

**Supporting Statements: Part B**  
**Crash Injury Research and Engineering Network (CIREN) Data Collection**  
**OMB Control Number: New**

**Abstract:<sup>1</sup>**

The National Highway Traffic Safety Administration (NHTSA) is seeking approval from OMB of this new, independent information collection request (ICR) for six (6) information collections for an investigation-based crash data acquisition system (formerly considered under OMB 2127-0706). Participation in these information collections is voluntary and each of the collections involves reporting. Respondents may elect to stop participation at any time during the study. Respondents include individuals injured in motor vehicle crashes who have been admitted to a hospital, emergency services providers, insurance companies responsible for case subjects' vehicles, and tow/salvage yard operators associated with investigated crashes. The information collection consists of reporting and includes interviews and responses to inquiries for information. The collections are performed on an as-needed basis and expected to be once in a lifetime for any particular individual who has been involved in a crash based on likelihood of meeting inclusion criteria.

The case subjects are selected by screening mechanisms in place at eight hospitals under contract with the National Highway Traffic Safety Administration. The information collection populates a database for internal NHTSA and public use. Case identification begins with contractor personnel screening potentially eligible case subjects in trauma logs at contracted hospitals. Potentially eligible case subjects are approached for consent to participate in the study and to further confirm eligibility. At this stage, willing participants complete an informed consent form and participate in an interview with contractor personnel. The interview includes questions about the crash circumstances, involved vehicle, medical history, and the injury outcome. Once contractor personnel determine that a respondent meets study criteria, collection of medical and crash-related data commences. Contractor personnel retrieve police crash reports and medical transport reports associated with the case subject's crash. Contractor personnel retrieve medical data from the contractor hospital's electronic medical record (EMR) system. A trained crash investigator locates the involved vehicle(s) at tow yards and salvage facilities and performs detailed inspections. Contractor personnel enter data into an electronic database. Following a quality control process, data are used for internal research purposes and made available to the public. The information collected supports research efforts and countermeasure development that reduce the severity of injury and property damage caused by motor vehicle crashes. The Crash Injury Research and Engineering Network (CIREN) is a purposive sample of injured traffic crash victims to support in-depth injury causation analysis. Each contractor site receives approval for this collection from its Institutional Review Board (IRB) according to its own

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<sup>1</sup> The Abstract must include the following information: (1) whether responding to the collection is mandatory, voluntary, or required to obtain or retain a benefit; (2) a description of the entities who must respond; (3) whether the collection is reporting (indicate if a survey), recordkeeping, and/or disclosure; (4) the frequency of the collection (e.g., bi-annual, annual, monthly, weekly, as needed); (5) a description of the information that would be reported, maintained in records, or disclosed; (6) a description of who would receive the information; (7) if the information collection involves approval by an institutional review board, include a statement to that effect; (8) the purpose of the collection; and (9) if a revision, a description of the revision and the change in burden.

institutional protocols. The purpose of this information collection is to document injury causation in motor vehicle crashes and build a repository of detailed crash injury data.

## **B. JUSTIFICATION**

B.1 Describe the potential respondent universe and any sampling or other respondent selection to be used.

This study examines the real-world injury outcome of motor vehicle crash victims. Respondents for this study will be drawn in a purposive sample of admitted patients at eight contracted trauma centers within the United States. Contractor personnel screen patients who have been admitted to their facility as a result of injuries sustained in a motor vehicle crash. Study criteria consider the crash type, vehicle model year, restraint use, and injury outcome. Eligible respondents who provide consent to participate will be included in the study.

B.2 Describe the procedures for the collection of information.

Data collection begins upon receiving consent from the case subject. A nurse or research coordinator conducts an interview with the case subject to document details about the crash and any relevant past medical history. Contractor personnel then retrieve the case subject's medical information directly from the electronic medical record system and copy specific deidentified information into an electronic database. If the EMS transfer documentation is not available in the contractor hospital's records, contractor personnel will request the documentation from the EMS agency. The contractor's crash investigator accesses the police crash report to determine the crash scene location and the disposition of the involved vehicle. The crash investigator then visits the crash scene and the case subject's vehicle to take measurements and photographs according to agency protocols. Vehicle and scene documentation are also entered into an electronic database.

The proposed data collection is a one-time occurrence for each case subject and will not recur. Following complete data entry for each case subject, specialized contractor personnel analyze the data for each case and develop detailed injury causation scenarios. A third-party quality control agent then reviews coded data for consistency and compliance with study protocols prior to case data being made available to the public.

B.3 Describe methods to maximize response rates.

There are no specific procedures to maximize response rates. Contract awardees are selected from high-volume trauma centers to ensure a large number of potential case subjects among their admitted patients. Contractor personnel screen incoming admissions based on study criteria and approach as many potentially-eligible case subjects for consent as possible.

B.4 Describe any tests of procedures or methods to be undertaken.

As previously stated, the sample is a purposive sample and stratification methods are not a requirement for data collection or analysis. The cases collected in this study are not intended to represent a population of crashes or crash victims. Typical data use includes case studies and regression analyses to examine the effects of variables on injury outcomes.

B.5 Provide the name and telephone number of individuals consulted on statistical aspects of the design.

The study does not adhere to statistical methodology for sampling methods or selection. The study is a purposive sample targeted at individuals meeting target criteria. Analyses are expected to include summary statistics and case series analyses, but no stratification of results. The following individual is primarily responsible for data collection and analysis:

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