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**POLICE RESPONSES TO OFFICER-INVOLVED SHOOTINGS\***  
**Executive Summary**

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**FINAL REPORT**

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*Archival*  
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## POLICE RESPONSES TO OFFICER-INVOLVED SHOOTINGS

Research on the use of deadly force by police officers includes a limited body of literature that examines the consequences of involvement in shootings for officers who pull the trigger. This literature addresses two distinct issues related to the effects of shootings: 1) what officers experience *during* shootings and 2) what they experiences *after* incidents in which they shoot. Where the first issue is concerned, the research indicates that officers sometimes experience sensory distortions such as tunnel vision, auditory blunting, and altered perceptions of time (e.g., Nielsen, 1981; Solomon and Horn, 1986; Artwohl and Christensen, 1997). Regarding post-shooting responses, the literature reports that officers may experience a variety of short and long-term reactions that can include recurrent thoughts about the incident, a sense of numbness, trouble sleeping, sadness, crying, and nausea (e.g., Stratton et al., 1984; Solomon and Horn, 1986; Campbell, 1992)

The research described in this summary report was undertaken to enhance understanding of both aspects of officers' reactions to involvement in shootings. It consisted of interviews with 80 municipal and county police officers who reported on 113 separate cases where they shot citizens during their careers in law enforcement. The remainder of this summary report briefly describes the data collection procedures utilized in the research, provides sketches of the officers who participated in the study and of the incidents in which they shot people, offers an overview of what the research disclosed about officers' experiences during and after shootings, and concludes with a brief discussion of some of the policy ramifications of these findings. The full report, which is available from the National Institute of Justice, includes a review of the pertinent literature, a detailed presentation of what the findings sketched in this executive summary

disclosed about police responses to officer-involved shootings, and a full discussion of the implications of the research.

## RESEARCH PROCEDURES

Data was gathered from 80 municipal and county police officers and sheriff's deputies from 19 agencies in four states. These officers and deputies (hereafter referred to as officers also) provided detailed information on the circumstances and aftermath of 113 incidents in which they struck citizens with gunfire by filling out a 17 page questionnaire for each shooting (34 of the officers had been involved in more than one) and sitting for an audio-taped directed interview (all conducted by the PI) that focused on the shootings in which they were involved and what transpired afterward.

The questionnaire was a modified version of the instrument that John Campbell (1992) used in an earlier study of FBI agents who had been involved in shootings. It included 144 major sets of items that covered the following broad areas of interest:

- Background information about the officer, such as demographic characteristics, law enforcement experience, and assignment at time of shooting.
- Features of the shooting event, such as the number of suspects involved, their weapons, the actions they took, the actions that the subject officer and any other officers present took, and the nature of injuries incurred by officers, suspects, and other citizens.
- The thoughts, feelings, and perceptions that subject officers experienced during the shooting incident.
- Their physical, psychological, and emotional experiences after the shooting.
- The treatment that the subject officers received from others (e.g., family members, other officers, their agency) following the shooting.

The directed interviews served two purposes. First, by giving officers a chance to describe in their own words their thoughts, feelings, and experiences, they yielded details about attitudes, emotions, experiences, and events that could not be obtained from a questionnaire, allowing for the development of more in-depth information about their involvement with and reactions to the use of deadly force. Second, because they covered much of the ground addressed in the questionnaire, the interviews provided a reliability check on officers' responses to questionnaire items.

## PROFILE OF STUDY OFFICERS AND CIRCUMSTANCES OF SHOOTINGS

The bulleted information below provides select information about the 80 officers who participated in the study and the 113 shootings that are the subject of this report.

- The sample includes 74 male officers and 6 female officers.
- Sixty-two of the officers were white, nine were Hispanic, four were Asian/Pacific Islander, three were black, and two described themselves as having some "other" racial/ethnic background (e.g., Native American).
- The ages of these officers at the time of the shootings ranged from 21 to 49, with a mean of 32.
- The amount of time they had spent as police officers prior to the shootings ranged from less than a year to 27 years, with a mean of just under 8 years.
- Nearly half (54) of the shootings occurred while the officers involved were working general patrol assignments. Because the sample included a disproportionate number of officers whose work includes assignment to their agency's special weapons and tactics (SWAT) teams,<sup>1</sup> a substantial minority of the shootings (37) occurred during tactical operations. The 22 other shootings occurred during an array of circumstances that include undercover work, crime suppression patrol, and off-duty shootings.

