The International Association of Chiefs of Police

Reducing Officer Injuries
FINAL REPORT

A Summary of Data Findings and Recommendations from a Multi-Agency Injury Tracking Study

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Reducing Officer Injuries ————
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A combined effort of
The IACP Center For Officer Safety & Wellness
and
The Bureau Of Justice Assistance

OVERVIEW OF CURRENT PROGRAMMING

The International Association of Chiefs of Police (IACP)

The IACP is the world's largest association of law enforcement executives. With more than 21,000 members in more than 100 countries, the IACP serves as the professional voice of law enforcement. Building on past success, the IACP addresses cutting edge issues confronting law enforcement through advocacy, programs, and research as well as training and other professional services. IACP is a comprehensive professional organization that supports the law enforcement leaders of today and develops the leaders of tomorrow.

Officer safety and wellness has always been the top priority of the IACP, and its organizational belief is that no injury to or death of a law enforcement professional is acceptable. The IACP Center for Officer Safety and Wellness takes a holistic approach to officer wellness by addressing the challenges in policing at all stages of an officer's lifecycle, including recruitment, early career, advanced career, and retirement.

More information on the Center can be found at:

www.theiacp.org/officersafety

Bureau of Justice Assistance (BJA)

BJA's mission is to provide leadership and services in criminal justice policy development and grant administration to support local, state, and tribal justice strategies to achieve safer communities. BJA's comprehensive officer safety portfolio provides law enforcement access to the information and tools they need to increase their capacity for and knowledge of officer safety. Through BJA's programs, state, local, and tribal law enforcement executives and their officers receive quality training, technical assistance, tools, and resources to help them prepare for and prevent violent attacks against their peers.

BJA's officer safety programs are designed to assist law enforcement leaders in:

- Preventing violent encounters and training their officers to survive them when they do occur.

- Sharing critical information to improve officers' awareness of any situation they may encounter and the most appropriate responses to critical events.

- Identifying potential danger and shielding their officers from injury.

- Reducing overall violence in their communities.

- Supporting their officers, their families, and their agencies should a tragic event occur.

More information on BJA's officer safety initiatives can be found at:

www.bja.gov/ProgramDetails.aspx?Program_ID=103

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

In order to begin to better understand the scope and frequency of injuries sustained by law enforcement officers, the International Association of Chiefs of Police (IACP), through a cooperative agreement with the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice, conducted a multi-department assessment of line-of-duty injuries. Eighteen different agencies participated in this study and tracked all reported injuries over the course of 1 year. All available information pertinent to each injury was documented and entered into a database using a standardized reporting instrument built for this study. The IACP collected all data and partnered with George Mason University to perform an analysis of the data and develop strategies and resources for injury prevention.

During the year of data collection, a total of 1,295 injuries were reported. Reported injuries resulted in 5,938 days missed, with an average of 4.5 days missed per incident and an average rehabilitation period of 3.5 days. Based on a 10-hour work day, this total represents 59,380 hours of work time lost. Using a national average annual entry-level salary of $40,000, the approximate total cost for hours lost from injuries in this study was $1,211,352. Factoring in the added costs of overtime to cover assignments for injured officers, an estimated $1,817,028 was also incurred by the participating agencies. When these two figures are combined, excluding the extra costs of medical care, the estimated total added costs exceed $3,000,000.

In addition to hours lost and resulting monetary cost, injury data collection focused on an array of other information, including specific injury type, characteristics of the injured officer, involvement of a suspect in

the injury incident, training received, officer fitness attributes, and body weight. Additional information on vehicular crashes and the use of body armor was also obtained during the data collection to further inform the research effort. Based on the analysis of the data, a number of important recommendations emerged:

o Agencies should closely track officer injuries of all types along with circumstantial data in order to identify possible patterns of incidences and to develop prevention strategies.

o Findings show that there are certain groups and types of officers who are more likely to experience injuries, including those who are in their first five years on the job and those who are overweight. Agencies should develop targeted injury-reduction efforts for these groups when possible.

o Data reveals that those offenders who had prior contact with the police caused more severe injuries to officers than those without prior contact. These findings demonstrate that agencies should develop a greater awareness of offenders in their jurisdictions.

o Police encounters with suspects under the influence of alcohol and/or drugs resulted in more severe officer injuries. These findings suggest that the closer offenders are monitored after an arrest through police-probation/police strategic partnerships, the better the chance of neutralizing threats and reducing officer injuries.

o Officer training efforts in the areas of arrest procedure and tactics and use of force resulted in fewer injuries during officer encounters with

suspects, and thus should be incorporated into academy and in-service training curricula.

o Officers sustaining injuries in vehicular crashes missed five fewer days and spent less time in rehabilitation when wearing seatbelts. Study findings also showed a connection between higher vehicle speed and a greater severity of injuries following a crash. As a result of these findings, it is recommended that agencies implement mandatory seatbelt policies and address speed and pursuit policies that promote the safety of the officer and the public.

o Officers who engaged in fitness training regimens were less likely to suffer an injury that was Occupational Safety and Health Administration (OSHA) reportable and more severe. Similarly, officers who were overweight were more likely to sustain serious injuries, miss more days at work, and require more rehabilitation. Those with a healthy weight as classified by the body mass index missed 25 percent less time post-injury than officers classified as obese. Agencies should recognize the evidence of a strong connection between fitness and health and injury severity, and it is recommended that agencies implement mandatory fitness programs to curb injury and injury severity.

This report provides a more in-depth review of the data collected during this study and highlights other findings pertinent to injury trends and officer safety considerations. It is intended to serve as a resource for agencies and encourage them to think more critically about departmental injuries and proactive prevention strategies.

SECTION 1: PURPOSE OF THE STUDY

Of the many issues that law enforcement agencies face each day, few are more important than the safety and well-being of officers.[1] Concern for officer safety is an organizational reality and way of life for law enforcement officers as they serve their community and place themselves at risk on a daily basis. Therefore, officers must stay focused on safety and remain vigilant at all times, especially during seemingly routine matters. Agency executives must also focus on instilling a culture of safety across the organization. Injury tracking is one of the first steps in promoting this culture of organizational safety; agencies are better informed as to what types of injuries are occurring and can more effectively mitigate the risks by targeting resources and instituting policies and procedures. It is important to reiterate that adequate safety training is necessary and that safety regulations and practices must be reinforced throughout all departmental levels, with accountability structures also in place.

The International Association of Chiefs of Police (IACP) has always served as a leading advocate for the safety and well-being of all law enforcement officers. The IACP's long history has involved support for safety priorities such as sufficient training, proper equipment, and up-to-date policies that best serve and protect law enforcement. It is the IACP's position that no injury or death to a law enforcement officer is acceptable, and the organization is committed to instilling a culture of safety in every agency, extending from the chief executive to the newest recruit.

In response to the need to reduce law enforcement

officer injuries, the IACP partnered with the Bureau of Justice Assistance (BJA), of the U.S. Department of Justice's Office of Justice Programs, and a number of law enforcement agencies to track all reported injuries and develop a better understanding of the range of occurring injuries across the profession. A literature review conducted in advance of the data collection revealed that the officer injury picture has generally been narrowly defined, with most of the focus being on line-of-duty deaths and assaults.[2] This focus on fatalities and more severe injuries is certainly understandable and highly necessary, but the fact that other types of frequent injuries are being understudied is also of real concern.

The data collected through this partnership between the IACP and BJA reveals a greater spectrum of sustained injuries by law enforcement officers and provides a more comprehensive understanding of how a range of injuries affects the day-to-day operations and overall effectiveness of an agency. Data analysis has also allowed the IACP and BJA to begin to develop resources for the law enforcement community.

SECTION 2: OVERVIEW OF THE STUDY

Partner Agencies

To begin to understand the scope of injuries in law enforcement agencies, participants were asked to track all injuries to their sworn staff over a 1-year period using a provided collection instrument. Each agency dedicated personnel to the data entry effort in order to ensure that data was entered completely and accurately.

Eighteen agencies were selected to participate in the study.[3] One state was chosen from each of the five geographic regions.[4] Also, agencies of varying size and type were selected to participate in order to capture large and small agency injury trends. As a result, 14 local police agencies, three state police organizations, and one sheriff's department participated in the study. Five of these agencies were classified as small, five were described as midsize, and the remaining eight agencies were classified as large agencies.[5]

Method of Data Collection

The study population included all sworn law enforcement officers within each participating organization. For the purpose of this project, reportable injuries were defined as any injury resulting in pain or discomfort that occurred during the performance of the individual's duties as a law enforcement officer, including both on- and off-duty employment. All cases were self-reported.

