will be sent.

We are aware of the potential obstacles of utilizing institutions outside of NIST and RTI International to disseminate the survey, however, due to the restriction of the target population being aimed at technical leaders (or equivalent) and the privacy considerations surrounding identifying these point-of-contact laboratory individuals, we have determined this to be the best possible survey dissemination avenue to boost overall outreach and respondent rate.

A NIST contact will compose the emails that are to be sent by the external institutions to potential participants. These will be accompanied by a PDF information sheet that cannot be altered by the submitting party. The survey link will lead to a NIST landing page that will display the OMB approval statement.

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

The survey data will be downloaded from Qualtrics as a CSV file and analysed by the NIST team in consultation with the EWG members with statistical and research experience. Qualtrics also allows for in-platform rapid analysis of the resulting collected data. Since the survey is not a randomized sample, inferences cannot be made about the entire FSSP population based on the results. However, since information about laboratory type, location, and size are being collected from the respondents, some useful information about forensic DNA practices both within and outside of the U.S., as well as differences and similarities between nations, can be gathered and explored through cross-tabulations with practice and protocol questions. Currently, there are few sources of information in existence focusing on the influence of human factors within the discipline of forensic DNA. This survey will serve as a starting point for gathering such data. Further, the resulting data obtained through the survey will be incorporated into the document produced by the EWG to create recommendations for all activities related to, and impacted by, DNA interpretation.