CNA

DVERT A Collaboration with Practitioners and the Community

# Trends and Recommendations: Homicides in K–12 Schools

VIOLENCE PREVENTION PROJECT RESEARCH CENTER HAMLINE UNIVERSITY

*James Densley and Jillian Peterson, cofounders of the Violence Prevention Project*

Gun violence incidents at K–12 schools are often thought of as unique events; however, their features are often similar to those of gun violence incidents in other public settings. Specifically, most school-associated homicides involve interpersonal disputes, spillover from community violence, and incidents occurring outside instructional time. The assumption that school shootings are categorically unique is largely a product of selective attention paid to a small number of high-profile cases (e.g., Columbine in 1999, Sandy Hook in 2012, Parkland in 2018, Uvalde in 2022), rather than the full empirical record.[1]

A small subset of gun violence incidents are active shooter incidents, which are rare but disproportionately lethal. For prevention policies to be effective at K–12 schools, practitioners must be able to distinguish between gun violence incidents generally and active shooter incidents specifically. If prevention strategies are designed solely to stop a hypothetical outsider from breaching a perimeter, they will be poorly aligned with the most common pathways to targeted school violence, which are internal.

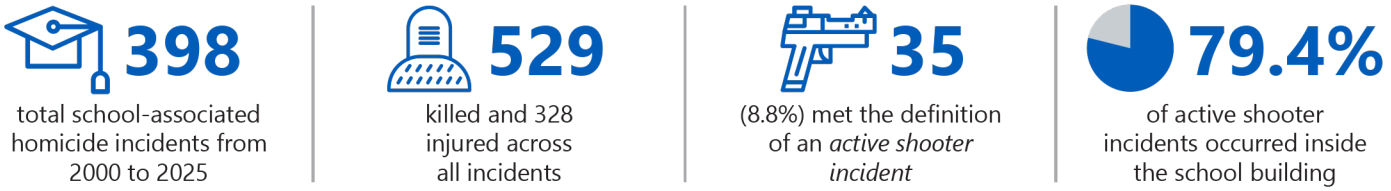
When the threat is external, restricting campus access could be valuable because doing so would create time and space for detection and response. However, the empirical record shows that such measures offer limited protection when the attacker is an insider or already on campus. As shown in the figure, 80 percent of K–12 active shooters were current or former students; as a result, they would have been present during the lockdown drills designed to stop them, and they would have been able to evade efforts to restrict campus access.

To help policy-makers and practitioners develop effective prevention and intervention strategies, we used the Violence Project's K–12 School Homicide Database (2000–2025) to examine overall trends in school-associated homicide incidents.[2] Consistent with federal guidance, we narrowed the definition of *active shooter incidents** to refer to one or more individuals actively engaged in killing or attempting to kill people in a populated area.[3]

* We excluded firearm-related incidents involving self-defense, gang violence, drug-related violence, residential or domestic disputes, barricade/hostage situations, shootings in relation to another criminal act, or cross fire as a byproduct of another ongoing criminal act.

The DVERT Center is supported by the National Institute of Justice, Office of Justice Programs, US Department of Justice under Award No. 15PNIJ-24-GK-00750-DOMR. The opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the Department of Justice.

Figure 1: Key facts at a glance




- Active-shooter incidents accounted for 143 deaths (27%) and 200 injuries (61%)
- 80% of active shooters were current or former students (20 of 35 were current students, and 8 of 35 were former students)

## Active shooter incidents in K–12 schools

Active shooter incidents at K–12 schools differ from other school-associated homicides in both scale and mechanism. Although they have represented fewer than 1 in 10 incidents, active shooter events have accounted for 27 percent of all deaths and 61 percent of all injuries.

A defining feature of active shooter incidents in K–12 schools is the school affiliation of the perpetrator. In 28 of 35 active shooter incidents (79.4 percent), the perpetrators were either current or former students at the school, and in one case, the perpetrator was related to a staff member. This insider dynamic is central to understanding why many perimeter-focused security measures fail to prevent the most serious attacks: perpetrators typically have legitimate access, familiarity with routines, and knowledge of entry and exit points.

Active shooter incidents in K–12 schools have overwhelmingly been carried out by men and boys (31 cases, 88.2 percent). The data show only one female perpetrator (the 2024 Abundant Life Christian School shooter) and three transgender or nonbinary perpetrators. The average age of K–12 school active shooters was 20, though a few older outliers skewed this number. The median age was 17 (meaning that half were 17 or younger and half were 17 or older), and the modal or most common age was 15 (eight perpetrators were that age). Our core finding was that 20 of 35 (57 percent) were minors and that 28 of 35 (80 percent) were 21 or younger. This age profile distinguishes school-based targeted violence from other forms of active shooter incidents; for this reason, prevention efforts must be rooted in youth-focused systems rather than adult criminal justice responses.

