1Supporting Statement

B. Description of Statistical Methodology

1. <u>Universe and Respondent Selection</u>

The Police Public Contact Survey has been conducted as a special supplement to the NCVS every three years since 1999. Administering the Police Public Contact Survey as a supplement to the National Crime Victimization Survey (NCVS) leverages the NCVS sample to obtain additional information from NCVS household members on any contacts they have had with the police. The NCVS was deemed to be the most practical means for obtaining information on this issue since it is an ongoing survey in which interviews are conducted with the American public concerning recent crime victimization experiences. The NCVS provides national data on personal and household victimizations both reported and not reported to the police.

Because the NCVS is a household-based sampling frame, neither the NCVS nor the PPCS are administered to homeless persons, persons who are institutionalized or incarcerated at the time of the interview, or persons living in military barracks. The survey collects detailed information on the interactions people have with police, including contacts in which police use or threaten force. Findings from this survey are based solely on the personal accounts of the PPCS respondents. Official police records on contacts between police and the public are not used for this survey.

The sample universe for the PPCS is all persons aged 16 or older in all NCVS households. Approximately 19,097 persons a month, age 16 and older, in these households will be eligible to be interviewed for the supplement during July through December 2015 for a total of 114,579 possible interviews. Generally, interviewers are able to obtain interviews for the NCVS with approximately 80 percent of the PPCS eligible household members in 90 percent of the occupied units in sample in any given month. A total of 91,663 individuals aged 16 and older are expected to be interviewed during the 6 month collection period.

The PPCS does not interview anyone aged 12 to 15 living in the sampled households. One reason for this is that the survey items were designed to address specific issues that can be directly related to one's age – in particular being stopped by police while driving a vehicle. The 1996 pretest suggested that data collected from juveniles between the age of 12 and 15 did not have a significant impact on the key outcome variables: prevalence of contact and use of force. As a result, it was decided at that time to exclude youth under age 16.

In 2011, over 40% of respondents who reported having interaction with police stated the contact was traffic related. In an estimated 84% of these stops, the respondent was the driver. Since persons under the age of 16 are not eligible for a drivers' license in most states, inclusion in the PPCS would likely show that almost all of the 12 to 15 year olds involved in the traffic stops were passengers.

The Police Public Contact Survey was designed to be administered to an adult population. There would be a significant investment of resources to revise the collection to be appropriate for a younger population, including a revised questionnaire and additional cognitive tests for the younger age group. In addition, there would be significant issues with comparability with the past data collections that have been limited to a sample of respondents age 16 and older.

Given the combination of higher data collection costs, lower response rates, and questions that may not pertain to persons in the 12 to 15 age group, the BJS plans to continue to exclude persons under age 16 from the PPCS.

2. <u>Statistical Methodology</u>

The PPCS is primarily designed to calculate national estimates of contact between the police and the public for the target population - the noninstitutional resident population aged 16 years and older. The PPCS will be administered to all age-eligible NCVS respondents during the 6-month period from July-December 2015. The frame used to reach the target NCVS population is the list of addresses of all living quarters in the U.S. compiled from the most recent decennial census and lists of housing units constructed since that most recent decennial census. Sample selection for the NCVS, and by default the PPCS, has three stages: the selection of primary sampling units or areas known as PSUs, the selection of address units in sample PSUs, and the determination of persons and households to be included in the sample.

Survey estimates are derived from a stratified, multi-stage cluster sample. The PSUs composing the first stage of the sample are formed from counties or groups of adjacent counties based upon data from the decennial census. The larger PSUs are included in the sample automatically and are considered to be self-representing (SR) since all of them are selected with certainty. The remaining PSUs, called non self-representing (NSR) because only a subset of them are selected, are combined into strata by grouping PSUs with similar geographic and demographic characteristics, as collected in the decennial census from which the sample is drawn. For the NCVS, administrative crime data

drawn from the FBI's Uniform Crime Reporting Program are also used to stratify the PSUs.

