

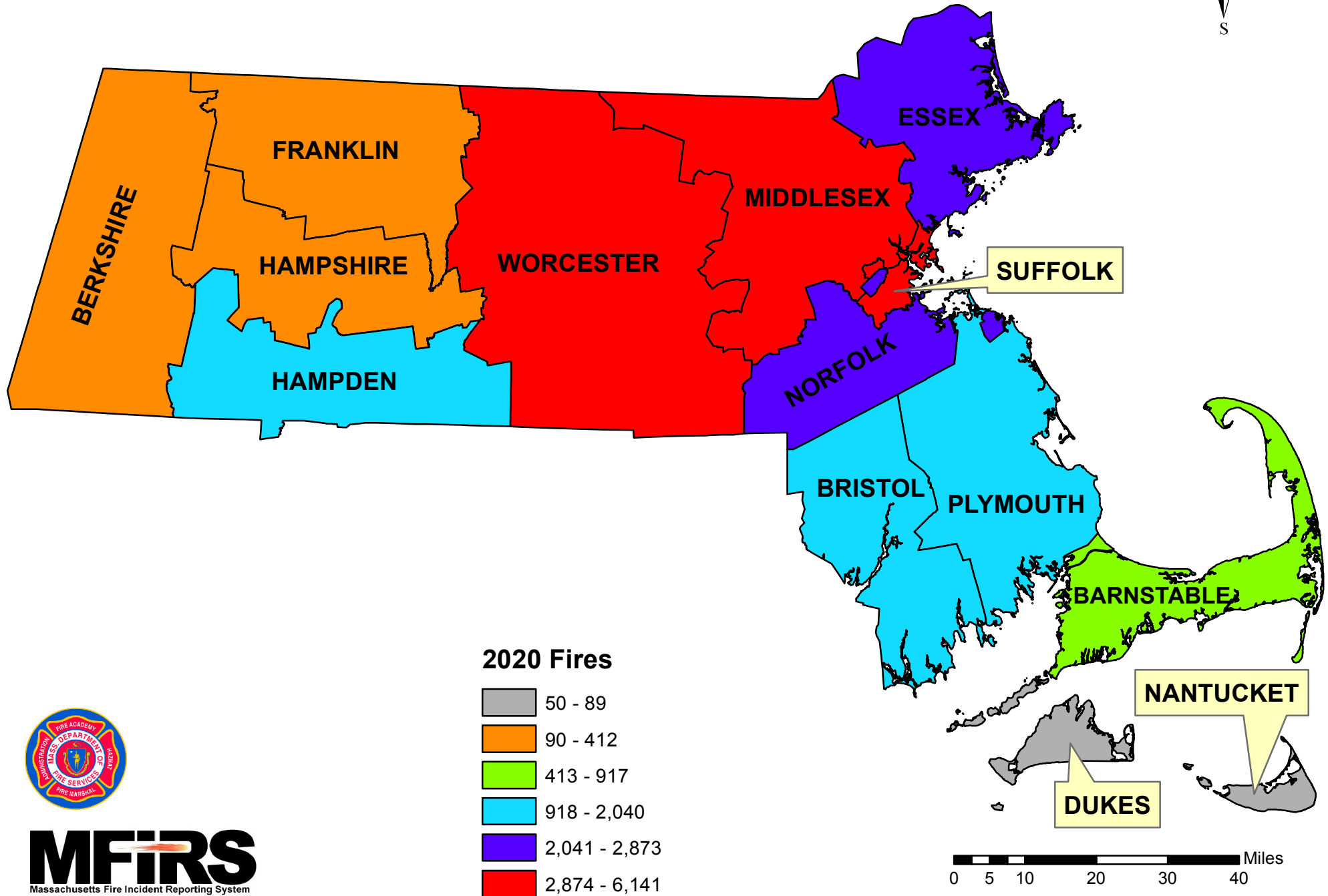


County Profiles

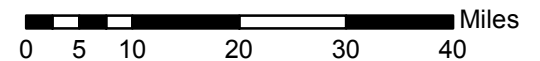
2020 Fire Data Analysis

Statistics compiled by the Massachusetts
Fire Incident Reporting System (MFIRS)

2020 Fires in Massachusetts Counties



MFIRS
Massachusetts Fire Incident Reporting System



Massachusetts Fire Incident Reporting System 2020

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2020 Fires by County

County	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Civilian Deaths	Civilian Injuries	Fire Service Deaths	Fire Service Injuries	Dollar Loss
Barnstable	917	346	71	500	2	18	0	23	\$9,623,093
Berkshire	408	229	49	130	3	10	0	6	\$9,272,948
Bristol	1,974	853	242	879	2	38	0	14	\$19,008,771
Dukes	89	24	6	59	0	1	0	0	\$2,489,000
Essex	2,766	1,332	254	1,180	3	12	0	94	\$30,723,863
Franklin	259	103	29	127	0	5	0	4	\$1,265,416
Hampden	1,918	893	196	829	2	34	0	70	\$16,222,272
Hampshire	412	137	59	216	1	5	0	7	\$3,021,779
Middlesex	6,141	3,698	369	2,074	11	38	0	194	\$37,102,354
Nantucket	50	23	3	24	1	3	0	0	\$4,525,448
Norfolk	2,873	1,554	219	1,100	3	13	0	53	\$17,859,747
Plymouth	2,040	838	194	1,008	3	43	0	42	\$20,267,067
Suffolk	5,147	3,509	204	1,434	5	7	0	14	\$40,636,108
Worcester	4,467	2,334	313	1,820	8	18	0	73	\$53,987,551
Total	29,461	15,873	2,208	11,380	44	245	0	594	\$266,005,417

2020 Arsons by County

County	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons	Civilian Deaths	Civilian Injuries	Fire Service Deaths	Fire Service Injuries	Dollar Loss
Barnstable	37	7	0	30	0	0	0	1	\$214,000
Berkshire	33	8	3	22	1	1	0	0	\$3,000
Bristol	74	23	11	40	1	0	0	5	\$1,228,470
Dukes	42	1	0	41	0	0	0	0	\$0
Essex	91	11	6	74	1	0	0	36	\$181,366
Franklin	15	3	0	12	0	0	0	0	\$5,100
Hampden	150	45	14	91	0	0	0	4	\$910,550
Hampshire	37	5	3	29	0	0	0	0	\$2,000
Middlesex	82	14	9	59	0	1	0	2	\$81,598
Nantucket	1	0	0	1	0	0	0	0	\$0
Norfolk	59	8	4	47	0	1	0	0	\$111,500
Plymouth	48	15	3	30	1	1	0	1	\$527,028
Suffolk	104	22	5	77	0	0	0	0	\$436,900
Worcester	81	19	6	56	1	0	0	3	\$281,353
Total	854	181	64	609	5	4	0	52	\$3,982,865

2020 Fires, Arsons and Deaths by County and by Population*

County	Population	Total Fires	Fires per 1,000 Pop.	Fire Deaths	Deaths per 1,000 Fires	Deaths per 10,000 Pop.	Total Arsons	Arsons per 1,000 Pop.
Barnstable	215,888	917	4.2	2	2.2	0.09	37	0.2
Berkshire	131,219	408	3.1	3	7.4	0.23	33	0.3
Bristol	548,285	1,974	3.6	2	1.0	0.04	74	0.1
Dukes	16,535	89	5.4	0	0.0	0.00	42	2.5
Essex	743,159	2,766	3.7	3	1.1	0.04	91	0.1
Franklin	71,372	259	3.6	0	0.0	0.00	15	0.2
Hampden	463,490	1,918	4.1	2	1.0	0.04	150	0.3
Hampshire	158,080	412	2.6	1	2.4	0.06	37	0.2
Middlesex	1,503,085	6,141	4.1	11	1.8	0.07	82	0.05
Nantucket	10,172	50	4.9	1	20.0	0.98	1	0.1
Norfolk	670,850	2,873	4.3	3	1.0	0.04	59	0.1
Plymouth	494,919	2,040	4.1	3	1.5	0.06	48	0.1
Suffolk	722,023	5,147	7.1	5	1.0	0.07	104	0.1
Worcester	798,552	4,467	5.6	8	1.8	0.10	81	0.1
Massachusetts	6,547,629	29,461	4.5	44	1.5	0.07	854	0.1

*Population statistics based on 2010 U.S. Census Bureau data.

2020 Non-Fire Responses by County and by Incident Type¹

County	Total Non-Fire Responses	Overpressure Rupt. & Explos. (No-fire)	Rescue EMS Incidents	Hazardous Conditions (No-fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX ² & Natural Disaster	Special Incident Type
Barnstable	60,850	38	43,565	2,181	4,590	2,817	7,368	38	253
Berkshire	12,296	12	6,509	848	1,666	594	2,419	109	139
Bristol	57,188	71	34,215	5,435	3,722	3,154	9,897	149	545
Dukes	2,009	5	101	133	101	578	1,072	0	19
Essex	98,345	127	56,164	4,748	12,108	7,480	17,248	133	337
Franklin	8,814	30	5,085	872	931	585	958	104	249
Hampden	44,968	94	26,341	2,129	3,936	4,311	7,827	123	207
Hampshire	18,767	18	12,831	811	956	1,058	2,852	145	96
Middlesex	195,606	109	115,720	10,417	22,881	11,506	30,872	513	3,588
Nantucket	2,073	2	881	81	30	123	944	0	12
Norfolk	99,243	89	62,110	5,996	9,481	6,470	14,530	321	246
Plymouth	89,984	56	59,327	4,862	9,003	6,005	10,070	429	232
Suffolk	90,704	40	43,548	3,363	15,965	8,413	18,406	70	899
Worcester	108,266	114	72,414	4,823	9,668	6,947	13,564	454	282
Massachusetts	889,113	805	538,811	46,699	95,038	60,041	138,027	2,588	7,104

¹ These numbers may be higher than reported in the text of this document as they are the most recent figures available.

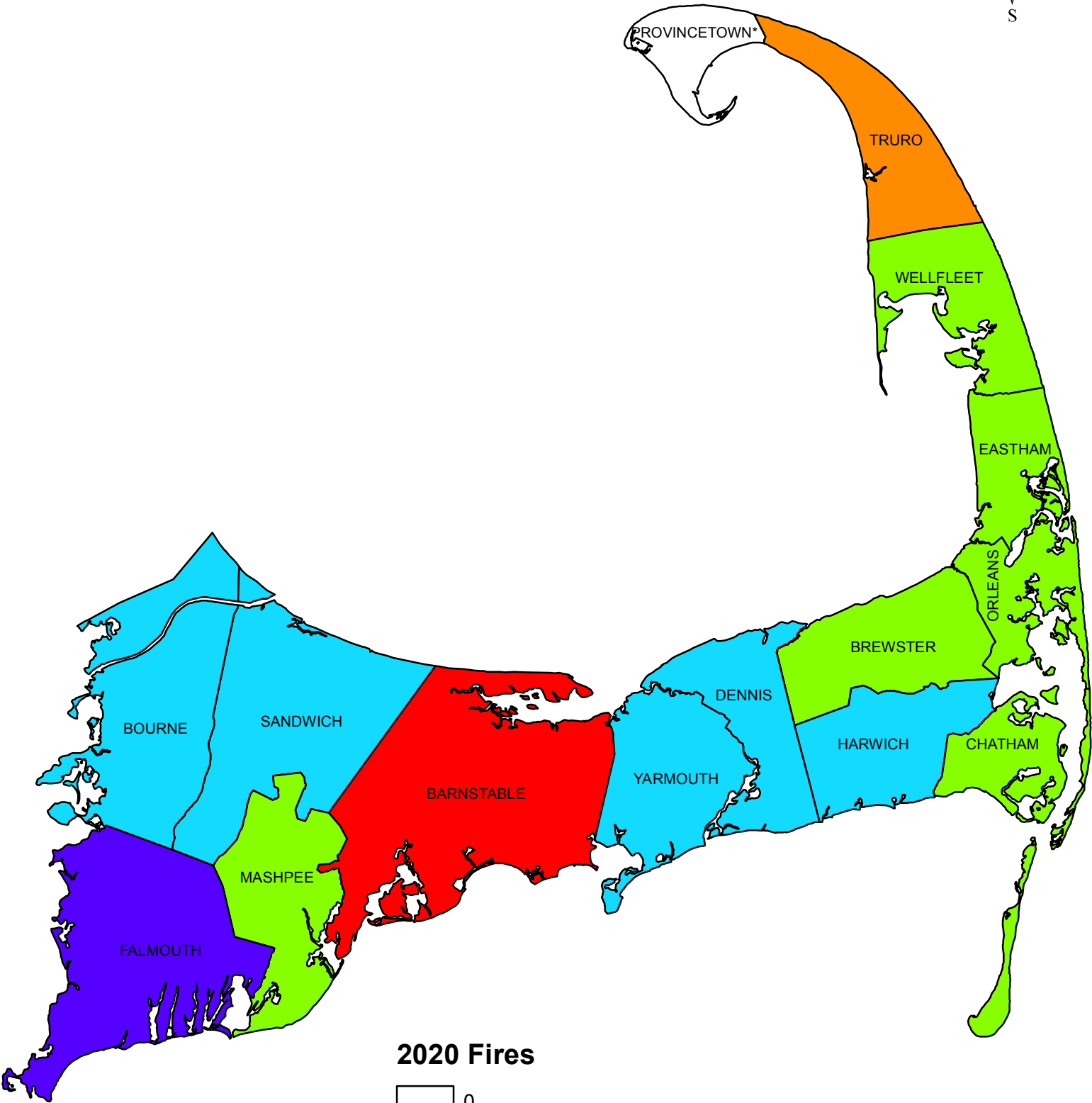
² WX is the abbreviation for Weather.



Barnstable County

2020 Fire Data Analysis

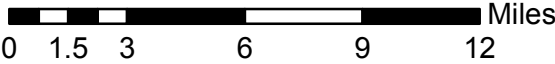
Barnstable County Fires 2020



2020 Fires



*Non-reporting Department



Massachusetts Fire Incident Reporting System 2020



Barnstable County Fires in 2020

917 Total Fires — 346 Structures, 71 Vehicles & 500 Other Fires

Barnstable County ranked ninth out of the 14 Massachusetts counties in total reported fires. Barnstable County fire departments reported 917 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 346 structure fires, 71 motor vehicle fires, 342 brush, tree, or lawn fires, 86 outside rubbish fires, 43 specials outside fires, one cultivated crop or vegetation fire, and 28 unclassified fires caused two civilian deaths, 18 civilian injuries, 23 fire service injuries and an estimated dollar loss of \$9.6 million. Barnstable County's fires accounted for 3% of the 29,461 Massachusetts fires reported in 2020.

Nineteen (19), or 95%, of the 20 of Barnstable County's fire departments either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

All Fires Up

The total number of reported fire incidents increased by 194 from the 723 reported in 2019. Reported structure fires increased by 22 from the 324 reported during the previous year. Motor vehicle fires decreased by 11 from 82 in 2019. Outside and other fires increased by 183 from the 317 reported the year before.¹

BARNSTABLE COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	834	350	76	408	28	8	0	20
2017	770	303	88	379	35	6	2	27
2018	727	310	89	328	31	3	2	26
2019	723	324	82	317	25	4	3	18
2020	917	346	71	500	37	7	0	30

Fire and Fire Death Rates

Barnstable County had 4.2 fires per 1,000 population. That figure ranks Barnstable County sixth in the state and below the state rate of 4.5 fires per 1,000 population. Barnstable County also had 0.09 fire deaths per 10,000 population, ranking it fourth and above the state rate of 0.07 fire deaths per 10,000 population.

2 Fatal Fires in Barnstable County

In 2020, Barnstable County had two fatal fires kill two people.

- On April 12, 2020, at 4:56 p.m., the Falmouth Fire Department was called to a fatal electrical fire in a single-family home. The fire started by arcing from an extension cord in a bedroom. The victim was a 66-year-old woman. No one else was injured at

¹ 2019 was another down year for brush fires statewide.

this fire. There were smoke alarms or sprinklers. The fire caused an estimated \$110,000 worth of damage.

- On April 22, 2020, at 11:24 a.m., the Falmouth Fire Department was called to a fatal smoking fire in a two-family home. A cigarette ignited the clothing of the victim while she was in the bathroom. The victim was a physically disabled 82-year-old woman. She was med-flighted to a Boston hospital where she succumbed to her injuries. No one else was injured at this fire. Alarms were present and alerted the occupants. Sprinklers were not present in the home. Damages were estimated to be \$156,500.

Falmouth Had Barnstable County's Largest Loss Fire

In 2020 Barnstable County did not have any large loss fires over \$1 million in estimated damages. They did have 21 fires with a dollar loss between \$100,000 and \$999,999. The combined losses were estimated to be \$5.7 million, or 60% of Barnstable County's total reported dollar loss in 2020.

- On May 6, 2020, at 6:16 a.m., the Falmouth Fire Department was dispatched to a fire in a single-family home caused by a chemical reaction from oily rags from refinishing the hardwood floors. No one was injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from this fire were estimated to be \$998,500.

STRUCTURE FIRES

Reported Structure Fires Up

The 346 structure fires caused both civilian death, 15 civilian injuries, 22 fire service injuries and an estimated dollar loss of \$8.8 million. These incidents represented 38% of Barnstable County's reported fires in 2020. The total number of reported structure fires increased by 22, or 7%, from the 324 reported in 2019. The average estimated dollar loss per structure fire was \$25,509.

Arson Caused 2% of Structure Fires

There were seven structure arsons in 2020. Arson was indicated as the cause of 2% of the structure fires and 0.2% of Barnstable County's structure fire dollar loss. The seven structure arsons accounted for 19% of the Barnstable County arson fires reported in 2020. The total number of reported structure arsons increased by three from the four reported in 2019.

4 of 7 Structure Arsons Occurred in Residences

Four (4), or 57%, of the four Barnstable County structure arsons occurred in educational facilities. One (1), or 14%, each occurred in a public assembly property, residential occupancies, and a special property.

BUILDING FIRES

There were 341 building fires of different types in Barnstable County in 2020. These 341 building fires accounted for 98.6% of all building fires in Barnstable County.

83% of Barnstable County Building Fires Occurred in People's Homes

Two hundred and eighty-four (284), or 84%, of Barnstable County's 341 building fires occurred in residential occupancies. Mercantile and business properties had 14 fires. Twelve (12) fires took place in public assembly properties, including restaurants and churches. Another 12 happened at special properties. Hospitals, prisons, and other institutional buildings experienced six fires. Five (5) fires took place in educational facilities. Three (3) fires took place in storage properties. Another three fires also occurred at industrial facilities. Two (2) fires took place in manufacturing or processing facilities.

RESIDENTIAL FIRES**Residential Building Fires Were Up**

There were 284 reported residential building fires in Barnstable County in 2020. These 284 fires are an increase of 14, or 5%, from the 270 residential building fires reported in 2019.

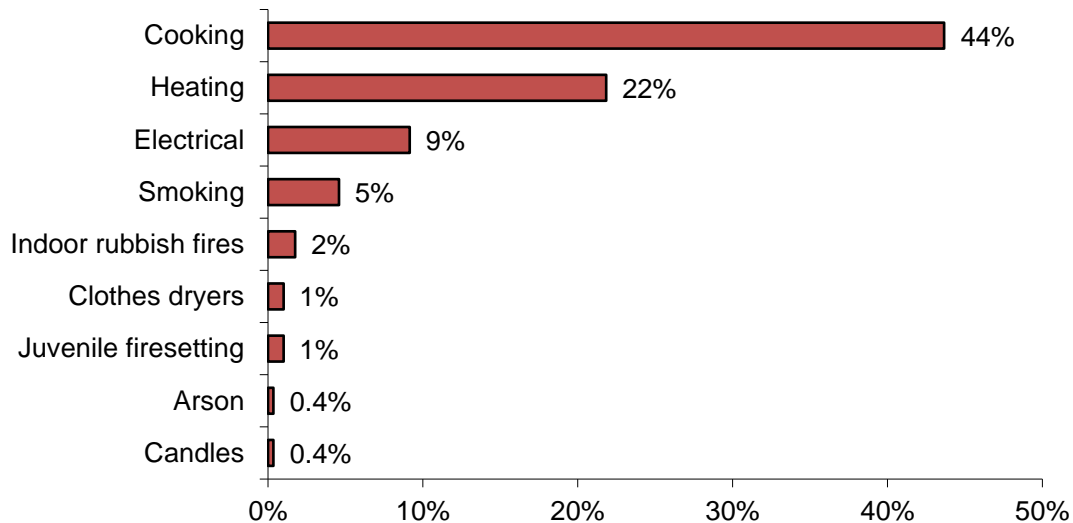
1- & 2-Family Homes Accounted for 79% of Residential Building Fires

The peak fixed property use for residential building fires were one- or two-family homes, accounting for 79% of the building fires in Barnstable County; 13% occurred in apartments; 3% happened in hotels or motels; 2% occurred in rooming houses; 1% occurred in residential board and care facilities; and less than 1% happened in dormitories. Eight (8), or 2%, of the building fires in Barnstable County occurred in unclassified residential buildings.

Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Barnstable County was unattended cooking and other unsafe cooking practices, accounting for 44% of the fires. Heating fires accounted for 22% of the fires in people's homes in 2020; 55% involved a chimney or flue and 55% involved a fuel burner or boiler. Electrical problems caused 9% of fires in residential buildings. Smoking caused 5% of these fires. Indoor rubbish fires caused 2% of these fires. Clothes dryers and juvenile-set fires were each responsible for 1%; and arson and candles each caused less than 1% of these fires.

2020 Leading Causes of Fires in Barnstable County Homes



60% of Residential Building Fires Are Confined to Non-Combustible Containers²

One hundred and seventy (170), or 60%, of all residential building fires were reported as confined to non-combustible containers in Barnstable County in 2020. One hundred and eight (108), or 38%, of all residential building fires reported in 2020 were cooking fires contained to a non-combustible container. Thirty (30), or 11%, were fires confined to a fuel burner or boiler malfunction. Twenty-seven (27) of the reported fires were confined to a chimney, accounting for 10% of residential building fires. Five (5), or 2%, of these fires were rubbish fires contained to a non-combustible container.

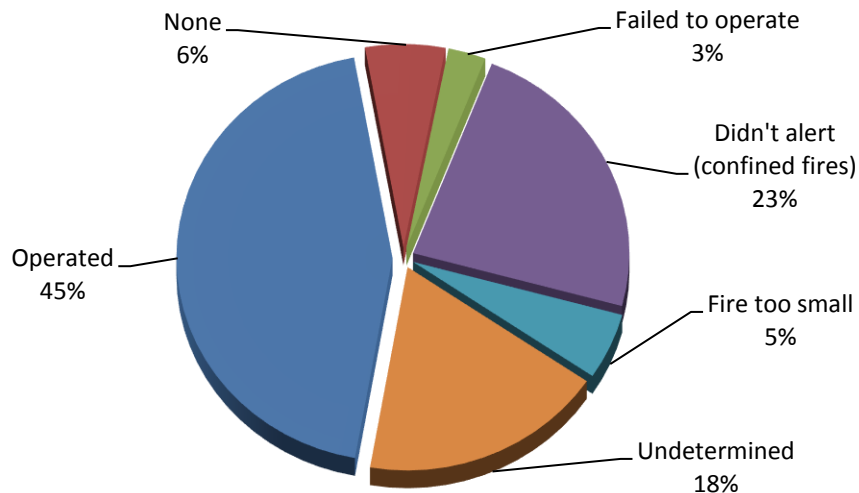
Alarms Alerted Occupants in Only 45% of Fires

Smoke or heat alarms operated and alerted the occupants in 126, or 45%, of the residential building fires. In 23% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 3% of these incidents. In 6% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 5% of the residential fires. Smoke alarm performance was undetermined in 52 incidents, or 18%, of Barnstable County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Barnstable County's Residential Structure Fires 2020



8 Alarms failed

There were eight fires where smoke alarms were present but failed to operate. A power failure, shut off or disconnect was the cause of two, or 25%, of the failed alarms. It was undetermined in the other six cases, or 75%, why the alarm failed.

VACANT BUILDINGS

4% of Building Fires Occurred in Vacant Buildings

Barnstable County reported 15 fires that occurred in buildings that were vacant, under construction or demolition. This represented 4% of the 341 building fires reported to MFIRS in 2020. Twelve (12) residential buildings one mercantile or business property, one industrial facility and one special property were reported as vacant building fire incidents.

One (1), or 7%, of the vacant building fires in Barnstable County in 2020 were determined to be intentionally-set. This fire happened in an unclassified residence.

JUVENILE-SET FIRES

7 Juvenile-set Fires

There were seven reported juvenile-set fire in Barnstable County in 2020. The four structure fires, two brush fires and one outside rubbish fire caused \$8,500 in estimated damages.

ARSONS

37 Total Arsons — 7 Structures, 0 Vehicle & 30 Other Arsons

Thirty-seven (37), or 4%, of Barnstable County's 917 fires were considered intentionally-set, or, for purposes of this analysis, arson. The seven structure arsons and 30 outside and other arsons caused one fire service injury and an estimated dollar loss of \$214,000.

All Arson Up

The total number of reported arson fires increased by 12, or 48%, from the 25 reported in 2019. Reported structure arsons increased by three from the four reported in 2019. Motor vehicle arsons decreased by three from three in 2019. Reported outside and other arsons increased by 12 from the 18 reported in 2019.

ALL INCIDENTS

Rescue & EMS Calls Are 70% of All Reported Incidents

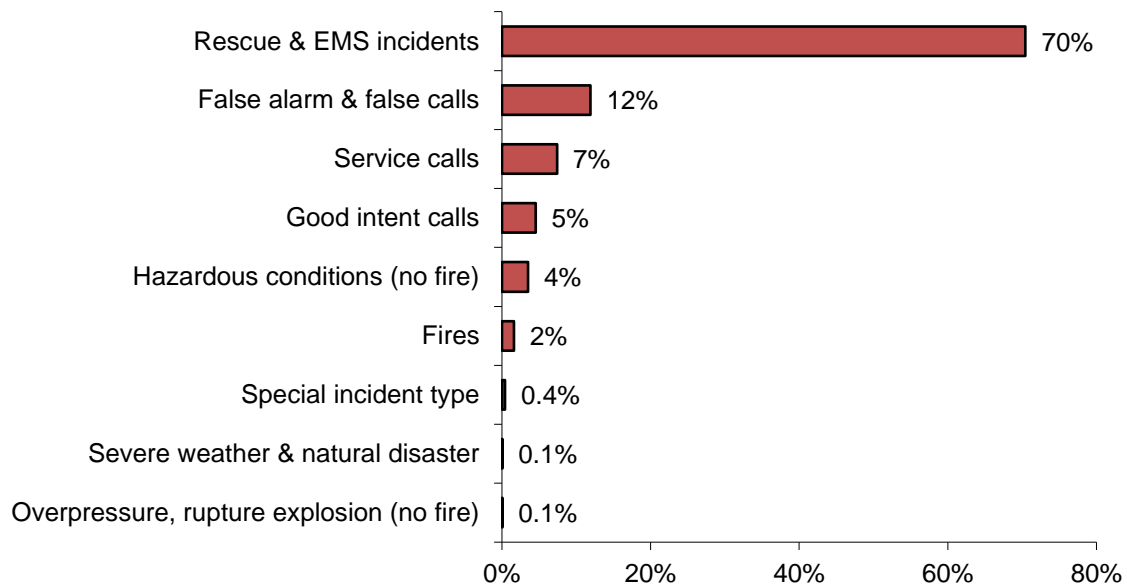
In 2020, Barnstable County fire departments reported 61,851 responses⁴ to MFIRS. Of these 61,851 incidents, 60,850 non-fire calls were voluntarily reported.

Of these 60,850 non-fire calls, 43,565, or 70%, of all of the responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 7,368, or 12%, were reported false alarm or false calls; 4,590, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 2,817, or 5%, reported good intent calls; 2,181, or 4%, were reported hazardous condition calls with no fire; 253, or 0.4%, were special incident type calls such as citizen complaints; 38, or 0.1%, were severe weather responses; and another 38, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand one hundred and one (1,001), or 2%, of the total responses submitted by Barnstable County fire departments were fires.

⁴ These figures include responses in which Barnstable County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Barnstable County Departments Gave Aid 1,399 Times

In 2020, Barnstable County fire departments reported coming to the aid of other fire departments 1,399 times. Of these 1,399 responses, 807, or 58%, were for rescue or EMS incidents; 251, or 18%, were for good intent calls; 199, or 14%, were for service calls such as cover assignments; 78, or 6%, were for fires; 32, or 2%, were for hazardous conditions calls with no fire; 18, or 1%, were for false alarms or false calls; 11, or 1%, were special incident types; two, or 0.1%, were severe weather or natural disaster calls and one, or 0.1%, was for an overpressure, rupture, explosion or overheat call with no fire.

Barnstable County Received Mutual Aid in 876 Incidents

In 2020, Barnstable County fire departments received aid from surrounding departments in 876 incidents. Of these 876 incidents, 683, or 78%, were rescue and emergency medical services calls; 91, or 10%, were for fires; 35, or 4%, were good intent calls; 27, or 3%, were false alarms or false calls; 26, or 3%, were hazardous conditions calls with no fire; 13, or 1%, were service calls; and one or 0.1%, was a severe weather call.

Barnstable County**Population: 215,888⁵****4.3 Fires/1,000 Population****Total Fires: 917 \$9,623,093**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	346	38%	\$8,826,231
Vehicle Fires	71	8%	543,099
Other Fires	500	55%	253,763

2 Fatal Fires 2.18 Civilian Deaths/1,000 Fires
 2 Civilian Deaths 0.09 Civilian Deaths/10,000 Population
 18 Civilian Injuries 23 Fire Service Injuries

Building Fires: 341**Residential Structure Fires: 284****Residential Structure Fires Confined to Non-Combustible Containers: 170****Unconfined Residential Structure Fires: 114**

2 Civilian Deaths 15 Civilian Injuries 19 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	223	79%	Operated	126	45%
Apartments	36	13%	Didn't operate	8	3%
Hotels or motels	8	3%	None	17	6%
Rooming houses	5	2%	Fire too small	15	5%
Residential board & care	3	1%	Didn't Alert (confined)	66	23%
Dormitories	1	0.4%	Undetermined	52	18%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	46%	Radiated heat/oper. eq.	7%	17%
Heating room or area	11%	Arcing	6%	15%
Chimney or flue	10%	Heat from operating eq.	6%	14%
Wall surface, exterior	8%	Cigarettes	3%	7%
Bedroom	2%	Hot or smold. object, other	2%	6%
		Hot ember or ash	2%	5%

⁵ We used the 2010 US Census figures because the 2020 Census data had not been released as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	42%	Abandoned materials	4%	11%
Flammable or comb. liquid	11%	Electrical failure, malfunct.	4%	9%
Film, residue (creosote)	10%	Too close to combustibles	3%	8%
Exterior sidewall covering	5%	Equipment unattended	3%	7%
Rubbish, trash, waste	3%	Unspecified short circuit arc	2%	6%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	41%	Unintentional	23%	57%
None	29%	Failure of eq. or heat source	6%	15%
Boiler, furnace, cent. heat unit	11%	Intentional	1%	2%
Chimney or flue	10%	Act of nature	1%	2%
Clothes dryer	1%	Undetermined	5%	12%
		Cause Under Investigation	4%	10%

**Detector Alerted Occupants
(Confined Fires in Non-Combustible Containers)**

Alerted Occupants	41%
Didn't Alert Occupants	39%
Undetermined	20%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	52	37	3	12
February	49	31	5	13
March	63	23	7	33
April	60	24	3	33
May	99	34	3	62
June	99	34	9	53
July	117	24	13	80
August	117	30	3	84
September	90	29	6	55
October	66	20	8	38
November	72	38	6	28
December	33	19	5	9

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	150	58	5	87
Monday	127	46	12	69
Tuesday	128	46	14	68
Wednesday	127	54	13	60
Thursday	144	56	9	79
Friday	109	43	9	57
Saturday	132	43	9	80

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	38	16	4	18
04:01 - 08:00	49	19	7	23
08:01 - 12:00	168	63	19	86
12:01 - 16:00	274	74	22	178
16:01 - 20:00	268	120	14	134
20:01 - 24:00	120	54	5	61

Motor Vehicle Fires

Total: 71

Automobiles: 48 (68%)

0 (0%), of the automobile fires were considered intentionally-set.