Upon the report of an injury, participating agencies answered a comprehensive series of questions through the use of an interactive online data collection tool.[6] The tool was designed by subject matter experts composed of a diverse representation of law enforcement executives and researchers. Information was gathered on the nature and extent of the injury, how it was sustained, contributing factors, and background information on the officer and the agency to include existing policies, training, and equipment. This information was collected in order to explore a number of factors that may have led to the injury. This information included age, gender, years of service, type of assignment, uniform type, armor use, number of officers present during injury, fitness program participation, sleep habits, and hours worked during the week of the injury. Information collected in regard to the injury included location, severity, type of medical treatment, length of hospital stay, whether

treatment was provided on scene, whether workers' compensation was filed, and whether the injury was Occupational Safety and Health Administration (OSHA) reportable.

Additional information about the officer, injury, type of incident, and call type were obtained. This information was determined to be vital for agencies as they consider ways to develop prevention measures/programs. Other types of information collected included weather, lighting, location (business, highway, etc.), and the type of activity the officer was engaged in during the incident (affecting an arrest, motorist assistance, automobile crash, etc.). Lastly, information regarding officer training was captured to best assess whether recent training, or lack thereof, may be an indicator of officer injury.

For analysis, data was collected and then placed into a database that defined each measure and catalogued each incident. Participating officers remained anonymous, and the data was identified at the organizational level. Corresponding lost work days related to an injury were also tracked to assist in determining the severity of an injury and its impact on an agency. Lost work days included disability leave as well as time spent in a temporary assignment during recovery.

Over the study year, reports were collected through quarterly reviews. In addition, several steps were taken to ensure consistency in reporting procedures. As part of this effort, a comprehensive training program was conducted with each participating agency in order to review expectations and clarify definitions regarding reportable injuries and lost work days. Lastly, ongoing monitoring of data entries was conducted to establish reliability and maintain uniformity in injury reports.

Findings

Upon conclusion of the data collection period, the IACP partnered with George Mason University to generate findings. In order to understand factors associated with officer injuries and injury severity, a measure of injury had to be constructed. The measure of injury was conceptualized using several measures of severity, including:

1. Whether an officer was killed during the incident,

2. Whether the incident was OSHA reportable,[7]

3. Whether the officer needed surgery following the incident,

4. Whether the officer was hospitalized following the incident,

5. The number of work days lost following the incident, and

6. The number of days the officer spent on rehabilitation following the incident.

Over half of the incidents (60.3 percent) were indicated to be OSHA reportable, with only 3 percent resulting in surgery and less than 2 percent requiring hospitalization of the officer involved in the incident. The average number of work days lost per incident was approximately 4.5, with little over 3.5 days of rehabilitation for each incident. A number of incidents resulted in neither work days lost nor days of rehabilitation for an officer.

Only about a quarter of the cases (27.5 percent) resulted in an injury that required an officer to miss days of work, and each of these incidents resulted in approximately

2 The literature review can be found in Appendix A.
3 The list of agencies can be found in Appendix B.
4 The five regions are: Northeast, Southeast, Southwest, Midwest, and West/Mountain Pacific.

5 Agency size was defined by the number of officers. The criteria were as follows: small (less than 50 sworn officers), midsize (100 to 400 sworn officers), and large (over 500 sworn officers). The number of officers was used in place of population size; we believe that this is a better measure of agency differences, as this approach controls for the population variance.
6 The full instrument can be found in Appendix C.

7 OSHA defines a reportable incident as "Basic requirement." Agencies must consider an injury or illness to meet the general recording criteria, and therefore to be record-able, if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. Agencies must also consider a case to meet the general recording criteria if it involves a significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

17 days of work being missed. Over one-fifth of the incidents (21.6 percent) were associated with an injury that required an officer to receive rehabilitative treatment following treatment. These officers received approximately 17 days of rehabilitative treatment. As one would expect, there is a great deal of overlap between these measures of injury severity, with 230 officers who lost work days (64.1 percent) also requiring rehabilitative treatment following their injury.

Cases

Two incidents resulted in an officer's death, and as a result these cases have been dropped from the general analyses of officer injury. The analyses also excluded officers who were injured by insect bites and those who were exposed to chemical sprays or possible diseases. These exclusions accounted for less than 10 percent of all injury cases, leaving a total of 1,188 cases that were analyzed in this report. Table 1 lists all injury types that occurred during the study.

Table 1: Injury Types

Injury	Frequency
Sprains/Strains/Soft Tissue Tears	610
Contusion	189
Laceration	179
Other	92
Bloodborne Pathogen Exposure	90
Puncture Wounds	44
Broken Bones	41
Chronic Injuries	18
Burns	13
Internal Injuries	12
Dislocations	6
Gunshot Wound	1
Total	**1,295**

Monetary Cost

Using a 10-hour work day, it was determined that there were a total of 59,380 hours missed by injured law enforcement officers over the course of the data collection period. In order to better understand the total cost of injuries, the national average entry-level salary of a law enforcement officer from the 2007 Law Enforcement Management and Administrative Statistics survey was used: $40,000. Using this estimate and the length of shift referenced above, the total cost for hours lost was $1,211,352. When factoring in the cost to replace those injured officers by paying overtime (time and a half), based on that same rate, the cost for the replacement officers was $1,817,028. When both are added together, the total cost for these 18 agencies for 1 year was $3,028,380. It is worth noting that this figure represents the cost of labor alone and does not include medical costs, which were not collected during this study.

Table 2: Total Injury Cost

Injury Impact	Value
Lost Work Days	5,938
Average Number of Days Lost Per Incident	4.5
Average Number of Rehabilitation Days	3.5
Total Hours of Work Lost	59,380
Total Cost for Hours Lost	$1,211,352
Cost to Replace Hours Lost	$1,817,028
Total Salary Cost of Injuries	**$3,028,380**

Importance of Injury Data Collection

The novel, more comprehensive approach toward collection of officer injury information in this study yielded injury picture data not seen elsewhere in previous studies. The IACP was able to effectively partner with law enforcement agencies and obtain the buy-in that was required for a long-term effort of this type. It should also be noted that the participating

agencies committed a great deal of their own time in data entry. Without the commitment and effort of these agencies, a data collection of this effort would have not been possible.

It has become increasingly clear that an important first step for agencies will be to better understand the injuries within their own agency. One of the best takeaways from the project was the feedback from agencies that they had started to take a closer look at the injuries, and in doing so they were able to think critically about cases and pose preventative solutions. This approach to better tracking and reviewing injuries should be a focus for other agencies as they consider ways to address their line-of-duty injuries.

SECTION 3: BODY ARMOR WEAR

Another item that was reported in the study addressed whether an officer was wearing body armor during the sustained injury. Officers reported wearing their body armor in 83 percent of the cases that involved an OSHA-reportable injury. Officers who wore body armor reported fewer work days lost and fewer days in rehabilitation compared to those who were not wearing the armor. In addition, findings showed that officers who wore Level III body armor, as compared to Level IIIA body armor, reported significantly fewer days of work lost and fewer days in rehabilitation.

Body armor wear was not mandated in the parameters of this study; officer use of body armor is governed by agency policy, and the data collected shows that injuries to officers occurred during both wear and non-wear and across of a range of operational conditions. Thus, there is no way to definitively determine the statistical significance of body armor wear and its impact on injury mitigation in this study. Nonetheless, the findings that officers wearing armor during OSHA-reported injuries

reported fewer days lost to injury and rehabilitation are notable. Other studies have shown that body armor wear is a significant officer safety issue and that policies for wear and proper fit of the equipment are crucial.[8]

SECTION 4: TRAINING

Training Exercises

Another area of concern for law enforcement agencies involves the injuries that occur during training. Injuries during training can occur to new officers who are in the academy as well to veteran officers during in-service training. The latter is particularly important for police organizations, as officers who were hoping to improve their performance and return to the job with new and better techniques are instead taken out of work and potentially sidelined for long periods while recovering. Overall, there were 175 injuries that occurred while the individual was training.

To best understand how training injuries could be prevented, or be reduced in severity, a number of pre-training variables were collected. Injuries that were more severe were associated with the officer not receiving a safety lecture before the training. Results showed that 63 percent of those who did not receive a safety lecture sustained an OSHA-reportable injury. In contrast, when a safety lecture was provided, the number of injuries decreased to 41 percent. These findings support adoption of a safety lecture before training activities that could potential result in injury.

In addition to the role of the safety lecture, several other training variables were found to have an impact on lost work days and rehabilitation time. The presence of pre-training activities (e.g., safety lecture, stretching, warming up, use of safety equipment) were

8 For more information, see the BJA-NIJ Bulletproof Vest Partnership/Body Armor Safety Initiative web site at http://www.ojp.usdoj.gov/bvpbasi/.

all associated with fewer days spent in rehabilitation after an injury. The use of a safety lecture and safety equipment led to fewer lost work days. Safety equipment training was found to be related to a significant difference in the number of work days lost, with officers who received this training having fewer days of work lost after their injuries. Interestingly, stretching and warming up before the training actually led to more days missed after an injury. One possible explanation for this is that those activities that officers reported stretching and warming up before were more likely to be physically active, such as defensive tactics. In such cases, the actual training, not the pre-training activity, was still the cause of the injury. To answer this question definitively, more research is needed to explore the connection between the measures.

