



## **Assessing the Tactics, Techniques, and Procedures and Weaponry in Assailants Attacking Schools, Colleges, and Universities**

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Since 1966, generally considered the beginning of the modern era of Active Shooter events, there have been numerous attacks against schools, colleges, and universities around the world and in the United States, in particular. This assessment focuses on attacks against such educational institutions in the United States by various types of assailants, who use a range of tactics, techniques, and procedures (TTPs), as well as weaponry, to conduct their attacks. The spotlight begins by defining the types of targets that are considered “educational institutions,” recording significant incidents that have occurred since 1966, and assessing the types of TTPs and weaponry that characterize such attacks.

**Defining Attacks at Educational Institutions.** In this assessment, the term “school” is used generically to refer to educational institutions ranging from kindergartens, elementary, junior high, and high schools, two- and four-year colleges, and universities (i.e., offering post-graduate degrees). To be considered a “school attacker” one does not have to necessarily be a student (current or former, though both are common) at the educational institution, but rather seek to intentionally target students, faculty, and/or staff for the attack. This differentiates such attackers from a student committing suicide in a school while not harming others or a fight between two or more students that ends in one of them firing a gun without intending to kill others in a random fashion. Moreover, a shooting that occurs on the grounds of an educational institution involving non-students is also not considered a school shooting. Finally, a shooting that occurs at a distance from a school, but not on campus, which may require a school lockdown, is also not considered a school shooting.

**Significant Incidents.** A range of TTPs and weapons have been employed by school attackers in the United States since 1996, as demonstrated by the selected incidents listed below.

- August 01, 1966: Charles Whitman, age 25, a student at the University of Texas, Austin, ascended to the university library tower’s 30<sup>th</sup> floor observation deck and used several firearms to fire at the people below, killing 14 and wounded 31 others. His weapons included a Remington 700 ADL (6mm), Universal M1 carbine, Remington Model 141 (.35-caliber), Sears model 60 Semi-automatic shotgun (12 gauge), W&W Model 19 (.357 Magnum), a Luger P08 (9mm), a Galesi-Brescia (.25 ACP), and a knife.
- April 20, 1999: Eric Harris, age 18, and Dylan Klebold, age 17, carried out a shooting rampage at Columbine High School in Littleton, Colorado killing 13 people and wounding 21 others (with three other people injured in other ways). At the conclusion of their rampage, the two attackers committed suicide. Prior to their attack, they placed a small fire bomb in a field about three miles south of the high school, which was intended as a diversion to draw firefighters and other emergency personnel away from the school. They also placed bombs in their cars, which were set to detonate at around the start of their shooting rampage, though these devices failed

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to explode. Their firearms consisted of a Savage-Springfield 67H pump-action shotgun, a Hi-Point 995 Carbine, a 9x19mm Intratec TEC-DC9 semi-automatic handgun, a Stevens 311D double barreled sawed-off shotgun, 99 explosives, and four knives.

