THE ECONOMIC COST OF GUN VIOLENCE IN MINNESOTA

Gun violence in Minnesota exacts a high physical, emotional, and financial toll on our family, friends, and neighbors. We often hear about the heartbreak and physical pain these shootings cause, but there is another aspect of the gun violence epidemic that doesn’t receive as much attention: the overwhelming financial cost.

TALLYING THE NUMBERS

The 922 shootings that occur each year in Minnesota are a serious drain on our economy. Based on the expenses we can directly measure, including healthcare costs ($32 million per year), law enforcement and criminal justice expenses ($31 million per year), employer costs ($4.5 million per year), and lost income ($696 million per year), the initial price tag of gun violence in Minnesota is $764 million per year. When the reduced quality of life attributable to pain and suffering ($1.4 billion) is considered, the estimate rises to $2.2 billion per year. While this number is staggering, it actually understates the true cost of gun violence in Minnesota—it doesn’t incorporate significant, yet difficult-to-measure costs, including lost business opportunities, lowered property values, and reductions in the tax base.
REDUCING GUN VIOLENCE

There’s much work to be done: just this summer, during one 24-hour period in Minneapolis, seven people—most of them innocent bystanders—were shot. Fortunately, a number of proven solutions exist to reduce gun violence without limiting responsible gun ownership.

The Economic Cost of Gun Violence in Minnesota identifies three sets of solutions, each addressing a specific risk factor: universal background checks for gun sales, neighborhood revitalization programs, and hospital-based violence intervention strategies. The investment required to implement these lifesaving solutions is minuscule compared to the yearly cost of gun violence in our state.

ABOUT THE COALITION

The Minnesota Coalition for Common Sense is a state initiative, started by former Congresswoman Gabrielle Giffords and her husband, retired NASA astronaut and US Navy Captain Mark Kelly, the co-founders of Americans for Responsible Solutions. The coalition brings together a broad cross-section of state leaders—business, law enforcement, veterans, faith, medical, and civic leaders—who support commonsense solutions to keep guns out of the hands of dangerous people and protect families from gun violence.

americansforresponsiblesolutions.org/MN
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The gun violence epidemic imposes an unacceptably high cost in Minnesota.

From 2010 to 2014, our state suffered an average of 389 gun-related deaths per year—more than one death per day. In addition, 533 Minnesotans per year were the victims of non-fatal shootings that often cause debilitating, life-long injuries.¹ That’s a total of 922 firearm deaths and injuries every year in our state.

When we lose family, friends, or neighbors to gun violence, we feel tremendous pain. When we hear about an innocent bystander who will never walk again because of a stray bullet, we are rightly outraged. But gun violence doesn’t just shake us emotionally and morally—it also imposes enormous financial costs and generates vicious cycles of fear and flight that damage our economy.

*The Economic Cost of Gun Violence in Minnesota: A Business Case for Action* documents the staggering economic price that Minnesotans pay each year on account of gun violence. Immediately after a trigger is pulled, the bills begin to pile up: healthcare costs to repair shattered limbs and punctured organs, law enforcement and criminal justice expenses to investigate violent gun crimes and incarcerate offenders, costs incurred by businesses to cover for seriously injured or dead employees, and lost employee wages.

Gun violence costs Minnesota $764 million per year—and that figure only includes the directly measurable losses associated with healthcare, law enforcement, employer costs, and lost employee income.

We must also take into account reduced quality of life caused by pain and suffering, which raises the total price tag of gun violence in Minnesota to an estimated $2.2 billion per year. This staggering figure still does not include many difficult-to-quantify costs such as lost business opportunities, lowered property values, neighborhood flight, and other negative consequences attributable to the extreme fear gun violence creates.

Minnesota’s business community has directly suffered the consequences of gun violence. As just one example, take Ingrid Christensen, a board member of the Minnesota and St. Paul Chambers of
Commerce. Ingrid founded a language translation business in St. Paul in 2006, but after repeated episodes of gun violence in the neighborhood made her employees feel unsafe, she was forced to move the entire business to a different location. 

The moving expenses and lost work days Ingrid incurred as a result of this unforeseen relocation were significant, but there was also a large impact on the neighborhood itself, which lost a productive and valuable business. Moreover, the presence of gun violence made it that much harder to replace this loss, further damaging the local economy.

As Ingrid’s story shows, gun violence forces businesses to flee—often from the neighborhoods most in need of their services—creating a wide-reaching depressive cycle. When one neighborhood declines, it affects the entire city, which suffers from spreading violence, migration to the suburbs, and damage to its reputation.

Yet, this cycle can be reversed. The good news is that solutions exist to reduce gun violence in our communities while respecting law-abiding, responsible gun owners. The Economic Cost of Gun Violence in Minnesota outlines some of the most promising solutions for reducing gun violence, including universal background checks, neighborhood investment programs, and community-based violence intervention strategies.

When it comes to saving lives from gun violence, we know what works. What we need now is advocacy and support for the implementation of these solutions. We simply cannot afford to maintain the status quo in the face of this costly, destructive epidemic. Change will require the effort of many different segments of our society, not just members of law enforcement. All of us, including the business community of Minnesota, must work together to effect that change.
DIRECTLY MEASURABLE COSTS
When a shooting occurs, the costs swiftly reach astronomical heights.

One recent tragedy at a small law firm in the Cathedral Hill area of St. Paul illustrates this all too well. On April 7, 2016, a disgruntled former client, Ryan David Petersen, entered the offices of North Star Criminal Defense, located on the second floor of the historic Dacotah Building, intending to kill either Dan Adkins, one of the firm’s managing partners, or Chase Passauer, the firm’s office manager. Petersen arrived at the office before Dan did and directed his focus on Chase—shooting him eight times with a .40 caliber handgun. The 23-year-old died in his office chair.³ Chase, a recent graduate of the University of Minnesota, had wanted to become a lawyer to help others before his life was cut short by a convicted felon who was legally prohibited from possessing a gun.⁴

Beyond the human tragedy involved, shootings like the one at Cathedral Hill generate a series of economic costs that begin to amass as soon as the trigger is pulled. To get a sense of the scope of this burden, this report will take a closer look at each expense, starting with those that are most directly measurable: healthcare costs, law enforcement and criminal justice expenses, employer costs, and lost income.