SAMPLING

Stage 1. Defining and Selection of PSUs:

Defining PSUs - Formation of PSUs begins with listing counties and independent cities in the target area. For the NCVS, the target area is the entire country. The counties are either grouped with one or more contiguous counties to form PSUs or are PSUs all by themselves. The groupings are based on certain characteristics such as total land area, current and projected population counts, large metropolitan areas, and potential natural barriers such as rivers and mountains. The resulting county groupings are called PSUs.

After the PSUs are formed, the large PSUs and those in large urban areas are designated SR. The smaller PSUs are designated NSR. Determining which PSUs are considered small and which are large depends on the survey's SR population cutoff. An SR PSU must be large enough in population to support at least one field representative with a full workload of approximately 32 cases. For the NCVS, all PSUs with a population over 223,176 were labeled SR.

Stratifying PSUs - The NSR PSUs are grouped with similar NSR PSUs within census divisions (New England, Mid Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific) to form strata. Each SR PSU forms its own stratum. The data used for grouping the PSUs consist of decennial census demographic data and administrative crime data. As was stated earlier, NSR PSUs are grouped to be as similar or homogeneous as possible. Just as the SR PSUs must be large enough to support a full workload so must each NSR strata be of that size. The most efficient stratification scheme is determined by minimizing the between PSU variance and the within PSU variance.

Selecting PSUs - The SR PSUs are automatically selected for sample or "selected with certainty." One NSR PSU is selected from each grouped stratum. The NSR PSUs are sampled with probability proportional to the population size using a linear programming

algorithm. Beginning with collection year 2006, the NCVS design consists of 183 SR PSUs and 146 NSR PSUs.

Stage 2. Preparing Frames and Sampling Within PSUs

Frame Determination - To ensure adequate coverage for the target population, the Census Bureau defines and selects sample from four address lists called frames: the unit frame, the area frame, the group quarters frame, and the new construction or permit frame. Each address in the country is assigned to one and only one of these frames. Which frame an address is assigned to depends on four factors: 1) what type of living quarters are at the address, 2) when the living guarters were built, 3) where the living guarters were built, and 4) how completely the street address was listed. The main distinction between the frames is the procedures used to obtain the sample addresses. Two types of living quarters are defined in the decennial census. The first type is a housing unit. A housing unit (HU) is a group of rooms or a single room occupied as separate living quarters or intended for occupancy as separate living quarters. A housing unit may be occupied by a family or one person, as well as by two or more unrelated persons who share the living quarters. Before the 2000 decennial census, separate living quarters were defined as a space in which the occupants live and eat separately from all the other persons on the property and have direct access to their living quarters from the outside or through a common hall or lobby as found in apartment buildings. Beginning with the 2000 decennial census, the criteria for separate living quarters are that the occupants must live separately from any other individuals in the building and have direct access from outside the building or through a common hall or entry. Eating separately is no longer a criterion.

The second type of living quarters is group quarters (GQ). Group quarters are living quarters where residents share common facilities or receive formally authorized care. About 3% of the population counted in the 2000 census resided in group quarters. Of those, less than half resided in non-institutionalized group quarters. About 97% of the population counted in the 2000 census lived in housing units.

Within-PSU Sampling - All the Census Bureau's continuing demographic surveys, such as the NCVS, are sampled together shortly after the most recent decennial census. This takes advantage of newly available census data that shows population growth and demographic

changes, as well as updated unit address lists. Roughly a decade's worth of sample is selected at that time. Selection of samples is done one survey at a time (sequentially) and one frame at a time (independently). Each survey determines how the unit addresses within the frame should be sorted prior to sampling. For the NCVS, each frame is sorted by geographic variables. A systematic sampling procedure is used to select housing units from each frame. For the unit and the GQ frames, actual unit addresses are selected and reserved for the NCVS. In the area frame, a specified number of living quarters in a specific geographic location are promised to the NCVS and after the address listing operation in that geographic area, the specific unit addresses are assigned. Similarly, in the permit frames, empty placeholders are selected for the NCVS within the PSU. Then over time as new permits are issued, the placeholders are replaced with actual newly built housing units/addresses.

