GUNS DWN

Raising The Standard For Gun Ownership: How Firearm Licensing Can Potentially Save Lives

By Nick Wilson for Guns Down America September 2019

Summary:

There is strong evidence that mandatory firearm licensing laws or requiring a permit-to-purchase a handgun is associated with lower levels of gun deaths. This study found that of the 27 deadliest shootings over the last six years where we could identify how the firearms were obtained, a federal licensing requirement may have prevented the shooter from acquiring the firearms used in 52% of the incidents. In these 14 incidents, 169 individuals were fatally shot and 131 individuals were shot and injured.

Objective:

To estimate how many of the nation's deadliest mass shootings could have been prevented and how many American lives could have been saved if the United States raised the federal standard for gun ownership and implemented a policy of federal firearm licensing.

This study examines every shooting over the last six years (2013 – 2018) where five or more people were killed, excluding the perpetrator, in order to determine if a federal firearm licensing law may have prevented the perpetrator from acquiring the firearms used in the shooting.

Background:

An overwhelming majority of Americans support tightening the nation's loose gun control laws and back policies like gun licensing, ¹ expanding background checks to most firearm purchases, ² safe storage requirements, ³ and prohibitions against selling military-style assault weapons ⁴ and high-capacity magazines to civilians. ⁵

Over the last several years, members of Congress have sought to advance legislation that would expand background checks to cover more gun sales. In 2013, a bipartisan bill by Senators Joe Manchin (D-WV) and Pat Toomey (R-PA) attempted to expand background checks to include sales by unlicensed dealers at gun shows and sales advertised online or in-print. In February of 2019, the U.S. House passed a stronger bill that applies an instant background check to all private gun sales except to family or temporary transfers.

However, new research has concluded that background checks, while foundational for laws designed to better regulate access to firearms, are not, on their own, sufficient for significantly reducing gun deaths. According to a June 2019 white paper by the Johns Hopkins Center for Gun Policy and Research, background check laws that are not part of a licensing system have not been shown to reduce gun homicides or suicides. A 2018 study by the Violence Prevention Research Program at UC Davis found no net difference between firearm-related homicide rates in the ten years after California implemented comprehensive background checks.

¹ Quinnipiac University poll, May 2019

² NPR/PBS NewsHour/Marist poll, July 2019

³ POLITICO/Morning Consult poll, February 2018

⁴ NPR/PBS NewsHour/Marist poll, July 2019

⁵ NPR/Ipsos poll, October 2017

⁶ Cassandra K. Crifasi, Alexander D. McCourt, and Daniel W. Webster, "The Impact of Handgun Purchaser Licensing Laws," Johns Hopkins Center for Gun Policy and Research (2019)

⁷ Alvaro Castillo Carniglia, Rose M.C. Kagawa, Magdalena Cerdá, Cassandra K. Crifasi, Jon S. Vernick, Daniel W. Webster, and Garen J. Wintemute, "California's comprehensive background check and misdemeanor violence prohibition policies and firearm mortality," *Annals of Epidemiology* (2018)

There is strong evidence, however, that mandatory licensing laws or requiring a permit-to-purchase a handgun is associated with lower levels of gun deaths. Nine states and the District of Columbia require a license to purchase or transfer a handgun. In 1995, Connecticut strengthened its background check requirements by requiring prospective handgun purchasers to obtain a license by submitting an application in-person to local law enforcement, being fingerprinted, and completing eight hours of handgun safety training. In the decade that followed, Connecticut experienced a 40% reduction in gun homicides and a 15% decrease in gun suicides. In contrast, Missouri repealed its licensing law in 2007. Researchers estimate that repealing the requirement for Missouri purchasers to obtain a license is associated with a 17-27% increase in firearm homicides and a 16% increase in firearm suicides. Missouri did not see an increase in non-firearm homicides during the same time period.

Massachusetts also has a robust licensing system and consistently ranked as one of the lowest gun violence rates in the country. A fundamental difference between the licensing systems in Massachusetts and Connecticut is the amount of discretion given to local law enforcement in Massachusetts when determining if the applicant is unsuitable to own a firearm. This study uses Massachusetts because its inclusion of a suitability standard is, as Duke University Professor Phllip J. Cook explains, "an important and redeeming virtue of the law."

All firearm owners in Massachusetts are required to obtain either a Firearm Identification (FID) card or a license to carry a firearm. The licensing authority has upto 40 days to conduct a background check and approve or deny the application, which acts as a de facto waiting period.

FID cardholders who want to buy a handgun must also obtain a permit-to-purchase and complete a safety course. A permit-to-purchase is only good for ten days and can be revoked. To avoid the problem of fake IDs, applicants must submit fingerprints to verify their identity.

When evaluating a permit-to-purchase application, local law enforcement has more information available than what has been submitted to the National Instant Criminal Background Check System. The licensing authority has access to state and local criminal records, pending charges, mental health records, and restraining order data.

After surveying Massachusetts police chiefs, a team led by Dr. David Hemenway of the Harvard School of Public Health explained that "local police chiefs typically know more about the people in their community than does a national computer." The study found that law enforcement is cautious about issuing permits to applicants with a history of assault, domestic abuse, mental illness, or substance abuse.

⁸ The states are Connecticut, Hawaii, Illinois, Iowa, Maryland, Massachusetts, New Jersey, New York and North Carolina.

⁹ Kara E. Rudolph, Elizabeth A. Stuart, Jon S. Vernick, and Daniel W. Webster. "Association between Connecticut's permit-to-purchase handgun law and homicides." American Journal of Public Health (2015)

¹⁰ Cassandra K. Crifasi, Jon. S. Vernick, and Daniel W. Webster, "Effects of Changes in Permit-to-Purchase Handgun Laws in Connecticut and Missouri on Suicide Rates," *Preventive Medicine* (2015)

¹¹ Daniel W. Webster, Cassandra K, Crifasi, and Jon S. Vernick, "Effects of the Repeal of Missouri's Handgun Purchaser Licensing Law on Homicides," *Journal of Urban Health* (2014)

¹² Raiden B. Hasegawa, Daniel W. Webster, Dylan S. Small, "Bracketing in the Comparative Interrupted Time-Series Design to Address Concerns about History Interacting with Group: Evaluating Missouri's Handgun Purchaser Law,". *Epidemiology* (2019)

¹³ Cassandra K. Crifasi, Jon. S. Vernick, and Daniel W. Webster, "Effects of Changes in Permit-to-Purchase Handgun Laws in Connecticut and Missouri on Suicide Rates," *Preventive Medicine* (2015)

¹⁴ Massachusetts has the lowest gun death rate in 2017, 2016, and 2014. In 2018, 2015, and 2013, only Hawaii had a lower gun death rate. Rankings are available at Giffords Law Center's "Annual Gun Scorecard"

¹⁵ German Lopez, "I looked for a state that's taking gun violence seriously. I found Massachusetts." Vox (2018)

¹⁶ David Hemenway and James Hicks, "'May issue' gun carrying laws and police discretion: Some evidence from Massachusetts," *Journal of Public Health Policy* (2015)

Individuals with a pattern of substance abuse and a record of violent misdemeanors may pass an instant federal background check. Under Massachusetts's discretionary permit-to-purchase system, police can consider such warning signs and withhold permits for "unsuitable" applicants. "Let's say we've been to a house the last four years because the guy is passed out drunk on the front lawn," Police Chief Bill Brooks of Norwood, MA, told Vox. "That would not be a statutory disqualifier... But it would indicate - to me, anyway - that this person is unsuitable to hold a firearm."

Law enforcement can also temporarily suspend a license to possess a firearm and file a court petition to revoke a license. Arlington Police Chief Fred Ryan gives an example about responding to a domestic violence call, "We can, on the spot, temporarily suspend someone's gun license and remove the firearms from the home if there's any information leading us to believe that there's domestic abuse going on." 18

Finally, licensing laws make it easier for private sellers to verify that potential buyers are not prohibited from purchasing a gun. This increase in accountability for both parties involved in private gun transfers and deters straw purchases. National surveys find that three-quarters of Americans support requiring a permit before purchasing a handgun, including a majority of gun owners.

The present study examines the potential impact of building on the existing background check system by raising the federal standard for gun ownership. We imagine a federal licensing requirement in order to purchase and possess a firearm that is similar to the system already in place in Massachusetts. A federal law is important because guns flow from states with weak gun laws to states with strong gun laws. ²¹ University of Chicago Professor Jens Ludwig told FiveThirtyEight that ATF data consistently shows that "in cities that try to control gun violence by supplementing federal regulations with additional local gun laws, those laws are regularly undermined by crime guns coming in from other states."

