



## **Lowlight and Tactical Training**

# **Study Reveals Important Truths Hidden in the Details of Officer-Involved Shootings**

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Ideas for research projects can germinate from the least likely moments, as when a student asked Firearms Trainer Tom Aveni if he'd ever visited the ACLU's website. He hadn't ("Why would I even want to go there?"), but out of curiosity he did.

There in a section dedicated to "police abuse" he read a statistic he regarded as probably exaggerated: that 25% of all law enforcement shootings involve unarmed suspects. That launched him on a long and continuing quest for more details about officer-involved gunfights that has turned up a series of surprising--and disturbing--findings.

Not only did the ACLU statistic turn out to be not as far off as he imagined but Aveni has made other unexpected discoveries--pertaining especially to hit ratios, low-light shootings, multiple-officer confrontations, mistaken judgment calls and less-lethal technology--that have convinced him police firearms training needs a significant overhaul.

"There's little resemblance between what we train officers for and what they actually encounter on the street," he told Force Science News recently. "There are glaring deficiencies in the way cops are prepared for what turn out to be fairly typical circumstances in gunfights."

Dr. Bill Lewinski, executive director of the Force Science Research Center at Minnesota State University-Mankato, says that by pursuing "important and different kinds of questions," Aveni has produced "valuable new insights into officer-involved shootings." His findings are expected to provide "a cutting-edge demographic foundation" for upcoming research projects at FSRC that hopefully will result in "profound changes in law enforcement training in the future."

An ex-cop with 23 years' training experience, Aveni now heads the Police Policy Studies Council, a research, training and consulting corporation based in Spofford, NH, and is a member of FSRC's National Advisory Board, as well as a busy expert witness in police litigation. Like other trainers, he says, he "made a lot of assumptions that are not true" until his research provided "an epiphany for me" about some of the nuances of police shootings.

He was struck first by how tough it is to find out anything meaningful on the subject from law enforcement agencies. Most don't compile detailed data on their shootings, fearing in some cases (perhaps rightly) that it would be misinterpreted and misused by the media and "agenda activists" if available. Of the few departments that do collect deadly force information, "even fewer freely share it," Aveni claims. If they don't outright suppress it, they tend to present it in bare-bones, "sterilized table formats" that have no standardized consistency and that "make detailed analysis difficult." Aveni observes: "The devil is in the details, and the details of police shootings have always been lost."

After refusals to cooperate by a variety of agencies, he finally was able to secure 350 investigative narratives of officer-involved shootings in Los Angeles County, CA. These concerned incidents experienced primarily by L.A. County Sheriff's deputies, plus cases investigated by LASD for smaller municipal agencies, across a 5-year period.

Aveni spent more than 6 months dissecting that material according to different variables. That information, combined with limited statistics he managed to obtain related to shootings on other major departments, including New York City, Baltimore County (MD), Miami, Portland (OR) and Washington (DC), has allowed him to spotlight a number of deadly force subtleties that have not been so thoroughly examined before.

For example, it has long been believed that officers overall have a dismal 15-25 % hit probability in street encounters, suggesting truly poor performance under the stress of a real shooting situation. Actually, this figure, while essentially true in the aggregate, is markedly skewed by certain shooting variables, Aveni found.

During a 13-year span, the Baltimore County PD, which Aveni regards as one of the best trained in the country, achieved an average hit ratio of 64 per cent in daylight shootings-not ideal, but clearly much better than commonly believed. In shootings that occurred in low-light surroundings, however, average hits dropped to 45 %, a 30% decline. The data from Los Angeles County (LAC) reveals a somewhat comparable 24 % decline.

"Until this research," Aveni says, "performance has never been accurately matched to lighting conditions," even though as many as 77% of police shootings are believed to occur under some degree of diminished lighting. Some departments tally "outdoor" versus "indoor" shootings, but most appear not to precisely differentiate between low-light and ample-light events, despite the preponderance of shootings during nighttime duty tours.