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<sup>1</sup> The reasons for the over-sample of SWAT officers and shootings are explained in the full report. The full report also discusses the potential consequences of this and provides statistical analysis indicating that it did not affect findings.

- Subject officers faced a single suspect in more than three-fourths (89) of the shootings, two suspects in 13 shootings, three suspects in 5 others, four suspects in 4 instances, and five and six suspects in 1 shooting each.
- Across the 113 cases, 60 suspects died, 43 incurred wounds that required hospitalization, while 5 others received minor wounds.<sup>2</sup>
- Subject officers received injuries requiring hospitalization in six cases and minor injuries in eight others.
- Other officers were injured in 13 cases, one of them fatally.
- Citizens suffered non-fatal injuries at the hands of suspects in eight cases and fatal injuries in two others.

#### RESPONSES DURING SHOOTINGS

Information was developed about two distinct sorts of experiences officers may have had during shootings: 1) thoughts and feelings and 2) perceptual distortions. Officers were queried about these experiences during two distinct points in the shooting incidents: 1) prior to firing weapons and 2) the moments during which and immediately after they fired their guns (henceforth referred to as “upon” or “as” firing, for simplicity’s sake). Analysis disclosed the following about officers’ thoughts/feelings during shootings:

- Officers experienced a sense of disbelief prior to firing in 32% of the shootings and as they fired in 34%.
- Officers experienced a sense of fear for their own safety prior to firing in 35% of the shootings and as they fired in 30%.

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<sup>2</sup> The number of suspects shot sums to less than the number of cases because the sample includes seven shooting incidents where more than one of the involved officers was interviewed. Because the study was undertaken to examine individual officers’ responses to events in which they shot people, each officer’s experiences as they pertain to a given shooting are treated as separate cases. Hence, the seven shooting incidents that involved more than one officer who participated in the study produced 15 cases for the study (six shootings involved two officers who were interviewed and one involved three).

- Officers experienced a sense of fear for someone else's safety (i.e., fellow officer or citizen) prior to firing in 54% of the cases and as they fired in 49%.
- Officers experienced a need to survive prior to firing in 27% of the shootings and as they fired in 23%.
- Officers experienced a rush of strength or adrenalin prior to firing in 44% of the shootings and as they fired in 46%.
- Officers experienced intrusive thoughts about irrelevant matters prior to firing in 10% of the cases and as they fired in 9%.
- Officers reported experiencing some "other" specific thoughts or feelings prior to firing in 29% of the cases and as they fired in 30%.

One aspect of officers thoughts and feelings that is worthy of additional attention is fear.

Officers did not experience any fear either for themselves or for third parties in thirty percent of the shootings. At first blush this might strike one as odd inasmuch as the standard for the justifiable use of deadly force in law enforcement is that officers perceive that their life or limb, or the life or limb of a third party, is in imminent peril. Information developed during the directed interviews makes sense of this initially anomalous findings, however.

Many of the officers who did not report feeling fearful reported that they believed that their safety, the safety of a third party, or both, was in jeopardy at some point in their shootings. These officers indicated that they perceived that the actions of the suspect(s) they shot had placed their safety, the safety of another, or both in imminent peril, but that they had not experienced the *emotion* of fear. Thus, the negative responses to the "fear" items on the questionnaire were indicative not of the fact that some officers did not believe that anyone's life was in danger, but rather simply that the intellectual understanding that they or someone else was in extreme danger did not translate into emotional trepidation.

Where perceptual distortions are concerned, analysis disclosed the following:

- Prior to firing, officers experienced tunnel vision in 31% of the cases, a sense of heightened visual detail in 37%, and both visual distortions in another 10%.
- Upon firing, officers experienced tunnel vision in 27% of the cases, heightened visual acuity in 35%, and both visual distortions in 11%.
- Prior to firing, officers experienced a diminution of sound in 42% of the cases and amplified sound in 10%.
- Upon firing, officers experienced diminished sound in 70% of the cases, intensified sound in 5%, and both auditory aberrations in 8%.
- Prior to firing, officers experienced time passing more slowly than usual (i.e., slow motion) in 43% of the cases and time passing more quickly than usual (i.e., fast motion) in 12%.
- Upon firing, officers experienced slow motion in 40% of the cases, fast motion in 12%, and both time distortions in 2%.
- Finally, officers experienced some “other” distortion prior to firing in 6% of the cases and as they fired in 9%. Of particular interest here is that several officers reported their sense of distance was distorted so that the actual distances between themselves, suspects, other officers, citizen bystanders, and inanimate objects (e.g., vehicles) were either far greater or substantially less than they had perceived at the time of the shooting. Mis-perception of distance is of special interest where post-shooting investigations are concerned because judgements about the appropriateness of officers’ actions can hinge on distance (both perceived and actual) between officers and the “threat” at whom they fired.