While there is growing evidence about the effectiveness of licensing laws on reducing overall gun deaths, this study focuses on an unstudied aspect: the relationship between licensing laws and the deadliest mass shootings. A 2019 study published in *BMJ* found that states with more permissive gun laws and greater gun ownership had higher rates of mass shootings (4+ killed) between 1998 and 2015. This study focuses on a single gun policy, requiring a license to purchase a firearm.

Methods:

This study focuses on the deadliest shootings between 2013 and 2018. Every shooting where five or more people were fatally shot, excluding the perpetrator, was identified using data from the non-profit Gun Violence Archive. A total of 43 incidents met this criteria.

¹⁹Emeka Oraka, Sharanya Thummalapally, Lynne Anderson, Tiffany Burgess, Felicia Seibert, and Sheryl Strasser, "A cross-sectional examination of US gun ownership and support for gun control measures: Sociodemographic, geographic, and political associations explored," *Preventative Medicine*, 2019

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¹⁷ German Lopez, "I looked for a state that's taking gun violence seriously. I found Massachusetts." Vox.com (2018)

¹⁸ Ibid

²⁰ Colleen L. Barry, Daniel W. Webster, Elizabeth Stone, Cassandra K. Crifasi, Jon S. Vernick, and Emma McGinty, "Public Support for Gun Violence Prevention Policies Among Gun Owners and Non-Gun Owners in 2017," *American Journal of Public Health* (2018)

²¹ Tessa Collins, Rachael Greenberg, Michael Siegel, Ziming Xuan, Emily Rothman, Shea Cronin, and David Hemenway, "State firearm laws and interstate transfer of guns in the United States, 2006-16," *Journal of Urban Health* (2018)

²² Jeff Asher and Mai Nguyen, "Gun Laws Stop At State Lines, But Guns Don't," FiveThirtyEight.com (2017)

²³ Paul Reeping, Magdalena Cerdá, Bindu Kalesan, Douglas J Wiebe, Sandro Galea, and Charles C Branas, "State gun laws, gun ownership, and mass shootings in the US: cross sectional time series," *BMJ* (2019)

Each incident was researched to determine if a firearm licensing requirement, like the one currently in place in Massachusetts, may have prevented the shooter from acquiring the firearms used in the shooting. This included determining how the perpetrator acquired the gun and his prior contact with law enforcement.

Information on each incident was drawn from official government reports, primary source documents, media reports, and inquiries to law enforcement and prosecutors. Focusing on shootings with at least five deaths allowed for a thorough investigation because these cases are more likely to result in retrospective investigations, public reports, and sustained media interest.

Incidents were excluded if we were unable to determine how the perpetrator acquired the gun(s). In several cases, law enforcement confirmed that they did not investigate the source of the guns if the perpetrator fatally shot himself. The other main obstacle when investigating the source of firearms was open cases where law enforcement is unable to provide information until after a trial or plea deal. The source of the firearms was identified in 27 of the original 43 shootings.

The next step was to determine if a licensing law may have prevented the perpetrator from obtaining the gun(s) used in each incident. If the gun was purchased legally, we determined if local law enforcement would have likely approved or denied a permit-to-purchase application based on information available to them at the time. For example, if the perpetrator had a history of severe mental health and substance abuse issues but there were no records available to law enforcement, this would not be disqualifying. Similarly, studies by the US Secret Service, ²⁴ FBI, ²⁵ and academics have found that most school shooters and mass murders openly expressed their violent thoughts or intent before carrying out the attacks. However, we only considered information that would have been available to law enforcement prior to the attacks.

It is important to note that while most mass shooters are male and have struggled with mental health, the vast majority of male gun owners with mental health issues will not commit a violent act. This study is not interested in mental health diagnoses, but actions that would make law enforcement believe the person is at elevated risk to harm others with a gun.

Cases where the firearm was stolen or belonged to a family member were classified as not preventable with licensing. We noted where better safe storage practices could have been helpful. The total number of deaths and injuries do not include the perpetrators and exclude non-firearm injuries, such as cuts from shattered glass or falling while running.

Results:

There were 43 mass shootings between 2013 and 2018 where five or more people were fatally shot, excluding the perpetrator. Sixteen of the 43 incidents were excluded due to being unable to confirm how the shooter acquired the firearm(s). An analysis of the remaining 27 cases resulted in 14 (52%) being classified as incidents where a licensing system may have prevented the shooter from acquiring the firearms used. The remaining 13 were classified as being unlikely to have been stopped by a discretionary permit-to-purchase

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²⁴ Bryan Vossekuil, Robert Fein, Marisa Reddy, Randy Borum, and William Modzeleski, "The Final Report and Findings of the 'Safe School Initiative': Implications for the Prevention of School Attacks in the United States," US Secret Service and Department of Education (2002)

²⁵ James Silver, Andre Simons, and Sarah Craun, "A Study of the Pre-Attack Behaviors of Active Shooters in the United States Between 2000 – 2013," Federal Bureau of Investigation (2018)

²⁶ James Silver, John Horgan, and Paul Gill, "Foreshadowing targeted violence: Assessing leakage of intent by public mass murderers," *Aggression and Violent Behavior* (2018)

system. For the 14 incidents where a licensing system may have been prevented the perpetrator from acquiring the firearms used in the shooting, 169 individuals were fatally shot and 131 individuals were shot and injured.

If a shooter died or was injured as a result of the incident, that individual was not included in the casualty totals.

CASUALTIES

For the 43 deadliest mass shootings between 2013 and 2018:

- Casualties (victims killed and injured by gunfire) totaled 1,013.
- A total of 409 individuals were shot and killed, including five pregnant women.
- A total of 604 individuals were shot and injured.

SHOOTER DEMOGRAPHICS FOR ALL INCIDENTS

- Men accounted for 96% of the total shooters. There were 46 male and two female perpetrators.
- Forty of 43 incidents were carried out by a lone male shooter. Perpetrators of the remaining incidents were two male shooters, a married man and woman, and three men and one woman who belonged to the same family.
- The median shooter age was 29 and the mean age was 33.
- Twenty of the cases resulted in arrest. The perpetrators fatally shot themselves in 14 cases and nine were killed by law enforcement. One captured shooter committed suicide in jail while awaiting trial.
- The shooter's mental health history was mentioned in 71% (22 of 31) incidents where adequate
 information was available. In the remaining 12 cases, there was little information available on the
 shooter's background, including previous police contacts and the source of guns.

FIREARMS

- A total of 91 firearms were used in 40 of the 43 shootings. This excludes guns that the perpetrators
 owned but did not bring to the scene of the shooting. Information about the type of firearms used in
 three shootings are unavailable.
- A total of 39 handguns were recovered, including 30 pistols, 6 revolvers, and 3 other unspecified handguns.
- Assault weapons were used in 16 (37%) of incidents. A total of 38 AR-15-style or AK-47-style rifles were found, with 22 from the Las Vegas Strip shooting.
- The remaining 14 long guns included 9 shotguns and 5 rifles.

INCIDENTS WHERE LICENSING MAY HAVE PREVENTED GUN ACQUISITION

For the 14 incidents where a licensing system may have prevented the shooter from acquiring the firearms used in the mass shootings:

- A total of 169 individuals were shot and killed, including one pregnant woman.
- A total of 131 individuals were shot and injured.

DEADLIEST SHOOTINGS WHERE LICENSING MAY HAVE PREVENTED GUN ACQUISITION:

- Pulse Nightclub shooting resulted in 49 deaths and 53 firearm injuries.
- Sutherland Springs Church shooting resulted in 25 deaths and 20 firearm injuries.
- Stoneman Douglas school shooting resulted in 17 deaths and 17 firearm injuries.
- Washington Navy Yard shooting resulted in 12 deaths and 3 firearm injuries.
- Charleston Church shooting resulted in 9 deaths and no firearm injuries.

Only four of the 43 incidents occurred in the nine states and District of Columbia where a permit-to-purchase is required for at least one category of firearms. The Capital Gazette shooter used a shotgun, which is not covered by Maryland's licensing system. The DC Navy Yard shooter wanted to purchase a handgun two days before the shooting but was denied. Instead, he bought a shotgun from neighboring Virginia which doesn't have a licensing system. The remaining two incidents occurred in Illinois, a state with strong gun laws surrounded by states with weak gun laws. According to ATF data, Illinois imported crime guns from other states at the third highest rate in the nation in 2017 and imported nearly five times as many crime guns as it exported.²⁷

Limitations

This study is not intended to be representative of all types of gun violence. Instead, it is a deep dive into one slice of America's gun violence problem that often dominates media coverage and the public's attention.

It is also important to not oversell the impact of a single policy, like firearm licensing, on reducing gun deaths. Researchers agree that the United States must implement a tapestry of different policy proposals in order to significantly reduce gun deaths.

