

2025 EDITION



Detection is Protection

Research Report



Table of Contents



02 / Introduction

03 / Schools

09 / Third-Party Logistics Facilities

13 / Casinos

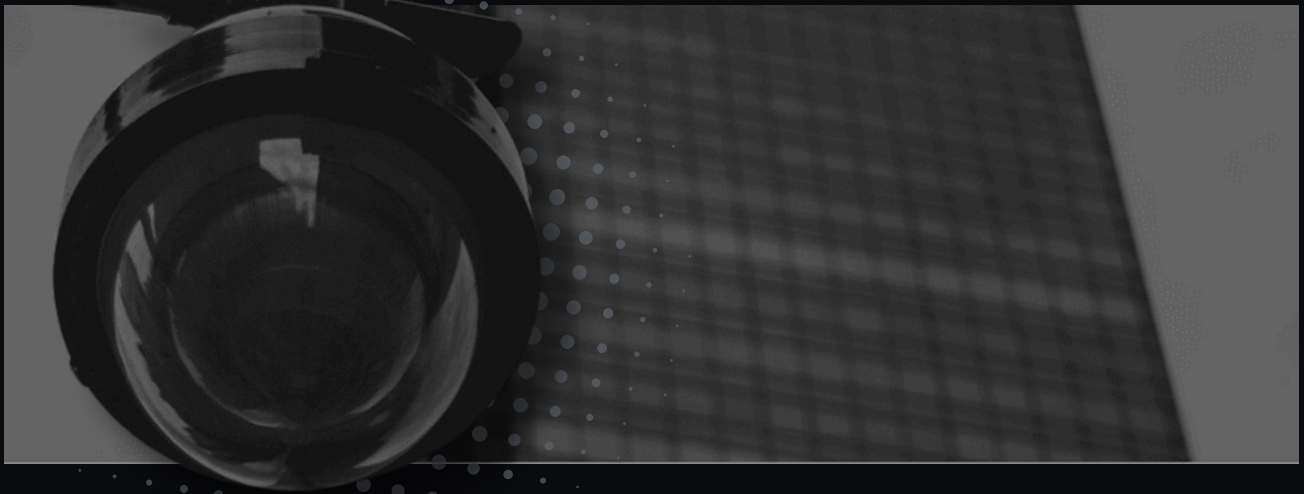
16 / Healthcare

20 / Security Considerations Across Industries

23 / Conclusion



Intro →



In an active shooter situation, critical seconds count. These seconds can mean the difference between locking a door before an attacker can get inside, police engaging a shooter before reaching victims, or providing life-saving treatment.

WHAT DOES "DETECTION IS PROTECTION" MEAN?

Protection via proactive detection means more than an alerting system. It means better situational awareness that a school, business, hospital, warehouse, shopping center, or any public place can use to keep people as safe as possible—all while maintaining critical operations, preserving property, and avoiding additional risks.

>>> DETECTION IS PROTECTION MEANS:

1. Knowing where a person brandishing a gun is on your property
2. Alerting first responders and authorities within seconds
3. Using that intelligence to help people on the property and in the area

Gun-Related Violence in Schools

There are approximately 60 million students who attend 130,000 public and private K-12 schools in the country. On top of that, another 18 million students attend more than 4,000 public and private colleges and universities.

Unique Considerations

When a parent puts their child on a school bus or drops them off at the front door, the school is legally responsible for that child's well-being until the end of the school day.

There are very few places where a government entity is solely responsible for the safety of children. If a mass shooting occurs at the school, it is the school's moral and legal responsibility to keep kids safe during the attack.

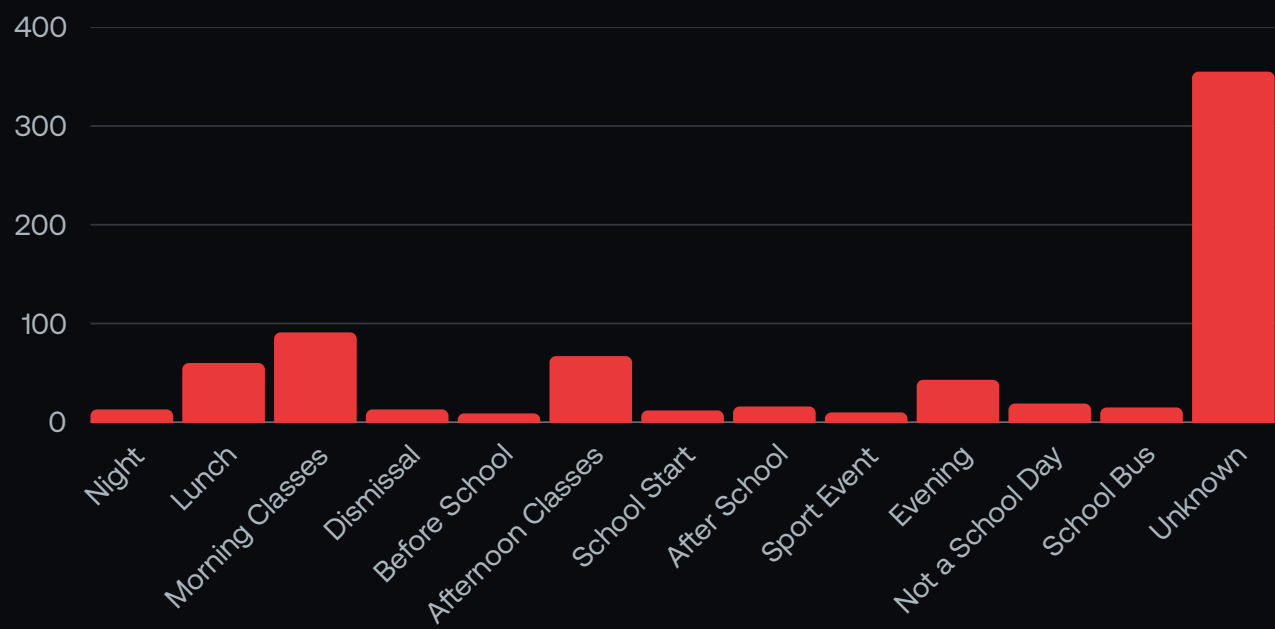


K-12 INCIDENT HIGHLIGHT

Lamar High School, Arlington, TX

At 6:55 a.m. on March 20, 2023, a 15-year-old student shot two classmates (one fatally) near the doors to Lamar High in Arlington, TX. The shooting was recorded on the school's security camera system, *but no one was actively monitoring it*. Many school security plans overlook that most shootings happen outside school buildings on campus—and they occur before or after the school day.