Another matter examined in the research was the overall degree to which officers experienced perceptual distortions during shootings. This was accomplished by summing the number of distortions per shooting at each of the two time periods. *Prior to firing*, officers experienced at least two distortions in 70% of the shootings, three or more in 37%, four or more in 6%, and five distortions in just 1% of the cases. These figures translate to a mean of 2.02 distortions prior to firing per shooting. The degree to which officers experienced distortions was even greater during the time that they fired, as the average number of distortions rose to 2.45 for this time frame. Officers reported at least two distortions while they were firing in more than

three-fourths (76%) of the cases, three or more in more than half (57%), four or five in more than a sixth (15%), and, finally, five distortions in four percent (4%) of the cases.

A final perceptual matter considered in the research was officers' ability to accurately recall the number of rounds they fired during their shootings. A case-by-case comparison of the number of shots officers had thought they had fired at the time of the incident with the number of shots the investigation discovered they actually had fired disclosed that officers could not accurately recall the number of rounds they fired in 33% of the cases. Officers' understandings of the number of shots they fired were lower than the actual number in 21 cases and higher than the actual number in 4. In three other cases officers were not sure how many rounds they fired, but reported that they recalled a range into which the actual number fell (e.g., "I thought I fired between 10 and 12 rounds and it turned out I fired 10"). Finally, in nine other cases, officers reported that they had no idea how many rounds they had fired.

#### RESPONSES AFTER SHOOTINGS

The instrument included several items that queried officers about the thoughts, emotions, and physical responses they experienced during four distinct time periods following their shootings: (1) within the first 24 hours after the shooting, (2) from the second to the seventh day, (3) from the beginning of the second week after the shooting to the end of the third month, and (4) after three months had passed. For each of these four time periods, officers were asked to report whether they experienced any of several specific psychological, emotional, or physical phenomena, plus any "other" reactions that may have occurred. Tables 1 and 2 below, which

separate post-shooting reactions into physical and psychological/emotional, display the percentage

distributions for each of the several response categories listed on the instrument during each of the four time periods considered in the study.<sup>3</sup>

<i>Physical Response</i>	<i>First 24 Hours (N=112)</i>	<i>First Week (N=113)</i>	<i>Within Three Months (N=111)</i>	<i>After Three Months (N=105)</i>
Nausea	4%	4%	0%	0%
Appetite Loss	16%	8%	2%	1%
Headache	6%	4%	1%	1%
Fatigue	39%	26%	7%	5%
Crying	17%	7%	2%	2%
Trouble Sleeping	46%	36%	16%	11%
Other Physical	18%	11%	12%	6%

<sup>3</sup>The columns in Tables 7 and 8 below contain different numbers of cases for the following reasons: 1) One case was not included in the data for the first day post-shooting because the involved officer suffered a gunshot wound that left her unconsciousness for the first 48 hours after the event. 2) Two cases were excluded from the one week to three month time frame because the shootings occurred less than three weeks before the involved officers sat for interviews. 3) Both of these shootings, plus six others that occurred right around three months before the officers sat for their interviews, were excluded from the post-three month time frame.

<b>Table 2. Percent of Cases in Which Officers Experienced Particular Thoughts or Feelings During Four Post-Shooting Time Periods</b>				
<i>Thought/Feeling</i>	<i>First 24 Hours (N=112)</i>	<i>First Week (N=113)</i>	<i>Within Three Months (N=111)</i>	<i>After Three Months (N=105)</i>
Elation	26%	19%	11%	5%
Sadness	18%	17%	5%	5%
Numbness	18%	7%	4%	3%
Recurrent thoughts	82%	74%	52%	37%
Anxiety	37%	28%	13%	10%
Guilt	10%	5%	6%	2%
Nightmares	13%	13%	10%	6%
Fear for Safety	9%	10%	9%	8%
Fear of Legal Administrative Problems	31%	25%	19%	11%
Any Other Thought or Feeling	33%	23%	20%	14%

Perhaps the most striking information conveyed by these tables is a strong tendency for the proportion of cases in which officers experience a given response to diminish as time passes. Across the 51 possible adjacent time comparisons (i.e., first day to first week, first week to three months, three months to post three months = 3 comparisons x 17 response categories = 51), the figures drop in 43 of them, are equal in 5 others, and increase by a single percentage point in the other 3. By the time three months have passed, moreover, the proportion of cases in which officers experienced given reactions decreased by at least 50% in 16 of the 17 response categories, with 12 of the 16 falling by at least two-thirds.