The data show that 16 of 35 (45.7 percent) active shooters had documented trauma histories, most commonly involving abuse (e.g., physical, sexual, emotional), parental divorce, parental substance abuse, parental suicide, family violence, and chronic victimization. However, for 18 cases, trauma history evidence was lacking. Given that childhood adversity is often underreported in public data, the true number of those with histories of abuse is almost certainly higher.[4] Of the perpetrators, 26 of 35 (74 percent) showed evidence of suicidality, 14 died by suicide during or immediately after the attack, 11 had previously expressed suicidal thoughts, and 4 had made a prior suicide attempt. In addition, 25 of 35 (71.4 percent) displayed observable signs of a crisis beforehand, and 26 of 35 (74.2 percent) exhibited at least one documented warning sign. The most common warning signs were increased aggression (13 cases), fascination with weapons (11 cases), expressions of hopelessness or despair (7 cases), and growing withdrawal or isolation (5 cases). In 54.2 percent of active shooter events (19 of 35), the perpetrators leaked their plans before the attack, whether online (9 cases), in writing (7 cases), or in person to classmates, parents, or teachers (5 cases). They often did so as a cry for help.[5] Taken together, these findings suggest that most K–12 active

shooters were not undetectable. They were in crisis, many were suicidal, and more than half told someone what they planned to do.

Of the K–12 active shooters, 17 of 35 (48.6 percent) studied prior school shooters and drew on earlier attacks as reference points for identity and meaning; most notably, the 1999 Columbine High School massacre was named in at least 9 of the 17 cases.[6] Online environments can intensify this process. In certain youth-oriented online communities that focus on crime or violence, past school shootings may be discussed in ways that unintentionally mythologize or aestheticize perpetrators; a small subset of socially isolated or distressed youth may seek to find belonging, validation, or status through engaging with such content.[7] When this engagement overlaps with grievance, crisis, or suicidality, a vulnerable person can shift from expressing interest in prior attackers to seeking to emulate them. Well before violence occurs, such a person will often leave behind observable warning signs, such as fixation on previous shooters, imitation behaviors, and repeated engagement with content that glorifies past attacks; by identifying these signs, practitioners can seek to intervene.

Although the dataset does not consistently capture detailed firearm acquisition pathways, we found that access to unsecured firearms by minors in familiar environments (most often homes) remains a critical risk factor. In the 2021 Oxford High School and 2024 Apalachee High School cases, the perpetrators were minors, and their parents were charged for purchasing and gifting the weapons used. Based on this finding, jurisdictions should promote secure storage practices and options for temporarily restricting access to firearms during periods of acute crisis.

Most K–12 active shooter incidents were very short—often lasting only minutes. Casualties accumulated rapidly until the event ended because the shooter stopped, died by suicide, or was subdued by staff or police. Incidents also clustered during periods of high density and predictability. Most occurred in the morning (23 of 35, 65.7 percent) or early afternoon (10 of 35, 28.6 percent), and the majority took place during class time (27 of 35, 77.1 percent) when students and staff were concentrated in predictable locations. Nearly 80 percent occurred inside the school building, although several began outside and moved indoors within seconds.

## The other school homicides

The 363 non-active-shooter incidents tell a fundamentally different story. These cases were less lethal, averaging just over one death per incident (386 killed and 128 injured total). They also shared similarities with community violence, meaning they could be considered community violence incidents that happened to occur on or near school grounds. Nearly 80 percent of these incidents took place outside the school building, and a similar share (78.5 percent) occurred outside of class time. The most common situation was an escalation of a dispute (36.1 percent), followed by unknown circumstances (24.0 percent), retaliation (9.9 percent), accidents or negligence (9.1 percent), and domestic violence (8.3 percent). About one in five (21.8 percent) were gang or group related. Handguns were used in 71.3 percent of cases. A majority of perpetrators fled the scene and were later arrested (57.6 percent) or escaped entirely (19.3 percent); this last feature is consistent with impulsive or retaliatory violence rather than planned attacks on a school.

The most notable trend is temporal. From 2000 to 2019, non-active-shooter incidents averaged about 10 per year. From 2020 onward, that number nearly tripled to 28 per year, mirroring the broader national spike in homicide that began in mid-April 2020.[8] This finding suggests that most school-associated homicides in that time frame were actually the result of community violence following young people onto campus. The perpetrator profile reflects this assertion: only 25 percent of non-active-shooter perpetrators were current or former students compared to 80 percent of active-shooter perpetrators. Another 34 percent were strangers with no known connection to the school.