Addresses selected for a survey are removed from the frames, leaving an unbiased or clean universe behind for the next survey that is subsequently sampled. By leaving a clean universe for the next survey, duplication of addresses between surveys is avoided. This is done to help preserve response rates by insuring no unit falls into more than one survey sample.

Stage 3: Sample Within Sample Addresses

The last stage of sampling is done during initial contact of the sample address during the data collection phase. For the PPCS, if the address is a residence and the occupants agree to participate, then an attempt is made to interview every person aged 16 or older who lives at the resident address and completes the NCVS-1. There are procedures to determine who lives in the sample unit and a household roster is completed with their name and other demographic information. If someone moves out (in) during the interviewing cycle, he or she is removed from (added to) the roster.

Sample Boost: State Estimates

As part of the Bureau of Justice Statistics' (BJS) ongoing research into subnational estimates for the National Crime Victimization Survey (NCVS), a sample boost was implemented in 11 states beginning in July 2013. The 11 states were selected because they have the largest state populations of all 50 states, per the American Community Survey. Like the core NCVS, data on the

sample boost cases are being gathered on types and incidence of crime; monetary losses and physical injuries due to crime; characteristics of the victim; and, where appropriate, characteristics of the perpetrator. Supplements are also administered in sample boost locations.

The project will help BJS and Census confirm various assumptions about collecting and producing state level estimates, including sample sizes and reliability, expected response rates, victimization rates, state coverage issues, state level sample design and weighting, field representative (FR) hiring and training, data collection issues and logistics, workload concerns, costs, and data analytics. Specifically, the goals of the project are to assess the cost and feasibility of generating direct estimates of victimization (violent and property) with a high level of precision (less than 10% coefficient of variation for violent crime) using three-year rolling averages. The sample boost serves as the implementation test to identify problems and issues in preparation for the adoption of a 22+ state design in 2015.

In the 11 states receiving the sample boost, supplemental PSUs and housing units were added to the 2000 design sample to improve the coverage and representativeness of sample within the states. While data from boost cases is being kept separate from core NCVS data, the Census Bureau is able to routinely assess the overall impact of boosted cases on response rates and victimization rates. They will be able to conduct similar assessments using data from the PPCS, which will also be administered in to sample boost cases.

DATA COLLECTION

For the six month period, July through December 2015, the PPCS will be administered to approximately 60,305 designated households. The NCVS uses a rotating sample that consists of six groups for each month of enumeration. Each of these groups stays in sample for an initial interview and six subsequent interviews. During the course of a 6-month period, we interview a full sample of six rotation groups--one-sixth each month. In addition, one rotation group enters the sample for its bounding interview each month. The first time a household is interviewed, the interview is typically conducted in person by a Census Bureau field representative. For the second through seventh interview waves, the NCVS is typically administered over the telephone.

Each interview period, the interviewer updates NCVS control card information (demographics) for each member listed on the household roster that is 12 years old or

older by interviewing the household respondent. The household respondent is usually a person who is 18 years of age or older who is knowledgeable about the household and its members. Once household composition and demographics are collected the interview proceeds by asking the household respondent about their victimization experiences 6 months prior to the date of interview. If the respondent has been victimized additional questions are asked to learn more about the nature and consequences of that victimization. This is repeated for each victimization, and the respondent reports until all victimizations are fully documented. Following either the screener or the administration of the crime incident report(s), depending on whether a crime was reported, each household member 16 years of age or older will be administered the PPCS. Once the PPCS is complete, the next eligible household member 12 years of age or older is asked about their victimization experiences in the last six months followed by the PPCS, if they are eligible. Each household member provides the information by self-response. While proxy interviews are allowed for the NCVS in very limited circumstances, proxy interviews are not acceptable for the PPCS¹. All forms and materials used to for the NCVS screener and crime incident report have been previously approved by OMB (OMB NO: 1121-0111).

For previous PPCS collections, respondents who completed the NCVS interview in a language other than English were ineligible for participation in the PPCS. This resulted in non-response bias among Hispanics in particular. Additionally, given the potential issues related to contact between police and non-English speaking residents, the inclusion of non-English speakers is an important change to the 2015 collection. Census field representatives will use 'on-the-fly' translation to administer the PPCS to respondents for whom the NCVS was translated.