HEALTHCARE

When a person is shot, a response from the medical system is almost always necessary. In the Cathedral Hill shooting, for example, paramedics arrived on the scene and attempted to resuscitate Chase, who had been shot eight times in the upper chest and abdomen. Despite the best efforts of the paramedics and police, Chase was pronounced dead at the scene.⁵

According to cost estimates developed by the Pacific Institute for Research and Evaluation (PIRE), and relied on by the Centers for Disease Control and Prevention (CDC), each gun-related death generates approximately $49,164 in medical expenses.⁶ This includes the cost of initial ambulance transportation ($601), direct medical care and

A single fatal shooting entails an average of $49,164 in medical expenses. The average total medical cost of a single non-fatal shooting that requires hospitalization is even higher, at $63,289.
treatment ($33,923), mental health services ($12,030), and health insurance claims processing ($2,610).

In the case of the Cathedral Hill shooting, those who survived continue to undergo costly therapy to help address the ongoing mental and emotional toll of the incident. With so many in the community directly affected by such a traumatic event, the PIRE estimates only capture a fraction of the full cost of mental health services incurred in the wake of gun violence. Additionally, payouts from business insurance for claims of wrongful death or fallout from other workplace violence can create crushing premiums for businesses going forward.

When a shooting is not fatal, medical bills tend to be much higher. The average total medical cost of a single non-fatal shooting that requires hospitalization is $63,289. Medical care and treatment costs are higher for non-fatal shootings because such injuries often require extensive post-release treatment, including physical therapy and prescription medications that generate tens of thousands of dollars in additional expenses. In this way, non-fatal shootings, which are twice as common as fatal shootings, exact an immense toll on the healthcare system.

With an average of 922 shootings each year, the healthcare expense of gun violence in Minnesota is $32 million per year. Moreover, much of this cost is shouldered directly by taxpayers—studies show that as many as 85% of gunshot victims are either uninsured or covered by publicly funded insurance, such as Medicaid.

LAW ENFORCEMENT AND CRIMINAL JUSTICE

An incident of interpersonal gun violence also requires an extensive police investigation. If a suspect is arrested, which is not always the case, there are enormous costs associated with bringing that person to justice, including the costs of a trial and, if a conviction

$32 MILLION

DIRECTLY MEASURABLE COSTS

THE COST OF GUN VIOLENCE IN MINNESOTA

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is obtained, prolonged incarceration. So while the victim of a shooting is receiving expensive medical treatment, the perpetrator is also receiving costly attention from the criminal justice system, generating a huge bill that is covered largely by Minnesota taxpayers.

According to estimates by PIRE, the average cost of a police investigation and related criminal justice expenses for a fatal shooting is $439,217. Criminal justice expenses include salaries and benefits for public officials such as judges, prosecutors, and public defenders, as well as the cost of incarceration, which in a federal facility averages more than $30,000 per year for each inmate. Minnesota taxpayers spend approximately $45,688 per year incarcerating each inmate in state prisons.

Since many non-fatal shootings result in shorter sentences or do not end with the apprehension of a suspect, criminal justice costs associated with a non-fatal shooting are much lower: an estimated $8,391.

In the Cathedral Hill shooting, when authorities arrived on the scene, heavily armed in riot gear—with their shields alone costing between $1,200 and $2,000 each—the suspect, Ryan Petersen, had already fled. After an extensive manhunt involving multiple law enforcement agencies that concluded with an 11-mile car chase along Highway 95, authorities ultimately stopped Petersen’s Chevrolet Yukon near Stillwater and apprehended him.

In addition to the law enforcement expenditures required to capture Petersen, North Star Defense’s employees have also spent considerable time away from their jobs, supporting the investigations of the St. Paul Police Department and the trial preparations of the Ramsey County Attorney’s Office, leading to lost productivity and earnings by a prominent local business.

On October 7, 2016, Petersen was convicted of first-degree murder and second-degree murder with intent. Due to his multiple previous felony convictions, including a conviction for a drive-by shooting in 1999,
he was also convicted of possession of a firearm by an ineligible person. He was sentenced to life in prison without the possibility of parole. If Petersen, 37, lives to 77, the current life expectancy for American men, Minnesota taxpayers will spend approximately $1.8 million to finance his life sentence.

Taxpayers in Minnesota are spending an estimated $31 million per year on law enforcement and criminal justice expenses related to gun violence.

**EMPLOYER COSTS**

Another directly measurable expense of gun violence is the cost to employers of covering for employees who are unable to work, temporarily or permanently, due to serious injury or death. For example, an employer may have to pay for temporary workers, overtime, and additional training for current employees to fill in for a worker who is absent due to a gun violence incident. In the case of a death or debilitating injury, the employer will have to bear the costs of locating, hiring, and training a replacement.

The PIRE cost of injury model estimates that a single, non-fatal shooting requiring hospitalization costs employers an average of almost $2,500, while a fatal shooting costs employers closer to $10,000 per incident. Additional expenses, such as workers’ compensation, clean-up, and funeral costs may be borne by employers depending on the nature of the incident and the victim’s job.

For Dan Adkins, North Star Criminal Defense’s managing partner, the direct costs of losing Chase were substantial and included $5,000–$6,000 in repair costs and benefit payments including $60,000 in workers’ compensation and $15,000 in burial expenses. The firm’s employees also lost considerable work time negotiating with their landlord and insurance companies in the aftermath of the shooting.

In Minnesota, the direct cost of fatal and non-fatal shootings to employers is an estimated $4.5 million per year.
LOST WAGES

Lost wages are the value of the income a gunshot victim or incarcerated perpetrator could have earned had they not been killed, forced to stop working because of a serious injury, or incarcerated. This cost is imposed directly on victims, perpetrators, and their families. According to data derived from the PIRE cost of injury model, the average value of lost work for a single fatal shooting is $1,742,722, while for a non-fatal shooting requiring hospitalization, the figure is $81,559.26 When a gunshot victim or incarcerated perpetrator is an income earner for his or her family—especially the primary breadwinner—the impact of lost wages on the family can be severe.