Shooting Time Periods (2023-2024)



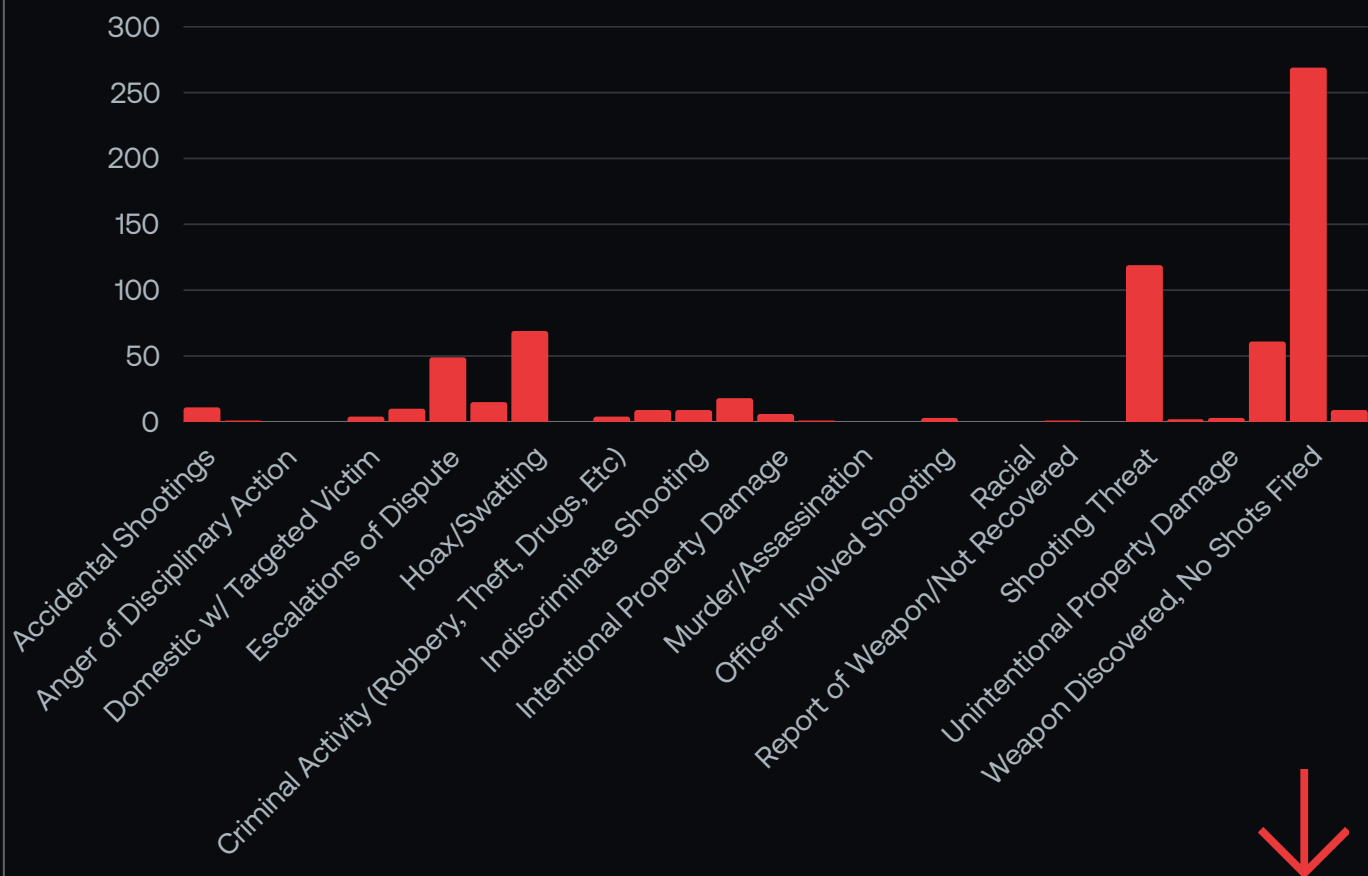
The SRO's shift did not start until 7 a.m., causing a delay in the response. Without staff in their offices, the school went on lockdown but an alert was not sent until 7:30 a.m. Meanwhile, for 35 minutes following the beginning of the fatal shooting, buses and parents continued to drop children off at the school.

Despite having a backpack full of ammunition, the shooter fled the campus rather than waiting to ambush other students as they arrived. This was the shooter's decision without any intervention or contact with law enforcement. School security should not depend on luck or a shooter's decision-making process.

Key Takeaway

Media reports of school shootings often feature footage of suspects walking past several high-resolution cameras outside the campuses—sometimes, the shootings occur outside; other times, they move inside the school. Even if schools are closed, situational awareness tools like ZeroEyes—which operate 24/7/365—immediately detect visible firearms and send emergency alerts to school teams and local law enforcement to help save time and save lives.

Shooting Situations (2023-2024)



HIGHER EDUCATION INCIDENT

Michigan State University

On Monday, February 13, 2023, at 8:18 p.m., an adult male holding a 9mm handgun and toting a backpack filled with 10 loaded magazines walked through a rear service area door into Berkey Hall on Michigan State University's main campus...

He fired 14 shots inside the building, killing two students and wounding five others.

Five minutes later, he headed to the student union and fired three shots, claiming the life of a third student.

About two minutes later, the shooter walked off campus—without encountering any campus security or law enforcement teams.



