

**Cops & Cars: Reducing Law Enforcement Officer Deaths in Motor Vehicle
Crashes**

Request for Office of Management and Budget Review and Approval
for Federally Sponsored Data Collection

Section A

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May 2011

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A. Justification

A1. Circumstances Making the Collection of Information Necessary

Background

This Information Collection Request (ICR) is a new and we are requesting approval for 12 months.

Under the Public Law 91-596 (Section 20[a][1]) (Attachment A), the National Institute for Occupational Safety and Health (NIOSH) is tasked with conducting research relating to occupational safety and health. In order to achieve our goal of reducing morbidity and mortality associated with occupational motor-vehicle crashes, we need to collect information as described in this OMB supporting statement.

Law enforcement is a dangerous occupation. Occupational hazards facing law enforcement officers (LEOs) include psychological, biological, physical, and chemical stressors (Hessl, 2003). While homicides, suicides, and stress-related cardiovascular disease have been well documented in the literature, much less is known about work related motor vehicle incidents in this occupation (Clarke & Zak, 1999; Hessel, 2003; Joseph, 2009; Violanti, 2008). What is known is that motor vehicle incidents are the second leading cause of occupational death among all types of LEOs and these rates are increasing (Tiesman et al., 2010). This is not surprising given that many LEOs spend a large amount of time conducting vehicle patrols, can be involved in dangerous high-speed pursuits, and often perform work alongside interstates and roadways near speeding motor vehicles (Hutson et al., 2007). While motor vehicle related fatality rates remain high, there is a general lack of awareness of the importance of this occupational health issue, even among LEOs themselves. Among LEOs' perceived psychological stressors, being involved in a motor vehicle crash while in a patrol car ranks beneath having inadequate departmental support (Violanti & Aron, 1995).

While seat belt use significantly reduces the chance of dying in a motor-vehicle crash, there is some anecdotal evidence that LEOs do not wear seat belts (Evans, 1986). Research into this is contradictory. For example, when asked if they were wearing their seat belts after a motor vehicle crash, 80% of LEOs report that they were (Von Kuenssberg et al., 2005). However, when researchers viewed and coded driving scenes from a random sample of LEOs only 38% of the driving scenes showed an officer actually wearing a seatbelt (Cowan et al., 2006). Given the discrepancy between what officers report as socially acceptable answers and what they actually do, there must be reasons why LEOs don't wear equipment that they know will save their lives; however, research into LEOs use of personal protective devices is scant.

To date, only one study has examined LEOs seat belt use while on-duty (Oron-Gilad et al., 2005). This study found five influential factors related to officer seat belt use; travel context, crime context, confidence in seatbelt design, speed & distance traveled, & seatbelt ergonomics (2005). While an important addition to the literature, this study had a small sample size and low response rate. The study was also limited in its scope. No questions were asked about driver training, departmental policies, or prior motor vehicle crashes. At the present time, we do not know enough about the challenges and barriers to seat belt use in the field to begin intervention work in law enforcement. Simply encouraging officers to 'buckle up' through the use of health campaigns, or worse through a punitive departmental policy, would be counterproductive when officers feel that seat belts inhibit their safety while in the field. For example, one of the leading reasons why officers reported not wearing seatbelts was the tendency of the belt to get caught on their gun holster (Oron-Gilad). A better understanding of why officers don't use their seatbelts, how to improve their usage, and possible gateways to this behavior change is needed.

Privacy Impact Assessment

The information for this study is being collected in order to determine eligible participants. Iowa law enforcement agencies were randomly selected and asked to participate in a research study of motor-vehicle safety among law enforcement officers. Agency leadership will distribute surveys to their officers and they will return the surveys directly to the Division of Safety Research (DSR) and our contractors. Surveys will be marked with a unique code to track the survey to the specific agency, but not to the specific officer. No individually identifiable information will be collected. No website will be used and all data will be collected via an anonymous paper and pencil survey. No sensitive information is being collected and the proposed data collection will have little or no effect on the respondent's privacy.

Study packets will be addressed to the identified agency leader and mailed to each participating law enforcement agency. Prior to this mailing, the agency leader will provide project officers with the number of sworn officers in his/her agency that will be participating. Each study packet will include an introduction letter, paper-and-pencil questionnaire, and self-addressed stamped envelope to return the completed questionnaire. Each study packet will be sealed in a larger envelope.

