

Violent Crime in Massachusetts

July 2009

Massachusetts Executive Office of Public Safety and Security, Office of Grants and Research
Shelley Penman, Data coordinator, Research and Policy Analysis Division

The purpose of the *Crime Policy Brief Series* is to increase knowledge about crime in Massachusetts through improved dissemination of crime data. In partnership with the State Police Crime Reporting Unit (CRU), the Executive Office of Public Safety and Security, Research and Policy Analysis Division provides an overview of crime in Massachusetts in order to better understand the trends, nature, and context of crime in Massachusetts.

Highlights

- Overall, the Massachusetts violent crime rate did not change between 2007 and 2008 (0% change).
- When looking at each Part I violent crime individually, the aggravated assault rate did not change (0%), murder has decreased 14%, the robbery rate did not change (0%), and rape has increased 4%.

Massachusetts Violent Crime Rates: Percent Changes 2007 to 2008

Offense	Percent Change
Total Violent Crime	0%
Aggravated Assault	0%
Murder	-14%
Robbery	0%
Rape	+ 4%

Data Source: Massachusetts State Police, Crime Reporting Unit

Background

Uniform Crime Reporting Program

The national Uniform Crime Reporting (UCR) program began in 1930 when Congress authorized the Federal Bureau of Investigation (FBI) to collect crime statistics from local police departments across the nation. The goal of the UCR program is to produce reliable statistical information on the magnitude and trends of crime for use by law enforcement agencies (FBI 2004). Over the years the utilization of the program has increased and today the general public, media, legislators, criminologists, and others use UCR data to track the rise and fall of crime levels and rates (FBI 2004).

In the 1970's, the FBI changed responsibility for data collection to state-run UCR programs (FBI 2004). Now local law enforcement agencies report data to a state-operated program that then forwards the information to the national program. In Massachusetts, the State Police CRU is the liaison between state, local, and campus police departments and the national program.

Data

Offense Classifications

There are seven main offense classifications that are used to measure the prevalence of crime in the nation. Violent crime includes murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Property crime includes burglary, larceny-theft, and motor vehicle theft. In 1979, a congressional mandate added arson to the property crime classification (FBI 2004). Arson is not uniformly reported to the CRU in Massachusetts.

Volume and Rates

Volume and rates are often used in crime reports to illustrate the amount of crime in a locality. Volume of crime refers to "raw" numbers or counts of offenses. Rates are the number of offenses divided by the population. Rates allow for the comparison of the amount of crime between localities by controlling for population. Crime rates are calculated as a rate per 100,000 persons in this *Crime Policy Brief Series*.

For purposes of this *Crime Policy Brief Series*, U.S. Census Bureau population estimates for the years 2001 through 2008 were used to calculate rates. Decennial Census counts were used for 1980, 1990, and 2000 and for the respective years in between. The Appendix provides the raw counts, rates, and population figures for Massachusetts and the nation that were used in this report.

This brief includes data voluntarily submitted by local agencies to the CRU. In 2008, 303 (86%) Massachusetts cities/towns submitted crime data to the CRU. The CRU's estimation method used within this report only includes agencies that have submitted at least three months of data for any given year. For agencies which submitted at least three months of data but less than 12 months of data, estimates were calculated for the missing months for each crime category except murder. Estimates were calculated as follows: $(\text{Count of Crimes} / \text{Number of Months Data Submitted}) \times 12$.

The volume of crime included in this policy brief is based on counts from the CRU as of June 11, 2009. The data may not reflect the exact figures published by the CRU or the FBI due to submission of late and/or adjusted data.

How much violent crime is there in Massachusetts?

Massachusetts crime data from 1980 through 2008 was analyzed in this report. The 2008 national crime data is not included as it was not yet released at the time of the writing of this report (anticipated release in September 2009).

Examining the volume of violent crime over the last 29 years (1980 to 2008) reveals that in recent years violent crime has declined to levels last seen in the mid 1980's. Violent crime in Massachusetts peaked in the early to mid 1990's, mirroring national trends (Figures 1 and 2).

For Massachusetts, the highest volume of violent crime reported was in 1993 (40,239) and the lowest volume reported was in 1984 (27,595). In 2008, 29,204 violent crimes were reported in the state (Figure 1), a 1% increase in the volume of violent crime from 2007. It should be noted that the volume of violent crime in 2008 was only slightly higher (6% higher) than the 29 year violent crime low in 1984.

Nationally, the highest volume of violent crime reported was in 1992 (1,932,270) and the lowest reported was in 1983 (1,258,090). In 2007, 1,408,337 violent crimes were reported (Figure 2).