When Chase Passauer lost his life in the Cathedral Hill shooting, he was only 23 years old. With a promising career ahead of him, it’s not difficult to see how his tragic death could have resulted in lost wages in the millions of dollars due to his life being cut short so early.

Given Ryan Petersen’s sentence of life imprisonment without parole, his girlfriend of 22 years and their three children will also have to face the loss of his income as a small business owner.27

With 389 gun-related deaths and 533 non-fatal shootings per year, lost wages attributable to gun violence in Minnesota total nearly $696 million annually.28

Lost wages do more than just affect the families directly impacted by gun violence—loss of income also burdens taxpayers and the government. The $696 million that Minnesotan families lose in income every year translates into approximately $72 million in lost tax revenue, a cost borne initially by the government, and ultimately by taxpayers who must make up the difference or receive decreased services.29
TOTAL DIRECTLY MEASURABLE COSTS

With healthcare costs of $32 million, law enforcement costs of $31 million, employer costs of $4.5 million, and lost wages of $696 million, the directly measurable cost of gun violence in Minnesota is $764 million.

However, simply adding up the directly measurable costs does not come close to fully covering the economic and societal damage inflicted by gun violence each year in the North Star State. Other significant costs, such as emotional and physical pain and suffering, reduced quality of life, fear, lowered property values, and lost business opportunities, must also be considered, even if they are harder to measure.
THE COSTS OF PAIN, SUFFERING, AND FEAR
Directly measurable expenses represent only a fraction of the total cost of gun violence in Minnesota.

The pain and suffering, community fear, and neighborhood flight resulting from gun violence inflict real economic harm, including lost business opportunities, lowered property values, reductions in the tax base, and the cost of implementing additional security measures to avoid future violence.

Noted economists Philip Cook and Jens Ludwig have extensively studied the costs associated with gun violence and have concluded that “the threat of gun violence reduces the quality of life for all Americans by engendering concerns about safety, raising taxes, and limiting choices about where to live, work, travel, and attend school.” While these expenses are sometimes more difficult to quantify, they are still very real and must be considered to understand the full cost of gun violence in our state.

REDUCED QUALITY OF LIFE CAUSED BY PAIN AND SUFFERING

In discussing the costs incurred by his business as a result of the Cathedral Hill shooting, Dan Adkins, one of the managing partners at North Star Criminal Defense, pointed out that the greatest cost was the pain and suffering caused by the loss of 23-year-old Chase Passauer—a valued and beloved colleague, employee, friend, and family member.

Chase’s death caused very real anguish, as do all shootings, which decrease the quality of life for gun violence survivors and for the families and friends of victims. These losses are difficult to quantify, since the value of human life is priceless, but models have been developed that attempt to place a monetary value on the deaths and injuries caused by gun violence. Economists from PIRE estimate that a single non-fatal firearm injury requiring hospitalization is associated with a $327,747 decrease in quality of life due to pain and suffering.

With an average of 533 non-fatal shooting incidents per year, the cost of reduced quality of life associated with non-fatal shootings in Minnesota is approximately $105 million. Non-fatal injuries requiring hospitalization make up $64 million of that cost, while non-fatal injuries only requiring treatment in an emergency department account for $41 million.
With respect to gun-related deaths, PIRE estimates the value of the portion of life lost associated with a single firearm death at $3.4 million. This calculation is based on estimates of the monetary value of a life, estimates which range from $5 million to $13 million. The US Department of Transportation, for example, currently uses a mid-range value of $9.4 million in its own studies.

In the case of the Cathedral Hill shooting, the loss of Chase to his family, coworkers, friends, and society in general is impossible to quantify, but reduced quality of life due to pain and suffering in the millions of dollars is easy to fathom—all from a single shooting incident. Due to Minnesota’s average of 389 firearm-related deaths per year, a reasonable estimate of quality of life costs associated with gun fatalities alone is $1.3 billion dollars.

In total, these estimates show that decreased quality of life attributable to the pain and suffering caused by gun violence costs Minnesotans more than $1.4 billion each year.

**FEAR AND FLIGHT**

A shooting is a terrifying event. One of the most burdensome consequences of gun violence is the fear it unleashes. After a recent 24-hour period in Minneapolis in which seven people—most of them innocent bystanders—were shot, Brianna Hinkle, a local mother, told reporters that “I don’t want to send my son out to the bus stop and fear he’s not going to come home that day.” In addition to the direct negative impact this fear has on those who witness and live with regular gun violence, it also has a damaging economic effect as residents either flee for safer areas or remain inside their homes to reduce the risk of injury.

There is direct and potentially long-lasting damage inflicted when a person witnesses or is exposed to an act of violence. As David Hemenway, director of the Harvard Injury Control Research Center, explains, exposure to violence “increases the risk for psychiatric, emotional, behavioral, and health problems.”

### ANNUAL COST OF GUN VIOLENCE IN MINNESOTA

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These problems include post-traumatic stress disorder (PTSD), depression, anxiety, withdrawal, lowered academic performance, substance abuse, and delinquency. Moreover, exposure to violence has been linked to specific health problems that include asthma, heart disease, and babies born underweight. Importantly, witnessing or being a victim of gun violence also increases the risk that a person will become a perpetrator of violence in the future. These negative outcomes are costly both for victims of violence and for society in general.

In areas with high levels of gun violence, PTSD is of particular concern. One hospital program working with violence victims in a high-crime area of Philadelphia found that 75% of its clients met the diagnostic criteria for PTSD. The costs of treating PTSD with professional counseling and therapy are substantial, but the costs of leaving PTSD untreated can be devastating, as the long-term effects of untreated PTSD include severe depression and suicidal thoughts and actions.

