Information Collection Request Supporting Statements: Part A Crash Injury Research and Engineering Network (CIREN) Data Collection OMB Control No. New

Abstract:¹

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

¹ 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) the purpose of the collection; and (8) if a revision, a description of the revision and the change in burden.

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 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.

A. Justification

1. Explain the circumstances that make the collection of information necessary. Identify any legal and administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

NHTSA operates multiple motor vehicle crash data collection programs. The collective efforts of these programs help to identify the primary factors related to crash causation and vehicle crashworthiness. The resulting data support NHTSA's efforts to implement research programs, develop and evaluate effective safety countermeasures, and establish and enforce motor vehicle regulations. Collectively, these efforts reduce the severity of injury and property damage caused by motor vehicle crashes. The majority of these databases are operated through the National Center for Statistics and Analysis (NCSA).

NHTSA's research programs play an essential role in supporting the Agency's primary mission of saving lives and preventing injuries associated with motor vehicle crashes. NHTSA fulfills this mission in three ways: primary prevention (e.g., preventing the crash from occurring), advancing motor vehicle crashworthiness (e.g., elimination of injuries and fatalities during a crash), and implementing effective post-crash response (e.g., mitigation of crash consequences through an effective system of emergency medical services). Development and completion of research programs supportive of the Agency's mission necessitates real-world data with the needs of the research process in mind. Following guidance from the National Academy of Sciences, NHTSA's Office of Vehicle Safety Research commenced a unique, injury-focused crash data collection program that merges engineering and medicine to inform research decisions related to improving human protection in crashes. This program, the Crash Injury Research and Engineering Network (CIREN) is operated through the Office of Vehicle Safety Research rather than NCSA.

NHTSA is authorized by 49 U.S.C. § 30182 and 23 U.S.C. § 403 to collect data on motor vehicle traffic crashes to aid in the identification of issues and the development, implementation, and evaluation of motor vehicle and highway safety countermeasures. The information collected serves to identify and develop safety countermeasures that will reduce the severity of injury and property damage caused by motor vehicle crashes. This ICR covers the NSR-operated investigation-based crash data system CIREN. CIREN uses similar investigative protocols as NHTSA's Crash Investigation Sampling System (CISS) and Special Crash Investigations (SCI), and also shares Information Technology resources. CIREN was previously included in the ICR for NHTSA's CISS and SCI information collections. However, because CIREN is aimed at supporting crash injury research, and therefore differs substantially in terms of medical data

collection and analysis, NHTSA has determined that it would be appropriate to seek an approval for an independent ICR.

CIREN is a purposive sample, collected from a small number of sites, intended to extensively examine and document injury causation in motor vehicle crashes. CIREN investigation sites are located at eight contracted level-one trauma centers with high volumes of motor vehicle trauma admissions in order to capture a sufficient number of cases meeting the study criteria. Biomechanical engineers and medical doctors collaboratively review case evidence to establish injury causation scenarios. With its focus on restrained occupants of newer vehicles in specific crash types, the CIREN program acts as a sentinel to monitor emerging occupant protection issues. Involvement of injury biomechanics experts positions CIREN as a catalyst to generate research hypotheses. CIREN program goals are closely aligned with NHTSA vehicle safety research priorities. The resulting database provides NHTSA and the public with access to a crash data which contains extensive medical detail, including medical imaging, which is a unique resource among crash data systems. There is no other source for this biomechanics-focused data which is critical to support crash injury mitigation and prevention research.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

The general purpose of NHTSA's investigation-based crash data collection systems is to investigate real-world crashes and collect detailed crash data. These detailed data help to identify the primary factors related to motor vehicle crash and injury causation. Knowledge of these factors supports development and evaluation of effective safety countermeasures, including the establishment and enforcement of motor vehicle regulations that reduce the severity of injury and property damage caused by motor vehicle crashes. Further, detailed analysis of real-world crash data is crucial to vehicle safety research efforts – it informs research decisions and provides ground truth about vehicle safety performance.