It is always a challenge to research counterfactuals, especially when predicting police use of discretion. For cases like the Charleston Church Shooting, it was clear that a licensing system with fingerprinting would have prevented the prohibited shooter from obtaining the gun after a default-proceed. Other cases were less straightforward. For example, law enforcement responded to a disturbance at the house of the Borderline Bar and Grill perpetrator six months prior to the shooting. They found him "irate" and discussed the possibility of him suffering from PTSD, but did not place him under an involuntary psychiatric hold. We classified the incident as "not preventable with licensing," though he may have been denied a permit or had his guns removed under a Gun Violence Restraining Order. Our goal was to be as conservative as possible when classifying incidents.

We attempted to mitigate the counterfactual challenge by closely studying how the permitting process in Massachusetts works in practice. Key information for each incident is provided in the appendix.

A major benefit of licensing requirement laws is that they reduce illegal guns. Requiring potential purchasers to interact with law enforcement face-to-face and keep records of guns bought in private sales is believed to deter straw purchases. As less firearms are diverted to the black market, it becomes harder for federally prohibited individuals and others without a license to acquire a gun. It is possible that at least one prohibited shooter in this study wouldn't have been able to acquire an illegal gun if a licensing system had been in place. However, our approach does not look at how licensing may affect illegal gun markets. We also did not take into account the requirement to complete a firearm safety training, which can deter impulsive purchases.

²⁷ Illinois Guns Laws," Giffords Law Center to Prevent Gun Violence, accessed July 23, 2019

The final limitation is the sample size. With additional time and resources, we would have included more incidents. Between 2013 and 2018, there was an annual average of 321 shootings where four or more injured or killed (excluding perpetrator), and 25 incidents where four or more fatally shot (including the perpetrator). We hope to expand on this research in future studies by including more mass shootings or other types of firearm violence.

We examined the deadliest shootings because there was more information available about these cases. This type of case-by-case analysis is only possible when there is adequate information available. When we initially looked at all mass shootings, we came across too many unsolved cases or incidents with little information available. Drive-by shootings and retaliatory group violence received less media attention and law enforcement resources compared to the deadliest incidents studied here. The present study of deadly shootings found many legally purchased guns by individuals with a history of violence. We hypothesize that a study of shootings with four or more injuries, if perfect information was available, would find a higher percentage of guns illegally obtained by prohibited persons. We'd expect these types of incidents to benefit from licensing's long-term impact on reducing access to crime guns, including stolen firearms and guns from straw purchasers.

Conclusion:

This study contributes to the growing body of evidence that demonstrates how our current federal background check system is inadequate. The results suggest that a federal permit-to-purchase system that gives local law enforcement discretion can save lives and should replace the current patchwork of local, state, and federal background check laws. The case-by-case analysis also underscores the need for enforceable safe storage laws. Licensing laws increase accountability for sellers and purchasers, and are associated with a reduction in straw purchases. However, unlicensed would-be mass shooters can still resort to stealing unsecured firearms and underage individuals can obtain guns from parents who do not secure their firearms. This study contributes to the evidence on the effectiveness of licensing laws, but also recommends more research on which aspects of licensing laws are most effective.

About the Author

Nick Wilson has extensive research and policy experience in gun violence prevention, drug policy, and mass incarceration. In addition to research positions at nonprofits in Los Angeles and New York, he was the Executive Director of States United to Prevent Gun Violence and the Maine Gun Safety Coalition. He graduated with a degree in political science from UCLA and earned a Masters in Public Policy from Harvard's Kennedy School of Government.

Appendix A: Potentially Preventable with Licensing Requirement

The following information is based on the best available information at the time. In accordance with the No Notoriety campaign, perpetrator names are used only when necessary.

Capital Gazette Shooting

Annapolis, Maryland

On June 28, 2018, 38-year-old Jarrod Warren Ramos shot and killed five employees of *The Capital* after a seven-year grudge with the Annapolis newspaper. In January 2011, a former high school classmate sought a restraining order and criminal harassment charges against the perpetrator after a year of vulgar emails and harassment on social media. He pled guilty and received a 90-day suspended sentence, 18 months probation, and court-ordered counseling.

The woman received two more restraining orders in 2012 and 2013 after he continued to threaten and harass her. The last order expired on March 5, 2014. He got her fired from her job and she moved out of Maryland to escape him.

In October 2014, the lawyer representing the classmate the perpetrator continued to harass asked a judge to order a mental health evaluation. The lawyer wrote, "There exists a very real possibility that at some point in time, Mr. Ramos will take these violent fetishes as expressed in print, and will try to carry them out in person." The victim wrote, "I am physically afraid of Mr. Ramos, and that he may cause me serious physical injury and/or death."

After *The Capital* included a story by Eric Hartley about the criminal case, the perpetrator unsuccessfully sued the paper. In 2013, representatives from *The Capital* told Anne Arundel County police that he threatened to murder journalists. In a 2014 court filing, the perpetrator wrote "If not illegal, (I) would kill the living body of Hartley." In February 2015, he tweeted, "I'll enjoy seeing @capgaznews cease publication, but it would be nicer to see Hartley and Marquardt cease breathing." Retired publisher Marquardt reported threats to the police, but the police did not conclude that he would act on his threats.

The shooter told a court he had seen five mental health professionals for at least 75 visits. Despite the harassment conviction and violent threats to the newspaper, he was able to legally purchase in 2017 the .12-gauge pump-action shotgun he used in the massacre. If he had been convicted of stalking in 2011, he may have been prevented from purchasing the shotgun. A discretionary permit-to-purchase system may have blocked the firearm purchase a year before the shooting.

Marjory Stoneman Douglas High School Shooting

Parkland, Florida

On February 14, 2018, 19-year-old Nikolas Cruz fatally shot 17 students and staff members and wounded 17 others at Marjory Stoneman Douglas High School. In February 2017, he purchased the AR-15 style semi-automatic rifle he would use a year later to commit the deadliest high school shooting in United States history from Sunrise Tactical Supply in Coral Springs, Florida.

The shooter was able to legally purchase the Smith & Wesson M&P 15 .223 rifle at age 18 despite "69 documented incidents where Cruz threatened someone, engaged in violence, talked about guns or other weapons or engaged in other concerning behavior" according to an official commission report. Broward County

Sheriff's Office had 43 contacts with the shooter and his family prior to the shooting. Several people explicitly warned law enforcement of a school shooting, including on February 5, 2016 when a neighbor's son reported that "Nikolas Cruz planned to shoot up the school on Instagram." On November 1, 2017, his late mother's cousin asked the Sheriff's Office to remove his rifles. The FBI received a tip about the possibility of him carrying out a school shooting as late as January 5, 2018.

The perpetrator received mental health services from age 11 until he turned 18. He then refused further services. After learning that he attempted suicide by ingesting gasoline, possessed hate-related symbols, and was discussing buying a gun, a school resource officer recommended he be evaluated under the Baker Act. An evaluation determined that he did not meet the criteria for involuntary examination, and retained his firearm rights.

Two days later, he was issued a Florida identification card to purchase firearms. If Florida had a higher standard of gun ownership and gave law enforcement discretion when issuing a permit-to-purchase firearms, it is reasonable to believe the shooter would have been denied.

"This was the most preventable school shooting that I've ever seen data on," said Marjory Stoneman Douglas High School Public Safety Commission member Ryan Petty. "This kid was screaming for help by publishing his intentions."

Three weeks after the deadliest shooting of 2018, Florida Governor Rick Scott signed a bill to raise the minimum age to purchase a long gun to 21, banned bump stocks, and established an Extreme Risk Protection Order policy.

Sutherland Springs Church Shooting

Sutherland Springs, Texas

On November 5, 2017, 26-year-old Devin Patrick Kelley fatally shot 25 people, including a pregnant woman, during Sunday service at the First Baptist Church. An additional 20 people were shot and injured before he fatally shot himself.

The perpetrator was able to purchase multiple guns despite having a disqualifying criminal history from a domestic violence conviction during an Air Force court martial. In October 2012, he was charged with aggravated assault for breaking his infant stepson's skull, assaulting his wife, two charges of pointing a loaded gun at his wife, and two counts of threatening his wife with an unloaded gun. He had also been caught sneaking weapons on to the base. He was admitted to a mental health facility in New Mexico after he threatened self-harm and to kill superior officers who charged him. After attempting to escape the facility, he pled guilty to two counts of assault and was sentenced to 12 months of confinement. He was dismissed from the Air Force in 2014 with a bad conduct discharge.

On June 15, 2013, a woman told police he pinned her down at his parent's house and sexually assaulted her. Law enforcement failed to follow-through with the investigation. The following year, police responded to a domestic violence complaint and he was charged with misdemanor animal cruelty after striking his second wife's dog. According to a coworker, he was inspired by the 2015 mass shooting at a Charleston church and "displayed a fascination with mass murders." The coworker warned supervisors to "back off or he would shoot the place up." His second wife said he abused his anxiety medication.