Figure 1: Volume of Violent Crime in Massachusetts 1980 to 2008

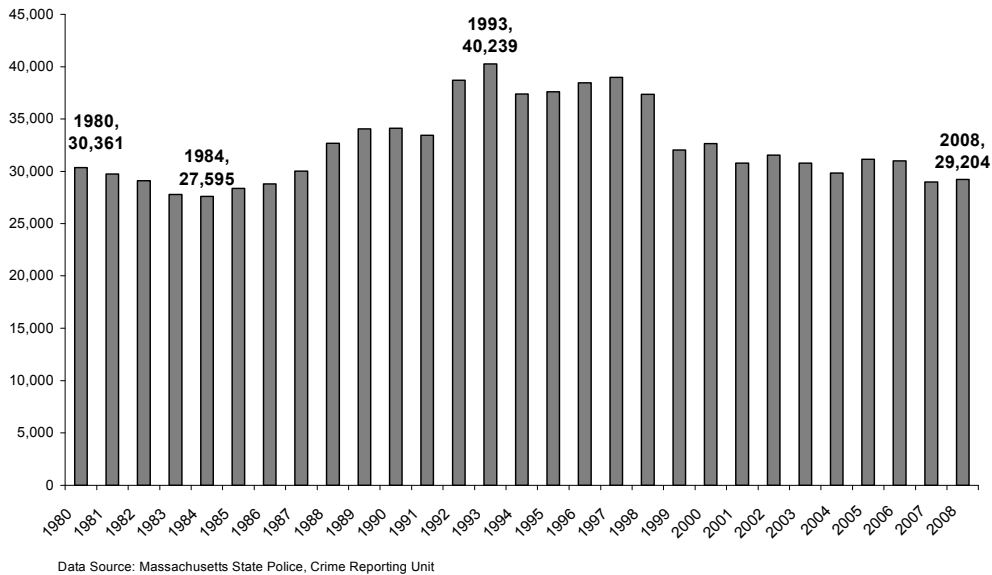
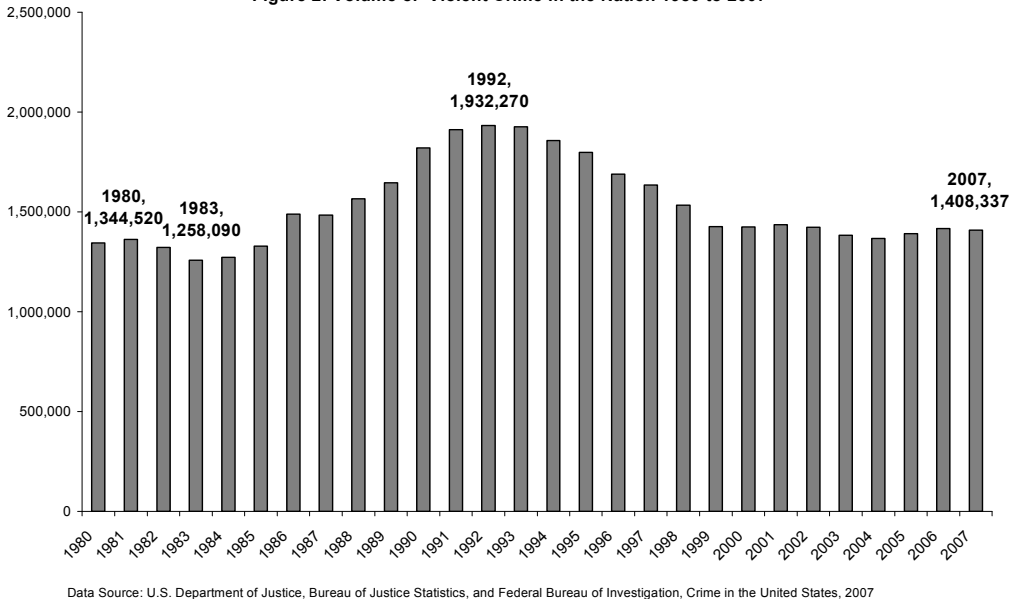
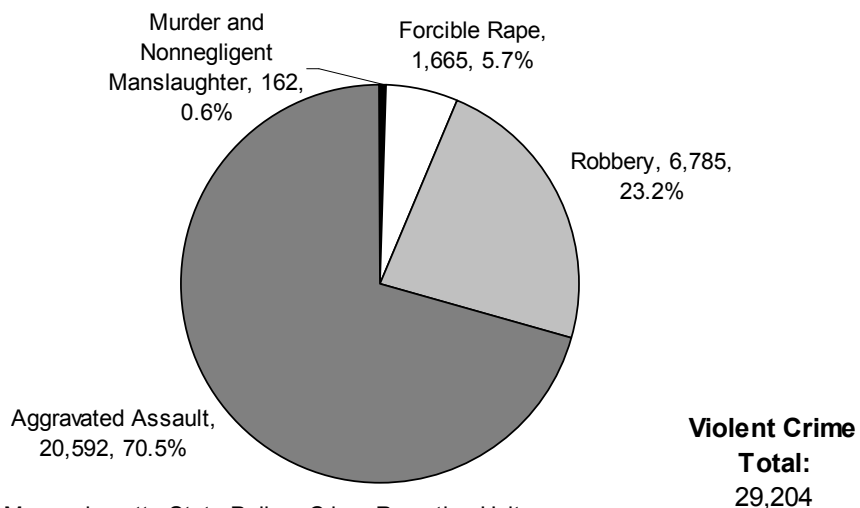


Figure 2: Volume of Violent Crime in the Nation 1980 to 2007



In 2008, there were 29,204 reported violent crimes in the state (Figure 3). The majority of violent crimes in 2008 were comprised of aggravated assaults (71 percent), followed by robberies (23 percent), forcible rapes (6 percent), and murders and non-negligent manslaughter (0.6 percent).