Tables 1 and 2 also show that the temporal decrease is so pronounced that by the three-month post-shooting mark very few of the responses were manifest in even 10% of the cases. Only one specific reaction – recurrent thoughts – persisted in more than one-third of the cases, and only two others broke the 10% mark – fear of legal problems and trouble sleeping – both of which were reported in 11% of the cases.

The directed interviews disclosed that few of the officers who reported recurrent thoughts defined them as negative (most defined them as neutral, and some as positive). When this information is considered in concert with the fact that the response of elation has no negative connotation, the data in Tables 1 and 2 indicate that specific negative post-shooting reactions were quite rare after three months had passed. These low rates suggest that only a small proportion of the officers interviewed suffered any remarkable long-term detrimental consequences from the shootings in which they were involved.

The notion that officers tend to suffer notable negative post-shooting reactions in the short term, but little disruption in the long run is also evident from an analysis that counted the number of negative reactions that officers experienced at each of the four post-shooting time periods. This analysis disclosed that the mean number of negative responses officers experienced dropped from 2.88 in the first 24 hours, to 2.05 in the first week, to 1.06 within three months, and finally to .77 by the time three months had passed. In sum, the current data indicates that involvement in shootings typically led to some notable short-term psychophysiological disruption, but little long term fall-out.

Information developed during the directed interviews indicates that what transpired in the wake of the incidents in which the officers shot goes a long way toward explaining why post-

shooting responses -- including those that are positive or neutral -- typically diminished so markedly over time. In short, the officers reported that the investigation into the shooting; concerns and curiosity expressed by fellow officers, family, and friends; press attention; and attention from other third parties all served to focus their minds on the shooting. As time passed, and investigations were completed; inquiries from friends, family, and peers waned; and other third-party activity that would tend to direct attention to the shootings abated, officers typically thought about the shootings less frequently and integrated them into their lives.<sup>4</sup>

The notion that post-shooting reactions are associated with what occurs in the wake of shootings was buttressed by quantitative analysis that examined the relationship between officers' post-shooting reactions and several specific aspects of what transpired after the shootings. The highlights of the relevant findings include the following:

- Criticism from fellow officers about shootings is associated with a mild increase in the degree of negative reactions that officers who shot experienced
- Officers who received substantial support from fellow officers experienced slightly lower levels of negative reactions
- Talking about the shooting in detail with fellow officers was associated with a modest reduction in the degree of negative reactions
- Actions taken by third parties such as fellow officers, superior officers, prosecutors, and members of the press that aggravated officers were associated with increased negative reactions
- Taking department mandated time off following the shooting was associated with a slight reduction in the degree of negative reactions officers experienced

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<sup>4</sup> One phenomenon that exemplifies this dynamic is fear of legal and/or administrative problems. As reported in Table 1, officers experienced such fear during the first 24 hours after their shootings in nearly one-third (31%) of the cases. As the official investigations into the shootings moved forward, it typically became apparent to officers they would suffer neither criminal nor administrative sanction. In many cases these clearances came within a few days, in others it took much longer. As more and more of the shootings were ruled justified as time passed, fewer and fewer officers experienced fear that they might suffer some legal/administrative problem.

On the other hand, the analysis of the links between what occurred after shootings and officers' post-shooting adjustment disclosed that several factors that one might have expected to be associated were not. These include the following findings:

- Criticism from superior officers was not associated with officers' post-shooting reactions
- The degree of support that officers received from intimate partners and other family members was not associated with officers' post-shooting reactions
- Whether the shooting resulted in civil litigation was not associated with officers' post-shooting reactions
- Whether the officer attended department mandated counseling sessions with a mental health professional was not associated with post-shooting reactions

Analysis was also conducted to examine whether officers' experiences during shootings was associated with their post-shooting reactions. Analysis disclosed that officers who experienced higher levels of perceptual distortion during shootings were slightly more likely to experience negative reactions *within the first week* following the shootings, but that distortions were not associated with post-shooting adjustment *after the first week*. Additional analysis that examined the link between distortions and *specific* negative post-shooting reactions disclosed that officers tended to experience slightly more sadness and guilt after three months post-shooting when they experienced higher levels of distortion during shootings, but that none of the other specific negative responses bore such associations with the degree of distortion officers experienced. Finally, the analysis disclosed that when officers experienced fear for their own safety during shootings they tended to experience slightly elevated levels of negative reactions in the first 24 hours following the shootings, that the strength of the fear-negative reaction

association increased during the rest of the first week after the shooting, and then waned after that point.