Related Training

Data collection also involved information on the prevalence of specialized officer training in a number of different areas. Two areas of supplemental training from the survey instrument are notable for their impacts on mitigation of officer injury: training on affecting an arrest and training on use of force.

One area where training was found to be important was in affecting an arrest. Analysis showed that the experience of receiving training on affecting an arrest was associated with fewer days of work lost after an injury. The significance of training on affecting an arrest, the most common type of training reported in the survey's Supplemental Information section (23 percent), may suggest the utility of this type of specialized preparation in order to decrease officer injuries and the resulting severity of injuries sustained.

Similarly, officers' experiences receiving use-of-force training were associated with a decrease in OSHA-reportable injuries. Other findings have made the

connection between use of force and injuries for law enforcement, suggesting that officers are at the greatest risk for injuries during this activity. Data findings from the IACP study show a relationship between use-of-force training and overall decreased severity of injury, suggesting that proper, proactive preparation for such inherently dangerous encounters is imperative.

SECTION 5: SITUATION CHARACTERISTICS

Unit Size

As agencies continue to address challenges of doing more with less, an important element of the injury problem within law enforcement is the impact of agency resources. For the purpose of the analysis, the resource variable was represented by the number of officers present when an injury took place. This was represented not only by the possibility of other officers available for calls but also by the use of two-person units. Analysis showed that the fewer officers present during the call, the more severe the injury. Injuries that were sustained by an individual in a two-person unit were significantly associated with fewer work days lost and fewer days spent in rehabilitation than injuries stained by individuals in a one-person unit. This connection between more officers present and a reduction on injury severity provides an indication that if agencies can predict the seriousness of the call and designate more officers to those incidents, injuries may be reduced.

Suspects

When officers are dealing with suspects, it is a major challenge and one of the most unpredictable parts of the officer injury picture. In total, the presence of a suspect was listed in 453 of the injury cases. As seen in Table 3 below, a number of the suspects were under the influence of alcohol and/or drugs at the time of

the encounter and several possessed a weapon. The most consistent element of the suspects was a prior conviction, which occurred in 33 percent of the cases.

Table 3: Suspect History

Suspect History	Number of Suspects
Prior Conviction	151
Under the Influence of Drugs, Alcohol, or Both	125
Possessed a Weapon	41
Mentally Impaired	38

To better understand the relationship between suspects and officer injuries, a number of analyses were conducted using the available suspect data. Findings showed that when a suspect was known to have prior convictions, there was a significantly higher number of work days lost for the injured officer, as well as more days in rehabilitation. The average rehabilitation time was just over 8 days when the suspect was known to the officer compared to just over 3 days when unknown. In addition to the suspect being known by the officer, an injury that resulted from an interaction with a suspect who had a prior conviction resulted in significantly more work days lost than did the interaction with a suspect without a conviction.

In encounters where the officer engaged with a suspect who was under the influence of drugs and/or alcohol, there was a higher probability of an injury being considered OSHA reportable. This finding provides evidence for the use of more than one officer during interactions with suspects who are under the influence of alcohol and/or drugs.

Motor Vehicle Crashes

To better understand injuries related to motor vehicle crashes, a supplemental motor vehicle crash section was included in the data collection instrument. The intent was to make a distinction from other types of injuries and provide a more in-depth picture to the injury circumstances. Table 4 shows that there were a total of 154 motor vehicle crashes and crash-related injuries. Among those crashes, officers who reported the use of a safety belt was found to be associated with fewer days of work lost compared to those who did not. In fact, the mean scores show that the average number of days of work lost for those wearing their seatbelts were just over 3 days, while the average number of days lost for those who did not was almost 17 days. These results are clear and indicate that agencies should mandate seatbelt wear for all personnel.

Table 4: Injuries from Motor Vehicle Crashes

	Frequency	Percent
Driver	126	82
Passenger	17	11
Struck while outside of vehicle Directing Traffic	5	3
Struck while outside of vehicle Traffic Stop	6	4
Total	154	100.0

Agencies should also review vehicle pursuit policies and consider speed limits and other restrictions to reduce the likelihood of crashes and officer injuries. Findings showed a connection between vehicle speed and the severity of injuries, suggesting that higher speeds lead to more severe injuries. By ensuring that officers are only pursuing when absolutely necessary, agencies may be able to reduce injuries associated with vehicle crashes.

SECTION 6: OFFICER CHARACTERISTICS

Demographic Information

Different types of officer characteristics were examined for their impact on injuries. Findings showed that most of the variables included in the demographic data were significantly related to whether an injury was considered to be OSHA reportable. Line officers made up the majority of the injuries and indicated an injury as being OSHA reportable over 60 percent of the time. Supervisors reported an even higher OSHA reporting rate at 65 percent. The high level of injury severity reported by the supervisors was rather surprising, considering that their roles include administrative tasks and the group as a whole is less likely to be serving in a first responder role. However, the findings suggest that while the total number of injuries was fewer among the supervisor group, they were more severe when they occurred.

One aspect of the agency that was also examined in the study was the influence of the population type that the agency served. Overall, officers in agencies that served an urban population lost 6 fewer days of work due to injury and approximately 5 fewer days to rehabilitation compared to agencies serving both suburban and rural populations.

Years of service was also examined. Results showed that less experienced officers, with only 1-5 years on the job, made up the largest part of the injury pool (40 percent). Also, officers who reported having a patrol function indicated receiving injuries that resulted in about 9 additional days of work lost on average in comparison to other duties. These findings were consistent with those found in other areas of the study and provide a clear picture of the most dangerous assignments in police agencies. Through a better understanding of what types of officer characteristics and assignments are most

likely to lead to injury, agencies may be able to create an officer injury profile and target their resources to that group within their agency for maximum benefit.

Table 5: Assignment Variation

Assignment	Frequency	Percent	Lost Work Days
Patrol – Motorized/Bicycle/Mounted	785	66.1	3,175
Tactical/Jump Out/SWAT	45	3.8	624
Jail/Corrections/Detention Facility	38	3.2	556
Special Units - Narcotics/CI/Gang	81	6.8	344
Other	239	20.1	1,229
Total	1,188	100.0	5,928

Fitness

There was a clear connection between officer fitness and a number of measures of injury. Officer weights were classified using the body mass index (BMI), a commonly used measure of body fat that is calculated using an individual's height and weight. Those who reported healthy weights missed almost half as many days of work after an injury as those who were overweight and almost four times fewer days than those who were obese. Officer weight was also significantly related to the length of rehabilitation after an injury, with those officers reporting healthy weights reporting much shorter rehabilitation lengths. Despite these findings, few officers indicated high levels of fitness activity, and 53 percent reported that they participated in some type of fitness regimen. Importantly, officers who did engage in fitness training were less likely to have an injury that was OSHA reportable when compared to those who did not, suggesting the value of fitness in reducing the severity of injuries sustained during the line of duty.

As seen in Table 6 below, results show that those who reported a healthy weight as classified by BMI missed almost half as many days after an injury as those who were overweight, and officers classified as morbidly obese missed approximately four times more work days

after an injury. These findings provide strong evidence of the connection between weight and injury severity and recovery.

Table 6: Officer Weight Comparison

Officer Weight	Number of Officers	Average Number of Days	
		Missed Work	Rehabilitation
Underweight	2	.50	.50
Healthy	251	2.84	3.66
Overweight	687	4.23	2.68
Obese	226	9.89	7.56
Morbidly Obese	17	4.18	6.65
Total	1183	5.01	3.87

The finding that officer weight was significantly related to injury severity, days missed from work, and recovery time provides important evidence of the need for fitness programs in order to reduce the cost of injuries. Further, these results show the impact of obesity on injuries to law enforcement officers and that agencies need to take steps to increase fitness programs as a practical solution to a costly problem within their organizations.

SECTION 7: CONCLUSION

The goal of this study was to fill an existing gap in the research and available data by analyzing a more detailed law enforcement injury picture in a number of agencies across the country. In doing so, the IACP was able to take an important step in examining the complete injury picture and begin to develop an understanding of a range of occurring injuries. Overall findings showed that the majority of injuries were those that would not be collected by traditional collection mechanisms, such as the Federal Bureau of Investigation's Law Enforcement Officers Killed and Assaulted program or the Uniform Crime Report data.

Exploratory examination demonstrates the scope of the problem and the importance and need to better track injuries at the agency level. While the higher profile cases of law enforcement injury and line-of-duty death are typically recorded and tracked officially, it is the other incidents, some of which were recorded in the study, that remain underdeveloped and need continued focus if the true cost and scope of law enforcement injuries are to be better understood.