Compounding this is the fact that residents in areas with high rates of gun violence are less likely to leave the house—due to fear—to take advantage of needed services or otherwise engage in activities that promote health. This social isolation imposes serious consequences on afflicted communities. “In addition to the obvious reductions in recreational and job opportunities that families experience,” explain economists Cook and Ludwig, “being homebound may have effects on health outcomes by reducing exercise and trips to the doctor’s office, grocery, or drug store.” This imposes a direct cost on individuals’ health and wellbeing, and adds to societal healthcare costs. Moreover, this reluctance to venture outside entails decreased consumer spending at businesses, jeopardizing profits and damaging the local economy.

Residents in areas with high rates of gun violence are less likely to leave the house—due to fear—to take advantage of needed services.

The fear that causes many to take shelter inside their homes also causes individuals and businesses with sufficient means to relocate to safer areas, as Ingrid Christensen was forced to do in St. Paul to provide a sense of security to her employees. These outcomes exact a very real financial toll in the form of lost business opportunities, lowered property values, and reduced tax base.

**LOST BUSINESS OPPORTUNITIES**

Gun violence diminishes business opportunities in a number of ways, including by limiting the hours businesses are willing to stay open, discouraging residents from patronizing firms and retail establishments where violence is more prevalent, preventing employees from taking night and evening work, and hurting both foreign and local tourism. At the same time, we know that reducing shootings has a significant and measurable benefit in terms of job creation and increased sales numbers.

When a shooting occurs, people in the area feel less safe, and are less inclined to frequent public places and businesses. As Philip Cook and Jens Ludwig point out, a number of economic decisions may be influenced by the threat of gun violence, “including residential and commercial location decisions, hours of operation for retail establishments, and family decisions about when and
where to go out for the evening.” In the aggregate, “the result may be blighted neighborhoods, playgrounds abandoned to gang members, and business districts that close down at sunset.”

When businesses feel obligated to shutter early because of safety concerns, the opportunity cost imposed is difficult to measure, but still very real.

Potential customers are also discouraged from patronizing local businesses where gun violence is prevalent. As David Hemenway has described, to avoid being shot, residents of neighborhoods with high rates of gun violence modify their behavior concerning shopping, recreation, leisure, and other activities. Residents are less likely to go out at night. When people are forced to live behind locked doors, they are discouraged from frequenting local establishments or otherwise participating in the local economy. This wreaks significant losses on businesses—particularly on those dependent upon high levels of in-store traffic.

The fear created by gun violence also limits business opportunities by altering when and where people are willing to work. Daniel Hamermesh, an economist at the University of Texas, has shown that each additional homicide in a city causes an annual loss of between $293,000 and $732,000 because people are afraid to work nights and evenings. These estimates indicate that in Minnesota each year from 2010 to 2014, gun homicides alone account for more than $50 million per year in lost business opportunity.

Conversely, a new study by the Urban Institute confirms the economic benefits of reducing gun violence in terms of job creation and improved sales volumes. Looking specifically at data gathered from Minneapolis at the census tract level, Urban Institute researchers concluded that one less gun homicide within a census tract was “associated with the creation of 80 jobs and an additional $9.4 million in sales across all business establishments the next year.” This study provides further evidence that reducing the frequency of shooting incidents is good for business.

Finally, gun violence has a direct impact on foreign and local tourism. For example, after a string of high-profile shootings in Miami in the 1990s, economists estimated that European travel to Florida fell by 20%. One Miami-based travel company reported that the number of tourist packages sold to Europeans dropped by 80%. By discouraging travelers from visiting metropolitan areas, gun violence further dampens economic activity.

Local tourism suffers as well. As Cook and Ludwig explain, “Those who live outside of areas with high rates of gun violence may suffer a reduction in their quality of life if the threat of gunshot injury prevents them from taking advantage of the amenities offered by big city life.” This affects more than just quality of life for those in safer areas—when individuals decide not to visit certain areas of a city because of safety concerns, businesses lose out on potential customers and local tourism suffers.

To avoid being shot, residents of neighborhoods with high rates of gun violence modify their behavior concerning shopping, recreation, leisure, and other activities.
Without question, gun violence has a negative impact on local businesses, as the Cathedral Hill shooting demonstrates. Shortly after Chase Passauer was shot and killed at North Star Criminal Defense, the firm lost out on a potential tenant—a fellow lawyer who cited safety concerns as his reason for not renting an office space at North Star’s location. This is precisely the sort of business opportunity that is driven away by gun violence.

Simply put, shootings are bad for business. Although difficult to directly measure, the negative economic impact of the great number of business opportunities lost due to gun violence must not be overlooked.

LOWERED PROPERTY VALUES

When crime rates are high, property values decrease, inflicting losses on all manner of property owners. By the same token, when crime is reduced, property values rise. For example, research by NYU economist Amy Ellen Schwartz showed that the large crime drop experienced by New York City in the 1990s contributed substantially to the growth of property values.\(^5\) Similarly, a study by Devin Pope of the University of Chicago and Jaren Pope of Brigham Young University showed that the national crime decrease of the 1990s translated into an average gain of $2,000 per house, and in areas with denser crime, the gain was closer to $11,000 per house.\(^6\)

There is a direct economic benefit from reductions in crime levels, particularly when it comes to violent crime.

The relationship between homicides and property values is well established. A 2012 study by economists working with the Center for American Progress found that significant gains in property values consistently followed reductions in homicides at particular zip codes.\(^7\) More specifically, the study found that a 10% decrease in homicides caused a 0.83% increase in property prices during the next year, while a 25% reduction yielded a 2.1% increase in property values.\(^8\) Since gun deaths account for nearly 70% of all homicides, gun violence is a major driver of homicide-related property value loss. The situation in Minnesota is no different. In 2013, 76 of the state’s 114 homicides—67%—were committed with a gun.

Reducing gun violence in Minnesota will raise property values, particularly in the neighborhoods where shootings are most common.

