Privately Made Firearms and Ghost Guns

Preventing Further Proliferation with Policy

Updated October 2022;

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THIS ANALYSIS DEFINES "GHOST GUNS" AS:

Ghost guns are untraceable firearms that are typically constructed out of plastic or 3D-printed parts and can be assembled by individuals in the privacy of their own home. They do not have the unique serial numbers required by the Gun Control Act of 1968 for all domestic and imported firearms. While the technical term is "Privately Made Firearms" (PMFs), the lack of a serial number and thus the difficulty law enforcement agencies experience in identifying the manufacturer, retailer, or owner of the firearm, has earned these firearms the moniker of "ghost guns." There are several different types of ghost guns, but the two most frequently discussed are 3D-printed guns and guns made from "80 percent lowers."

DISCLAIMER

This report does not include the names or websites of those selling ghost gun kits or components.

ABOUT THE REPORT

The Regional Gun Violence Research Consortium published a brief *Ghost Guns: A Haunting New Reality* in April 2021 authored by Nicholas Simons. The original report has been updated to reflect changes in policies to address privately made firearms and ghost guns made at the federal and state level and provide new data. The updates were authored by Jaclyn Schildkraut, interim executive director of the Regional Gun Violence Research Consortium and Julianna Caruso.



On April 11, 2022, the Biden administration announced the submission of new rules issued by the United States Department of Justice (DOJ), more specifically the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), addressing the proliferation of ghost guns across the nation.1 This announcement came almost exactly one year after the president announced multiple executive actions designed to reduce gun violence, including requiring the DOJ and ATF to develop the new rules. These rules included qualifying ghost gun kits as "firearms" in line with the Gun Control Act of 1968, thereby requiring that any such kits have serial numbers on the firearm components. They also included a ban on certain forms of ghost guns, and a requirement that both commercial manufacturers and sellers of permitted kits be licensed. After federal judges in Texas and North Dakota decided that the new rules did not violate the Second Amendment in response to petitions for injunctive relief, they took effect on August 24. 2022.2

In 2021, law
enforcement in New
York State recovered
637 ghost guns
compared to 271
recovered in 2020,
100 in 2019, and 44
in 2018, according to
data from the New
York State Intelligence
Center.

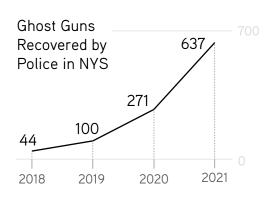
GHOST GUNS

Ghost guns are homemade firearms that do not have a serial number and cannot be traced by law enforcement. There are several different types of ghost guns, but the two most frequently discussed are 3D-printed guns and guns made from "80 percent lowers."

80 PERCENT LOWERS

3D-PRINTED GUNS

80 percent lowers are the unfinished lower halves of firearms, often bought as part of a kit, which can be modified and assembled into a fully-functioning gun by a purchaser. In most states, background checks are not required for purchase.



3D-printed guns are made using commercially available 3D-printers with building instructions and computer code found online.

of 3D-printed ghost guns recovered in 2020 in New York State.

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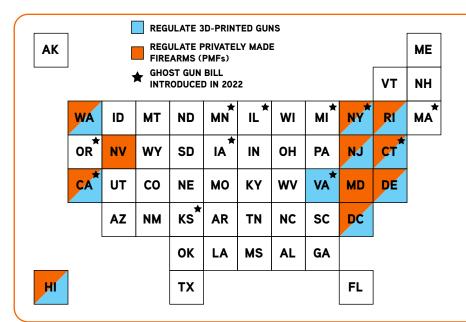
- In early April 2021, President Biden called upon the DOJ and the ATF to issue new rules and regulations to control the spread of ghost guns. A year later, those new rules and regulations developed by the DOJ—including definitions related to firearms—were announced by the president to be submitted to the *Federal Register*.
- Previous attempts at federal legislation on ghost guns have not gained considerable traction. Bills introduced in both the previous and current sessions of Congress have failed to advance in the lawmaking process.

POLICY RESPONSES

What is and can be done at the federal and state level to address this emerging issue?

