

## B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

**1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.**

Overall, Joplin, MO is made up of 50,000 people within 31.5 square miles. However, the tornado disaster affected approximately 20 to 30% of the city. Additionally, there were over 20 nonresidential structures affected by the storm, including schools, churches, and department stores, making it likely that non-residents of Joplin, MO were also affected by the storm. Therefore, the total respondent universe is at least 10,000 to 15,000 people.

With that said, it should be noted that the data collection method used in this study will be a snowball sampling technique to interview persons affected by the tornado disaster. Therefore, it is not necessary for NIST to obtain a list of all persons affected by the storm in order to achieve a wide variety of information on personal experiences. Rather, there are three different methods that the NIST team will use to obtain contact information for potential interviewees.

First, the NIST Team will likely advertise this interview study specifically to ask families and friends of victims in addition to survivors of the event to contact designated NIST Team members if they are interested in being interviewed. The advertisement will be placed on the Joplin Facebook Page, local websites, the Joplin-Jasper County emergency management webpage, and any other electronic outlet that allows posting. A general advertisement for this interview study has been provided in ROCIS.

Also, the NIST Team is continually collecting and documenting media-published eyewitness accounts in a database (using Microsoft Excel). In this database, all survivor stories (including survivor names) are documented. The NIST Team will also attempt to identify contact information for these individuals in addition to the larger-scale advertisement using electronic sources such as the White Pages or Lexus Nexus.

Additionally, once interviewing begins, interviewees will be asked to identify any acquaintances who may wish to take part in this study. After each interview conducted, interviewers from the NIST Team will ask the interviewee to identify any other individuals who may wish to participate in this study. Interviewees will be asked to provide names (and contact information, if they can) for these potential participants and/or share details of the NIST study with their social network to allow individuals to contact NIST if they are interested in participating.

The expected response rate of 400 is deemed sufficient for the technical investigative report. This project's sample will be a convenience sample, in that the Team will interview people as they volunteer to participate in interviews, and data collection will cease when the Team deems

the topics of interest as saturated (i.e., additional data collection efforts are unlikely to result in any new information).

It is also of interest, however, to focus some interviews with family and friends of the victims. A total of 158 individuals were confirmed and identified as deceased as a result of the tornado.

**2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

NIST will develop a convenience sample, in that the Team will interview people as they volunteer to participate in interviews, and data collection will cease when key areas of interest are saturated and no additional information is gathered by speaking with additional interviewees. The interviewees will be made up of tornado survivors from a variety of geographical locations within and around Joplin, age groups, and with varying experiences with the tornado. NIST has already obtained names (and contact information in some instances) for a group of regionally-diverse tornado survivors from the Joplin, MO area, both through discussions with individuals and an extensive search of media accounts. We will attempt to gain additional contact information for individuals identified only by name in the media accounts, as well as other individuals identified by the regionally-diverse sample (discussed above), in order to obtain names and contact information for additional interviewees.

NIST will also attempt to invite families or friends of the deceased to contact NIST if they wish to discuss victims' experiences. This sample of families or friends of the deceased will represent a convenience sample as well.

**3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.**

The Team will continue to contact potential interviewees until the topics of interest are saturated and additional interviews will not result in any new information on these topics. If interviewees are contacted and they are unable or unwilling to participate in this data collection effort, the Team will contact others.

**4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.**

The interview transcripts will be extensively reviewed to identify any trends in the data related to the main areas of interest: the emergency communication system and the resulting protective actions taken (which may or may not have led to injuries and fatalities). Due to the fact that these are investigative interviews, no formal quantitative or qualitative analysis methods will be used to analyze data.

**5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

No additional individuals were consulted on statistical design. The Team and NIST contractors will perform the data collection and analysis for this project.