Figure 3: Massachusetts Violent Offenses 2008



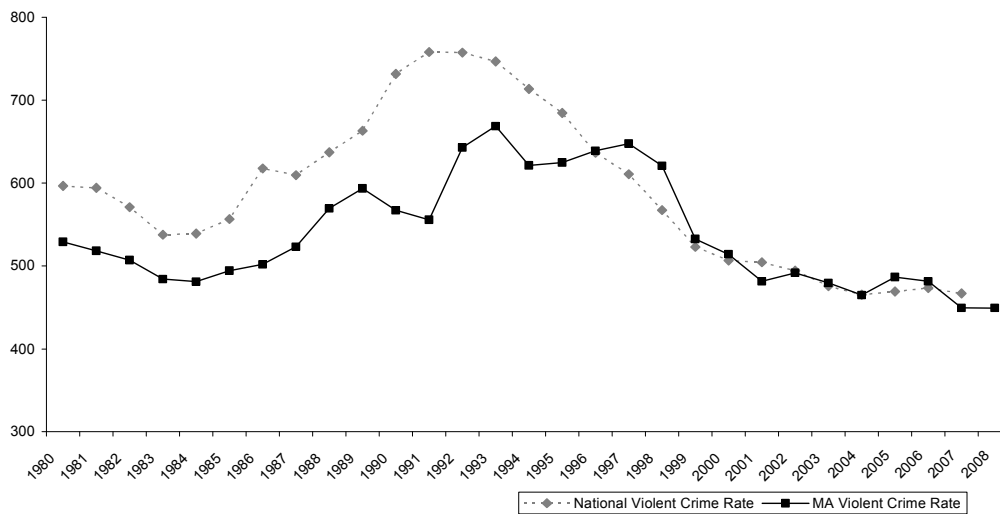
Data Source: Massachusetts State Police, Crime Reporting Unit

What are the trends in violent crime rates in Massachusetts?

Massachusetts generally mirrors the national violent crime rate trends between 1980 and 2007 (Figure 4). Notably, Massachusetts' violent crime rates were consistently below the national rates until 1996 when Massachusetts surpassed the nation's violent crime rate. Since 1999 the violent crime rates for the state and the nation have generally converged but the violent crime rate in Massachusetts was lower than the national rate in 2007. While national violent crime rates have been generally declining since 1991, Massachusetts' rates began a general decline in the late 1990's. In other words, the violent crime drop in Massachusetts lagged the nation by a few years.

The highest violent crime rate in the state was in 1993 (669 per 100,000) and the lowest violent crime rate was in 2008 (449). Nationally, the highest violent crime rate was in 1991 (758) and the lowest violent crime rate was in 2004 (466). The 2008 national crime data was not yet released at the time of the writing of this report (anticipated released in September 2009).

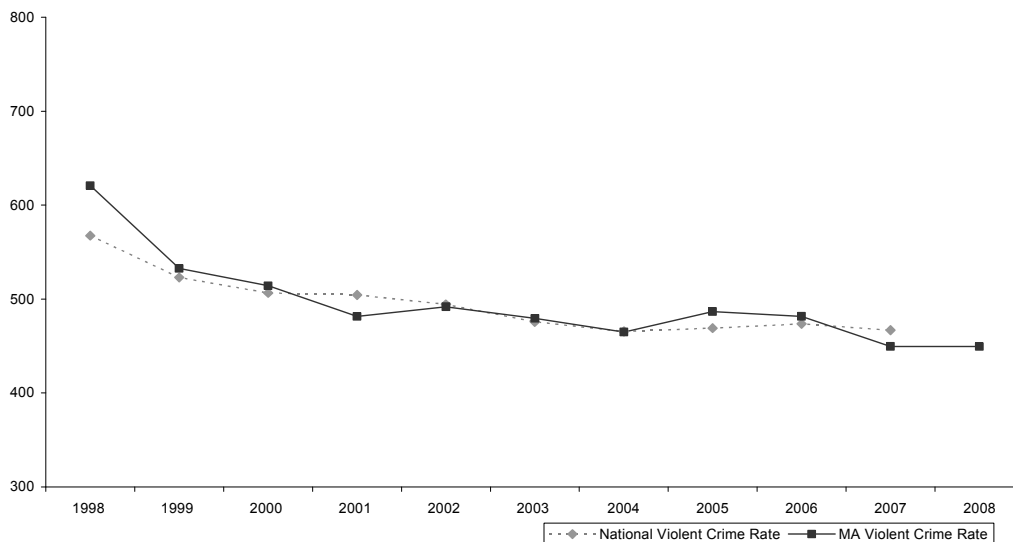
Figure 4: National and Massachusetts Violent Crime Rate (per 100,000 persons) 1980 to 2008



Data Source: U.S. Department of Justice, Bureau of Justice Statistics; Massachusetts State Police, Crime Reporting Unit

Focusing on the 11-year period 1998 to 2008, the national violent crime rate decreased 24 percent (from 611 in 1997 to 467 in 2007) and the state violent crime rate decreased by 28 percent (from 621 in 1998 to 449 in 2008) (Figure 5).

