

Firearm-Related Activity in Massachusetts 2020-2021



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Charles Baker, Governor
Terrence Reidy, Secretary of the Executive Office of Public Safety and
Security

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Overview

Section 18 ¾ of Chapter 6A of the Massachusetts General Laws mandates that a report be completed by the Executive Office of Public Safety and Security (EOPSS) detailing the prevalence of firearm-related crimes, the number of arrests, prosecutions, and points of origins of these illegal firearms. This report will provide statistics on the state of illegal firearms in the Commonwealth for the time period of 2020-2021 to determine if recent laws have had an effect on the number of illegal firearms in the Commonwealth, the number of crimes committed with a firearm, and prosecutions related to these violations. The exact statute reads:

(10) to develop a biennial report to be sent to the clerks of the House of Representatives and Senate, the House and Senate committees on ways and means and the House and Senate chairs of the joint committee on public safety and homeland security not later than March 1 of every even-numbered year. The report shall contain, but not be limited to, the following information: (i) statistics related to firearms crimes; (ii) arrests and prosecutions of firearms-related offenses, to serve as an examination of the effectiveness of the commonwealth's firearms-related regulations; (iii) aggregate data on the source of firearms that have been confiscated and identified as being used in a crime or in an attempted or completed suicide during the report period, including aggregate information on the manufacturer, state of origin and last known point of sale, transfer, loss or theft of such firearms; (iv) an explanation of substantial changes in state and federal firearms-related laws and firearms-related statistics in the commonwealth; and (v) the effectiveness of section 128B of chapter 140.

Methodology and Data Collection

Currently, the data requested is not located within a single data set. For this report, crime statistics and arrest statistics were compiled by utilizing National Incident Based Reporting System (NIBRS) data, which is voluntarily submitted to the Executive Office of Public Safety and Security and ultimately to the FBI by local, state, campus, and hospital police agencies. NIBRS data includes the nature and types of specific offenses in the incident, characteristics of the victim(s) and offender(s), types and value of property stolen and recovered, and characteristics of persons arrested in connection with a crime incident; not all police agencies submit crime data using NIBRS. It should be noted that in NIBRS data, it is possible to report multiple offenses, crimes, victims and weapons within one incident. For this report, data shall be reported as the total number of crimes where firearms were utilized during all of the offenses, unless otherwise noted. Information about homicides with a firearm and suicides with a firearm was compiled from the Massachusetts Office of the Chief Medical Examiner (OCME). In order to examine case statuses and prosecutions of firearm cases, data was received from the Massachusetts Trial Court. Information about firearms confiscated or recovered was received from the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF).

Going forward, EOPSS will continue to work with municipal police departments, the Massachusetts State Police (MSP), the Commonwealth Fusion Center (CFC), and federal partners to maintain a dataset where this information may be more readily available. In addition, the Massachusetts State Police utilize a data collection tool in the Criminal Justice Information Services (CJIS) environment to collect data on firearm recoveries and seizures in the Commonwealth. This system within CJIS allows law enforcement to enter data in the field in relation to the criminal incidents and the firearms associated with crimes. This data collection tool is currently being revamped to enhance analysis capabilities. In addition to this report, the Massachusetts State Police also publish an annual report regarding firearms used in crimes based upon this new collection tool.

Limitations of the Data

As mentioned above, it is difficult to locate and merge data that does not reside within a structured data environment. In 2020 and 2021, some agencies were still converting from UCR to NIBRS. Boston converted to NIBRS late in 2019 and Lawrence converted in January of 2020. Massachusetts State Police also began reporting NIBRS in 2021. For the purpose of this report, agencies that failed to submit data or are not contributing NIBRS data for either year were excluded for the crime and arrest statistics portion of this report, unless otherwise noted. For this report, NIBRS statistics were available for 374 Massachusetts police agencies.

With respect to prosecution, criminal charges involving firearms were examined for the years 2020-2021. It should be noted that this will not reflect all firearm-related arrests from this time frame, but only those resulting in prosecutions completed during these years, as some of the 2020-2021 arrests will not yet have been adjudicated. At the time of the writing of this report, ATF data was not available for 2021, so only 2020 data is included in the Origins of Firearms section.