Arson Fires

Total Arsons: 37

Dollar loss: \$214,000

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	7	2%	19%	\$14,000
Vehicle Arsons	0	0%	0%	0
Other Arsons	31	6%	81%	200,000

0.03 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.14 Other arsons/1,000 population

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
08:01 - 12:00	5	71%			
16:01 - 20:00	2	29%			

Other Arsons	#	%
20:01 - 00:00	11	37%
12:01 - 16:00	9	30%
08:01 - 12:00	5	17%

Peak Fixed Property Uses for Structure Arsons	#	%
High/junior high/middle school	4	57%

Town of Barnstable Fire Districts**Population: 45,193*****Barnstable******Est Pop. Protected: 3,164***

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
2016	30	7	2	21	2	0	0	2
2017	22	7	4	11	1	0	0	1
2018	24	9	1	14	2	0	0	2
2019	23	9	4	10	7	1	0	6
2020	21	5	7	14	2	1	0	1

Centerville - Osterville - Marston Mills***Est Pop. Protected: 23,048***

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2016	51	23	1	27	1	1	0	0
2017	49	16	6	27	2	0	0	2
2018	44	22	5	17	0	0	0	0
2019	43	21	6	16	3	1	0	2
2020	42	19	5	18	0	0	0	0

Cotuit***Est Pop. Protected: 3,164***

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2016	18	5	2	11	2	0	0	2
2017	5	2	0	3	0	0	0	0
2018	10	7	1	2	0	0	0	0
2019	5	3	0	2	1	0	0	1
2020	8	1	0	7	3	0	0	3

Hyannis***Est Pop. Protected: 12,654***

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2016	135	51	11	73	2	0	0	2
2017	108	39	8	61	5	2	0	3
2018	116	29	9	78	2	0	1	1
2019	97	29	11	57	1	0	0	1
2020	171	57	5	109	4	3	0	1

West Barnstable**Est Pop. Protected: 3,164**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	16	4	3	9	2	1	0	1
2017	22	8	5	45	7	1	0	6
2018	16	6	3	7	2	1	0	1
2019	13	2	3	8	2	0	0	2
2020	15	7	1	7	0	0	0	0

Bourne**Population: 19,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	16	14	0	2	1	0	0	1
2017	46	17	7	22	0	0	0	0
2018	29	10	7	12	4	0	0	4
2019	58	31	6	21	1	0	0	1
2020	66	25	13	28	0	0	0	0

Brewster**Population: 9,820**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	26	11	3	12	1	1	0	0
2017	18	11	1	6	1	1	0	0
2018	37	19	5	13	1	0	0	1
2019	31	8	3	20	2	0	1	1
2020	23	10	3	10	0	0	0	0

Chatham**Population: 6,125**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	8	1	8	1	0	0	1
2017	6	1	1	4	1	0	1	0
2018	8	4	1	3	0	0	0	0
2019	12	4	1	7	0	0	0	0
2020	28	7	3	18	0	0	0	0

Dennis **Population: 14,207**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	74	27	4	43	4	1	0	3
2017	54	25	7	22	1	0	0	1
2018	68	32	5	31	5	0	0	5
2019	52	23	3	26	1	1	0	0
2020	70	23	1	46	14	1	0	13

Eastham **Population: 4,956**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	23	9	1	13	0	0	0	0
2017	25	8	2	15	0	0	0	0
2018	18	9	3	6	0	0	0	0
2019	23	10	1	12	0	0	0	0
2020	27	14	2	11	1	0	0	1

Falmouth **Population: 31,531**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	96	33	1	52	0	0	0	0
2017	91	30	16	45	1	0	1	0
2018	81	37	11	33	2	1	0	1
2019	69	33	7	29	2	1	0	1
2020	142	56	13	73	3	1	0	2

Harwich **Population: 12,243**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	55	27	5	23	2	1	0	1
2017	40	15	8	17	1	0	0	1
2018	32	14	6	12	2	0	0	2
2019	46	27	5	14	1	0	0	1
2020	55	25	5	25	1	0	0	1

Sandwich **Population: 20,675**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	76	34	7	35	1	1	0	0
2017	57	37	6	14	2	1	0	1
2018	62	34	9	19	2	0	1	1
2019	54	25	11	18	1	0	1	0
2020	59	20	6	33	0	0	0	0

Truro **Population: 2,003**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	10	4	0	6	0	0	0	0
2017	19	3	2	14	1	0	0	1
2018	8	3	1	4	0	0	0	0
2019	3	1	0	2	0	0	0	0
2020	15	3	0	12	0	0	0	0

Wellfleet **Population: 2,750**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	19	7	3	9	0	0	0	0
2017	19	10	3	6	0	0	0	0
2018	9	4	1	4	0	0	0	0
2019	25	15	5	5	0	0	0	0
2020	19	11	2	6	0	0	0	0

Yarmouth **Population: 23,793**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	59	30	9	20	3	0	0	3
2017	78	28	5	45	7	1	0	6
2018	59	20	12	27	2	1	0	1
2019	70	26	6	38	0	0	0	0
2020	86	33	5	48	9	1	0	8

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
01919	Barnstable	1,218	24	1	721	48	126	43	240	3	12
01036	Bourne	4,256	73	2	3,411	148	131	125	353	1	12
01041	Brewster	2,579	25	0	1,949	59	136	77	322	2	9
01055	Chatham	2,775	29	1	1,702	124	257	169	451	1	41
01921	Cotuit	747	12	1	533	12	43	40	101	1	4
01920	C.O.M.M.	4,618	42	5	3,103	133	299	192	825	5	14
01075	Dennis	5,030	83	3	3,420	234	530	223	533	1	3
01086	Eastham	2,114	33	2	1,375	111	143	123	317	1	9
01096	Falmouth	7,370	144	6	5,526	200	214	507	765	1	7
01126	Harwich	4,350	67	1	3,161	194	301	125	426	1	74
01922	Hyannis	6,856	171	7	5,283	199	308	244	641	1	2
01936	Joint Base Cape Cod	781	9	0	74	119	251	7	321	0	0
01172	Mashpee	3,550	50	2	2,338	125	388	133	504	1	9
01224	Orleans	2,143	20	1	1,620	56	130	63	243	2	8
01242	Provincetown**	0	0	0	0	0	0	0	0	0	0

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
01261	Sandwich	3,695	67	2	2,371	135	552	164	369	6	29
01300	Truro	982	16	0	521	30	193	81	129	0	12
01318	Wellfleet	1,145	21	1	671	51	150	68	182	1	0
01923	West Barnstable	618	26	1	317	29	144	36	58	7	0
01351	Yarmouth	7,024	89	2	5,469	174	294	397	588	3	8
Total	Barnstable County	61,851	1,001	38	43,565	2,181	4,590	2,817	7,368	38	253

* Certified no reportable fires.

**Non reporting department.

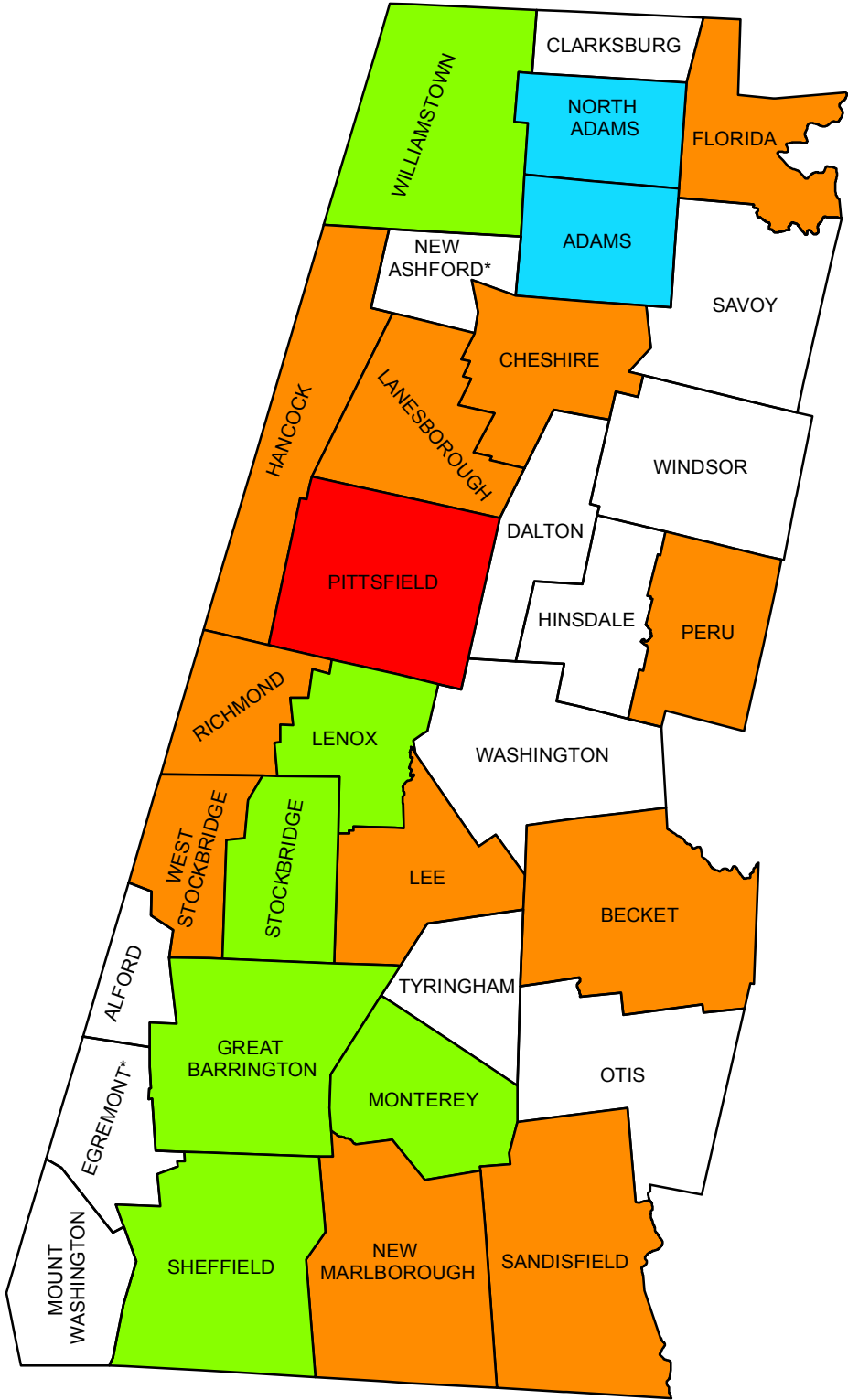
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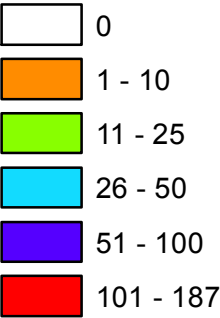
Berkshire County

2020 Fire Data Analysis

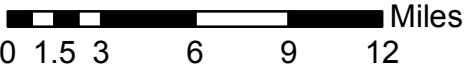
Berkshire County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Berkshire County Fires in 2020

408 Total Fires — 227 Structures, 49 Vehicles & 130 Outside and Other Fires

Berkshire County ranked eleventh out of the fourteen Massachusetts counties in total reported fires. Berkshire County fire departments reported 408 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 227 structure fires, 49 motor vehicle fires, 50 brush, tree or lawn fires, 49 outside rubbish fires, eight special outside fires; two cultivated crop or vegetation fires; and 21 other fires caused three civilian deaths, 10 civilian injuries, six fire service injuries and an estimated dollar loss of \$9.3 million. Berkshire County's fires accounted for 1% of the 29,461 Massachusetts fires reported in 2020.

Twenty-eight (28), or 90.3%, of Berkshire County's 31 fire departments either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

All Fires Up

The total number of reported fire incidents increased by 49 from the 359 reported in 2019. Reported structure fires increased by 38 from the 191 reported during the previous year. Motor vehicle fires increased by 15 from the 34 reported in 2019. Outside and other fires decreased by four from the 134 reported in 2019.¹

BERKSHIRE COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	547	300	55	192	26	11	2	13
2017	444	259	52	133	11	1	0	10
2018	387	230	43	114	15	2	1	12
2019	359	191	34	134	28	11	1	16
2020	408	227	49	130	33	8	3	22

Fire and Fire Death Rates

Berkshire County had 3.1 fires per 1,000 population. That figure ranks Berkshire County thirteenth in the state and below the state rate of 4.5 fires per 1,000 population. Berkshire County also had 0.23 fire deaths per 10,000 populations ranking it second among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

3 People Killed in 3 Berkshire County Fires

Three (3) people died in three fires in Berkshire County in 2020.

- On March 10, 2020, at 11:34 a.m., the Cheshire Fire Department was dispatched to a motor vehicle fire in an open field. It is believed that the driver, a 73-year old man and only occupant of the vehicle, set the car on fire. He died by suicide when the car

¹ 2019 was another down year for brush fires statewide. But Berkshire County was the only county where brush fires decreased in 2020.

burst into flames. No one else was injured in this fire. Damages from this fire were estimated to be \$2,000.

- On July 6, 2020, at 10:13 p.m., the Pittsfield Fire Department was called to a fatal smoking fire in a single-family home. The fire was caused by careless disposal of a cigarette into a waste basket in an unclassified first floor function room. The victim, a 74-year old woman, was found by firefighters in the upstairs bathroom. She was transported to a local hospital where she succumbed to her injuries. No one else was injured at this fire. There were no smoke alarms or sprinklers in the home. Damages from this fire were not estimated.
- On November 27, 2020, at 12:04 p.m., the Pittsfield Fire Department responded to a fatal fire in a six-unit apartment building. The fire was started by a refrigerator in the kitchen. The victim was a 33-year old man. He was transported to a hospital where he succumbed to his injuries. No one else was injured at this fire. Alarms were present and operated. The building did not have any sprinklers. Damages from this fire were not estimated.

Stockbridge Had Berkshire County's Largest Loss Fire

Berkshire County had three fire that reported a dollar loss over \$1 million. Stockbridge reported the incident that had the greatest dollar loss in Berkshire County in 2020. These fires were responsible for 12% of the total county fire loss in 2020.

- On April 17, 2020, at 5:43 p.m., the Stockbridge Fire Department was called to a fire in a single-family home. An unclassified hot or smoldering object ignited nearby trash in the workshop area of the home. One (1) firefighter was injured at this fire. Alarms were present and alerted the occupants. The building was not sprinklered. Damages from this fire were estimated to be \$3.25 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 229 structure fires caused all two civilian deaths, seven civilian injuries, six fire service injuries and an estimated dollar loss of \$9 million. These incidents represented 56% of Berkshire County's reported fires in 2020. The average estimated dollar loss per structure fire was \$39,164. The total number of reported structure fires increased by 38, or 20%, from the 191 reported in 2019.

Arson Caused 8 Structure Fires

The eight structure arsons caused one civilian injury and an estimated dollar loss of \$1,000. Arson was indicated as the cause of 3% of the structure fires and less than 1% of Berkshire County's structure fire dollar loss. The eight structure arsons accounted for 24% of the Berkshire County arson fires reported in 2020. The total number of reported structure arsons decreased by three from the 11 reported in 2019.

88% of Structure Arsons Occurred in Residences

Seven (7), or 88%, of Berkshire County structure arsons occurred in residential properties in 2020. The other one, or 12%, occurred in an institutional facility.

BUILDING FIRES

There were 227 building fires of different types in Berkshire County in 2020. These 227 building fires accounted for 99.1% of structure fires in Berkshire County.

88% of Berkshire Building Fires Occurred in People's Homes

One hundred and ninety-nine (199), or 88%, of Berkshire County's 227 building fires occurred in residential occupancies. Nine (9) fires took place in public assembly properties, including restaurants and churches. Storage facilities had six fires. Mercantile and business properties had five fires. Institutional facilities, manufacturing or processing facilities and special properties, such as outbuildings or sheds each had two fires. Educational facilities and industrial facilities each experienced one fire in Berkshire County in 2020.

RESIDENTIAL FIRES**Residential Building Fires Up**

There were 199 reported residential building fires in Berkshire County in 2020. These 199 fires are an increase of 34, or 21%, from the 165 residential building fires reported in 2019.

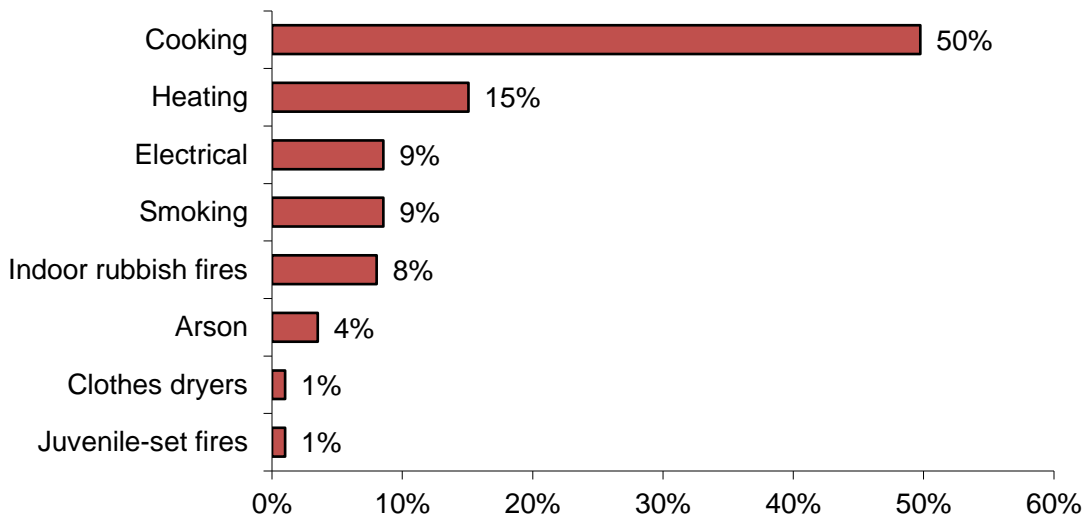
1- & 2-Family Homes Accounted for 57% of Residential Building Fires

The peak fixed property uses for residential building fires were one- or two-family homes, accounting for 57% of the building fires in Berkshire County; 35% occurred in apartments; 3% happened in rooming houses; 1% occurred in hotels or motels; and 1% occurred in residential board and care facilities. Eight (8), or 4%, of the building fires in Berkshire County occurred in unclassified residential buildings.

Unattended Cooking Caused 1/2 of Residential Fires

The leading cause of residential building fires in Berkshire County was unattended cooking and other unsafe cooking practices, accounting for 50% of the fires. Heating caused 15% of the residential building fires, of which 20, or 67%, were caused by chimney, fireplace or flue fires. Electrical problems and smoking each caused 9% of these fires. Indoor rubbish fires caused 8% of the fires. Arsons caused 4% of these fires. Clothes dryers and juvenile-set fires each caused 1% of Berkshire County's residential building fires in 2020.

2020 Leading Causes of Fires in Berkshire County Homes



63% of Residential Building Fires Are Confined to Non-Combustible Containers²

One hundred and twenty-five (125), or 63%, of these fires were confined to a non-combustible container. Eighty-seven (87) or 44% of all residential building fires reported in 2020 were cooking fires contained to a non-combustible container. Seventeen (17) of the reported fires were confined to a chimney, accounting for 14% of residential building fires. Fifteen (15), or 12%, of these fires were confined indoor rubbish fires. Fires confined to a fuel burner or boiler malfunction accounted for six, or 5% of these fires.

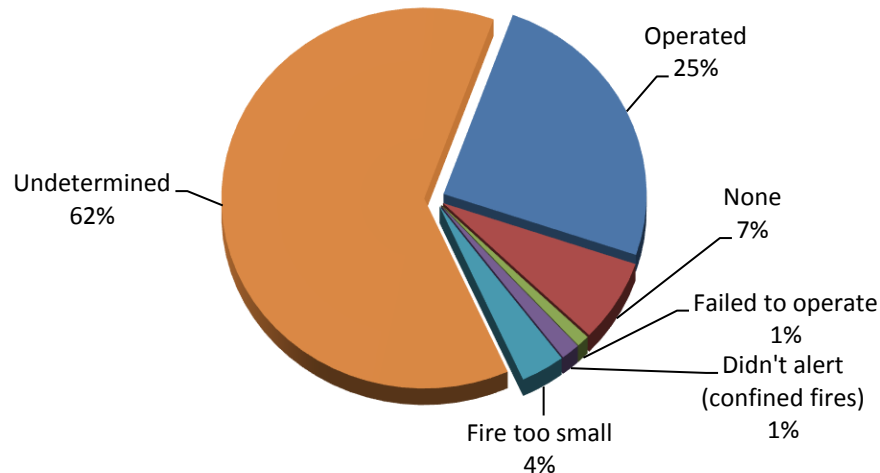
Alarms Undetermined in 61% of Fires

Smoke or heat alarms operated and alerted the occupants in 49, or 25%, of the residential building fires. In 2% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 1% of these incidents. In 7% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 4% of the residential fires. Smoke alarm performance was undetermined in 124 incidents, or 62%, of Berkshire County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Berkshire County's Residential Structure Fires 2020



2 Alarms Failed

Of the two fires where smoke alarms were present but failed to operate, one, or 50%, failed because the battery was dead; and it was undetermined in one, or 50%, why it failed.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Berkshire County reported four fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 227 building fires reported to MFIRS in 2020. All four of these occurred in residential buildings.

None of the vacant building fires in Berkshire County in 2020 were determined to be intentionally-set.

JUVENILE-SET FIRES

5 Juvenile-set Fires

There were five3 reported juvenile-set fires in Berkshire County in 2020. The two structure fires, one motor vehicle fires one grass fire and an outside rubbish fire caused \$100,000 in estimated damages.

ARSONS

33 Total Arsons — 8 Structure, 3 Vehicle & 22 Other Arsons

Thirty-three (3), or 8%, of Berkshire County's 229 fires were intentionally-set, or, for purposes of this analysis, arson. The eight structure arsons, three motor vehicle arsons and 22 outside and other arsons caused one civilian death, one civilian injury and an estimated dollar loss of \$3,000.

All Arsons Up Slightly

The total number of reported arson fires increased by five from the 28 reported in 2019. Reported structure arsons decreased by three from the 11 reported in 2019. Motor vehicle arsons increased by two from the one reported in 2019. Reported outside and other arsons increased by six from the 62 reported in 2019.

ALL INCIDENTS

Rescue & EMS Calls Are 51% of All Reported Responses

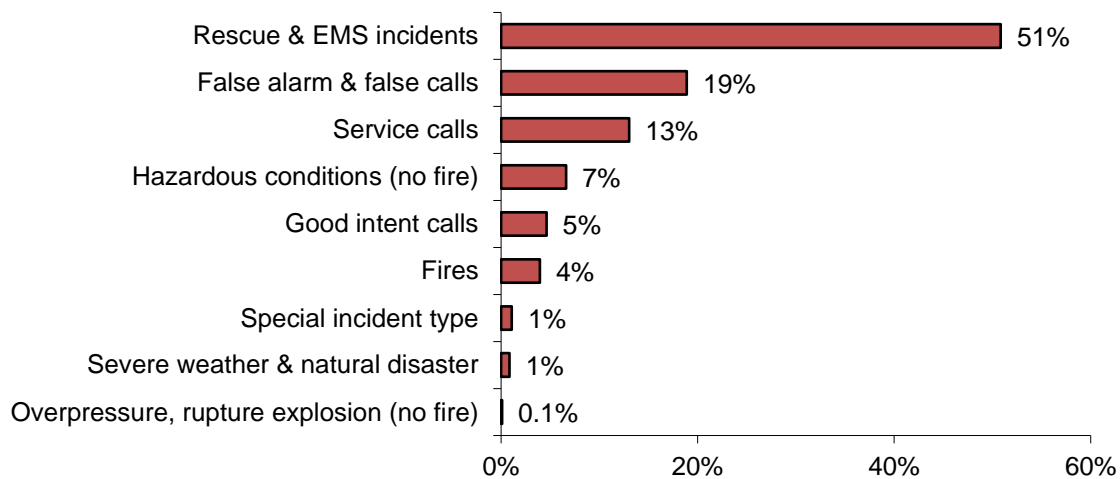
In 2020, Berkshire County fire departments reported 12,800 responses⁴ to MFIRS. Of these 12,800 incidents, 12,296 non-fire incidents were voluntarily reported.

Of these 12,296 non-fire responses, 6,509, or 51%, of all the responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 2,419, or 19%, were reported false alarm or false calls; 1,666, or 13%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 848, or 7%, were reported hazardous condition calls with no fire; 594, or 5%, were reported good intent calls; 139, or 1%, were special incident type calls such as citizen complaints; 109, or 1%, were severe weather responses; and 12, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Five hundred and four (504), or 4%, of the total responses submitted by Berkshire County fire departments were fires.

⁴ These figures include responses in which Berkshire County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Berkshire County Departments Reported Giving Mutual Aid 270 Times

In 2020, Berkshire County fire departments reported coming to the aid of other fire departments 270 times. Of these 270 responses, 94, or 35%, were for fires; 83, or 31%, were for rescue or EMS calls; 29 or 11%, were for service calls such as cover assignments; 28, or 10%, were for false alarms; 22, or 8%, were good intent calls; 11, or 8%, were for hazardous condition calls with no ensuing fire; two, or 1%, were for overpressure, rupture calls with no fire; and one, or 0.3%, was for a severe weather call.

Berkshire County Received Mutual Aid in 821 Incidents

In 2020, Berkshire County fire departments reported receiving aid from surrounding departments in 821 incidents. Of these 821 incidents, 759, or 92%, were rescue and emergency medical services calls; 33, or 4%, were for fires; nine, or 1%, were good intent calls; eight, or 1%, were service calls; seven, or 1%, were false alarms or false calls; and five, or 1%, were hazardous conditions calls with no fire..

Berkshire County**Population: 131,219⁵****3.1 Fires/1,000 Population****Total Fires: 408 \$9,272,948**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	229	56%	\$8,968,448
Vehicle Fires	49	12%	297,600
Other Fires	130	32%	6,900

3 Fatal Fires 7.35 Civilian Deaths/1,000 Fires
 3 Civilian Deaths 0.23 Civilian Deaths/10,000 Population
 10 Civilian Injuries 6 Fire Service Injuries

Building Fires: 227**Residential Structure Fires: 199****Residential Structure Fires Confined to Non-Combustible Containers: 125****Unconfined Residential Structure Fires: 74**

2 Civilian Deaths 7 Civilian Injuries 5 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	113	57%	Operated	49	25%
Apartments	70	35%	Didn't operate	2	1%
Rooming houses	5	3%	None	14	7%
Residential board & care	2	1%	Fire too small	7	4%
Hotels or motels	1	1%	Didn't alert (confined)	3	2%
			Undetermined	124	62%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	53%	Radiated heat from op. eq.	6%	15%
Chimney or flue	9%	Arcing	4%	11%
Heating equipment room	4%	Cigarette	4%	9%
Attic	3%	Heat from operating equip.	3%	8%
Egress/exit, other	2%	Hot ember or ash	3%	7%
Living room	2%			

⁵ We used the figures from the 2010 US Census because the 2020 figures were not published at the time this report was written.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	45%	Equipment unattended	9%	24%
Rubbish, trash, waste	10%	Failure to clean	8%	20%
Film, residue (creosote)	9%	Abandoned materials	7%	19%
Structural member, framing	4%	Too close to combustibles	7%	18%
Flammable, combustible liquid	3%	Misuse of material, other	5%	14%
		Mechanical failure, malfunc.	5%	14%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	50%	Unintentional	23%	62%
None	20%	Failure of eq. or heat source	8%	20%
Chimney or flue	9%	Intentional	2%	4%
Boiler, furnace, cent. heat unit	4%	Act of Nature	1%	0.5%
		Undetermined	4%	9%
		Cause under investigation	1%	3%

**Detector Alerted Occupants
(Confined Fires in Non-Combustible Containers)**

Alerted occupants	10%
Didn't alert occupants	3%
Undetermined	87%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	31	23	2	6
February	23	16	0	7
March	44	22	6	16
April	36	16	2	18
May	36	18	5	13
June	60	32	8	20
July	30	14	4	12
August	26	11	2	13
September	19	11	3	5
October	24	14	3	7
November	31	16	6	9
December	48	36	8	4

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	64	32	7	25
Monday	58	35	5	18
Tuesday	52	27	8	17
Wednesday	73	42	7	24
Thursday	41	22	9	10
Friday	67	39	7	21
Saturday	53	32	6	15

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	20	14	2	4
04:01 - 08:00	20	16	3	1
08:01 - 12:00	62	34	14	14
12:01 - 16:00	110	60	12	38
16:01 - 20:00	123	73	13	37
20:01 - 00:00	73	32	5	36

Motor Vehicle Fires

Total: 49

Automobiles: 41 (84%)

3, or (7%), of the automobile fires was considered intentionally-set.

Arson Fires

Total Arsons: 33

Dollar loss: \$3,000

0.25 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	\$ Loss
Structure Arsons	8	3%	24%	1,000
Vehicle Arsons	3	6%	9%	2,000
Other Arsons	22	17%	67%	0

0.06 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.17 Other arsons/1,000 population

1 Civilian Death

1 Civilian Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 16:00	4	50%	00:01 - 04:00	1	33%
04:01 - 08:00	1	13%	04:01 - 08:00	1	33%
08:01 - 12:00	2	13%	08:01 - 12:00	1	33%
12:01 - 16:00	1	13%			
20:01 - 00:00	1	13%			

Other Arsons	#	%
16:01 - 20:00	7	32%
20:01 - 00:00	7	32%
12:01 - 16:00	5	12%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	6	75%
Multifamily dwellings	1	13%
Hospital – medical or psychiatric	1	13%

Adams **Population: 8,405**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	32	25	2	5	1	1	0	0
2017	40	27	6	7	2	0	0	2
2018	35	26	1	8	2	0	0	2
2019	27	18	5	4	2	2	0	0
2020	31	22	5	4	0	0	0	0

Alford **Population: 494**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	1	0	0	0	0	0	0
2017	1	0	1	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							

Becket **Population: 1,779**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	2	1	0	1	0	0	0	0
2018	5	4	0	1	1	1	0	0
2019	3	1	2	0	0	0	0	0
2020	2	1	1	0	0	0	0	0

Cheshire **Population: 3,235**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6	5	1	0	0	0	0	0
2017	10	6	1	3	1	0	0	1
2018	13	5	4	4	1	0	0	1
2019	5	1	2	2	0	0	0	0
2020	8	5	2	1	2	0	1	1

Clarksburg **Population: 1,702**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	2	0	0	0	0	0	0
2017	1	1	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							

Dalton **Population: 6,756**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	25	17	3	5	0	0	0	0
2017	19	14	0	5	0	0	0	0
2018	17	7	5	5	0	0	0	0
2019	10	4	2	4	0	0	0	0
2020	16	5	2	9	1	0	0	1

Egremont **Population: 1,225**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	12	8	1	3	0	0	0	0
2017	4	3	0	1	0	0	0	0
2018	3	2	0	1	1	0	0	1
2019	Non-Reporting Community							
2020	Non-Reporting Community							

Florida **Population: 752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	2	4	1	1	1	0	0
2017	4	1	3	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	2	0	1	1	0	0	0	0
2020	2	0	0	2	0	0	0	0

¹² Clarksburg reported 3 mutual aid given fire calls to MFIRS in 2020.

Great Barrington**Population: 7,104**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	79	67	2	10	0	0	0	0
2017	26	15	7	4	0	0	0	0
2018	20	14	4	2	0	0	0	0
2019	32	22	4	6	3	2	0	1
2020	24	14	4	6	2	1	0	1

Hancock**Population: 717**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	1	0	0	0	0	0	0
2017	1	1	0	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Non-Reporting Community							
2020	3	2	1	0	0	0	0	0

Hinsdale**Population: 2,032**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	1	1	0	0	0	0	0	0
2018	Non-Reporting Community							
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							

Lanesborough**Population: 3,091**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	11	4	1	6	0	0	0	0
2017	9	3	3	3	0	0	0	0
2018	4	2	1	1	0	0	0	0
2019	3	2	1	0	0	0	0	0
2020	8	4	4	0	0	0	0	0

Lee					Population: 5,943			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	3	0	0	0	0	0	0
2017	1	0	1	0	0	0	0	0
2018	2	2	0	0	0	0	0	0
2019	1	0	0	1	1	0	0	1
2020	5	5	0	0	1	1	0	0

Lenox					Population: 5,025			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	24	10	7	7	0	0	0	0
2017	34	25	0	9	1	0	0	1
2018	16	10	4	2	1	0	0	1
2019	20	7	2	11	7	2	0	5
2020	24	13	1	10	8	1	0	7

Monterey					Population: 961			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	1	1	0	0	0	0	0
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	2	2	0	0	0	0	0	0
2019	7	7	0	0	0	0	0	0
2020	15	12	1	2	0	0	0	0

New Ashford					Population: 228			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	1	0	1	0	0	0	0
2017	1	0	0	1	0	0	0	0
2018 ¹³	Fire Department in Good Standing, Certified No Reportable Fires							
2019	3	1	0	2	0	0	0	0
2020	Non-Reporting Community							

¹³ In 2018 New Ashford reported 21 non-fire incidents to MFIRS.