The method of case subject identification and selection is unique for CIREN. CIREN collects a purposive sample of injured traffic crash victims from a small number of sites to extensively examine and document injury causation in motor vehicle crashes. The CIREN program enrolls case subjects (crash victims) who have been admitted to eight contracted level-one trauma centers for treatment of injuries sustained in crashes and consent to participate in the study. The collection facilitates detailed review and analysis of medical and engineering data by multidisciplinary teams to evaluate injury causation. The focus of the CIREN program has historically been on seriously-injured occupants of recent model-year motor vehicles, though the program intends to expand to include pedestrians, pedalcyclists, and micromobility (non-motorist) users who have been injured in crashes.

Study personnel at each of the eight contracted CIREN sites review trauma registry data to identify potential case subjects based on the study's inclusion criteria. Study teams obtain informed consent from eligible patients according to institutional policies and consent documents. No data is collected from eligible patients who do not provide consent to participate in the study. Participation in CIREN does not affect the case subject's medical treatment. Observations from the CIREN program inform NHTSA research priorities and the data support improvements in motor vehicle safety. CIREN provides non-private data to the public through an online case viewer, database files, and reports.

After an eligible patient provides consent, study personnel retrieve the case subject's medical information and commence the crash investigation. Study personnel retrieve the medical information directly from the hospital's electronic medical record (EMR) system including case subject anthropometry, past medical history, radiological imaging and reports, operative procedure reports, and injury diagnoses. They also request emergency medical services (EMS) response reports from first responders. Study personnel also conduct an interview with the case subject (or a surrogate in cases where the case subject is unable to communicate) to develop an understanding about the crash circumstances. A trained crash investigator locates, visits, measures, and photographs the crash scene and the case subject's vehicle (or the striking vehicle for non-motorist case subjects). They also obtain the police crash report. These data are used to characterize the performance of vehicle safety systems and biomechanical responses of injured individuals in motor vehicle crashes.

Information collected by the CIREN program is used within NHTSA and by external stakeholders including academia, motor vehicle manufacturers, safety advocates, insurance and consumer organizations, and other government entities. The data are used to describe and analyze circumstances, mechanisms, and consequences of motor vehicle crashes. These descriptions and analyses will inform research decisions and other actions aimed at reduction of crash-related injuries. While CIREN's case selection approach does not yield a statistically-representative sample of crashes, the database contains extensive detail beneficial to many research endeavors.

Another benefit of the CIREN program occurs throughout the case production process. The personnel conducting the work, including doctors, engineers, and statisticians, act as a sentinel to identify emerging issues in crash safety. By examining mechanisms of injury in the context of the crash conditions, engineers are better able to assess performance of safety countermeasures. CIREN's focus on newer vehicles and specific crash types provides researchers with unique and relevant information about real-world performance of advanced safety systems. This experience also leads to hypothesis generation that spawns new research activities in support of NHTSA's injury prevention mission. Since CIREN is not a new program, but is being established as an independent collection, it has a history of influencing safety efforts with its outputs. Examples include identifying the rationale for a hip-specific injury criterion and providing real-world

evidence for comparison with laboratory-based test results². Another output of the CIREN program has been a comprehensive method to describe injury causation in crashes, which has been implemented across all NHTSA investigation-based crash data collection systems³. The CIREN program also developed modernized pedestrian crash data collection protocols for use by NHTSA⁴.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burden.

Most of the data collection comes from in-person interviews conducted by the CIREN contractor with consented case subjects. This is not, and cannot, be automated because each crash provides a unique set of circumstances which must be identified and explored with the case subject. Further, the CIREN contractor will capture photographs of integumentary injuries (e.g., lacerations, hematomas, abrasions) if the case subject agrees to have such photos taken. Information from the interviewee, along with additional information from a scene inspection, a vehicle inspection, and the case subject's medical outcome will likely lead the interviewer to ask additional specific questions.

Additional collection is performed by police staff and EMS providers and usually involves retrieval of existing records. Rarely, a crash investigator may request crash-related information or photographs beyond what is available in the crash report. Locating the case subject's vehicle usually requires interaction with the vehicle's insurance company. In addition to identifying the location of the vehicle, the adjuster will need to grant permission for the CIREN crash investigator to perform the inspection. Tow yard and vehicle salvage facility staff may need to direct crash investigators to the exact location of the case subjects' vehicles. In some cases, the tow yard and vehicle salvage facility staff may have to relocate a case vehicle to a designated area on their premises to facilitate the inspection.