REDUCED TAX BASE

Gun violence also inflicts direct losses on local governments by causing residents to flee, thereby undermining the tax base. Research has demonstrated that the rate of migration out of urban neighborhoods is highly dependent on homicide rates.\(^9\) Since guns dramatically increase the probability that violent crimes result in homicide, the use of guns in crime contributes significantly to flight away from afflicted areas.\(^10\) It’s not just individuals who seek safer areas—as business
owner Ingrid Christensen’s story demonstrates, gun violence also compels businesses to relocate to provide greater security for employees.

Cities with high rates of gun violence, such as Chicago, have experienced this phenomenon. Census Bureau data shows that from 2000 to 2008, the total population of Chicago declined by nearly 50,000 people, a decline that represented 1.4% of Chicago’s population in 2000. According to Jens Ludwig, if not for its unusually high rates of gun violence, rather than declining, Chicago’s population would have actually increased by several hundred thousand residents over this period.

Economists estimate that every homicide reduces a city’s population by around 70 people. In 2015, there were at least 49 deadly shootings in Minneapolis and St. Paul, which by this estimate would have caused a population loss of 3,430 people in cities with a combined population of 711,790. This migration represents a loss of 0.5% of the populations of Minneapolis and St. Paul.

The population loss caused by gun violence undermines the local tax base, creating a negative feedback cycle. As Ludwig has explained, “One thing that happens when violence is driving people and business out of the city is that it obviously reduces the tax base, which denigrates the ability of the city government to address the violence problem, which generates more violence, which drives out more tax base.”

This cycle demonstrates why the effort of multiple stakeholders, including the business sector, is needed to combat gun violence, since the most affected local governments are often not in a strong enough financial position to adequately address the problem.

**ADDITIONAL SECURITY MEASURES**

Finally, gun violence imposes further financial costs in the form of additional security measures that individuals, businesses, and government bodies pay for to reduce risk. As Cook and Ludwig explain, “The threat of gun violence imposes costs on all Americans, even those who are not actually victimized, because most people and many government agencies engage in costly behaviors designed to reduce the risk of gunshot injury.”

One concrete example of this is public schools, which purchase metal detectors and hire security guards to deter gun violence, often at great cost. As of the 2013–14 school year, as a security measure more than 1 in 10 American high schools employed metal detectors, which have a mid-range cost of $5,000 each. In addition, 43% of public schools employ one or more security guards or law enforcement officers to provide security services. The mean cost for a full-time school security guard is $33,020.

A 2015 *Wall Street Journal* analysis examined the increased security spending that occurred in the wake of the massacre at Sandy Hook Elementary in December 2012, finding that in 2014 alone,
American schools and universities spent $768 million on security cameras, mass notification systems to inform parents of an emergency, and equipment to prevent unauthorized access to school and university buildings.\textsuperscript{68} That spending is expected to total $907 million in 2016.\textsuperscript{70}

Businesses and individuals in high-violence areas also take expensive precautions to increase safety, including the hiring of full-time security guards, the installation of security cameras, and the addition of external lighting. For example, after Chase’s murder North Star Criminal Defense paid $2,000 to install a door entry and security system. All of these security measures impose additional costs that add to the overall price tag of gun violence.
THE FULL COST OF GUN VIOLENCE IN MINNESOTA
The directly measurable cost of gun violence in Minnesota is an astounding $764 million per year.

When the cost of pain and suffering is also estimated, that annual total rises to $2.2 billion. The more easily quantifiable costs associated with gun violence include healthcare costs, law enforcement expenses, employer costs, and the burden of lost income. However, this limited estimate doesn’t fully encapsulate the economic and societal burden of gun violence in our state.

When the reduced quality of life caused by pain and suffering is also considered, the estimated cost of gun violence in Minnesota rises to $2.2 billion. This figure still does not capture a number of critical, albeit difficult to measure, costs, including lost business opportunities, lowered property values, a reduced tax base, and additional security measures taken to lower risk of exposure to gun violence. While $2.2 billion per year is a more complete estimate, it is still an understatement of the true cost of gun violence in Minnesota.

This $2.2 billion figure is very similar to other estimates of the cost of gun violence conducted by economists over the years. Cook and Ludwig, for example, relied primarily on a willingness to pay model to estimate that the total cost of gun violence to society is approximately $100 billion per year in 1998 dollars. Taking Minnesota’s population and current gun violence rates into account, Minnesota’s proportional share of the Cook and Ludwig estimate is approximately $1.7 billion in today’s dollars.

Economists Ted Miller and Mark Cohen performed a cost analysis of gun violence using data from 1992 and estimated national costs of $126 billion. Based on current gun violence rates, Minnesota’s proportional share of that cost, in 2016 dollars, is $2.1 billion. This report’s estimate of more than $2.2 billion per year is reasonably close to the estimates derived from these two earlier studies.

Even if we only consider the costs we can directly measure—$764 million—it’s clear that gun violence is a large economic drain on our state. We should understand and appreciate, however, that the actual costs are much higher. The price of gun violence appears especially steep when compared to the relatively low cost of implementing the proven solutions discussed in the following section.
STRATEGIES FOR REDUCING GUN VIOLENCE
Although gun violence in Minnesota is extremely costly, the good news is that proven solutions already exist.

A complex problem like gun violence requires a holistic set of solutions. Borrowing from the public health model of addressing epidemics, a comprehensive response to gun violence requires: 1) defining the problem; 2) identifying major risk factors; 3) selecting evidence-based prevention and intervention strategies to address those risk factors; and 4) assuring the widespread adoption of the most effective strategies.

This report has already defined the problem—922 gun-related deaths and injuries per year in Minnesota—and research has identified several of the strongest risk factors for gun violence, including easy access to firearms, environmental factors such as abandoned lots and unlit public spaces that attract crime, and prior exposure to violence. The following section lays out three categories of proven prevention and intervention solutions specifically designed to address those risk factors without interfering with responsible gun ownership—universal background checks, community investment strategies, and hospital-based violence intervention programs.