To reiterate, it is the IACP's position that no injury or death to a law enforcement officer is acceptable. Therefore, it is vitally important that all agencies instill a strong culture of safety. Tracking injuries is one important first step toward creating this culture of safety. Through injury tracking, agencies will be better informed as to what types of injuries are occurring and will be able to mitigate the risks for those injuries by targeting resources and instituting policies and procedures. It is also important that there is adequate safety preparation and training and that safety regulations and practices are reinforced throughout all levels of a department.

APPENDIX A: LITERATURE REVIEW

A review of the literature surrounding officer injuries reveals line-of-duty deaths and assaults are the central focus of this topic area. This situation is not surprising, considering that these types of injuries are extremely serious and a unique reality of the law enforcement profession. Not only are law enforcement professionals expected to deal with homicides and assaults on others, but they also face the real possibility that they too will become targets of criminals while serving the community.

The research that has been conducted commonly relies on secondary data, and as a result, is often limited in scope and use. As one would expect, one of the areas that has received the most attention is line-of-duty deaths and serious injuries.

The line-of-duty death information commonly used is collected by the Federal Bureau of Investigation (FBI) Law Enforcement Officers Killed and Assaulted program (LEOKA). The data collected by this program come from a survey provided to law enforcement agencies that have faced a line-of-duty death. The survey instrument is a comprehensive assessment and provides a great deal of detail regarding the incident and includes a brief narrative in most cases. While there is a delay in findings each year, this data source represents the most comprehensive source currently available and provides quality information regarding the line-of-duty death picture each year.

In addition to line-of-duty death data, the FBI LEOKA program also collects data regarding assaults on law enforcement. This information is obtained through the Uniform Crime Reporting program and provides a record of many of the assaults on law enforcement officers each year. While the number of assaults is believed to be much higher than the number officially reported through this program, this is the most comprehensive resource available for assaults and provides some insight into the risks officers face.

However, despite the information collected from these official sources, we cannot rely solely on assaults and line-of-duty death data that are collected by LEOKA in order to understand the overall injury picture within law enforcement agencies.

Certainly, there are many other elements of the job that also represent risk. Even in other occupations, the risks of the job are defined by any type of injury or illness that may take place, not just those that are associated with assaults or violence against the employees.

Also, when forced to define the risk to law enforcement using only felonious assaults and line-of-duty deaths, we inaccurately present the true danger facing those in the profession. Doing so makes it difficult to compare law enforcement officer injuries to those sustained in other occupations; this makes developing solutions more complicated and less evidenced-based.

This gap makes the case for exploring the injury picture in a more comprehensive way in order to best allow for understanding of the issue and to inform prevention.

The injury picture is also poorly understood because injuries often are not adequately reported. Frequently, injuries that are reported are more likely to be those related to higher profile calls for service, such as homicides or robberies, as compared to lower status calls for service that actually represent the majority and may represent a larger number of injuries.

In the past, there have been a number of studies that examined injuries among law enforcement. Most notable have been those that found that the majority of injuries occurred when the police were arresting and attempting to control suspects.

Research has also examined officer injuries specifically sustained during domestic disturbances, calls that many believe are the most dangerous for law enforcement. Results of that research showed that domestic disturbances were actually less dangerous for officers than the arresting/controlling of suspects, as indicated by various studies. However, these types of calls did show that officers were more likely to be injured if they responded to a domestic call for service alone rather than with a second officer.

Additionally, the impact of staffing on officer injury was further examined by considering the connection between one or two officer units and officer injuries. Wilson et al. found that patrol units made up of two officers were less likely to be injured if assaulted. Ellis et al. supports this finding and makes the link between staffing and line-of-duty injuries.

The impact of police injuries through a lens of light-duty assignments has also been examined. Findings illustrated a number of cost-related impacts of injuries on the organization. There were significant costs that stemmed from having officers on light duty, including overtime paid to other officers to replace those on light duty and the fact that some officers stay on light-duty assignments for long periods with malingering conditions or even reoccurring conditions.

In addition, technology and police officer injuries have also been a theme in research, most recently related to conductive energy devices (CED).

Results have been mixed, with some finding a reduction of injuries as the result of the introduction of CEDs, and other studies finding an increase in officer injuries.

Finally, police officer injuries and foot pursuits, long thought to be one of the more dangerous activities for law enforcement, were examined together; it was found that foot pursuits did not pose a significantly higher risk for injury than other resistive encounters.

While the studies reviewed above provide some insight into law enforcement injuries and a number of different actions committed against the police, it is the study of injuries in other areas that remain underdeveloped. It is important to collect data other than those related to assaults for three reasons. First, from a management perspective, officer injuries, no matter how they are sustained, are a significant cost to the organization. These costs include lost wages, medical expenses, and insurance claims. These problems decrease productivity, while also having an impact on the individual officers and their families.

Second, in order to develop the best possible policies and training to prevent injuries in the future, it is important to have a complete picture of the scope and magnitude of injuries.

Third, despite these previous efforts, little is known about the national scope of police officer injuries outside of line-of-duty deaths and assaults; as a result, relatively little is known about the impact of injuries on law enforcement agencies.

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APPENDIX B: PARTICIPATING AGENCIES

Bedford Police Department (Texas)

Chaska Police Department (Minnesota)

Dallas Police Department (Texas)

Duluth Police Department (Minnesota)

Fulton Police Department (New York)

Hennepin County Sheriff's Office (Minnesota)

Hillsboro Police Department (Oregon)

Knoxville Police Department (Tennessee)

Martin Police Department (Tennessee)

Minnesota State Patrol

Metropolitan Nashville Police Department (Tennessee)

Oregon State Police

Portland Police Bureau (Oregon)

Syracuse Police Department (New York)

Tennessee Highway Patrol

Tualatin Police Department (Oregon)

White Plains Police Department (New York)

Woodway Department of Public Safety (Texas)

APPENDIX C: DATA COLLECTION TOOL

Reducing Officer Injuries: Developing Policy Response

Fax completed forms to: 703-836-4743 Attn: Beth Currier or Mail to The IACP, ATTN: Beth Currier, 515 N. Washington Street, Alexandria VA 22314

Agency Name: _____

Name and Title of Person completing the document

_____

Rank/Title   First   Last   Badge/ID Number

Phone Number _____
Email Address _____

Date of Incident *(MM/DD/YYYY)* _____ **Day of the Week** _____

Time of Incident: _____ *(military hours)*

Is In Car Video available for review for training and research purposes? ☐   ☐ **Yes   No**

OFFICER BACKGROUND AND ASSIGNMENT INFORMATION

General Officer Information
Age_____   **Gender**: ☐ Male ☐ Female

Rank: ☐ Officer/Deputy/Trooper   ☐ Detective/Investigator
☐ Sergeant/First Line Supervisor   ☐ Above sergeant or first line supervisor

Years of law enforcement experience:
☐ 1-5 years ☐ 6-10 years ☐ 11-15 years☐ 16-20 year☐ Over 20 years

Duty Status
☐ On Duty/Off Duty Employment   ☐ Off Duty-Not Working in a Law Enforcement Capacity
  ☐ *Regular Shift*
  ☐ *Off Duty Employment*

Dress at time of the incident:
☐ Uniform
  ☐ Duty/Dress Uniform   ☐ Fatigue Uniform (K-9/CSI)
  ☐ Bicycle Uniform   ☐ SWAT or Tactical Uniform
☐ Plain Clothes
  ☐ Business Attire   ☐ Casual Attire
  ☐ Undercover Attire
  Type of police identification displayed? Plain clothes only *(Check all that apply)*
  ☐ Badge   ☐ Police ID or credentials
  ☐ Outer body armor with police markings   ☐ Raid jacket
  ☐ Baseball Cap   ☐ Other _____
  ☐ None

Officer's Duty/Shift Assignment:
☐ Day Shift   ☐ Evening/Swing Shift   ☐ Midnight Shift
☐ Other _____

BODY ARMOR:
Was the officer wearing body armor at the time of the injury?
☐ YES
  Type of Armor
  ☐ Concealable Vest with Side Protection   ☐ Outer Vest
  ☐ Concealable Vest without Side Protection   ☐ Tactical/Special Purpose Armor
  Body armor level of protection:
  ☐ Level II   ☐ Level IIA   ☐ Level III   ☐   Level☐IA   Level IV
  Enhanced Protection *(Check all that apply)*
  ☐ Steel Inserts   ☐ Ceramic Inserts   ☐ Trauma Pack
  ☐ Ballistic Shield   ☐ Ballistic Helmet   ☐ Ballistic Arm/Leg Protection
  ☐ Ballistic Eyewear
☐ NO