New Marlborough**Population: 1,509**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	5	3	0	2	0	0	0	0
2017	5	2	1	2	0	0	0	0
2018	2	0	0	2	0	0	0	0
2019	5	5	0	0	0	0	0	0
2020	4	2	0	2	0	0	0	0

North Adams**Population: 13,708**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	29	4	4	21	1	0	0	1
2017	36	20	7	9	1	1	0	0
2018	38	21	4	13	0	0	0	0
2019	43	20	8	15	3	1	1	1
2020	28	11	9	8	3	2	0	1

Otis**Population: 1,612**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	1	0	0	0	0	0	0
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	1	1	0	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	1	1	0	0	0	0	0	0

Peru**Population: 847**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Non-Reporting Community							
2017	2	2	0	0	0	0	0	0
2018	3	1	1	1	1	0	0	1
2019	2	2	0	0	0	0	0	0
2020	1	0	0	1	1	0	0	1

Population: 44,737

Richmond	Population: 1,475
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Population: 1,475

Sandisfield	Population: 915
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Population: 915

Savoy **Population: 692**

Population: 692

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	3	0	0	1	1	0	0
2017	4	4	0	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							

Sheffield **Population: 3,257**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Non-Reporting Community							
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	1	1	0	0	1	1	0	0
2020	13	4	1	8	3	0	0	3

Stockbridge **Population: 1,947**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	1	0	0	0	0	0	0
2017	10	5	2	3	0	0	0	0
2018	10	6	2	2	0	0	0	0
2019	4	1	0	3	0	0	0	0
2020	12	6	1	5	0	0	0	0

Tyringham **Population: 327**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Non-Reporting Community							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							

Washington¹⁴ **Population: 7,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Non-Reporting Community							
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Fire Department in Good Standing, Certified No Reportable Fires							

¹⁴ The Town of Washington has no fire department only a fire chief. Neighboring towns have automatic aid agreements for fire suppression. They did have 1 structure fire in town in 2014.

West Stockbridge **Population: 1,306**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	2	4	1	1	0	0	1
2017	7	4	0	3	0	0	0	0
2018	3	1	1	1	0	0	0	0
2019	5	2	1	2	0	0	0	0
2020	1	1	0	0	0	0	0	0

Williamstown **Population: 7,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	2	2	3	0	0	0	0
2017	11	6	2	3	1	0	0	1
2018	17	12	2	3	0	0	0	0
2019	14	10	0	4	0	0	0	0
2020	14	10	3	1	0	0	0	0

Windsor **Population: 899**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6	1	1	4	3	0	0	3
2017	4	4	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020 ¹⁵	Fire Department in Good Standing, Certified No Reportable Fires							

¹⁵ Windsor reported 29 calls to MFIRS in 2020, none of them were fires.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
03004	Adams	333	33	1	104	27	17	39	108	1	3
03006	Alford*	0	0	0	0	0	0	0	0	0	0
03022	Becket	2	2	0	0	0	0	0	0	0	0
03058	Cheshire	307	9	0	212	9	39	16	15	0	7
03063	Clarksburg	3	3	0	0	0	0	0	0	0	0
03070	Dalton	994	19	1	573	28	111	75	98	22	67
03090	Egremont**	0	0	0	0	0	0	0	0	0	0
03098	Florida	89	8	0	63	1	5	5	3	4	0
03113	Great Barrington	1,056	32	1	545	54	60	55	287	9	13
03121	Hancock	117	7	0	58	5	2	2	41	2	0
03132	Hinsdale*	0	0	0	0	0	0	0	0	0	0
03148	Lanesborough	372	11	1	288	11	6	15	40	0	0
03150	Lee	23	6	0	5	0	3	1	8	0	0
03152	Lenox	576	31	1	111	54	41	22	301	12	3
03193	Monterey	136	26	1	49	5	15	2	37	1	0
03200	New Ashford**	0	0	0	0	0	0	0	0	0	0

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
03203	New Marlborough	83	15	0	17	6	2	12	31	0	0
03209	North Adams	1,044	31	0	239	135	316	87	221	8	7
03225	Otis	1	1	0	0	0	0	0	0	0	0
03233	Peru	42	2	0	31	6	3	0	0	0	0
03236	Pittsfield	6,478	187	3	3,762	408	1,001	194	852	35	36
03249	Richmond	174	19	1	27	40	12	14	51	9	1
03260	Sandisfield	144	8	0	87	9	4	9	22	5	0
03263	Savoy*	0	0	0	0	0	0	0	0	0	0
03267	Sheffield	96	19	0	18	10	5	9	34	0	1
03283	Stockbridge	511	16	1	261	22	12	13	184	1	1
03302	Tyringham*	0	0	0	0	0	0	0	0	0	0
03313	Washington*	0	0	0	0	0	0	0	0	0	0
03326	West Stockbridge	47	1	1	27	0	2	4	12	0	0
03341	Williamstown	143	18	0	5	17	10	20	73	0	0
03345	Windsor	29	0	0	27	1	0	0	1	0	0
Total	Berkshire County	12,800	504	12	6,509	848	1,666	594	2,419	109	139

* Certified no reportable fires.

**Non reporting department.

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

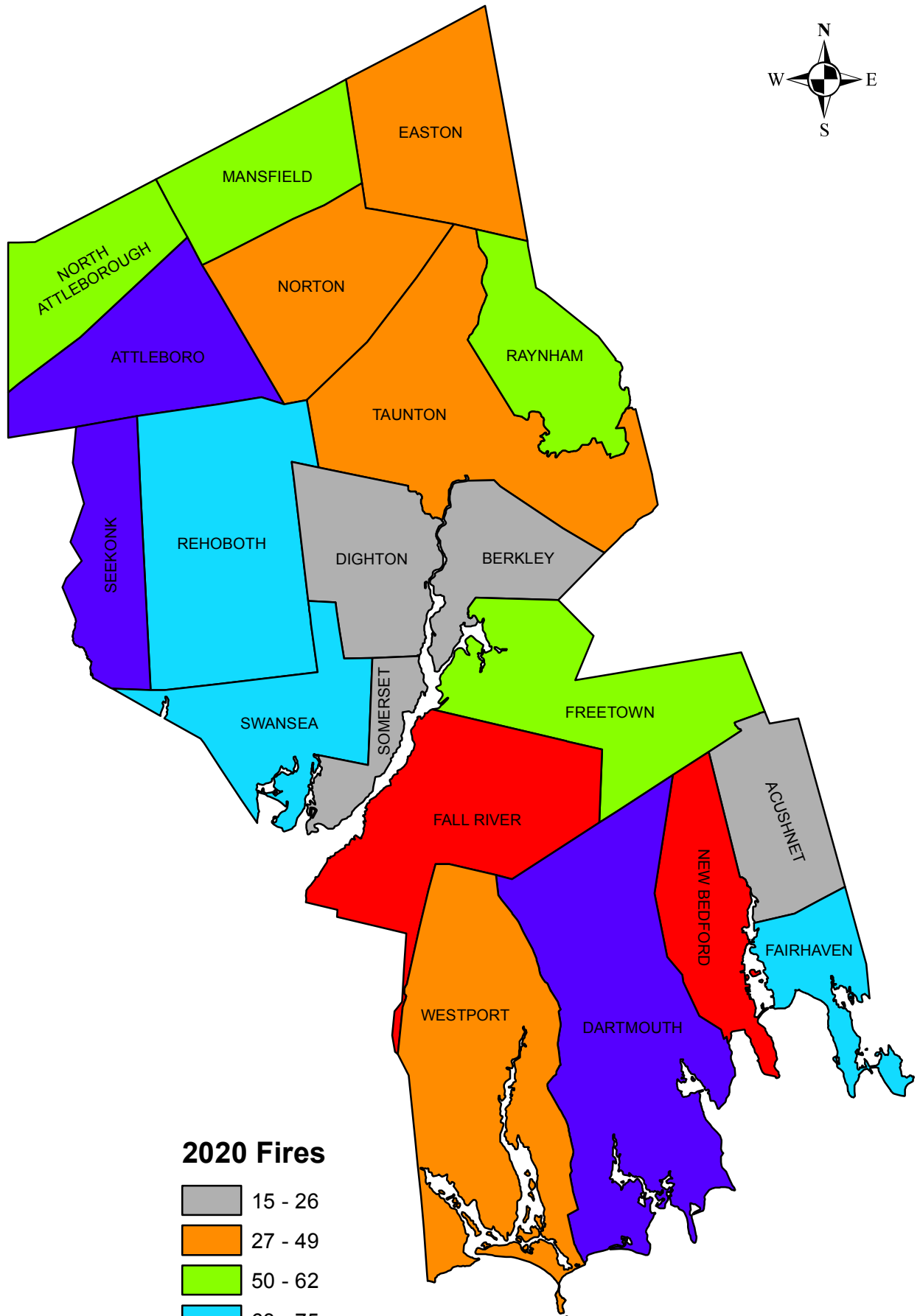
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.



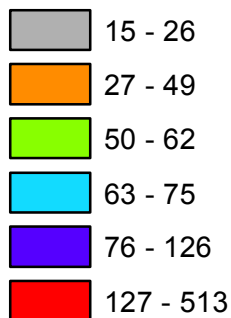
Bristol County

2020 Fire Data Analysis

Bristol County Fires 2020



2020 Fires



0 1.25 2.5 5 7.5 10 Miles



MFIRS
Massachusetts Fire Incident Reporting System

Bristol County Fires in 2020

1,974 Total Fires — 853 Structures, 242 Vehicles & 879 Other Fires

Bristol County ranked seventh out of the fourteen Massachusetts counties in total reported fires. The county reported 1,974 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 853 structure fires, 242 motor vehicle fires, 542 brush, tree or lawn fires, 211 outside rubbish fires, 42 special outside fires, one cultivated vegetation or crop fire, and 80 other fires caused two civilian deaths, 38 civilian injuries, 14 fire service injuries and an estimated dollar loss of \$19 million. Bristol County's fires accounted for 7% of the 29,461 Massachusetts fires reported in 2020.

All 22, or 100%, of the fire departments in Bristol County reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS).

All Fires Up

The total number of reported fire incidents increased by 465 from the 1,509 reported in 2019. Reported structure fires increased by 126 from the 727 reported during the previous year. The total number of reported motor vehicle fires decreased by one from the 243 incidents reported during 2019. Reported outside and other fires increased by 340 from the 539 reported the year before¹.

BRISTOL COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2,104	866	313	925	85	26	23	36
2017	1,877	846	280	751	96	36	16	44
2018	1,685	796	292	597	53	12	22	19
2019	1,509	727	243	539	40	9	7	24
2020	1,974	853	242	879	74	23	11	40

Fire and Fire Death Rates

Bristol County had 3.6 fires per 1,000 population. That figure ranks Bristol County tied for tenth in the state and below the state rate of 4.5 fires per 1,000 population. Bristol County also had 0.04 fire deaths per 10,000 populations ranking it tied for ninth among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

2 Fires Kill 2 People in Bristol County

In 2020, two fires in Bristol County killed two people.

- On October 15, 2020, at 10:45 a.m., the Raynham Fire Department responded to a fatal fire in a shed beside a mobile home. The victim, a 67-year old man, committed suicide by self-immolation. No one else was injured at this fire. The shed did have smoke alarms that operated. Damages from this fire were estimated to be \$7,000.

¹ 2019 was another down year for brush fires.

- On December 28, 2020, at 8:37 a.m., the Dartmouth District #2 Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire started in the living room around an artificial Christmas tree. The victim, an 87-year old woman, was asleep at the time of the fire. She was transported to a hospital where she succumbed to her injuries. No one else was injured at this fire. It was undetermined if alarms were present and the building was not sprinklered. Damages from the blaze were estimated to be \$320,000.

Explosion Kills 1 Civilian in Bristol County

A meth lab explosion killed one resident in Bristol County in 2020.

- On February 2, 2020 at 12:53 a.m., a 38-year old Norton man was severely injured when there was a meth lab explosion in his own house. The victim drove himself to a friend's home and was then transported to the hospital where he succumbed to his injuries.

Fall River Has Bristol County's Largest Loss Fire

In 2020, Bristol County had one incident with an estimated dollar loss over \$1 million. This incident caused \$1.2 million, or 6%, of the county's estimated dollar loss.

- On January 13, 2020, at 12:15 a.m., the Fall River Fire Department was dispatched to a fire of undetermined cause at River Falls Manufacturing, in the area where they store clothes that they make. One (1) firefighter was injured at this fire. The building did not have any alarms. The building did have sprinklers, but they were not effective in suppressing the fire. Damages from this fire were estimated to be \$1.2 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 853 structure fires caused two civilian deaths, 37 civilian injuries, 14 fire service injuries and an estimated dollar loss of \$16.5 million. These incidents represented 43% of Bristol County's reported fires in 2020. The average estimated dollar loss per structure fire was \$19,401. The total number of reported structure fires increased by 126, or 17%, from the 727 reported in 2019.

Structure Arsons Up

The 23 structure arsons caused one civilian death, five fire service injuries and an estimated dollar loss of \$1.1 million. Arson was indicated as the cause of 3% of the structure fires and 7% of Bristol County's structure fire dollar loss. The 23 structure arsons accounted for 31% of the Bristol County arson fires reported in 2020. The total number of reported structure arsons increased by 14 from the nine reported in 2019.

78% of Structure Arsons Occurred in Residences

Forty-eight percent (48%) of Bristol County's nine structure arsons occurred in residential occupancies. Storage facilities had 26%; and manufacturing and processing facilities had 13% of these arsons. Mercantile and business properties, institutional facilities and public assembly properties each had 4% of these fires.

BUILDING FIRES

There were 849 building fires of different types in Bristol County in 2020. These 849 building fires accounted for 99.5% of all structure fires in Bristol County.

83% of Bristol Building Fires Occurred in People's Homes

Seven hundred (700), or 83%, of Bristol County's 849 building fires occurred in residential occupancies. Mercantile and business properties had 41 fires. Thirty-five (35) fires took place in storage properties. Twenty-six (26) fires took place in public assembly properties, including restaurants and churches. Manufacturing and processing facilities experienced 16 fires. Educational facilities and hospitals, prisons, and other institutional buildings each had 12 fires. had six fires. Special properties had four fires; and industrial facilities had two fires.

RESIDENTIAL FIRES

Residential Building Fires UP

There were 700 reported residential building fires in Bristol County in 2020. These 700 fires are an increase of 95, or 16%, from the 605 residential building fires reported in 2019.

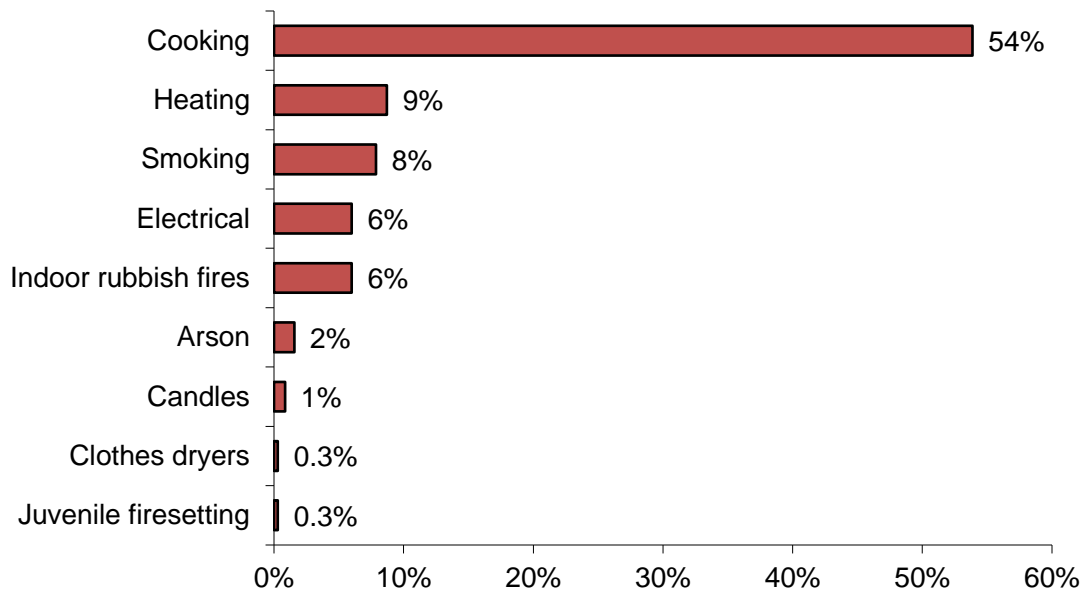
Apartments Accounted for 54% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 54% of the building fires in Bristol County; 42% occurred in 1- & 2-family homes; 2% happened in rooming houses. One percent (1%) occurred in residential board and care facilities; and less than 1% happened in hotels or motels. Eight (8), or 1%, of the residential building fires in Bristol County occurred in unclassified residential buildings.

Unsafe Cooking Leading Cause Over 1/2 of Residential Fires

The leading cause of residential building fires in Bristol County was unattended cooking and other unsafe cooking practices, accounting for 54% of these fires. The second leading cause of residential building fires was heating equipment, accounting for 9%. Smoking caused 8% of these fires. Electrical problems and indoor rubbish fires each caused 6% of the fires in people's homes. Arsons were responsible for 2% of these fires. Candles accounted for 1%; clothes dryers and juvenile-set fires each accounted for less than 1% of Bristol County's residential building fires in 2020.

2020 Leading Causes to Fires in Bristol County Homes



61% of Residential Building Fires Are Confined to Non-Combustible Containers²

Four hundred and twenty-nine (429), or 61%, of all residential building fires were reported as confined to non-combustible containers in 2020. Three hundred and forty-three (343), or 49%, of all residential building fires reported in 2020 were cooking fires contained to a non-combustible container. Thirty-seven (37), or 5%, of these fires were rubbish fires. Twenty-seven (27) of the reported fires were confined to a chimney, accounting for 4% of residential building fires. Twenty-two (22), or 53%, were fires confined to a fuel burner or boiler malfunction.

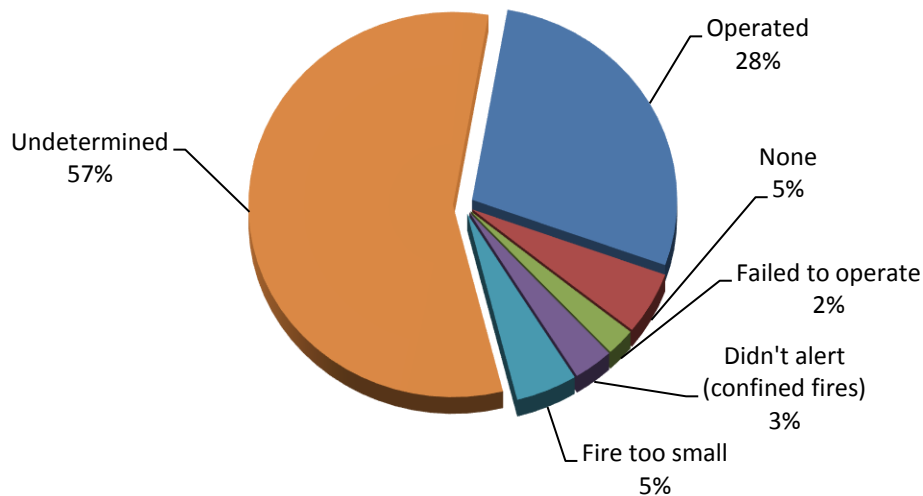
Detectors Alerted Occupants in Only 28% of Fires

Smoke or heat detectors operated and alerted the occupants in 194, or 28%, of the residential building fires. In 3% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 5% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 5% of the residential fires. Smoke detector performance was undetermined in 397 incidents, or 57%, of Bristol County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Bristol County's Residential Structure Fires 2020



1/2 of Detectors Failed from Missing or Dead Batteries

Of the 16 fires where smoke detectors were present but failed to operate, eight, or 50%, failed from missing or dead batteries. Missing or disconnected batteries caused six, or 38% of the detectors to fail; and dead batteries caused two, or 13% to fail. One (1), or 6%, failed because of an improper installation or maintenance; and another failed because it was defective. It was undetermined or unclassified in six cases, or 38%, why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Bristol County reported 20 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the 849 building fires reported to MFIRS in 2020. Seven (7) fires occurred in vacant residential properties. Six (6) vacant building fires occurred in storage facilities. Four (4) happened in manufacturing or processing facilities. A public assembly property, a mercantile or business facility and an educational property each had one of these fire incidents in Bristol County in 2020.

Six (6), or 30%, of the vacant building fires in Bristol County in 2020 were determined to be intentionally-set. Three (3) occurred in manufacturing or processing facilities. A warehouse, a fire station and an unclassified storage facility each had a vacant arson fire in 2020.

JUVENILE-SET FIRES

9 Juvenile-set Fires

There were nine reported juvenile-set fires in Bristol County in 2020. The four structure fires four brush fires and one outside rubbish fire caused \$3,142 in estimated damages.

ARSONS

74 Total Arsons — 23 Structures, 11 Vehicles & 40 Other Arsons

Bristol County fire departments reported that 74, or 4%, of Bristol County's 1,974 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 23 structure arsons, 11 motor vehicle arsons and 40 outside and other arsons caused one civilian death, five fire service injuries and an estimated dollar loss of \$1.2 million.

All Arsons Up

The total number of reported arson fires increased by 34 from the 40 reported in 2019. Structure arsons increased by 14 from nine in 2019. Motor vehicle arsons increased by four from the seven reported last year. Outside and other arsons increased by 16 from the 24 reported in 2019.

ALL INCIDENTS

Rescue & EMS Calls Are 58% of All Reported Responses

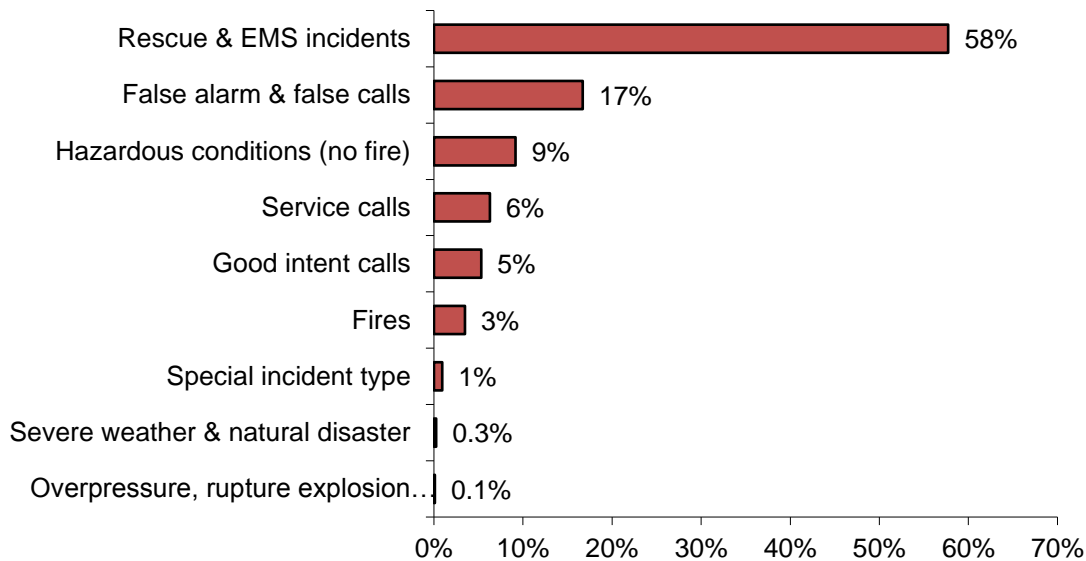
In 2020, fire departments in Bristol County reported 59,254 responses⁴ to MFIRS. Of these 59,254 incidents, 57,188 non-fire calls were voluntarily reported.

Of these 57,188 non-fire calls, 34,215, or 58%, of all the reported responses were reported rescue and emergency medical services (EMS) calls; 9,897, or 17% were reported false alarm or false calls; 5,435, or 9%, were reported hazardous condition calls with no fire; 3,722, or 6%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,154, or 5%, were reported good intent calls; 545, or 1%, were special incident type calls such as citizen complaints; 149, or 0.3%, were severe weather responses; and 71, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand and sixty-six (2,066), or 3%, of the total responses submitted by Bristol County fire departments were fires.

⁴ These figures include responses in which Bristol County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Bristol County Fire Departments Gave Mutual Aid 1,381 Times

In 2020, Bristol County fire departments reported coming to the aid of other fire departments 1,381 times. Of these 1,381 responses, 815, or 59%, were for rescue or EMS calls; 229, or 17%, were for good intent calls; 167, or 12%, were for service calls such as cover assignments; 91, or 7%, were for fires; 51, or 4%, were for hazardous conditions calls with no fire; 22, or 2%, were for false alarms or false calls; five, or less than 1%, were special incident types; and one, or less than 1% was a severe weather or natural disaster call.

Bristol County Received Mutual Aid in 796 Incidents

In 2020, Bristol County fire departments reported receiving aid from surrounding departments in 796 incidents. Of these 796 incidents, 622, or 78%, were rescue and emergency medical services calls; 82, or 10%, were for fires; 34, or 4%, were false alarms or false calls; 23, or 3%, were hazardous conditions calls with no fire; 17, or 2%, were good intent calls; 13, or 2%, of the mutual aid received calls, were service calls; three, or less than 1%, were severe weather calls; and two, or less than 1%, were special incident types.

Bristol County**Population: 548,285⁵****3.6 Fires/1,000 Population****Total Fires: 1,974 \$19,008,771**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	853	4438%	\$16,549,312
Vehicle Fires	242	12%	2,164,083
Other Fires	879	45%	295,376

2 Fatal Fires 1.01 Civilian Deaths/1,000 Fires
 2 Civilian Deaths 0.04 Civilian Deaths/10,000 Population
 38 Civilian Injuries 14 Fire Service Injuries

Building Fires: 849**Residential Structure Fires: 700****Residential Structure Fires Confined to Non-Combustible Containers: 429****Unconfined Residential Structure Fires: 271**

1 Civilian Deaths 35 Civilian Injuries 7 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	375	54%	Operated	194	28%
1- & 2-Family homes	294	42%	Didn't operate	16	2%
Rooming houses	14	2%	None	37	5%
Residential board & care	8	1%	Fire too small	34	5%
Hotels or motels	1	0.1%	Didn't alert (confined)	22	3%
			Undetermined	397	57%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	57%	Arcing	5%	13%
Chimney or flue	4%	Cigarettes	4%	10%
Exterior balcony, unencl. porch	4%	Rad., cond. heat from op eq.	4%	10%
Heating room or area	3%	Heat from operating eq.	3%	8%
Living room	3%	Spark/ember/flame op. eq.	2%	4%

⁵ We used the figures from the 2010 US Census because the 2020 figures had not been released as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	52%	Abandoned materials	3%	8%
Rubbish, trash, waste	7%	Too close to combustibles	2%	6%
Film or residue (creosote)	4%	Electrical failure, malfunc.	1%	4%
Exterior sidewall covering	4%	Misuse of materials, prod.	1%	3%
Electrical wire, cable insulation	3%	Failure to clean	1%	2%
Flammable or combust. liquid	3%	Unspec. short circuit arc	1%	2%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	53%	Unintentional	22%	56%
None	26%	Failure of eq. or heat source	3%	9%
Chimney or flue	3%	Intentional	1%	4%
Boiler, furnace, cent. eat unit	3%	Cause under investigation	3%	7%
Electrical wiring, other	2%	Undetermined	8%	21%
		Act of Nature	0.3%	0.4%

Detector Alerted Occupants (Confined Fires in Non-Combustible Containers)

Alerted Occupants	20%
Didn't Alert Occupants	5%
Undetermined	75%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	137	80	20	37
February	117	79	15	23
March	175	81	21	73
April	143	66	16	61
May	220	85	26	109
June	209	71	24	114
July	212	50	32	130
August	215	64	29	122
September	195	65	23	107
October	131	62	18	51
November	125	76	11	38
December	112	84	12	16

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	294	120	27	147
Monday	283	134	32	117
Tuesday	262	103	34	125
Wednesday	257	113	36	108
Thursday	271	123	36	112
Friday	278	120	41	117
Saturday	329	140	36	153

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	112	63	17	32
04:01 – 08:00	141	65	27	49
08:01 – 12:00	342	150	46	146
12:01 – 16:00	577	203	67	307
16:01 – 20:00	514	232	55	227
20:01 – 24:00	288	140	30	118

Motor Vehicle Fires

Total: 242

Automobiles: 191 (79%)

8, or 4%, of the automobile fires were considered intentionally-set.

Arson Fires

Total Arsons: 74

Dollar loss: \$1,228,470

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	23	3%	31%	\$1,110,700
Vehicle Arsons	11	5%	15%	116,800
Other Arsons	40	5%	54%	970

0.04 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

1 Civilian Death

5 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 – 00:00	7	30%	04:01 – 08:00	5	45%
12:01 – 16:00	5	22%	00:01 – 04:00	4	36%
08:01 – 12:00	4	17%			

Other Arsons	#	%
16:01 – 20:00	12	30%
08:01 – 12:00	8	20%
12:01 – 16:00	8	20%
20:01 – 00:00	7	18%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	7	30%
1- and 2-Family homes	4	17%
Manufacturing, processing	3	13%
Storage, other	2	9%

Acushnet **Population: 10,303**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	28	18	5	5	1	0	0	1
2017	12	8	1	3	0	0	0	0
2018	20	10	3	7	0	0	0	0
2019	8	5	0	3	0	0	0	0
2020	15	6	5	4	0	0	0	0

Attleboro **Population: 43,593**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	130	50	17	63	2	1	1	0
2017	122	41	24	57	0	0	0	0
2017	110	37	23	50	3	1	1	1
2019	98	37	20	41	1	0	1	0
2020	126	50	18	58	3	0	1	2

Berkley **Population: 6,411**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	15	4	3	8	0	0	0	0
2017	16	5	6	5	0	0	0	0
2018	14	6	6	2	0	0	0	0
2019	19	9	4	6	0	0	0	0
2020	26	8	5	13	0	0	0	0

Dartmouth Fire Districts¹² **Population: 34,032****Dartmouth District # 1***Est. Pop. Protected: 13,272*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	18	8	3	7	0	0	0	0
2017	21	14	2	5	0	0	0	0
2018	19	0	1	8	1	0	1	0
2019	18	6	5	7	0	0	0	0
2020	11	6	0	5	0	0	0	0

¹² The estimated population protected statistics were determined by multiplying the 2010 census figure by the percentage of the 2000 census figure determined by the then Town Clerk.

Dartmouth District #2*Est. Pop. Protected: 2,723*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016 ¹³	Fire Department in Good Standing							
2017	7	3	0	4	0	0	0	0
2018	5	2	1	2	0	0	0	0
2019	3	0	0	3	0	0	0	0
2020	7	1	2	4	0	0	0	0

Dartmouth District #3*Est. Pop. Protected: 18,037*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	73	23	10	40	4	2	0	2
2017	67	16	14	37	2	0	0	2
2018	66	24	11	31	0	0	0	0
2019	47	20	9	18	1	0	0	1
2020	84	16	15	53	1	0	0	1

Dighton**Population: 7,086**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	18	6	5	7	0	0	0	0
2017	16	6	5	5	0	0	0	0
2018	9	2	1	6	0	0	0	0
2019	16	7	6	3	0	0	0	0
2020	20	8	3	9	0	0	0	0

Easton**Population: 23,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	54	19	7	28	2	0	0	2
2017	45	18	5	22	3	0	0	3
2018	45	14	6	25	0	0	0	0
2019	34	15	4	15	3	0	1	2
2020	43	16	7	20	0	0	0	0

¹³ In 2016, Dartmouth District #2 reported 9 calls.