Figure 5: National and Massachusetts Violent Crime Rate (per 100,00 persons) 1998 to 2008



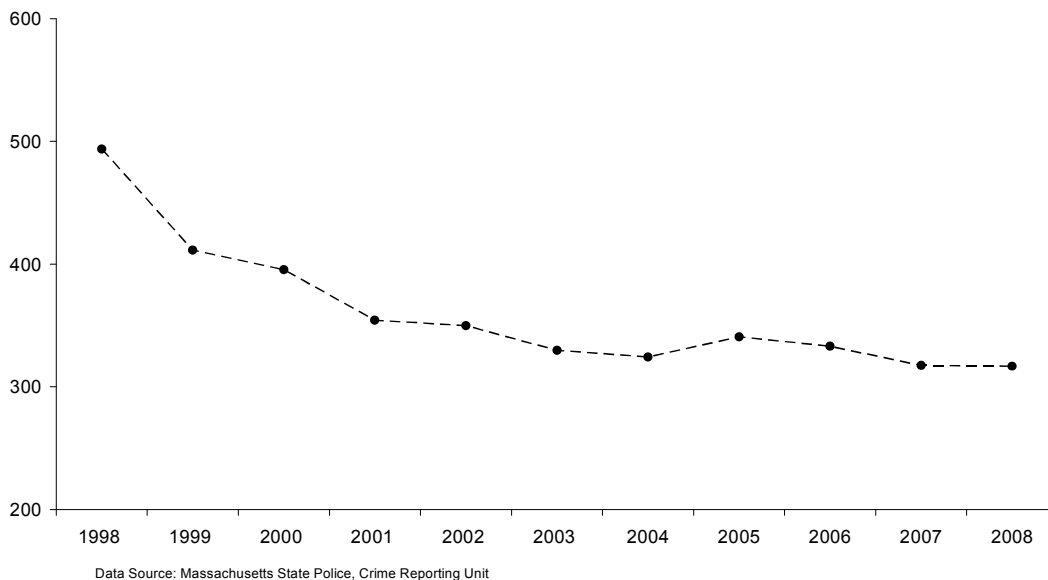
Data Source: U.S. Department of Justice, Bureau of Justice Statistics; Massachusetts State Police, Crime Reporting Unit

A more detailed look at each of the individual offenses that make up the total violent crime rate is presented below. As shown above in Figure 5, the overall violent crime rate has been steadily declining in Massachusetts over the 11-year time period. However, a more detailed look at the total violent crime rate shows that each offense does not follow this same pattern.

Aggravated Assault

- Overall, the aggravated assault rate has been steadily declining since 1998 (Figure 6 and Table 1).
- The aggravated assault rate experienced the greatest decrease in percentage terms (36% decrease from 494 per 100,000 persons to 317 per 100,000 persons) compared to the other violent offenses over the 11-year time period.
- The aggravated assault rate was at an 11-year low in 2008 (317).

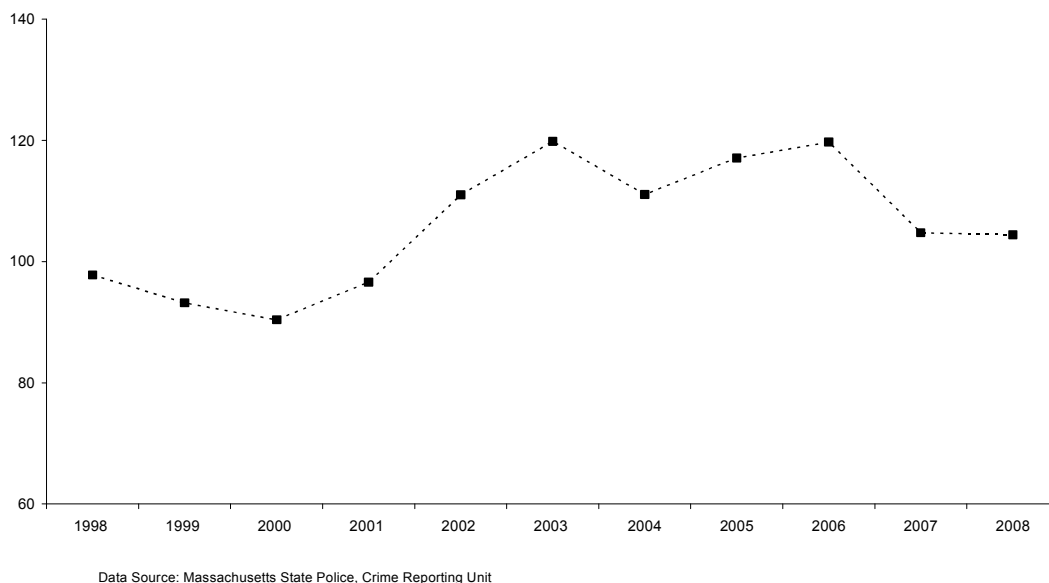
Figure 6: Massachusetts Aggravated Assault Rate (per 100,000 persons) 1998 to 2008



Robbery

- The robbery rate increased 7% between 1998 and 2008 (from 98 to 105) (Figure 8 and Table 1).
- Between 1998 and 2008 the robbery rate was highest in 2006 (120), declined 12% in 2007 (105), and remained nearly the same in 2008 (104).