Camera footage of the shooter walking through MSU campus with a gun visibly exposed

At 8:31 pm, several minutes after the shooter left campus, students received the first emergency alert, advising them to "run, hide, fight." Delays in the approval process for sending alerts resulted in a significant lapse in warning students. Subsequent alerts provided conflicting instructions, urging students to both "run" and "shelter in place," while also disseminating inaccurate descriptions of the shooter.

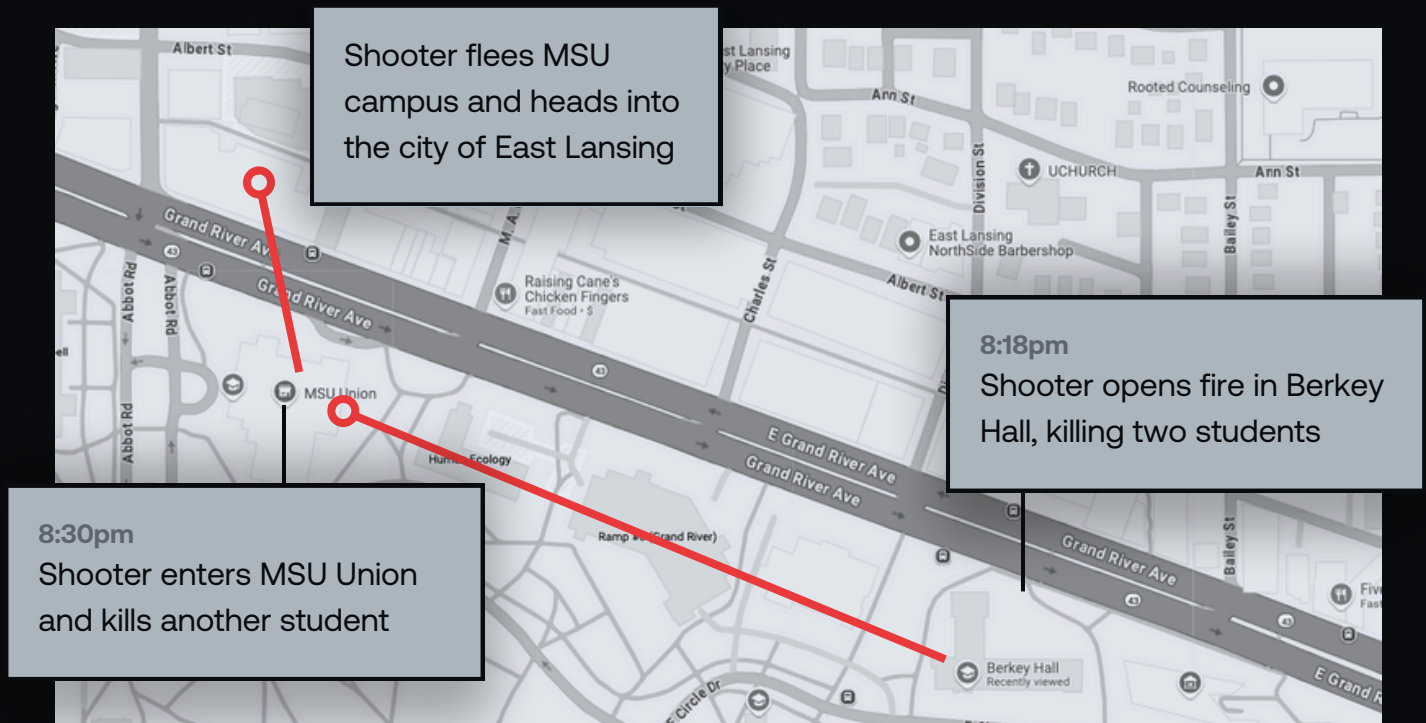
The shooter's body was found five miles away (suicide) at 11:35 pm.

During the five-hour period after the first shots were fired, police responded to more than 2,100 emergency calls with different descriptions and locations of the shooter in dozens of campus buildings while students barricaded in bathrooms, closets, and dorm rooms.

Key Takeaways

When campus alerts are immediately issued based on proactive gun detection alerts:

- ✓ Students potentially have time to block doors or evacuate buildings before shooters enter their classrooms.
- ✓ Students outside would know to stay away from incident hotspots (where shooters are located).
- ✓ Other campus buildings can be secured, preventing shooters from entering other locations.
- ✓ Instant alerts with accurate shooter images can help cut through the confusion caused by thousands of 911 calls with differing perpetrator descriptions.
- ✓ Police can immediately know the suspect's location—or whether there are multiple suspects in different areas.
- ✓ Students in hundreds of unaffected campus buildings potentially wouldn't need to use such extreme barricade methods like hiding in closets and bathrooms—simply locking exterior doors could be enough.



K-12 INCIDENT HIGHLIGHT

Franklin High School, Rochester, NY

Just before classes started in January 2023, a 16-year-old student was approached by a teen in a [ski mask with a handgun on the campus](#) of Franklin High in Rochester, NY. The gunman fired more than a dozen shots as he chased the student toward the school.

This was one of 15 shootings during the 2022-23 school year that happened before classes started. Campus security at the front door heard the shots and put the school on lockdown, which included locking the front doors. The gunman chased the teen all the way to the front steps of the school where he ran into two female students who were trapped outside by the locked doors.

The gunman approached the three students and fired a point-blank shot that just missed the 16-year-old boy's head. The shooter aimed and pulled the trigger again, but the gun was out of ammo and he fled from the scene. After the shooter fled, a room-by-room search of the campus was unnecessary.



Publicly-released security camera footage of the shooting

Key Takeaway

Without a visual gun detection system, campus security had no idea where the shooter was and was unaware that students were trapped outside as the attacker pursued them.

Having real-time information can help responding officers and campus officials quickly pinpoint where students are in danger—and more swiftly decide which actions to take.

Gun-related Violence at Third-Party Logistics Facilities

Third-party logistics (3PL) is a service that receives bulk shipments, manages warehouse inventory, and packs orders to ship to individual customers. Thousands of workers usually staff shifts to provide 24/7 services. In addition to workers coming in and out on shifts, thousands of trucks and delivery vehicles access the facility every day.