OFFICER ASSIGNMENT:
☐ Aviation Unit   ☐ Marine Unit   ☐ Patrol
☐ Mounted Patrol   ☐ Special Operations/Motors   ☐ Bicycle Patrol
☐ Criminal Investigations   ☐ Narcotics/VICE Investigations   ☐ SWAT
☐ School Resource Officer   ☐   Tactical/Jump out Squad   ☐   Gang Unit
☐ Court Security   ☐ Warrant/Civil Process
☐ Jail/Corrections/Detention Facility
☐ Systems Management/Support Personnel *(Human Resources, Recruiting, Background Investigations, Information Technology, Fleet Vehicle Management)*
☐ Other _____

Were additional officers on scene at the time of the injury?
☐ Yes   How Many_____
☐ No
Officer was assigned to work as a:
☐ One officer unit   ☐ Two officer unit
☐ Three or more officer unit   ☐ Other _____

FITNESS AND WELLNESS PROGRAM
Does the officer participate in a fitness program?
☐ YES
  Describe fitness activity *(Check all that apply)*
  ☐ Intense Cardio (Activities utilizing 80% or more of your target heart rate (220- age)
  ☐ Moderate Cardio (Activities utilizing 60-80% max heart rate)
  ☐ Mild Cardio (Walking or other daily activities that don't meet other criteria)
  ☐ Strength Training
  Frequency of Exercise/Activities
  ☐ 6 or more days a week
  ☐ 3-5 days a week
  ☐ Less than 3 days a week
☐ NO

Officers estimated Height *(in inches)*_____ **Weight** *(in pounds)* _____

OFFICER'S SLEEP HABITS AND WORK SCHEDULE

How much sleep does the officer average per night?
- ☐ Less than 4 hours
- ☐ 4-6 hours
- ☐ 7-8 hours
- ☐ 9 or more hours
- ☐ Unknown

How much sleep, in hours, did the injured officer get in the day prior to the incident?
_____

What was the officer's period of wakefulness, in hours, prior to the incident?_____

How many hours does the officer work on average per week *(including off duty employment, overtime and court)*
- ☐ 40 or less
- ☐ 41-50 hours
- ☐ 51-60 hours
- ☐ 61-70 hours
- ☐ 70 + hours
- ☐ Unknown

In the 48 hours preceding the incident, how many hours did the injured officer work, including off duty employment, overtime and court:_____

Number of hours on duty prior to the incident, including off duty employment?-
_____

What day is this within the officers work week?
- ☐ First
- ☐ Second
- ☐ Third
- ☐ Fourth
- ☐ Fifth
- ☐ Sixth
- ☐ Seventh
- ☐ More than seven

Has the officer recently, within the past 3 days, changed shift assignments?
- ☐ YES
*(describe)*_____
_____
- ☐ NO

Other Officer Impairment:
- ☐ Intoxication *(describe)*_____
- ☐ Medical Condition *(describe)* _____
- ☐ Previous Injury *(describe)*_____

Type of Injury
(If multiple injuries, specify the most significant injury with the number 1 and continue numerically to document all injuries sustained i.e.: most severe 1, next most severe 2, third most severe 3, etc.)
- ☐ Bloodborne Pathogen Exposure
  - ☐ Needle Stick ☐ Contact Transfer ☐ Spitting
- ☐ Broken Bones
- ☐ Burns
  - *Type of Burn*: ☐ Chemical ☐ Electrical ☐ Thermal
  - *Severity of Burns*
    - ☐ Mild ☐ 1st Degree
    - ☐ Moderate ☐ 2nd Degree
    - ☐ Severe ☐ 3rd Degree
  - *Amount of Burns- Percentage of Body* ☐ Less than 25% ☐ 25-50%
    ☐ 50-75% ☐ 75% or more
  - *Type of Clothing/Fibers worn by officer at burn site*
    - ☐ Synthetic Fibers (Polyester, Nylon, Acrylic) ☐ Cotton
    - ☐ Poly-Cotton Blend (if so what percentage) ☐ None
- ☐ Choking
- ☐ Chronic Injury – Hearing Loss
- ☐ Chronic Injury - Heart/Lung Conditions
- ☐ Chronic Injury - Back
- ☐ Contusion
- ☐ Dislocations
- ☐ Gunshot Wound
  - *If the officer was wearing their ballistic vest*:
    - ☐ Vest stopped the round
    - ☐ Vest failed to stop the round
    - ☐ Officer was shot in an area not protected by their vest
- ☐ Internal Injuries
- ☐ Knife/Puncture Wound - Assault - Slashing
- ☐ Knife/Puncture Wound – Assault – Stabbing
- ☐ Knife/Puncture Wound – Assault – Throwing
- ☐ Knife/Puncture Wound – Non Assault – Stepped/Fell on Sharp Object
- ☐ Knife/Puncture Wound – Non Assault - Accidental
- ☐ Knife/Puncture Wound - Other Impalement
- ☐ Laceration
- ☐ Post Traumatic Stress Disorder (PTSD)
- ☐ Sprains/Strains/Soft Tissue Tears
- ☐ Other _____

Location of Injury (Check all that Apply)
(If multiple injuries, designate the appropriate injury location with the injury type listed above by using the number already assigned ie: note the number 1 for the location of the most severe injury noted above and designated as injury type 1.)

☐ Head   ☐ Chest/Torso

☐ Throat
☐ Facial – Eye
☐ Facial – Ear
☐ Facial – Nose
☐ Facial – Mouth/Dental
☐ Upper Extremity – Shoulder
☐ Upper Extremity – Elbow
☐ Upper Extremity – Arm
☐ Upper Extremity – Wrist
☐ Upper Extremity – Hand/Fingers

☐ Groin
☐ Upper/Lower Back
☐ Lower Extremity – Leg
☐ Lower Extremity – Knee
☐ Lower Extremity – Lower Leg
☐ Lower Extremity – Ankle
☐ Lower Extremity – Foot/Toes
☐ Other: _____
_____
☐ None

Medical Treatment
☐ Hospital-Admitted: *Length of Stay* _____
☐ Emergency Room/Urgent Care
☐ Personal Physician/Doctor
☐ Treated by Medics at scene
☐ Refused/No medical treatment sought

Was aid rendered to the injured officer by another officer on scene? ☐ Yes   ☐ No

Will Surgery Be Required
☐ Yes   ☐ No   ☐ Unknown

List Prescribed Surgeries_____

Prescribed Rehabilitation and estimated Duration_____
_____

Estimated Number of Lost Work Days (*include restricted, limited or light duty status*): _____

Was this injury reported to your Workers Compensation/Risk Management Division ☐   ☐ Yes No

Is this Injury considered OSHA Reportable ☐ Yes ☐ No
Definition of OSHA Reportable: *Any occupational injury or illness where medical attention was sought (other than first aid) or resulted in fatality, loss of consciousness, restriction in motion, lost workdays, job transfer or termination of employment.*

INCIDENT INFORMATION

ENVIRONMENTAL CONDITIONS:

Weather (*Check all that Apply*)

☐ Rain/Wet   ☐ Snow/Ice

Estimated Temperature _____

Lighting Conditions

☐ Outdoor Event   ☐ Indoor Event
     ☐ Daylight   ☐ Well Lit
     ☐ Dawn/ Dusk   ☐ Adequate Lighting
     ☐ Nighttime- no artificial lighting   ☐ Poorly Lit/Dim
     ☐ Nighttime –artificial lighting   ☐ No Lighting

Incident Location: *Type of Location*

☐ Beach
☐ Body of Water
☐ Business – Inside (*Business Type*)_____
☐ Business – Outside - Parking Lot: (*Business Type*)_____
☐ Business – Outside - Porch/Patio (*Business Type*)_____
☐ Business – Outside – Other (*Business Type*)_____
☐ Detention Facility
☐ Field
☐ Highway
☐ Parking Lot – (Not at listed location)   ☐ Railroad Tracks
☐ Parking Structure, not a parking lot   ☐ School –Inside
☐ Police Station/Sub Station   ☐ School – Outside – Parking Lot
☐ Roof Top   ☐ School – Outside - Playground/Yard
☐ Residence- Inside   ☐ School – Outside - Adjacent Field/Track
☐ Residence- Outside - Driveway   ☐ School – Outside - Sidewalk
☐ Residence – Outside - Front Porch/Deck/Patio   ☐ School – Outside - Other
☐ Residence – Outside - Yard   ☐ Stairs/Stairwell Inside
☐ Residence – Outside - Other   ☐ Stairs/Stairwell Outside
☐ Roadway Shoulder   ☐ Street
☐ Woods/Forest
☐ Other_____

OFFICER ACTIVITY

Activity officer was engaged in at the time of injury:

