

THE COST

— OF GUN VIOLENCE — THE DIRECT COST TO TAXPAYERS

The City of Knoxville is the largest city in East Tennessee with 196,000 residents. Knoxville is known for being the home of the University of Tennessee, and the city's population swells by an additional one hundred thousand people on Saturdays when the Vols football team is playing at home. In the early 1900s, Knoxville was known for its marble distribution and shortly after gained the nickname of "The Marble City". Knoxville's population is 73.9% White, 16.1% Black, 5.7% Latino, and 1.6% Asian.¹

Like other cities in the South, Knoxville played an important role in the Civil Rights Movement. In the 1960s, downtown Knoxville became a central location for protesting the unjust treatment of Black people, including the denial of their access to theaters, restaurants, and other business establishments.² Decades later, in 2023, community members took to the streets of Knoxville again to protest the death of Lisa Edwards, who died after suffering a stroke while in police custody.³

Adding to the tension among Knoxville residents was a significant surge in gun violence during the onset of the COVID-19 pandemic, with a nearly 119% increase in fatal shootings in 2020. But the city has since experienced a notable downward trend in shootings since 2021.

When someone is shot in Knoxville, there is an immediate, multifaceted, and very expensive response from an array of government agencies. The Fire Department dispatches Emergency Medical Technicians (EMTs), government-contracted ambulances respond, and several Knoxville Police Department (KPD) units descend on the scene. Investigators from the Knox County District Attorney's Office also often arrive, and if the victim is declared

dead on the scene, the Coroner is called. All of this is only for the shooting scene itself. For a surviving victim, there is also typically a hospitalization, which is frequently paid for by tax dollars. Rehabilitation follows in the case of serious injury, and victim compensation is generally provided. There is also often a lengthy investigation by the Knoxville Police Department and the Knox County District Attorney's Office, who are sometimes joined by the US Attorney, and a trial and a long incarceration period frequently follow. When there are multiple victims and/or suspects, these efforts and costs multiply for a single shooting incident. These are just some of the costs of each injury shooting in Knoxville.

The National Institute for Criminal Justice Reform (NICJR) was commissioned by the City of Knoxville and the Knoxville Office of Community Safety and Empowerment (OCSE) to conduct this detailed analysis that documents the government expenses accompanying every fatal and nonfatal shooting in Knoxville. In tracking the direct costs per shooting incident, NICJR has deliberately used the low end of the range for each expense. For example, this study does not include the loss-of-production costs when the victim or suspect were working at the time of the incident. Nationally, those costs have been estimated at an additional \$1-2 million for each shooting incident. This means that the calculated cost of \$1,463,369.58 for a fatal shooting in Knoxville is a conservative estimate; the real cost is likely even higher.

In the past four years, Knoxville has averaged approximately 114.5 combined nonfatal shootings and fatal shootings annually. At this rate, each year of shootings will ultimately cost taxpayers almost \$99,604,099.00, with both immediate costs such as crime scene response

and longer-term costs such as lost tax revenue and long-term incarceration. If Knoxville could reduce its gun violence rate by just 20%, that could result in government savings of about \$19,920,819.80 for every year of shootings.

The City has already taken positive steps toward reducing gun violence, particularly by developing an Office of Community Safety and Empowerment in 2021. The OCSE spearheads violence interruption strategies, fosters safety innovation and collaboration across City departments, and strengthens partnerships with individuals and organizations dedicated to enhancing Knoxville's safety. The Office maintains bi-weekly meetings with the Mayor and Chief of Police as well as regularly scheduled sessions with the full cabinet. The Office also collaborates closely with the City's Community Empowerment Department and coordinates resources with frontline workers committed to ensuring neighborhood safety.⁴ Additionally, the OCSE provides a number of mini-grants for organizations working to interrupt violence.