Unique Considerations

Third-party warehouses and distribution centers are part of an extremely complex, efficiency-driven infrastructure that is critical to delivering goods. Due to the tightly-coupled design of these logistics networks, an interruption at one 3PL facility can have cascading impacts across an entire city, region, or even the whole country.

A mass shooting and the subsequent investigation of a crime scene can shut down a business for days. That length of closure at a 3PL facility can cause millions, or even billions, of dollars in losses.

With thousands of workers on site, escalation of disputes and domestic violence with targeted victims are common motivators of shootings. After these isolated shootings, perpetrators usually flee rather than firing at random employees.

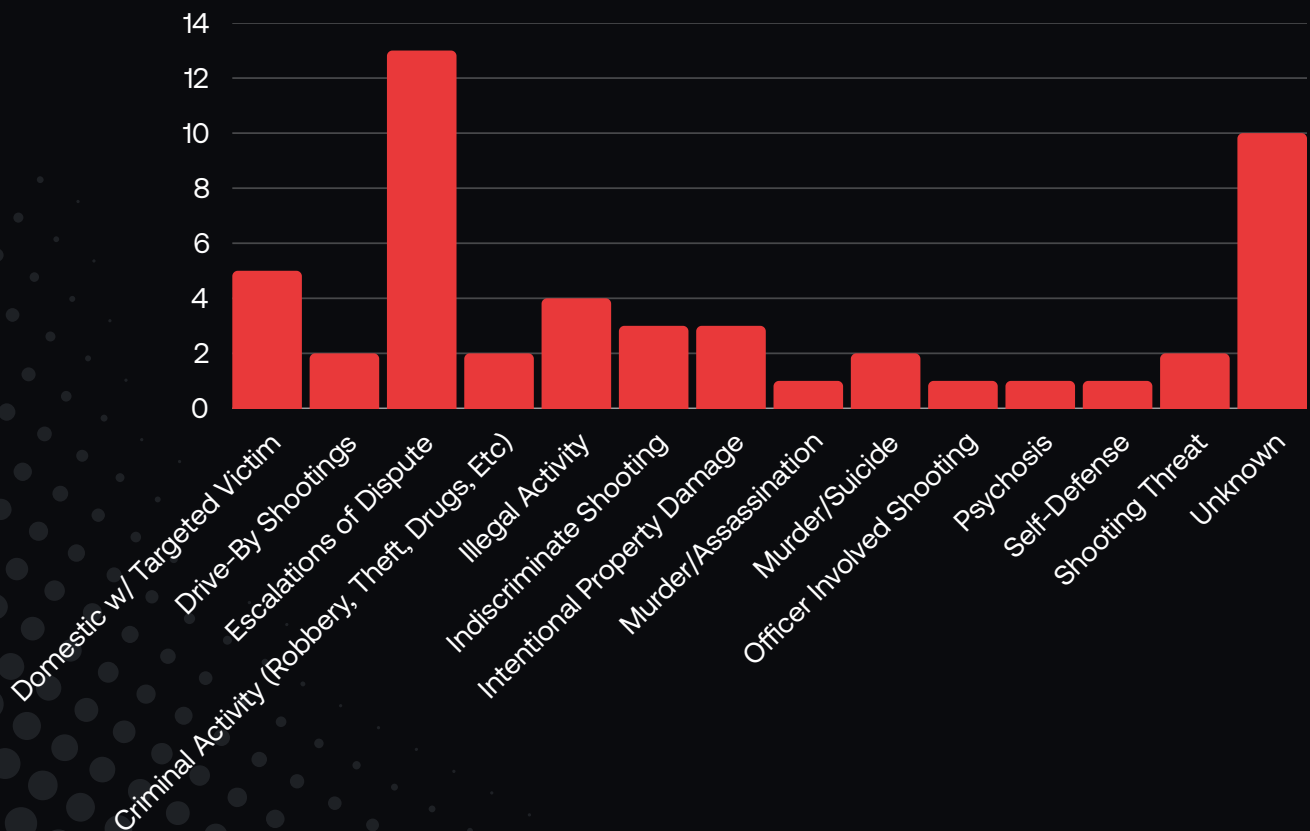


What the Data Says

In a sample of 100 shootings at 3PL facilities between 2012 and 2023, it was found that only 8% of shootings were indiscriminate attacks where the shooter targeted as many victims as possible.

Having a visual gun detection system that quickly identifies if shooters flee can allow the rest of the facility to keep operating.

3pl Shootings: Situation (2024)



Incident Highlight: Indianapolis FedEx Shooting

On April 15, 2021, a 19-year-old former employee arrived at shift change knowing that workers would be in the parking lot and outside the building before going through metal detectors at a screening checkpoint.

The 3PL facility had perimeter fencing, CCTV, and security, but this former employee was an insider threat who knew the most vulnerable time to attack. He used a semi-automatic rifle to kill eight employees and wound seven others before turning the gun on himself less than four minutes after the first shot was fired.



