

## **B. STATISTICAL METHODS**

### **1. Universe and Respondent Selection**

The universe for the survey consists of approximately 15,624 state and local law enforcement agencies across the nation. Our population is based on BJS's 2004 Census of State and Local Law Enforcement Agencies, which includes the State and local agencies with a specific geographic jurisdiction or special enforcement responsibilities.

From this universe, a nationally representative sample of 3,152 state and local agencies will be selected based on a stratified random sampling methodology. This sample will include samples of sufficient sizes to yield reliable estimates for all three types of agencies (sheriff's offices, local police agencies, and state police agencies), as well as the four geographical census regions (West, Midwest, South, and Northeast). The selected sample will also support estimation for four agency size categories based on the total number of sworn officers employed by the agency. These size categories for sworn officer counts are less than 25 officers, 25 to 49 officers, 50 to 99 officers, and agencies with 100 or more sworn officers. To facilitate the objectives of the study, all agencies employing 100 or more sworn officers will be included in the survey with certainty. In addition, those sheriff agencies having 50-99 sworn officers will also be included with certainty in order to improve precision on survey statistics for sheriffs in this size category.

The sample of 3,152 selected agencies is as follows:

Sheriff's Offices: 1,364

Local Police Agencies: 1,739

State Police Agencies: 49

### **2. Procedures for Collecting Information**

Our survey data collection plan is designed to maximize response rates and data completeness/accuracy while keeping respondent burden as low as possible. The survey will employ a mixed-mode data collection approach that includes a web-based survey, a hardcopy survey, and telephone follow-up. This approach provides law enforcement agencies with multiple ways of responding to the survey in order to achieve a high response rate.

A hardcopy of the survey with a self-addressed, stamped return envelope will be sent to all sampled agencies at the onset of the data collection. A cover letter on NIJ letterhead and signed by NIJ will accompany this hardcopy survey. These materials will describe the goals and importance of the project, will request the agency's cooperation, and

provide general instructions for participation. The instructions will provide details on available methods of response including the URL for the project website and a fax number for returning the survey via fax. Contact information will also be provided for agencies that have technical or content-specific questions about the survey. One month after the first mailing, a second mail out will be sent to all non-respondents. A second lead letter from NIJ will accompany this package, along with another hardcopy survey.

Two weeks after the 2<sup>nd</sup> survey mail-out, the contractor will begin conducting follow-up calls to encourage respondents to complete the survey online, return the hardcopy survey, or complete the survey over the phone at a time convenient with the respondent. We will use these calls to explore and overcome possible obstacles to their participation. For example, if respondents have misplaced the project materials, another copy of the questionnaire will be faxed or emailed to the respondent.

3. Methods to Maximize Response

In order to maximize response rates, NIJ will employ practices that are known to be successful for non-response follow-up. The survey instrument will be concise and created to load quickly so that the highest response rates can be achieved. Also, web-based respondents will not be asked for information which may identify them. Non-respondents will receive follow up contact via letter and telephone.

One of our main goals for the data collection is to maximize the number of responses via the web-based survey. This will improve data quality and availability due to the controlled nature of the entry fields and the immediacy of data capture, as well as reducing the amount of labor needed to send out hardcopy surveys and conduct telephone follow-up and data entry. This website will serve the project in multiple ways and will be a key aspect of managing data collection. Primarily, the website will give survey respondents private access via a unique login, which allows them to complete the survey, view their data, and view aggregated response rates. This approach has driven up response rates in other studies and experience has shown that respondents often want to view the information they have entered. In addition to a unique login provided to respondents, which provides one level of security, the website will run Secure Socket Layers (SSL) to encrypt data while it is in transit from the user's computer to the web server that hosts the website. Once transmitted, the data will be securely stored in an SQL database located behind the project website's firewall.

4. Testing of Procedures

The survey instrument will be pilot tested with a maximum of 8 law enforcement agencies to verify that the questions are easily understood and that the information is obtainable without putting too much of a burden on the respondent. The project website (including the on-line instrument) will also be tested to ensure that it is working properly and that it provides an efficient means for responding to the survey.

5. Contacts for Statistical Aspects and Data Collection

The sampling method will be constructed in accordance with generally accepted statistical sampling procedures.

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