STATE

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As it stands, 11 states and the District of Columbia have **enacted laws** regulating ghost guns to varying degrees.

In 2022, bills in 11 state legislatures around the country containing proposals to regulate PMFs have been introduced, with seven states seeing the introduction of such legislation for the first time. Four states that have already enacted legislation pertaining to ghost guns—including New York—saw new legislation introduced. Washington, which passed its initial PMF regulations in 2019, passed additional regulations in the first months of 2022.

What exactly are ghost guns, and what challenges do they pose? Moreover, what do these new rules do to contribute to a solution to such challenges? Privately made firearms (PMFs), which have become informally known as "ghost guns" due to their virtually untraceable nature, function similar to firearms wholly constructed by licensed firearm manufacturers but have a fraction of the regulations. In 2021, law enforcement in New York State recovered 637 PMFs (135 percent more than the year prior), reflecting continued annual increases from 44 in 2018 (the first year of reporting), 100 in 2019 (up 117 percent over the year prior), and 2020 (an increase of 171 percent).3 Other law enforcement agencies across the country, particularly those located in larger cities, have reported similar jumps in recoveries: Law enforcement in Boston has seen a nearly three-fold increase in the city since 2019;⁴ Philadelphia reported a five-fold increase since that year. Data from the ATF mirrors these trends: the recorded number of suspected PMF recoveries nationally increased more than 90 percent between 2020 and 2021 and more than ten-fold between 2016 and 2021.6 Such increases, however, must be interpreted with caution as they may be an artifact of increased reporting by jurisdictions.

10,500 10,117 9,000 8,857 7,500 6,559 6,677 6,000 4,500 3,000 1,500 271 100 44 637 0 2018 2019 2020 2021 All Crime Guns Seized PMFs Seized

FIGURE 1. All Crime Guns Seized Compared to PMFs Seized in New York

SOURCE: New York State Intelligence Center supplied internal administrative data.

While these increases represent a relatively low percentage of total gun recoveries, they illustrate that ghost guns pose a unique and rapidly growing challenge. Law enforcement agencies are unable to trace the origins of ghost guns used in crime and ultimately curb their flow at the source. While the federal government has taken first steps to regulate these weapons, state and local lawmakers have for several years been exploring and enacting policies designed to monitor and prevent ghost guns from falling into the hands of individuals who are prohibited from purchasing or possessing firearms.

What Are Ghost Guns?

The Gun Control Act of 1968 (GCA) requires that all domestic and imported firearms be marked with a unique serial number. Serial numbers allow law enforcement to track the specific firearm's movement throughout the different stages of purchase, transfer, and possession. When a firearm is recovered in a crime, law enforcement will run a "trace" on the unique serial number to find out what company made the gun, which vendor sold it, who first purchased it, and if the gun was subsequently transferred. Ghost guns, however, are untraceable as they do not have serial numbers. Without a serial number, law enforcement agencies typically are unable to identify the manufacturer, retailer, or owner of the firearm if it is recovered after a crime, which is why these are referred to as "ghost guns."

There are several different types of ghost guns, but the two most frequently discussed are 3D-printed guns and guns made from "80 percent lowers." To differentiate, 3D-printed guns are firearms made using commercially available 3D printers with building instructions and computer codes found online. To build their own privately made firearms, consumers may purchase unfinished lower halves of a firearm, either the unfinished frame of a handgun or the unfinished receiver of a long gun. These parts, commonly referred to as 80 percent lowers, become almost identical to firearms sold through federally licensed gun dealers.

Before the issuance of the new rules undertaken by the DOJ, these parts were not considered to be a firearm by the ATF and, therefore, were not subject to the same regulation as premade firearms had been. Due to their exemption to serialization as outlined by the GCA, once they are put together by the purchaser, guns made from 80 percent lowers can become fully functioning firearms with no way of being tracked by law enforcement if used in a crime. In a day's work, an 80 percent lower for an AR-15 that was previously not considered a firearm can become an untraceable, military-style rifle available to any individual regardless of their ability to pass a background check or bans on that type of weapon in several states. 11 The process is similar for someone assembling an 80 percent lower for a handgun, a weapon that is cheaper to make, easier to conceal, and used more frequently than rifles.¹²

The process is similar for someone assembling an 80 percent lower for a handgun, a weapon that is cheaper to make, easier to conceal, and used more frequently than rifles.