Fairhaven**Population: 15,873**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	56	19	7	30	1	0	0	1
2017	30	11	7	12	0	0	0	0
2018	52	18	4	30	0	0	0	0
2019	41	12	7	22	0	0	0	0
2020	71	18	7	46	2	0	0	2

Fall River**Population: 88,857**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	437	254	58	125	22	13	9	0
2017	431	263	41	127	25	10	8	7
2018	447	270	59	118	15	3	10	2
2019	408	251	43	114	12	4	2	6
2020	513	288	4	181	25	9	6	10

Freetown**Population: 8,870**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	48	16	13	19	2	0	2	0
2017	44	14	16	14	0	0	0	0
2018	41	15	11	15	0	0	0	0
2019	41	18	12	11	1	1	0	0
2020	57	20	9	28	1	0	0	1

Mansfield**Population: 23,184**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	61	14	15	32	1	0	0	1
2017	59	13	17	29	1	0	0	1
2018	46	16	12	18	1	0	0	1
2019	48	20	5	23	0	0	0	0
2020	58	9	14	35	1	0	1	0

New Bedford						Population: 95,072		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	445	213	49	183	13	6	6	1
2017	453	229	53	171	30	18	9	3
2018	399	215	61	123	15	3	10	2
2019	390	203	50	137	3	1	2	0
2020	437	230	44	163	10	8	2	0

North Attleboro						Population: 28,712		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	67	21	14	32	1	0	1	0
2017	40	13	6	21	2	0	0	2
2018	48	28	10	10	1	0	0	1
2019	56	22	12	22	4	1	0	3
2020	54	16	6	32	2	0	1	1

Norton						Population: 19,031		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	48	10	11	27	6	0	1	5
2017	25	6	4	15	3	2	0	1
2018	34	9	8	17	2	2	0	0
2019	29	5	9	15	3	1	0	2
2020	44	7	6	31	1	1	0	0

Raynham						Population: 13,383		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	76	14	16	46	0	0	0	0
2017	64	18	11	35	0	0	0	0
2018	68	13	28	27	1	0	0	1
2019	29	9	6	14	0	0	0	0
2020	62	11	14	37	1	1	0	0

Rehoboth **Population: 11,608**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	43	18	7	18	3	1	0	2
2017	45	15	8	22	9	1	0	8
2018	41	14	5	22	10	2	0	8
2019	35	11	12	12	2	0	0	2
2020	75	25	5	45	17	2	0	15

Seekonk **Population: 13,722**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	86	23	13	50	2	1	0	1
2017	53	18	7	28	2	1	0	1
2018	49	10	6	33	1	0	0	1
2019	36	10	7	19	1	0	1	0
2020	89	19	13	57	7	1	0	6

Somerset **Population: 18,165**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	43	18	10	15	0	0	0	0
2017	39	16	8	15	0	0	0	0
2018	29	9	10	10	1	1	0	0
2019	31	9	10	12	0	0	0	0
2020	22	12	1	9	1	1	0	0

Swansea **Population: 15,865**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	78	33	16	29	1	0	0	1
2017	60	30	15	15	1	0	0	1
2018	44	19	16	9	0	0	0	0
2019	56	27	13	16	0	0	0	0
2020	66	31	12	23	0	0	0	0

Taunton **Population: 55,874**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	218	76	21	121	20	1	2	17
2017	156	70	15	71	13	3	0	10
2018 ¹⁴	47	25	5	17	0	0	0	0
2019 ¹⁵	4	3	1	0	0	0	0	0
2020	45	35	3	7	1	0	0	1

Westport **Population: 15,532**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	62	9	13	40	3	0	1	2
2017	72	19	15	38	6	1	0	5
2018	45	16	5	24	2	0	0	2
2019	62	28	8	26	9	1	0	8
2020	49	21	9	19	1	0	0	1

¹⁴ Taunton only reported January through April in 2018.

¹⁵ Taunton only reported 'reportable fires' in 2019.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
05003	Acushnet	1,247	18	1	1,035	53	72	6	61	0	1
05016	Attleboro	7,510	137	10	2,699	2,989	366	394	846	44	25
05027	Berkley	768	30	1	524	23	65	52	71	2	0
05972	Dartmouth Dis.#1	413	14	6	12	82	30	25	242	2	0
05973	Dartmouth Dis.#2	87	8		7	15	16	5	35	0	1
05974	Dartmouth Dis.#3	1,051	100	2	291	103	172	128	251	3	1
05076	Dighton	248	20		45	23	50	16	92	0	2
05088	Easton	3,467	44	1	2,328	188	343	76	437	3	47
05094	Fairhaven	3,366	75	4	2,603	156	126	122	257	4	19
05095	Fall River	6,612	513	14	2,630	457	281	364	2,333	1	19
05102	Freetown	1,627	60	14	976	47	234	161	124	7	4
05167	Mansfield	3,097	67	2	1,919	211	231	240	403	15	9
05201	New Bedford	9,906	438	4	5,806	358	339	749	2,174	11	27
05211	North Attleboro	3,534	66	1	2,450	158	323	58	310	3	165
05218	Norton	3,066	44	1	1,843	169	316	29	490	4	170
05245	Raynham	3,038	70	3	2,038	75	190	138	499	13	12

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
05247	Rehoboth	661	75		239	66	48	46	156	31	0
05265	Seekonk	3,287	91	2	2,220	84	158	202	515	3	12
05273	Somerset	2,881	25	1	2,373	64	98	132	164	1	23
05292	Swansea	567	72	1	74	58	99	56	201	0	6
05293	Taunton	47	45	1	0	0	1	0	0	0	0
05334	Westport	2,774	54	2	2,103	56	164	155	236	2	2
Bristol County		59,254	2,066	71	34,215	5,435	3,722	3,154	9,897	149	545

* Certified no reportable fires.

**Non reporting department.

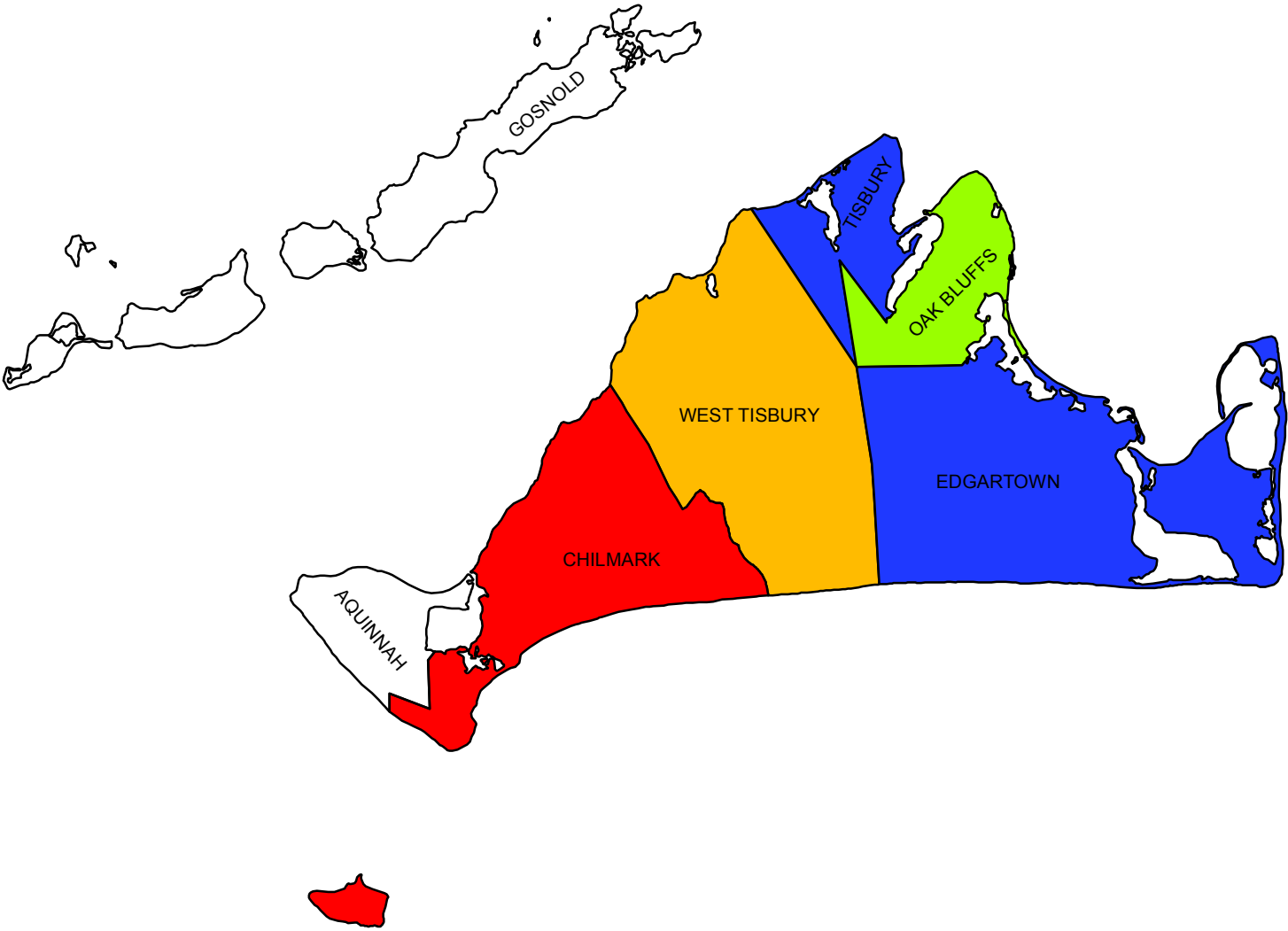
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



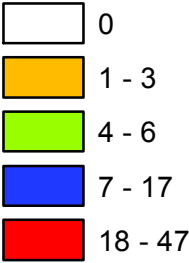
Dukes County

2020 Fire Data Analysis

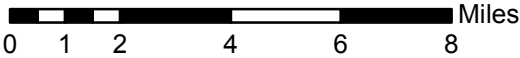
Dukes County Fires 2020



2020 Fires



*Non-reporting Department



Dukes County Fires in 2020

89 Total Fires — 24 Structures, 4 Vehicles Fires & 23 Outside & Other Fires

Dukes County ranked thirteenth out of the fourteen Massachusetts counties in total fires. Dukes County fire departments reported 89 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2019. The reported 24 structure fires, six motor vehicle fires, 44 brush fires, one outside rubbish fire, seven special outside fires, one cultivated crop or vegetation fire; and six unclassified fires caused one civilian injury and an estimated dollar loss of \$2.5 million. Dukes County's fires accounted for 0.3% of the 29,461 Massachusetts fires reported in 2020.

All seven of the fire departments in Dukes County reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS). One (1) department certified that they had no reportable fires in 2020.

All Fires Up

The total number of reported fire incidents increased by 39 from the 50 reported in 2019. Reported structure fires increased by one from the 23 reported in 2019. Motor vehicle fires increased by two from the four reported the previous year. Outside and other fires increased by 36 from the 23 reported in 2019¹.

DUKES COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	50	12	10	28	2	0	1	1
2017	26	15	6	5	0	0	0	0
2018	30	17	5	8	0	0	0	0
2019	50	23	4	23	4	0	0	4
2020	89	24	6	59	41	0	0	41

Fire and Fire Death Rates

Dukes County had 5.3 fires per 1,000 population. That figure ranks Dukes County third in the state and below the state rate of 4.5 fires per 1,000 population. Dukes County also had 0 fire deaths per 10,000 population ranking it tied for last among Massachusetts counties and well below the state rate of 0.07 fire deaths per 10,000 population.

No Fire Deaths in Dukes County in 2020

In 2020 there were no fatal fires and fire deaths in Dukes County.

Chilmark Had Dukes County Largest Loss Fire

Dukes County had one large loss fires over \$1 million in 2020. This fire occurred in Chilmark and caused \$2 million in estimated damages. This single fire accounted for 80% of Dukes County total dollar loss.

¹ 2019 was another down year statewide for brush fires.

- On October 18, 2020, at 3:09 a.m., the Chilmark Fire Department responded to a fire of undetermined cause in a single-family home. No one was injured at this fire. Alarms were present but it was unknown if they operated. The building did not have sprinklers. Damages were estimated at \$2 million. This one fire accounted for 80% of Dukes County total estimated damages.

STRUCTURE FIRES

Reported Structure Fires 46% of All Reported Fires

There were 24 reported structure fires in Dukes County in 2020. These incidents represented 27% of Dukes County's reported fires in 2020 and 99.7% of the county's reported dollar loss. The total number of reported structure fires increased by one from the 23 reported in 2019.

0 Reported Structure Arson in 2020

There was no reported structure arson in Dukes County in 2020

BUILDING FIRES

There were 23 building fires of different types in Dukes County in 2020. These 23 building fires accounted for 95.8% of the structure fires in Dukes County.

83% of Dukes Building Fires Occurred in People's Homes

Nineteen (19), or 83%, of Dukes County's 23 building fires occurred in residential occupancies. Two (2) occurred in an assembly property, and two other fires occurred in storage facilities.

RESIDENTIAL FIRES

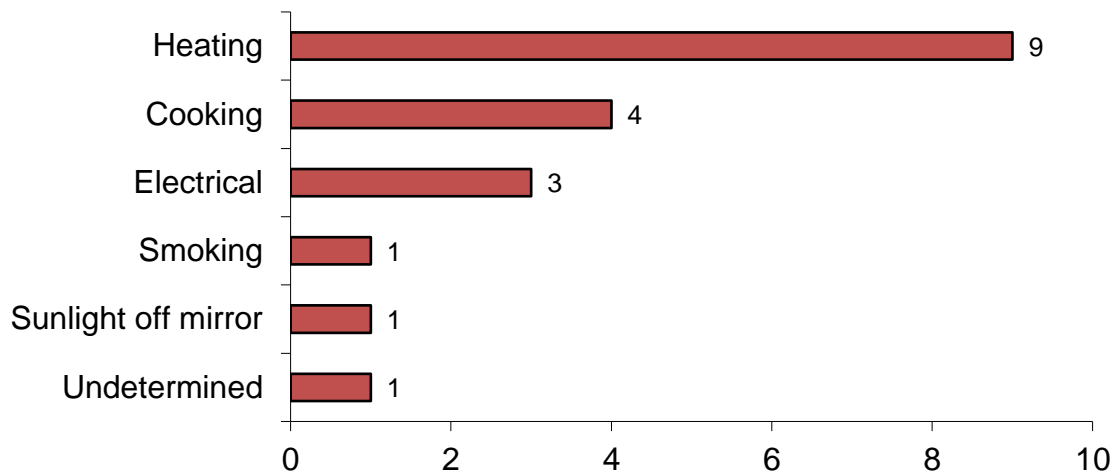
19 Residential Building Fires

There were 19 reported residential building fires in Dukes County in 2020. These 19 fires are an increase of three, or 19%, from the 16 reported in 2019. Eighteen (18), or 95% occurred in one or two-family homes and one happened in a hotel. They caused one civilian injury and \$2.2 million in estimated damages.

Heating Was the Leading Cause of Residential Fires

Heating equipment was the leading cause of residential fires in Dukes County in 2020. Heating equipment caused nine fires, accounting for 47% of residential building fires in Dukes County in 2020. Cooking caused four, or 21% of these fires; and electrical problems caused three, or 16%. Smoking and sunlight reflected off a mirror each caused one, or 5%, of these fires. The cause of the other fire, or 5%, was undetermined.

2020 Leading Causes of Fires in Dukes County Homes



11 Residential Building Fires Were Confined to Non-Combustible Containers²

Eleven (11), or 58%, of the reported fires in Dukes County were confined to a non-combustible container. Nine, or 82%, were confined to a chimney or flue; and two, or 18%, of these fires were confined cooking fires; and.

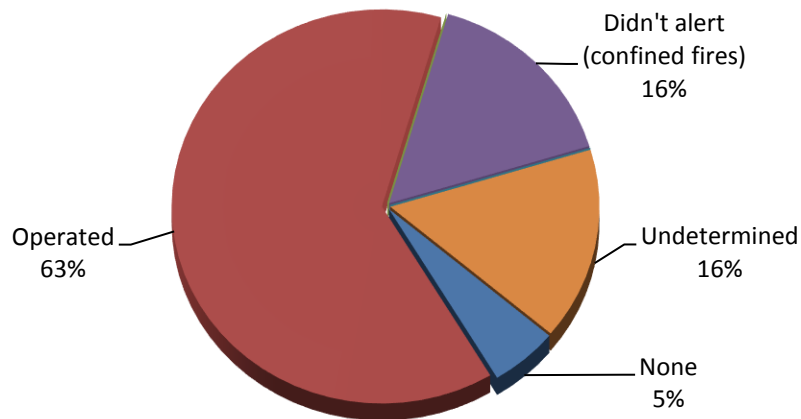
Detectors Operated in Almost 2/3 of Fires

Smoke or heat detectors operated and alerted the occupants in 12, or 63%, of the residential building fires. There were no reported fires where detectors failed to operate. In 16% of these fires³, the detectors did not alert the occupants. In 5% of these fires, no detectors were present at all. There were no reported fires where the fire was too small to trigger the detector. Smoke detector performance was undetermined in three incidents, or 16%, of Dukes County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Dukes County's Residential Fires 2020



VACANT BUILDINGS

1 Vacant Building Fire

There was one reported fire in a vacant building in Dukes County in 2020. This vacant building fire occurred in a seasonal single-family home. It caused \$2 million in estimated damages. It was not an arson.

JUVENILE-SET FIRES

No Juvenile-set Fires

There were no reported juvenile-set fires in Dukes County in 2020.

ARSONS

41 Arsons

There were 41 reported arsons in Dukes County in 2020. There were 34 brush arson, three special equipment arsons, one cultivated crop or vegetation arson and three unclassified arson. This was an increase of 37 over the four arsons in Dukes County in 2019.

ALL INCIDENTS

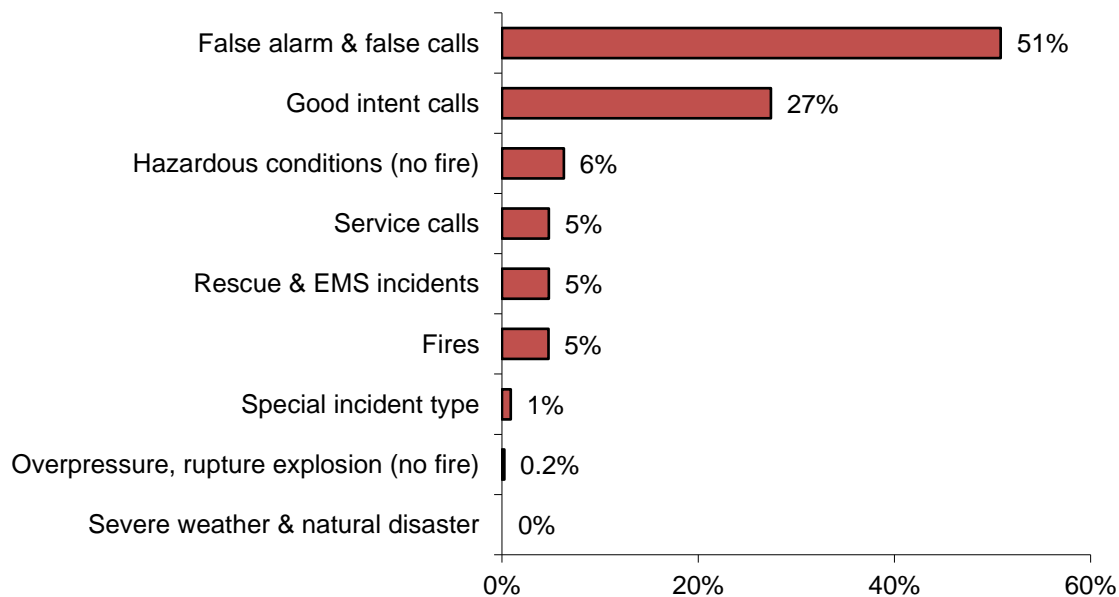
False Alarms Are Over 1/2 of All Reported Responses

In 2020, Dukes County fire departments reported 2,109 responses⁴ to MFIRS. Of these 2,109 incidents, 2,009 non-fire calls were voluntarily reported. Only Gosnold/Cuttyhunk certified no reportable fires and did not report any incidents.

Of these 2,009 non-fire calls, 1,072, or 51%, were reported false alarm or false calls; 578, or 27%, were reported good intent calls; 133, or 6%, were reported hazardous condition calls with no fire; 101, or 5%, of all of the responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 101, or 5%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 19, or 1%, were special incident types; and five, or less than less than 1%, were overpressure, rupture explosions with no ensuing fire calls.

One hundred (100), or 5%, of the total incidents submitted by Dukes County fire departments were fires.

2020 Incidents by Incident Type



Dukes County Fire Departments Gave Mutual Aid 42 Times

In 2020, Dukes County fire departments reported coming to the aid of other fire departments 42 times. Of these responses, 12, or 29%, were for good intent calls; 11, or 26%, were for fires; eight, or 19%, were service calls; seven, or 17%, were rescue or

⁴ These figures include responses in which Dukes County fire departments gave mutual aid to other fire departments.

EMS calls; three, or 7%, were special incident type calls, and one, or 2%, was a hazardous condition call with no fire.

Dukes County Fire Departments Received Mutual Aid in 15 Incidents

In 2020, Dukes County fire departments reported receiving aid from surrounding departments in 15 incidents. Seven (7), or 47%, were for fires; six, or 40%, were for rescue or EMS calls; one, or 7%, was a good intent call; and one, or 7%, of these incidents was for a hazardous condition call with no fire.

Dukes County**Population: 16,535⁵****5.3 Fires/1,000 Population****Total Fires: 89 \$2,489,000**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	24	46%	\$2,481,500
Vehicle Fires	6	8%	7,500
Other Fires	59	46%	0

0 Fatal Fires 0.0 Civilian Deaths/1,000 Fires
 0 Civilian Deaths 0.0 Civilian Deaths/10,000 Population
 1 Civilian Injuries 0 Fire Service Injuries

Building Fires: 23**Residential Structure Fires: 19****Residential Structure Fires Confined to Non-Combustible Containers: 11****Unconfined Residential Structure Fires: 8**

1 Civilian Injury

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	18	95%	Operated	12	63%
Hotels or motels	1	5%	Didn't operate	0	0%
			None	1	5%
			Fire too small	0	0%
			Didn't alert (confined)	3	16%
			Undetermined	3	16%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Chimney or flue	47%	Arcing	11%	25%
Kitchen	21%	Cigarette	5%	13%
Bathroom	11%	Hot or smoldering object	5%	13%
		Sunlight	5%	13%
		Heat from oper. equipment	5%	13%
		Heat fr op. flame/smok. Mat.	5%	13%

⁵ We used the figures from the 2010 US Census because the figures from the 2020 Census had not been released as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Film, residue (creosote)	47%	Too close to combustibles	5%	13%
Cooking materials	16%	Equipment unattended	5%	13%
		Elec. fail./malfunc., other	5%	13%
		Short-circuit arc – def. insul.	5%	13%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Chimney or flue	47%	Unintentional	32%	75%
Kitchen & cooking equipment	21%	Failure of eq. or heat source	0%	0%
None	16%	Undetermined	5%	13%
Fan	5%	Cause under investigation	11%	25%
Battery	5%	Act of nature	0%	0%
Washing machine	5%	Intentional	0%	0%

**Detector Alerted Occupants
(Confined Fires in Non-Combustible Containers)**

Alerted occupants	64%
Didn't alert occupants	27%
Undetermined	9%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined Fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	4	3	0	1
February	15	1	1	13
March	32	3	0	29
April	0	0	0	0
May	4	2	1	1
June	3	2	0	1
July	6	3	1	2
August	3	0	1	2
September	6	2	1	3
October	8	4	1	3
November	6	2	0	4
December	2	2	0	0

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	20	6	1	13
Monday	16	1	2	13
Tuesday	12	4	0	8
Wednesday	14	5	2	7
Thursday	5	3	0	2
Friday	11	2	0	9
Saturday	11	3	1	7

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	5	3	0	2
04:01 - 08:00	4	2	0	2
08:01 - 12:00	10	2	3	5
12:01 - 16:00	10	4	1	5
16:01 - 20:00	45	9	0	36
20:01 - 00:00	15	4	2	9

Motor Vehicle Fires

Total: 6

Automobiles: 3 (50%)

0 (0%) of the automobile fires were intentionally-set in 2020.

Arson Fires

Total Arsons: 41

Dollar loss: \$0

2.5 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	41	69%	1000%	0

0.00 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

2.5 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
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Other Arsons	#	%
16:00 – 20:00	29	71%
20:00 – 00:00	9	22%
00:00 – 04:00	1	2%
08:00 – 12:00	1	2%
12:00 – 16:00	1	2%

Peak Fixed Property Uses for Structure Arsons	#	%
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Aquinnah**Population: 311**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	2	1	0	0	0	0	0
2017	Fire Department in Good Standing, Certified No Reportable Fires ¹²							
2018	Fire Department in Good Standing, Certified No Reportable Fires ¹³							
2019	2	1	0	1	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires ¹⁴							

Chilmark**Population: 866**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	4	0	0	4	0	0	0	0
2017	Non-Reporting Community							
2018	1	1	0	0	0	0	0	0
2019	10	3	0	7	3	0	0	3
2020	47	4	0	43	42	1	0	41

Edgartown**Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	0	0	2	0	0	0	0
2017	8	7	1	0	0	0	0	0
2018	13	7	2	4	0	0	0	0
2019	12	5	2	5	0	0	0	0
2020	16	9	2	5	0	0	0	0

Gosnold (Cuttyhunk)**Population: 75**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							

¹² Aquinnah did report 59 total runs to MFIRS in 2017.¹³ Aquinnah did report 62 total runs to MFIRS in 2018.¹⁴ Aquinnah did report 47 total runs to MFIRS in 2019.

Oak Bluffs**Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	22	3	5	14	2	0	1	1
2017	3	2	1	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires ¹⁵							
2019	5	3	0	2	0	0	0	0
2020	6	2	2	2	0	0	0	0

Tisbury**Population: 3,959**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	16	6	4	6	0	0	0	0
2017	12	5	4	3	0	0	0	0
2018	15	8	3	4	0	0	0	0
2019	14	10	1	3	0	0	0	0
2020	17	9	2	6	0	0	0	0

West Tisbury**Population: 2,740**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	1	0	2	0	0	0	0
2017	3	1	0	2	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	7	1	1	5	1	0	0	1
2020	3	0	0	3	0	0	0	0

¹⁵ Oak Bluffs did report 83 total runs to MFIRS in 2018.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
07104	Aquinnah	47	0	0	1	2	3	7	34	0	0
07062	Chilmark	257	47	0	12	9	2	73	113	0	1
07089	Edgartown	705	20	3	33	60	35	259	294	0	1
07109	Gosnold*	0	0	0	0	0	0	0	0	0	0
07221	Oak Bluffs	428	6	0	25	13	38	81	263	0	2
07296	Tisbury	356	20	2	27	26	14	61	202	0	4
07327	West Tisbury	316	7	0	3	23	9	97	166	0	11
Total	Dukes County	2,109	100	5	101	133	101	578	1,072	0	19

* Certified no reportable fires.

**Non reporting department.

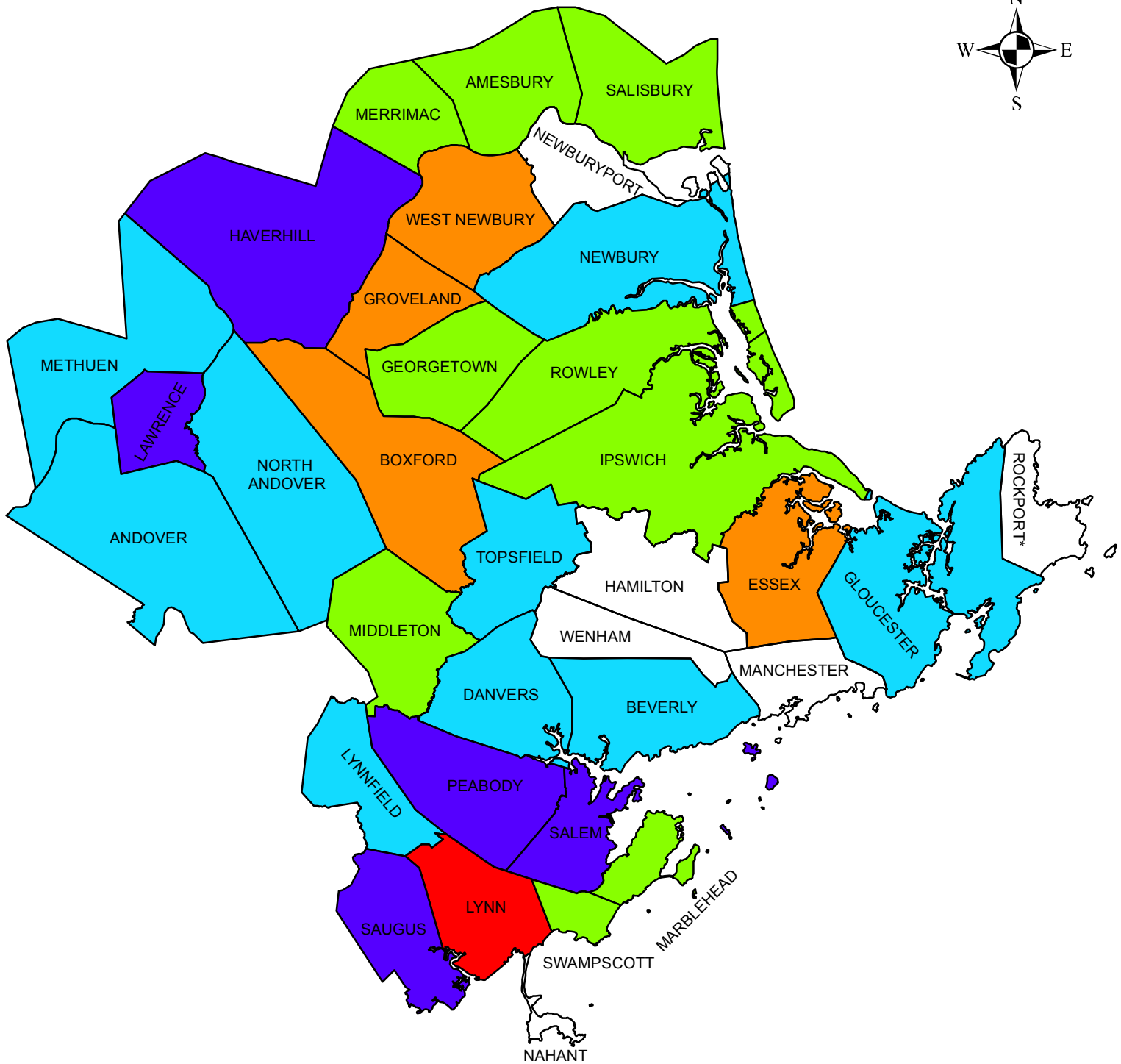
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Essex County

2020 Fire Data Analysis

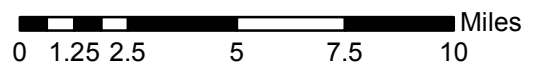
Essex County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2020

Essex County Fires in 2020

2,766 Total Fires — 1,332 Structures, 254 Vehicles & 1,180 Other Fires

Essex County ranked fifth out of the fourteen Massachusetts counties in total reported fires. The county reported 2,766 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 1,332 structure fires, 254 motor vehicle fires, 646 brush, tree or lawn fires, 303 outside rubbish fires, 113 special outside fires, 16 cultivated crop or vegetation fires, and 102 other fires caused three civilian fire deaths, 12 civilian injuries, 94 fire service injuries and an estimated dollar loss of \$30.7 million. Essex County's fires accounted for 9% of the 29,461 Massachusetts fires reported in 2020.

Thirty-three (33) of the 34, or 97.1%, fire departments in Essex County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

All Fires Up

The total number of reported fire incidents increased by 598 incidents from the 2,168 that were reported in 2019. Reported structure fires increased by 98 from the 1,234 reported during the previous year. The total number of motor vehicle fires increased by eight from the 246 incidents reported during 2019. Reported outside and other fires increased by 492 from the 688 reported the year before¹.

ESSEX COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2,979	1,351	218	1,410	103	19	11	73
2017	2,492	1,305	257	930	68	15	6	47
2018	2,162	1,195	246	721	40	12	4	24
2019	2,168	1,234	246	688	63	12	1	50
2020	2,766	1,332	254	1,180	91	11	6	74

Fire and Fire Death Rates

Essex County had 3.7 fires per 1,000 population. That figure ranks Essex County ninth in the state and below the state rate of 4.5 fires per 1,000 population. Essex County had 0.04 fire deaths per 10,000 population making it tied for ninth among Massachusetts counties and below the state rate of 0.07 deaths per 10,000 population.

3 Fire Deaths in Essex County

In 2020 there were three reported fire deaths in three fatal fires in Essex County.

- On January 23, 2020, at 5:07 p.m., the Lawrence Fire Department was dispatched to a fire in a four-unit apartment building of undetermined cause. The victim, a 76-year-old man, was sitting in a chair in the living room that was the area of origin. The most

¹ 2019 was another down year for brush fires.

probable causes were either falling asleep while smoking or a failure of the electric blanket covering him. No one else was injured at this fire. Alarms were present and alerted the occupants. The building was not sprinklered. Damages from this fire were estimated to be \$120,000.