The Ruger AR-556 semi-automatic rifle used in the shooting was purchased by Kelley on April 7, 2016 from Academy Sports + Outdoors in San Antonio, Texas. When filling out ATF Form 4473, he indicated he did not have a disqualifying history despite the domestic violence conviction and previously being denied an application for a license to carry a handgun in Texas. Since the Air Force failed to submit the court-martial guilty plea and his fingerprints to databases available to FBI NICS checks, he was not stopped from buying four guns between 2014 and 2017. Even with the Air Force failing to submit the records, his multiple domestic violence incidents would have likely prevented him from obtaining a gun license. In fact, he had previously been denied a license to carry.

Rancho Tehama Reserve Shootings

Corning, California

On November 13 and 14, 2017, 44-year-old Kevin Janson Neal fatally shot five people, including his wife and neighbors, and injured 11 before killing himself after a confrontation with law enforcement. The shooting spree took place at multiple locations, including an elementary school where a six-year-old was shot and injured. He used two semi-automatic AR-15-type rifles constructed at home using a kit, a .40 caliber Smith & Wesson pistol, and a .45 caliber Glock pistol he purchased in North Carolina in 2009. Assistant Tehama County Sheriff Phil Johnston explained, "It was clear that he was experimenting with building guns at home outside the law."

Out on \$160,000 bail from stabbing a neighbor, the perpetrator was prohibited from possessing guns from both a criminal protective order and a civil harassment order. On February 22, 2017, he told a judge that he turned in a pistol to a gun store and had no other guns. According to the Tehama County Sheriff's department, authorities relied on the "honor system."

For nearly a year, law enforcement received several complaints a month about the shooter's behavior and firing guns on his property. Despite being prohibited from owning guns, police came to the property on multiple occasions after neighbors complained of him "shooting and yelling." Police were unable to witness him actually firing weapons, so no actions were taken.

The shooter's mother said his mental health "continually deteriorated" since October 2016. "We begged him to go to mental health facilities after he went to California and he got afraid that the government would get his numbers." His sister also called law enforcement, warning of his mental state. Law enforcement recommended charging him with battery after assaulting and firing shots at neighbors, including one of the victims of the mass shooting, but the District Attorney's office declined to prosecute.

A robust licensing and registration system may have prevented the perpetrator from acquiring some or all of the weapons used in the tragedy. He exploited ghost gun loopholes and law enforcement relying on the honor system. Law enforcement suspected he illegally possessed guns, but could not prove it without a registration system.

Florida Airport Shooting

Fort Lauderdale, Florida

On January 6, 2017, 26-year-old Esteban Santiago-Ruiz fatally shot five people and injured six more at the Fort Lauderdale-Hollywood International Airport. He declared a 9mm pistol and two magazines when checking his single piece of luggage in Anchorage. When he retrieved the bag in Florida, he went to the airport bathroom to load the pistol.

In November 2016, the shooter visited an FBI field office in Anchorage to report that the U.S. government was controlling his mind and he was hearing voices telling him to commit violent acts. An FBI investigation did not find connections to terrorism. The FBI recommended Santiago seek mental health treatment and notified local law enforcement. Alaska police took his handgun from him but were forced to return it 29 days later because he was not adjudicated as a mental defective, committed to a mental institution, nor convicted of a serious crime. After the shooting, he confirmed to law enforcement that the gun used in the shooting was the same gun police returned to him.

Puerto Rico Police also confiscated his firearms in March 2012 and returned them in May 2014. Family members said his mental health suffered after witnessing a bomb explode near two of his friends during a tour in Iraq with the National Guard. He received a general discharge in August 2016 for poor performance.

In January 2016, he was charged with property damage and assault after he broke down his girlfriend's bathroom door and attempted to strangle her. He violated orders to avoid her house and law enforcement went to his house three times between March and October after reports of physical disturbances. A temporary domestic violence restraining order expired, but a hearing related to domestic violence was scheduled for April 2017.

Before the shooting, he received psychological treatment. After the shooting, he was diagnosed with schizophrenia and pled guilty to life in prison to avoid the death penalty. It is reasonable to believe this tragedy could have been prevented if law enforcement hadn't been forced to return the gun used in the mass shooting.

Pulse Nightclub Shooting

Orlando, Florida

On June 12, 2016, 29-year-old Omar Mateen shot and killed 49 people and shot and injured 53 people at a gay nightclub in Orlando. He was fatally shot by police after a three-hour standoff. He used a Sig Sauer MCX semi-automatic .223 caliber military-style rifle and a Glock 17 9mm handgun. A .38 caliber Smith & Wesson revolver was found in his car, but it was not used in the shooting. A week before the shooting, he legally purchased the guns over two days at the same Florida gun store.

In April 2007, Mateen was fired as a prison guard for joking about bringing a gun to school. The same year, he became a private security guard and threatened to shoot classmates at a cookout. He attempted and failed to obtain a law enforcement job in 2011 and 2015. During their short marriage in 2009, his ex-wife alleged that he physically and sexually abused her, took her paychecks, and controlled when she could leave the house. She left him after a few months of marriage and the divorce was finalized in 2011. He threatened to kill her and take her son away. She told reporters he was "mentally unstable, "obviously disturbed," and used steroids.

In 2013, he told coworkers that he was a member of Hezbollah. He also told coworkers that he had connections to al-Qaeda, the perpetrators of the 2009 Fort Hood shooting, and the Boston Marathon Bombing. He was removed from his private security post and a Sheriff reported him to the FBI. The FBI said he was not a threat and the suspect said he made those comments in response to coworkers and law enforcement making jokes about him being a Muslim extremist.

Between 2014 and 2015, a colleague said he was violent and threatened to kill people. He secured an active security officer license, but it was later learned that the psychological test he passed was not in person and

had clerical errors. Approximately a month before the shooting, he attempted to purchase body armor and ammunition at a gun store. When he was informed that they did not sell body armor, he made a phone call in Arabic and then asked to buy bulk ammunition. The store refused to sell it to him and called the FBI.

The shooting may have been prevented with a licensing system because he purchased the gun a week before the shooting and permits typically take two to six weeks in Massachusetts. Additionally, it is likely that he would have been denied a permit-to-purchase because of his interactions with local law enforcement and the FBI.

Dallas Police Officer Shooting

Dallas, Texas

On July 7, 2016, 25-year-old Micah Johnson shot and killed five police officers and injured nine more officers and two civilians during a Dallas protest of police shootings of Philando Castile and Alton Sterling. The Dallas Police Chief said the presence of 30 protestors open carrying military-style rifles added to the confusion of identifying the shooter. The shooter was killed by law enforcement the following morning in a parking garage using a robot with an explosive device.

He was armed with an Izhmash-Saiga 5.45mm AK-47 style semi-automatic rifle, a Glock 19 Gen4 9mm semi-automatic handgun, and a Fraser .25 caliber handgun. Law enforcement recovered two more rifles at his home and one pound of explosive powder.

On May 1, 2014, Cohen stole four pairs of underwear from a female soldier during a deployment to Afghanistan with the U.S. Army Reserve. He also sent her a Facebook message discussing "tying her down and having her face down on the bed." He was disarmed and placed under 24-hour escort due to being viewed as a potential threat. When soldiers packed his belongings for his early return to the U.S., they found an unauthorized grenade, a .50 caliber round, and another soldier's prescription medicine.

The sexual harassment victim sought a protective order against him and said he needed mental health treatment. She had also witnessed him punch through a car window and sever an artery. In September 2014, the Army made an error and gave him an honorable discharge. He received treatment from the VA for hallucinations and depression, telling a doctor that he witnessed fellow soldiers dying in explosions. Police responded to a panic attack he had in a Wal-Mart parking lot. He reportedly had several panic attacks a week.

In November 2014, he bought an AK-47 style rifle in a private sale in a Target parking lot. The other weapons were believed to be purchased at a gun show or online. He practiced military exercises in his backyard and stockpiled many explosive devices. He was active on gun forums and law enforcement believe he planned a larger attack in Dallas.

Licensing laws close the private sale loopholes he exploited and would have prevented him from purchasing a gun without a background check in a parking lot, at a gun show, or online. He is unlikely to have been approved for a firearm license due to his actions in the military and his later interactions with local law enforcement.

Umpqua Community College shooting

Roseburg, Oregon

On October 1, 2015, 26-year-old Chris Harper-Mercer shot and killed a professor and eight students, and injured an additional eight people at an Oregon community college. He fatally shot himself after a confrontation with police. He used a 5.66 mm Del-Ton DTI15 AR-15 style rifle, a .40 cal Taurus pistol, and a 9mm Glock pistol. He brought three additional pistols but did not use them. Police recovered three additional weapons at his home: a .40 cal Smith & Wesson SD4OVE pistol, a 12-gauge Mossberg 500 shotgun, and a M91/30 rifle. He sold video games to purchase firearms at pawn shops. Federal agents linked a total of 14 firearms to the perpetrator.