- March 05, 2001: Charles Andrew "Andy" Williams, age 15, a student at Santa High School in Santee, California used a revolver to kill two students and wound 13 others. His weapon was an Arminius revolver, .22 caliber. He was arrested and subsequently imprisoned.
- September 24, 2003: John Jason McLaughlin, age 15, a freshman at Rocori High School in Cold Spring, Minnesota shot and killed two students. His weapon was a .22 caliber pistol.
- March 21, 2005: Jeffrey Weise, age 16, a student at Red Lake Senior High School in Red Lake, Minnesota killed seven people and wounded five others. Prior to the school attack, he killed his grandfather and his grandfather's girlfriend. He died in a shootout with the responding police. His weapons consisted of a .40 caliber Glock 23 semi-automatic pistol, a Ruger MK II .22 caliber semi-automatic pistol, and a Remington 870 12-gauge shotgun.
- March 04, 2006: Mohammed Reza Taheriazar, age 22, rammed a rented silver Jeep Grand Cherokee through the center of the University of North Carolina's main campus, wounding five students and a visiting lecturer, who required hospitalization, while lightly injuring three others. Taheriazar, a recent graduate, was arrested. He stated that his goals were to inflict maximum damage to the students of UNC to avenge what he perceived to be the mistreatment of Muslims around the world.
- October 02, 2006: Charles Carl Roberts IV, age 32, entered the Amish schoolhouse in Lancaster, Pennsylvania and took hostages, shooting eight out of the 10 girls, five of whom were killed. He then committed suicide. His weapons included a Springfield XD semi-automatic pistol, 9 mm caliber; Browning BPS pump-action shotgun, 12 gauge; and a Ruger M77 bolt-action rifle, .30-06 caliber.
- April 16, 2007: Seung-Hui Cho, age 23, a student at Virginia Tech in Blacksburg, Virginia carried out a shooting rampage at the university, killing 32 and wounding 17 others. An additional six people were injured jumping from windows to escape. As police succeeded (though with notable difficulty) in breaching the chain-locked door of the classroom where the shootings took place, Cho shot himself to death. His weapons included a Walther P22 and Glock 19 semi-automatic handguns.
- August 04, 2007: A freshmen, Loyer D. Braden, age 18, carried out a shooting rampage at Delaware State University in Dover, Delaware killing two students, with a third wounded

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student later dying from her critical injuries. The shooter was arrested three days after the shooting. His weapon was undetermined.

- February 08, 2008: A 23-year-old woman shot and killed two other female students at Louisiana Technical College in Baton Rouge, Louisiana and then killed herself. Her weapon was a .357 caliber revolver.
- February 14, 2008: A graduate student, Steven Kazmierczak, age 27, opened fire with a shotgun and three pistols at a crowd of students at Northern Illinois University in DeKalb, Illinois killing five and wounding 17 others. Four people were injured in the melee. He then fatally shot himself. His weapons included a 9x19mm Glock 19 semi-automatic pistol, a 12 gauge Remington Sportsman 48 shotgun, a .380 ACP Sig Sauer P232 semi-automatic pistol, and a .380 ACP Hi-Point CF-380 semi-automatic pistol.
- February 12, 2010: Amy Bishop, age 44, a faculty member, opened fire at her colleagues at a faculty meeting at the University of Alabama in Huntsville, Alabama, killing three and wounding three others. She was arrested and subsequently imprisoned. Her weapon was a 9 mm handgun.
- January 05, 2011: Robert Butler Jr., a high school senior, shot and killed two officials at Millard South High School in Omaha, Nebraska. Two other school officials were wounded. At the conclusion of his rampage, Butler killed himself. His weapon was a .40 caliber Glock pistol.
- April 02, 2012: One L. Goh, age 43, a former student, carried out a shooting rampage at Oikos University in Oakland, California killing seven and wounding three others. He was arrested following his incident. His weapon was a .45 caliber handgun.
- December 14, 2012: Adam Lanza, age 20, conducted a shooting rampage at the Sandy Hook Elementary School in Newtown, Connecticut, killing 26 (20 students and 6 staff members). He then fatally shot himself. Earlier he shot and killed his mother at their Newtown home. He brought three weapons into the school: a .223 caliber Bushmaster Model XM15 semi-automatic rifle, and two handguns: a Glock 10 mm and a Sig Sauer 9 mm.
- October 01, 2015: Chris Harper-Mercer, age 26, carried out a shooting rampage in a classroom at the Umpqua Community College campus, near Roseburg, Oregon killing eight students and a professor. Eight others were wounded. Following a shootout with the responding police, the attacker fatally shot himself. His weapons included a Smith & Wesson M99 (.40 caliber), a Smith & Wesson M642-2 (.38 caliber), a Taurus PT24/7 (.40 caliber), a Hi-Point cf-380 (.380 caliber), and a Glock 19 (9mm) handgun. A Del-Ton DTI-15 5.56x45mm semi-automatic rifle was not used in the attack.