The majority of police agencies have shifted from paper-based crash data collection to utilizing automated technology to report crash information. When possible, CIREN leverages this technology to electronically transfer data to NHTSA's Crash Data Acquisition Network (CDAN) to minimize any burden on law enforcement. The CDAN is an integrated, web-based information

² Rupp , J.D., et al. (2002) "The Tolerance of the Human Hip to Dynamic Knee Loading." Stapp Car Crash Conference, paper no. 2002-22-0011.

³ Schneider, L.W., et al. (2011) "BioTab – A New Method for Analyzing and Documenting Injury Causation in Motor-Vehicle Crashes." Traffic Injury Prevention, 12(3), 256-265.

⁴ Rudd, R.W. (2020) "CIREN Pedestrian Pilot Study Preliminary Cases." SAE Government Industry Meeting <u>https://www.nhtsa.gov/node/100386</u>

technology system that provides a single, central IT platform that maintains the data NHTSA collects from its investigation-based crash data collection programs, including CIREN.

CDAN is a Privacy Impact Assessment (PIA) approved system. The approval can be viewed at:

https://www.transportation.gov/individuals/privacy/crash-data-acquisition-network-cdan-pia

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

While NHTSA operates two other investigation-based crash data collection systems, CIREN is unique in its focus on injury causation and related research. CIREN is the only data system to collect detailed crash data in combination with detailed medical information such as digital radiology. Further, CIREN involves in-depth engineering review of the case data as part of the case production process, so there is value added in the final case coding and documentation from the engineering input. There are rare occurrences when a case subject may be screened for and consent to CIREN and the same crash is also sampled for investigation by CISS. This may occur in some geographic regions with coverage by both programs.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The only small businesses or entities this ICR is expected to impact are tow yard and vehicle salvage operators, which can be small businesses. The CIREN contractor personnel minimize the involvement of a small business by establishing rapport and trust with tow yard operators. Typically, the crash investigator is familiar with the operators and they simply ask for the location of the vehicle within their facility and permission to inspect it. Beyond this initial interaction, there are no demands placed on small businesses or entities. The tow yard and vehicle salvage operators are not requested to collect additional information or submit information to the CIREN contractor. The request for location of the vehicle on the tow yard and vehicle salvage operators is no different than the routine requests of individuals retrieving their vehicles and insurance companies needing to locate their vehicles as well. The tow yard and vehicle salvage operators are not requested to provide assistance outside of their normal business hours and are not asked to perform duties outside of their normal business operations.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

The CIREN program was created in response to a recommendation from the National Academy of Sciences calling for multidisciplinary approaches to addressing motor vehicle crash injuries. The National Highway Traffic Safety Administration (NHTSA) is authorized by 49 U.S.C. § 30182 and 23 U.S.C. § 403 to collect data on motor vehicle traffic crashes to aid in the identification of issues and the development, implementation, and evaluation of motor vehicle and highway safety countermeasures. 49 U.S.C. 30111 authorizes the Secretary (NHTSA by delegation) to issue Federal Motor Vehicle Safety Standards (FMVSS) that set performance standards for motor vehicles and items of motor vehicle equipment. The CIREN program joins engineers and medical doctors into its crash investigation and analysis process, which enhances knowledge and understanding of motor vehicle crash-related injuries. Findings from the CIREN program inform vehicle safety research efforts aimed at creating or modifying FMVSS and consumer information programs such as the New Car Assessment Program (NCAP). Data and experience from the CIREN program support efforts to evaluate real-world performance of advanced restraint systems and advanced injury assessment tools. The case production process positions CIREN as a sentinel for early detection of problems with real-world vehicle safety performance. Close involvement of NHTSA research staff in the data collection and analysis process provides NHTSA a real-time view of potential emerging problems or trends. CIREN's focus on more seriously-injured occupants provides substantially more real-world case data for review and analysis by researchers inside and outside NHTSA. If the data were not available, NHTSA's and the public's understanding of crash injury causation would be reduced, leading to less effective countermeasure development.

As the burden on the case subject is minimal, little could be done to reduce it further. Obtaining first-hand information from the crash-injured individual is critical to develop a comprehensive understanding of crash and injury causation. Interviewers focus on salient details related to crash and injury causation to minimize the time necessary to conduct the interview. Capturing photographs of integumentary injuries aids researchers in establishing how the case subject interacted with the vehicle components and restraint systems during the crash.