In the past few years, Knoxville has also invested in a range of other efforts to reduce violence, including spring and summer camps that provide safe spaces for youth, a youth violence prevention week, and a variety of other community events and channels for community engagement. Finally, in addition to commissioning NICJR to complete this Cost of Gun Violence study, the City is investing in an updated Gun Violence Problem Analysis that will identify high-risk individuals and dynamics contributing to gun violence, in order to effectively focus violence intervention efforts. Over time, these efforts have the potential to result in considerable benefits for the city, as a relatively small investment in effective gun violence intervention strategies can yield significant reductions in shootings, save lives, and produce massive savings.

1. U.S. Census Bureau QuickFacts: Knoxville City, Tennessee

2. Beyond History: Knoxville's Black experience in the past | wbir.com

3. Knoxville activists protest treatment of Lisa Edwards while in police custody | WATE 6 On Your Side

4. Community Safety - City of Knoxville



THE GREATER COMMUNITY COST OF GUN VIOLENCE

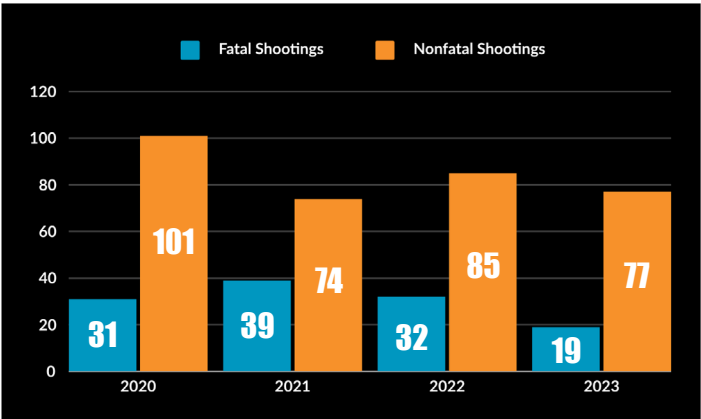
There are significant community costs of gun violence beyond the direct costs included in NICJR’s calculations. In addition to the direct financial burden borne by taxpayers, areas with high rates of gun violence experience the loss of community resources and decreases in property values. Businesses, community events, and other vital resources often flee from violent neighborhoods. Further, a study by the Controller for the City of Philadelphia examining the economic impact of gun violence on property values found that “a single homicide lowers sale prices by 2.3 percent in the immediate neighborhood (within 0.75 miles of the homicide).”⁵

Community members in neighborhoods where rates of violence are highest also bear the burden of community tension and trauma. The normalization or expectation of violence can lead to high rates of gun possession and the resolving of minor disputes with gun violence. The public health approach to violence shows that violence is a contagion that can breed in areas of social dysfunction. The National Institutes of

Health notes that “Contagious diseases and violence tend to cluster in similar ways.... There are geographic ‘hot spots’ for contagious diseases, such as the 2015 measles outbreak linked to Disneyland in California involving clusters of unvaccinated children. Likewise, there are geographic hot spots for violent crime on specific streets and in specific neighborhoods.”⁶

Finally, experiencing violence, witnessing violence, and having close friends or family members victimized by violence produces trauma and vicarious trauma among children. In the 1990s, the groundbreaking Adverse Childhood Experiences (ACEs) study by the Centers for Disease Control and Kaiser Permanente revealed that children who have traumatic experiences when they are young have significantly higher rates of poor health outcomes as they age.^{7,8} Additional studies have proven that the experience of trauma negatively impacts the brain function of young people and can cause depression, behavioral challenges, academic disruption, and delinquency.

Fatal and Nonfatal Shootings⁹



Population

195,889



Police Force

382


Homicide¹⁰ Clearance Rate

2020	40.5%
2021	37.5%
2022	28.1%

5. [Report on the Economic Impact of Homicides: Philadelphia Controller](#)
6. [The Contagious Spread of Violence Among US Adolescents Through Social Networks](#)
7. [Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults](#)
8. While the CDC-Kaiser ACEs study is not available to the public, information about the study may be found [here](#).
9. Knoxville Police Department Internal Data
10. Throughout the report, “fatal shootings” and “homicides” are not used synonymously. “Fatal shootings” refers to shooting incidents resulting in the death of the victim; “homicides” refers to all homicides in general.