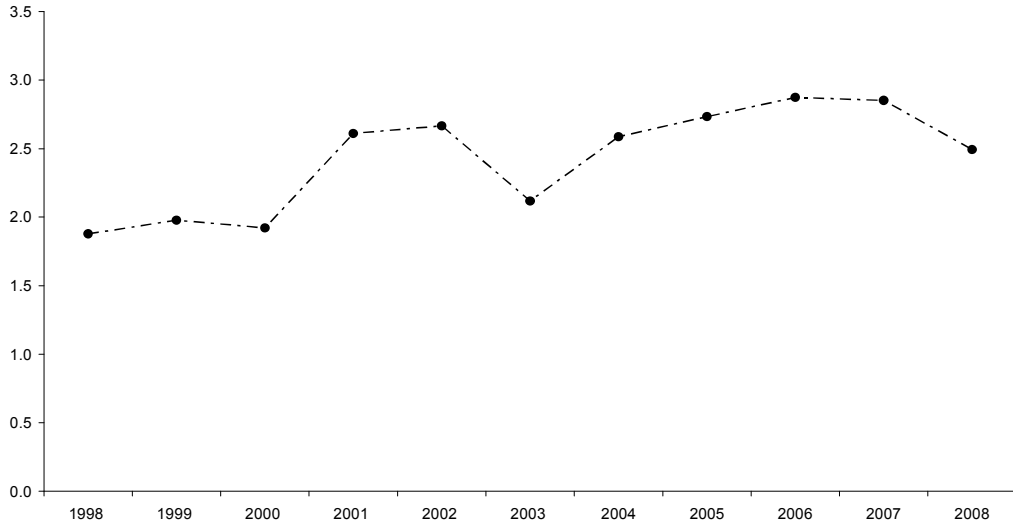
Figure 7: Massachusetts Robbery Rate (per 100,000 persons) 1998 to 2008



Murder and Non-negligent Manslaughter

- During the 11-year time period, the murder rate in Massachusetts increased by 33 percent (from 1.9 to 2.5) (Figure 7 and Table 1).
- Despite the slight dip in the murder rate in 2003, the rate steadily increased from 1997 to 2006.
- The murder rate decreased slightly between 2007 and 2008 (14% decrease from 2.9 to 2.5).

Figure 8: Massachusetts Murder and Non-negligent Manslaughter Rate (per 100,000 persons) 1998 to 2008

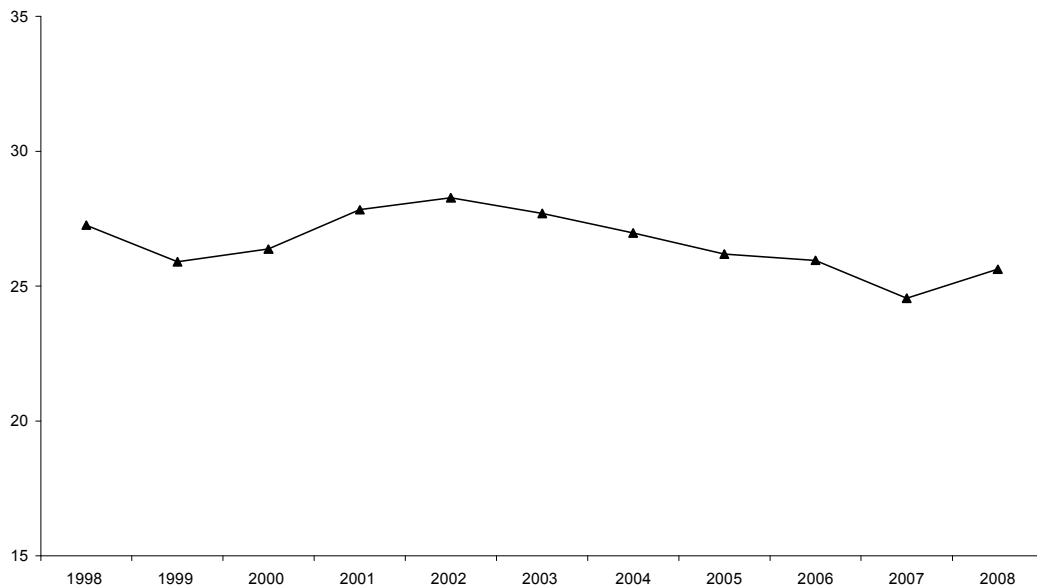


Data Source: Massachusetts State Police, Crime Reporting Unit

Forcible Rape

- The rape rate remained relatively stable over the 11-year time period, decreasing 6% from 1998 to 2008 (from 27.3 to 25.6) (Figure 9 and Table 1).
- The rape rate increased 4 percent from 2007 to 2008 (24.6 to 25.6).

Figure 9: Massachusetts Forcible Rape Rate (per 100,000 persons) 1998 to 2008



Data Source: Massachusetts State Police, Crime Reporting Unit

As shown in the previous set of graphs, the annual rates for each individual violent offense (aggravated assault, robbery, murder and non-negligent manslaughter, and forcible rape) fluctuate considerably. Overall, the total violent crime rate has decreased 28% since 1997 (Table 1). The aggravated assault rate experienced the most notable decrease (36%) of the violent offenses, while the murder rate experienced the most dramatic increase (33%).