Commonly, 3D-printed guns are grouped with guns made from 80 percent lowers when referring to ghost guns because both are untraceable, novel, and can be made in the home. However, what distinguishes 80 percent lowers is the frequency with which they are used in crimes and the integrity of the firearm itself. When using currently available technology, 3D-printed guns are generally flimsy and unreliable. They often break after just a few rounds are fired.¹³ Over the past year, however, the New York City Police Department (NYPD) expressed concerns that due to technological advances, 3D-printed guns have become more stable and thus more appealing as a weapon of choice.¹⁴ Those 80 percent lowers made of metal and polymers, generally, are still much sturdier and mimic standard firearms more closely. As such, they appear to be the preferred option in criminal activity.¹⁵ Consequently, given their predominance, the remainder of this report specifically focuses on firearms made from 80 percent lowers.

How Are Ghost Guns and PMFs Currently Regulated?

Historically, the ATF has determined that 80 percent lowers were not firearms and were not subject to regulation under the GCA as a result. The language in the GCA defines a firearm as "any weapon (including a starter gun) which will or is designed to or may readily be converted to expel a projectile by the action of an explosive" as well as "the frame or receiver of any such weapon." The latter part of the definition regarding "the frame or receiver" of a firearm is what has drawn criticism to previous rules issued by the ATF, as the bureau had not deemed 80 percent lowers as firearms given that they are *unfinished*. In missing a few holes that could easily be made using commercially available tools in the home, 80 percent lowers have evaded regulation due to the prior unwillingness of the ATF to amend definitions to better reflect the stage of manufacture necessary to be classified as firearms.

The GCA remains the only federal law on the books that could limit the purchase, transfer, and possession of ghost guns, given that statutory definitions of the terms "frame" or "receiver" do not exist in that act nor in the National Firearms Act of 1934. More specifically, the provisions that the ATF uses to interpret 80 percent lowers in relation to the GCA, and related definitions found in the language of the law, serve as a guide to enforcing the gun control statutes within the act and applying them to privately made firearms. As a result, before the recently updated rule interpretations, strict legal interpretation of those definitions, as well as the definition of "firearm," has neglected to capture the reality of the terms as they relate to manufacturing and, more specifically, the construction of PMFs.¹⁷ With the new rules, however, PMFs and their equivalents now will qualify as "firearms" under the GCA, thereby requiring that they have unique serial numbers imprinted on them.

Still, the historical lack of action on the federal level has not discouraged some states from addressing the matter themselves. As it stands, 11 states and the District of Columbia have enacted legislation addressing the sale and possession of PMFs, PMF kits, and 3D-printed guns in their respective jurisdictions (see <u>Table 1</u>). The finalized rules submitted to the *Federal Register* work to support these efforts on the federal level by explicitly requiring that unlicensed individuals comply with federal, state, and local law when acquiring, selling, or transferring PMFs from a personal collection. 19

TABLE 1. Existing Ghost Gun Laws by State

Location	Year First Enacted	Description S	Do 80 Percent Lowers Require Serialization?	Must Buyers or Assemblers Pass a Background Check?	Are There Restrictions on Who Can Sell 80 Percent Lowers?	Is It Illegal to Aid and Abet a Prohibited Person from Assembling an 80 Percent Lower?	Does the Law Regulate 3D-Printed Guns?
California	2016	California passed initial legislation in 2016 regulating the possession of ghost guns followed by the 2019 law regulating their sale.	Yes	Yes	Yes	Yes	Yes
Connecticut	2019	Connecticut's law regulates the sale, possession, and transfer of 80 percent lowers and 3D-printed guns.	Yes	Yes	Yes	Yes	Yes
Delaware	2021	In Delaware, unfinished frames and receivers must be serialized and sold only by licensed dealers, who must retain records of such sales. Untraceable and undetectable firearms are prohibited.	Yes	No	Yes	No	Yes
District of Columbia	2020	The District of Columbia's law expressly prohibits the possession, sale, and transfer of ghost guns, with few exceptions for surrendering firearms.	N/A	N/A	N/A	N/A	Yes
Hawaii	2020	The law in Hawaii regulates both 80 percent lowers and 3D-printed guns, placing extensive requirements on dealers.	Yes	Yes	Yes	No	Yes
Maryland	2022	Maryland state law prohibits the sale of gun build kits, unfinished frames, and unfinished receivers without serial numbers, and considers such firearm parts as firearms for regulatory purposes. All untraceable firearms (all firearms without serial numbers) are to be prohibited in 2023, and existing untraceable firearms must become serialized and registered in the state.	Yes	No	No	No	No