Knoxville, Tennessee

COST BREAKDOWN




CRIME SCENE RESPONSE

The crime scene response to a severe nonfatal shooting or fatal shooting typically includes a heavy police presence, fire/EMT staff, and medical transport staff. Based on city specific averages, the Knoxville Police Department could deploy up to 11 officers, including patrol, homicide unit personnel, and other supervisory-level officers, to respond to a typical fatal shooting.




HOSPITAL & REHABILITATION

Once a victim has been transported to the hospital, the costs of treatment in an emergency room (ER) trauma unit, surgery, inpatient stay, and rehabilitation are exorbitant. Average costs can range from \$88,525 to \$144,617 per incident. With a little more than 40% of gunshot victims either uninsured or on Medicaid, these costs represent a tremendous strain on Knoxville's hospital network.



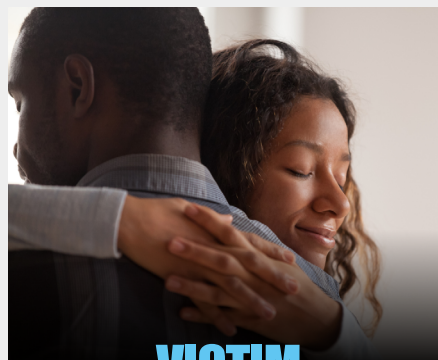
CRIMINAL JUSTICE

Justice system costs include police investigation, prosecution and defense attorneys, court personnel and judges, and the use of court facilities. Due to the consequences of a fatal shooting conviction, these cases go to trial more often than other types of cases. Sometimes these cases involve multiple suspects with multiple court dates and separate trials. From the time of arrest, court proceedings in an injury shooting or fatal shooting case average about two years.



INCARCERATION

Incarceration accounts for a large portion of the costs once a suspect is arrested. A stay in the Knox County jail system costs an average of \$34,310.00 for the pretrial incarceration period. Following a trial, an inmate is incarcerated within the Tennessee prison system at a cost of \$407,648.96 for those convicted of attempted murder and \$1,171,990.76 for those convicted of homicide.



VICTIM SUPPORT

Many victim support costs are covered by the Tennessee Department of Treasury-Claims and Risk Management. Surviving victims of nonfatal shootings and families of homicide victims receive, on average, \$32,000.00 in compensation to cover costs such as burial expenses, medical expenses, and counseling. Including costs such as autopsies and Social Security benefits increases the total cost for victim support to \$61,622.00.



LOST TAX REVENUE

Tennessee has a state sales and use tax of 9.25%. When an injury or fatal shooting occurs, the state loses the ability to collect sales tax from the incarcerated individual(s) and fatal shooting victim(s). Each incident can represent lost tax revenue from a minimum of two individuals for 10 to 25 years.

THE COST Per Shooting

The governmental cost of gun violence to the City, County, and State

Fatal Shooting Cost

Nonfatal Shooting Cost

CRIME SCENE

\$8,241.64

Police Response: **\$4,050.36**
Scene Cleanup: **\$2,500.00**
Fire/EMT: **\$1,691.28**

CRIME SCENE

\$6,257.75

\$2,066.75: Police Response
\$2,500.00: Scene Cleanup
\$1,691.00: Fire/EMT

HOSPITAL

\$88,525.00

ER/Trauma Center: **\$1,428.00**
Gunshot Surgery: **\$87,097.00**

HOSPITAL

\$144,617.00

\$1,428.00: ER/Trauma Center
\$87,097.00: Gunshot Surgery
\$56,092.00: Rehabilitation

CRIMINAL JUSTICE

\$52,430.18

Police Investigation: **\$9,766.14**
DA & Public Defender: **\$35,844.04**
Court Process: **\$6,820.00**