Key Takeaway

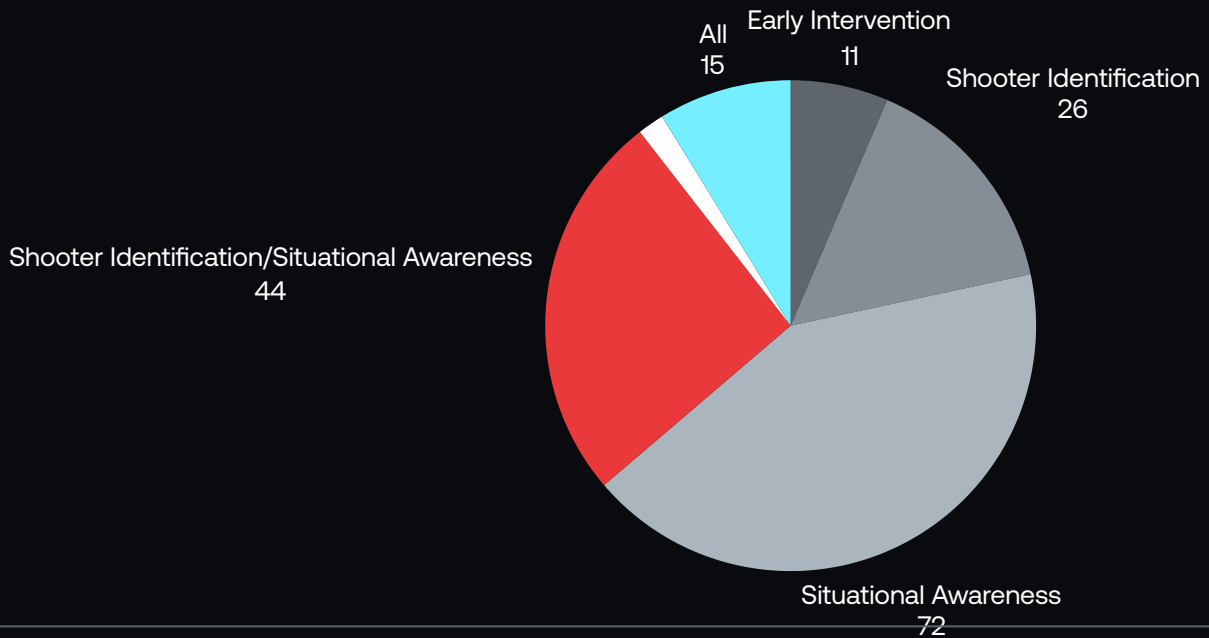
When a shooter is carrying a rifle and walking across a parking lot, there is an opportunity for security camera systems with visual gun detection software to identify the shooter within seconds. Early detection provides an opportunity for on-site security to make sure that employees are directed to a safe space, relative to the shooter's real-time location.



Early detection paired with situational awareness informs the best actions to get employees to the safest place possible.

3PL Shootings: Impact of ZeroEyes

We tracked 100 mass shootings that occurred at 3PL facilities based in the U.S. between 2012 and 2023. Based on each situation and timeline, we tracked how visual gun detection could have had the greatest impact in improving response and/or mitigating the shooting.



- ➔ **Situational Awareness**
Visual gun detection could have provided real-time, human-verified situational awareness to cut through the chaos and panic. These were incidents where there was minimal to no information about the shooter and uncertainty about the threat.
- ➔ **Shooter Identification**
Visual gun detection could have provided information about the shooter's gun(s) and whether they were still on the organization's grounds. These were incidents where the shooter shot a victim outside of a building and ran away immediately.
- ➔ **Early Intervention**
Security cameras with AI-powered gun detection software like ZeroEyes can immediately detect visible firearms, verify the detection via human analysts (all military and law enforcement veterans), and dispatch alerts in as fast as 3–5 seconds. This rapid intervention has the potential to change outcomes in dangerous situations

Gun-related Violence at Casinos



Security needs to easily monitor safety threats without inconveniencing patrons with invasive lines and screenings. If someone has a weapon, detecting the gun immediately is critical to not only save lives, but to also allow operations to continue with minimal interruption.

Unique Considerations

Unlike most restaurants and retailers who want to make a sale and then move to the next customer, casinos want patrons to stay as long as possible. If patrons stay for long periods of time, spend money, and keep coming back, casinos will invest resources in making customers comfortable.

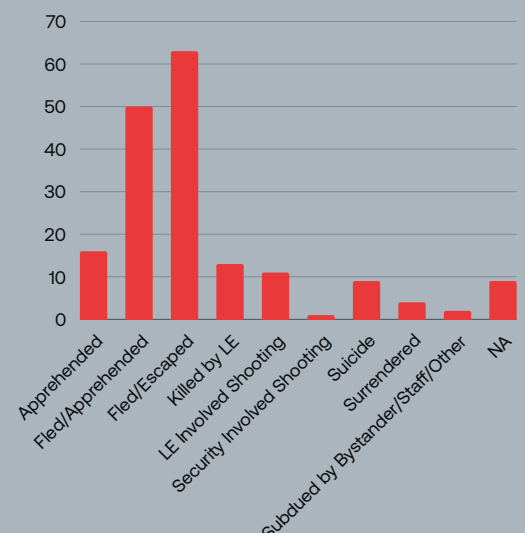
A casino's profit depends on keeping customers engaged and playing games. If a mass shooting occurs, customers stop playing, the casino is likely to close for hours or days during the investigation, and the high rollers they've invested time and money into developing relationships with may never return.

What the Data Says

If security staff do not immediately know the location of the shooter when shots are fired on a casino property, police may arrive and shut down the entire facility for hours. Based on a sample of 100 shootings at casinos between 2017 and 2023, 40% of the time the shooter was able to escape.

This means security didn't immediately know the identity of the shooter and where the incident took place. It also means that responding officers didn't know who they were looking for and this gave the perpetrator time to evade arrest.