☐ Automobile Crash (*including when an officer was struck by a vehicle*)
☐ Affecting an Arrest   ☐ Aircraft Crashes
☐ Animal Attack   ☐ Assault/Physical Confrontation
☐ Bicycle – Routine Riding   ☐ Bicycle - Crash
☐ Directing Traffic/Traffic Control incident   ☐   Friendly Fire Incident (Non –Training
☐ Foot Pursuit   ☐ Intentional Ramming/Pitting of a Vehicle
☐ Lifting   ☐ Medical Assistance-Rendering Medical Aid
☐ Motorist Assist   ☐ Motorcycle Crash

☐ Processing a Crime Scene
☐ Slip/Fall – Weather Related – Snow/Ice
☐ Slip/Fall – Weather Related – Rain
☐ Slip/Fall – Weather Related – Other
☐ Slip/Fall - Non- Weather Related
☐ Watercraft Crashes
☐ Use of Force – Force necessary to control a subject
☐ Other_____

☐ Rescue
☐ Tactical Search – Building
☐ Tactical Search – Residence
☐ Tactical Search – Open Area/Outdoors
☐ Training

SUPPLEMENTAL INFORMATION – TRAINING RECEIVED BY OFFICER

Applicable training officer has received in the past 24 months:

If the injury occurred during Physical Confrontation/Assault: Check any training received and approximate time frame when attended

Type of Training	0-6 months	6-12 months	12-18 months	12-24 months
Defensive Tactics o Use of Force o Impact Weapons o Chemical Agents o Less Lethal o Ground Fighting				
Firearms (Qualification)				
Firearms (Tactical)				
Crisis Intervention				
Effective Communications				
Street Survival				
Body Armor				

If the injury occurred during a Motor Vehicle Crash: Check any training received and approximate time frame when attended:

Type of Training	0-6 months	6-12 months	12-18 months	12-24 months
Vehicle Operations				
Pursuit Driving				

If the injury occurred during a Motorcycle Crash: Check any training received and approximate time frame when attended:

Type of Training	0-6 months	6-12 months	12-18 months	12-24 months
Motorcycle Operations				

If the injury occurred during Use of Force: Check any training received and approximate time frame when attended

Type of Training	0-6 months	6-12 months	12-18 months	12-24 months
Defensive Tactics o Use of Force o Impact Weapons o Chemical Agents o Less Lethal o Ground Fighting				
Firearms (Qualification)				
Firearms (Tactical)				
Crisis Intervention				
Effective Communications				
Street Survival				
Body Armor				

If the injury occurred during Medical Assistance: Check any training received and approximate time frame when attended:

Type of Training	0-6 months	6-12 months	12-18 months	12-24 months
Medical/First Aid				

If the injury occurred during Bloodborne Pathogen Exposure: Check any training received and approximate time frame when attended:

Type of Training	0-6 months	6-12 months	12-18 months	12-24 months
Bloodborne Pathogen Training				
Personal Protective Equipment				
Pat Downs/Search Incident to Arrest				

If the injury occurred during **Affecting Arrest**: Check any training received and approximate time frame when attended

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months

Defensive Tactics
  o Use of Force
  o Impact Weapons
  o Chemical Agents
  o Less Lethal
  o Ground Fighting				

Arrest Procedures				
Effective Communications				
Street Survival				
Pat Downs/Search Incident to Arrest				

If the injury occurred during a **Foot Pursuit**: Check any training received and approximate time frame when attended:

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months
Foot Pursuit Training				

If the injury occurred during a **Prisoner Transport**: Check any training received and approximate time frame when attended:

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months
Prisoner Transport				

If the injury occurred during a **Civil Disturbance**: Check any training received and approximate time frame when attended:

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months
Civil Disturbance Training				

If the injury occurred while dealing with a **Mental Subject**: Check any training received and approximate time frame when attended:

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months
Mental Subjects				
Crisis Intervention				
Effective Communications				

If the injury occurred during an **Ambush Situation**: Check any training received and approximate time frame when attended

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months
Firearms (Qualification)				
Firearms (Tactical)				
Active Shooter				
Medical/First Aid				
Street Survival				
Body Armor				

If the injury occurred during a **Tactical Search/Rescue**: Check any training received and approximate time frame when attended:

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months
Street Survival				
Tactical Maneuvers				
SWAT Training				

If the injury occurred during a **Traffic Stop**: Check any training received and approximate time frame when attended

Type of Training	0–6 months	6–12 months	12–18 months	12–24 months
Safe and Effective Traffic Stops				
Street Survival				

SUPPLEMENTAL INFORMATION – CALL TYPE

Animal Attack, Assault/Physical Confrontation, Rescue, Other Running Activities, Use of Force, Foot Pursuits, Friendly Fire Incidents, Intentional Ramming/Pitting, and Tactical Search

CALL TYPE	Original Self Initiated Activity or Call for Service	Circumstances encountered upon arrival at the scene of the incident	Specific Activity at the time of the Injury
CITIZEN COMPLAINT	☐	☐	☐
Animal Disturbance	☐	☐	☐
Business Check	☐	☐	☐
Check on the Welfare of Citizen	☐	☐	☐
Drug Complaint	☐	☐	☐
Traffic Complaint	☐	☐	☐
DISTURBANCE CALL	☐	☐	☐
Fight	☐	☐	☐
Domestic Dispute	☐	☐	☐
Loud Party	☐	☐	☐
Disorderly/Drunk	☐	☐	☐
Civil Disturbance/ Protest/Riot	☐	☐	☐
INPROGRESS CALLS	☐	☐	☐
Assault	☐	☐	☐
Burglary	☐	☐	☐
Larceny-Theft	☐	☐	☐
Motor Vehicle Theft/Tampering	☐	☐	☐
Officer needs Assistance/ Officer Down	☐	☐	☐
Person with a Firearm (no shots fired)	☐	☐	☐
Robbery	☐	☐	☐
Sexual Assault	☐	☐	☐
Shots Fired	☐	☐	☐
Other Crime against Person	☐	☐	☐
Other Crime against Property	☐	☐	☐
RESPONDING TO A LATE CRIME	☐	☐	☐
Assault	☐	☐	☐
Burglary	☐	☐	☐
Larceny-Theft	☐	☐	☐
Motor Vehicle Theft/Tampering	☐	☐	☐
Person with a Firearm (no shots fired)	☐	☐	☐
Robbery	☐	☐	☐
Sexual Assault	☐	☐	☐
Shots Fired	☐	☐	☐
Other Crime against Person	☐	☐	☐
Other Crime against Property	☐	☐	☐
ALARM	☐	☐	☐
Residential Burglary	☐	☐	☐
Commercial Burglary	☐	☐	☐
Panic Alarm	☐	☐	☐
Silent Bank/Commercial Alarm	☐	☐	☐

Other	☐	☐	☐
INVESTIGATIVE ENFORCMENT	☐	☐	☐
Suspicious Persons/ Circumstances	☐	☐	☐
Follow Up Investigations	☐	☐	☐
Wanted Person	☐	☐	☐
Undercover Operation	☐	☐	☐
Drug Related Offense	☐	☐	☐
OTHER	☐	☐	☐
Ambush Situation	☐	☐	☐
Motor Vehicle Accident	☐	☐	☐
Mentally Ill subject -Serving Court Papers/Detention Order	☐	☐	☐
Mentally Ill subject - On View Encounter- Subject Stop	☐	☐	☐
Mentally Ill subject - Citizen Initiated Report	☐	☐	☐
Mentally Ill subject - Request to assist institutional personnel	☐	☐	☐
Prisoner Transport	☐	☐	☐
Pursuit - Foot	☐	☐	☐
Pursuit - Vehicle	☐	☐	☐
Traffic Control/Motorist Assist	☐	☐	☐
Traffic Stop - DUI/DWI	☐	☐	☐
Traffic Stop - Traffic Violation	☐	☐	☐
Traffic Stop - Criminal Violation	☐	☐	☐
Traffic Stop - Stolen Vehicle	☐	☐	☐
Traffic Stop - Wanted Vehicle – Criminal offense/Wanted Subject	☐	☐	☐
Traffic Stop - Suspicious Vehicle	☐	☐	☐
Traffic Stop -Other Felony Vehicle	☐	☐	☐
Unprovoked Attack	☐	☐	☐
Other:	☐	☐	☐

SUPPLEMENTAL INFORMATION – MOTOR VEHICLE CRASHES

To be completed with the following responses to activity engaged in at time of injury: Motor Vehicle Crashes and Motorcycle Crashes

Injured Officer:
☐ Driver
☐ Passenger
☐ Officer Struck by Car while outside of vehicle - Directing Traffic
☐ Officer Struck by Car while outside of vehicle - Effecting a Traffic Stop
☐ Officer Struck by Car while outside of vehicle - Other

Was Safety Belt used?   ☐ Yes ☐ No

Estimated Speed Before Impact: Officer_____ Other Driver_____

Engagement at time of crash
- ☐ Routine patrol
- ☐ Responding to a non-emergency call (Lights and siren not in use)
- ☐ Responding to an emergency call (Emergency Equipment Activated)
- ☐ Pursuit
- ☐ Following a Suspicious Person or Vehicle
- ☐ Attempt to initiate a traffic stop