Statistics on Firearm-Related Crimes

Since in some cases, it is possible to convert NIBRS data to UCR data, this methodology was utilized to provide a count of Homicides, Robberies and Aggravated Assaults with a Firearm across the Commonwealth for all agencies that submitted either NIBRS or UCR data. These are the only three categories where it is possible to extract weapons data in UCR. The number of Robberies with a Firearm continued to decrease from 1,400 incidents in 2016 to approximately 1,000 in 2018 dropping again to 615 in 2021. Aggravated Assaults with a Firearm did increase in this two-year timeframe by over 1,100 incidents. The largest increases in Aggravated Assaults were in Boston, Springfield, Worcester, Fall River, New Bedford, and Lowell.

Figure 1: NIBRS Data Converted to UCR		
Crime Type	2020	2021
Homicide with a Firearm	119	87
Robbery with a Firearm	780	615
Aggravated Assault with a Firearm	2,295	2,329
Total	3,194	3,031
Data Source: MA UCR / NIBRS Data		

For the time period 2020-2021, there were 11,805 crimes in which firearms were utilized. In 2020, 5,864 crimes were committed with a firearm, while in 2021, 5,941 crimes were committed with a firearm. When reporting NIBRS, the FBI allows for 15 crime types to include a reference to the use or presence of a firearm. While there was a substantial increase of almost 900 incidents vs 2018 - 2019, it should be noted that approximately 50 additional jurisdictions were reporting NIBRS data in 2020-2021.

Figure 2: Firearm-Related Crimes 2020 - 2021			
Crime Type Using NIBRS Categories	2020	2021	Total
Murder and Nonnegligent Manslaughter	117	84	201
Negligent Manslaughter	1	1	2
Kidnapping/Abduction	44	58	102
Rape	18	23	41
Sodomy	3	2	5
Sexual Assault With An Object	1	2	3
Fondling	7	8	15
Aggravated Assault	2,382	2,385	4,767
Human Trafficking, Commercial Sex Acts	0	2	2
Extortion/Blackmail	2	14	16
Robbery	780	618	1,398
Weapon Law Violations	2,509	2,744	5,253
Grand Total	5,864	5,941	11,805
Data Source: MA NIBRS statistics. Data is a count of crimes where a firearm was listed as the weapon involved.			

As can be seen in Figure 2, Weapon Law Violations were the most frequent incident type. These incidents are typically for violating laws related to the manufacturing, selling, purchasing, transporting, possessing, concealing, or using of firearms. Common incidents within this category are arrests for Unlawful Possession of a Firearm, and incidents of shots fired. As has been noted, there was an increase in Aggravated Assaults in this time period. The 4,767 assaults were closer to the number of weapons offenses than in any of the previous eight years.

The remaining crime type with a significant number of firearms used was Robberies, with 1,398. Robberies encompass street, commercial, home invasion and carjacking robberies. It should be noted that during this

time period, there was the COVID Pandemic, which impacted crime statistics in various ways. Assaults and frauds sky-rocketed, while other crimes like Robbery and Burglary fell off. While capturing homicide data utilizing NIBRS data is possible, for this report it was also assessed utilizing OCME data to go into in greater depth and is detailed later in this report.

Figure 3: Agencies with over 100 Crimes with Firearms 2020 - 2021

Agency	2020	2021	Total	2021 Population	2021 Rate per 100,000
Boston	1,234	1,030	2,264	697,323	147.71
Springfield	1,039	1,071	2,110	153,084	699.62
Worcester	380	351	731	184,850	189.88
Brockton	258	245	503	99,171	247.05
Fall River	163	222	385	89,136	249.06
New Bedford	180	182	362	94,886	191.81
Holyoke	164	185	349	40,002	462.48
Lawrence	184	154	338	79,997	192.51
Lowell	129	140	269	110,876	126.27
Lynn	144	97	241	94,223	102.95
Pittsfield	76	112	188	41,865	267.53
Chicopee	89	63	152	54,918	114.72
Fitchburg	79	73	152	40,443	180.50
Cambridge	48	71	119	119,938	59.20
Haverhill	61	54	115	64,015	84.36
Chelsea	52	58	110	39,995	145.02

Data Source: MA NIBRS Data. Population figures obtained from the US Census Bureau.