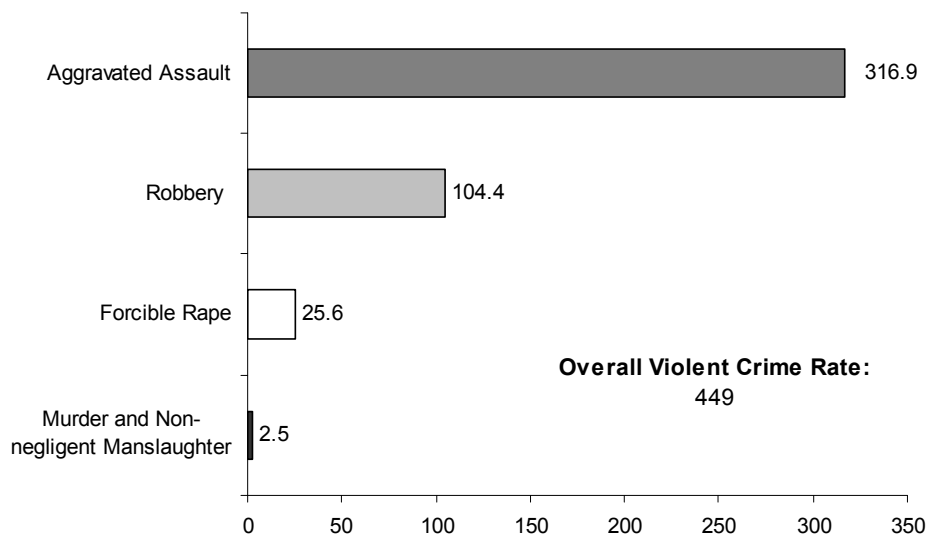
**Table 1: Massachusetts Violent Crime Rates:
Percent Changes 1998 to 2008**

Offense	Percent Change
Total Violent Crime	- 28%
Aggravated Assault	- 36%
Murder	+ 33%
Robbery	+ 7%
Rape	- 6%

Data Source: Massachusetts State Police, Crime Reporting Unit

Figure 10 compares the rates of violent crime across individual offenses in a single year, 2008. In 2008 the Massachusetts violent crime rate was 449 per 100,000 persons. In terms of rates of individual offenses within the violent crime category, aggravated assault had the highest rate at 317, over three times higher than robbery, the next largest offense rate (at 104). In addition, 26 forcible rapes, and 2.5 murders per 100,000 persons were reported in 2008.

Figure 10: Massachusetts Violent Crime Rate (per 100,000 persons) 2008



Data Source: Massachusetts State Police, Crime Reporting Unit

Where does violent crime occur?

An examination of the volume of violent crime at the community level in 2008 illustrates the distribution of violent crime across the state (Map 1). Based on violent crime counts, the ten communities with the highest number of reported violent crimes in declining order are: Boston, Springfield, Worcester, New Bedford, Lowell, Brockton, Fall River, Lynn, Chelsea, and Lawrence. Not surprisingly, the majority of the communities with the highest number of reported violent crimes are some of the largest communities in the state (Table 2).

Map 1: Counts of Violent Crime 2008¹

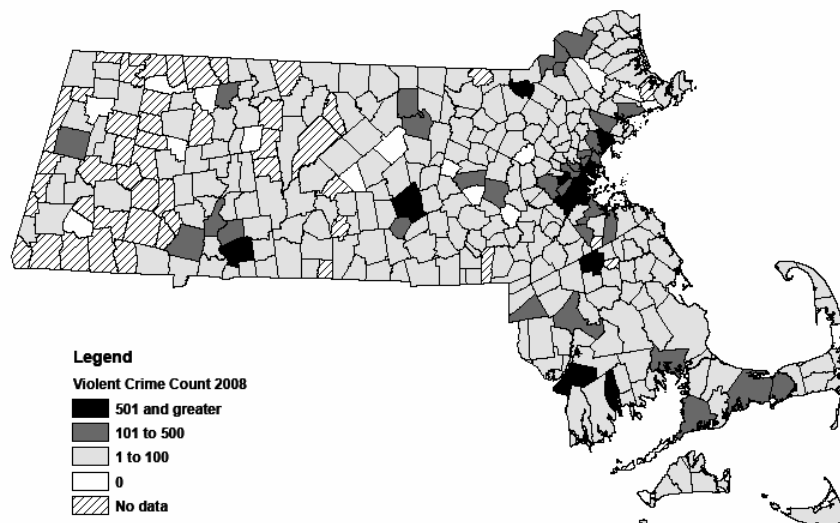


Table 2: Top Ten Communities in Massachusetts by Violent Crime Count 2008

Town/City	Violent Crime Count	Population	Population Ranking (out of 351 communities)
Boston	6,676	609,023	1
Springfield	1,901	150,640	3
Worcester	1,720	175,011	2
New Bedford	1,192	91,365	8
Lowell	1,167	103,615	5
Brockton	1,151	93,007	6
Fall River	1,088	90,931	9
Lynn	817	86,957	10
Chelsea	673	41,577	31
Lawrence	456	70,014	13

Data Source: 2008 Crime Data, Massachusetts State Police, Crime Reporting Unit. Population from U.S. Census 2008 estimates.

¹ “No Data” indicates that data was not submitted for a particular community in 2008. Data Source: 2008 Crime Data, Massachusetts State Police, Crime Reporting Unit.