- On April 17, 2020, at 11:14 p.m., the Methuen Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by cigarette in a bedroom. The victim, a 64-year old woman, was asleep in the same bedroom. No one else was injured at this fire. Smoke alarms were present but failed to operate. There were no sprinklers. Damages from this fire were estimated to be \$450,000.
- On May 29, 2020, at 10:41 p.m., the Haverhill Fire Department was dispatched to a motor vehicle fire. It is believed that the driver, a 29-year old man and only occupant of the vehicle, set the car on fire. He died by suicide when the car burst into flames. No one else was injured in this fire. Damages from this fire were estimated to be \$15,500.

Gloucester Had Largest Loss Fire in 2020

In 2020, Essex County had four fires that were considered large loss, or greater than \$1 million in estimated damages. These fires combined for \$6.2 million in estimated damages and 20% of Essex County's total dollar loss in 2020.

- On November 8, 2020, at 12:50 p.m., the Gloucester Fire Department was dispatched to a fire in a two-family home. The fire was caused by the remnants and sawdust of refinishing the hardwood floors self combusting in a chemical reaction. No one was injured at this fire. It was undetermined if alarms were present. The building did not have sprinklers. Damages from this fire were estimated to be \$1.8 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 1,332 structure fires caused two civilian deaths, 10 civilian injuries, 83 fire service injuries and an estimated dollar loss of \$26.3 million. These incidents represented 48% of Essex County's reported fires in 2020. The average estimated dollar loss per structure fire was \$19,752. The total number of reported structure fires increased by 98, or 8%, from the 1,234 reported in 2019.

Arson Caused 1% of Structure Fires

The 11 structure arsons caused 33 fire service injuries and an estimated dollar loss of \$58,500. Arson was indicated as the cause of 1% of the structure fires and 0.2% of Essex County's structure fire dollar loss. The 11 structure arsons accounted for 12% of the Essex County arson fires reported in 2020. The number of reported structure arsons decreased by one from the 12 reported in 2019.

64% of Structure Arsons Occurred in Residences

Sixty-four percent (64%) of Essex County's 11 structure arsons occurred in residential occupancies. Educational facilities accounted for 18% of structure arsons. Nine percent (9%) took place in educational facilities; and another 9% happened in storage facilities.

BUILDING FIRES

There were 1,331 building fires of different types in Essex County in 2020. These 1,331 building fires accounted for 99.9% of all structure fires in Essex County.

87% of Essex Building Fires Occurred in People's Homes

One thousand one hundred and fifty-seven (1,157), or 87%, of Essex County's 1,331 building fires occurred in residential occupancies. Mercantile and business properties had 50 fires. Thirty-one (31) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 27 fires. Eighteen (18) fires took place in storage properties. Fourteen (14) building fires took place in educational properties. Nine (9) fires took place in manufacturing and processing facilities. Six (6) building fires in Essex County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Five (5) fires happened in industrial facilities; and 14 fires occurred in unclassified properties in Essex County in 2020.

RESIDENTIAL FIRES**Residential Building Fires Up in 2020**

There were 1,157 reported residential building fires in Essex County in 2020. These 1,157 fires are an increase of 132, or 13%, from the 1,025 residential building fires reported in 2019.

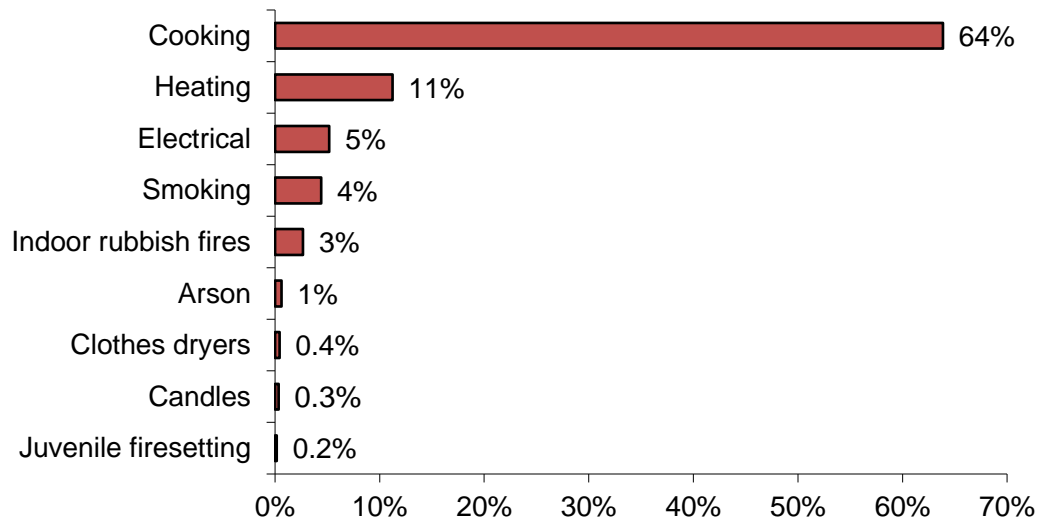
1- or 2-Family Homes Accounted for 46% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- or 2-family homes accounting for 46% of all residential fires; apartments had 44%; 3% happened in rooming houses; 2% occurred in dormitories; 1% took place in residential board and care facilities; and 1% happened in hotels or motels. Thirty-seven (37), or 3% of the residential building fires in Essex County occurred in unclassified residential buildings.

Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Essex County was unattended cooking and other unsafe cooking practices, accounting for 64% of these fires. Heating was the second leading cause, accounting for 11% of these fires. Electrical problems caused 5%. Smoking caused 4% and indoor rubbish fires caused 3%. Arsons caused 1% of these fires. Clothes dryers, candles and juvenile-set fires each caused less than 1% of the fires in people's homes in Essex County in 2020.

2020 Leading Causes of Fires in Essex County Homes



74% of Residential Building Fires Are Confined to Non-Combustible Containers²

Eight hundred and sixty (860), or 74%, of all residential building fires were reported as confined to non-combustible containers in 2020. Seven hundred and eight (708), or 61%, of all residential building fires reported in 2020 were cooking fires contained to a non-combustible container. Seventy-three (73), or 6%, were fires confined to a fuel burner or boiler malfunction. Forty-six (46) of the reported fires were confined to a chimney, accounting for 4% of residential building fires. Thirty (30), or 3%, of these fires were rubbish fires contained to a non-combustible container. Three (3), or less than 1%, were commercial compactor fires in Essex County in 2020

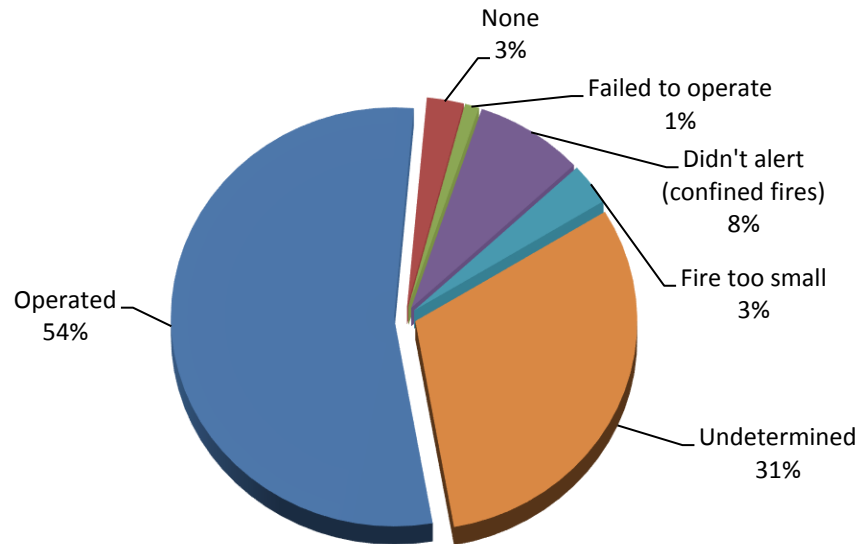
Alarms Operated in 54% of Fires

Smoke or heat alarms operated and alerted the occupants in 627, or 54%, of the residential building fires. In 8% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 1% of these incidents. In 3% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 3% of the residential fires. Smoke alarm performance was undetermined in 358 incidents, or 31%, of Essex County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Essex County's Residential Structure Fires 2020



3 Failed Alarms Had Missing or Dead Batteries

Of the 12 fires where smoke alarms were present but failed to operate, two, or 17%, failed because the batteries were either missing or disconnected; and one, or 8%, failed because the battery was dead. A lack of maintenance and a defective detector were each the cause why one alarm, or 8%, failed. It was undetermined or unclassified in seven cases, or 58%, why the alarms failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Essex County reported 23 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 1,331 building fires reported to MFIRS in 2020. Thirteen (13) fires occurred in vacant residential properties. Mercantile and business properties had three of these fires. Storage facilities accounted for two vacant building fires. Public assembly properties, educational facilities and special properties each had one of these fires. There were two vacant building fire incidents in Essex County in 2020 where the Property Use was not classified.

Two (2) of the vacant building fires in Essex County in 2020 were determined to be intentionally-set. One (1) fire was in a high, junior high or middle school; and the other was in a professional supply store.

JUVENILE-SET FIRES

12 Juvenile-set Fires

There were 12 reported juvenile-set fires in Essex County in 2020. The two structure fires, eight brush fires, one cultivated crop or vegetation fire and one unclassified fire caused \$400,632 in estimated damages.

ARSONS

91 Total Arsons — 11 Structures, 6 Vehicles & 74 Other Arsons

Ninety-one (91), or 3%, of Essex County's 2,766 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 11 structure arsons, six motor vehicle arsons and 74 outside and other arsons caused one civilian death, 36 fire service injuries and an estimated dollar loss of \$181,366.

Outside Arsons Up

The total number of reported arson fires increased by 28 from the 63 reported in 2019. Reported structure arsons decreased by one from the 12 reported in 2019. Motor vehicle arsons increased by five from the one reported in 2019. Outside and other arsons increased by 24 from the 50 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Were 55% of All Reported Responses

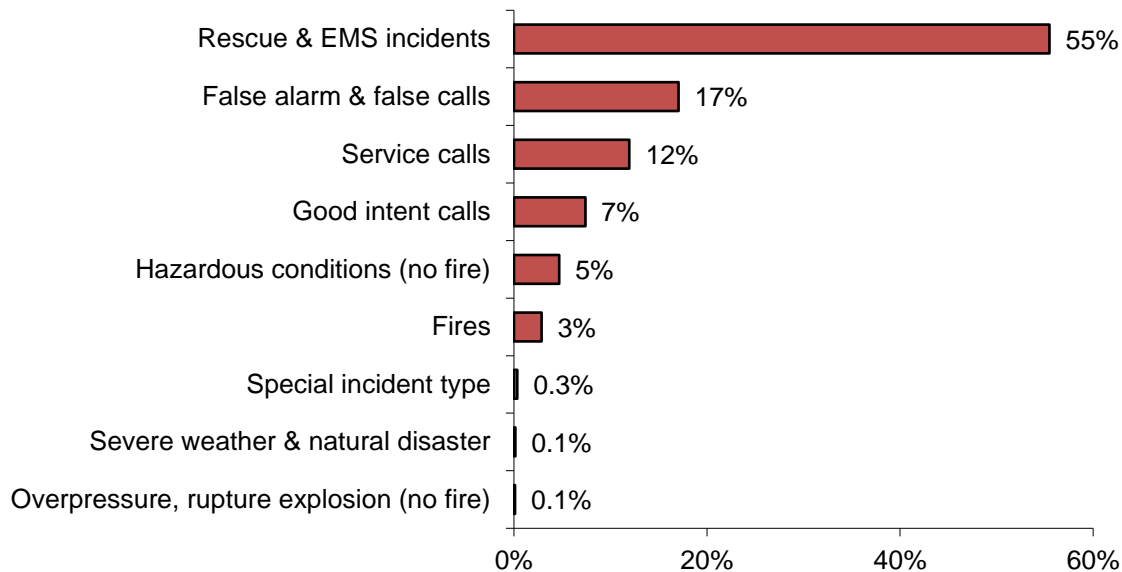
In 2020, fire departments in Essex County reported 101,232 responses⁴ to MFIRS. Of these 101,232 incidents, 98,345 non-fire calls were voluntarily reported.

Of these 98,345 non-fire calls, 56,164, or 55%, of all the reported responses in 2020 were reported rescue and emergency medical services (EMS) calls; 17,248, or 17%, were reported false alarm or false calls; 12,108, or 12%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 7,480, or 7%, were reported good intent calls; 4,748, or 5%, were reported hazardous condition calls with no fire; 337, or 0.3%, were special incident type calls such as citizen complaints; 133, or 0.1%, were severe weather responses; and 127, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand eight hundred and eighty-seven (2,887), or 3%, of the total incidents submitted by Essex County fire departments were fires.

⁴ These figures include responses in which Essex County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Essex County Fire Departments Reported Giving Mutual Aid 1,651 Times

In 2020, Essex County fire departments reported coming to the aid of other fire departments 1,651 times. Of these 1,651 responses, 576, or 35%, were for service calls such as cover assignments; 496, or 30%, were for rescue or EMS calls; 257, or 16%, were for good intent calls; 167, or 10%, were for false alarms or false calls; 120, or 7%, were for fires; 28, or 2%, were for hazardous conditions calls with no fire; six, or 0.4% were for overpressure, rupture explosions with no ensuing fire; and one, or 0.1%, was for a severe weather or natural disaster call.

Essex County Received Mutual Aid in 709 Incidents

In 2020, Essex County fire departments reported receiving aid from surrounding departments in 709 incidents. Of these 709 incidents, 482, or 68%, were rescue and emergency medical services calls; 112, or 16%, were for fires; 55, or 8%, were false alarms or false calls; 22, or 3%, were hazardous conditions calls with no fire; 21, or 3%, were service calls; 15, or 2%, were good intent calls; and two, or 0.3 %, were overpressure, rupture explosions with no fire.

Essex County**Population: 743,159⁵****3.7 Fires/1,000 Population****Total Fires: 2,766 \$30,723,863**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,332	48%	\$26,309,643
Vehicle Fires	254	9%	4,055,270
Other Fires	1,180	43%	358,950

3 Fatal Fire 1.08 Civilian Deaths/1,000 Fires
 3 Civilian Death 0.04 Civilian Deaths/10,000 Population
 12 Civilian Injuries 94 Fire Service Injuries

Building Fires: 1,331**Residential Structure Fires: 1,157****Residential Structure Fires Confined to Non-Combustible Containers: 860****Unconfined Residential Structure Fires: 297**

2 Civilian Deaths 2 Civilian Injuries 30 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	532	46%	Operated	627	54%
Apartments	514	44%	Didn't operate	12	1%
Rooming houses	31	3%	None	31	3%
Dormitories	18	2%	Fire too small	37	3%
Hotels/motels	16	1%	Didn't alert (confined)	92	8%
Residential board & care	9	1%	Undetermined	358	31%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	67%	Arcing	4%	14%
Heating equipment room	7%	Heat from operating equip.	3%	13%
Chimney or flue	4%	Cigarette	3%	10%
Bedroom	2%	Hot or smoldering obj., other	2%	6%
Exterior balcony, unencl. porch	1%	Hot ember or ash	1%	5%

⁵ We used the 2010 US Census figures because the 2020 Census figures were not published as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	63%	Electrical failure, malfunc.	2%	8%
Flammable/comb. liquid	6%	Too close to combustibles	2%	7%
Film, residue (creosote)	4%	Abandoned materials	2%	7%
Rubbish, trash, waste	3%	Misuse of mater. or product	1%	5%
Electrical wire, cable insulation	2%	Failure to clean	1%	5%

Equipment¹⁰		Cause of Ignition	%	%Unconfined¹¹
Kitchen & cooking equipment	62%	Unintentional	16%	62%
None	20%	Failure of eq. or heat source	3%	13%
Boiler, furnace, cent. heat. unit	6%	Intentional	0.3%	1%
Chimney, flue	4%	Undetermined	2%	8%
Clothes dryer	0.4%	Cause under investigation	3%	12%
Fan	0.3%	Act of Nature	0.2%	1%

**Detector Alerted Occupants
(Confined Fires in Non-Combustible Containers)**

Alerted occupants	57%
Didn't alert occupants	11%
Undetermined	32%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	160	111	20	29
February	177	120	17	40
March	276	133	21	122
April	198	109	13	76
May	357	120	27	210
June	321	105	26	190
July	218	76	25	117
August	246	101	29	116
September	240	93	26	121
October	205	125	12	68
November	216	126	21	69
December	152	113	17	22

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	460	209	35	216
Monday	396	189	37	170
Tuesday	353	185	26	142
Wednesday	398	206	36	156
Thursday	385	196	38	151
Friday	354	160	41	153
Saturday	420	187	41	192

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	147	73	26	48
04:01 - 08:00	217	94	24	99
08:01 - 12:00	447	229	42	176
12:01 - 16:00	756	328	57	371
16:01 - 20:00	810	421	73	316
20:01 - 00:00	389	187	32	170

Motor Vehicle Fires

Total: 254

Automobiles: 197 (78%)

5, or (3%), of the automobile fires considered intentionally-set.

Arson Fires

Total Arsons: 91

Dollar loss: \$181,366

0.12 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	11	1%	12%	\$58,500
Vehicle Arsons	6	2%	7%	122,500
Other Arsons	74	6%	81%	366

0.01 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.10 Other arsons/1,000 population

1 Civilian Death

36 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	4	36%	00:01 - 04:00	3	50%
00:01 - 04:00	3	27%			

Other Arsons	#	%
16:01 - 20:00	24	32%
12:01 - 16:00	23	31%
08:01 - 12:00	12	16%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartment buildings	4	36%

Amesbury					Population: 16,283			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	45	19	3	23	0	0	0	0
2017	38	15	4	19	0	0	0	0
2018	36	13	5	18	1	0	0	1
2019	40	13	7	20	1	0	0	1
2020	50	19	5	26	1	0	0	1

Andover					Population: 33,201			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	80	29	7	44	1	0	0	1
2017	98	51	16	31	1	0	0	1
2018	117	80	18	19	2	1	0	1
2019	96	61	15	20	2	0	0	2
2020	94	50	21	23	3	0	0	3

Beverly					Population: 39,502			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	142	43	12	87	9	0	0	9
2017	81	41	6	34	2	1	0	1
2018	85	53	7	25	3	1	0	2
2019	81	37	8	36	10	2	0	8
2020	92	51	4	37	6	1	0	5

Boxford					Population: 7,965			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	19	4	3	12	1	0	0	1
2017	29	10	7	12	0	0	0	0
2018	16	2	7	7	0	0	0	0
2019	16	4	4	8	1	0	0	1
2020	30	6	4	20	4	0	0	4

Danvers**Population: 26,493**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	142	20	12	110	2	0	0	2
2017	82	17	11	54	2	0	0	2
2018	86	30	16	40	0	0	0	0
2019	67	25	15	27	2	1	0	1
2020	94	25	8	61	7	1	0	6

Essex**Population: 3,504**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	8	2	7	2	0	0	2
2017	17	8	1	8	1	0	1	0
2018	19	12	2	5	0	0	0	0
2019	8	3	1	4	1	0	0	1
2020	22	12	1	9	1	0	0	1

Georgetown**Population: 8,183**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	63	49	0	14	2	0	0	2
2017	29	17	5	7	1	0	0	1
2018	24	14	5	5	1	1	0	0
2019	25	14	6	5	0	0	0	0
2020	32	16	3	13	0	0	0	0

Gloucester**Population: 28,789**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	115	65	4	46	1	1	0	0
2017	87	42	10	35	1	0	1	0
2018	74	45	2	27	3	1	0	2
2019	84	48	8	28	1	1	0	0
2020	98	42	7	49	3	0	0	3

Groveland**Population: 6,459**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	25	5	1	19	3	0	0	3
2017	14	3	0	11	3	0	0	3
2018	10	4	0	6	2	0	0	2
2019	19	5	3	11	5	0	0	5
2020	17	5	1	11	2	0	0	2

Hamilton**Population: 7,764**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	16	9	0	7	0	0	0	0
2017	12	6	0	6	3	1	0	2
2018	15	7	0	8	0	0	0	0
2019	9	7	0	2	0	0	0	0
2020	8	5	0	3	0	0	0	0

Haverhill**Population: 60,879**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	270	112	25	133	4	2	1	1
2017	169	94	23	52	4	3	0	1
2018	161	97	21	43	0	0	0	0
2019	129	72	16	41	1	0	0	1
2020	242	106	24	112	6	1	1	4

Ipswich**Population: 13,175**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	35	12	2	21	1	0	0	1
2017	21	8	2	11	1	1	0	0
2018	16	8	2	6	1	0	1	0
2019	36	20	5	11	0	0	0	0
2020	33	15	5	13	1	0	0	1

Lawrence**Population: 76,377**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	253	72	31	150	27	7	7	13
2017	215	74	43	98	16	2	6	8
2018	148	45	40	63	11	4	2	5
2019	147	60	28	59	8	1	0	7
2020	195	48	39	108	5	1	0	4

Lynn**Population: 90,329**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	459	323	23	113	13	5	2	6
2017	442	309	29	104	8	1	1	6
2018	323	209	26	88	6	3	0	3
2019	367	248	19	100	9	3	1	5
2020	438	275	23	140	15	4	2	9

Lynnfield**Population: 11,596**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	112	61	7	44	6	1	0	5
2017	100	72	4	24	6	0	0	6
2018	76	56	7	13	0	0	0	0
2019	85	65	6	14	3	0	0	3
2020	101	64	4	33	6	1	0	5

Manchester-By-The-Sea**Population: 5,136**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	21	11	3	7	0	0	0	0
2017	16	5	2	9	1	0	0	1
2018	5	2	3	0	0	0	0	0
2019	10	4	1	5	0	0	0	0
2020	11	3	3	5	1	0	0	1

Marblehead**Population: 19,808**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	31	14	2	15	0	0	0	0
2017	39	20	0	19	0	0	0	0
2018	40	26	2	12	1	0	0	1
2019	34	22	0	12	0	0	0	0
2020	36	19	2	15	1	0	1	0

Merrimac**Population: 6,338**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	38	15	4	19	5	0	0	5
2017	54	34	4	16	4	0	0	4
2018	28	10	5	13	2	0	0	2
2019	27	14	4	9	3	0	0	3
2020	52	31	3	18	13	1	1	11

Methuen**Population: 47,255**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	163	44	19	100	8	0	1	7
2017	112	38	17	57	6	1	0	5
2018	116	31	18	67	0	0	0	0
2019	91	22	25	44	3	0	0	3
2020	124	36	33	55	3	0	0	3

Middleton**Population: 8,987**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	36	7	2	27	0	0	0	0
2017	29	14	3	12	0	0	0	0
2018	21	10	2	9	0	0	0	0
2019	32	9	3	20	1	0	0	1
2020	48	12	4	32	2	0	0	2

Nahant**Population: 3,410**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	16	9	1	6	1	0	0	1
2017	10	7	0	3	1	1	0	0
2018	14	10	0	4	0	0	0	0
2019	4	4	0	0	0	0	0	0
2020	7	2	0	5	0	0	0	0

Newbury**Population: 6,666**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	9	1	1	7	1	0	0	1
2017	57	43	4	10	0	0	0	0
2018	18	14	2	2	0	0	0	0
2019	Non-Reporting Community							
2020	91	71	5	15	1	0	0	1

Newburyport**Population: 17,416**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	10	0	3	0	0	0	0
2017	13	9	2	2	0	0	0	0
2018	7	3	2	2	0	0	0	0
2019	17	11	3	3	0	0	0	0
2020	9	9	0	0	0	0	0	0

North Andover**Population: 28,352**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	127	67	5	55	7	3	0	4
2017	82	53	9	20	3	0	0	3
2018	110	81	12	17	2	0	1	1
2019	89	49	8	32	2	1	0	1
2020	88	47	5	36	1	0	0	1

Peabody					Population: 51,251			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	49	35	2	12	0	0	0	0
2017	153	73	16	64	2	2	0	0
2018	156	87	18	51	0	0	0	0
2019	124	82	13	29	1	0	0	1
2020	186	105	13	68	1	0	0	1

Rockport					Population: 6,952			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016 ¹²	23	17	3	3	0	0	0	0
2017	20	11	1	8	1	1	0	0
2018	4	3	0	1	0	0	0	0
2019	Non-Reporting Community							
2020	Non-Reporting Community							

Rowley					Population: 5,856			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	56	33	3	20	0	0	0	0
2017	37	31	4	2	0	0	0	0
2018	39	32	0	7	0	0	0	0
2019	50	34	7	9	0	0	0	0
2020	53	37	1	15	0	0	0	0

Salem					Population: 41,340			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	174	59	10	105	3	0	0	3
2017	165	61	15	89	1	1	0	0
2018	136	61	7	68	0	0	0	0
2019	117	54	9	54	4	3	0	1
2020	168	57	7	104	2	1	0	1

¹² Rockport submitted their 2016 incidents after the annual database was closed for analysis. These 23 fires were not included in the analysis.

Salisbury **Population: 8,283**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	55	14	3	38	2	0	0	2
2017	39	9	5	25	1	0	0	1
2018	28	10	3	15	0	0	0	0
2019	23	9	0	14	0	0	0	0
2020	40	6	5	29	1	0	0	1

Saugus **Population: 26,628**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	164	58	18	88	0	0	0	0
2017	118	45	12	61	0	0	0	0
2018	92	41	6	45	2	0	0	2
2019	109	57	13	39	1	0	0	1
2020	145	53	15	77	1	0	0	1

Swampscott **Population: 13,787**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	38	16	0	22	1	0	0	1
2017	27	10	1	16	1	0	0	1
2018	36	9	2	25	2	0	0	2
2019	12	6	1	5	1	0	0	1
2020	38	11	1	26	3	0	0	3

Topsfield **Population: 6,085**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	104	80	5	19	0	0	0	0
2017	70	64	0	6	0	0	0	0
2018	93	82	5	6	0	0	0	0
2019	104	91	6	7	0	0	0	0
2020	99	86	5	8	0	0	0	0

Wenham **Population: 4,875**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6	2	0	4	0	0	0	0
2017	7	3	0	4	1	0	0	1
2018	3	0	0	3	0	0	0	0
2019	8	4	1	3	0	0	0	0
2020	7	1	0	6	0	0	0	0

West Newbury **Population: 4,235**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	10	2	5	0	0	0	0
2017	10	8	1	1	0	0	0	0
2018	8	6	1	1	0	0	0	0
2019	8	3	3	2	0	0	0	0
2020	18	7	3	8	1	0	1	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
09007	Amesbury	2,915	52	11	1,832	106	250	261	381	2	20
09009	Andover	2,976	99	5	1,191	408	317	132	823	1	0
09030	Beverly	4,714	94	5	2,792	272	246	337	948	0	20
09038	Boxford	827	30	0	419	37	113	46	181	0	1
09071	Danvers	6,648	94	5	2,946	146	2,318	275	795	6	63
09092	Essex	486	27	3	309	26	20	21	79	0	1
09105	Georgetown	1,240	40	3	653	38	218	99	185	3	1
09107	Gloucester	5,387	100	2	3,456	124	518	526	639	2	20
09116	Groveland	728	26	16	442	19	59	43	115	6	2
09119	Hamilton	816	11	1	433	28	87	31	218	2	5
09128	Haverhill	7,804	246	11	4,472	288	853	697	1,225	0	12
09144	Ipswich	1,850	33	0	877	60	184	370	317	4	5
09149	Lawrence	6,794	199	16	2,966	665	469	456	1,994	15	14
09163	Lynn	13,606	452	15	8,227	275	1,480	1,056	2,083	13	5
09164	Lynnfield	1,796	107	1	1,032	56	226	138	230	5	1
09166	Manchester	969	12	1	454	67	195	71	165	0	4

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
09168	Marblehead	2,602	36	2	1,177	128	567	225	445	3	19
09180	Merrimac	988	62	1	544	44	128	83	124	2	0
09181	Methuen	7,476	125	4	5,388	485	436	269	739	16	14
09184	Middleton	1,835	52	4	916	50	194	158	456	3	2
09196	Nahant	561	7	0	317	28	98	26	77	1	7
09205	Newbury	1,100	92	0	621	36	79	128	140	4	0
09206	Newburyport	9	9	0	0	0	0	0	0	0	0
09210	North Andover	4,281	89	4	2,717	303	271	188	698	2	9
09229	Peabody	5,751	186	10	3,133	266	511	414	1,216	5	10
09252	Rockport**	0	0	0	0	0	0	0	0	0	0
09254	Rowley	684	66	0	345	12	25	137	98	1	0
09258	Salem	5,544	168	2	2,613	280	640	382	1,432	22	5
09259	Salisbury	2,092	40	0	1,115	69	413	214	240	0	1
09262	Saugus	4,351	148	2	2,735	194	275	413	555	5	24
09291	Swampscott	1,777	48	2	711	102	382	148	317	2	65
09298	Topsfield	1,401	100	1	756	75	244	80	137	1	7

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
09320	Wenham	755	8	0	374	39	187	21	126	0	0
09324	West Newbury	469	29	0	201	22	105	35	70	7	0
	Essex County	101,232	2,887	127	56,164	4,748	12,108	7,480	17,248	133	337

* Certified no reportable fires.

**Non reporting department.

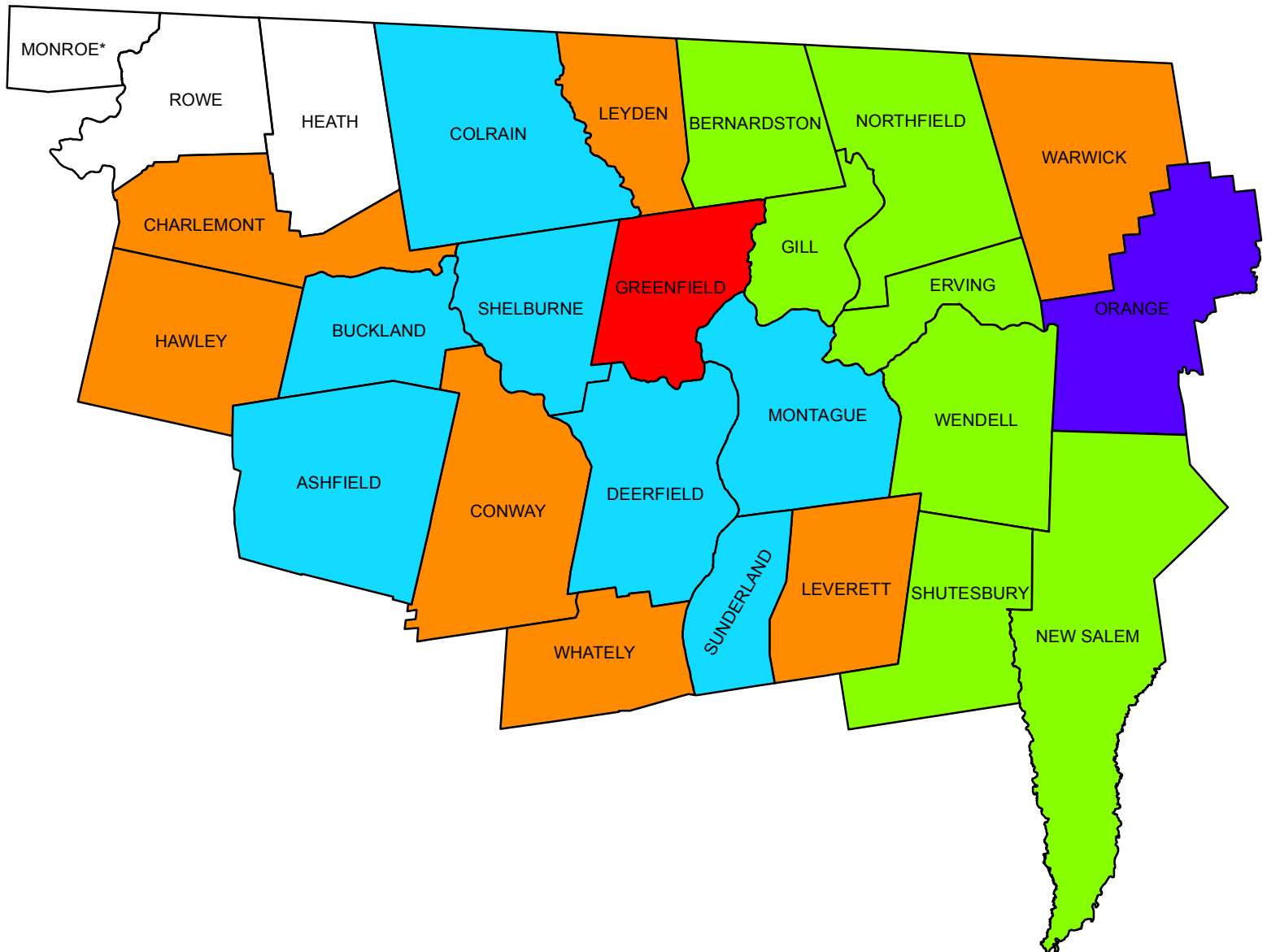
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



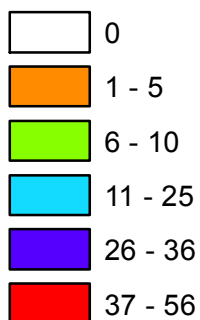
Franklin County

2020 Fire Data Analysis

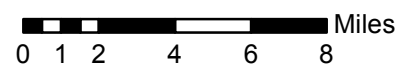
Franklin County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2020

Franklin County Fires in 2020

259 Total Fires — 103 Structures, 29 Motor Vehicles & 127 Outside or Other Fires

Franklin County ranked twelfth out of the fourteen Massachusetts counties in total fires. Franklin County fire departments reported 259 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 103 structure fires, 29 motor vehicle fires, 84 brush, tree or lawn fires, 20 outside rubbish fires, 13 special outside fires, two cultivated vegetation or crop fires, and eight unclassified fires caused five civilian injuries, four fire service injuries and an estimated dollar loss of \$1.3 million. Franklin County's fires accounted for 1% of the 29,461 Massachusetts fires reported in 2020.

