Introduction
Several high-profile officer involved shootings (OIS) in 2014 and 2015 stimulated a national debate and exposed the absence of reliable national data on police use of deadly force.¹ To begin exploring this issue, Major Cities Chiefs Association (MCCA) first asked their members to provide the number of OIS for their agencies for the years 2005-15 (Figure 1).²

While helpful in understanding the trends and frequency of these incidents, this data alone provided no insight into the circumstances of the encounters between officers and members of the public. To help develop a better understanding of these interactions, MCCA and the National Police Foundation (NPF) entered into a partnership in 2015 to collect more detailed OIS data.

The partnership had two primary objectives. The first was to provide a basis for a more accurate and reliable estimate of firearm use by police officers in major cities. The second was to provide better insight into OIS situations and, through the analysis of the data, improve officer safety and accountability. After developing a tool and a process, OIS data collection was launched in late March 2015.

NPF and MCCA have developed three executive summaries on this project to share the information with practitioners on 1,006 cases involving 1,605 officers in 47 MCCA US agencies for the years 2015 to 2017.³ The first summary focuses on OIS incident characteristics. The second examines the officer(s) and subject(s) involved in incidents. The third is a broader discussion of OIS incidents, how their data are captured within law enforcement, and the gaps in our understanding of these encounters.

The Officers Involved in OIS
How often do police officers fire their weapon? What are the characteristics of officers that fire their weapon? Like many aspects of OIS and other local policing issues, national data is not available to answer those questions. A PEW Research Center survey provides some insight finding that 30% of officers in cities with a population greater than 400,000 indicate they have fired their weapons⁵ while on duty at some point in their career. That survey also found that officers “who have fired a weapon on duty and those who haven’t are broadly similar in terms of their personal traits, the types of communities they serve and even their attitudes about crime-fighting.”⁶ Detailed data was collected for all officers that fired their weapon during an OIS incident. Among these officers, 80% had not fired a gun on duty prior to the incident. Fifteen percent of the officers in this data had one prior OIS experience, and 5% of the officers had discharged their weapon while on duty two or more times.

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¹ The FBI kicked off its National Use of Force Data Collection initiative in January 2019. Police agencies across the country have been asked to submit data on all officer involved shooting situations and where there is a serious injury from other uses of force. This initiative will provide much greater insight into police use of force on a national level.

² Since 40 US MCCA agencies provided data for all 13 years (2005-2017), Figure 1 data has now been updated to reflect data through 2017.

³ Although 1,605 officers are included in the OIS dataset, approximately 600 officers were included in the regression analysis due to missing data in several key variables.

⁴ In-depth report is available at the National Police Foundation website (www.policefoundation.org).

⁵ The PEW survey does not make a distinction between firing a weapon on duty or at an animal. Officers are required on occasion to shoot at attacking dogs or severely injured animals.

The years of experience of officers involved in OIS incidents is shown in Figure 2 on the previous page. Fifty-five percent of the officers involved had less than 10 years of experience, while 45% had 10 years or more. Officers with one year or less experience accounted for 8.6% of the OIS officers. Officers with 15 or more years of experience accounted for 24% of officers involved in an OIS.

As a comparison, officer experience data collected in a study of the Phoenix Police Department OIS incidents saw that from 2009 through 2017, 52.7% of the Phoenix officers involved in OIS had less than 10 years of experience and 47.4% had 10 or more years. 

Patrol officers are the largest segment of police departments. They handle citizen calls for service and are responsible for most of the interactions with the public. Thus, as one would expect, the overwhelming majority (76.9%) of OIS involved patrol officers, followed by sergeants at 8.4% and detectives at 7.3%. Other ranks represented 7.4% of officers involved in OIS. Comparatively, in Phoenix, patrol officers accounted for 92.5% of the OIS incidents, and the Los Angeles Police Department reports that in 2016, 88.5% of the OIS incidents involved patrol officers.

Officer race and ethnicity are shown in Figures 3 and 4.

Seventy-seven percent of the officers involved in OIS were white, 13.52% were African American and nearly 24% were Hispanic. In Los Angeles, in 2016, 19.2% of the officers were white, 5.7% African American and 69% Hispanic. In Phoenix, 74.6% of the OIS officers were white, 18.6% Hispanic and 2% African American.

Examining national levels of overall officer demographics, in 2013 for local police departments serving populations of more than 250,000 – 60% of the officers were white, 19.6% African American, 15.2% Hispanic and 3.6% Asian. Using the same national police demographics data, we see that in cities serving populations greater than 250,000, 83.8% of the officers are male and 16.1% female. However, in the MCCA OIS dataset, 91% of the officers were male, 5% were female, and for 4% of the officers the gender is missing or not available. For purposes of comparison, 2% of the OIS officers in Phoenix and 6% of the OIS officers in Los Angeles were female.