A multiple-officer shooting, in which more than one officer fires during a deadly force engagement, has an even greater influence on hit probability, Aveni discovered.

According to the LA County data, when only one officer fired during an encounter, the average hit ratio was 51 %. When an additional officer got involved in shooting, hits dropped dramatically, to 23 %. With more than 2 officers shooting, the average hit ratio was only 9 %--"a whopping 82 % declination," Aveni points out. Multiple-officer shootings, Aveni told Force Science News, are three times more likely to involve suspects with shoulder weapons than single-officer shootings. This tends to "increase the typical stand-off distance," he says. Many of these confrontations also embody fast-changing, chaotic and complex circumstances. These factors, Aveni believes, help explain the negative impact on accuracy.

Aveni also discovered a correlation between multiple-officer shootings and number of rounds fired. With LA County shootings involving only one officer, an average of 3.59 police rounds were fired. When 2 officers got involved, the average jumped to 4.98 rounds and with 3 officers or more to 6.48. "The number of rounds fired per officer increases in multiple-officer shootings by as much as 45 % over single-officer shootings," Aveni says.

Again, he judges distance to be a likely factor. "A higher volume of fire may be used to compensate for the lower hit ratio as distance increases," he speculates. He believes the highly violent nature these events often present may be influential, too. Anecdotally bunch shootings appear to encompass "many of the barricaded gunman scenarios, drawn-out foot and vehicular pursuits, subjects experiencing violent psychotic episodes, gang attacks and encounters involving heavily armed suspects," such as the infamous FBI Miami shootout and the North Hollywood bank robbery street battle.

"Emotional contagion," where officers fire merely because others are shooting, is almost certainly an element of at least some multiple-officer shootings, Aveni concedes. But the extent of this assumed influence is difficult if not impossible to document. Certainly the claim, sometimes made after high-profile group shootings, "that cops are firing their weapons empty in panic, is not supported by the facts," he stresses.

The shooting of unarmed suspects is another phenomenon on which Aveni's research sheds new light.

The ACLU's statistic that got him started on this project turned out to be based on fatal shootings that occurred before the landmark Supreme Court decision *Tennessee v. Garner*, when nearly half the states still legally permitted the shooting of any fleeing felon, regardless of the threat he or she presented. After the restrictions imposed by *Garner*, "you'd expect fewer unarmed suspects to be shot," Aveni explains.

Not necessarily true, though, Aveni found. In a recent 12-year period, Metro-Dade (Miami) PD reported 34 shootings in which suspects were "clearly unarmed" or in which officers thought they saw a gun but none was found. All told, about a third of all shootings in which suspects were shot and killed by that agency's officers were considered "questionable." In a recent Texas study, 25 % of suspects shot by officers in one metropolitan county were found to be unarmed, 33 % if shots fired at moving vehicles are included. LA County's data put the unarmed target figure at 18 %, well below the ACLU's pre-*Garner* assertion.

Higher or lower, many of these shootings are "mistake-of-fact" situations, Aveni says. Usually a suspect is displaying an item that is falsely but reasonably perceived to be a deadly weapon (a cell phone, for example), or the suspect is behaving in such a way that in context is believed to constitute an immediate lethal threat (making a fast, furtive movement toward the waistband, for instance).

A "significant number" of "mistake-of-fact" shootings involve "other misleading threat cues," such as one or more officers seeing a fellow officer stumble and fall and wrongly believing he is under attack. "When an officer's fall involves a unintentional discharge of his firearm," Aveni says, "it can set off a powerful chain of events."

Aveni points out that 51 % of the time furtive movement was involved in the "mistake-of-fact" shootings. As many as 75 % of the "mistake-of-fact" shootings he examined occurred at a time of day that "we'd generally associate with reduced light conditions." (Yet in only one report was there any indication that officers used flashlights to better identify possible threats!)

"I've joked for a long time that given low light and the right contextual cues, I could get Mother Teresa to shoot the Pope," Aveni says. "Cops never think they'd shoot an unarmed person inappropriately. But on the street when they have to make split-second decisions, it can happen easier than they think."