Fate of the Shooter

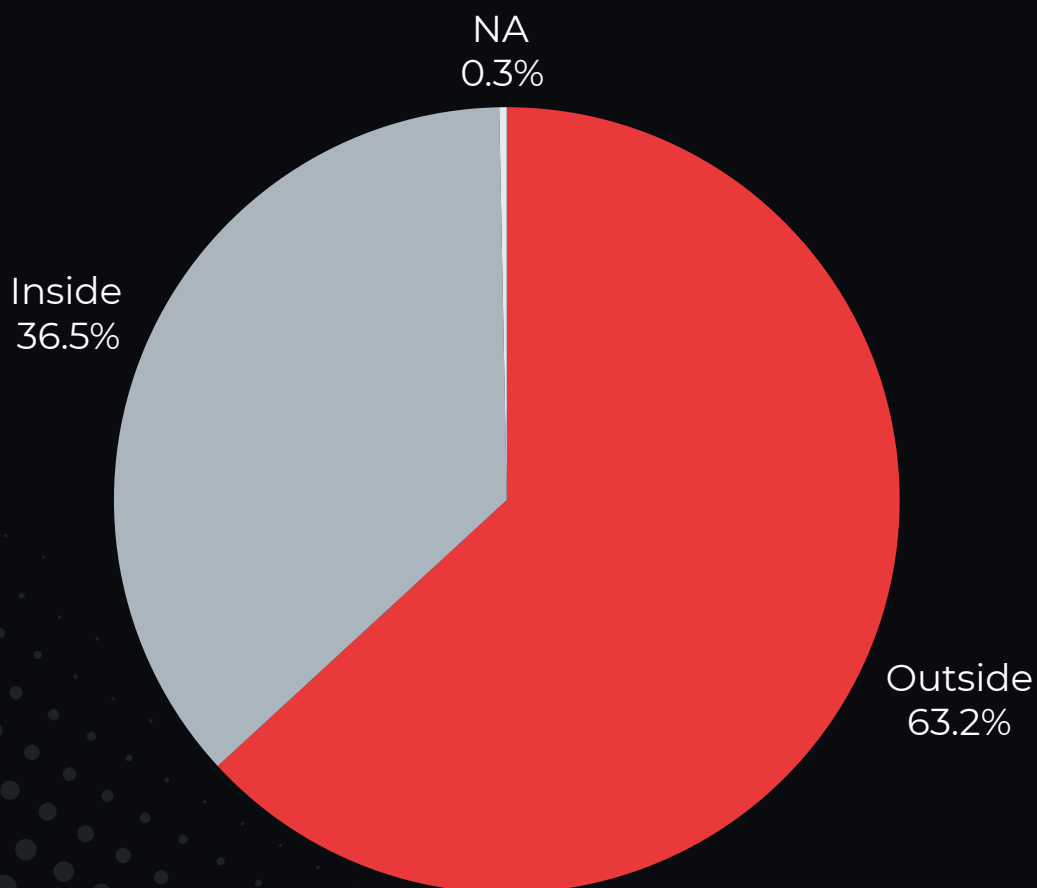


Based on over 170 gun related incidents at Casino's since 2017.

While a common misconception is that most shootings happen indoors, *less than half of shootings at casinos happened inside the building.*

This means that if a gun is detected by security cameras in the parking lot or perimeter of the building, the doors can be locked and business can safely continue inside the casino while security and police work to apprehend the assailant.

Casino Shooting Locations



Based on a sample of 100 mass shooting incidents at casinos in the U.S. between 2017 and 2023.

INCIDENT HIGHLIGHT

Oneida Casino

On May 1, 2021, a 61-year-old former restaurant worker walked into the kitchen of the Oneida Casino Complex in Brown County, Wisconsin, and started shooting. He shot two of his former coworkers in the kitchen while others flipped over tables and ran for cover. The shooter then walked out to the parking garage and shot another employee at point-blank range.

Police were responding to calls for the shooting in the kitchen inside the casino when they heard the gunshots outside and ran to the parking garage. An officer fatally shot the attacker before he could claim more victims. Parking lots account for nearly half of all gun-related incidents at casinos.

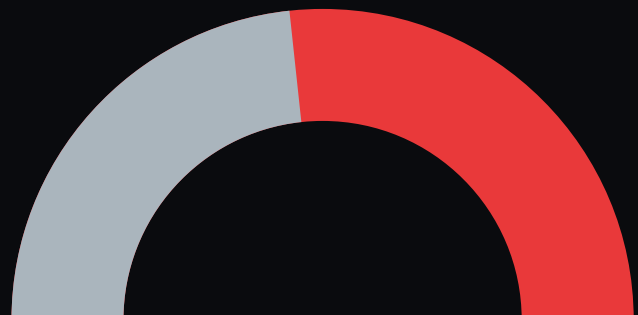
Key Takeaway

Many casinos have high-resolution security cameras everywhere. When those cams are powered by visual AI gun detection, casinos and police can receive early warnings when shooters approach, and when they leave the building.

If casino security staff know when armed assailants leave, they can keep patrons safe inside.

When shootings happen in parking lots, early detection enables protection of staff and patrons while allowing business to continue inside the casino.

**45% of casino
shootings happen
in the casino's
parking lot.**



Gun-Related Violence in Healthcare

Healthcare facilities include hospitals, medical offices, labs, outpatient surgery centers, doctors' offices, dialysis clinics, physical and drug rehabilitation centers, nursing homes, and hospice care.

Unique Considerations

Unlike other facilities, many patients and staff at a hospital, medical office, or other type of treatment facility cannot rapidly evacuate the building. Sick patients may be connected to medical equipment. Surgeries and procedures may be taking place. Elderly and disabled patients are often in beds or wheelchairs. Staff might be providing life-saving care when shots are fired. These critical tasks can't stop, and many of the people inside can't run or hide.

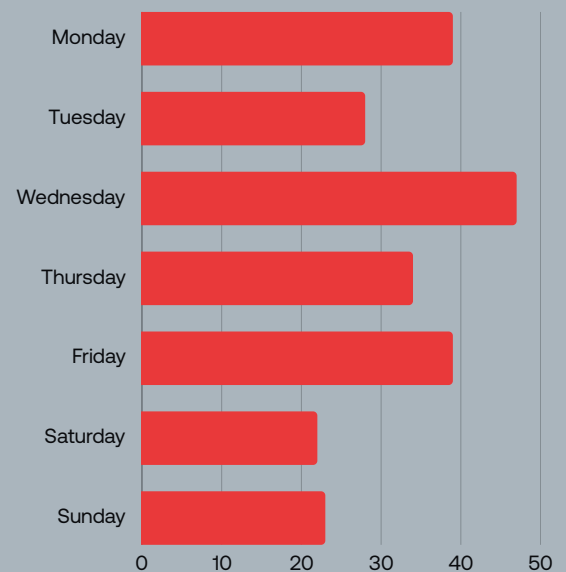
What the Data Says

Many healthcare facilities operate 24/7/365 with a constant flow of employees, patients, and visitors coming in and out of publically accessible buildings.