TABLE 1. Existing Ghost Gun Laws by State, cont.

Location	Year First Enacted	Description	Do 80 Percent Lowers Require Serialization?	Must Buyers or Assemblers Pass a Background Check?	Are There Restrictions on Who Can Sell 80 Percent Lowers?	Is It Illegal to Aid and Abet a Prohibited Person from Assembling an 80 Percent Lower?	Does the Law Regulate 3D-Printed Guns?
New Jersey	2018	New Jersey's first law, enacted in 2018, prohibited the purchase of any unserialized frames or receivers. Their 2019 law extended those regulations to possession and transfer.	Yes	Yes	Yes	No	Yes
New York	2019	In New York, undetectable and untraceable firearms such as 3D-printed guns are prohibited. The possession of unserialized unfinished frames and unfinished receivers are prohibited except if by licensed gunsmiths.	Yes	No	Yes	No	Yes
Nevada	2021	In Nevada, untraceable firearms are prohibited.	Yes	No	No	No	No
Rhode Island	2020	In 2020, Rhode Island enacted a law which bans the manufacture, sale, transfer, purchase, and possession of ghost guns and undetectable firearms.	N/A	N/A	N/A	N/A	Yes
Virginia	2004	Virginia's law exclusively regulates plastic firearms.	No	No	No	No	Yes
Washington	2019	In Washington, untraceable firearms are completely prohibited. The sale, purchase, or otherwise possession of unfinished frames or receivers by anyone other than an individual with a federal firearms license.	Yes	No	Yes	No	Yes

NOTE: The District of Columbia, Rhode Island, and Washington completely prohibit ghost guns, so some of the questions do not apply. California, Washington, New York, and New Jersey have passed multiple laws expanding their existing ghost gun regulations. In Nevada, a portion of the state law regulating unfinished frames and receivers was struck down by a state judge, who claimed it was unconstitutional.²⁰

Some laws, such as those seen in California, New Jersey, Delaware, Hawaii, New York, Rhode Island, Virginia, Washington, and the District of Columbia, are intentionally broad and address both 3D-printed guns and the more prominent plastic firearms assembled using 80 percent lowers. Other laws, such as Virginia's, exclusively regulate "undetectable" firearms that are able to pass unseen through metal detecting security equipment. States with more modest restrictions in place, like Nevada and Maryland, seek to only address the lack of serialization regarding unfinished frames and receivers.

Some states that enacted regulations, including New York and Washington, have taken the opportunity to expand and strengthen existing measures in the last several years. During its 2021 legislative session, New York updated its laws to require serialization of 80 percent lowers and implement restrictions on who may sell them.²¹ In the first months of 2022, Washington did the same.²² Additionally, in 2022, legislation has been introduced in seven states without existing measures regulating the sale or possession of ghost guns to do so, including in Midwestern states where such legislation had never been introduced before. In Kansas, a month after an Olathe city school experienced a shooting perpetrated with a ghost gun, one representative—the parent of a child enrolled at that school—introduced a bill in the state's senate regulating ghost guns modeled after the legislation passed five months earlier in Delaware.²³