## Security measures: what they can—and cannot—do

Access control, locked doors, and single points of entry can be critical elements of an overall safety plan, and these measures are particularly effective when the threat is external. However, such efforts are of limited utility when the attacker is intimately familiar with the campus. For this reason, basic physical security should be considered a delay mechanism, not a prevention strategy.

Similarly, active shooter drills are widely used but unevenly evaluated.[9] Evidence suggests that drills may improve procedural familiarity for adults; however, they can be distressing or traumatizing for some students, especially those with trauma histories or developmental disabilities. If drills are conducted without warning or with high realism, student distress can be exacerbated. Further, some drills risk normalizing violence or reinforcing the perception that shootings are inevitable.

## Implications for practitioners and policy-makers

The most consequential prevention steps include recognizing warning signs, reporting suspicious behaviors, conducting coordinated threat assessments, and engaging in timely crisis response—all of which should occur before a weapon is brought to school. Preparedness efforts that focus narrowly on physical barriers and shooting response without equally emphasizing prevention, reporting, and support can inadvertently undermine school climate while offering limited protective benefit against insider threats. The following recommendations are for practitioners and policy-makers to aid in their development of effective prevention and intervention strategies.

1. **Align prevention investments with actual risk**

   Most school homicides are not active shooter events, and most active shooters are insiders. Prevention resources should reflect this reality, emphasizing early identification, intervention, and support rather than relying primarily or exclusively on perimeter defenses.

2. **Make warning signs and leakage actionable**

   Students, staff, and families often observe concerning behaviors and communications (i.e., leakage) before targeted attacks. For this reason, jurisdictions should ensure schools have simple, trusted reporting pathways, including anonymous reporting systems.[10] Triage criteria should be clear, and rapid coordination mechanisms should be in place among school leadership, threat assessment and management teams, mental health providers, and law enforcement when needed.

3. **Build durable, multidisciplinary behavioral threat assessment and management capacity**

   Standing behavioral threat assessment and management teams—not ad hoc teams assembled after a crisis—should be responsible for prevention and response efforts.[11] The CARE (Collaborate. Assess. Respond. Evaluate.) model is increasingly becoming a best practice because it focuses on supporting individuals in crisis rather than labeling them as threats.[12] This model centers on early identification, stabilization, and sustained support. Practitioners have found that framing cases around crisis and need—rather than danger and punishment—improves reporting, reduces stigma, and increases cooperation from students and families.[13] To provide this type of support, jurisdictions require designated case management, reliable youth mental health services, and the ability to monitor and manage cases over time. CARE-oriented teams are multidisciplinary, integrating school leadership, counseling and psychological services, social work, and law enforcement and community partners when appropriate. Their goal is not to predict violence but rather to identify escalation early, reduce risk, and strengthen protective supports before crises turn violent.

4. **Treat suicidality and grievance as core prevention targets**

   Targeted school violence frequently emerges from trajectories marked by despair, grievance, and suicidal ideation. Policies that strengthen suicide prevention, crisis response, and continuity of care also reduce the risk of outward-directed violence.

5. **Calibrate drills to minimize harm**

   Preparedness exercises should be age appropriate, trauma informed, and announced in advance; they should also emphasize reporting, connection, and help-seeking, not inevitability. Drills should support prevention messaging rather than replace it.

6. **Use technology to support people and processes**

   Safety technologies can aid prevention only when integrated into clear workflows, such as who monitors alerts, how concerns are verified, and what actions follow. Technology should reinforce, not substitute for, human judgment and coordinated response.

7. **Plan for post-incident surges**

   High-profile school shootings often generate increases in threats, tips, and misinformation.[14] Jurisdictions should plan for surge triage capacity and risk-aware public communication that informs without amplifying attackers.

8. **Normalize safe firearm storage as a prevention strategy**

   Because most K–12 active shooters are minors or former students with access to firearms in familiar environments, secure firearm storage is a critical upstream intervention. Jurisdictions should support schools and pediatric, mental health, and community partners in having routine, non-stigmatizing conversations with families about safe storage. In addition, jurisdictions should provide access to practical resources, such as trigger locks and cable locks, and temporary off-site storage options during crises. Framing these efforts around child safety and suicide prevention—rather than criminal enforcement—will improve uptake and trust.