Twenty-eight (28) of the 29, or 96.6%, fire departments in Franklin County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2019.

Outside Fires Up

The total number of reported fire incidents increased by 34, or 15%, from the 225 reported in 2019. This entire increase was from outside fires. Reported structure fires remained the same with 103 reported in 2020 as well as 2019. Motor vehicle fires remained the same with 29 reported in both 2020 and 2019. Outside and other fires increased by 34 from the 93 reported the year before.¹

FRANKLIN COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	342	158	26	158	16	3	0	13
2017	253	118	22	113	18	4	0	14
2018	296	147	39	110	11	2	0	9
2019	225	103	29	93	13	1	1	11
2020	259	103	29	127	15	3	0	12

Fire and Fire Death Rates

Franklin County had 3.6 fires per 1,000 population. That figure ranks Franklin County tied for tenth in the state and below the state rate of 4.5 fires per 1,000 population. Franklin County had 0 fire deaths per 10,000 population ranking it tied for last among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

0 Civilian Fire Deaths in Franklin County

Franklin County did not have any fatal fires in 2020.

Erving Has Franklin County's Largest Loss Fire

Franklin County did not report any fires with an estimated loss greater than \$1 million. However, they did report four fires with a dollar loss between \$100,000 and \$999,999,

¹ 2019 was another down year for brush fires statewide.

accounting for \$727,200 in losses and 29% of the county's total fire loss. Erving had the county's largest loss fire.

- On August 31, 2020, at 1:55 9.m., the Erving Fire Department was called to an electrical fire in a single-family home. No one was injured at this fire. Alarms were present and operated. Sprinklers were not present. Damages from this fire were estimated to be \$300,000.

STRUCTURE FIRES

Reported Structure Fires Down

The 103 structure fires caused all five civilian injuries, all four fire service injuries, and an estimated dollar loss of \$1.1 million. These incidents represented 40% of Franklin County's reported fires in 2020. The average estimated dollar loss per structure fire was \$10,951. The total number of reported structure fires remained the same with 103 reported in both 2020 and 2019.

Arson Caused 3% of Structure Fires

There were three reported structure arsons in Franklin County in 2020. These three arsons caused \$5,100 in estimated damages. Arson was indicated as the cause of 3% of the structure fires and 0.5% of Franklin County's structure fire dollar loss. The three structure arsons accounted for 20% of the Franklin County arson fires reported in 2020. The total number of reported structure arsons increased by two from the one reported in 2019.

2 of 3 Structure Arsons Occurred in Residences

Two (2) of the three Franklin County's structure arson in 2020 occurred in residential properties. The other structure arson occurred in a business office.

BUILDING FIRES

There were 103 building fires of different types in Franklin County in 2020. These 103 building fires accounted for 100% of the structure fires in Franklin County.

85% of Franklin Building Fires Occurred in People's Homes

Eighty-eight (88), or 85%, of Franklin County's 103 building fires occurred in residential occupancies. Mercantile or business properties had four fires. Storage facilities had three fires. Educational facilities and institutional facilities each had two fires. Public assembly properties and special properties each had two fires. Educational facilities, institutional facilities; industrial facilities and manufacturing facilities each had one fire.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

There were 88 reported residential building fires in Franklin County in 2020. These 88 fires are an increase of one, or 1%, from the 87 residential building fires reported in 2019.

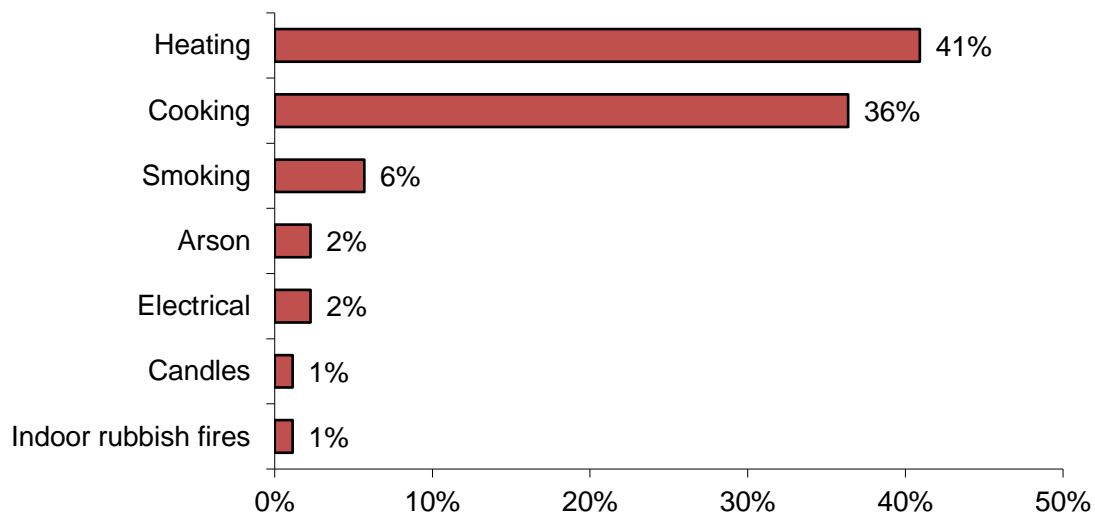
1- & 2-Family Homes Accounted for 65% of Residential Building Fires

The peak fixed property uses for residential building fires were one- & two-family homes, accounting for 65% of the building fires in Franklin County; and 31% occurred in apartments. One percent (1%) each occurred in hotels or motels or dormitories. Two (2) fires, or 2%, occurred in unclassified residential policies.

Heating Was Leading Cause of Residential Fires

Heating was the leading cause of residential fires in Franklin County in 2020. Forty-one percent (41%) of the residential fires were caused by heating equipment. This is a return to when Franklin County was the only county where cooking was not the leading cause of residential fires. Unattended cooking and other unsafe cooking practices accounted for 36% of the fires in people's homes. Smoking caused 6% of these fires. Arsons and electrical problems each caused 2%; and candles and indoor rubbish fires each caused 1% of the fires in people's homes in Franklin County in 2020.

2020 Leading Causes of Fires in Franklin County Homes



73% of Residential Building Fires Are Confined to Non-Combustible Containers²

Sixty-four (64), or 73%, of these fires were confined to a non-combustible container. Twenty-nine (29) of the reported fires were cooking fires contained to a non-combustible container, accounting for 3033 of residential building fires. Twenty-five (25), or 28%, of all residential building fires reported in 2020 were fires confined to a chimney or flue.

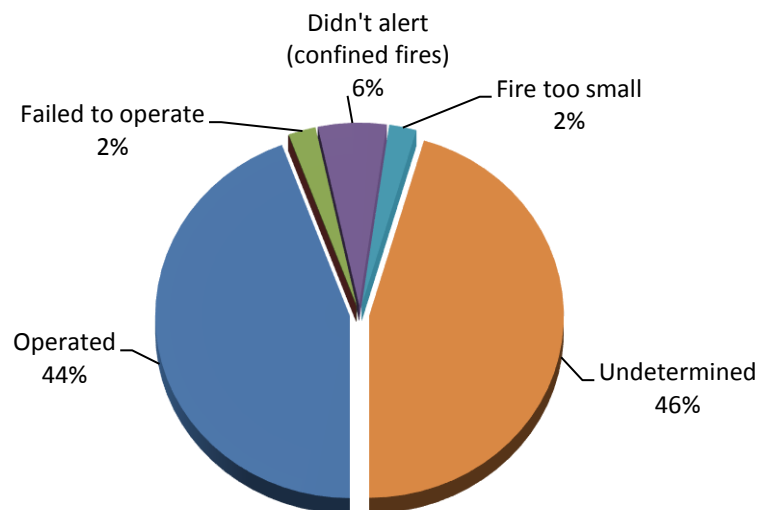
² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

Nine (9), or 10%, were fires confined to a fuel burner or boiler malfunction. One (1), or 1%, of these fires was an indoor rubbish fire contained to a non-combustible container in Franklin County in 2020.

Alarms Operated in Only 44% of Fires

Smoke or heat alarms operated and alerted the occupants in 39, or 44%, of the residential building fires. In 6% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 2% of these fires. There were no reported fires where alarms were not present. The fire was too small to trigger the alarm in 2% of these fires. Smoke alarm performance was undetermined in 40 incidents, or 46%, of Franklin County's residential building fires.

Detector Status in Franklin County's Residential Structure Fires 2020



VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Franklin County reported one fire that occurred in a building that were vacant, under construction or demolition. This represented 1% of the total 103 building fires reported to MFIRS in 2020. The fire occurred in a mercantile property.

None of the vacant building fires in Franklin County in 2020 were determined to be intentionally-set.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

JUVENILE-SET FIRES

0 Juvenile-set Fires

There were no reported juvenile-set fire in Franklin County in 2020.

ARSONS

15 Total Arsons — 3 Structure, 0 MV & 12 Other Arsons

Thirteen (13), or 6%, of Franklin County's 259 fires were intentionally-set, or, for purposes of this analysis, arson. The one structure arson, one motor vehicle arson and 11 outside and other arsons caused one fire service injury and \$3,000 in estimated damages.

All Arson Up Slightly

The number of arsons increased by two, or 15%, from the 13 reported in 2019. Structure arsons increased by two from one in 2019. Motor vehicle arsons increased by one from one in 2019. Outside and other arsons increased by one from the 11 reported in 2019.

ALL INCIDENTS

Rescue & EMS Calls Are 55% of All Reported Responses

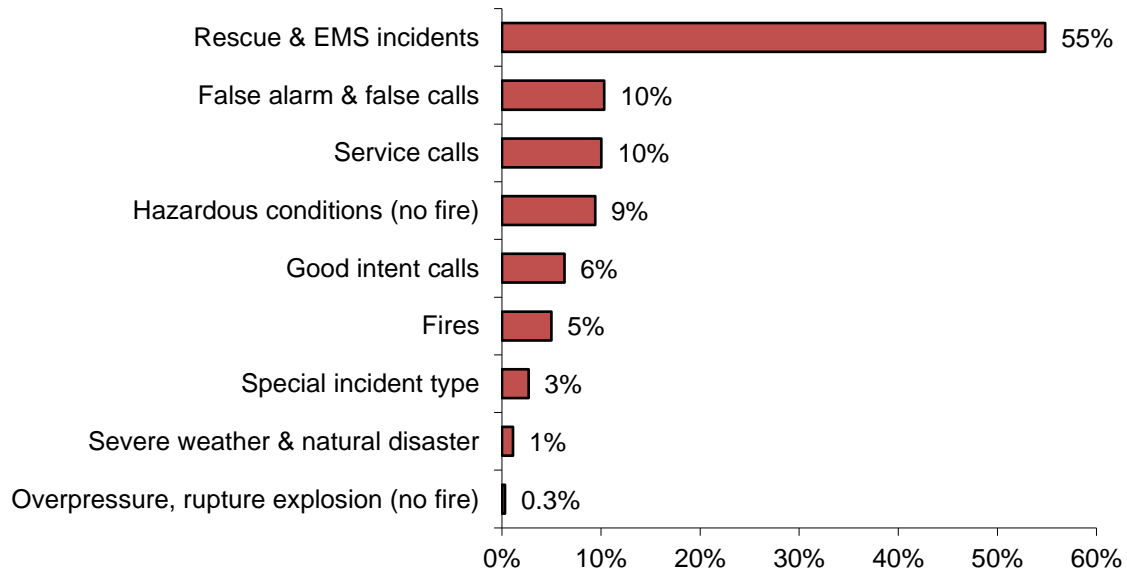
In 2020, Franklin County fire departments reported 9,276 responses⁴ to MFIRS. Of these 9,276 incidents, 8,814 non-fire calls were voluntarily reported.

Of these 8,814 non-fire calls, 5,085 , or 55%, of all of the responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 958 , or 10%, were reported false alarm or false calls; 931, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 872, or 9%, were reported hazardous condition calls with no fire; 585, or 6%, were reported good intent calls; 249, or 3%, were special incident type calls such as citizen complaints; 104, or 1%, were severe weather responses; and 30, or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four hundred and sixty-two (462), or 5%, of the total incidents submitted by Franklin County fire departments were fires.

⁴ These figures include responses in which Franklin County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Franklin County Fire Departments Gave Mutual Aid 754 Times

In 2020, Franklin County fire departments reported coming to the aid of other fire departments 754 times. Of these 754 responses, 411, or 55%, were for rescue or EMS calls; 196, or 26%, were for fires; 67, or 9%, were for service calls such as cover assignments; 51, or 7%, were for good intent calls; 17, or 2%, were for hazardous conditions calls with no fire; six, or 1%, were for false alarms or false calls; five, or 1%, were for severe weather or natural disaster calls; and one, or 0.1% was for an overpressure, rupture explosion with no fire.

Franklin County Received Mutual Aid in 597 Incidents

In 2020, Franklin County fire departments reported receiving aid from surrounding departments in 597 incidents. Of these 597 incidents, 505, or 85%, were rescue and emergency medical services calls; 57, or 10%, were for fires; 15, or 3%, were hazardous conditions calls with no fire; nine, or 2%, were service calls; eight, or 2%, were false alarm or false calls; two, or 1%, were good intent calls; and one, or 0.2%, was a severe weather call.

Franklin County**Population: 71,372⁵****3.6 Fires/1,000 Population****Total Fires: 259 \$1,265,416**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	103	40%	\$1,127,924
Vehicle Fires	29	11%	133,117
Other Fires	127	49%	4,375

0 Fatal Fires 0.00 Civilian Deaths/1,000 Fires
 0 Civilian Deaths 0.00 Civilian Deaths/10,000 Population
 5 Civilian Injuries 4 Fire Service Injuries

Building Fires: 103**Residential Structure Fires: 88****Residential Structure Fires Confined to Non-Combustible Containers: 64****Unconfined Residential Structure Fires: 24**

2 Civilian Injuries 4 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	57	65%	Operated	39	44%
Apartments	27	31%	Didn't operate	2	2%
Hotels or motels	1	1%	None	0	0%
Dormitories	1	1%	Fire too small	2	2%
			Didn't Alert (confined)	5	6%
			Undetermined	40	46%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	38%	Radiated heat from oper. eq.	6%	21%
Chimney or flue	28%	Cigarettes	5%	17%
Heating room or area	10%	Hot ember or ash	5%	17%
Exterior balcony, unencl. porch	5%	Arcing	2%	8%
Subst. area or space, crawl space	3%			

⁵ We used the figure from the 2010 US Census because the 2020 figures were not published as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Cooking materials	34%	Equipment unattended	6%	21%
Film, residue (creosote)	28%	Failure to clean	6%	21%
Flamm. or combustible liquid	10%	Abandoned materials	3%	13%
Exterior sidewall covering	3%	Too close to combustibles	3%	13%
Furniture, utensils, other	3%	Accident. turned on, not off	3%	13%
Structural member, framing	3%			

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	38%	Unintentional	20%	75%
Chimney or flue	28%	Failure of eq. or heat source	2%	8%
None	18%	Intentional	0%	0%
Boiler, furnace, cent. heat. unit	10%	Act of nature	1%	4%
Stove, heating	2%	Cause under investigation	1%	4%
		Undetermined	1%	4%

Detector Alerted Occupants (Confined Fires in Non-Combustible Containers)

Alerted occupants	34%
Didn't alert occupants	8%
Undetermined	58%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	21	14	3	4
February	20	11	3	6
March	45	10	2	33
April	24	13	1	10
May	21	6	1	14
June	32	10	1	21
July	15	7	3	5
August	23	5	4	14
September	17	6	4	7
October	13	8	1	4
November	17	7	3	7
December	11	6	3	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	46	15	5	26
Monday	45	19	3	23
Tuesday	37	15	5	17
Wednesday	40	15	4	21
Thursday	28	14	2	12
Friday	37	15	7	15
Saturday	26	10	3	13

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	12	9	0	3
04:01 - 08:00	13	9	0	4
08:01 - 12:00	53	20	8	25
12:01 - 16:00	88	27	10	51
16:01 - 20:00	63	23	7	33
20:01 - 00:00	33	15	4	11

Motor Vehicle Fires

Total: 29

Automobiles: 20 (69%)

0, or 0%, of the automobile fires were considered intentionally-set.

Arson Fires

Total Arsons: 15

Dollar loss: \$5,100

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	3	3%	20%	\$5,100
Vehicle Arsons	0	%	0%	0
Other Arsons	12	9%	80%	0

0.04 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.17 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	1	33%			
16:01 - 20:00	1	33%			
20:01 - 00:00	1	33%			

Other Arsons	#	%
16:01 - 20:00	6	50%
12:01 - 16:00	4	33%
08:01 - 12:00	1	8%
20:01 - 00:00	1	8%

Peak Fixed Property Uses for Structure Arsons	#	%
1 or 2-Family home	2	67%
Business office	1	33%

Ashfield**Population: 1,737**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	15	3	1	11	0	0	0	0
2017	7	2	0	5	0	0	0	0
2018	8	5	0	3	0	0	0	0
2019	4	2	0	2	0	0	0	0
2020	11	3	1	7	0	0	0	0

Bernardston**Population: 2,129**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	2	0	5	0	0	0	0
2017	4	0	1	3	0	0	0	0
2018	6	2	2	2	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	9	3	0	6	2	0	0	2

Buckland**Population: 1,902*****Buckland Fire District******Est. Pop. Protected: 951***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	5	0	1	4	0	0	0	0
2017	5	1	0	4	0	0	0	0
2018	8	3	0	5	2	0	0	2
2019	2	0	1	1	0	0	0	0
2020	11	4	1	6	4	0	0	4

Charlemont**Population: 1,266**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	1	1	5	0	0	0	0
2017	5	2	1	2	0	0	0	0
2018	Non-Reporting Community							
2019 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							
2020	1	0	0	1	0	0	0	0

¹² In 2019 Charlemont did report 27 total incidents.

Colrain					Population: 1,671			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	5	0	8	0	0	0	0
2017	8	4	1	3	0	0	0	0
2018	14	5	2	7	0	0	0	0
2019	11	4	2	5	0	0	0	0
2020	14	5	1	8	1	0	0	1

Conway					Population: 1,897			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	5	0	2	0	0	0	0
2017	9	7	0	2	0	0	0	0
2018	3	1	1	1	0	0	0	0
2019	8	8	0	0	0	0	0	0
2020	4	4	0	0	0	0	0	0

DEERFIELD FIRE DISTRICTS					Population: 5,125			
Deerfield					Est. Pop. Protected: 2,819			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	0	0	2	1	0	0	1
2017	4	1	0	3	0	0	0	0
2018	11	0	6	5	1	0	0	1
2019	4	0	2	2	0	0	0	0
2020	5	1	0	4	1	0	0	1

South Deerfield					Est. Pop. Protected: 2,306			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6	1	2	3	0	0	0	0
2017	13	4	2	7	3	0	0	3
2018	9	4	1	4	0	0	0	0
2019	19	3	0	16	0	0	0	0
2020	18	3	5	10	0	0	0	0

Erving						Population: 1,800		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	15	7	1	7	1	1	0	0
2017	6	2	2	2	0	0	0	0
2018	5	3	0	2	0	0	0	0
2019	8	4	1	3	1	0	0	1
2020	8	4	1	3	0	0	0	0

Gill						Population: 1,500		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	1	0	6	1	0	0	1
2017	7	3	0	4	2	0	0	2
2018	8	4	2	2	0	0	0	0
2019	6	2	1	3	0	0	0	0
2020	7	2	3	2	0	0	0	0

Greenfield						Population: 18,745		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	68	40	5	23	2	0	0	2
2017	58	30	6	22	7	2	0	5
2018	57	29	6	22	2	1	0	1
2019	39	22	6	11	2	0	0	2
2020	56	28	6	22	1	1	0	0

Hawley						Population: 337		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	0	0	2	0	0	0	0
2017	3	2	0	1	0	0	0	0
2018 ¹³	0	0	0	0	0	0	0	0
2019 ¹⁴	Fire Department in Good Standing, Certified No Reportable Fires							
2020	2	1	0	1	0	0	0	0

¹³ In 2018 Hawley did report 23 total incidents.

¹⁴ In 2019 Hawley did report 19 total incidents.

Heath **Population: 706**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	5	2	1	2	0	0	0	0
2017	3	2	1	0	0	0	0	0
2018 ¹⁵	0	0	0	0	0	0	0	0
2019	3	3	0	0	0	0	0	0
2020 ¹⁶	Fire Department in Good Standing, Certified No Reportable Fires							

Leverett **Population: 1,851**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	10	6	0	4	2	0	0	2
2017	7	4	1	2	2	1	0	1
2018	12	4	2	6	2	0	0	2
2019	5	2	0	3	0	0	0	0
2020	3	1	1	1	0	0	0	0

Leyden **Population: 711**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	2	0	1	0	0	0	0
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	4	3	1	0	0	0	0	0
2019	4	2	1	1	0	0	0	0
2020	2	1	0	1	0	0	0	0

Monroe **Population: 121**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Non-Reporting Community							
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Non-Reporting Community							

¹⁵ In 2018 Heath did report 20 total incidents.¹⁶ In 2020 Heath did report 61 total incidents including 3 mutual aid given fires.

MONTAGUE FIRE DISTRICTS**Population: 8,437****Montague Center****Est. Pop. Protected: 2,109**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	10	5	0	5	2	1	0	1
2017	14	6	1	7	0	0	0	0
2018	8	4	0	4	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							

Turners Falls**Est. Pop. Protected: 6,328**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	32	19	2	11	1	0	0	1
2017	23	15	2	6	1	0	0	1
2018	20	11	1	8	0	0	0	0
2019	18	6	2	10	5	1	0	4
2020	19	7	2	10	3	1	0	2

New Salem**Population: 990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	4	2	1	1	0	0	0	0
2017	6	1	0	5	0	0	0	0
2018	7	3	1	3	0	0	0	0
2019	2	0	1	1	0	0	0	0
2020	6	2	1	3	1	1	0	0

Northfield**Population: 3,032**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	6	1	6	0	0	0	0
2017	8	2	1	5	0	0	0	0
2018	10	6	0	4	0	0	0	0
2019	13	6	2	5	0	0	0	0
2020	6	4	2	0	0	0	0	0

Orange **Population: 7,839**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	48	19	3	26	2	0	0	2
2017	22	4	1	17	1	0	0	1
2018	46	24	8	14	0	0	0	0
2019	32	13	6	13	2	0	1	1
2020	36	13	0	23	2	0	0	2

Rowe **Population: 393**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Fire Department in Good Standing, Certified No Reportable Fires							

SHELBURNE FIRE DISTRICTS**Population: 1,893*****Shelburne Center******Est. Pop. Protected: 965***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	1	1	1	0	0	0	0
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	8	4	2	2	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	7	4	1	2	0	0	0	0

Shelburne Falls***Est. Pop. Protected: 1,879***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	2	0	1	1	1	0	0
2017	2	0	0	2	0	0	0	0
2018	3	2	0	1	0	0	0	0
2019	7	1	0	6	1	0	0	1
2020	6	2	1	3	0	0	0	0

Shutesbury **Population: 1,771**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	1	1	0	0	0	0	0
2017	2	1	0	1	0	0	0	0
2018	4	3	0	1	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	6	3	0	3	0	0	0	0

Sunderland **Population: 3,684**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	34	22	1	11	1	0	0	1
2017	29	22	0	7	2	1	0	1
2018	32	20	2	10	1	0	0	1
2019	28	18	2	8	1	0	0	1
2020	11	6	2	3	0	0	0	0

Warwick **Population: 780**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	0	1	0	0	0	0	0
2017	2	2	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	4	0	0	4	0	0	0	0

Wendell **Population: 848**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	9	4	1	4	0	0	0	0
2017	3	1	2	0	0	0	0	0
2018	7	5	1	1	1	0	0	1
2019	7	4	0	3	1	0	0	1
2020	6	2	0	4	0	0	0	0

Whately					Population: 1,496			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	11	2	2	7	2	0	0	2
2017	3	0	0	3	0	0	0	0
2018	4	0	1	3	1	0	0	1
2019	1	0	1	0	0	0	0	0
2020	1	0	1	0	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11013	Ashfield	226	18	0	145	34	7	5	13	4	0
11029	Bernardston	314	25	1	207	27	24	7	20	1	2
11047	Buckland	92	12	0	32	21	10	5	10	2	0
11053	Charlemont	45	3	0	19	8	3	4	8	0	0
11066	Colrain	244	31	0	141	46	11	6	5	3	1
11068	Conway	69	17	1	14	21	3	1	12	0	0
11975	Deerfield	120	13	0	25	14	13	14	40	1	0
11091	Erving	371	27	2	157	38	82	17	42	6	0
11106	Gill	117	17	0	10	24	30	9	19	5	3
11114	Greenfield	2,596	70	5	1,583	245	184	187	311	6	5
11129	Hawley	58	3	0	29	15	2	1	8	0	0
11130	Heath	61	3	0	41	5	5	3	3	1	0
11154	Leverett	180	8	0	108	37	8	4	10	5	0
11156	Leyden	18	2	1	3	9	0	0	1	2	0
11190	Monroe**	0	0	0	0	0	0	0	0	0	0
11192	Montague Center*	0	0	0	0	0	0	0	0	0	0

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that want to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11204	New Salem	137	17	0	79	16	12	9	3	0	1
11217	Northfield	176	6	2	16	64	31	7	42	8	0
11223	Orange	2,158	53	2	1,319	45	300	97	109	24	209
11253	Rowe*	0	0	0	0	0	0	0	0	0	0
11990	Shelburne Ctr	162	10	0	93	10	15	14	11	9	0
11989	Shelburne Falls	110	13	0	23	13	24	10	22	2	3
11272	Shutesbury	136	10	2	83	14	11	6	10	0	0
11976	South Deerfield	223	31	0	28	43	9	29	80	2	1
11289	Sunderland	151	17	1	23	24	11	14	51	10	0
11984	Turners Falls	1,272	35	10	799	52	108	125	111	9	23
11312	Warwick	123	8	1	57	21	20	4	9	2	1
11319	Wendell	96	11	1	46	23	6	7	2	0	0
11337	Whately	21	2	1	5	3	2	0	6	2	0
Total	Franklin County	9,276	462	30	5,085	872	931	585	958	104	249

* Certified no reportable fires.

**Non reporting department.

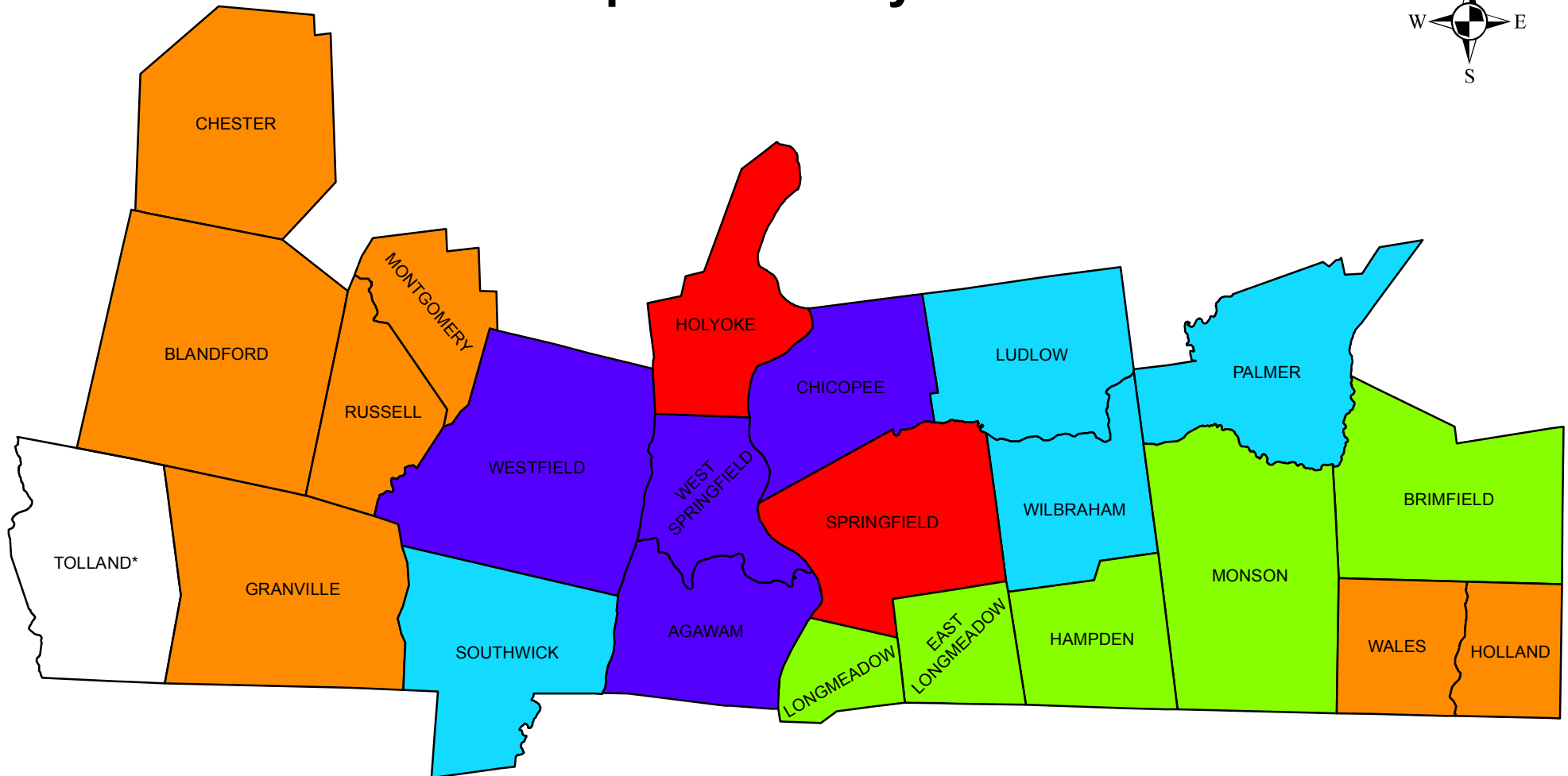
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that want to send all of their responses to do so.



Hampden County

2020 Fire Data Analysis

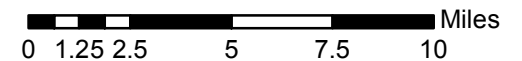
Hampden County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Hampden County Fires in 2020

1,918 Total Fires — 893 Structures, 196 Vehicles & 829 Other Fires

Hampden County ranked eighth out of the fourteen Massachusetts counties in total reported fires. Hampden County fire departments reported 1,918 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 893 structure fires, 196 motor vehicle fires, 515 brush, tree or lawn fires, 155 outside rubbish fires, 50 special outside fires, two cultivated crop or vegetation fires, and 107 other fires caused two civilian fire deaths, 34 civilian injuries, 70 fire service injuries and an estimated dollar loss of \$16.2 million. Hampden County's 1,918 fires accounted for 7% of the 29,461 fire incidents reported to MFIRS in 2020.

Twenty-four (24), or 96%, of the 25 of the fire departments in Hampden County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

Outside & Other Fires Up

The total number of reported fire incidents increased by 294 from the 1,624 reported in 2019. Reported structure fires decreased by eight from the 901 reported during the previous year. Motor vehicle fires decreased by 59 from the 255 reported during 2019. Outside and other fires increased by 361 from the 468 reported the year before.¹

HAMPDEN COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2,135	1,034	215	886	94	21	12	61
2017	1,652	947	224	481	60	18	11	31
2018	1,548	915	217	416	78	28	13	37
2019	1,624	901	255	468	71	27	21	31
2020	1,918	893	196	829	150	45	14	91

Fire and Fire Death Rates

Hampden County had 4.1 fires per 1,000 population. That figure ranks Hampden County tied for seventh in the state and below the state rate of 4.5 fires per 1,000 population. Hampden County also had 0.04 fire deaths per 10,000 population ranking it tied for ninth among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

2 People Died in 2 Hampden County Fires

In 2020, Hampden County had two fatal fires that killed two people.