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- November 28, 2016: Abdul Razak Ali Artan, age 18, used his vehicle to ram into a crowd of people at Ohio State University where he was a freshman student. Eleven people were wounded by the car ramming. The attacker then got out of his car and proceeded to use a butcher knife to stab additional victims, wounding two people. He was shot and killed by a responding university police officer.
- May 01, 2017: Kendrex J. White, age 21, a student at the University of Texas in Austin, Texas, used a hunting knife to stab and kill a person and wound three others. The knife resembled a “Bowie-style” hunting knife. The student was arrested.
- February 14, 2018: Nikolas Cruz, age 19, a formerly suspended student, carried out a shooting rampage at Marjory Stoneman Douglas High School, in Parkland, Florida killing 17 people and wounding 17 others. At the initiation of his attack, he activated a fire alarm (likely in order to cause students and staff to enter the hallways thereby becoming easier targets in congested spaces) and began firing at students and teachers. After escaping from the building, he was arrested by a police officer in Coral Springs, some two miles from the school. His weapon consisted of an AR-15 style semi- automatic rifle (Smith & Wesson M&P15).
- March 05, 2018: A male student at Pine View High School in St. George, Utah was arrested for placing a homemade explosive device in a backpack at the school, forcing the school’s evacuation. The device, which was “smoking and sizzling,” was disarmed. A search of the suspect’s home revealed items consistent with materials used to build the explosive device. Police also revealed that the suspect had been researching information and expressing interest in the terrorist group ISIS.

**Assessment.** As demonstrated by these selected incidents, TTPs and weapons used by school attackers have ranged widely. Interestingly, the use, or planned use, of explosives has proven a rare component of these attacks. Of these, the most notable may be the combination of firearms and IEDs used at Columbine High School in April 1999. The majority of school attacks during this half-century-long period have involved a firearm (or several types of firearms), whether a shotgun or a semi-automatic rifle, which are likely to remain the “weapon of choice” for rampage school attackers.

In the case of the AR-15-style semi-automatic assault rifle, in particular, it is designed to fire bullets rapidly with magazines containing fresh ammunition swapped out in a matter of seconds. It is, therefore, potentially far more devastating than the rounds fired from small-caliber handguns. At school shootings, AR-style semiautomatic rifles have been used in mass casualty attacks at the University of Texas, in Austin (August 1966), the Amish Schoolhouse in Lancaster, Pennsylvania (October 2006), Sandy Hook Elementary School (December 2012), and Marjory Stoneman Douglas High School (February 2018). In a departure from this pattern, the shooter at Umpqua Community College (October 2015) had a semi-automatic rifle in his possession but decided not to employ it.

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In another type of tactic that attackers exploit to cause initial confusion and panic, in one incident (Parkland, Florida February 2017), the perpetrator activated a fire alarm to set off a stampede of students out of their classrooms, thereby making them easy targets for a shooting rampage. In situations where it is difficult for the attacker to acquire a firearm, such as restrictions over their background checks, other types of weapons will be used. These include weaponizing vehicles to ram into crowds of people at the University of North Carolina (March 2006), and Ohio State University (November 2016), with the tactic of emerging from the vehicle brandishing a knife to attempt to inflict additional casualties used in the Ohio State University attack.

In conclusion, the casualty total of mass killers, whether at schools or at other types of targets, is influenced by their choice of weapons, their training in the use of such weapons, and their target (whether it is heavily concentrated or dispersed with people), and the rate at which responding law enforcement is able to intervene to neutralize the attacker. Based on the significant incidents discussed in this spotlight, a firearm, whether as a shotgun or a semi-automatic rifle, is likely to remain a "weapon-of-choice" for school attackers. Although detonating an IED, especially in parallel with or prior to the initiation of a shooting attack, would have devastating consequences in causing many additional casualties and physical damage, the tactical sophistication required to mount such a complex attack likely limits its attractiveness to such potential attackers. The simpler tactic of vehicular ramming is likely to persist as choice for attackers without means to acquire firearms. Finally, any tactical and weaponry means chosen to attack crowds at schools warrant heightened vigilance by those tasked with preventing such attacks at the earliest possible pre-incident phases.

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