Other states, however, have seen the introduction of bills designed to resist further attempts to regulate firearms. For example, two weeks after the Biden administration announcement of the new rules, Republican lawmakers in Idaho introduced a bill to prohibit state government entities from enforcing federal actions involving the regulation of firearms, their components and accessories, or ammunition.²⁴ Similarly, the Arkansas Sovereignty Act of 2021, introduced in the state legislature, would have declared ghost guns beyond regulation by congressional authority and prohibited federal regulation of firearms, firearm accessories, or ammunition that stays within the borders of the state.²⁵ While the bill in Arkansas did not become law,²⁶ the bill in Idaho was signed into law quickly after its passage.²⁷ Montana also enacted similar legislation in anticipation of federal restrictions imposed by the Biden administration to attempt to nullify federal bans on particular types of firearms, including privately made firearms, in April 2021.²⁸

Some law enforcement agencies and gun safety advocacy groups have used laws in states pertaining to the manufacture, sale, purchase, or otherwise possession of ghost guns to facilitate lawsuits against ghost gun kit manufacturers. In California, the district attorney for San Francisco County sued several manufacturers of ghost gun kits for violating business competition statutes and firearm serialization requirements established in the state's ghost gun regulations passed in 2016.²⁹ In the wake of the April 2022 mass shooting in Sacramento, the California State Legislature introduced legislation that would offer bounties to private citizens filing lawsuits against anyone who manufactures, distributes, or sells illegal firearms, including ghost guns, in the state;³⁰ and in the state of New York, a similar bill was introduced during the 2022 legislative session that would create a civil cause of action for the manufacture, sale, or distribution of ghost guns or related parts.^{31,32} As of July 2022, neither bill had been signed into law, though the California legislation has passed both legislative houses

and was awaiting approval from the governor.^{33, 34} In addition to these actions in New York, the state's attorney general filed a landmark lawsuit in June 2022 against 10 separate PMF sellers to help reduce firearm-perpetrated street violence.³⁵

Earlier statutes enacted in states like California, which passed its first ghost gun law in 2016, have served as models for laws enacted later in other states. They also continue to serve as models for states seeking to expand existing laws or pass new legislation. With most of the PMF laws passed within the 10 state jurisdictions and the District of Columbia requiring serialization of 80 percent lowers and other firearm components as well as implementing restrictions for ghost gun kit retailers, laws existing at the state level can bolster and add to federal efforts made to address the presence of ghost guns in jurisdictions across the country.

Recent Changes to Regulations at the Federal Level

The passage of new federal legislation to regulate ghost guns is unlikely to receive 60 votes in the US Senate. In the absence of federal legislative action and the continued pressure from advocates and public officials alike, the executive branch has revised existing ATF firearm-related definitions and directed the DOJ to establish new rules relating to ghost gun sales and possession on the federal level. These new regulations, which went into effect as of August 24, 2022, build off of the DOJ's notice of proposed rulemaking (NPRM) in relation to ghost guns submitted to the Federal Register in 2021. Inconsistent with its previous NPRM, however, the rules submitted by the DOJ in April 2022 amend GCA enforcement regulations to broaden the definitions found within the act, expanding on what is considered a "frame," "receiver," or "firearm" for enforcement purposes. Similarly, the new rules specifically include privately made firearms (PMFs) or ghost guns in enforcement regulations. The submission also includes requirements for individuals holding a federal firearms license (FFL) to mark PMF resales and adhere to federal, state, and local ordinances pertaining to ghost guns. Further, under the new rules, FFL holders are required to include PMF sales in their records and commercial PMF kit manufacturers are required to obtain serial numbers for sales items.

These amendments to federal rules related to the legality of ghost guns represent a new approach to address the proliferation of untraceable firearms and their increasing use in violent crime. In doing so, the federal government also acknowledges the changes in firearm-related technology since the passage of the National Firearms Act and the GCA over 50 years ago and, furthermore, preempts a more narrow interpretation of regulatory definitions by the courts. Additionally, with the serialization and recordkeeping requirements outlined in the new rules, the executive branch provides further information to law enforcement in investigating crimes committed with PMFs or with firearms enhanced with kit parts.

Biden Administration's Timeline on Ghost Gun Regulation

June 23, 2021

April 11, 2022

August 23, 2022

August 24, 2022

President Biden issues executive actions to reduce gun violence, including requiring the DOJ and ATF to develop new rules on ghost guns.

The ATF revises firearm-related definitions to include ghost guns. The DOJ issues new rules for ghost gun sales and possession on the federal level.