- 7. Explain any special circumstances that would cause an information collection to be conducted in a manner:
 - a) requiring respondents to report information to the agency more often than quarterly;
 - b) requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;
 - c) requiring respondents to submit more than an original and two copies of any document;
 - d) requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;
 - e) in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;

- f) requiring the use of a statistical data classification that has not been reviewed and approved by OMB;
- g) that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or
- h) requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

NHTSA has determined that there are special circumstances that would cause this collection to be collected in a manner inconsistent with 5 CFR 1320.5(d)(2). Specifically, this information collection requires reporting more often than quarterly and requests information within less than five (5) days of it becoming available (although it is not mandatory) for some respondents.

It is critical the contractors obtain the requested information shortly after the crash. The contractor needs to receive the crash report from the law enforcement agency shortly after the crash to start the investigation. The crash investigators need to visit the crash scene before critical evidence disappears, inspect the vehicles before the vehicles are relocated or sold for scrap, and contractors must conduct the case subject interviews while recollection of the facts and details about the crash is strong. This collection involves some respondents providing information more often than quarterly and less than 30 days after receipt of request.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to the comments. Specifically address comments received on cost and hour burden. Describe efforts to consult with persons outside the agency to obtain their views.

NHTSA published a 60-day notice on December 8, 2023 requesting comment on NHTSA's intention to submit this ICR to OMB for approval (88 FR 85725). NHTSA received two (2) comments, which are summarized below.⁵

The commenters, individuals who both had experience as former project coordinators for CIREN centers, described patient interaction times, for both obtaining consent and conducting the

⁵ The comments are available at https://www.regulations.gov/comment/NHTSA-2023-0065-0002 and <u>https://www.regulations.gov/comment/NHTSA-2023-0065-0003</u>.

interview, shorter than the estimates included in the 60-day notice. In the 60-day notice, NHTSA estimated that it would take approximately 30 minutes for the consent form and 1 hour for each interview. One of the commenters stated that time for obtaining consent took between 5 and 10 minutes. The other commenter stated that the consent process involved 5-10 minutes for describing the program, leaving the consent form with the patient, and returning to discuss the program further and answer any questions, adding an additional 10-15 minutes. Since the second commenter estimated that the total estimated time for consent could take up to 25 minutes, not including any time for the patient to read the consent form on their own, NHTSA has decided not to change its burden estimates for the consent form.

Both commenters also commented about the total time to conduct interviews with patients. The first commented that the interviews normally take approximately 10-20 minutes, with photographs taking about 3 minutes. The first commenter also stated that the longest interview took 30 minutes. The second commenter stated that interviews took approximately 5-10 minutes, with photographs taking 5-20 minutes. The highest of the estimates provided by the commenters suggest that, at most, interviews take up to 35 minutes. This is less than the 1-hour estimate NHTSA provided in its 60-day notice. After considering these comments, NHTSA has opted to retain its more conservative 1-hour estimate for patient interviews to account for variability in interview lengths and to ensure that its estimate is not too low.

The second commenter noted that obtaining police reports could require several weeks of waiting and could involve CIREN contractor personnel repeatedly checking in police report databases for specific reports. NHTSA appreciates this comment and notes that the burden on CIREN contractor personnel is not counted in total burden hours as it is not a burden on a respondent.

The second commenter also noted that the process to obtain vehicle location information and inspection approval involves contact with the case subject's vehicle insurance provider. This was not considered in the original 60-day notice. For most CIREN cases, the case subject's vehicle has sustained sufficient damage to be deemed a total loss by the insurer and it becomes necessary to obtain approval from the insurer to conduct the vehicle inspection. This process requires contacting the claims adjuster to obtain permission as well as confirm the disposition of the vehicle (i.e., salvage facility). The commenter stated, "the amount of time spent getting insurance approval to be 30 minutes to 4 hours collectively." While this estimate was provided from the perspective of the time the CIREN contractor personnel spent obtaining such information and approval, NHTSA does not believe it to be a good indication of the time spent by the insurance providers as well. Accordingly, and based on this estimate, NHTSA estimates that insurance providers spend approximately 2 hours providing information and approval to inspect the case subject's vehicle. This burden estimate is included in the discussion of burden hours below.