His mother described him as being "born angry." He attempted to jump out of a moving vehicle at age five. The shooter was arrested and ordered to complete community service as a minor for throwing an object at a classmate. He attended a special education school for teenagers. Both the shooter and his mother had Asperger syndrome. He received mental health treatment and took medications until he turned 18. He reportedly failed out of U.S. Army basic training after five weeks following a suicide attempt. He was not given a dishonorable discharge, which would have prevented him from passing a federal background check.

After he returned home to California, he pointed a shotgun at his mother. She did not report it to the police because she didn't want him to go to jail. "He was too old for me to do anything except call the law, and I just, I just didn't want him to go to jail." He was reportedly unable to get a job because of his mental health issues. When they moved to Oregon, he was enthusiastic about being able to openly carry firearms, which was prohibited in California. His mother was originally "anti-gun," but he convinced her to go shooting with him as a bonding experience.

In a blog post about shooter Vester Lee Flanagan, he wrote, "Seems like the more people you kill, the more you're in the limelight." He had a shaved head, bought Nazi memorabilia online, and used the monikers "ironcross45" and 'lithium_love" on online sites, including dating sites. He also posted in support of the Irish Republican Army.

During the shooting, he handed a student a USB drive with a manifesto. In the manifesto, the mixed-race shooter expressed racist views against African-Americans, praises and critiques other mass shooters, and describes himself as "26, with no friends, no job, no girlfriend, a virgin." He also wrote, "I have been forced to align myself with demonic forces. What was once an involuntary relationship has now become an alignment, a service. I now serve the demonic Heirarchy(sic). When I die will become one of them. A demon. And I will return to kill again and again." Eyewitnesses said he targeted Christian students.

Oregon passed an Extreme Risk Protection Order law in 2017, which may have been useful in this case. It is reasonable to believe that law enforcement may have denied the shooter a gun license because of his previous arrest, suicide attempt, evident mental health issues, open carrying fascination, and inability to obtain a job.

Charleston Church Shooting

Charleston, South Carolina

On June 17, 2015, 21-year-old white supremacist Dylann Roof fatally shot nine people during a prayer service at Emanuel African Methodist Episcopal Church. He used a Glock 41 .45-caliber handgun. He was arrested

after failing to fatally shoot himself because he ran out of bullets. He told police he wanted to purchase an AR-15 rifle but could not afford it.

He abandoned a plan to attack the University of Charleston over concerns about campus security. During his trial, a psychiatrist testified that the defendant had depression, social anxiety disorder, substance abuse and personality disorders, and possibly autistic spectrum disorder.

A friend took away his gun two weeks before the shooting after a drunk speech about segregation and having planned an attack for six months. The shooter had two previous arrests at a local mall. During the first arrest, he was found possessing Suboxone. Then-FBI Director James Comey said Roof's admission of a narcotics offense should have blocked the purchase of the handgun. "The data was not properly entered in federal criminal justice computer systems," said Comey. Roof picked up the gun after a three-day default proceed. A licensing system with a fingerprint requirement would have prevented the shooter from purchasing the handgun.

Harris County Shooting

Houston, Texas

On August 8, 2015, 48-year-old David Conley shot and killed his ex-girlfriend, her husband, and her six children before being arrested after a police standoff. He handcuffed his ex-girlfriend to a bed and forced her to watch as her children and husband were shot. He bought the 9mm handgun and six pairs of handcuffs used in the attacks online in a private sale within two weeks of the shooting.

His lengthy criminal record prohibited from possessing firearms. In 1989, he was convicted for aggravated robbery and auto theft. In 1994, he was convicted for possession of a controlled substance. In 2000, he was arrested for putting a knife to the throat of his ex-girlfriend and threatening to kill her and her baby. He was sentenced to five years in prison for retaliation. He pled guilty to assault after threatening her again in 2013. He was sentenced to nine months in county jail. He also had a DUI arrest.

A month before shooting his ex-girlfriend, she told police that he attacked her and threatened to hit her son. The case was still pending at the time of the shooting. A licensing system would close the private sale loophole that the shooter exploited when buying a gun online without a background check through an unlicensed seller.

Montgomery County Shootings

Lansdale, Pennsylvania

On December 15, 2014, 35-year-old Bradley William Stone fatally shot five people and fatally stabbed one person before taking suicide pills. He legally purchased a .40-caliber Heckler & Koch handgun in 2011 and a 9mm Beretta handgun at another time. He also purchased a third handgun that was not immediately recovered.

He was arrested for driving under the influence in 2001, 2004, and 2013. He was not automatically disqualified from possessing guns for three DUI convictions because they were not within five years of each other. After his third arrest, he agreed not to possess firearms as part of his 23-month supervision agreement with the Veterans Treatment Court. Parole officers visited his home 17 times but there was no indication he had a firearm. As recently as a month before the shooting, he lied to a military psychologist treating him for PTSD from his deployment as a Marine Reservist about not owning a weapon.

His ex-wife told neighbors that she thought Stone would kill her and asked them to check her place in case he was waiting for her. She obtained a temporary protection from abuse order in 2010, but was denied a permanent order. He remarried in August 2013 and fathered a child with his second wife.

If there was a licensing and registration law, law enforcement would have known he was lying about possessing firearms against his probation agreement. The domestic violence allegations and DUI convictions would have also been grounds for law enforcement to deny a license.

Washington Navy Yard Shooting

Navy Yard, Washington DC

On September 16, 2013, 34-year-old Aaron Alexis shot and killed twelve people and injured three more at the Washington Navy Yard before being killed by police. Two police officers were injured. He started with a sawed-off shotgun he bought at a gun store two days before the attack, and a handgun he took from a security officer during the attack. For weeks leading up to the tragedy, the shooter complained of hearing voices and being under attack by microwaves.

In 2004, the shooter was arrested for shooting the tires of a vehicle during what he described to police as an anger-fueled blackout. In 2008, he was arrested for disorderly conduct. In 2010, he was arrested for firing a Glock .45 caliber handgun at a neighbor's tires during a confrontation over excessive noise. He was initially charged with felony malicious mischief, but later downgraded to property destruction and discharge of a firearm. None of the charges were prosecuted, but he was given a general discharge from the Navy for "a pattern of misbehavior" in 2011.

In August 2013, he told police that he was hearing voices. He believed electromagnetic waves were influencing or controlling him. Police found he had "taken apart his bed, believing someone was hiding under it, and observed that Alexis had taped a microphone to the ceiling to record the voices of people that were following him." Later that month, he went to emergency rooms in Virginia and Washington, D.C. with concerns about insomnia and was prescribed medicine.

According to the Department of Defense internal review of the incident, the background investigation that Alexis went through to receive security clearance to work for The Experts lacked critical information and failed to identify false information. "If The Experts had been aware of Alexis' prior history, this information may have led The Experts to assess his erratic, troubling behavior in August 2013 as that indicative of an individual who might pose a threat to himself or others."

On September 14, 2013, two days before the massacre, he purchased a Remington 870 12-gauge shotgun at a Lorton, Virginia gun shop. After testing an AR-15 rifle, he said he wanted to buy a handgun. After being told that he could not easily buy a handgun as an out-of-state purchaser, he bought a shotgun and two boxes of shells after passing an instant background check.

The Department of Defense's own review said an investigation of his record would show that he might pose a risk to himself or others. Law enforcement may have similarly concluded he posed too much of a threat to purchase a firearm. The licensing process also takes time, meaning he wouldn't have been able to buy that shotgun at that out-of-state store.

Hialeah Shooting

Hialeah, Florida

On July 26, 2013, 42-year-old Pedro Alberto Vargas fatally shot six people with a Glock 17 9mm pistol after setting fire to a pile of cash and his house. He was killed by responding law enforcement. The afternoon of the shootings, he called the police to say he was being threatened and followed. He also said someone was using witchcraft on him. His mother told police he had strange behavior but not to send officers because he left the house and she had secretly put two crushed Xanax in his lunch.

In 2008, he was forced to resign from Miami Dade College after being suspected of downloading inappropriate files from the internet, including *The Anarchist Cookbook*. Months after his resignation, his former supervisors received anonymous threats and suspected Vargas. Police traced the emails to a Hialeah public library he frequented. He was fired after three months at another Miami company. His managers suspected him of sending anonymous emails after his termination, but police were unable to confirm their origin.