A2. Purpose and Use of the Information Collection

The proposed study will approach Iowa LEOs through their department leadership for participation in a paper-and-pencil questionnaire to explain and predict occupational seatbelt use. The questionnaire will be crafted using the Health Belief Model. Study results will be used to inform and justify additional research activities in the law enforcement field and better target future prevention efforts that will reduce motor-vehicle injuries and deaths among LEOs. These results will be compiled into an evidence-based toolkit and disseminated to state- and national-level stakeholders. While the results will be disseminated state-wide, as well as nationally, this study is not intended to estimate national population parameters.

This research study will identify the perceptions, policies, and practices of law enforcement officers that could affect their use of seatbelts while in patrol vehicles through the use of a comprehensive survey. Information collected will be used to develop and disseminate an evidence-based toolkit that will raise awareness of the importance that motor-vehicles play in the mortality of law enforcement officers and further explore methods to increase prevention practices. A better understanding of why officers don't use their seatbelts, how to improve their usage, and possible gateways to this behavior change is needed.

While the current study is being conducted only in the state of Iowa, the anecdotal evidence (provided by a review of the current law enforcement trade journals (*Law Officer magazine*, *Police magazine*) and national law enforcement organizations (NLEOMF, PoliceOne, International Association of Chiefs of Police) reflects a consistency of behavior and belief across jurisdictions with regard to motor vehicle safety behaviors. In addition, the anecdotal evidence repeatedly indicates that equipment entanglement/lack of access are concerns for seatbelt use - a primary focus of the current study- regardless of jurisdiction. The types of standard duty

equipment and methods of wear are relatively consistent throughout the country, especially with regard to duty belts and the equipment carried on them (an area of concern that is a repeated theme throughout the anecdotal literature). While we believe there is consistency across jurisdictions in regards to these issues, we will identify several individuals in law enforcement organizations outside Iowa and request their assistance in reviewing the toolkit and providing feedback regarding modifications that will increase its applicability to agencies across the nation. Finally, in all publications and reports, this limited generalizability will be acknowledged.

Privacy Impact Assessment Information

The information is being collected to develop and disseminate an evidence-based toolkit. This is a one-time survey. Iowa law enforcement agencies were randomly selected and asked to participate in a research study of motor-vehicle safety among law enforcement officers. Agency leadership will distribute surveys to their officers and they will return the surveys directly to the Division of Safety Research (DSR). Surveys will be marked with a unique code to track the survey to the specific agency, but not to the specific officer. No individually identifiable information will be collected. No website will be used and all data will be collected via an anonymous paper and pencil survey. No sensitive information is being collected and the proposed data collection will have little or no effect on the respondent's privacy.

A3. Use of Improved Information Technology and Burden Reduction

All data for this study will be collected via a paper-and-pencil questionnaire. We received input into the survey content and methodology from law enforcement officers at the Davenport Police Department in the state of Iowa. Members of this group indicated that scheduling phone or face-to-face interviews would be problematic for these workers and not elicit truthful responses.

The questionnaire used in this study is a combination of other national validated surveys. This instrument has been through several distinct rounds of pilot testing with survey experts, law enforcement officers, and injury epidemiologists. The improved readability and comprehension of this questionnaire, as well as parsimoniously selecting additional question items, will reduce the overall burden on the participants.

A4. Efforts to Identify Duplication and Use of Similar Information

This study does not duplicate previous research. Besides examining known databases, literature search engines, and national meetings; the principle investigator has been in close contact with the coordinator of the NORA Public Safety Sector (Bill Haskell), Dr. Tom Rice of the Safe Transportation Research and Education Center, and Bryon Gustafson from the State of California Department of Justice to determine how research in this area could be furthered. Additionally, the project officers published a blog through the NIOSH Science Blog to illicit information on this area. This proposed study is unique in that it has the opportunity to collect data on a state-wide and diverse cohort of law enforcement officers on a variety of topics including: training in motor-vehicle safety practices, motor-vehicle operations and policies, perceptions of current training and policies, motor-vehicle safety practices, and the prior occupational motor-vehicle crashes. Behavioral theory will drive this research, more specifically the Health Belief Model. This will allow researchers to define specific barriers to occupational seatbelt use among law enforcement officers.

To the best of our knowledge, there is no data at the local or national level to describe the frequency of seatbelt use or reason(s) for not using belts among law enforcement officers. Also, to the best of our knowledge, there is no institution currently collecting such information.