In response to this comment regarding insurer involvement, NHTSA is also updating the burden associated with tow facilities providing information. In the 60-day notice, NHTSA estimated that

it would take the tow facility 5 minutes of time to direct the investigator to the subject vehicle. Since part of the insurance approval process involves the insurance adjuster contacting the salvage facility in possession of the case subject's vehicle, NHTSA has increased the burden for the tow facilities by ten minutes to account for the interaction regarding inspection approval from the insurance provider.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

No payments or gifts are provided to case subject respondents for participation in the study. Some law enforcement agencies charge a fee for retrieval of crash reports, and these costs are part of the contractor budget.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy. If the collection requires a systems of records notice (SORN) or privacy impact assessment (PIA), those should be cited and described here.

NHTSA maintains a Certificate of Confidentiality from the National Institutes of Health covering the CIREN program. Although case subject identifiers are not included in the CIREN data system, the Certificate prohibits disclosure of case subject identity except under specific conditions as outlined in 42 U.S.C § 241(d). This assurance is provided to case subjects in consent forms, which are reviewed and approved by each contractor's Institutional Review Board (IRB). During the consent process, the purpose of the CIREN program is explained to a potential case subject. The consent process describes the types of information that will be collected, whether there are any risks to the participant, and that their decision to participate has no effect on the treatment and medical care received. The participant is assured that any personally identifiable information (PII) that identifies the person or the specific vehicle or crash location remains confidential.

The CIREN program utilizes NHTSA's CDAN information technology system for management of case data. The CDAN is an integrated, web-based information technology system that provides a single, central IT platform that maintains the data NHTSA collects from its other investigation-based studies as well.

CDAN is Privacy Impact Assessment (PIA) approved system. The approval can be viewed at:

https://www.transportation.gov/individuals/privacy/crash-data-acquisition-network-cdanpia

The identification in any data files of case subjects by name or other identifying labels is not permitted and is not entered into any system of records. CIREN and NHTSA's other

investigation-based data collection studies are not a system of records that are subject to the Privacy Act. No names of individuals are entered into automated case files. Reports of crash data collections must be made available to the public in a manner which does not identify individuals (Public Law 89-564). Thus, cases are not retrievable by any unique number, symbol, or other identifying variable assigned to the individual. The safeguards for privacy which are afforded by CIREN are greater than those afforded by the Privacy Act because the personal information which the Privacy Act is designed to protect are deleted from the CIREN public files.

It is anticipated that information on no more than 258 motor vehicle crashes will be collected and entered into the CIREN dataset on an annual basis. For each of these crashes, all precautions are taken to safeguard against personal identifying information from remaining in the published case. The potential that a person can uniquely be identified by the crash and vehicle characteristics from the more than 700 data elements collected is not likely. Since public CIREN cases do not indicate the exact date of the crash, the names of the occupants, nor the specific location of the crash, identifying one specific crash is unlikely from the nearly seven million police reported crashes each year. Without the geographic location, names, or dates, the suspected crash could not be matched to one specific police report. The police crash report is the property of the specific police or state agency, and rules are in place at the State level as to who may request a copy of the report.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

The investigation-based crash data acquisition systems do not collect answers to questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, or other matters that are commonly considered private. Years of experience shows that interviewing crash victims in a way directed specifically towards crash circumstances, avoids the collection of private information. This, along with the protection of privacy and the assurance that we are not seeking culpability but safety performance, do not fall within areas considered private information. Culpability, or fault, is not discussed in the CIREN interviewing process.

CIREN aims to identify injuries and document the circumstances under which those injuries occurred. This allows engineers at NHTSA and the motor vehicle industry to evaluate the performance of interior components. This helps NHTSA determine whether there is a need for

new crashworthiness FMVSS and provides information to motor vehicle manufacturers that could be used to improve their vehicle designs to better protect the motoring public from harm.

The CIREN contractor teams have access to case subjects' medical records through consent. The data collected for the CIREN study focuses on crash injury causation, though past medical history is considered in the assessment of injury causation. Sensitive or PII is not released to the public.

12. Provide estimates of the hour burden of the collection of information on the respondents and estimates of the annualized labor cost to respondents associated with that hour burden.