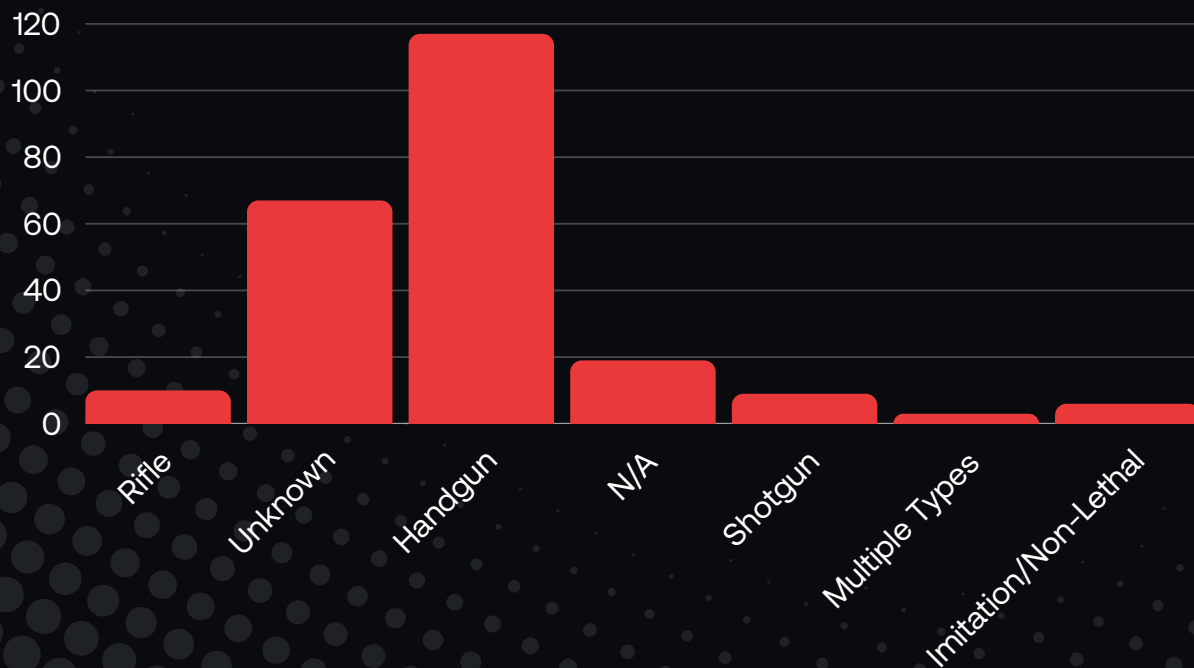
Based on a sample of 200+ shootings at healthcare facilities between 2015 and 2024, shootings are evenly distributed across all days of the week, meaning that security always needs to be ready.



Healthcare Shootings:
Day of Week



Healthcare Shootings: Type of Firearm Used



In roughly half of shootings at healthcare facilities, a handgun was the type of weapon used. When facilities are accessible to the general public, an attacker can conceal a handgun inside their clothing or bag to bring it into the building. When shots are fired by surprise, it's critical to quickly detect where the shooter is so that staff can take protective actions.

INCIDENT HIGHLIGHT

St. Francis Hospital Building, Tulsa, OK

On June 1, 2022, just before the workday ended at 5 p.m., a disgruntled patient who was upset about continued pain after his back surgery walked into the St. Francis Hospital medical outpatient building in Tulsa, Oklahoma, with a rifle handgun and extra ammo. He fatally shot two doctors, one staff member, and a patient's husband before killing himself in the lobby.

Visual gun detection software on cameras in parking lots, garages, entryways, and lobbies can detect would-be shooters with brandished weapons before they enter the building, giving doctors, staff, patients, and onsite security time to lock the doors, get people to a safe place, and enable immediate police response.



In an *LA Times* article, Tulsa Police Capt. Richard Meulenberg said multiple people were wounded and the medical complex was a “catastrophic scene.”

INCIDENT HIGHLIGHT

Atlanta Northside Hospital Outpatient Office



On May 3, 2023, a man became agitated in the waiting room at an outpatient medical office in Midtown Atlanta. He pulled a handgun from his bag and shot five women in the waiting room. A 39-year-old woman died at the scene of the shooting, and four women—ages 25, 39, 56, and 71—were critically injured. The shooting was recorded on the building's security camera system.



Image from camera footage released to the general public by the Atlanta Police Department.

The shooter immediately fled from the building and stole a vehicle at a gas station across the street. He was arrested eight hours later in a residential area 13 miles away.

When building occupants immediately receive alerts about shootings, they have time to lock office doors to prevent attackers from entering other parts of the building. This can save time and resources during police responses, preventing officers from having to search entire buildings.

Medical personnel can also be deployed to the correct areas of facilities faster, potentially saving lives.

By having shooters' images, police have a better—and faster—chance of locating these armed assailants who flee to offsite locations. And by determining the shooting was isolated to one location, lockdowns of entire neighborhoods don't have to be necessary.

Key Takeaway

If visual gun detection software identifies a shooter, other parts of the building or campus can lock down so the attacker can't get inside.

A quick lockdown and knowing the location of the shooting means that critical services can continue while taking quick actions to get people away from the shooter to the safest places possible.



Security Considerations Across Industries



Over the last 50 years, installing security camera systems has become a standard practice in nearly every store, office, school, and public venue. As more cameras are added, it becomes nearly impossible for security officers to watch all of them at the same time...

And that's assuming there are even dedicated security members to monitor the cameras at all.

Regardless if a shooting happens at a school, distribution center, casino, or hospital, every situation will have a better outcome if a shooter brandishing a gun is detected immediately, police are notified as quickly as possible, and people know whether to stay inside or flee the building. Without an automatic system to detect a visible gun, by the time a human sees the attack happening, it's probably too late.

Anywhere mass shootings happen permanently change the reputation and etch the name of the place into the public consciousness. Names like Sandy Hook, Pulse, Virginia Tech, Harvest Festival, MGM, Century 16, or Parkland are associated with mass shootings above all else. When the shooting becomes the primary association for a brand, institution, or community, the damage is immeasurable.

Why Detection is Protection

When a shooting starts, critical seconds count.

The data tells us that people can't wait for bystanders or victims to make 911 calls and that first responders grapple with inaccurate information that inevitably slows down responses.