- On April 21, 2020, at 10:52 p.m., the Ludlow Fire Department was called to a fatal smoking fire in a five-unit apartment building. The fire was caused by careless disposal of a cigarette on the second-floor rear porch. The victim, a 55-year old

¹ 2019 was another down year for brush fires throughout the state.

woman was trapped in her (illegal) apartment. Firefighters found her and she was transported to a local hospital where she succumbed to her injuries. No one else was injured at this fire. It was undetermined if alarms or sprinklers were present. Damages from this fire were not estimated.

- On June 12, 2020, at 9:14 p.m., the Agawam Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by remnants of cigarettes in an ashtray igniting nearby rubbish. The victim was a 50-year old physically disabled man. No one else was injured at this fire. Smoke alarms were present, but it was undetermined if they operated. There were no sprinklers. Damages from this fire were estimated to be \$375,000.

West Springfield Had Largest Loss Fire in Hampden County

There was one reported large loss fire in Hampden County in 2020 with a dollar greater than \$1 million. This fire accounted for a dollar loss of \$2 million and 16% of the county's total dollar loss for 2020.

- On March 4, 2020, at 1:34 p.m., the West Springfield Fire Department was dispatched to a fire at the Courtyard West Hotel. The fire was believed to have started somewhere in the HVAC system. One (1) firefighter was injured at this fire. Alarms were present and alerted the occupants. The building did have sprinklers and they suppressed the fire until firefighters were able to fully extinguish it. Damages from this fire were estimated to be \$2 million.

STRUCTURE FIRES

Reported Structure Fires Down Slightly

The 893 structure fires caused both civilian deaths, 30 civilian injuries, 62 fire service injuries and an estimated dollar loss of \$13.5 million. These incidents represented 47% of Hampden County's reported fires in 2020. The average estimated dollar loss per structure fire was \$15,093. The total number of reported structure fires decreased by eight, or 1%, from the 901 reported in 2019.

Arson Caused 5% of Structure Fires

The 45 structure arsons caused four fire service injuries and an estimated dollar loss of \$595,000. Arson was indicated as the cause of 5% of the structure fires and 4% of Hampden County's structure fire dollar loss. The 45 structure arsons accounted for 30% of the Hampden County arson fires reported in 2020. The total number of reported structure arsons increased by 18, or 67%, from the 27 reported in 2019.

58% of Structure Arsons Occurred in Residences

Fifty-eight percent (58%) of Hampden County's 45 structure arsons occurred in residential occupancies. Thirteen percent (13%) occurred each in special properties and storage facilities. Nine percent (9%) occurred in mercantile or business properties. Four percent (4%) occurred in public assembly properties, and 1% occurred in an unclassified property.

BUILDING FIRES

There were 885 building fires of different types in Hampden County in 2020. These 885 building fires accounted for 99.1% of all structure fires in Hampden County.

80% of Hampden Building Fires Occurred in People's Homes

Seven hundred and four (704), or 80%, of Hampden County's 885 building fires occurred in residential occupancies. Forty-one (41) fires took place in public assembly properties, including restaurants and churches. Special properties had 38 fires. Thirty-five (35) fires took place in storage properties. Mercantile and business properties experienced 33 fires. Hospitals, prisons, and other institutional buildings experienced 16 fires. Twelve (12) fires took place in manufacturing and processing facilities. Four (4) building fires took place in educational properties. and one fire happened at an industrial facility. There were two fires where the property use wasn't classified.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 704 reported residential building fires in Hampden County in 2020. These 704 fires are a decrease of 41, or 6%, from the 745 residential building fires reported in 2019.

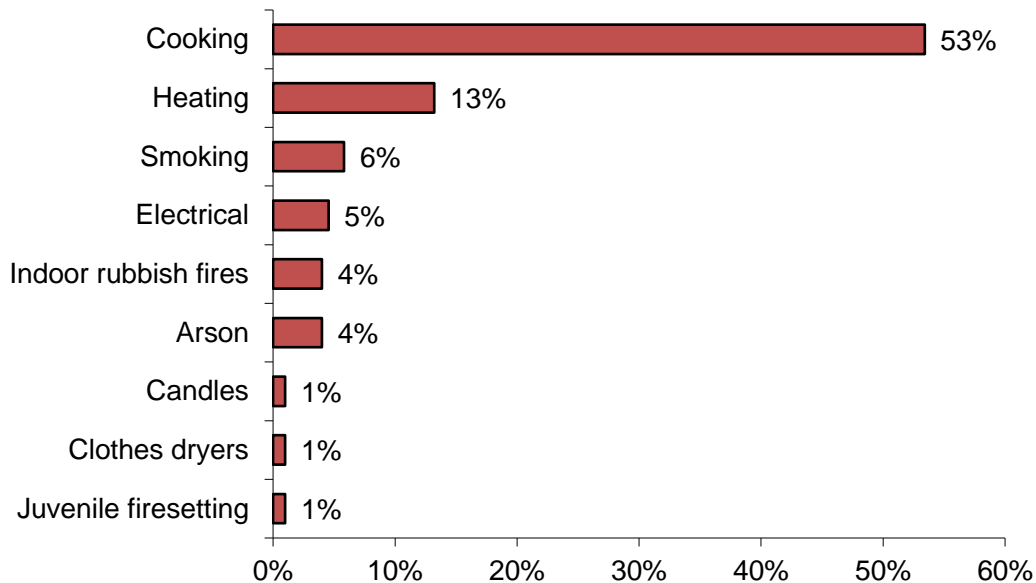
1 & 2-Family Homes Accounted for 58% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 58%, of the building fires in Hampden County; 35% occurred in apartments; 1% occurred in rooming houses; 1% happened in residential board and care facilities; 1% happened in hotels or motels; and less than 1% happened in dormitories. Twenty-six (26), or 4%, of the residential building fires in Hampden County occurred in unclassified residential buildings.

Cooking Causes 53% of Residential Fires

The leading cause of residential building fires in Hampden County was unattended cooking and other unsafe cooking practices, accounting for 53% of these fires. Heating was the second leading cause of fires in people's homes, accounting for 13% of these fires. Smoking started 6% of these fires. Electrical problems caused 5%. Indoor rubbish fires and arson each caused 4%. Candles, clothes dryers and juvenile-set fires each caused 1% of residential fires in Hampden County in 2020.

2020 Leading Causes of Fires in Hampden County Homes



59% of Residential Building Fires Are Confined to Non-Combustible Containers²

Four hundred and seventeen (417), or 59% of all residential building fires, were reported as confined to non-combustible containers in 2020. Three hundred and twenty-one (321) of the reported fires were cooking fires contained to a non-combustible container, accounting for 46% of residential building fires. Forty (40), or 6%, of all residential building fires reported in 2020 were fires confined to a chimney. Thirty-one (31), or 4%, were fires confined to a fuel burner or boiler malfunction. Twenty-four (24), or 3%, of these fires were contained rubbish fires; and one, or less than 1%, was confined to an incinerator.

Detector Operation Undetermined in 68% of Fires

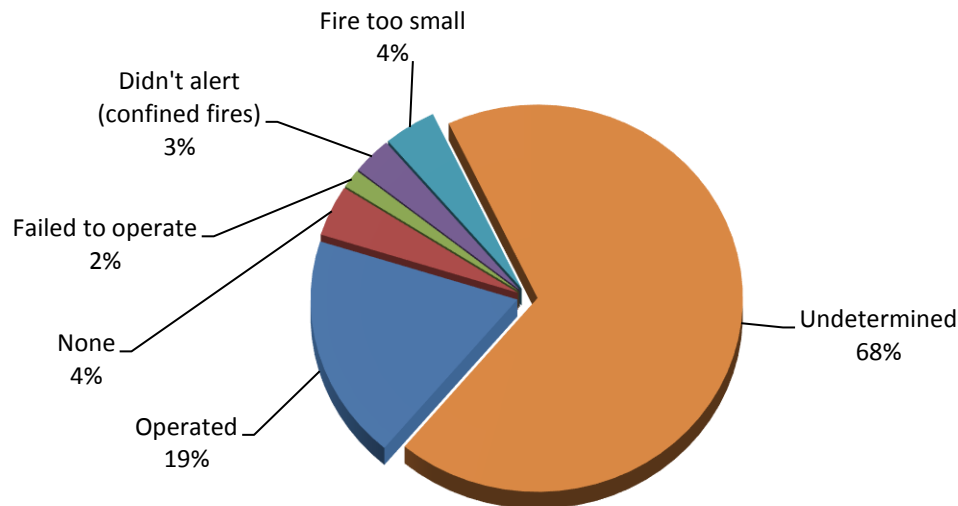
Smoke or heat detectors operated and alerted the occupants in 132, or 19%, of the residential building fires. In 3% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 4% of the

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

residential fires. Smoke detector performance was undetermined in 480 incidents, or 68%, of Hampden County's residential building fires.

Detector Status in Hampden County's Residential Structure Fires 2020



55% of Failed Detectors Had Dead or Missing Batteries

Of the 11 fires where smoke detectors were present but failed to operate, five, or 45%, failed because of missing batteries, and one, or 14%, failed because of dead batteries. One (1), or 9%, of the detectors failed because it was defective. Four (4), or 36%, of the detectors failed for unclassified or undetermined reasons.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Hampden County reported 27 fires that occurred in buildings that were vacant, under construction or demolition. This represents 3% of the total 885 building fires reported to MFIRS in 2020. Twelve (12) fires occurred in vacant residential properties. Storage facilities and public assembly properties each accounted for five vacant building fires. Special properties had three vacant fires. One (1) fire was in mercantile or business property and one in a manufacturing or processing facility.

Three (3), or 11%, of the vacant building fires in Hampden County in 2020 were determined to be intentionally-set. Two (2) occurred in special properties and one in an unclassified public assembly property.

JUVENILE-SET FIRES

11 Juvenile-set Fires

There were 1 reported juvenile-set fires in Hampden County in 2020. The four structure fires, one motor vehicle fire, one brush fire, two outside rubbish fires, one special outside fire, and one unclassified fire caused three fire service injuries an estimated dollar loss of \$11,500.

ARSONS

150 Total Arsons — 45 Structures, 14 Vehicles & 91 Other Arsons

One hundred and fifty (150), or 8%, of Hampden County's 1,918 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 45 structure arsons, 14 motor vehicle arsons and 91 outside and other arsons caused four fire service injuries and an estimated dollar loss of \$910,550.

All Arson Up

The total number of reported arson fires increased by six from the 71 reported in 2019. Structure arsons increased by 18 from the 27 reported in 2019. Motor vehicle arsons decreased by seven from the 21 reported in 2019. Outside and other fires increased by 60 from the 31 reported in 2019.

ALL INCIDENTS

Rescue & EMS Calls Are 56% of All Reported Responses

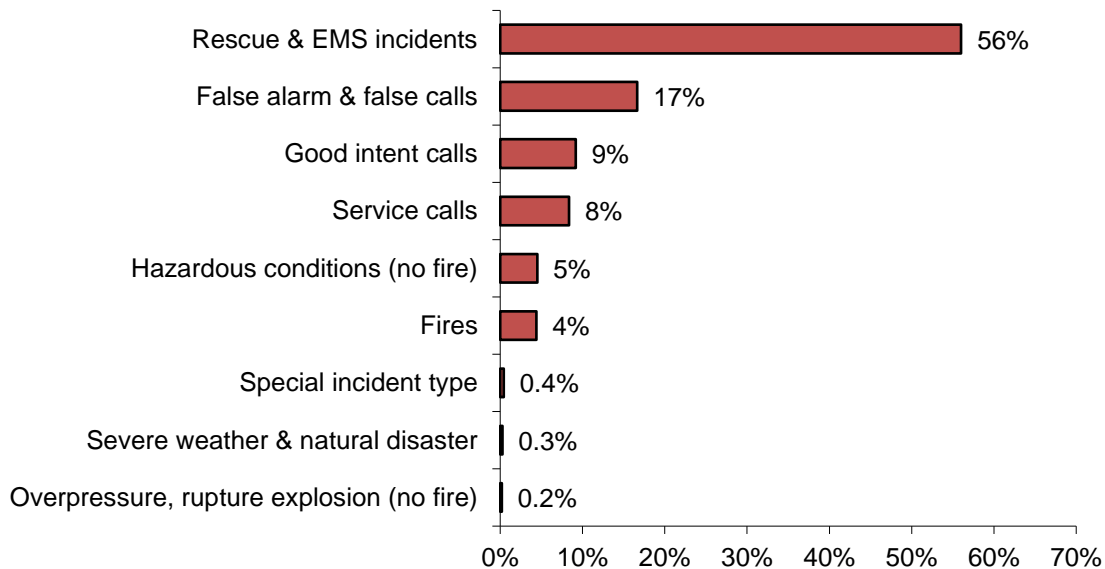
In 2020, fire departments in Hampden County reported 47,038 responses⁴ to MFIRS. Of these 47,038 incidents, 44,968 non-fire calls were voluntarily reported.

Of these 44,968 non-fire calls, 26,341, or 56% of all reported responses in 2020 were reported rescue and emergency medical services (EMS) calls; 7,827, or 17%, were reported false alarm or false calls; 4,311, or 9%, were reported good intent calls; 3,936, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 2,129, or 5%, were reported hazardous condition calls with no fire; 207, or 0.4%, were special incident type calls such as citizen complaints; 123, or 0.3%, were severe weather responses; and 94, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand and seventy (2,070), or 4%, of the total responses submitted by Hampden County fire departments were fires.

⁴ These figures include responses in which Hampden County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Hampden County Fire Departments Gave Mutual Aid 870 Times

In 2020, Hampden County fire departments reported coming to the aid of other fire departments 870 times. Of these 870 responses, 480, or 55%, were for rescue or EMS calls; 148, or 17%, were for fires; 121, or 14%, were for service calls such as cover assignments; 78, or 9%, were for good intent calls; 23, or 3%, were for hazardous conditions calls with no fire; 16, or 2%, were for false alarms or false calls; and four, or 0.5%, were special incident types.

Hampden County Received Mutual Aid in 600 Incidents

In 2020, Hampden County fire departments reported receiving aid from surrounding departments in 600 incidents. Of these 600 incidents, 458, or 76%, were rescue and emergency medical services calls; 101, or 17%, were for fires; 14, or 2%, were hazardous conditions calls with no fire; 12, or 2%, were false alarms or false calls; eight, or 1%, were good intent calls; three, or 1%, were service calls; three, or 1%, were overpressure, rupture explosion with no fire calls; and one, or 0.2%, was for a severe weather call.

Hampden County**Population: 463,490⁵****4.1 Fires/1,000 Population**

Total Fires: 1,918 \$16,478,090

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	893	47%	\$13,478,090
Vehicle Fires	196	10%	1,881,622
Other Fires	829	43%	862,560

2 Fatal Fires 1.04 Civilian Deaths/1,000 Fires
 2 Civilian Deaths 0.04 Civilian Deaths/10,000 Population
 34 Civilian Injuries 70 Fire Service Injuries

Building Fires: 885

Residential Structure Fires: 704

Residential Structure Fires Confined to Non-Combustible Containers: 417

Unconfined Residential Structure Fires: 287

2 Civilian Deaths 29 Civilian Injuries 55 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	407	58%	Operated	132	19%
Apartments	246	35%	Didn't operate	11	2%
Residential board & care	10	1%	None	30	4%
Hotels or motels	7	1%	Fire too small	29	4%
Rooming houses	7	1%	Didn't alert (confined)	22	3%
Dormitories	1	0.1%	Undetermined	480	68%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	56%	Rad., cond. heat/oper. eq.	5%	11%
Chimney, flue	6%	Heat from operating equip.	3%	8%
Heating room or area	5%	Arcing	3%	8%
Exterior balcony, unencl. porch	4%	Cigarette	3%	7%
Bedroom	4%	Hot or smoldering object	2%	6%

⁵ We used the 2010 US Census figures because the 2020 Census figures had not been released as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	50%	Equipment unattended	13%	31%
Film, residue (creosote)	6%	Abandoned materials	7%	17%
Rubbish, trash, waste	5%	Failure to clean	5%	13%
Flammable or combust. liquid	4%	Misuse of mat./prod. other	5%	13%
Structural component, finish	2%	Too close to combustibles	4%	9%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	52%	Unintentional	17%	58%
None	26%	Failure of eq./heat source	3%	9%
Chimney or flue	6%	Intentional	1%	5%
Boiler, furnace, cent. heat unit	5%	Act of Nature	0.2%	1%
Stove, heating	1%	Undetermined	3%	11%
		Cause under investigation	4%	15%

Detector Alerted Occupants (Confined Fires in Non-Combustible Containers)

Alerted occupants	4%
Didn't alert occupants	5%
Undetermined	90%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	105	71	11	23
February	127	79	12	36
March	192	97	16	79
April	137	71	12	54
May	231	89	14	128
June	262	81	18	163
July	165	57	27	81
August	185	70	19	96
September	163	76	21	66
October	109	64	13	32
November	134	63	21	50
December	108	75	12	21

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	338	143	29	166
Monday	266	126	30	110
Tuesday	272	130	32	110
Wednesday	267	120	28	119
Thursday	242	124	28	90
Friday	245	117	31	97
Saturday	288	133	18	137

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	136	69	25	42
04:01 – 08:00	153	82	18	53
08:01 – 12:00	265	130	32	103
12:01 – 16:00	532	202	52	278
16:01 – 20:00	529	263	45	221
20:01 – 00:00	303	147	24	132

Motor Vehicle Fires

Total: 196

Automobiles: 156 (80%)

13, or (8%), of the automobile fires considered intentionally-set.

Arson Fires

Total Arsons: 150

Dollar loss: \$910,550

0.32 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	45	5%	30%	\$595,000
Vehicle Arsons	14	7%	9%	65,500
Other Arsons	91	11%	61%	250,050

0.10 Structure arsons/1,000 population

0.03 Vehicle arsons/1,000 population

0.20 Other arsons/1,000 population

4 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
04:01 - 08:00	10	22%	00:01 - 04:00	7	50%
20:01 - 00:00	10	22%	20:01 - 00:00	4	29%
12:01 - 16:00	8	18%	16:01 - 20:00	2	14%
16:01 - 20:00	8	18%	08:01 - 12:00	1	7%

Other Arsons	#	%
16:00 - 20:00	28	31%
12:01 - 16:00	23	25%
20:01 - 00:00	18	20%
08:01 - 12:00	14	15%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	18	40%
Apartment buildings	6	13%
Parking garage (detached residential garage)	3	7%

Agawam **Population: 28,438**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	77	26	8	43	4	0	0	0
2017	83	30	11	42	1	0	0	1
2018	66	33	12	21	0	0	0	0
2019	56	30	8	18	0	0	0	0
2020	93	35	7	51	5	0	0	5

Blandford **Population: 1,233**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	4	0	0	4	0	0	0	0
2017	2	2	0	0	0	0	0	0
2018	12	6	4	2	1	0	0	1
2019	10	3	4	3	1	0	0	1
2020	5	2	0	3	0	0	0	0

Brimfield **Population: 3,609**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	21	8	5	8	0	0	0	0
2017	4	2	1	1	0	0	0	0
2018	12	6	3	3	0	0	0	0
2019	10	5	3	2	1	1	0	0
2020	19	10	1	8	0	0	0	0

Chester **Population: 1,337**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	2	0	0	0	0	0	0
2017	2	2	0	0	0	0	0	0
2018	5	4	1	0	0	0	0	0
2019	6	4	1	1	0	0	0	0
2020	2	0	0	2	0	0	0	0

Chicopee **Population: 55,298**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	176	85	13	78	3	0	1	2
2017	183	93	22	68	2	1	1	0
2018	160	80	25	55	3	1	2	0
2019	168	84	28	56	2	0	2	0
2020	168	81	19	68	15	4	0	11

East Longmeadow **Population: 15,720**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	46	21	5	20	4	0	0	4
2017	43	22	5	16	1	0	0	1
2018	28	19	1	8	1	0	0	1
2019	26	11	5	10	2	0	1	1
2020	22	12	0	10	1	0	0	1

Granville **Population: 1,566**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	4	0	1	3	0	0	0	0
2017	5	3	0	2	0	0	0	0
2018	10	8	2	0	0	0	0	0
2019	9	3	4	2	1	0	1	0
2020	1	0	1	0	0	0	0	0

Hampden **Population: 5,139**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	38	20	0	18	0	0	0	0
2017	50	32	1	17	0	0	0	0
2018	40	28	0	12	0	0	0	0
2019	38	18	1	19	0	0	0	0
2020	44	15	0	29	5	0	0	5

Holland**Population: 2,481**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	11	8	0	3	0	0	0	0
2017	10	5	1	4	0	0	0	0
2018	11	9	2	0	0	0	0	0
2019	5	2	1	2	0	0	0	0
2020	9	0	1	8	1	0	0	1

Holyoke**Population: 39,880**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	445	262	36	147	39	8	4	27
2017	335	227	27	81	16	5	1	10
2018	301	211	25	65	15	5	3	7
2019	336	246	32	58	8	2	2	4
2020	331	214	27	90	20	5	2	13

Longmeadow**Population: 15,784**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	42	15	8	19	4	0	0	4
2017	24	12	9	3	1	0	0	1
2018	32	12	8	12	1	0	0	1
2019	26	19	2	5	0	0	0	0
2020	38	17	4	17	1	0	0	1

Ludlow**Population: 21,103**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	64	33	7	24	0	0	0	0
2017	58	33	8	17	0	0	0	0
2018	57	29	12	16	0	0	0	0
2019	48	30	8	10	1	0	0	1
2020	53	26	7	20	1	0	0	1

Monson**Population: 8,560**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	22	5	1	16	4	0	0	4
2017	25	13	5	7	5	0	1	4
2018	26	14	3	9	2	0	0	2
2019	1	0	0	1	0	0	0	0
2020	24	8	4	12	7	0	0	7

Montgomery**Population: 838**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Non-Reporting Community							
2017	1	1	0	0	0	0	0	0
2018	2	2	0	0	0	0	0	0
2019	3	3	0	0	0	0	0	0
2020	6	1	0	5	1	0	0	1

Town of Palmer Fire Districts**Population: 12,140****Bondsville****Est. Pop. Protected: 2,792**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	15	6	1	8	1	0	0	1
2017	4	1	0	3	1	0	0	1
2018	4	3	0	1	0	0	0	0
2019	7	3	1	3	1	0	0	1
2020	7	3	0	4	0	0	0	0

Palmer District # 1**Est. Pop. Protected: 5,584**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	38	17	9	12	1	0	0	1
2017	28	10	11	7	1	0	0	1
2018	35	16	8	11	0	0	0	0
2019	32	8	15	9	2	1	1	0
2020	34	19	3	12	0	0	0	0

Three Rivers**Est. Pop. Protected: 3,763**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	2	1	10	3	0	0	3
2017	6	4	0	2	1	1	0	0
2018	11	5	4	2	0	0	0	0
2019	7	6	0	1	0	0	0	0
2020	12	5	2	5	0	0	0	0

Russell**Population: 1,775**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	2	1	4	0	0	0	0
2017	11	5	1	5	0	0	0	0
2018	6	2	1	3	0	0	0	0
2019	2	1	0	1	1	0	0	1
2020	8	2	0	6	2	0	0	2

Southwick**Population: 9,502**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	56	22	2	32	1	0	0	1
2017	27	14	5	8	3	1	0	2
2018	31	18	2	11	3	1	0	2
2019	33	12	3	18	1	0	0	1
2020	67	20	1	46	17	3	0	14

Springfield**Population: 153,060**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	782	371	87	324	24	11	7	6
2017	503	314	76	113	20	8	7	5
2018	483	296	72	115	42	20	5	17
2019	499	267	91	141	47	17	14	16
2020	640	283	80	277	63	31	11	21

Tolland**Population: 485**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Non-Reporting Community							
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Non-Reporting Community							

Wales**Population: 1,838**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	1	0	0	0	0	0	0
2017	9	6	0	3	0	0	0	0
2018	3	2	0	1	0	0	0	0
2019	4	2	1	1	0	0	0	0
2020	6	3	2	1	0	0	0	0

West Springfield**Population: 28,391**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	91	47	8	36	4	0	0	4
2017	90	44	19	27	7	2	0	5
2018	93	44	14	35	7	1	3	3
2019	113	57	23	33	0	0	0	0
2020	167	68	20	79	8	1	1	6

Westfield**Population: 41,094**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	148	62	18	68	1	1	0	0
2017	103	47	17	39	1	0	0	1
2018	72	39	10	23	3	0	0	3
2019	110	50	18	42	3	1	0	2
2020	108	40	16	52	1	1	0	0

Wilbraham					Population: 14,219			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	31	18	4	9	1	1	0	0
2017	37	19	3	15	1	0	1	0
2018	47	27	8	12	0	0	0	0
2019	35	21	1	13	1	1	0	0
2020	51	28	1	22	2	0	0	2

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
13005	Agawam	1,817	94	1	902	79	293	96	311	0	41
13033	Blandford	110	10	1	58	17	8	3	13	0	0
13987	Bondsville	142	24	0	37	14	24	10	31	1	1
13043	Brimfield	246	39	0	126	9	6	19	33	14	0
13059	Chester	55	6	0	40	2	5	0	2	0	0
13061	Chicopee	5,322	169	10	2,620	140	893	568	903	1	18
13085	East Longmeadow	2,906	22	0	2,317	74	138	101	241	11	2
13112	Granville	14	3	0	2	5	2	2	0	0	0
13120	Hampden	626	50	1	463	15	8	22	52	1	14
13135	Holland	215	17	0	121	23	30	5	18	1	0
13137	Holyoke	4,014	338	10	1,308	191	286	974	903	0	4
13159	Longmeadow	2,568	41	6	1,721	98	174	107	399	20	2
13161	Ludlow	3,829	58	2	3,152	88	116	140	260	6	7
13191	Monson	218	32	1	15	39	55	15	56	3	2
13194	Montgomery	101	7	0	82	5	2	1	3	0	1
13986	Palmer	640	55	6	227	51	107	77	112	0	5

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
13256	Russell	46	8	0	23	2	3	4	6	0	0
13279	Southwick	353	75	2	38	40	49	27	94	20	8
13281	Springfield	10,157	642	40	3,542	859	870	1,223	2,904	25	52
13988	Three Rivers	213	22	0	79	16	29	32	34	0	1
13297	Tolland**	0	0	0	0	0	0	0	0	0	0
13306	Wales	183	17	0	103	20	16	5	20	1	1
13325	West Springfield	7,221	169	3	5,975	134	201	203	513	3	20
13329	Westfield	3,182	116	3	1,475	131	364	453	614	1	25
13339	Wilbraham	2,860	56	8	1,915	77	257	224	305	15	3
Hampden County		47,038	2,070	94	26,341	2,129	3,936	4,311	7,827	123	207

* Certified no reportable fires.

**Non reporting department.

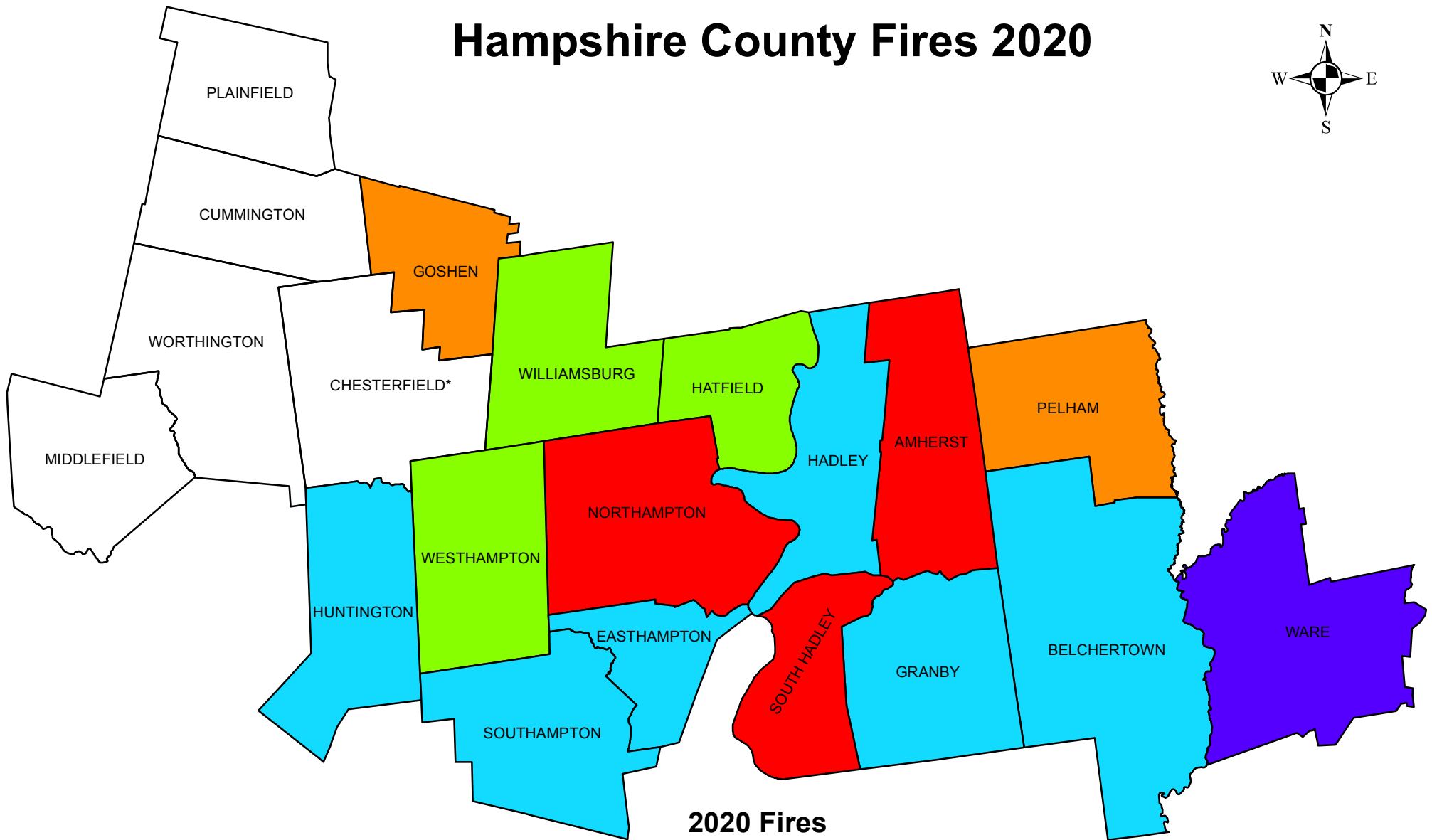
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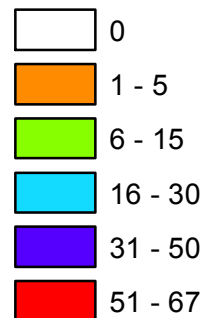
Hampshire County

2020 Fire Data Analysis

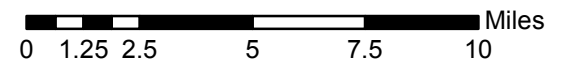
Hampshire County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2020

Hampshire County Fires in 2020

412 Total Fires — 137 Structures, 59 Vehicles & 216 Other Fires

Hampshire County ranked ninth out of the fourteen Massachusetts counties in total reported fires. Hampshire County fire departments reported 412 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 137 structure fires, 59 motor vehicle fires, 124 brush, tree or lawn fires, 31 outside rubbish fires, 34 special outside fires, two cultivated vegetation or crop fires, and 25 other fires caused one civilian death, five civilian injuries, seven fire service injuries and an estimated dollar loss of \$3 million. Hampshire County's 412 total reported fires accounted for 1% of the 29,461,176 fires reported to MFIRS in 2020.

Twenty (20) of the 21 fire departments in Hampshire County, or 95%, either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

Structure Fires Down

The total number of reported fire incidents increased by 12 from the 400 reported in 2019. Reported structure fires decreased by 54 from the 194 reported during the previous year. Motor vehicle fires increased by six from 53 the year before. The number of outside and other fires increased by 63 from 153 in 2019.¹

HAMPSHIRE COUNTY FIRES FROM 2016 TO 2020

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
Year	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2016	435	196	37	202	29	5	1	23
2017	400	204	41	155	26	6	1	19
2018	358	182	54	122	23	2	1	20
2019	400	194	53	153	18	4	2	12
2020	412	137	59	216	37	5	3	29

Fire and Fire Death Rates

Hampshire County had 2.6 fires per 1,000 population. That figure ranks Hampshire County fourteenth in the state and below the state rate of 4.5 fires per 1,000 population. Hampshire County also had 0.06 fire deaths per 10,000 population, ranking it tied for seventh among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

Hampshire County Had 1 Fire Death in 2020

There was one fatal fire reported in Hampshire County in 2020. This fatal fire caused one death.