Finally, the number of shootings that followed unsuccessful attempts to use less-lethal alternatives surprised Aveni. In 12 % of the LA County incidents, control of suspects was first tried with beanbag munitions, OC spray, Tasers or some combination thereof.

In some cases, officers were injured because deadly force could not be delivered fast enough when less-lethal options failed. He fears that officers may be placing too much faith in the success of less-lethal technology and not having a deadly force alternative ready as a failsafe.

In other cases, deployment or threatened deployment of less-lethal devices seemed to "actually provoke subjects to do something aggressive. They decided to attack rather than wait for these devices to be used against them," Aveni says. Because definitive information is skimpy, he believes further investigation is needed, with an eye to refining tactical strategies.

What's most important about his research, Aveni feels, is the wake-up call it embodies for American law enforcement training. He explains:

"Good risk management would suggest that resources should be allocated to problems that are seen frequently and to infrequent problems that are very severe when they do arise. We don't allocate resources that way in firearms training. In fact, training by and large has been part of the problem, not part of the solution."

Use of deadly force is infrequent in the full sphere of police performance, yet its consequences in terms of life and lawsuits are severe. Within the realm of police shootings, Aveni's findings identify commonalities that do arise frequently, such as confrontations in low-light settings, mistakes of fact and judgment and the phenomenon of multiple officers shooting. Yet for the most part "we have neglected these issues or have only paid lip service to them in training," he charges.

"We are forced to try to accomplish too much in too little training time. Because of limited range time, firearms instructors are forced to heavily emphasize a lot of shooting in order to build that important proficiency. This results in a disproportionate amount of time spent with scenarios in which officers need to pull the trigger. This, in turn, creates an emphasis on a 'muzzle-heavy' approach and the over-emphasis on the handgun as a problem-solving tool.

"On the street, this contributes to the problem of officers putting themselves in untenable situations tactically and then feeling compelled in often unclear circumstances to shoot." He cites a case from the Midwest in which an officer pursuing a suspect with minor outstanding warrants followed him into a dark alley. The officer did not wait for backup and did not make use of his flashlight. As he doggedly ran after the suspect, the pursued man suddenly turned toward him. The officer shot and killed him. The suspect was unarmed.

"This is the kind of behavior we see in a lot of shootings," Aveni says. "An officer is so focused on apprehension that he runs into a tactically untenable situation, oblivious to the risk or subconsciously willing to subjugate his personal safety to the goal of apprehension." He likens this to the "prey drive" sometimes seen in dogs, where the master throws a stick into the middle of a busy highway and the tunnel-visioned dog chases it, unconcerned about the dangers involved.

Aveni draws another dog analogy--"fear biting"--which he feels results from the heavy use of fear as a motivational tool in training cops. "On the street, officers often exhibit 'fear biting' after drawing their handguns and then engaging in inherently unsafe firearms handling, like putting their finger on the trigger for emotional comfort. I think this is a downside of using disproportionate lethal force scenarios in training."

Another example of fear interfering with good tactics and promoting questionable shootings is the prevalent reluctance to use a flashlight in dim light environments. "If we now have confirmed that as many as 18 to 33% of police shootings are in the mistake-of-fact genre and that as many as 75 % of those occur in low light, we should be conditioning officers to deploy their flashlights when walking into potentially threatening situations where they can't clearly see what's unfolding.

"There's concern about a flashlight becoming a 'bullet magnet'-and it might, if used improperly. But in all my years of research I have never been able to document a single case of an officer being shot because he was using his flashlight. I've found no statistical evidence whatever of this much-feared consequence ever happening."

Some of the problems highlighted by Aveni's research Lewinski plans to address in FSRC experiments now in development. "We have a major project awaiting funding on the influence of contextual cues on decision-making," he says. "Another is underway regarding hit probability.

"Tom Aveni's research lays out an ambitious playing field for us and will help greatly in designing some of our research and, ultimately, in developing better training methodologies for the future."

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