Examining the volume of violent crime alone does not allow for comparisons across communities as population is not taken into consideration. In order to more accurately compare violent crime at the community level, population was used to calculate a violent crime *rate* for each community in 2008 (Table 3). Accounting for population, Chelsea moves to the top of the list of violent crime rates while Boston moves down from the community with the highest *number* of violent crimes to the eighth community when ranked by violent crime *rates*. Worcester moves down from the community with the third highest number of violent crimes to the ninth community when ranked by violent crime rates. Holyoke was not included in the top ten cities ranked by volume while it ranks sixth in list of cities by rates.

Table 3: Top Ten Communities in Massachusetts by Violent Crime Rate 2008

Town/City	Violent Crime Rate	Population	Population Ranking (out of 351 communities)
Chelsea	1,618.7	41,577	31
New Bedford	1,304.7	91,365	8
Springfield	1,261.9	150,640	3
Brockton	1,237.5	93,007	6
Fall River	1,196.5	90,931	9
Holyoke	1,129.0	39,947	37
Lowell	1,126.3	103,615	5
Boston	1,096.2	609,023	1
Worcester	982.8	175,011	2
Lynn	939.5	86,957	10

Data Source: 2008 Crime Data, Massachusetts State Police, Crime Reporting Unit. Population from U.S. Census 2008 estimates. Rate is per 100,000 persons.

Data Sources:

Federal Bureau of Investigation, *Crime in the United States, 2007*, September 2008

Federal Bureau of Investigation, *Uniform Crime Reporting Handbook*, 2004

Massachusetts State Police, Crime Reporting Unit

U.S. Census Bureau, Population Division, *Subcounty Population Estimates, April 1, 2000 to July 1, 2008*, July 7, 2009, (<http://www.census.gov/popest/datasets.html>)

U.S. Census Bureau, Census 2000 Summary Tape File 1 (STF 1); generated using American Factfinder, (<http://factfinder.census.gov/>), February 15, 2006

U.S. Census Bureau, Census 1990 Summary Tape File 1 (STF 1); generated using American Factfinder, (<http://factfinder.census.gov>), February 15, 2006

U.S. Census Bureau, *1980 Census of Population, Number of Inhabitants, Massachusetts*, December 1981, (http://www2.census.gov/prod2/decennial/documents/1980a_maABC-01.pdf)

U.S. Department of Justice, Bureau of Justice Statistics, *FBI, Uniform Crime Reports, Reported Crime in the United States--Total 1980 – 2007*, July 22, 2008, (<http://www.ojp.usdoj.gov/bjs>)

Appendix

Massachusetts Violent Crime, by Counts and Rates (per 100,000 persons)

Year	Population	Violent Crime Count	Murder and Non-negligent Manslaughter	Forcible Rape	Robbery	Aggravated Assault	Violent Crime Rate	Murder and Non-negligent manslaughter Rate	Forcible Rape Rate	Robbery Rate	Aggravated Assault Rate
1980	5,737,037	30,361	207	1,367	12,121	16,666	529.2	3.6	23.8	211.3	290.5
1981		29,740	178	1,311	13,165	15,086	518.4	3.1	22.9	229.5	263.0
1982		29,095	199	1,296	11,050	16,550	507.1	3.5	22.6	192.6	288.5
1983		27,776	186	1,258	10,525	15,807	484.2	3.2	21.9	183.5	275.5
1984		27,595	192	1,491	9,268	16,638	481.0	3.3	26.0	161.5	290.0
1985		28,361	183	1,607	10,122	16,448	494.4	3.2	28.0	176.4	286.7
1986		28,799	186	1,560	10,235	16,810	502.0	3.2	27.2	178.4	293.0
1987		30,019	175	1,677	9,620	18,546	523.2	3.1	29.2	167.7	323.3
1988		32,674	184	1,687	9,424	21,376	569.5	3.2	29.4	164.3	372.6
1989		34,062	182	1,560	10,750	21,561	593.7	3.2	27.2	187.4	375.8
1990	6,016,425	34,132	212	1,500	10,502	21,914	567.3	3.5	24.9	174.6	364.2
1991		33,440	213	1,444	9,172	22,606	555.8	3.5	24.0	152.5	375.7
1992		38,692	171	1,794	9,443	27,284	643.1	2.8	29.8	157.0	453.5
1993		40,239	209	1,705	9,090	29,232	668.8	3.5	28.3	151.1	485.9
1994		37,394	199	1,621	9,326	26,247	621.5	3.3	26.9	155.0	436.3
1995		37,594	207	1,625	8,321	27,441	624.9	3.4	27.0	138.3	456.1
1996		38,449	161	1,753	7,541	28,994	639.1	2.7	29.1	125.3	481.9
1997		38,974	126	1,689	6,450	30,706	647.8	2.1	28.1	107.2	510.4
1998		37,355	113	1,640	5,883	29,714	620.9	1.9	27.3	97.8	493.9
1999		32,038	119	1,559	5,606	24,755	532.5	2.0	25.9	93.2	411.4
2000	6,349,097	32,642	122	1,675	5,738	25,106	514.1	1.9	26.4	90.4	395.4
2001	6,395,585	30,785	167	1,780	6,178	22,657	481.4	2.6	27.8	96.6	354.3
2002	6,412,549	31,543	171	1,814	7,116	22,440	491.9	2.7	28.3	111.0	349.9
2003	6,420,289	30,783	136	1,778	7,692	21,177	479.5	2.1	27.7	119.8	329.8
2004	6,416,553	29,838	166	1,731	7,126	20,815	465.0	2.6	27.0	111.1	324.4
2005	6,398,743	31,145	175	1,676	7,492	21,802	486.7	2.7	26.2	117.1	340.7
2006	6,437,193	30,998	185	1,671	7,705	21,437	481.5	2.9	26.0	119.7	333.0
2007	6,449,755	28,992	184	1,583	6,755	20,470	449.6	2.9	24.6	104.7	317.4
2008	6,497,967	29,204	162	1,665	6,785	20,592	449.4	2.5	25.6	104.4	316.9