In October 2010, he legally purchased a Glock 17 Gen4 handgun from the Florida Gun Center. In 2012, he was let go from a job and once again sent troubling messages. After a lawsuit and police investigation traced the messages to the Hialeah public library on days he was there, he admitted to sending the messages and sent an apology to his former co-workers. It is reasonable to believe he would have been denied a permit-to-purchase because law enforcement was aware that sent anonymous threats to former employers after being fired.

Santa Monica College Shooting

Santa Monica, California

On June 7, 2013, 23-year-old John Zawahri shot and killed his father and brother before setting the house on fire. He then shot and wounded a female driver before arriving at Santa Monica College, where he killed three people and injured one additional person. He was fatally shot by law enforcement. He used an AR-15-type semi-automatic rifle "ghost gun" he completed at home. He also had 40 high-capacity magazines capable of holding 30 rounds each that were illegal to purchase in California.

The shooter had a history of struggling with mental health and had been held for a short-term psychiatric evaluation. He previously talked about hurting people at school. Seven years before the shooting, bomb-making materials were found at his home after threatening people at his school for students with disciplinary issues.

In October 2011, the California Department of Justice told the shooter he was ineligible to purchase a firearm. He fired at least 43 rounds from an AR-15-type semi-automatic rifle without a serial number he assembled with components he legally bought on the internet. ATF concluded that the rifle had "shoddy" workmanship from a novice. He also had a loaded Pietta "1858 New Army" .44 black powder revolver that was inoperable until he converted it to hold .45-caliber ammunition. Law enforcement recovered at least two illegal zip guns at his home. A licensing system that closes the ghost gun and antique gun loopholes could have prevented his access to the firearms used in the school shooting. California's recent bullet permitting restrictions in California may have also been helpful.

Appendix B: Unlikely to Have Been Prevented with Licensing Requirement

Borderline Bar and Grill Shooting

Thousand Oaks, California

On November 7, 2018, 28-year-old Ian David Long fatally shot twelve people and shot and injured an additional person before taking his own life at a country-western bar. He used a .45 caliber Glock 21 semi-automatic pistol with an attached laser sight and seven high-capacity 30-round magazines. The shooter legally purchased the pistol in August 2016 at a Simi Valley gun store, but the extended magazines were illegal under California law.

The Ventura County Sheriff's Department had several minor interactions with the shooter, including a traffic collision and a 2015 incident where he was the victim of battery at a local bar. In April 2018, police were called to his home after a neighbor reported a disturbance. Ventura County Sheriff Geoff Dean explained at a press conference, "He was somewhat irate, acting irrationally. They called out our crisis interaction team -- our mental health specialists -- who met with him, talked to him and cleared him. [The team] didn't feel he was qualified to be taken under 5150, and he was left at the scene." A 5150 refers to the section of California law that allows a person to be placed under an involuntary psychiatric hold. During the incident, law enforcement discussed the possibility of Long suffering from post-traumatic stress disorder from his service in the Marine Corps in Afghanistan. Dr. Garen Wintemute, Director of the Violence Prevention Research Program at UC Davis, told reporters that a Gun Violence Restraining Order "would have been useful and might have come into play in April."

About 18 months prior to the shooting, neighbor Don MacLeod heard "an awful argument" and a gunshot from the Longs' property, but did not call the police. At least two additional neighbors told reporters that the shooter's mother was fearful of what her son might do because he would not seek help.

Tree of Life Synagogue Shooting

Pittsburgh, Pennsylvania

On October 27, 2018, 46-year-old Robert Gregory Bowers fatally shot 11 people and shot and injured several others at a Pittsburgh synagogue. He used a Colt AR-15 SP1 and three Glock .357 SIG handguns, all legally purchased. The shooter had an active concealed carry permit and made at least six firearm purchases since 1996. His social media presence included racist, anti-semitic, and alt-right posts. Bowers was captured alive and the case is still open, so additional information may become available after his trial finishes.

Bakersfield Domestic Violence Shooting

Bakersfield, California

On September 12, 2018, 54-year-old Javier Casarez shot and killed his ex-wife Petra Bolanos and four others before fatally shooting himself. The shooter legally purchased the .50-caliber revolver in 2004. He had been arrested for vehicle theft in the 1980s but did not have a history of violent crime according to the local Sheriff.

The divorce was finalized three months before the shooting. "We are getting divorced because my wife cheated on me," the shooter wrote in his divorce petition. "I would like for the judge to grant me a subpoena for

me to see the texts (sic) messages to whom my wife texted to." The judge denied the request, but two of the numbers were associated with two of the male victims. One victim gave a personal loan to the shooter in 2010.

The shooter likely received paperwork for a new court date asking for child support and control of the family home shortly before the killing spree. A co-worker helped Bolanos with the paperwork because Bolanos did not speak English. Bolanos told the co-worker about her husband's verbal abuse and temper, but did not mention physical violence or owning guns. She did not seek a domestic violence restraining order.

Santa Fe High School Shooting

Santa Fe, Texas

On May 18, 2018, 17-year-old student Dimitrios Pagourtzis fatally shot eight students and two teachers. Thirteen additional people were shot and injured with a short-barreled 12-gauge Remington Model 870 pump-action shotgun and a Rossi .38-caliber snub-nosed revolver. Both firearms were legally owned by his father. Under Texas law, minors are not allowed to possess firearms outside of hunting or under parental supervision. He was captured by police after being injured. Safe storage requirements may have been helpful if his father complied.

Las Vegas Strip Shooting

Las Vegas, Nevada

On October 1, 2017, 64-year-old Stephen Paddock fatally shot 58 people and shot and injured 422 at a country music festival before fatally shooting himself. The shooter used 24 firearms to fire more than 1,100 rounds from his room on the 32nd floor of the Mandalay Bay hotel. Of the 24 firearms, 14 were .223-caliber AR-15 style rifles with bump stocks. Twelve of the rifles had 100-round magazines. He legally purchased over 55 firearms and 100 firearm-related items from October 2016 to September 2017 at various retailers. Between 1982 and 2001, he purchased 17 handguns. The shooter bought tracer ammunition from a private seller at a gun show in Phoenix, Arizona.

The shooter did not have a criminal record. He complained about his health, often feeling ill or fatigued. When his doctor suggested he may have bipolar disorder, he refused to discuss it but did accept an anxiety medicine. It is unclear if licensing could have prevented the shooting because of his lack of criminal record and owning firearms for decades. A registration system may have concerned law enforcement if they investigated his interest in stockpiling at least 55 firearms, including fourteen AR-15 style rifles in a short period of time.

Plano Domestic Violence Shooting

Plano, Texas

On September 10, 2017, 32-year-old Spencer Hight fatally shot eight people and injured one at his estranged wife's house. The victims ranged in age from 22 to 33 at the Dallas Cowboy watching party his wife Meredith Lane threw to celebrate her new life after filing for divorce in July. Meredith told her parents that he had previously been violent, including smashing her face against a wall, but she did not report the incident to the police or obtain a restraining order when filing for divorce. The shooter reportedly was unable to find work, had a drinking problem, and became increasingly isolated.

The night of the shooting, the perpetrator was drinking heavily at a bar, displayed a large knife and a pistol, and said he was having trouble with his wife and had "dirty work to do." His autopsy showed a blood alcohol content level of 0.33, four times the legal limit. The bartender was later charged for overserving him.

He used an AR-15-style semi-automatic rifle and a .38 caliber pistol. Police found another rifle, more than two ounces of marijuana, and a pound of hallucinogenic mushrooms at his house. We did not find evidence that he had a criminal record or was known to law enforcement.

Kalamazoo Shooting Spree

Kalamazoo, Michigan

On February 20, 2016, 45-year-old Uber driver Jason Brian Dalton fatally shot six people and injured two more at multiple locations while picking up fares between murders. He told law enforcement that the Uber app told him to carry out the shootings.

He purchased the handguns used in the attack, a Glock 19 and Walther P99, from an Oshtemo Township gun store on June 12, 2015 and August 22, 2015. Police recovered eleven long guns and three additional handguns from his home. He did not have a license to carry a concealed weapon. He had no criminal record. "He was very clean," said Police Chief Jeff Hadley. He was arrested wearing a bulletproof vest. The shooter pled guilty to all charges on January 7, 2019.

Burlington Mall Shooting

Burlington, Washington

On September 23, 2016, 20-year-old Arcan Cetin shot and killed five people at a Macy's department store. He used a Ruger .22-caliber rifle with a 25-round magazine that belonged to his father to shoot the victims ranging in age from 16 to 95. He committed suicide while in jail before standing trial.

He was diagnosed with disruptive disorder, depression, anxiety, and ADHD. He was prohibited from possessing firearms because of an involuntary commitment to an inpatient psychiatric facility following an attempted suicide by ingesting too much medicine. Mental health professionals said he had impulse control issues and was at high-risk of recidivism if he discontinued treatment.