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7 Detailed officer data was only collected for officers that discharged their weapon during the OIS incident.
8 Because there are no national sources to compare OIS involved officer and subject demographics to, this report offers some comparisons using two large departments that have made this data available – Phoenix, AZ and Los Angeles, CA.
10 In the data collection instrument, it is noted that if the agency considers ‘detective’ to be an assignment rather than rank, they are to select both detective as well as the officer’s rank.
An item of interest in our data collection is how long an officer had been on shift prior to the shooting incident — a potential measure of fatigue. Officer fatigue has become an increasing concern in recent years as the body of research has expanded, suggesting that it affects driving, performance on tasks, increases complaints, and “may heighten pre-existing biases”.14 Although research is very limited, one study involving 53 officers found a relationship between decisions in deadly force simulations and increased reaction time among tired officers.15

Figure 5 shows the time that elapsed from when an officer’s shift began up until the time of the shooting. Seventy-five percent had been working less than 6 hours when the OIS occurred and 19% between 6 and 12 hours.

The current data collection efforts do not provide enough information to determine whether fatigue played a direct role in any of the OIS incidents. The relationship between officer fatigue and deadly force should be explored in much greater depth.

Among the officers who discharged their weapon during an OIS incident, 9% sustained an injury. Of those injured, 50% suffered what was defined as a simple injury, 18% received a minor injury, 24% received an injury classified as severe or serious, and 5% resulted in the death of the officer.16

Figure 6 shows that officers were injured in 17.4% of the OIS encounters that they initiated compared to officers receiving injuries in 12.2% of encounters initiated by citizens.

Figure 7 contains information on officer injuries based on the incident call type. Eighteen percent of officer injuries occurred during violent calls (homicide, assault, shots fired, and robbery), 17.9% injuries occurred during traffic calls, and 16.4% of injuries occurred during “other” call types (mental illness, suicide, trespassing, disorderly conduct, drug, and sex offenses).

At the incident level, we see that officers tend to be injured in violent and ‘other’ call types, when incidents are police-initiated, and when at least one subject is armed with a firearm.17

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16 Percentages do not add up to 100, as 3% of officer injury severity was reported as unknown.
17 Detailed information about these OIS incidents is provided in the “Incident Executive Summary”
The Subjects Involved in OIS

**Figure 8** contains the age of OIS involved subjects in 10-year increments. The majority of the subjects involved in OIS were between 20 and 39 years of age (66.3%). Individuals under the age of 20 years represented 13.4% of subjects. Although not an exact match in age range, 66.7% of the subjects in the Washington Post Fatal Force database in 2018 were between the ages of 18 and 44.\(^{18}\) In Phoenix, 74.5% of the subjects were between the ages of 20 and 39.\(^{19}\)

Ninety-five percent of the subjects in the OIS incidents were male — similar to the 94% in the 2018 Washington Post database.

Fifty percent of the subjects were African American (50%), followed by white subjects at 39.4%. Thirty percent of the subjects were Hispanic. In Los Angeles in 2016, 56% of the subjects were Hispanic, 37% African American and 2% white.\(^{20}\) In Phoenix, 48% of the subjects were Hispanic, 36.5% white and 10.6% African American.

Public concern over the way police interact with the mentally ill has stimulated a significant investment in crisis intervention and de-escalation training for officers. The International Association of Chiefs of Police (IACP) launched the “One Mind” campaign to encourage police agencies to make a pledge that they will provide mental health first aide and crisis intervention training to their officers. Almost 500 agencies have made the pledge.\(^{21}\) In the MCCA dataset, officers encountered subjects with mental health issues in OIS situations 20.5% of the time. In 2016 and 2017, the Washington Post database indicates that in 24% of the shootings, the subject had some form of mental illness. Among the LAPD OIS incidents, mental illness was suspected in 10% of the cases.

**Figure 9** shows the highest level of resistance by subject. In 43.6% of the incidents the subject assaulted the officer. The subject attempted to escape in 28.4% of the OIS and in 3.7% of the cases attempted to obtain the officer’s weapon.

Among all subjects involved in OIS encounters, 78.5% sustained some type of injury. Among those injured, 34% of the injuries were severe enough to result in death.

At the incident level, where subject injury outcomes are known, 45% of OIS situations resulted in subject death. In Los Angeles, 46% of the OIS resulted in the death of the subject in 2016\(^{22}\) and in Phoenix 52.8% of the cases resulted in death.\(^{23}\)

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Conclusion

The path to minimizing OIS situations lies in a better understanding of the interactions between the officer and subject in the complex environment that brings them together. OIS are influenced by officer training, culture, and agency policy. They are influenced by government policy on firearms, mental health and substance abuse services, housing, and economic policies. They are influenced by a subject’s background as well. OIS are not just simply an encounter between a police officer and an individual that goes awry and ends in a tragic death or injury. They take place in a complex environment and society where many factors are at play when an officer and subject come together.

The research conducted has helped – but much more needs to be examined, and the stakes are high. The Washington Post database had identified close to 1000 deaths for each of the past four years from OIS. Additionally, over the past two decades an average of 55 officers per year have been killed with a firearm.²⁴ Changing these outcomes requires a commitment on the part of the police and the public to make a much greater investment in understanding these deadly encounters and acting on that evidence-informed knowledge.


The views and opinions expressed in this report are those of the authors’ and do not necessarily reflect the views or opinions of the Laura and John Arnold Foundation or Arnold Ventures.