CRIMINAL JUSTICE

\$7,976.29

\$2,845.53: Police Investigation
\$4,200.76: DA & Public Defender
\$930.00: Court Process

INCARCERATION

\$1,206,300.76

Pretrial Incarceration: **\$34,310.00**
Prison Placement: **\$1,171,990.76**

INCARCERATION

\$441,958.96

\$34,310.00: Pretrial Incarceration
\$407,648.96: Prison Placement

VICTIM SUPPORT

\$61,622.00

Coroner's Office: **\$1,950.00**
Victim Compensation: **\$32,000.00**
Social Service Assistance: **\$27,672.00**
(one year of support for two families)

VICTIM SUPPORT

\$45,836.00

\$32,000.00: Victim Compensation
\$13,836.00: Social Service Assistance
(one year of support for one family)

LOST REVENUE

\$46,250.00

Lost Tax Revenue: **\$46,250.00**
(both suspect & murder victim)

LOST REVENUE

\$10,175.00

\$10,175.00: Lost Tax Revenue

Per Fatal Shooting
\$1,463,369.58



Per Nonfatal Shooting
\$656,821.00



CRIME SCENE

Subject:	Police Response	Fire/EMT Transport	Scene Cleanup
Source	<ul style="list-style-type: none"> Knoxville Police Department Internal Data 	<ul style="list-style-type: none"> Fire Department - City of Knoxville City of Knoxville FY22-23 Budget 	<ul style="list-style-type: none"> The National Cost of Violence: The Price Tag for Taxpayers
Notes	Initial police response to a fatal shooting scene typically includes 7 Patrol, 1 Lieutenant, 1 Sergeant, and 2 Detectives. They remain on the scene for 2–15 hours. Initial police response to an injury shooting scene also typically includes 7 Patrol, 1 Lieutenant, 1 Sergeant, and 2 Detectives. They remain on scene for roughly 1–8 hours.	Fire & EMT Budget: \$49,319,610.00 Total responses: 29,161 average Cost per response = \$1,691.28	As jurisdiction-specific data were unavailable, analysis includes the national average cost based upon previous NICJR analysis. Average cost among competitive vendors to clean up crime scenes involving blood: \$2,500

HOSPITAL

Subject:	Emergency Room / Surgery for Gunshot Victim
Source	<ul style="list-style-type: none"> 2020 National Trends and Cost Burden of Surgically Treated Gunshot Wounds in the US 2021 Firearm Injuries: Health Care Service Needs and Costs
Notes	Average cost of gunshot victims treated and released the same day: \$1,428 (ER base cost) Average cost of gunshot victims requiring surgery and hospital stay: \$87,097 (surgery cost) + \$56,092 (hospital stay and care) Average cost of gunshot victims requiring surgery, hospital stay, and release to outpatient care: \$144,617 (ER, surgery, rehabilitation)

CRIMINAL JUSTICE

Subject:	Police Investigation	District Attorney (DA) & Public Defender (PD)	Court Process
Source	<ul style="list-style-type: none"> Knoxville Police Department Internal Data 	<ul style="list-style-type: none"> Tennessee Courts Rates for Counsel Tennessee Code 	<ul style="list-style-type: none"> Alpha- Comp Plan Economic Research Institute-Bailiff Judge-Knox Employee Salaries
Notes	The cost of the police investigation is calculated by multiplying the average salary and benefits for officers assigned to the Knoxville Police Department by the average amount of time spent investigating fatal and nonfatal shootings. \$35.13/hour x 278 hours = \$9,766.14 for a fatal shooting \$35.13/hour x 81 hours = \$2,845.53 for a nonfatal shooting	The cost of prosecution and defense is calculated by multiplying the average amount of time spent by attorneys. Fatal shooting DA: \$42.72/hour x 418.4 hours = \$17,874.04 PD: \$50.00/hour x 359.4 hours = \$17,970.00 Nonfatal shooting DA: \$42.72/hour x 20.5 hours = \$875.76 PD: \$50.00/hour x 66.5 hours = \$3,325.00	The cost to the court system is calculated by multiplying the average amount of time spent by judges and court staff by hourly salaries (court staff rates have been combined). Fatal shooting Judge: \$87.00/hour x 44 hours = \$3,828.00 Court staff: \$68.00/hour x 44 hours = \$2,992.00 Nonfatal shooting Judge: \$87.00/hour x 6 hours = \$522.00 Court staff: \$68.00/hour x 6 hours = \$408.00