On December 29, 2015, a judge told him that he was not to possess a firearm. Earlier that year, he was arrested for misdemeanor domestic violence assault after hitting his father during an argument over his marijuana use. He was also arrested for two counts of fourth-degree assault with sexual motivation for inappropriately touching two female classmates. In April 2016, he was given deferred prosecution and ordered to be under the care of a psychiatrist until another hearing in May 2018. Safe storage requirements may have been helpful if his father complied.

Pittsburgh Family Cookout Shooting

Pittsburgh, Pennsylvania

On March 9, 2016, 29-year-old Cheron Lamont "C-Wiz" Shelton and 27-year-old Robert James "Milhouse" Thomas shot and killed five people, including an eight-month pregnant woman, and injured three additional people at a family cookout. The motive was reportedly retaliation for a 2013 fatal shooting of Shelton's associate.

Both men were prohibited from possessing firearms because of felony convictions for violence and drugs. The perpetrators used a 7.62-caliber AK-47-style semi-automatic rifle and .40-caliber Smith & Wesson handgun, both stolen. Licensing may not have prevented the shooters from acquiring these stolen guns, but licensing is associated with fewer crime guns in the long-term.

San Bernardino Workplace Shooting

San Bernardino, California

On December 2, 2015, 28-year-old Syed Rizwan Farook and 29-year-old Tashfeen Malik fatally shot 14 San Bernardino County employees and shot and injured 19 more at a holiday party. According to the FBI, they were "homegrown violent extremists." The married couple used two .223-caliber AR-15-style semi-automatic rifles, two 9mm semi-automatic handguns, and pipe bombs to carry out the attack. The rifles were modified to overcome a magazine release requirement in California. A former neighbor and relative illegally transferred the rifles to Farook. The two handguns were legally purchased by Farook from Annie's Get Your Gun in Corona, CA.

South Dakota Domestic Violence Shooting

Geddes, South Dakota

On September 17, 2015, 41-year-old Scott Westerhuis fatally shot his wife and four children with a Charles Daly Field Model 12-gauge pump shotgun before setting their home on fire and shooting himself. The shooter and his wife stole an estimated one million dollars from a nonprofit for five years before the massacre. The shooting took place hours after the educational nonprofit was notified it would lose a multi-million dollar government contract for accounting and financial problems. It is not clear where he bought the shotgun. There is no evidence that he had a criminal record. It is not clear how he obtained the shotgun, but there isn't evidence he would have been prevented from legally purchasing it.

Campsite Massacre

Palestine, Texas

On November 14, 2015, 33-year-old William Mitchell Hudson fatally shot five people and killed one more by blunt force trauma at a campsite. The victims ranged in ages from 6 to 76. The victims were a blended family who bought the land from the shooter's distant cousin. The perpetrator wanted the land but could not afford it. He used a Remington .380 shotgun, AR-style semi-automatic rifle, and .40-caliber Smith and Wesson handgun. The shooter bought the handgun for \$300 in a private sale from a man whose sister-in-law used to date Hudson.

An ex-wife and an ex-girlfriend said he was a violent alcoholic who repeatedly threatened them. He told them that he'd shoot the police if they reported him. On March 21, 2000, police arrested the perpetrator when he was 17 for threatening to kill his parents and himself. He was interviewed by professionals at a mental health facility, but there were no juvenile mental health facilities in the county at the time. His mother testified that she repeatedly tried to get him help for his alcoholism and mental health challenges.

Defense attorneys said he was emotionally and physically abused by his father. He suffered brain damage from seizures, car accidents, and heavy drinking. He fired his gun at his mother's phone so she could not call the police. His ex-wife took out a protective order when filing for divorce in 2006, saying he threatened to kill

her and their baby. A week before the tragedy, the shooter was arrested for assaulting a young woman while armed at a gas station convenience store.

Spring Domestic Violence Shooting

Spring, Texas

On July 9, 2014, 33-year-old Ronald Lee Haskell fatally shot the sister of his ex-wife, her husband, four children, and injured a fifth child. On July 4, 2014, he stole the Springfield XD 9mm pistol from the Utah home of a woman he used to date. On the same day, he bought a large quantity of 9mm bullets, a laser sight, and an extra magazine from a store. The ATF traced the gun to a 2007 purchase in Utah.

According to a protective order filed by his mother after holding her hostage for hours, he stole her husband's guns. The firearms were later confiscated by the San Diego County Sheriff's Department.

According to Laura Cutilletta of Giffords Law Center, he may have been prohibited from possessing guns due to a mutual restraining order between him and his wife during divorce proceedings. However, she said it may not have been reported to the FBI's background check databases. Chelsea Parsons of the Center for American Progress told reporters that a 2008 misdemeanor simple assault conviction could have prevented him from possessing guns, but his gun rights were preserved because the conviction was later dismissed.

Licensing may not have prevented the shooting because he stole the gun from someone he knew. Requiring a license to purchase ammunition and safe storage policies may have been useful.

Albuquerque Family Shooting

Albuquerque, New Mexico

On January 19, 2013, 15-year-old Nehemiah Griego shot and killed his mother, younger brother, and two younger sisters with a .22-caliber rifle. After waiting five hours for his father to return home, he fatally shot his father with an AR-15-style semi-automatic rifle. He obtained the unsecured guns from his parents' closet.

The perpetrator told police that he mailed a photo of his murdered mother to his girlfriend, and had planned to drive somewhere to kill more individuals and hoped to be killed by police. According to his attorney, his father physically abused him and his mother emotionally abused him. His aunt says he has mental impairment and is cognitively young.

Several years prior, his mother scared away burglars by saying she had a shotgun. His father then bought the two rifles that would be used in the mass murder. The shooter learned how to shoot the rifles from his father. According to surviving family members, the guns were left unlocked so Nehemiah would have access to them in case he needed to protect the family. Safe storage requirements may have been helpful if his parents complied.

Appendix C: Source of Firearms Unknown

Mississippi Domestic Violence Shooting

Bogue Chitto, Mississippi

On May 27, 2017, 35-year-old William Cory Godbolt allegedly fatally shot eight people, including his wife's mother and a Sheriff's Deputy responding to the domestic violence situation. The victim's ages ranged from 11 to 55. He reportedly intended to be killed by police, but he was taken alive after being shot by the husband of his wife's cousin.

The perpetrator had a criminal record going back to 2005 that included armed robbery, aggravated assault, and other assault charges. In 2015, he was convicted of making death threats. In June 2016, his wife obtained a temporary protection order and accused him of attempting to choke her and repeatedly punching her in the stomach. He is currently in custody awaiting trial, where he has attempted to escape. The trial is set to begin in February 2020. It is unclear where he obtained the guns.

Orlando Factory Shooting

Orlando, Florida

On June 5, 2017, 45-year-old John Robert Neumann Jr. shot and killed five former colleagues before killing himself. Armed with a Walther PPS 9mm semi-automatic pistol with two magazines, he singled out the victims at the factory where he was fired in April 2017. He was escorted off the property after being caught stealing and selling the items.

In May 2014, he assaulted a coworker but charges were dropped. The coworker sought two protective orders against him. A handwritten restraining order dated May 6, 2014 reads, "I am in fear for my life. What's he got to do kill me? Before I can get justice. I fear for my family. I see a pattern of abuse with him. I'm sure other co-workers feel the same."

He also showed coworkers pictures of his guns and threatened to shoot people at the factory. The shooter's sister told police she believed he suffered from mental illness but was not diagnosed. The shooter was arrested in 1995 for driving under the influence. In 1999, he was arrested for theft, probation violation, and driving with a suspended licensing. He was rearrested in 2000 and 2003 for driving with a suspended sentence. In 2009, he was arrested for marijuana possession after a hit-and-run.

The CZ82 9mm pistol used during the workplace shooting was traced to the Georgia, VT dealer C.A.I/ Century Arms. The last known location of the gun was in October of 2007 when it was supposedly shipped back to C.A.I. from AcuSport in Bellefontaine, Ohio for repairs. C.A.I. has no further record of the pistol.

Law enforcement also found two pistols at his mobile home. The Bryco Arms Jennings 9mm pistol was traced to dealer A & W Sports in Irvine, Kentucky. It was sold in May 1999 to a Kentucky man. The Cobra Derringer 9mm pistol was traced to dealer Gunland in Kissimmee, Florida. It was sold in April 2003 to Orlando resident Theodore Saffran.

New Mexico Domestic Violence Shooting

La Madera. New Mexico

On June 15, 2017, 21-year-old Damien Herrera allegedly fatally shot five people, including his mother, stepfather, and brother in La Madera before killing two other men in other New Mexico towns. The shooting began when his stepfather confronted him about driving a truck without permission. The perpetrator shot his stepfather in the chest and then shot his brother in the neck after they wrestled over the Smith and Wesson .38 caliber revolver. He fled in the truck and ran out of gas, where he was picked up by a man who would be his next victim.