A5. Impact on Small Businesses or Other Small Entities

No small businesses or other small entities will be involved in this data collection.

A6. Consequences of Collecting the Information Less Frequently

This request is for a one-time data collection. Collection of this data will allow NIOSH to better understand motor-vehicle crashes and seatbelt usage among law enforcement officers – the leading cause of occupational death. There are no legal obstacles to reduce the burden. Each respondent will be requested (up to two times) to complete the questionnaire. They will complete the questionnaire only once. The initial request, then a possible reminder request will be mailed to the officer's agency contact. No alternative methods are available to obtain the needed health information and informed consent from the participants.

A7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This request fully complies with the regulation 5 CFR 1320.5.

A8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A 60-day Federal Register Notice was published in the *Federal Register* on February 8, 2011, vol. 76, No. 26, pp. 6795-96 (see Attachment 2). There were no public comments.

Throughout the development of this research project, expertise and advice was sought from members of the Davenport Police Department located in Davenport, Iowa. In 2010, the study protocol was reviewed by two external peer reviewers who are knowledgeable about officer safety, motor-vehicle crashes, and have previously conducted research studies in this area. The comments of the external reviewers are attached (Attachment 3). The external peer reviewers were:

- Sgt. Betsy Brantner Smith (ret.), Des Moines, Iowa. Phone: 630-399-1645; E-mail: betsybrantner@aol.com.
- Thomas Nolan, Lieutenant, Upper Merion Township Police Department, Pennsylvania, Phone: (610) 205-8549; Email: tnolan@umtownship.org

A9. Explanation of Any Payment or Gift to Respondents

This study does not provide a payment or gift to the respondents.

A.10 Assurance of Confidentiality Provided to Respondents

Privacy Impact Assessment Information

A. This submission has been reviewed for Privacy Act applicability and it has been determined that the Privacy Act does not apply.

B. Study packets will be addressed to the identified agency leader and mailed to each participating law enforcement agency. Prior to this mailing, the agency leader will provide project officers with the number of sworn officers in his/her agency that will be participating. Each study packet will include an introduction letter, paper-and-pencil questionnaire, and self-addressed stamped envelope to return the completed questionnaire. Each study packet will be sealed in a larger envelope.

The letter, to be included as part of the questionnaire, has been written to provide them with the information required in an informed consent form, but we are requesting a waiver of written informed consent (Attachment 4). The letter will emphasize that it is the choice of the LEO to participate and the confidentiality protections that will apply should they choose to participate. The letter informs the LEOs of the option to opt out of completing the survey. If they do not opt out, the letter confirms their willingness to participate by completing and returning the enclosed survey. A returned survey will be deemed to be the subject's consent to participate.

Collecting a written informed consent, or other such activities that LEOs believe could link their personal information with survey responses would likely be detrimental to the response rate and validity of the responses. Our external reviewers have expressed concerns about this and believe this survey needs to be completely anonymous. Since data collection will be conducted in over 100 agencies, outside of the control of the project officers, collection of informed consent forms would be near impossible. The project officers are reticent to ask this task of agency leadership. Each questionnaire will be coded according to the participating law enforcement agency. This alpha-numeric code will be mapped to each participating agency and not to the individual officer. No identifying information such as name, address, or badge number will be sought. Through this code, we will monitor returns by specific agency. It is hoped that this level of confidentiality will encourage high response rates and truthful responses.

Approximately six weeks after the initial mailing, the PI or Co-PI will contact the agency leadership and inform him/her of the number of non-responders. Each agency will then receive additional study packets for distribution to the non-responders. Since the number of responses will only be tracked at the agency level (to determine if there are non-responders), agency leadership will not know whether an individual LEO has returned the survey. Therefore, we will ask the agency leadership to remind all officers to return surveys and provide him/her with extra copies of questionnaires to distribute to self-identified non-responders. While this is a disadvantage to the follow-back of non-responders, tracking of specific responses could have a detrimental impact on response rates and the validity of survey responses. This survey methodology will allow project officers to follow-back with potential non-responders without keeping a record or database of their contact information.

C. The cover page of each questionnaire states that the information provided to NIOSH will be used for statistical and research purposes and will be summarized so that no individual is identified. Also stated is the fact that the information supplied is voluntary and there is no penalty for not providing it. A returned survey will be deemed consent to participate in the proposed research project. This survey is included in this package (Attachment 4). This project has received NIOSH Human Subjects Review Board approval (HSRB) (Attachment 5).