CIREN is comprised of eight Level I Trauma Centers through which patients are admitted for various reasons, one of which could be a motor vehicle crash. The CIREN contractor teams, located within each of the CIREN hospitals, screen admitted patients to identify if they could be included as a CIREN case subject. The initial screening stage identifies all motor vehicle crash victims, then a secondary screening stage selects those individuals who may qualify for the study based on preset CIREN criteria as compared to the available trauma registry information (e.g., age, injury severity) from the hospital. If the CIREN contractor team deems an individual to be a potential case subject, the individual (or a representative) is approached by a study team member for consent for participation in the data collection. If the patient consents to participate in the study, the CIREN contractor team will commence the data acquisition process. The consent was the first step in data collection, then contractor personnel conduct an interview with the consented case subject (or representative); locate, visit, measure, and photograph the crash scene; locate, visit, inspect, and photograph the involved vehicle; and extract medical and injury information from the medical record system.

The respondent in the full data collection varies depending on the stage of data collection. In the beginning, the respondent is the victim (or a representative of the victim). During the crash scene stage, a law enforcement jurisdiction is considered the respondent. During the vehicle inspection stage, the vehicle insurer and tow yard or vehicle salvage facility is considered the respondent.

The estimated number of case subject respondents is the sum of the patients approached for consent who decline participation in the study and the patients who consent to participate in the study. Historical data indicates that an average of 104 patients are approached but decline consent for the study each year while an average of 258 patients give consent for the study and undergo an interview each year. The consent process generally requires thirty (30) minutes of the respondent's time, which includes explanation of the study risks and benefits and review of consent language. This burden would apply for every patient approached for consent, regardless of their ultimate decision to participate in the study. For those who do provide consent, NHTSA estimates the interview requires approximately one hour of the respondent's time, which involves questioning by a CIREN contractor team member and capturing photographs of integumentary injuries. Therefore, the estimated total annual burden for patients who decline consent is 52 hours (0.5 hours × 104 patients). The estimated total annual burden for patients

who agree to participate in the study is 387 hours (1.5 hours \times 258 patients), where the 1.5 hours per respondent includes the consent time and interview time. The total estimated annual hour burden for respondents is 439 hours (52 + 387).

Crash investigators and other CIREN contractor staff must obtain official records to initiate and complete the cases. These records include police crash reports and EMS records. The estimate of burden to police agencies to provide police crash reports is obtained by multiplying the average number of consented cases per year by the average burden hours per report request. Based on the average of 258 patient consents per year and an estimate of three (3) minutes of staff time to fulfil the request, the total annual burden for police agencies is thirteen (13) hours (0.05 hours × 258 cases). Similarly, the burden to EMS agencies to provide EMS run records is obtained by multiplying the average number of consented cases per year by the average burden hours per record request. Using the same annual average of 258 patients and an estimate of six (6) minutes of staff time per request, the total annual burden for EMS agencies is twenty-six (26) hours (0.1 hours × 258 cases). Therefore, the total estimated annual burden for police and EMS agencies is 39 hours.

For most CIREN cases, the case subject's vehicle has sustained sufficient damage to be deemed a total loss by the insurer and it becomes necessary to obtain approval from the insurer to conduct the vehicle inspection. This process requires contractor personnel to contact the claims adjuster to obtain permission as well as confirm the disposition of the vehicle (i.e., salvage facility). Following the interaction between the CIREN contractor and insurance company, the insurance company must notify the salvage facility of the approval prior to the vehicle inspection taking place. This process can vary between a brief set of communications to multiple interactions depending on the circumstances of each case. Insurance company time burden may range between one half hour to four hours. For the burden estimate, an average time of two hours will be associated with the insurance company for each inspected vehicle. Using the same annual average of 258 patients and an estimate of two (2) hours of insurer time per request, the total annual burden for insurance companies is 516 hours (2.0 hours × 258 cases).

The burden to tow facilities is estimated by multiplying the estimated number of vehicle inspections per year by the burden hours per visit. Typically, the insurance adjuster will contact the tow facility or salvage yard where the case subject's vehicle is located to convey approval for the CIREN investigator to conduct an inspection. This interaction should require ten (10) minutes of time for the tow facility operator. Then, the tow facility operator needs to provide the crash investigator vehicle location information and access to the facility to inspect the vehicle. This involves approximately five (5) minutes of staff time making the total tow facility operator time of fifteen (15) minutes per case on average. CIREN averages 258 visits to tow facilities per year, and NHTSA estimates the total annual burden to be 64.5 hours (0.25 hours × 258 visits).