Data Source: Massachusetts State Police, Crime Reporting Unit. U.S. Census Bureau estimates are used in 2001 through 2008. Decennial Census counts were used in 1980, 1990, 2000, and the years in between.

National Violent Crime, by Counts and Rates (per 100,000 persons)

Year	Population	Violent Crime Count	Murder and Non-negligent Manslaughter	Forcible Rape	Robbery	Aggravated Assault	Violent Crime Rate	Murder and Non-negligent manslaughter Rate	Forcible Rape Rate	Robbery Rate	Aggravated Assault Rate
1980	225,349,264	1,344,520	23,040	82,990	565,840	672,650	596.6	10.2	36.8	251.1	298.5
1981	229,146,000	1,361,820	22,520	82,500	592,910	663,900	594.3	9.8	36.0	258.7	289.7
1982	231,534,000	1,322,390	21,010	78,770	553,130	669,480	571.1	9.1	34.0	238.9	289.1
1983	233,981,000	1,258,090	19,310	78,920	506,570	653,290	537.7	8.3	33.7	216.5	279.2
1984	236,158,000	1,273,280	18,690	84,230	485,010	685,350	539.2	7.9	35.7	205.4	290.2
1985	238,740,000	1,328,800	18,980	88,670	497,870	723,250	556.6	8.0	37.1	208.5	302.9
1986	241,077,000	1,489,170	20,610	91,460	542,780	834,320	617.7	8.5	37.9	225.1	346.1
1987	243,400,000	1,484,000	20,100	91,110	517,700	855,090	609.7	8.3	37.4	212.7	351.3
1988	245,807,000	1,566,220	20,680	92,490	542,970	910,090	637.2	8.4	37.6	220.9	370.2
1989	248,239,000	1,646,040	21,500	94,500	578,330	951,710	663.1	8.7	38.1	233.0	383.4
1990	248,709,873	1,820,130	23,440	102,560	639,270	1,054,860	731.8	9.4	41.2	257.0	424.1
1991	252,177,000	1,911,770	24,700	106,590	687,730	1,092,740	758.1	9.8	42.3	272.7	433.3
1992	255,082,000	1,932,270	23,760	109,060	672,480	1,126,970	757.5	9.3	42.8	263.6	441.8
1993	257,908,000	1,926,020	24,530	106,010	659,870	1,135,610	746.8	9.5	41.1	255.9	440.3
1994	260,341,000	1,857,670	23,330	102,220	618,950	1,113,180	713.6	9.0	39.3	237.7	427.6
1995	262,755,000	1,798,790	21,610	97,470	580,510	1,099,210	684.6	8.2	37.1	220.9	418.3
1996	265,284,000	1,688,540	19,650	96,250	535,590	1,037,050	636.5	7.4	36.3	201.9	390.9
1997	267,637,000	1,634,770	18,210	96,120	497,950	1,022,490	610.8	6.8	35.9	186.1	382.0
1998	270,296,000	1,533,887	16,974	93,144	447,186	976,583	567.5	6.3	34.5	165.4	361.3
1999	272,691,000	1,426,044	15,522	89,411	409,371	911,740	523.0	5.7	32.8	150.1	334.3
2000	281,421,906	1,425,486	15,586	90,178	408,016	911,706	506.5	5.5	32.0	145.0	324.0
2001	284,796,887	1,436,611	15,980	90,491	422,921	907,219	504.4	5.6	31.8	148.5	318.5
2002	287,973,924	1,423,677	16,229	95,235	420,806	891,407	494.4	5.6	33.1	146.1	309.5
2003	290,788,976	1,383,676	16,528	93,883	414,235	859,030	475.8	5.7	32.3	142.5	295.4
2004	293,655,404	1,367,009	16,137	94,635	401,326	854,911	465.5	5.5	32.2	136.7	291.1
2005	296,410,404	1,390,695	16,692	93,934	417,122	862,947	469.2	5.6	31.7	140.7	291.1
2006	299,398,484	1,417,745	17,034	92,455	447,403	860,853	473.5	5.7	30.9	149.4	287.5
2007	301,621,157	1,408,337	16,929	90,427	445,125	855,856	466.9	5.6	30.0	147.6	283.8

Data Source: Bureau of Justice Statistics, FBI, Uniform Crime Reports, prepared by the National Archive of Criminal Justice Data (<http://www.ojp.usdoj.gov/bjs>).

See the Executive Office of Public Safety and Security's website for additional public safety research publications:

<http://www.mass.gov/eops>