The complete 2015 PPCS instrument is included for review as Attachment 7.

3. <u>Methods to Maximize Response</u>

Every effort has been made to make the survey materials clear and straightforward. The PPCS instrument has been designed to make collection of the data as concise and easy for the respondent as possible. The PPCS uses questions that have been used previously in past data collections and are known to be easily understood by most respondents.

In addition, prior to the start of the data collection, the Census Bureau staff mails an introductory letter (NCVS-572(L), NCVS-573(L)) explaining the NCVS to the household

¹ Approximately 2% of NCVS interviews are conducted by proxy. The PPCS excludes these proxy interviews. Given the nature of the questions, BJS determined that proxy respondents would have difficulty describing the details of contacts between police and the sampled respondents. For instance, respondents are asked whether they felt the force was excessive; a proxy interview would not know how the sampled respondent felt about the use of force.

before the interviewer's visit or call. The NCVS-572(L) is sent to households that are being contacted for the first time, and the NCVS-573(L) is sent to all households that have been contacted previously. All Census Bureau interviewers are trained about the PPCS instrument, including internal check items that are in place to help the interviewer insure that the respondent is being asked the appropriate questions and follow-up when clarification is needed. The interviewers are also trained to make repeated attempts at contacting respondents and to complete interviews with all eligible household members. Finally, the interviewer obtains demographic characteristics of noninterview persons and the race of noninterview households for use in the adjustment for nonresponse.

4. <u>Testing of Procedures</u>

The majority of the survey questions were tested during the previous collections conducted in 1996, 1999, 2002, 2005, 2008, and 2011 and therefore have been pretested and are known to be easily understood and answered.

Additional cognitive testing focused on ease of understanding and the flow of the 2015 instrument was conducted by the Center for Survey Measurement at the U.S. Census Bureau, under 1their generic clearance for questionnaire pretesting research (OMB number 0607-0725). The testing was conducted in two rounds during August and December 2013. In total, 29 individuals were interviewed: 14 in the first round and an additional 14 in the second round. Because most of the questions on the 2015 instrument had already been tested in 2011, there were few major changes to the instrument as a result of the testing. Most of the recommendations consisted of changes to the wording of a question to remove any confusion. For instance, to avoid duplicative reporting with the question asking about involvement in traffic accidents, the wording of the question reading, "Have you reported a non-crime emergency such as a traffic accident or medical emergency to the police?" was changed to read "Have you reported a non-crime emergency, such as a medical emergency or a traffic accident you were not involved in, to the police?" Between the first and second round of cognitive testing, the BJS also recognized the need to ask respondents for a month and year of their most recent contact in order to allow PPCS contacts to be aligned with NCVS data on reporting to police. A question asking for the date of each of the most recent types of contact was included between the two rounds and respondents did not seem to have difficulty providing that information during the second round of testing.

Respondent recall has always been a concern when asking for information of past experience. The PPCS has historically shown that of those respondents who have had contact with the police over the past year, approximately three quarters of the respondents have had only one contact. For the PPCS, the issue of respondent recall involves both queuing respondents to think about all the potential types of contact experienced during the year and later keeping the respondent focused on one most recent event. These issues were addressed in the 2011 instrument with the addition of the PPCS screener, as well as

directions and reminders read by the interviewer to keep the respondent focused on the most recent contact. The addition of month and year of the contact in the 2015 instrument further reinforces the bounding period. The final report outlining these and other recommendations of the cognitive testing is included with this package as Attachment 6.

5. <u>Consultation Information</u>

BJS contacts include:

Lynn Langton Statistician Lynn.Langton@ojp.usdoj.gov (202) 353-3328

Michael Planty Chief, Victimization Statistics Unit Michael.Planty@ojp.usdoj.gov 202-514-9746

The Census Bureau contacts include:

Meagan Meuchel Branch Chief, Crime Surveys Branch Demographic Surveys Division meagan.m.meuchel@census.gov 301.763.5319 Elizabeth Davis Statistician Elizabeth.Davis@ojp.usdoj.gov 202-305-2667