The shooter does not have a criminal record, but previously told people that he wanted to kill people for fun. "He was sick mentally. He would, you know, hear things," the perpetrator's sister told KRQE-TV. "We did try to help him, to get him help." The trial was delayed in March 2019 after the judge ordered a mental evaluation following the prisoner licking jail cell walls and at least two attempted jail escapes. The case is still open and it is not clear how the firearms were obtained.

Piketon County Shooting

Piketon, Ohio

On April 22, 2016, four members of the Wagner family allegedly shot and killed eight members of the same family over a custody dispute. Suspects include 47-year-old George "Billy" Wagner III, 48-year-old Angela Wagner, 27-year-old George Wagner IV, and 26-year-old Edward "Jake" Wagner.

They were arrested after a homemade gun silencer was found at the bottom of a well on property the Wagner's used to own. There are reports that law enforcement found evidence of marijuana growing and cockfighting. The case is still open and it is not currently known how the guns were acquired or more details on the shooting.

Georgia Domestic Violence Shooting

Appling, Georgia

On April 22, 2016, 50-year-old Wayne Anthony Hawes shot and killed five people before shooting himself in the head. The victims included two family friends and his wife's mother, uncle, and niece. Four guns were recovered at the scene: a rifle with a scope, a revolver, a shotgun, and an unspecified semi-automatic gun. Law enforcement did not research how the guns were obtained due to the offender's death.

Hawes was arrested at least six times in Columbia County between 1989 and 2002. Charges included battery, assault, selling cocaine, two DUIs, and fleeing from police.

The perpetrator's common law wife left him a week before the shooting. She said he was abusive and had an alcohol problem. "Last week, he had started making threats saying that he would kill her and that he was going to make CNN news," his daughter told the media. "He made threats before, but we never thought it would be at this capacity. He's been kind of a ticking time bomb if you want to put in a few words."

Law enforcement said in a July 2019 email, "After reviewing the file, we did not research where or how he obtained the guns. A criminal history was not completed due to the death of the offender."

Chesapeake Family Murder-Suicide

Chesapeake, Virginia

On January 27, 2016, 26-year-old Cameron Dooley fatally shot his parents, two siblings, and grandmother with a handgun, before shooting himself. It is believed the shooting was sparked by a family meeting telling the shooter that he had to move out of his grandmother's home and back with his father. He did not have a criminal record, but struggled with mental health most of his life. It is not clear how he obtained the gun.

Roseland Drug Robbery Shooting

Chicago, Illinois

On December 17, 2016, 29-year-old Lionel Parks and an accomplice allegedly fatally shot four people, including a pregnant woman, during a robbery at a drug house. A fifth victim died from her gunshot wounds ten months later. The shooter was on parole with an electronic monitoring bracelet at the time. He was prohibited from possessing firearms for prior convictions, including unlawful use of a weapon by a felon. It is unknown where he obtained the 9mm handgun.

Citronelle Shootings

Citronelle, Alabama

On August 20, 2016, 27-year-old Derrick Dearman fatally shot five people, including a woman who was five months pregnant, after attacking them with an axe at the home of his estranged girlfriend's brother. The ex-girlfriend left the abusive relationship and was living with her brother. His criminal record included disorderly conduct, harassment, resisting arrest. He had an active burglary warrant and a history of drug use. He pled guilty to the murders and blamed the incident on meth, but Alabama law requires a jury to hear capital offenses. A jury recommended the death penalty. It is unclear how he obtained the firearm.

Roswell Domestic Violence Shooting

Roswell. New Mexico

On June 11, 2016, 34-year-old Juan David Villegas-Hernandez allegedly shot and killed his wife and four young daughters in their beds. The children ranged in age from 3 to 14. His wife had filed for divorce, citing domestic abuse. A dual citizen, he fled to Mexico and was located in a hospital after an attempted suicide. He was extradited back to the US. The case is still open and it is not clear how he obtained the gun.

Georgia Shooting and House Fire

Moultrie, Georgia

On May 15, 2016, 25-year-old Jeffrey Peacock fatally shot five people before setting fire to the house in an attempt to cover up the crime. Three dogs were also killed in the shooting that occurred after Peacock and one of the victims shared cocaine and liquor. Investigators recovered a burned long gun near a victim, one .45 caliber shell, and three shotgun shells. He used to live in the house, but was kicked out for drug and alcohol use. On June 20, 2019, he received multiple life sentences after making a deal to take the death penalty off the table in return for having the case decided by a judge instead of a jury.

In December 2012, the shooter was discharged early from the Marine Corps. According to the US Marine Corps, "premature discharge and rank are indicative of the fact that the character of his service was

incongruent with Marine Corps' expectations and standards." According to news reports, he was discharged for drug use. He has a criminal history, but it is not clear if he was prohibited. It is not clear how he obtained the firearm.

Tyrone Shooting

Tyrone, Missouri

On February 26, 2015, 36-year-old Joseph Jesse Aldridge fatally shot seven people and injured one before shooting himself with a .45-caliber Rock Island Armory 1911 handgun with the serial number scratched off.

He was prohibited from possessing a firearm. In 2007, Missouri repealed its permit to purchase handgun law. In 2008, he was sentenced to 21 months in federal prison for possession of marijuana and a Ruger .22 caliber pistol during a 2007 traffic stop. After the shooting, a law enforcement officer said, "That is the guy I arrested a few years ago, and he's not supposed to have a firearm." Another unused pistol was found that his mother bought from a gun shop in 2014. He also had a .22 rifle that he may have purchased through a private seller in Montana in 1992.

Chattanooga Recruitment Center Shooting

Chattanooga, Tennessee

On July 16, 2015, 24-year-old Mohammad Abdulazeez fatally shot four Marines and one soldier, and shot and injured two others at a military recruitment center. He was fatally shot by responding officers. He used an AK-47-style semi-automatic rifle, a 9mm handgun, and a Saiga-12 shotgun.

The perpetrator had abused opioids, painkillers, sleeping pills, marijuana and alcohol for many years and suffered from poor mental health. In 2013, he failed a drug test and was fired from his job at a power plant. When his family attempted to get him treatment, the health insurance company denied their request.

On April 20, 2015, he was arrested for driving under the influence of alcohol and marijuana. Officers said he also had pills and a knife in his car. He was due in court in July 2015 for the DUI charge. According to a family spokesman, the arrest and being thousands of dollars in debt made his depression worse. On July 11, 2015, five days before the attack, he bought ammunition at Walmart. It is not clear how he obtained the firearms. A media report suggests some guns were legally bought and others were not. An Extreme Risk Protection Order may have helped his family keep lethal means out of his hands.

Bell Family Shooting

Bell, Florida

On September 18, 2014, 51-year-old Don Charles Spirit shot and killed his daughter and his six grandchildren before shooting himself with a .45-caliber handgun. The grandchildren ranged in age from two months to 11 years of age. Both the shooter and his daughter were investigated several times for child abuse and neglect.

The shooter had a long criminal record of battery and drug charges. The Gilchrist County Sheriff said he was not a legal gun owner but was not on community control at the time of the shooting. In 1990, the perpetrator was arrested on a felony fugitive warrant. In 1998, he was convicted of felony possession of marijuana. In 2001, he was convicted of possession of firearm by a felon when he unintentionally shot and killed his

8-year-old son on a hunting trip. Law enforcement confirmed by email in July 2019 that information about how the gun was obtained is not available.

Manchester Family Shooting

Manchester, Illinois

On April 24, 2013, 43-year-old Rick O. Smith broke into a Manchester home at 4:30 AM and killed five family members with a 20-gauge shotgun before being killed by law enforcement. The victims included a pregnant woman and children ages one and five. A six-year-old girl was shot but survived. He was in a child custody battle and believed the family was interfering.

The perpetrator was unemployed and had a criminal history that includes passing bad checks, a drug-related charge, and reckless homicide from a car crash. The perpetrator also had a .270 Bolt Action Winchester rifle with a scope and an 18-inch Gerber Gator machete. It is not known where he obtained the weapons.

South Carolina Domestic Shooting

Bradley, South Carolina

On October 29, 2013, 27-year-old Bryan Eugene Sweatt shot and killed his ex-girlfriend, her two parents, and her two nephews with a .44 caliber handgun before shooting himself. He let the youngest children at the house leave before tying up and shooting the others. The shooter and his ex-girlfriend were engaged in a child custody dispute and police had previously been to the house for a domestic argument.

He had a lengthy criminal history that likely prohibited him from possessing a firearm. At the time of the shooting, he was out on bail for a burglary charge. In 2005, he was charged with assault and battery. He also had charges related to forgery. Three weeks before the tragedy, he posted troubling messages on Facebook. It is not known where he obtained the weapons.