Texas and North
Dakota federal judges
determined that the
new DOJ rules on
ghost guns do not
violate the Second
Amendment.

New federal rules on ghost guns go into effect.

What Do We Know About the Privately Made Firearms Marketplace?

Currently, there are roughly 115 dealers in the US online market selling 80 percent lowers.³⁶ Most of these websites are very straightforward and make purchasing the pieces quick and easy. In the past two years, ghost gun purchases have grown drastically in popularity, with more than a dozen distributors reporting shipping delays since March 2020 because of overwhelming demand.³⁷ The growth coincided with the beginning of the pandemic lockdowns in the US,³⁸ as well as a jump in overall firearm sales.³⁹

Online retailers walk the user through the legal landscape of ghost guns, detailing current regulations and some state laws. They also describe how simple the process of building these firearms is, as well as how cost effective it is compared with buying a firearm from a dealer.⁴⁰ The pricing on some of these kits is roughly half as expensive as an assembled firearm at retail price. To this point, some convicted of related felonies have claimed that they make a 300 percent profit selling ghost guns to others after assembling the guns themselves.⁴¹

Prior to the issuance of the DOJ's new rules, no background check was required in any state when purchasing the parts used to make privately-made firearms, another feature that online sellers have touted in their marketing. In the absence of a background check, individuals with a history of gun crimes and other offenses involving harm to others, such as those relating to domestic violence, have been able to legally obtain the parts necessary to build their own firearms. In another challenge for law enforcement, sales records required to be kept for 20 years by federally-licensed firearm dealers for purchases of premade guns have not been required for ghost gun parts. Ghost guns leave no trail for police to follow when used in a crime or an act of violence.

How Many Ghost Guns Are Being Used?

Traditional serialized firearms are tracked from the moment of manufacture. This means that policymakers and law enforcement agencies know how many of these guns are in circulation at any given time. The only way to identify the existence of a ghost gun, however, is when it is recovered by law enforcement in the investigation of a crime. Given the current lack of a tracking mechanism, the true quantity of ghost guns in circulation remains unknown. Multiple high-profile shooting incidents involving ghost guns have occurred over the past several years, calling attention to the pervasive and alarming rise of their use in gun crimes, particularly in acts of youth violence. In November of 2021, a 13-year-old boy in Douglas County,

In 2021, PMFs represented 6.3 percent of guns seized in New York. This is a significant increase compared to 2018, when they accounted for 0.6 percent.

Georgia, was arrested by local law enforcement for trafficking plastic firearms he put together himself, right after accidentally shooting his older sister during a sales dispute.⁴³ A month later, on New Year's Eve of 2021, an 18-year-old opened fire inside of the Mall of America, located in Minneapolis, using a plastic firearm he had bought online.⁴⁴ Similar recent events across the country—including four shootings that took place on school grounds during the 2021–22 academic year⁴⁵—have demonstrated the reach of untraceable firearms in the nation's overall rise in firearm violence.⁴⁶

In New York, the share of ghost guns recovered in crime has increased considerably over the past four years. Based on combined data from the Criminal Gun Clearinghouse⁴⁷ and the New York City Police Department (NYPD), compiled by the New York State Intelligence Center, the total number of seized crime guns, both legal and illegal, has increased from 6,559 in 2018 to 10,117 in 2021. The numbers reported in 2021 represent a 54 percent increase in the past four years, and a 14 percent increase from the 8,857 recorded in 2020. During the same time period, PMF recoveries increased more than tenfold. In 2021, PMFs represented 6.3 percent of guns seized in New York. This is a significant increase compared to 2018, when they accounted for 0.6 percent.