INCARCERATION

Subject:	Pretrial Incarceration	State Prison: Attempted Murder Case	State Prison: Murder Case
Source	<ul style="list-style-type: none"> Tennessee Jail Summary Report Jail Exchange What Jails Cost: Tennessee 	<ul style="list-style-type: none"> Tennessee Aggravated Assault Laws TDOC 2023 Annual Report 	<ul style="list-style-type: none"> Tennessee First Degree Murder Sentencing TDOC 2023 Annual Report
Notes	Average period of pretrial incarceration: 2 years \$47 per day x 2 years = \$34,310.00	Tennessee Department of Correction annual cost to house an adult: \$50,956.12 Injury shooting conviction sentence: 10 years, subtracting pretrial time served \$50,956.12 x (10 years - 2 years) = \$407,648.96	Tennessee Department of Correction annual cost to house an adult: \$50,956.12 Murder conviction sentence: 25 years, subtracting pretrial time served \$50,956.12 x (25 years - 2 years) = \$1,171,990.76

VICTIM SUPPORT

Subject:	Victim Compensation	Social Service Assistance	Medical Examiner's Office
Source	<ul style="list-style-type: none"> Tennessee Criminal Injuries Compensation 	<ul style="list-style-type: none"> Tennessee TANF Income Limits SNAP-TN Income Limits 	<ul style="list-style-type: none"> Knox County Medical Examiner Interview
Notes	The average award for victims of crime in Knoxville is \$32,000.00 for expenses including burial costs, lost wages, and crime scene cleanup.	A severely injured shooting victim often cannot return to work immediately. Since the victim and perpetrator may be major financial contributors to their households, many families may need to apply for social services support. USDA SNAP = \$766.00 for family of 3 Tennessee TANF = \$387.00 for family of 3 This study estimates 1 year of assistance. Fatal shooting: \$1,153.00/mo x 12 months x 2 families = \$27,672.00 Nonfatal shooting: \$1,153.00/mo x 12 months x 1 family = \$13,836.00	Cost per autopsy = \$1,950.00

LOST REVENUE

Subject:	Lost Tax Revenue: One Person Incarcerated	Lost Tax Revenue: Murder (Loss of Revenue for Two People)
Source	<ul style="list-style-type: none"> Local Sales Tax Rates Tennessee Tax Rates 	<ul style="list-style-type: none"> Local Sales Tax Rates Tennessee Taxes - Do Residents Pay Income Tax?
Notes	Tennessee is one of ten states that does not impose state income tax. Sales and use tax (county and state): 9.25% Total annual sales tax for person earning \$30,000.00/year and spending 1/3 of income = \$925.00 Lost tax revenue for a 10-year sentence for attempted murder: \$925.00 x 10 years = \$9,250.00 If the shooting victim does not work for one year, an additional \$925.00 of revenue is lost. Total lost tax revenue = \$10,175.00	Tennessee is one of ten states that does not impose state income tax. Sales and use tax (county and state): 9.25% Total annual sales tax for person earning \$30,000.00/year and spending 1/3 of income = \$925.00 Lost tax revenue for a 25-year sentence for murder: \$925.00 x 25 years = \$23,125.00 If the shooting victim loses their life, an additional \$23,125.00 of revenue is lost. Total lost tax revenue = \$46,250.00