    Vehicle maneuver at the time of the accident
- ☐ U-turn
- ☐ Merging
- ☐ Driving on shoulder/loose gravel
- ☐ Accelerating from a stopped position
- ☐ Other

Emergency Equipment Used
- ☐ Lights
- ☐ Siren
- ☐ Lights and Siren

Primary Cause of Accident
- ☐ No improper action
- ☐ Exceeding speed limit/or safe speed
- ☐ Improper Passing/Overtaking of Vehicles
- ☐ Wrong side of Road
- ☐ Did not have right of way -Traffic Signal
- ☐ Did not have right of way - Stop Sign
- ☐ Did not have right of way - 2-Way Stop
- ☐ Did not have right of way - 4 Way Stop
- ☐ Did not have right of way - Yield Sign
- ☐ Did not have right of way –
- ☐ Entering Roadway from private property, no sign
- ☐ Did not have right of way - Other
- ☐ Follow too close
- ☐ Fail to Signal/Improper Signal
- ☐ Improper Turning – Turn from wrong lane
- ☐ Improper Turning - Wide right turn
- ☐ Improper Turning - Cut Corner on left turn
- ☐ Improper Backing
- ☐ Other _____

- ☐ Improper Start from Stopped Position
- ☐ Disregard Officer/Flagger
- ☐ Disregard Traffic Signal
- ☐ Disregard Traffic Sign
- ☐ Driver Distraction
- ☐ Fail to Dim Headlights
- ☐ Drive Without Headlights
- ☐ Avoiding - Pedestrian
- ☐ Avoiding - Vehicle
- ☐ Avoiding - Animals
- ☐ Overcorrection
- ☐ Avoiding - Object in Roadway
- ☐ Crowded off Highway
- ☐ Fail to Obey Highway Sign
- ☐ Fail to maintain proper control
- ☐ Improper/Unsafe Lane Change
- ☐ Hit and Run

Was the accident avoidable? ☐ Yes ☐ No ☐ Unknown

Type of vehicle markings/lighting *(For Emergency Response/Pursuit Crashes Only)*
- ☐ Marked Vehicle:

    Type of Emergency Lights
- ☐ LED ☐ Strobe ☐ Other

    Location of Emergency Lights (check all that apply)
- ☐ Roof ☐ Trunk ☐ Side View Lights
- ☐ Other

    Was the Emergency Equipment Functioning Properly ☐ Yes ☐ No

- ☐ Unmarked Vehicle
    Interior Mounted Lights (Check all that apply)
- ☐ Front Window ☐ Rear Window

Was the Emergency Equipment Functioning Properly ☐ Yes ☐ No

Distracted Driving: Was the officer using any of the following at the time of the crash?
- ☐ Cellular Phone- Handheld
- ☐ Cellular Phone - Bluetooth
- ☐ Cellular Phone – Texting
- ☐ Mobile Data Terminal
- ☐ Other
- ☐ None

Condition of the Driver of the Other Vehicle
- ☐ No impairment
- ☐ Slightly Impaired
- ☐ Obviously Impaired – Alcohol
- ☐ Obviously Impaired – Drugs
- ☐ Obviously Impaired – Drugs and Alcohol
- ☐ Obviously Impaired – Fatigue
- ☐ Obviously Impaired - Other Medical Condition

SUPPLEMENTAL INFORMATION – SUSPECT INFORMATION

To be completed with the following responses to activity engaged in at time of injury: Affecting Arrest and Assault/Physical Confrontation

GENERAL SUSPECT INFORMATION

Was the suspect identified? ☐ Yes ☐ No

Was suspect known prior to assault? ☐ Yes ☐ No

Suspect Impairments:
- ☐ Drinking
- ☐ Drugs
- ☐ Mental Disorder
- ☐ None

Suspect Criminal History *(Check all that apply)*
- ☐ None
- ☐ Prior arrest, no convictions
- ☐ Prior arrests, convictions
- ☐ Prior arrest for crime of violence, not convicted
- ☐ Prior arrest for crime of violence, convicted
- ☐ On probation/parole at time of assault
- ☐ Prior arrest for assault on police
- ☐ Prior arrest for resisting arrest
- ☐ Prior arrest for weapons violations

Suspect Weapon Information
- ☐ None
- ☐ Firearm – Handgun – Caliber_____
- ☐ Firearm – Rifle
- ☐ Firearm - Shotgun
- ☐ Knife/cutting instrument- Type:_____

☐ Commercially Manufactured   ☐ Hand-fashioned
Length of blade_____
☐ Baseball bat
☐ Blackjack/night stick
☐ Bottle
☐ Brass Knuckles
☐ Club
☐ Electrical Stun Weapon
☐ Hands/Fist
☐ Other

ADDITIONAL FIREARM INFORMATION:

Number of Shots Fired: _____

Distance shots were fired from:_____

Owner of the Firearm
☐ Suspect   ☐ Victim Officer   ☐ Other officer present at the scene

Was the firearm stolen?   ☐ Yes ☐ No

SUPPLEMENTAL INFORMATION – TRAFFIC DIRECTION

To be completed with the following responses to activity engaged in at time of injury: Directing Traffic/Traffic Control and Motor Vehicle Crashes involving Officers being struck outside of their vehicle

Type of Intersection Control/Activity when struck
☐ Struck while contacting motorist during traffic stop or motorist assist
☐ Special Event   ☐ Accident or Crime Scene
☐ Other

Reflective Equipment Worn by Officer (check all that apply)
☐ Traffic Vest   ☐ Rain Coat
☐ Winter Coat   ☐ Other Clothing
☐ NONE

Other Equipment/Barricades Utilized by officer at Traffic Scene *(check all that apply)*
☐ Barricades   ☐ Cones   ☐ Flares - Burning
☐ Flares – Battery Operated   ☐ Flashlight   ☐ Flashlight with traffic cone
☐ Police Vehicles   ☐ Signboards   ☐ Fire trucks
☐ Whistle   ☐ None   ☐ Other

SUPPLEMENTAL INFORMATION – TRAINING

To be completed with the following responses to activity engaged in at time of injury: Training

Type of Training officer was attending:

☐ Defensive Tactics   ☐ Ground Fighting   ☐ Firearms
☐ Active Shooter   ☐ Vehicle Operations   ☐ Foot Pursuits
☐ Civil Disturbance   ☐ Use of Force Training   ☐ Impact Weapons
☐ Simulated Firearms Training ☐ Fitness Program   ☐ Chemical Agents
☐ Electronic Control Devices/Conducted Electrical Devices
☐ Other_____

Was the Training Sanctioned by the Agency?   ☐ Yes ☐ No

If the training involved physical activity, what measurements or precautions were taken to reduce Injury? *(check all that apply)*
☐ Safety Lecture   ☐ Stretching
☐ Warm up   ☐ Safety Equipment Provided (Please List)_____
_____
_____

Describe any contributing factors to the injury:_____
_____
_____

SUPPLEMENTAL INFORMATION – INCIDENT DESCRIPTION

Please provide a brief description of the incident. Provide all information relevant to the officer's injury and any possible contributing factors.

Example: Officer stopped a group of subjects outside of a convenience store. After a brief encounter, it was determined that one of the subjects had an outstanding warrant for his arrest. As the officer attempted to take him into custody, the suspect fled on foot. The officer followed. While chasing the subject, the officer slipped on the uneven ground twisting his ankle. Officer was treated in the emergency room for a high ankle sprain. It is estimated that he will be on light duty for approximately 2 weeks.

APPENDIX D: STATISTICAL OVERVIEW

Below are the statistics for the one year of officer injuries reported as part of the IACP reducing officer injury project. These are just the numbers from your agency and were not provided to anyone else. The results in the final report reflect all agencies and are reported as overall numbers with agencies not being identified. For more detailed analysis about the injuries please see the full report.