While the counties making up New York City (Richmond, Kings, Queens, New York, and Bronx) consistently account for the majority of ghost gun recoveries across the state, other counties also experienced an increase in the number of PMFs recovered. Monroe, Onondaga, Erie, Suffolk, and Nassau counties each experienced a significant, documented yearly increase in county PMF recoveries. These counties also represent some of the most populous areas in the state outside of New York City, with Rochester, Syracuse, and Buffalo present in the counties with substantial documented increases (Monroe, Onondaga, and Erie Counties, respectively).⁴⁸

To address accelerating gun violence rates and increases in overall violent crime rates amid the ongoing coronavirus pandemic, cities across the country have begun more proactive enforcement measures for gun crimes, including increased attention to the recovery of PMFs. Law enforcement in Sacramento, CA, for example, were

able to recover multiple PMFs by proactively monitoring social media.⁴⁹ Similarly, law enforcement in San Diego, CA, launched a proactive investigations plan targeting ghost guns specifically.⁵⁰ These ongoing efforts, coupled with the increased political attention from both local and state elected officials to the prevalence of untraceable firearms over the past two years, also may have impacted the number of PMF recoveries recorded across New York State during the same time frame. While the number of ghost guns obtained by law enforcement is compelling, there is no way to accurately quantify the prevalence of ghost guns in New York State and substantial information about their usage continues to remain unknown to practitioners and researchers.⁵¹

What Can Be Done About the Spread of Ghost Guns at the State Level?

Pending the implementation of the submitted rule from the DOJ, federal legislative action would more completely address the issue of PMF use in committing or aiding in crimes as these untraceable guns can be trafficked between states with and without laws in place to prohibit or restrict their possession, sale, or transfer. In the absence of federal legislative action, however, some states are supplementing new federal rules and implement their own policies complementary to law enforcement efforts to curb the circulation of ghost guns. Eleven states as well as the District of Columbia have enacted comprehensive ghost gun regulations, with states like New York, California, and Washington successfully introducing and subsequently passing legislation further regulating privately made firearms and their parts, including California's newest restrictions enacted in June 2022.⁵² Seven states are in the process of introducing such legislation.

Officials in states unlikely to pass regulations through legislative means have taken alternative steps to address the proliferation of ghost guns in the absence of lawmaker leadership. In one such example, Joshua Shapiro, Pennsylvania's current attorney general and 2022 Democratic gubernatorial candidate, entered into a collaborative agreement with the state's largest gun show promoter, Eagle Arms Productions, to halt the sale of 80 percent lowers at their events.⁵³ Given that gun shows serve as a popular venue for the acquisition of individual firearms and firearm parts, this type of collaboration with private entities—with or without similar legislative efforts undertaken—provides a different opportunity of further addressing ghost guns. In addition to facilitating this agreement, Shapiro used his powers as the state's highest counsel to issue a legal opinion clarifying existing law and classifying 80 percent lowers as firearms.⁵⁴ In the absence of new laws being passed by state legislatures, as has been the case in Pennsylvania, such alternative courses of action could have an impact on the purchase, transfer, and possession of ghost guns both within individual states and across the country.



How Will Governments Deal with Ghost Guns and PMFs Going Forward?

Ghost guns continue to be a growing concern in the fight against firearm violence. Whether through federal regulation, legislation, or other avenues, action is needed to address these weapons. Federal action on ghost guns is not nearly as complicated as other firearm issues that require passing bipartisan legislation. The ATF and the DOJ have taken swift action to amend the definition of "firearm" to include ghost guns.

With doubt as to when Congress will pass other gun violence measures like universal background checks and assault weapon bans, executive action offers the quickest remedy for the rising problem of ghost guns. At present, "moving the dial" on ghost guns means treating them as firearms, as President Biden has suggested. Having the DOJ and the ATF reinterpret their definitions was the quickest, easiest path toward preventing these guns from falling into the wrong hands and being used in criminal activity. To supplement the proposed federal action, there are models for state legislation that could fill in the gaps.

The frequency with which ghost guns are used in crime will likely continue to increase, given current trends. However, even with new policies, questions will remain. Will these policy solutions be matched by law enforcement efforts? Will 3D-printed guns gain broader use if 80 percent lowers are regulated and with improvements in printing technologies? Ghost guns are the result of both technological improvements and existing gaps in regulation. While governments can move to strengthen policy and prevent ghost guns from becoming tools of crime, new technologies are likely to continue presenting challenges to the existing statutory and regulatory framework for the manufacture, purchase, and possession of firearms. Federal and state governments will have to be ready, willing, and able to respond.

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