D. Respondents are informed in the cover letter mentioned above that their participation in providing information is voluntary.

A11. Justification for Sensitive Questions

There are questions on the survey instrument which may be considered sensitive. Information on race, ethnicity, gender, age, education, and marital status is necessary so that we can compare survey responses between socio-demographic groups. Asking participants to recall motor-vehicle crashes may also be sensitive, depending on the circumstance of the incident. As the survey is voluntary, respondents may refuse to answer any questions. Respondents are informed of their right to refuse participation and their right to refuse to answer individual questions in the introductory letter.

A12. Estimates of Annualized Burden Hours and Costs

The sample size is estimated to be 162 agencies, with approximately 2,467 police and sheriff patrol officers. Pilot test data demonstrated that respondents should take approximately 20 minutes to complete the survey, resulting in an annualized burden estimate of 822 hours. Distribution of the surveys will also utilize the time of first-line supervisors of the participating law enforcement agencies. The surveys will be mailed to the leadership of each participating law enforcement agency. They will be asked to distribute the surveys to all sworn officers in their agencies. Depending on the level of involvement of each agency, additional work activities delineated to the leadership could include: collection of the surveys, verbal and/or written reminders to the officers, re-distribution of surveys, and email/phone communication with NIOSH. We estimate that on average, leadership at each agency will contribute a total of one burden hour for a grand total burden of 162 burden hours.

Table A.12.A: Estimated Annual Burden Hours

Type of respondent	No. of respondents	No. of responses per respondent	Average burden per response (in hours)	Total burden hours
Police & Sheriff's Patrol Officers	2,467	1	20/60	822
First-Line Supervisors/Managers of Police & Detectives	162	1	1	162
TOTAL				984

A.12.B: Estimated Annualized Burden Costs

Type of Respondent*	Total Burden Hrs	Hourly Wage Rate	
Police & Sheriff's Patrol Officers	2,467	\$21.46	\$52,941.82
First-Line Supervisors, Protective Service Workers	162	\$25.90	\$4,195.80

* These estimates are calculated using the U.S. Department of Labor's National Industry-Specific Occupational Employment and Wage Earnings for specific occupations in the Protective Service Occupations, May 2009. (http://www.bls.gov/oes/current/naics4_611100.htm#33-0000).

A13. Estimates of Other Total Annual Cost Burden to Respondents and Record Keepers

There are no additional cost burdens for respondents.

A14. Annualized Cost to the Federal Government

Costs for conducting the survey are summarized in Table A.14. The total cost for this project is estimated to be \$75,000. The table below summarizes a breakdown of the estimated costs.

There will be no new overhead, support staff, or construction required for the survey administration and data analysis.

Table A.14: Estimated Annual Burden Cost

Item	Total
Equipment and supplies	\$31,500
Contractual	\$36,500
Travel	\$7,000
Annualized estimate of federal costs	\$75,000

A.15 Explanation for Program Changes or Adjustments

This is a new data collection.

A.16. Plans for Tabulation and Publication and Project Time Schedule

Clearance is being requested for 12 months, starting in the Fall of 2011 and continuing through the Fall of 2012. We plan to publish project results in peer reviewed scientific journals with a high impact number. Additionally, results will be presented at national, scientific conferences with high public visibility to research audiences. Results will also be disseminated to stakeholder groups via presentation and written reports. Finally, results will be disseminated to law enforcement officers in more publicly accessible formats such as law enforcement trade shows and trade journals. Our projected timeline for the project is detailed in Table A.16 below.

Table A.16: Estimated Annual Burden Cost

Activity	Time Schedule
Notification of study to respondents	1 month after OMB approval
First survey mailing	1 month after OMB approval
Check in with participating agencies	3 months after OMB approval
Final survey mailing as needed	4 months after OMB approval
Finalize dataset	7 months after OMB approval
Analyses	11 months after OMB approval
Presentations to research audiences and stakeholders	14 months after OMB approval
Toolkit ready for dissemination to stakeholders (non-peer reviewed)	20 months after OMB approval
Publication(s) ready for submission to peer-review journal	24 months after OMB approval

A.17 Reason(s) Display of OMB Expiration Date is Inappropriate

The display of the OMB expiration date is not inappropriate.

A.18 Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.