Sorting the firearm data by reporting agency reveals that the larger cities have more crimes with firearms, even when considering it on a per capita basis. Boston reported 2,264 crimes, followed by Springfield (2110), Worcester (731), Brockton (503), Fall River (385), New Bedford (362), Holyoke (349), Lawrence (338), Lynn (241), Pittsfield (188), Chicopee and Fitchburg (152) Cambridge (119), Haverhill (115), and Chelsea (110). (See Appendix Table 1 for a complete Town / City list.) These are the same sixteen cities that reported over 100 firearm-related crimes in 2018-2019. Springfield consistently reports the second amount of firearm crimes and their 2020 and 2021 total increased over 500 incidents vs 2018 – 2019. When rates of firearm incidents for 2021 are calculated per 100,000 residents, the numbers are fairly similar, although Springfield again moves to the first position with a rate of 699.62/100,000; followed by Holyoke (462.48), Pittsfield (267.53) and Fall River (249.06). Boston drops down to the 15th position when utilizing this method, while the small towns of Hinsdale, Hardwick, North Adams, Avon, Eastham and Monson moved into the top 20 on a per capita basis.

Homicides and Suicides with a Firearm

Homicides and suicides with a firearm were examined to determine the prevalence of firearm-related deaths in the Commonwealth. Looking at the last five years, the average number of homicides with a firearm is 107 per year, while the average number of suicides is 142. On average, approximately 250 lives are taken with a firearm every year in the Commonwealth, with the average age of a homicide victim being approximately 31.6 years old, and the average age of a person committing suicide with a firearm is 52.4. The average age of females committing suicide with a firearm is lower, where the 2020-2021 average was 46, while the male average was 53. Firearm-related deaths are far more common among males. Over the last two years, 93% of suicides with a firearm have been committed by men, while 88% of victims fatally shot by others have been men.

Figure 4: Firearm-Related Deaths in MA 2017 - 2021

Death Type	2017	2018	2019	2020	2021	Total	5 year Avg.
Homicide	109	106	90	128	102	535	107
Suicide	162	144	135	136	134	711	142.2
Total	271	250	225	264	236	1,246	249.2

Data Source: OCME Data

Figure 5: Firearm-Related Deaths by Gender 2020 - 2021

Death Type	Male	Female	Total
Homicide	202	28	230
Suicide	251	19	270
Total	453	47	500

Data Source: OCME Data

When looking at where these homicide incidents were taking place during 2020-2021, only three cities had more than 10 firearm-related homicides: Boston (80), Springfield (33), and Worcester (10). (See Appendix Table 2 for a complete list.) These are the same three cities that had ten or more homicides with a firearm during the 2018 – 2019 period. In 2018 – 2019, homicides with a firearm were reported in 38 cities and towns. For the time period of 2020 – 2021, homicides with a firearm were reported in 54 jurisdictions. Boston breaks down the city into police precincts. The precincts of B2, B3 and C11, which make up the neighborhoods of Roxbury, Mattapan and Dorchester each also had over 10 homicides with a firearm. B2 (Roxbury), accounted for 13, while B3 (Mattapan and North Dorchester), had 31 homicides and C11 (Dorchester) had 10 fatal shootings. (For a full list of Boston district homicides, see Appendix Table 2B).

Boston Shootings Data

Among the reporting agencies, Boston had the most firearms used in crimes, the most deaths, and readily publishes data on shootings, so this data was chosen to be examined in further detail. For the past five

years, on average, 225 individuals have been shot in Boston per year. These numbers have remained fairly consistent over the five-year span. 2018 resulted in the fewest non-fatal shootings, while 2021 had the fewest homicides and total shootings.

Figure 6: Boston Shootings 2017 - 2021							
Shooting Type	2017	2018	2019	2020	2021	Total	5 Year Average
Homicide	44	48	28	44	25	189	37.8
Non-Fatal	215	154	163	230	172	934	186.8
Total Shootings	259	202	191	274	197	1,123	224.6

Data Source: Boston Police Department - Boston Regional Intelligence Center

Firearm-Related Arrest Statistics

NIBRS data contains clearance information along with the firearm data. An incident can be “cleared” in several ways. The most common way for a case to be cleared is with an arrest: the charging either of an adult or juvenile. Another way a case can be cleared is by “exceptional clearance.” When a case is cleared exceptionally, an arrest does not take place despite probable cause existing to make such an arrest. Reasons for an exceptional clearance may include: death of an offender, the decision of the prosecutor not to go forward, the offender is in custody in another jurisdiction, the victim refuses to cooperate, or a juvenile is handled without being brought into custody. In 57.8% of the offenses submitted, an arrest was made or the offense was cleared exceptionally. This is a significant increase from the previous four years when approximately 40% of cases were cleared.

