

## Active Shooter Events in the Workplace

Using the active shooter events published by Blair and Schweit (2014) a descriptive analysis was presented for events carried out in business locations. This analysis went beyond the previously mentioned article by including a greater number of workplace locations such as hospitals and government buildings. Additionally, any cases that might have been missed in the first study were included. This resulted in a total of 83 active shooter events in business locations from 2000-2013. The business locations were broken into three major categories including factory/warehouse locations, offices, and retail locations. Using a number of sources, sixteen variables were coded for each case.

Of the 83 events examined factory/warehouse locations accounted for 27% of cases ( $n = 22$ ), offices were 30% of cases ( $n = 25$ ), and retail locations made up the largest percentage at 43% ( $n = 36$ ). When looking at the number of cases per year there would seem to be a steady increase. However, once a power function is applied to these data it appears the number of cases per year is plateauing. That being said, there were an average of 10.2 active shooter events in the last 5 years of the study. Due to the nature of the attack locations, most attacks occurred during business hours. That being said, there were certain retail and factory/warehouse locations that were open 24/7 meaning that there were some attacks at night.

There were a total of 488 people shot in business active shooter events from 2000-2013. The lowest number of people shot in an event was 0 while the highest was 70 at the Aurora Colorado movie theater shooting. The mean number of people shot in business locations was 5.88 and the median was 4. Of the 488 people shot, 216 people were killed. The mean number of people killed in the business cases was 2.6 while the median was 2. Using the federal statute defining mass murder as three or more people killed, 40% ( $n = 33$ ) of these events would qualify as mass murders. Retail locations had the highest number shot ( $n = 241$ ) and killed ( $n = 92$ ) followed by factory/warehouse (shot = 130, killed = 65) and finally offices (shot = 117, killed = 59).

A majority of the shooters were Caucasian ( $n = 43$ ) followed by African American ( $n = 19$ ), Hispanic ( $n = 19$ ), and unknowns ( $n = 2$ ). The age of the shooter ranged from 18 to 88 and had a median of 41. Shooters were primarily male ( $n = 80$ ) and used pistols as their most powerful weapons (55%). Only one weapon was used in a majority of cases (65%). In a majority of cases ( $n = 46$ ) the shooter had some type of relationship with the locations (e.g., currently employee, former employee, or a secondary relationship). This was primarily seen in factory/warehouse cases where 95% of the shooters had a relationship with the business. There were less shooters connected to office locations (60%) and even fewer at retail locations (24%). These data are to be expected when the type of location is considered. Retail locations are open to the general public while factories/warehouses are generally not open to the public. Office locations tend to fall in between factory/warehouse and retail locations when it comes to public access.

A majority of the active shooter events ( $n = 46$ ; 55%) ended before police arrived. However, these events account for only 37% ( $n = 180$ ) of victims shot and 44% ( $n = 95$ ) of victims killed. A majority of people both shot and killed were found in cases that ended after the police arrived. Forty-five percent ( $n = 37$ ) of cases ended after law enforcement arrived on scene.

The events ending after law enforcement arrived account for 63% (n = 308) of victims shot and 56% (n = 121) of victims killed. Forty-four percent (n = 95) of people killed came from events that ended before police arrived while 56% (n = 121) of people killed were in events that ended after police arrived. These data suggest that the speed with which events are resolved has an impact on the number of victims.

There are three major implications of this study. The first is that business locations should perform threat assessments. Threat assessment is a systematic strategy used to detect, assess, and manage threats and potentially violent behavior. As previously mentioned, a majority of shooter have some type of relationship to the location being attacked. The process of threat assessment may impact the more common physically and psychologically aggressive behaviors experienced by employees as well as potential active shooter events. Second, training employees to respond effectively can greatly increase the survivability of an active shooter event. Businesses should be proactive in training their employees to respond to an active threat. Individual businesses may have policies in place regarding evacuation procedures in the case of an emergency; however, evacuation practice alone will not be sufficient in a dynamic situation. Finally, physical security measures can be put in place or upgraded to provide target hardening for the location. Such security measures could include interior and exterior locks as well as providing credentials and checkpoints for employees.