First, **universal background checks** will help address the ease with which dangerous individuals can obtain guns. In Minnesota, no background check is currently required to purchase a gun through a private sale or transfer, making it incredibly easy for individuals with serious criminal records or histories of severe mental illness, who are prohibited from possessing a gun under federal and state law, to obtain firearms. Universal background checks are a necessary tool to prevent dangerous people from illegally buying firearms and using them to harm themselves or others. Since background checks on average take only minutes to complete, they impose a minimal burden on law-abiding citizens, while helping to ensure that firearms aren’t so easily obtained by criminals and the dangerously mentally ill.

Second, we can use **community investment strategies** to address the environmental conditions that encourage gun violence—such as abandoned lots and unsafe public parks. Several cities, including Los Angeles, have reduced gun violence by implementing programs designed to address these environmental factors by reclaiming public spaces for community use during especially high-risk times. Another program, based in Philadelphia and run through a partnership between a horticultural society and local businesses, has decreased gun violence by cleaning up abandoned
lots that previously attracted illegal activity. Programs like these address violence while also creating social and economic opportunity for local communities, fostering a virtuous cycle of positive change.

Third, we can reduce gun violence through the implementation of **hospital-based violence intervention programs** (HVIP). Research shows that people exposed to gun violence are at an incredibly high risk of being shot again—the violent injury recidivism rate for such individuals is as high as 45%. Moreover, the time spent recovering in the hospital provides a golden opportunity for intervention and behavior change. HVIPs leverage this “teachable moment” by connecting violently injured individuals still recovering in the hospital with trained case managers. These case managers help clients identify and address the factors that led to their being shot in the first place, and provide clients with direct support for months after initial discharge. By directly intervening at a critical moment, HVIPs have greatly reduced the violent injury recidivism rate in a variety of sites across the country.

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We share a moral imperative to do what we can to prevent the unacceptably high number of shootings that occur each year here in Minnesota. By implementing these strategies to reduce gun violence, we will not only ease the enormous economic burden of gun violence—we will also meet our responsibility as friends, neighbors, parents, and Minnesotans to ensure the safety of all our citizens. The strategies outlined in this section will reduce gun violence in our state, especially if implemented in unison. While there are many other potential solutions to gun violence, *The Economic Cost of Gun Violence in Minnesota: A Business Case for Action* seeks to provide a starting place by identifying several concrete solutions for the business community of Minnesota to support or implement directly.

**UNIVERSAL BACKGROUND CHECKS**

One of the key risk factors of gun violence is easy access to firearms, and loopholes in Minnesota’s background check system make it too easy for dangerous people—including convicted felons—to obtain guns.

When a person buys a gun from a licensed gun dealer, federal law requires the dealer to conduct a background check to make sure the purchaser is not prohibited from lawfully possessing firearms due to, among other things, a prior felony conviction, a history of serious mental illness, or a domestic violence restraining order.

However, the requirement to conduct a background check does not apply to private sellers, who are individuals not technically “engaged in the business” of selling guns, but who may still sell firearms. Researchers estimate that as many as 40% of firearm sales are conducted through private sellers—either online, at gun shows, or in person at another location—indicating that private sales represent...
a substantial portion of the gun market. As Minnesota does not currently require background checks on private gun sales, it’s not difficult for prohibited people to simply skip the background check process.

As a result, it’s all too easy for guns to fall into the wrong hands in Minnesota. In the 19 states with universal background checks, people legally prohibited from possessing firearms can’t acquire guns as easily, and rates of gun violence are correspondingly lower. In fact, levels of domestic violence-related shootings, shootings of police officers, and levels of illegal gun trafficking are all lower in states that require background checks on private sales.

Research shows that background checks are associated with lower levels of gun homicide and suicide. A study found that Connecticut’s implementation of universal background checks in 1995 was associated with a 40% reduction in the state’s firearm homicide rate during the first 10 years. Conversely, Missouri’s repeal of its universal background check requirement in 2007 was associated with a 25% increase in firearm homicide. A recent study published in the American Journal of Public Health showed that states with universal background checks had a lower overall suicide rate than other states—even after controlling for other factors such as poverty, age, education, and race. The evidence clearly demonstrates that implementing universal background checks in Minnesota will save lives.

Moreover, background checks take an average of only a few minutes to complete, meaning that law-abiding gun purchasers in Minnesota would not be heavily burdened by this policy. Given this, it’s not surprising that up to 92% of Americans—including 84% of gun owners—agree that a background check should be conducted before a person may purchase a firearm.

The Cathedral Hill shooting demonstrates how Minnesota’s lack of universal background checks makes it too easy for dangerous people to acquire guns. Ryan Petersen, the shooter, was able to obtain the handgun used to shoot and kill 23-year-old Chase Passauer, even though he had been convicted of multiple felonies in the past, including a drive-by shooting in 1999. Had universal background checks been in place in Minnesota at the time, it would have been much more difficult for Petersen to acquire a firearm.

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Right now, Minnesota is like an airport where there are two security lines: one with a metal detector and one without—and would-be shooters may simply choose the line they prefer. Why would we allow it to be so easy for potentially dangerous individuals to buy guns? As long as this gap in our state law remains, it will continue to be all too easy for prohibited individuals, including convicted felons like Ryan Petersen, to skip the background check process and acquire deadly weapons.

**COMMUNITY INVESTMENT STRATEGIES**

Another of the risk factors for gun violence is the quality of the “built environment” within a given community—in other words, whether the neighborhood is clean, has usable park spaces, and is well-lit at night. Studies show that the presence of these positive environmental factors can have a deterrent effect on violence. At the same time, neighborhoods with higher levels of litter, graffiti, abandoned cars, poor housing, and other signs of disorder are associated with increased violence.

In Los Angeles, the Summer Night Lights program addresses these risk factors. The program operates in 32 locations across the city and provides opportunities for youth and community members by keeping recreation centers and parks open between the hours of 7 p.m. to 11 p.m. throughout the summer months, when gun violence rates tend to peak.

According to the GRYD Foundation, which operates the program, in 2014 alone, Summer Night Lights received over 900,000 visits, served community members more than 500,000 meals, and gave jobs to 325 at-risk youth. That same year, the program saw a 15% reduction in gang-related crime compared to the same period in 2013. By providing positive social and economic opportunities while reducing the risk of gun violence, programs like this are a worthwhile investment for the state of Minnesota.