Table 1 below provides a summary of the estimated annual burden hours for each information collection.

Information	Number of	Number of	Burden per	Burden per	Total burden
Collection	respondents	responses	response	respondent	

Table 1: Annual burden estimate by respondent type

		(per respondent)			
Potential case	362	362 (1)	30 minutes	30 minutes	181 hours
subject					
Case subject	258	258 (1)	1.0 hours	1.0 hours	258 hours
interview	200	200 (1)	1.0 110415	1.0 Hours	
Police report	258	258 (1)	3 minutes	3 minutes	13 hours
requests					
EMS report	258	258 (1)	6 minutes	6 minutes	26 hours
requests					
Vehicle	258	258 (1)	2.0 hours	2.0 hours	516 hours
insurance					
permission					
Access to	258	258 (1)	15 minutes	15 minutes	64.5 hours
towing/salvage					
facility					
Total					1,058.5
					hours

There is no labor cost associated with the case subject respondents; NHTSA calculates an opportunity cost to respondents associated with interviews. NHTSA used the national average hourly earnings of all employees on private nonfarm payrolls which the Bureau of Labor Statistics lists at \$34.23.⁶ Using the estimated annual burden hours, NHTSA estimates that the annual opportunity costs for obtaining consent is \$6,195.63 (181 hours × \$34.23) and the annual opportunity costs for interviewing respondents is \$8,831.34 (258 hours × \$34.23).

To calculate the labor cost associated with collecting investigation-based motor vehicle crash information, NHTSA looked at wage estimates for the type of personnel involved with assisting the investigators in obtaining crash information. NHTSA estimates the total labor costs associated with these burden hours by looking at the average wage for law enforcement records clerks, insurance claims personnel, and tow facility workers. The Bureau of Labor Statistics (BLS) estimates that the average hourly wage for a Protective Service Workers for police jurisdictions (BLS Occupation code 33-9000) in local government is \$17.83.⁷ BLS estimates that local government workers' wages represent 61.9% of total labor compensation costs.⁸ Therefore, NHTSA estimates the hourly labor costs to be \$28.80 for Protective Service Workers. BLS estimates that private industry workers' wages represent 70.6% of total labor compensation

⁶ November 2023, Average hourly and weekly earnings of all employees on private nonfarm payrolls by industry sector, seasonally adjusted, <u>https://www.bls.gov/news.release/empsit.t19.htm</u>

⁷ May 2022 National Occupational Employment and Wage Estimates by ownership, Local government, including schools and hospitals, <u>https://www.bls.gov/oes/current/999301.htm</u>

⁸ Employer Costs for Employee Compensation by ownership [Dec. 2020], https://www.bls.gov/news.release/ecec.t01.htm

costs.⁹ BLS estimates that the average hourly wage for Insurance Claims and Policy Processing Clerks (BLS Occupation code 43-9041) is \$21.66,¹⁰ therefore, the estimated total hourly compensation cost is \$30.68. BLS estimates that the average hourly wage for Material Moving Workers (BLS Occupation code 53-7199) in tow facilities (privately owned) is \$18.09;¹¹ therefore, the estimated total hourly compensation cost is \$25.62. Table 1 provides a summary of the estimated burden hours and labor costs associated with those submissions.

The total estimated opportunity costs and labor costs associated with these information collections is \$33,633 (rounded), as detailed in the table below.

Information Collection (Respondent Type)	TOTAL BURDEN HOURS	AVERAGE COST PER HOUR	OPPORTUNITY/LABOR COST ASSOCIATED WITH BURDEN HOURS
Potential case subject consent (Patient)	181	\$34.23	\$6,196
Case subject interview (Patient)	258	\$34.23	\$8,831
Police report requests (Police agency)	13	\$28.80	\$374
EMS report requests (EMS agency)	26	\$28.80	\$749
Obtaining information and approval from insurance company (Insurance company clerks)	516	\$30.68	\$15,831
Access to towing/salvage facility (Tow Facility)	64.5	\$25.62	\$1,652
Total	1,059	-	\$33,633

Table 2: Costs Associated with Labor Hours

⁹ Employer Costs for Employee Compensation by ownership [Sep. 2023], <u>https://www.bls.gov/news.release/ecce.t01.htm</u>

¹⁰ May 2022 National Occupational Employment and Wage Estimates by ownership, Local government, including schools and hospitals, <u>https://www.bls.gov/oes/current/oes_nat.htm</u>

¹¹ https://www.bls.gov/oes/current/oes_nat.htm#53-0000

13. Provide an estimate of the total annual cost burden to respondents or record keepers resulting from the collection of information. Do not include the cost of any hour burden already reflected in the response provided in question 12.