Figure 7: NIBRS Clearance Statistics 2020 - 2021				
Clearance Type	2020	2021	Total	% Cleared
Cleared By Arrest	2,355	2,398	4,753	57.5%
Exceptional Clearance	13	9	22	0.3%
Total Cleared	2,368	2,407	4,775	57.8%

Data Source: NIBRS data

Prosecutions for Firearm Charges

For the time period of 2020-2021, 22,581 criminal charges related to firearms were brought forward in the Commonwealth: 10,075 in 2020, and 12,506 in 2021. The most common charges did not change as compared to two years ago. The seven most common charges still all have above 800 charges and range from over 4,000 charges to 835 charges. There was a substantial increase in charges in 2021, with an increase of approximately 24% over 2020.

Figure 8: Firearm Charges by Year 2018-2021					
Court Type	2018	2019	2020	2021	Total
Firearm Charges	10,683	10,007	10,075	12,506	43,271

Data Source: MA Trial Court

The most common charges for this time period were:

- Carry Firearm without License, G.L. c. 269, §10(a): 4,064 charges
- Carry Loaded Firearm without License, G.L. c. 269, §10(n): 3,244 charges
- Possess Large Capacity Firearm, G.L. c. 269, §10(m): 3,060 charges
- Possess Firearm without FID Card, G.L. c. 269, §10(h): 2,646 charges
- Improper Storage of Firearm, G.L. c. 140, §131L(a)&(b): 1,854 charges
- Possess Firearm in Felony, G.L. c. 265, §18B: 890 charges
- Discharge Firearm within 500 Feet of Building, G.L. c. 269, §12E: 835 charges

Crime Guns in Massachusetts

M.G.L. c. 140, § 131Q requires the entry of recovered crime guns into the Commonwealth Fusion Center’s Crime Gun Tracking System. The law directs firearms licensing authorities within the Commonwealth to annually report to the Colonel of the Massachusetts State Police certain data related to crime gun seizures within their jurisdiction. For the years 2020 and 2021, information was submitted on 4,248 firearms and arrests were made in approximately 74% of the seizures. The 4,248 recoveries were an increase of over 600 seizures vs the previous two year period.

Figure 9: Crime Guns Reported to Commonwealth Fusion Center			
Arrest Made	2020	2021	Total
Yes	1,476	1,672	3,148
No	503	507	1,010
Unknown	17	73	90
Total	1,996	2,252	4,248

Origins of Firearms

When a firearm is recovered in Massachusetts, agencies have the option of running a trace via the ATF. Agencies may request traces for crime guns, or guns turned over to police. A trace can determine the place of production, as well as legal points of sale for the firearm. The ATF traced 1,837 guns recovered in Massachusetts in 2020 and established a source state in 1,324 cases. In 281 cases, the ATF determined the source state was Massachusetts. Other originating states that had a substantial number of traces were:

Figure 10: Source State for MA Guns

Source State	2020
Massachusetts	281
New Hampshire	172
Maine	127
Georgia	117
Florida	112
South Carolina	55
North Carolina	52
Vermont	52
Virginia	46
Data Source: ATF	

It is often believed that the bulk of crime guns coming into the Northeast are brought up from the southern states. Including Massachusetts, 53% of traced firearms came from within New England. Of the 3,912 firearms traced, 3,153 (80%) were determined to be handguns (pistol, revolver or derringer). Based upon these recoveries, the leading calibers also corresponded to handguns, with the exception of the shotgun:

- 9mm (660)
- .40 cal (237)
- .380 cal (197)
- .22 cal (169)
- .45 cal (145)
- .38 cal (99)
- 12 Gauge (57)

One measure that is often examined after a crime is how long after the original purchase of the firearm was it used in a crime. For 2020, the average for Massachusetts was 8.91 years, while the national average was 7.01 years. Of the traced firearms in Massachusetts in 2020, 822 had a time-to-crime of 3 years and over; 233 firearms had a time-to-crime of one year or under.