Early, verified detection of illegally brandished guns—especially when paired with real-time situational awareness—is critical to improving active shooter response and allows organizations to make the safest decisions.

If ZeroEyes' AI-powered, human-verified solution detects a gun before it enters a building, and grants its occupants precious seconds to lock doors, it can make the interior a safe place for people to stay until police arrive. If there's a surprise attack inside the building, knowing the shooter's location within seconds informs your team of what areas to lock down and who can be directed to safety.

And first responders know exactly where to go and who to look for, which can significantly improve active shooter response.

How Visual AI Gun Detection Works

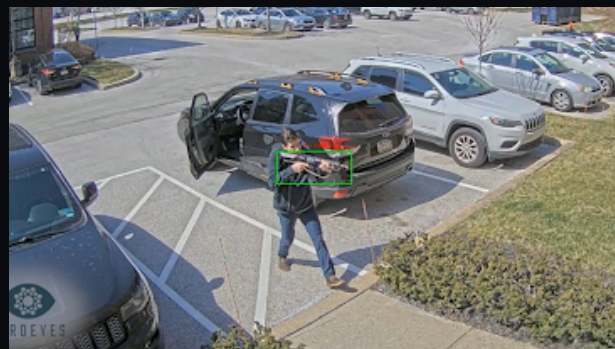
ZeroEyes' visual AI gun detection system is used across organizations nationwide. Here's a quick breakdown of how it works:

STEP 1: ANALYZE

AI-powered security cameras analyze for visible, illegally brandished guns 24/7/365.

STEP 2: DETECT

When a potential gun is detected, a keyframe image is captured, along with critical details like geolocation.



STEP 3: VERIFY

Keyframe images of potential gun detections are reviewed by highly-trained military and law enforcement veterans at the ZeroEyes Operations Center.

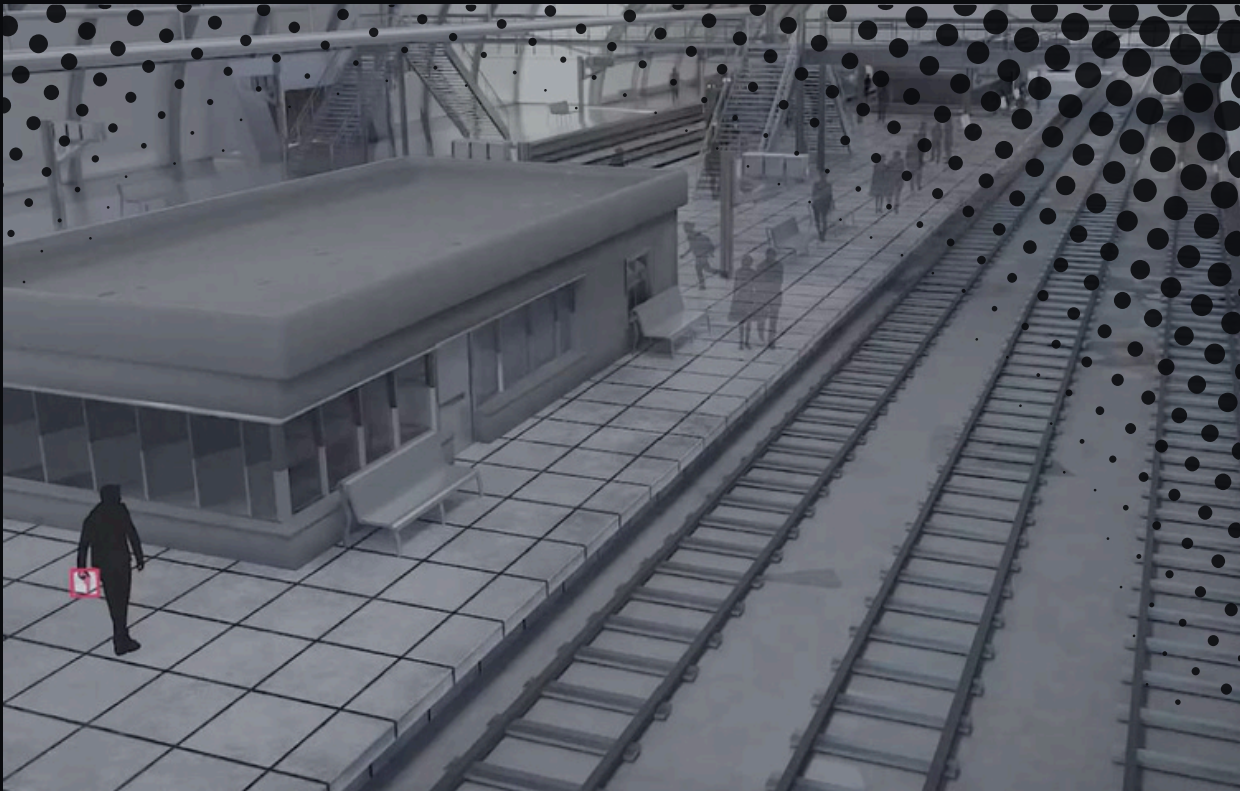
STEP 4: ALERT

Once a threat is verified, a true-positive alert is sent to authorized personnel and local first responders in as fast as 3–5 seconds.

STEP 5: RESPOND

ZeroEyes provides you with real-time, ongoing situational awareness of the threat, including the shooter's location, image, and direction of travel.

Since all of this can happen within a few seconds, schools, healthcare organizations, casinos, warehouses, and any other type of organization can get the critical time necessary to get people to safety—because **detection is protection**.



→ Conclusion

Early detection and situational awareness are core pillars of an effective active shooter response. ZeroEyes' visual AI gun detection solution provides you with these tools and works with your existing digital security cameras, maximizing the effectiveness of the protected areas of your building.

Visual AI Gun Detection for Your Organization



ZeroEyes is a powerful, affordable, and easy-to-use platform that can significantly improve security and law enforcement response times to mitigate shootings.

To see how our platform can improve responses by providing immediate, human-verified gun detection and real-time situational awareness, request a live demo by clicking the button below.

[GET STARTED](#)