Total Injuries all agency[26] = 1311

Average age for injured officers   37.00 years old

Gender Breakdown = 1083 Male (83.18%)   219 Female

Total days of work missed   7525
Average number of days missed per injury   5.82 days

Total Rehabilitation days   6115
Average number of rehabilitation   4.73 days

Costs[27]

Total Cost for Hours missed	$1,534,080
Cost to Replacing Hours	$2,301,120
Total Salary Cost of Injuries	$3,832,200

Rank Distribution (*N*=1299)

Above First Line Supervisor	30	2.31%
Sergeant/First Line Supervisor	106	8.16
Detective/Investigator	74	5.80
Officers	1089	83.83

Years of Experience of Injured Officers (*N*=1299)

1-5 years	538	41.42%
6-10 years	224	17.24
11-15 years	209	16.09
16-20 years	139	10.70
Over 20 years	189	14.55

Duty Status (*N*=1299)

On Duty	*1284*	*98.85%*
Off Duty	*15*	*1.15*
Non-Law Enforcement	6	0.46

Law Enforcement	4	0.31

Injures by Shift (*N*=1299)

Day	625	48.11%
Evening	383	29.48
Night	252	19.40
Other	39	3.00

Body Armor Use while Injured (*N*=1299)

Yes	1031	79.37%
No	268	20.63

Officer Assignment when Injury Occurred (*N*=1299)

Patrol	853	65.67%
Jail/Corrections/Detention Facility	45	3.46
Narcotics/VICE Investigations	42	3.23
Criminal Investigations	37	2.85
Tactical/Jump Out Squad	30	2.31
School Resource Officer	24	1.85
SWAT	17	1.31
Warrant/Civil Process	13	1.00
Court Security	11	0.85
Systems Management/Support Personnel	11	0.85
Special Operations/Motors	11	0.85
Bicycle Patrol	10	0.77
Gang Unit	9	0.69
Mounted Patrol	6	0.46
Aviation	2	0.15
Other	188	14.47

Number of Officer Unit at Time of Injury (*N*=1299)

One Officer Unit	727	55.97%
Two Officer Unit	444	34.18
Three or More Officer Unit	40	3.08
Other	88	6.77

Did the injured officers participate in wellness program? (*N*=1294)

Yes	699	54.02%
No	595	45.98

The amount of wellness program participation was encouraging with overall study results showing a connection between officer health factors and injury. In order to explore the issue further, the exact amount of fitness activity was also assessed.

Amount of Fitness Activity[28]

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[26] As a result of a lack of responses in all categories, several of the totals do not sum to the overall total.

[27] The formula for costs was determined utilizing the national average entry level salary ($40,000 per year) of law enforcement officers (2007 Law Enforcement Management and Administrative Statistics) and a provisional estimated 10-hour work day in combination with the total days of work missed (notwithstanding the total rehabilitation days). Additionally, costs for replacement hours, assumed that these hours missed would require time-and-a-half to fill, thus the total salary costs is the sum of the loss of hours by the individuals injured and the individuals required to negate their absence.

[28] The total responses in this category sum to 28 indicting a number of multiple responses by the injured officers. This is most likely to due to the strength training category that was combined with cardio by a number of officers. Regardless, in sum the results provide some indication of the level of reported fitness activity for each officer.

Intense	140
Moderate	361
Mild	196
Strength	318

Average Amount of Sleep per Night (*N*=1294)

Less than 4 hours	7	0.54%
4-6 hours	270	20.87
7-8 hours	972	75.12
9-10 hours	14	1.08
Unknown	23	1.78

Sleep before Injury (*N*=1294)

Less than 4 hours	23	1.78%
4-6 hours	269	22.87
7-8 hours	899	69.47
9-10 hours	25	1.93
11-13 hours	1	0.08
Unknown	49	3.79

Hours Officer was On Duty before Injury (*N*=1294)

1-4 hours	705	54.48%
5-8 hours	469	36.24
9-12 hours	80	6.18
13-16 hours	23	1.78
17-20 hours	9	0.70
21-23 hours	0	0.00
More than 24 hours	5	0.39

Work Week Day that Injury Occurred (*N*=1294)

1st Day Back	279	21.56%
2nd Day Back	257	19.86
3rd Day Back	323	24.96
4th Day Back	220	17.00
5th Day Back	160	12.36
6th Day Back	35	2.70
7th Day Back	10	0.77

Type of Injury (*N*=1294)

Sprains/Strains/Soft Tissue Tears	608	46.99%
Contusions	189	14.61
Lacerations	178	13.76
BPE:[a] Contact Transfer	64	4.95
Broken Bone(s)	39	3.01
KOPW:[b] Other Impalement	39	3.01
BPE:[a] Spitting	16	1.24
CI:[c] Heart/Lung Conditions	12	0.93
Internal Injuries	12	0.93
BPE:[a] Needle Stick	9	0.70
Dislocations	6	0.46
CI:[c] Back	4	0.31

Burn: Chemical (Moderate)	4	0.31
Burn: Chemical (Mild)	4	0.31
Burn: Thermal (1st Degree)	3	0.23
KOPW:[b] Non-Assault (Stepped On)	2	0.15
Burn: Thermal (2nd Degree)	1	0.08
Burn: Thermal (3rd Degree)	1	0.08
KOPW:[c] Non-Assault (Fell On)	1	0.08
Gunshot Wound	1	0.08
Other	98	7.57

[a] Bloodborne Pathogen Exposure
[b] Knife/Other Puncture Wound
[c] Chronic Injury

Injury Treatment Type (*N*=1294)

No Treatment Sought	637	49.23%
Emergency Room	414	31.99
Saw Personal Doctor	200	15.46
Treated by Medics at Scene	27	2.09
Admitted to Hospital	21	1.62

Injury Environment Location Type (*N*=1294)

Street	423	32.69%
Residence	171	13.21
Parking Lot/Structure	122	9.43
Highway/Roadway	114	8.81
Police Station	112	8.66
Business	63	4.87
Detention Facility	55	4.25
Field	38	2.94
School	19	1.47
Woods/Forest	13	1.00
Stairs	12	0.93
Railroad Tracks	2	0.15
Body of Water	1	0.08
Rooftop	1	0.08
Other	146	11.28

Lighting and environment is thought to present information that could be beneficial and highlight a need for more focused training indoors or outdoors and under specific lighting.

Injury Environment Location (Indoor/Outdoor) and Lighting[29] (*N*=1294)

Outdoor		976	*75.43%*
	Daylight	515	39.80
	Nighttime (No Artificial Light)	205	15.84
	Nighttime (Artificial Light)	169	13.06
	Dawn/Dusk	75	5.80

[29] Percentage in subcategories based on total overall valid cases, not within the specific category.

Indoor	318	24.57%
Well Lit	231	17.85
Adequate Lighting	56	4.33
Poor Lit/Dim	28	2.16
No Lightning	3	0.23

Call Type (and Subtypes) during injury[30] (N=553)

Disturbance Call	155	28.03%
Disorderly/Drunk	58	10.49
Domestic Dispute	49	8.86
Fight	33	5.97
Investigative/Enforcement	93	16.82%
Suspicious Persons	20	3.62
Wanted Person	15	2.71
Follow-up Investigation	3	0.54
In-Progress Call	79	14.29%
Burglary	21	3.80
Larceny-Theft	17	3.07
Assault	6	1.08
Motor Vehicle Theft	4	0.72
Traffic Stop	62	11.21%
DUI/DWI	8	1.45
Pursuit	34	6.15%
Citizen Complaint	22	3.98
Check on the Welfare of Citizen	8	1.45
Mentally Ill Subject	18	3.25%
Citizen Initiated Report	3	0.54
Motor Vehicle Accident	10	1.81%
Prisoner Transport	7	1.27
Traffic Control/Motorist Assistance	4	0.72
Alarm	3	0.54
Responding to the Report of a Late Crime	3	0.54
Unprovoked Attack	3	0.54
Other	59	10.67
Drug Related Offense (Any Call Type)	**18**	**3.25%**

The suspects' characteristics could provide assistance for the police department to better understand how officers were injured at the hands of the suspect. Due to the possibilities of suspects with mental illnesses and under the influence of alcohol or drugs, the officers will need appropriate guidance on how to handle these individuals without avoiding future injuries. Additionally, the weapon information is included indicating that most injuries sustained from a suspect are not a result of outside assistance, rather the suspects body parts.

[30] Percentage in subcategories based on total overall valid cases, not within the specific category.

Suspect Impairment (N=501)

Drinking	87	17.37%
Mental Disorder	43	8.58
Drugs/Alcohol	30	5.99
Drugs	21	4.19
None	320	63.87

Suspect Weapon Information (N=501)

None	438	87.43%
Other Weapon	38	7.58
Knife/Cutting Instrument	23	4.59
Firearm	1	0.20

The location of injury variable is intended to provide anecdotal information in suggesting use of resources to prevent future injuries amongst officers. (For example: if a majority of injuries occur on police property, rather than in the field; this may suggest resources are needed for routine maintenance as opposed to training.)

Location of Injury[31,32] (N = 1203)

In the Field	857	71.24%
Involved Motor Vehicle	166	13.80
Involved Suspect	151	12.55
During Arrest	103	8.56
Police Property	302	25.10%
Training	160	13.30
Other	44	3.66

[31] The category "In the Field" is not mutually exclusive, meaning that an "In the Field" injury could be a result of a suspect ramming their automobile into a police cruiser, and thus would be included in both the "Involved Motor Vehicle" and "Involved Suspect."

[32] Percentage in subcategories based on total overall valid cases, not within the specific category.