Firearm Licenses

Firearm licenses were examined several ways and all displayed similar trends across the years. When reviewing new applications for the years 2010-2019, 2013 had significantly higher applications than every other year with 41,427 applications; the next-highest year was 2017 with 31,862 applications. It should be noted that nationwide, at the time, 2013 had the highest number of National Instant Criminal Background Check System (NICS) checks in the history of the program according to the FBI, which was indicative of higher gun sales nationwide. Following 2014, NICS checks steadily increased. In 2020 and 2021, the FBI again reported its highest number of NICS background checks with 39.6 million in 2020 and 38.7 million

26 and 28 million checks in 2018 and 2019. In Massachusetts, there was also a steep increase in new licenses. In 2018-2019, there were approximately 43,000 new license applications received, while in 2020-2021 there were 98,704 applications. During the years, 2020-2021, over 199,000 applications for firearm licenses were received and as of 1/1/22, over 518,000 licenses were active in the Commonwealth.

Figure 11: Firearm License Applications 2020 - 2021

License Type	Application Type	2020	2021	Total
Firearms Identification Card	New	1,831	2,141	3,972
Resident Class A Large capacity License to Carry Firearms	New	43,037	51,498	94,535
Resident Class B Non-Large Capacity to Carry Firearms	New	0	0	0
Resident License to Possess a Machine Gun	New	99	98	197
Total New License Applications		44,967	53,737	98,704
Firearms Identification Card	Renewal	2,476	2,148	4,624
Resident Class A Large capacity License to Carry Firearms	Renewal	53,185	42,617	95,802
Resident Class B Non-Large Capacity to Carry Firearms	Renewal	0	0	0
Resident License to Possess a Machine Gun	Renewal	190	131	321
Total Renewal Applications		55,851	44,896	100,747
Total Applications		100,818	98,633	199,451

Data Source: MA Firearm Records Bureau

Figure 12: Active Firearm Licenses by Year 2018 - 2022

Active on:	Class A LTC	Class B LTC	FID Card	Total
01/02/18	397,548	2,018	32,046	431,612
01/03/19	402,135	0	29,200	431,335
01/03/20	401,922	0	25,605	427,527
01/01/21	448,758	0	24,289	473,047
01/01/22	493,944	0	24,567	518,511

Data Source: MA Firearms Record Bureau

Firearm Sales

According to the Firearms Records Bureau data, firearm sales increased each year from 2006 to 2013, from 41,160 sales in 2006 to 110,350 sales in 2013. After 2013, the number of sales decreased to 102,081 in 2014 while 2015 produced 108,290 sales. The 2016 numbers were the highest the Firearms Record Bureau has recorded while the 2017 numbers were more consistent with data from 2013-2015. The numbers continued to decrease in 2018 and 2019 with dealer sales below 100,000. The 2020 and 2021 numbers mirrored the license application numbers where there was a significant increase to over 140,000 dealer sales in 2021. Personal transfers have hovered around 25,000 transfers per year over the past ten years.

Figure 13: Firearm Sales & Transfers

Transaction Type	2018	2019	2020	2021
Firearms Dealer Sales	95,216	89,277	135,641	140,230
Personal Transfers (Gun Portal)	25,898	24,104	28,724	27,475

Data Source: MA Firearms Records Bureau

Changes in State and Federal Statutes

There were no changes to firearms laws in 2020 or 2021.

Data Sources:

NIBRS Data: National Incident Based Reporting System, MA Executive Office of Public Safety. Massachusetts is currently equipped to collect NIBRS data from 317 agencies. NIBRS captures the nature and types of specific offenses in the incident, characteristics of the victim(s) and offender(s), types and value of property stolen and recovered, and characteristics of persons arrested in connection with a crime incident. MA agencies submit their data through an online portal managed by Beyond2020. The data is stored in a repository also managed by Beyond2020. The data was queried by EOPSS on February 27, 2018.

Homicides & Suicides with a Firearm Data: OCME Database, MA Office of Chief Medical Examiner. Data was queried from the MA OCME database via the Adapt Analytics Platform.

Prosecution Data: MassCourts Case Management System, MA Trial Court. Charges were selected from the MGL where firearms were mentioned.

Firearm Origin Data: Firearms Tracing System, Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives, Office of Strategic Intelligence and Information. Available from: <https://www.atf.gov/firearms/docs/undefined/2016tracestatsmassachusettspdf/download>

Census Data: State & County Quick Facts, US Census Bureau. Available from: <http://quickfacts.census.gov/>

Firearm Licensing Data: Massachusetts Gun Transaction Portal, MA Department of Criminal Justice Information Services, Firearms Records Bureau. Data was queried from databases to determine the number of firearm sales, as well as the number of active firearm licenses.