Another strategy designed to address environmental risk factors for violence, the Philadelphia LandCare program, is spearheaded by the Pennsylvania Horticultural Society (PHS), which works with neighborhood groups and city agencies to transform vacant lots into clean, green spaces. PHS and the city then contract with local landscapers to maintain these newly created spaces. Adding to the virtuous cycle, PHS uses the maintenance program to provide jobs to formerly incarcerated individuals, who are also at increased risk for involvement in gun violence.

LandCare has produced impressive results. A randomized, controlled study conducted by researchers at the University of Pennsylvania revealed that greening efforts in Philadelphia lead to lower numbers of firearm assaults in surrounding areas, effects which persist for years following the greening procedures. This study also found that Philadelphia’s LandCare program causes residents near greened lots to feel safer. Another study, performed by researchers at the University of Pennsylvania’s Perelman School of Medicine, found that Philadelphia’s lot greening program also reduces the stress levels of nearby residents.
In addition, the LandCare program increases property prices near lots receiving the greening treatment. Researchers estimate that in Philadelphia, households near recovered lots experienced a median gain of $34,468 in housing wealth after five years. Local governments benefit directly from this improvement: the same study found that every dollar spent transforming vacant lots creates $7.43 in additional property tax revenues.

The Philadelphia LandCare Program offers technical assistance training and workshops to municipal governments and community organizations in cities interested in replicating the model. The program has already been replicated in a number of Midwestern cities, including Cincinnati and Youngstown, Ohio. The Youngstown program was evaluated in 2015, where researchers associated it with a statistically significant reduction in crime levels.

Programs like Summer Night Lights and LandCare show how determined communities can fight gun violence through the creation of safer, cleaner, and more accessible public spaces, generating social and economic opportunity for both residents and local businesses. The business community of Minnesota should expand partnerships with local organizations and government agencies to develop and foster programs like these in at-risk communities.

**HOSPITAL-BASED VIOLENCE INTERVENTION PROGRAMS**

Interpersonal shootings disproportionately involve young men of color living in underserved neighborhoods, so any effective violence intervention strategy must focus attention on this at-risk population. Hospital-based violence intervention programs (HVIP) are rooted in two fundamental insights: 1) individuals that are non-fatally shot are more likely to be involved in another shooting, as either perpetrator or victim, and 2) the time when someone is recovering in the hospital from a violent injury represents a unique “teachable moment” in which thoughtful, culturally competent intervention is especially likely to produce positive outcomes.

There’s growing evidence that the cycle of violence can be successfully interrupted by immediate and intensive intervention directly following a violent incident that requires hospitalization, yet, at present, many hospitals simply discharge gunshot patients without any strategy in place to reduce the risk of recidivism or retaliation.

Studies have shown that, even when controlling for other risk factors, individuals who are shot are more likely to be the victim of another shooting—studies have shown that as many as 45% of violently injured people sustain another violent injury in the future. HVIPs take advantage of the teachable moment a violent injury presents by connecting injured people with case managers that provide long-term help and guidance.

**Interpersonal shootings disproportionately involve young men of color living in underserved neighborhoods, so any effective violence intervention strategy must focus attention on this at-risk population.**
Case managers are trained in violence prevention techniques and work with clients for months to help ensure their success, whether that be shepherding clients to badly needed social services or helping clients to withdraw from gang involvement. These violence prevention professionals help address a major deficiency in health-related communications: the documented lack of cultural competency. In other words, HVIP case managers come from similar backgrounds as their clients and are able to communicate and connect with them on a deeply personal level.

Where implemented, this model is incredibly effective: clients of Baltimore’s HVIP, for example, experienced only a 5% injury recidivism rate compared to a 35% injury recidivism rate in the control group, a reduction in recidivism that generated an estimated savings of $598,000 in healthcare costs. The beneficial effects of the HVIP model extend beyond re-victimization: clients of the Baltimore program also committed future crimes at a much lower rate than non-clients, translating into approximately $1.25 million in incarceration cost savings.

An evaluation of San Francisco General Hospital’s Wraparound Project showed a fourfold decrease in injury recidivism rates. A study of an Indianapolis-based HVIP program found a one-year reinjury rate of 0% for program participants compared to 8.7% for a historical control group. Evaluations of HVIP programs in Chicago, IL, Oakland, CA, and Richmond, VA, have also reported promising outcomes.

At least one pilot HVIP program launched this year in Minnesota, but this strategy merits further support and should be expanded to cover additional areas. All violently injured persons who need support should receive it, rather than simply being treated and returned to the street. The cost of investing in solutions like HVIP—which generally requires a yearly operating budget of just a few hundred thousand dollars—pales in comparison to the overall cost of gun violence in Minnesota. This is an area where private investment from the business community could make an enormous difference in terms of expanding program capacity.

To learn more about the implementation of HVIPs, visit the National Network of Hospital-based Violence Intervention Programs at www.nnhvip.org.

**LEARN MORE ABOUT COMMUNITY INTERVENTION PROGRAMS**

There are a variety of other community-based violence intervention strategies that have shown incredible promise with reducing gun violence in urban areas. The Group Violence Intervention strategy, for example, was first used in the enormously successful Operation Ceasefire in Boston in the mid-1990s, where it was associated with a 61% reduction in youth homicide. The program has now been implemented in a wide variety of American cities, with consistently impressive results.
NATIONAL NETWORK FOR SAFE COMMUNITIES

According to the National Network for Safe Communities, which helps cities to implement GVI, “Minneapolis is in the early phase of its Group Violence Intervention and is developing its organizational capacity.” More information can be found on the National Network for Safe Communities’ website, which is available at nnscommunities.org.

CURE VIOLENCE

Cure Violence is another promising approach that sees gun violence as a contagious disease and treats it with the help of trained Violence Interrupters and Street Outreach Workers. Program evaluations conducted to date have found that this strategy is associated with significantly reduced rates of gun violence. To learn more about how cities can implement the Cure Violence model, please visit the Cure Violence website at cureviolence.org.