## IMPLICATIONS AND CONCLUSION

The full report identifies several implications of the what the study disclosed about officers' responses to involvement in shootings. This summary will address some of those that pertain to three areas: the investigation of police shootings, police training about post-shooting reactions, and post-shooting mental health services.

Where the investigation of officer-involved shootings goes, that officers often experience perceptual distortions during shootings and frequently have imperfect recall of specific events (e.g., how many shots they fired) indicates that those who investigate police shootings need to be aware that officers may not always be able to provide accurate information about what transpired. One implication of this is that investigators should not simply take officers' accounts of what occurred during their shooting as infallible. Rather, they should take officers' accounts as a point of departure for the rest of the inquiry and work back and forth between them and other evidence (e.g., bullet trajectories and the location of shell casings) to develop the most accurate possible picture of what occurred.

A second implication is the flip of the first; investigators should not immediately conclude that officers are being dishonest if they state that they can not recall some aspect of the event or report some information that is not consistent with other evidence. Investigators should realize that officers truly may not be able to recall things or may have sincere beliefs that the inaccurate information they provided is correct. With such understanding in hand, investigators who are faced with problematic statements from officers can then seek to fill in the holes or reconcile conflicting evidence through the investigative process.

Regarding police training, the information that shooting another human being typically did not produce *lasting* disruption in the lives of the officers studied calls into question the appropriateness of some training regarding officer-involved shootings. In recent years it has become vogue in some law enforcement training circles to stress the severe negative reactions that befall some officers who shoot (see, e.g., Adams, McTernan, and Remsberg, 1980). The present study suggests that this emphasis is inappropriate, and may even be counter-productive. It is inappropriate because stressing the severe responses that infrequently occur paints an inaccurate picture of what officers typically experience following shootings. It may be counter-productive because it may be setting officers up to have more severe reactions than they otherwise might when they do become involved in a shooting. Indeed, several of the officers who participated in this study indicated during their interviews that they had wondered if there was something wrong with them because they did not experience the negative post-shooting reactions they were told about in training.

Regarding mental health services, the directed interviews shed substantial light on the finding that mandatory post-shooting counseling sessions did not reduce the degree of negative reactions officers experienced after the first week following their shootings. Many of the officers who attended mandatory counseling reported that they did not view the sessions as a positive experience. Most of the officers who held this opinion viewed the sessions as something their department required only because it was interested in "covering its ass," not because it cared about the officer's well-being. Because they viewed the counseling sessions as a departmental CYA exercise, these officers simply sought to get through the sessions, offering as little

information as possible to the mental health professional (MHP) with whom they met.<sup>5</sup> It is thus possible that the null finding regarding the efficacy of mandatory post-shooting meetings with MPHs is a consequence of the context in which the counseling sessions took place. When officers do not feel comfortable, they are not likely to divulge pertinent information about their shootings and what they experienced afterwards. In turn, when officers are not forthcoming during counseling sessions, it is not surprising that the sessions do not benefit them.<sup>6</sup>

Whatever the reason for the finding that mandatory MHP sessions were not associated with long-term reactions, it is clear from the directed interviews is that there is substantial room for improvement in the delivery of mental health services to officers who become involved in shootings. The major point in this connection is that agencies must develop protocols that instill confidence among officers where post-shooting mental health counseling is concerned. It should be obvious that unless officers believe that counselors they meet with are competent, have the officers' best interest in mind, and are independent from the police department, that those officers who do suffer in the wake of shootings will be quite unlikely to avail themselves of the mental health assistance they need.

To conclude, the information developed during the research described in this summary report sheds substantial light on how officers respond during and after police shootings. By paying heed to this information, law enforcement agencies can improve how they train for these incidents, investigate them, and provide mental health services for officers who pull the trigger.

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<sup>5</sup> Several of the officers who took this approach to required counseling sessions reported to the interviewer that they flat-out lied to the MHP because they did not wish to divulge their thoughts, feelings, and experiences to a stranger who had ties with their department.

<sup>6</sup> It should also be noted here that several officers offered words of praise for the MHP's with whom they met. The sole officer interviewed who was contemplating suicide, for example, gave his counselor high marks for recognizing the source and nature of the problem he was experiencing and for helping him to resolve it.

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