NHTSA estimates that there are no additional costs to respondents other than the opportunity or labor costs associated with the burden hours. Interviewees keep no records of the interview, which takes place during their hospital admission. The interviewees provide verbal responses directly to the contractor personnel or via an interpreter. Police and EMS agencies simply allow access to copy their existing records. Tow yards merely direct the researchers to the crash vehicles. Therefore, there are no additional recordkeeping resources or costs required by any of the respondents.

14. Provide estimates of annualized costs to the Federal government. Provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.

The total annual cost to the Federal government for the CIREN program is estimated to be \$5,273,181:

FY 2023	Estimated Cost Per Year
a. CIREN center contracts for data collection	\$2,690,425
b. CIREN center contracts for engineering analysis	\$1,045,968
c. Quality control contract for data review	\$285,000
d. Information technology contract for electronic data system	\$750,000
e. Administrative Salaries	\$501,788
TOTAL	\$5,273,181

a) Data collection costs for the CIREN program are estimated to be \$2,690,425 per year. This cost covers the CIREN center contracts associated with data collection, which includes the crash investigators and other contractor personnel involved in data collection.

- b) The CIREN program includes in-depth engineering analysis of case data, with annual costs estimated to be \$1,045,968. This cost covers the CIREN center contracts associated with engineering analysis, which includes biomechanical engineers and other data analysts who review data gathered by data collection sites.
- c) The data collected by the CIREN contractors must undergo quality control review prior to public release. An annual estimated cost of \$285,000 goes toward a third-party contractor to provide quality control services.
- d) The electronic data system which houses the CIREN data is operated by a contractor. The annual costs for operations and maintenance services is approximately \$750,000.
- e) The administrative cost of \$501,788 to operate these contracts consists of three fulltime Federal staff. The following conditions were used to estimate the cost:
 - Federal headquarters staff includes one GS-15¹²; \$185,824
 - Federal headquarters staff includes two GS-14; \$315,964
 - Salary was based on Step 5 of each GS scale for 2024, using the Washington, DC Locality Schedule
- 15. Explain the reasons for any program changes or adjustments reported on the burden worksheet. If this is a new collection, the program change will be entire burden cost and number of burden hours reported in response to questions 12 and 13. If this is a renewal or reinstatement, the change is the difference between the new burden estimates and the burden estimates from the last OMB approval.

This is a new information collection that increases total burden by1,059 hours and \$0 of burden.

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions as applicable.

NHTSA publishes data collected in the CIREN program. Following quality control review and NHTSA approval, case data will be published to an Internet case viewer. Additionally, tabulated data sets are made available to the public in two formats (SAS and CSV). Published cases are added to the Internet case viewer as they achieve approved status by NHTSA. NHTSA plans to generate new tabular data sets on an annual basis. No complex analytical techniques are applied prior to release of the data.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

¹² Office of Personnel Management, <u>https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2021/DCB.pdf</u>

NHTSA will display the expiration date for OMB approval.

18. Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions." The required certifications can be found at 5 CFR 1320.9.¹³

No exceptions to the certification statement are requested.

Attachments:

¹³ Specifically explain how the agency display the OMB control number and expiration date and will inform potential respondents of the information required under 5 CFR 1320.8(b)(3): the reasons the information is planned to be and/or has been collected; the way such information is planned to be and/or has been used to further the proper performance of the functions of the agency; an estimate, to the extent practicable, of the average burden of the collection (together with a request that the public direct to the agency any comments concerning the accuracy of this burden estimate and any suggestions for reducing this burden); whether responses to the collection of information are voluntary, required to obtain or retain a benefit (citing authority), or mandatory (citing authority);the nature and extent of confidentiality to be provided, if any (citing authority); and the fact that an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.