9. **Expand universal crisis intervention and suicide prevention training**

   Given the strong overlap between targeted school violence and suicidality, schools will benefit from universal, role-appropriate training for educators, staff, and students on recognizing crisis, responding safely, and connecting peers to help. The training should emphasize offering vulnerable individuals help and clear pathways to support early on. It should also emphasize that prevention is a shared responsibility among all stakeholders, rather than a burden placed solely on specialized teams or law enforcement.

10. **Integrate trauma screening and follow-up into routine school supports**

    Students who engage in targeted violence have often experienced trauma. For this reason, schools should integrate developmentally appropriate trauma screening and follow-up care protocols into existing health, counseling, and student support systems. Screening alone is insufficient; it must be paired with accessible services and continuity of support over time.

11. **Invest in programs that strengthen connection and belonging**

    Social isolation and marginalization are recurring risk factors in targeted school violence. Evidence-informed programs that foster connection, peer support, and belonging can reduce isolation while increasing the likelihood that warning signs will be detected early.[15] Such programs can include peer mentoring efforts and student-led "say something" type initiatives. These efforts are the most effective when embedded in a broader culture of care rather than implemented as one-off interventions.

## References


1. Kyle G. Knapp and Emma E. Fridel, "Are School Shootings a Unique Form of Violence? A Comparison of the Individual and Contextual Correlates of Nonfatal School Shootings and Youth Gun Violence," *Journal of Interpersonal Violence*, 2025, https://doi.org/10.1177/08862605251384921.

2. Jillian Peterson and James Densley, *K-12 School Homicides*, Violence Prevention Project, 2026, https://www.theviolenceproject.org/databases/k12-school.

3. Pete J. Blair and Katherine W. Schweit, *A Study of Active Shooter Incidents in the United States Between 2000 and 2013*, US Department of Justice, 2014, https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view.

4. Jillian Peterson and James Densley, *The Violence Project: How to Stop a Mass Shooting Epidemic* (Abrams Press: 2021).

5. Jillian Peterson et al., "Communication of Intent to Do Harm Preceding Mass Public Shootings in the United States, 1966–2019," *JAMA Network Open* 4, no. 11 (2021), e2133073, https://doi.org/10.1001/jamanetworkopen.2021.33073.

6. Peterson and Densley, *The Violence Project*.

7. James Densley and Jillian Peterson, "We Study Mass Shooters. Something Terrifying Is Happening Online," *New York Times*, Mar. 17, 2026, https://www.nytimes.com/2026/03/17/opinion/mass-shooters-online-radicalization.html.

8. Ernesto Lopez and Bobby Boxerman, *Crime Trends in U.S. Cities: Year-End 2025 Update*. Council on Criminal Justice, 2026, https://councilonj.org/crime-trends-in-u-s-cities-year-end-2025-update/.

9. Jaclyn Schildkraut and Amanda B. Nickerson, *Lockdown Drills: Connecting Research and Best Practices for School Administrators, Teachers, and Parents* (MIT Press: 2022)

10. Elyse J. Thulin et al., "Firearm-Related Tips in a Statewide School Anonymous Reporting System," *Pediatrics* 153, no. 2 (2024), e2023063861, https://doi.org/10.1542/peds.2023-063861.

11. National Threat Assessment Center and Center for Positive Behavioral Interventions and Supports, *Aligning Behavioral Threat Assessment and Management with a Multi-Tiered System of Support*, 2025, https://www.secretservice.gov/protection/ntac.

12. Saint Paul Public Schools, "C.A.R.E. Team," 2026, https://www.spps.org/families/careteam.

13. National Threat Assessment Center and Center for Positive Behavioral Interventions and Supports, *Aligning Behavioral Threat Assessment and Management.*

14. Jillian Peterson et al., "An Exploration of K-12 School Shooting Threats in the United States," *Journal of Threat Assessment and Management* 11, no. 2 (2024): 106–120, https://doi.org/10.1037/tam0000215.

15. Sandy Hook Promise, "Say Something," 2025, https://www.sandyhookpromise.org/what-we-do/programs/violence-prevention/say-something/.

Jillian Peterson and James Densley are cofounders of the Violence Prevention Project, a nonpartisan, nonprofit research center located at Hamline University in Saint Paul, Minnesota.

## About CNA

CNA is a not-for-profit analytical organization dedicated to the safety and security of the nation. Nearly 700 CNA scientists, analysts, and professionals provide data-driven, innovative solutions to complex problems. It operates the Center for Naval Analyses—the Department of the Navy's federally funded research and development center (FFRDC)—as well as the Institute for Public Research, which supports federal, state, and local government officials advancing national and homeland security.

To learn more about the DVERT Center, contact our team at dvert@cna.org.