THE LAW CENTER TO PREVENT GUN VIOLENCE

These approaches certainly merit the support of the Minnesota business community. For detailed information about each of these strategies, please refer to the Law Center to Prevent Gun Violence’s comprehensive report, Healing Communities in Crisis: Lifesaving Solutions to the Gun Violence Epidemic, which is available at smartgunlaws.org/healing-communities.
CONCLUSION
The cost of gun violence in Minnesota is equal to 11% of the state’s yearly general fund spending.

Gun violence costs the state more than the amount it spends each year on wages and salaries for all public employees put together.\textsuperscript{112} Gun violence imposes an enormous economic burden on Minnesota—$764 million per year in directly measurable costs. When pain and suffering and reduced quality of life are considered, that total is closer to $2.2 billion per year.

Yet, this larger estimate still does not encapsulate the full cost of gun violence in Minnesota—it does not account for other significant costs that are difficult to measure, since they arise from the fear felt in a community due to shootings. These costs include decreased business opportunities and damage to the local economy, negative effects on public health, reduced property values, population loss and its subsequent impact on the local tax base, and investment in expensive security measures. The Minnesota business community feels the direct and indirect consequences of too many shootings, and is ready to take a stand against gun violence. Not just with words, but with concrete actions.

Promising solutions exist that will reduce shootings while still respecting lawful, responsible gun ownership. These goals are not mutually exclusive. By implementing universal background checks, along with the community-based investment and intervention programs identified in this report, we can save lives and begin to reverse the devastating impacts of the fear caused by gun violence.

Breaking the cycle of gun violence requires an investment of resources and leadership from all members of the community—including the private sector. This is an investment that’s sure to pay off: a reduction of gun violence by even 10% in Minnesota would represent a cost savings of at least $76 million, in addition to the obvious benefits of safer communities and stronger businesses. Implementing all of the solutions discussed in this report would cost a mere fraction of that amount.

Eliminating gun violence is both a moral imperative and a goal that makes good business sense. Working together, we can create the safer and more prosperous future we all deserve.

\hspace{1cm}

\textbf{GET INVOLVED}

Learn more about the Minnesota Coalition at americansforforresponsiblesolutions.org/MN


7. See note 6, “Societal Cost,” PIRE.

8. Id. This consists of ambulance transportation ($364), the provision of direct medical care and treatment ($58,953), the provision of mental health services ($263), and insurance claims processing ($3,709).


11. The precise estimate is $32,249,813. The cost of medical care amounts to $25,173,692, the cost of mental health treatment $4,807,011, the cost of emergency transport $315,542, and the cost of health insurance claims processing $1,953,568.


13. See note 6, “Societal Cost,” PIRE.


15. In 2010, the cost of incarceration per inmate in Minnesota was $41,264. In today’s dollars, that cost is $45,688.

16. See note 6, “Societal Cost,” PIRE.


19. See note 5, Harlow and Sawyer, “Man is Fatally Shot;” see note 3, Feshir, “Suspect charged.”


22. The precise estimate is $31,190,417.

23. See note 6, “Societal Cost,” PIRE.

24. Office clean-up and repair costs were ultimately covered by insurance, but the firm still paid a $500 deductible.

25. The precise estimate is $4,472,615.


28. The precise estimate is $695,720,959.

29. The precise estimate is $72,145,013.

30. The estimated total of directly measurable costs is $763,633,803.


33. The precise estimate is $105,049,603.

34. The estimated quality of life cost associated with non-fatal firearm injuries requiring hospitalization is $63,976,214. For non-fatal firearm injuries only requiring treatment in an emergency department, the precise estimate is $41,073,389.
35. See note 6, “Societal Cost,” PIRE.


37. The estimated quality of life cost due to firearm deaths is $1,331,676,350.

38. The estimated quality of life cost associated with all firearm injuries in Minnesota is $1,436,725,954. In addition to the cost associated with firearm deaths, $63,976,214 of that estimate is due to injuries requiring hospitalization, and $41,073,389 is due to injuries only requiring treatment in an emergency department.


41. id.

42. id.


46. See note 9, Cook and Ludwig, The Real Costs, 94.

47. id. at 61.

48. id.

49. See note 40, Hemenway, “How You Measure Things Matters.”


51. Adjusting the average of $293,000 and $732,000 for inflation yields a middle estimate of $786,000. $786,000 per year in lost evening and work time * 64 firearm homicides per year = $50,304,000.


53. See note 9, Cook and Ludwig, The Real Costs, 95.

54. id. at 94.

to many property owners in urban neighborhoods.”); see note 31, Cook and Ludwig, “Gun Violence against Children,” 88 (“Lower violence rates have played a leading role in stimulating a renaissance in many central cities. Cities have become more livable and attractive because they are safer. That change is worth billions of dollars, as demonstrated by rising urban property values.”).


58. Id.


60. See note 9, Cook and Ludwig, *The Real Costs*, 92–93.


65. See note 9, Cook and Ludwig, *The Real Costs*, 85.


70. Id.


73. Andrew Anglemyer, Tara Horvath, and George Rutherford, “The Accessibility of Firearms and Risk for Suicide


89. *Id.*

90. Eugenia South et al., “Neighborhood Blight, Stress, and Health: A Walking Trial of Urban Greening and


95. See note 43, Bingenheimer, “Firearm Violence, Exposure, and Serious Violent Behavior.”


98. See note 96, Dicker, “Where Do We Go From Here?”


100. Id.


The Minnesota Coalition for Common Sense is a state initiative, started by former Congresswoman Gabrielle Giffords and her husband, retired NASA astronaut and US Navy Captain Mark Kelly, the co-founders of Americans for Responsible Solutions. The coalition brings together a broad cross-section of state leaders—business, law enforcement, veterans, faith, medical, and civic leaders—who support commonsense solutions to keep guns out of the hands of dangerous people and protect families from gun violence.

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