- On October 27, 2020, at 8:34 p.m., the South Hadley District #1 Fire Department was called to a fatal motor vehicle crash with ensuing fire. The victim, a 48-year old

¹ 2019 was another down year statewide for all brush fires.

woman, was trapped in the vehicle and died in the fire. No one else was injured at this fire. Damages from this fire were not estimated.

Easthampton Has County's Largest Loss Fire

There was one reported fire in Hampshire County with a dollar loss greater than \$1 million in 2020. The largest loss fire was reported by Easthampton.

- On May 22, 2020, at 12:35 p.m., the Easthampton Fire Department was dispatched to a fire of undetermined cause at the Full Tilt Auto Body & Collision. The fire originated in the maintenance area. No one was injured at this fire. Alarms were not present. The building did have a partial wet pipe sprinkler system, but its operation was not reported. Damages from this fire were estimated to be \$1.7 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 137 structure fires caused five civilian injuries, two fire service injuries and an estimated dollar loss of \$2.7 million. These incidents represent 33% of Hampshire County's reported fires in 2020. The average estimated dollar loss per structure fire was \$19,589. The total number of reported structure fires decreased by 57, or 29%, from the 194 reported in 2019.

5 Structure Arsons

There were five structure arsons reported in 2020. Arson was indicated as the cause of 4% of the structure fires and none of Hampshire County's structure fire dollar loss. The five structure arsons accounted for 14% of the Hampshire County arson fires reported in 2020. The total number of reported structure arsons increased by one, or 25%, from the four reported in 2019.

BUILDING FIRES

There were 136 building fires of different types in Hampshire County in 2020. These 136 building fires accounted for 99.3% of the structure fires in Hampshire County.

85% of Hampshire Building Fires Occurred in People's Homes

One hundred and sixteen (116), or 85%, of Hampshire County's 136 building fires occurred in residential occupancies. Seven (7) fires took place in public assembly properties, including restaurants and churches. Storage facilities experienced five fires. Mercantile and business properties had four fires. Educational properties had two fires. Industrial facilities and special properties each had three fires in Hampshire County in 2020.

RESIDENTIAL FIRES

Residential Building Down

There were 116 reported residential building fires in Hampshire County in 2020. This is a decrease of 39, or 25%, from the 155 reported in 2019.

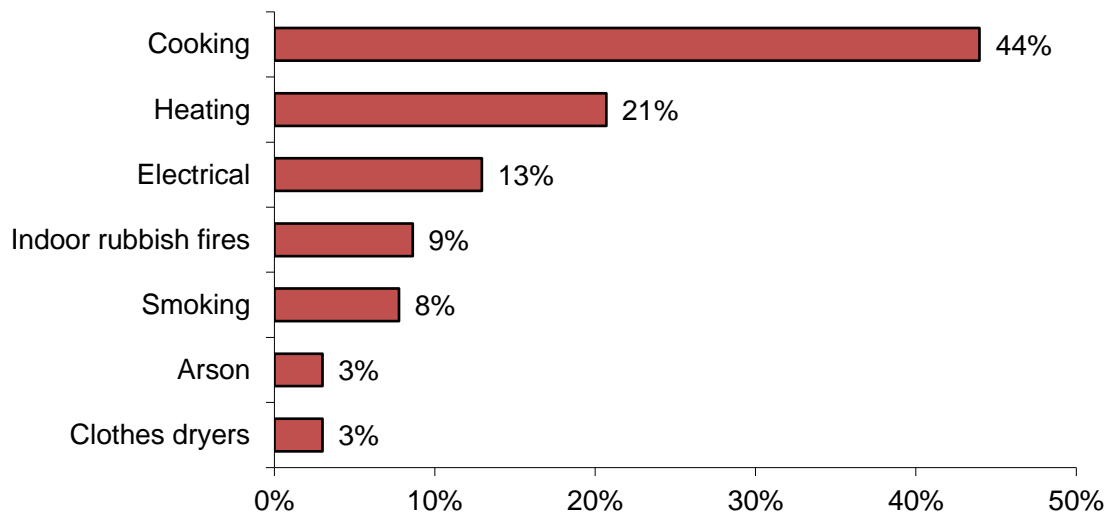
1- & 2-Family Homes Accounted for 62% of Residential Building Fires

The peak fixed property use for residential building fires were 1- & 2-family homes, accounting for 62% of the residential building fires in Hampshire County; 31% occurred in apartments; and 5% occurred in dormitories. One percent (1%) occurred in residential board and care facilities, and 1% happened in unclassified residences in Hampshire County.

Although much of Hampshire County is rural, the county is home to several colleges and the main campus of the University of Massachusetts. Six (6), or 5%, of Hampshire County's residential fires occurred in dormitories. Dormitory fires make up smaller percentages of the other counties' fires.

Cooking Causes 44% of Residential Fires

Unattended cooking and other unsafe cooking practices was the leading cause of the 116 residential building fires in Hampshire County, accounting for 44% of these fires. Heating equipment fires accounted for 21% of home fires. Electrical problems caused 13% of the residential fires. Indoor rubbish fires accounted for 9%. Smoking fires were responsible for 8% of these fires. Arson and clothes dryers each accounted for 3% of the residential fires in Hampshire County in 2020.

**2020 Leading Causes of Fires
in Hampshire County Homes**

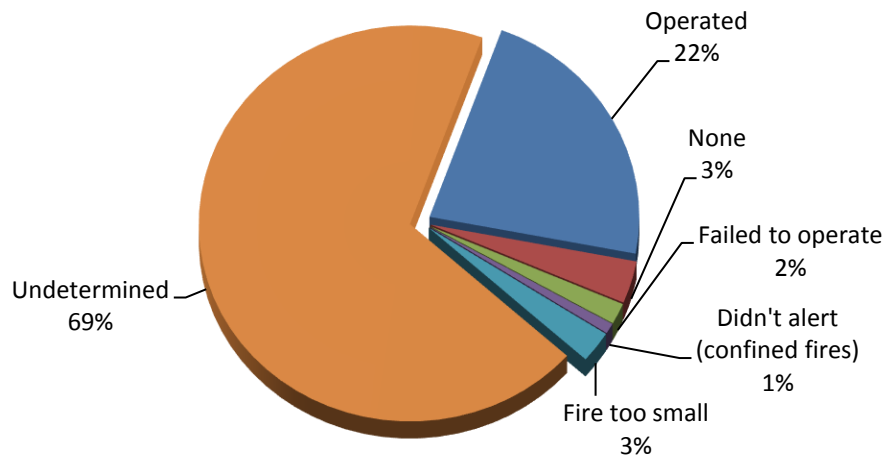
65% of Residential Building Fires Are Confined to Non-Combustible Containers²

Seventy-five (75), or 65%, of all residential building fires were reported as confined to non-combustible containers in 2020. Forty-five (45) of the reported fires were cooking fires contained to a non-combustible container, accounting for 39% of residential building fires. Thirteen (13), or 11%, of all residential building fires reported in 2020 were fires confined to a chimney. Seven (7), or 6%, were fires confined to a fuel burner or boiler malfunction. Ten (10), or 9%, of these fires were indoor rubbish fires contained to a non-combustible container in Hampshire County in 2020.

Alarms Operated in Only 22% of Fires

Smoke or heat alarms operated and alerted the occupants in 26, or 22%, of the residential building fires. In 1% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 80 incidents, or 69%, of Hampshire County's residential building fires.

Detector Status in Hampshire County's Residential Structure Fires 2020



² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

2 Detectors Failed

Two (2) detectors failed in Hampshire County in 2020. The reason for both was undetermined.

VACANT BUILDINGS**6 Building Fires Occurred in Vacant Buildings**

Hampshire County reported six fires that occurred in buildings that were vacant, under construction or demolition. This represented 4% of the 136 building fires reported to MFIRS in 2020. Three (3) residential properties, two mercantile or business properties and a public assembly property had a reported fire in a vacant building.

None of the vacant building fires in Hampshire County in 2020 were determined to be intentionally-set.

JUVENILE-SET FIRES**2 Juvenile-set Fires**

There were two reported juvenile-set fires in Hampshire County in 2020. Both were brush fires.

ARSONS**37 Total Arsons — 5 Structure, 3 Motor Vehicle & 29 Other Arsons**

Thirty-seven (37), or 9%, of Hampshire County's 412 fires were intentionally-set, or, for purposes of this analysis, arson. The five structure arsons, three motor vehicle arsons, 13 brush arsons, 10 outside rubbish arsons, four special outside arsons, and one unclassified arson caused an estimated dollar loss of \$2,000.

All Arsons Up Slightly

The total number of reported arson fires increased by 19 from the 18 reported in 2019. Structure arsons increased by one from four reported the previous year. Motor vehicle arsons increased by one from two in 2019. Reported outside and other arsons increased by 17 from the 12 reported in 2019.

ALL INCIDENTS**Rescue & EMS Calls Are 2/3 of All Reported Responses**

In 2020, Hampshire County fire departments reported 19,253 responses⁴ to MFIRS. Of these 19,253 incidents, 18,767 non-fire calls were voluntarily reported.

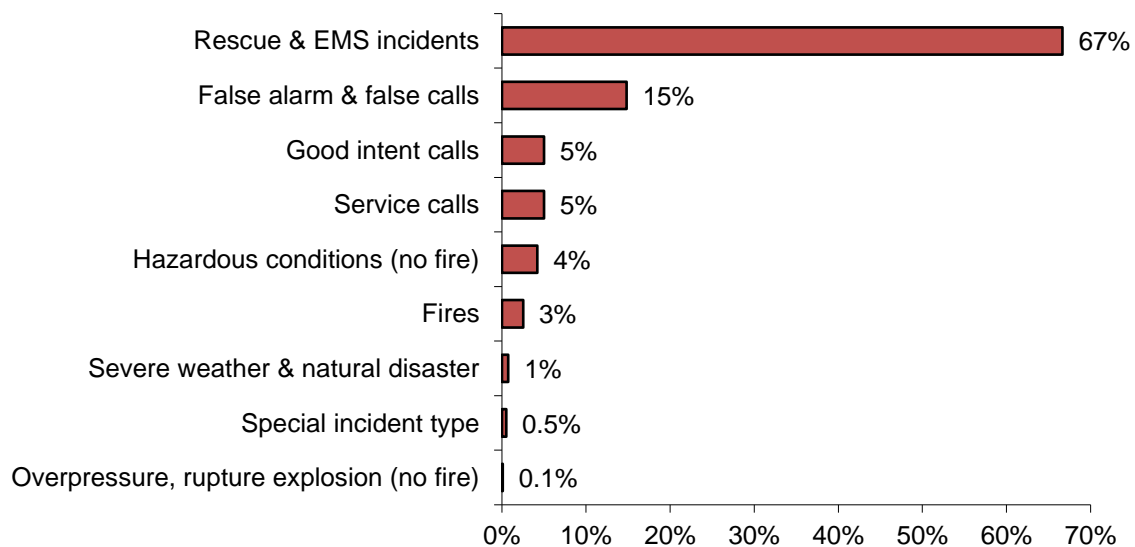
Of these 18,737 non-fire calls, 12,831, or 67%, of all the responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 2,852, or 15%, were

⁴ These figures include responses in which Hampshire County fire departments gave mutual aid to other fire departments.

reported false alarm or false calls; 1,058, or 5%, were reported good intent calls; 956, or 5%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 811, or 4%, were reported hazardous condition calls with no fire; 145, or 1%, were severe weather responses; 96, or 0.5%, were special incident type calls such as citizen complaints; and 18, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four hundred and eighty-six (486), or 3%, of the total responses submitted by Hampshire County fire departments were fires.

2020 Responses by Incident Type



Hampshire County Fire Departments Gave Mutual Aid 624 Times

In 2020, Hampshire County fire departments reported coming to the aid of other fire departments 624 times. Of these 624 responses, 419, or 67%, were for rescue or EMS calls; 73, or 12%, were for fires; 70, or 11%, were for good intent calls; 56, or 9%, were for service calls such as cover assignments; two, or 0.3%, were hazardous condition calls with no fire; two, or 0.3%, were for false alarms or false calls; one call, or 0.2%, was a severe weather call; and another call, or 0.2%, was for a special incident type.

Hampshire County Received Mutual Aid in 220 Incidents

In 2020, Hampshire County fire departments received aid from surrounding departments in 220 incidents. Of these 220 incidents, 167, or 76%, were rescue and emergency medical services calls; 30, or 14%, were for fires; eight were good intent calls accounting for 4%; five, or 2%, was a hazardous conditions calls with no fire; four, or 2%, were false alarm or false calls; four, or 2%, were service calls; one, or 0.5%, was a severe weather call; and one, or 0.5%, was a special incident type in Hampshire County in 2020.

Hampshire County**Population: 158,080⁵****2.6 Fires/1,000 Population****Total Fires: 412 \$3,021,779**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	137	33%	\$2,683,750
Vehicle Fires	59	14%	300,179
Other Fires	216	52%	37,850

1 Fatal Fire 2.43 Civilian Deaths/1,000 Fires
 1 Civilian Death 0.06 Civilian Deaths/10,000 Population
 5 Civilian Injuries 7 Fire Service Injuries

Building Fires: 136**Residential Structure Fires: 116****Residential Structure Fires Confined to Non-Combustible Containers: 75****Unconfined Residential Structure Fires: 41**

5 Civilian Injuries 2 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	72	62%	Operated	26	22%
Apartments	36	31%	Didn't operate	2	2%
Dormitories	6	5%	None	4	3%
Residential board & care	1	1%	Fire too small	3	3%
			Didn't alert (confined)	1	1%
			Undetermined	80	69%

Area of Origin⁶	%	Heat Source	%	% Unconfined⁷
Kitchen	47%	Arcing	8%	22%
Chimney or flue	11%	Heat from operating equip.	6%	17%
Laundry room	6%	Radiated, con. heat op. eq.	4%	12%
Heating room or area	6%	Cigarettes	3%	7%
Bedroom	5%	Hot or smoldering object	3%	7%
		Spark/ember/flame, op. eq.	3%	7%

⁵ We used the figures from the 2010 US Census because the 2020 figures were not available at the time this report was written.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	% Unconfined⁹
Food, cooking materials	40%	Misuse of mat. or prod.	11%	32%
Film, residue (creosote)	11%	Too close to combustibles	7%	20%
Rubbish, trash, waste	9%	Mechanical failure, malfunc.	7%	20%
Flamm. or combustible liquid	6%	Failure to clean	56%	17%
Electrical wire, cable insulation	5%	Abandoned materials	5%	15%
		Electrical failure, malfunc.	5%	15%

Equipment¹⁰	%	Cause of Ignition	%	% Unconfined¹¹
Cooking equipment	45%	Unintentional	19%	54%
None	13%	Failure of eq. or heat source	12%	34%
Chimney or flue	11%	Intentional	0%	0%
Boiler, furnace, cent. heat unit	6%	Cause under investigation	3%	7%
Clothes dryer	3%	Undetermined	3%	7%
Electrical wiring, other	3%	Act of nature	0%	0%

**Detector Alerted Occupants
(Confined Fires in Non-Combustible Containers)**

Alerted occupants	4%
Didn't alert occupants	1%
Undetermined	95%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined Fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	27	16	9	2
February	26	17	2	7
March	53	11	3	39
April	32	9	0	23
May	66	21	9	36
June	42	9	6	27
July	30	7	8	15
August	34	7	4	23
September	24	7	5	12
October	27	8	4	15
November	30	12	5	13
December	21	13	4	4

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	54	24	7	23
Monday	60	20	4	36
Tuesday	60	23	11	26
Wednesday	54	12	6	36
Thursday	61	18	9	34
Friday	49	18	8	23
Saturday	74	22	14	38

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	26	14	1	11
04:01 - 08:00	36	16	6	14
08:01 - 12:00	64	17	11	36
12:01 - 16:00	115	27	16	72
16:01 - 20:00	123	44	15	64
20:01 - 00:00	48	19	10	19

Motor Vehicle Fires

Total: 59

Automobiles: 40 (68%)

2, or (5%), of the automobile fires were considered intentionally-set.

Arson Fires

Total Arsons: 37

Dollar loss: \$2,000

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	5	4%	14%	\$0
Vehicle Arsons	3	5%	8%	2,000
Other Arsons	29	13%	78%	0

0.03 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.18 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	4	80%	08:01 – 12:00	2	67%
16:01 - 20:00	1	20%	20:01 – 00:00	1	33%
16:01 - 20:00	1	25%			

Other Arsons	#	%
16:01 - 20:00	10	34%
12:01 - 16:00	8	28%
08:01 - 12:00	5	17%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family home	3	60%
Multifamily dwelling	1	20%
Church, mosque, synagogue, temple, chapel	1	20%

Easthampton **Population: 16,053**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	44	18	6	20	2	0	0	2
2017	41	25	2	14	2	1	0	1
2018	31	17	4	10	0	0	0	0
2019	24	11	5	8	0	0	0	0
2020	30	8	5	17	2	0	0	2

Goshen **Population: 1,054**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	2	0	1	0	0	0	0
2017	2	0	1	1	0	0	0	0
2018	4	1	2	1	0	0	0	0
2019	4	3	0	1	0	0	0	0
2020	4	1	1	2	0	0	0	0

Granby **Population: 6,240**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	19	8	2	9	0	0	0	0
2017	21	9	4	8	4	0	0	4
2018	22	9	8	5	3	0	1	2
2019	27	8	7	2	1	0	0	1
2020	25	5	3	17	2	0	0	2

Hadley **Population: 5,250**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6	3	3	0	1	1	0	0
2017	7	2	2	3	1	0	0	1
2018	16	6	5	5	1	0	0	1
2019	25	8	3	14	0	0	0	0
2020	23	5	1	17	4	0	0	4

Hatfield					Population: 3,279			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	2	0	11	2	0	0	2
2017	9	0	1	8	2	0	0	2
2018	13	1	2	10	2	0	0	2
2019	12	3	3	6	0	0	0	0
2020	11	3	3	5	0	0	0	0

Huntington					Population: 2,180			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							
2017	10	2	2	6	0	0	0	0
2018	7	3	1	3	1	0	0	1
2019	5	2	2	1	0	0	0	0
2020	17	3	1	13	2	0	0	2

Middlefield					Population: 521			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	2	0	1	0	0	0	0
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							

Northampton					Population: 28,549			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	73	36	9	28	0	0	0	0
2017	57	30	9	18	3	2	0	1
2018	52	29	9	14	0	0	0	0
2019	78	34	7	37	4	0	1	3
2020	67	28	15	24	8	2	2	4

¹² In 2016 Huntington reported 28 calls after the database was closed for analysis. The three fires were all aid given.

Pelham**Population: 1,321**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	2	1	1	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	1	1	0	0	0	0	0	0

Plainfield**Population: 648**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	1	1	0	0	0	0	0	0
2018	Non-reporting Department							
2019	3	3	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							

SOUTH HADLEY FIRE DISTRICTS**Population: 17,514*****South Hadley District # 1******Est. Pop. Protected: 11,734***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	2	0	0	0	0	0	0
2017	32	15	2	15	7	2	0	5
2018	28	14	2	12	2	0	0	2
2019	39	24	3	12	4	0	1	3
2020	41	21	5	15	3	1	1	1

South Hadley District # 2***Est. Pop. Protected: 5,780***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	51	44	2	5	2	1	1	0
2017	51	43	1	7	0	0	0	0
2018	23	19	1	3	1	0	0	1
2019	15	13	1	1	0	0	0	0
2020	21	9	3	9	3	0	0	3

Southampton					Population: 5,792			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	12	4	1	7	0	0	0	0
2017	19	6	0	13	0	0	0	0
2018	18	9	3	6	0	0	0	0
2019	10	4	1	5	0	0	0	0
2020	17	6	1	10	1	1	0	0

Ware					Population: 9,872			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	41	11	3	27	13	2	0	11
2017	23	10	4	9	3	0	0	3
2018	41	19	3	19	10	2	0	8
2019	40	26	3	11	7	3	0	4
2020	46	15	5	26	6	0	0	6

Westhampton					Population: 1,607			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6	1	0	5	1	0	0	1
2017	7	2	1	4	0	0	0	0
2018	3	0	2	1	1	0	0	1
2019	4	0	2	2	0	0	0	0
2020	9	2	3	4	2	1	0	1

Williamsburg					Population: 2,482			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	10	5	0	5	2	1	0	1
2017	16	6	1	9	0	0	0	0
2018	11	5	2	4	0	0	0	0
2019	10	6	0	4	0	0	0	0
2020	11	3	3	5	1	0	0	1

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
15008	Amherst	1,757	67	1	698	78	69	131	701	10	2
15024	Belchertown	414	31	2	10	99	58	54	158	1	1
15060	Chesterfield**	0	0	0	0	0	0	0	0	0	0
15069	Cummington*	0	0	0	0	0	0	0	0	0	0
15087	Easthampton	2,861	34	1	2,295	66	87	106	244	2	26
15108	Goshen	117	7	0	79	6	6	4	15	0	0
15111	Granby	729	25	1	555	33	36	22	56	1	0
15117	Hadley	1,332	33	3	804	73	60	58	256	44	1
15127	Hatfield	129	11		26	32	14	10	34	2	0
15143	Huntington	206	22		148	9	5	11	9	2	0
15183	Middlefield*	0	0	0	0	0	0	0	0	0	0
15214	Northampton	6,731	69	6	4,923	237	252	354	836	20	34
15230	Pelham	1	1	0	0	0	0	0	0	0	0
15237	Plainfield*	0	0	0	0	0	0	0	0	0	0
15978	South Hadley #1	557	49		24	47	91	94	240	6	6
15979	South Hadley #2	763	38	1	428	36	123	43	86	6	2

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
15276	Southampton	686	17	1	482	19	53	41	62	5	6
15309	Ware	2,407	54	1	2,014	46	66	114	92	9	11
15331	Westhampton	182	17	1	122	15	4	7	15	0	1
15340	Williamsburg	381	11		223	15	32	9	48	37	6
15349	Worthington*	0	0	0	0	0	0	0	0	0	0
Total	Hampshire County	19,253	486	18	12,831	811	956	1,058	2,852	145	96

* Certified no reportable fires.

**Non reporting department.

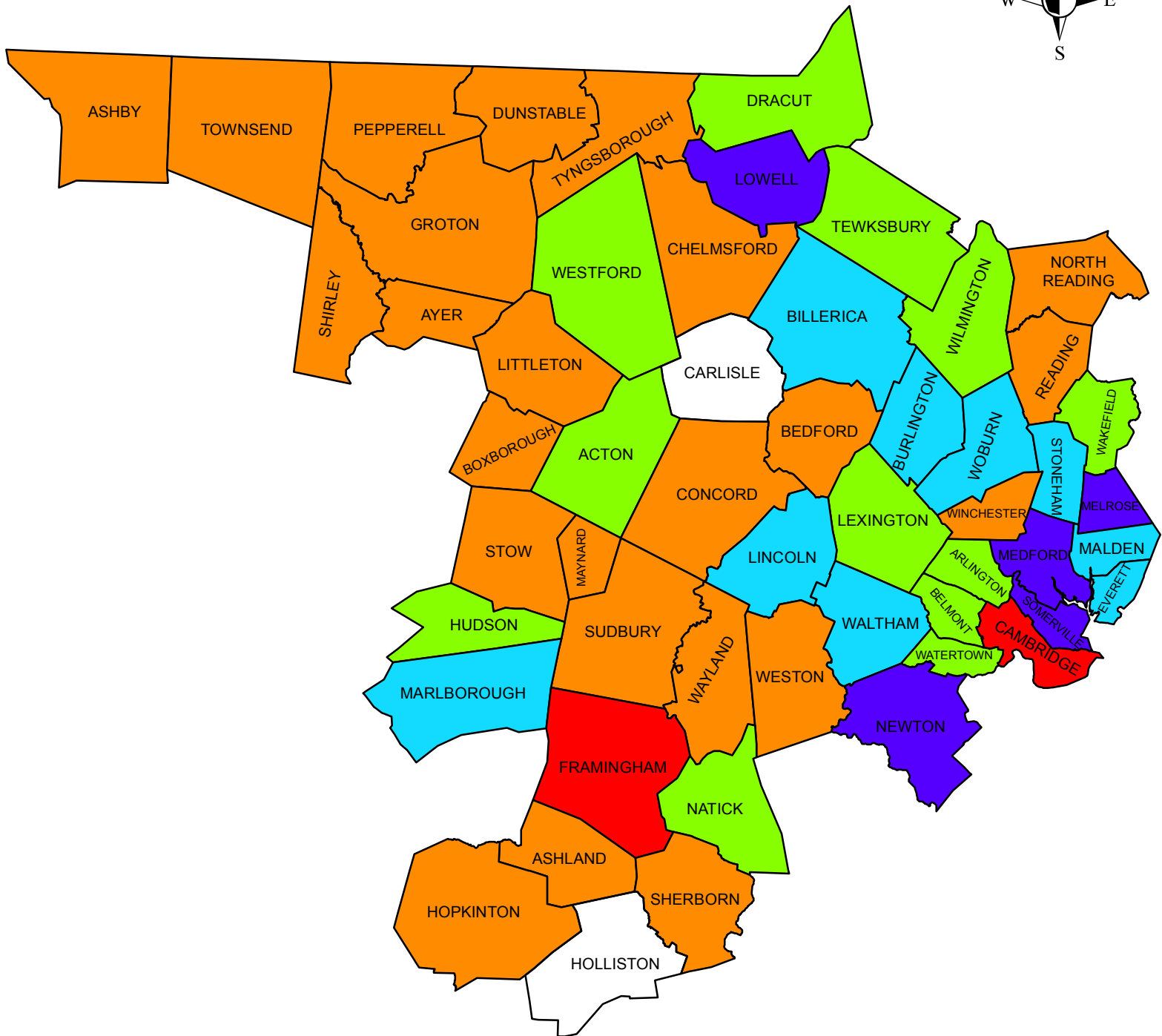
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Middlesex County

2020 Fire Data Analysis

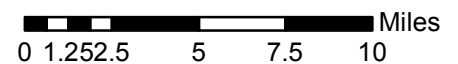
Middlesex County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2020

Middlesex County Fires in 2020

6,141 Total Fires — 3,698 Structures, 369 Vehicles & 2,074 Other Fires

Middlesex County ranked first out of the fourteen Massachusetts counties in total reported fires. Middlesex County fire departments reported 6,141 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 3,698 structure fires, 369 motor vehicle fires, 1,237 brush fires, 520 outside rubbish fires, 178 special outside fires, six cultivated vegetation or crop fires, and 133 unclassified fires caused 11 civilian deaths, 38 civilian injuries, 194 fire service injuries and an estimated dollar loss of \$37.1 million. Middlesex County's fires accounted for 21% of the 25,176 Massachusetts fires reported in 2020.

All 55, or 100%, of the fire departments in Middlesex County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

Structure Fires Down

The total number of reported fire incidents increased by 731 from the 5,410 reported in 2019. Reported structure fires decreased by 80 from 3,778 in the previous year. Motor vehicle fires decreased by 17 from the 386 reported during 2019. Reported outside and other fires increased by 828 from 1,246 the year before.¹

MIDDLESEX COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6,135	3,356	351	2,428	72	10	11	51
2017	5,295	3,503	379	1,413	43	11	4	28
2018	5,440	3,680	398	1,362	49	18	5	26
2019	5,410	3,778	386	1,246	69	15	8	46
2020	6,141	3,698	369	2,074	82	14	9	59

Fire and Fire Death Rates

Middlesex County had 4.1 fires per 1,000 population. That figure ranks Middlesex County tied for seventh in the state and below the state rate of 4.5 fires per 1,000 population. Middlesex County also had 0.07 fire deaths per 10,000 population ranking it tied for fifth among Massachusetts counties and also tied with the state rate of 0.07 fire deaths per 10,000 population.

10 Fatal Fires Killed 11 Middlesex County Residents

In 2020, 10 fatal fires killed 11 people in Middlesex County.

- On January 9, 2020, at 1:00 p.m., the Burlington Fire Department was called to a fatal smoking fire in a single-family home. A cigarette ignited the couch in the living

¹ 2019 was a down year for brush fires across the state.

room. One (1) victim, a 61-year old man, was discovered near the couch by firefighters. His 90-year old mother escaped the home with the help of some good Samaritans. She was taken to a nearby hospital where she succumbed to her injuries a week later. No one else was injured at this fire. Alarms were present but it was undetermined if they operated. Sprinklers were not present in the home. Damages were not estimated.

- On January 10, 2020, at 5:29 a.m., the Lowell Fire Department was called to a fatal outdoor smoking fire. The victim, a 63-year old homeless man, built a space between two dumpsters behind a rooming house. He fell asleep while smoking, igniting debris in and around the dumpsters.
- On January 20, 2020, at 7:11 p.m., the Framingham Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by careless disposal of smoking materials in the living room. The victim, a 67-year old man, was found by firefighters in the living room. No one else was injured at this fire. Alarms were present but they failed to operate because of a power failure. There were no sprinklers. Damages from this fire were estimated to be \$160,000.
- On February 24, 2020, at 3:29 a.m., the Reading Fire Department was called to a fatal smoking fire in a 12-unit apartment building. The fire was started by a cigarette in one of the bedrooms. The victim, a 38-year old woman, was asleep at the time of the fire. A 67-year old man escaped the fire with life-threatening injuries. Both were transported to a local hospital and then transferred to a Boston hospital. The woman succumbed to her injuries. Alarms were present and operated and there were no sprinklers. Damages from this fire were estimated to be \$275,000.
- On April 24, 2020, at 4:13 a.m., the Belmont Fire Department was called to a fatal fire in a single-family of undetermined cause. The fire started in the kitchen. The victim, a 54-year old woman, was somehow intimately involved in the ignition of the fire. One (1) firefighter was injured at this fire. Alarms were not present, and the building was not sprinklered. Damages from the blaze were estimated to be \$648,000.
- On May 1, 2020, at 9:12 p.m., the Chelmsford Fire Department was called to a fatal smoking fire in an apartment building. The fire was started by careless disposal of smoking materials in an unclassified structural area. The victim, a 58-year old woman, was found by firefighters and transported to a hospital. No one else was injured at this fire. Alarms were present and alerted the occupants. Sprinklers activated and suppressed the fire until firefighters arrived. Damages to this fire were not estimated.
- On September 29, 2020, at 2:46 a.m., the Framingham Fire Department was called to a fatal cooking fire in a two-family home. The fire was started by an electric stove. The victim, a 29-year old man, who was transported to a hospital where he succumbed to his injuries. No one else was injured at this fire. Alarms were present

but failed to operate because of missing batteries. The home did not have sprinklers. Damages from this fire were estimated to be \$75,000.

- On October 7, 2020, at 5:23 a.m., the Cambridge Fire Department was dispatched to a fire in a single-family home of undetermined cause. The victim was a 78-year old woman. Seventeen (17) firefighters were also injured at this fire; many were reported as minor. Alarms were not present, and the building was not sprinklered. Damages from this fire were estimated to be \$1 million.
- On November 12, 2020, at 2:22 p.m., the Natick Fire Department was called to a fatal smoking fire in an apartment building. The fire was started by a cigarette igniting the couch in the living room. The victim, a 65-year old man, was intimately involved with the ignition of the fire. He was transported to a local hospital where he succumbed to his injuries. Alarms were present but it was undetermined if they operated. There were no sprinklers. Damages from this fire were estimated to be \$50,000.
- On November 19, 2020, at 1:57 a.m., the Lowell Fire Department was called to a fatal smoking fire in a 35-unit apartment building. The fire was started by undetermined smoking materials igniting a mattress in a bedroom. The victim, a 63-year old man, was asleep and possibly impaired at the time of the fire and his clothes caught fire while he was escaping. No one else was injured at this fire. Smoke alarms were present, and they alerted the occupants of the building. Sprinklers were present but it was not reported if they operated. Damages from this fire were estimated to be \$70,000.

Largest Loss Fire in 2020

In 2020, Middlesex County fire departments reported six fires with a reported dollar loss of \$1 million or greater. The combined dollar loss of these five fires totaled \$8 million, or 22%, of the county's total dollar loss.

- On January 24, 2020, at 11:08 a.m., the Watertown Fire Department was called to an electrical fire at a 12-unit apartment building. The fire started in the basement. One (1) firefighter was injured at this fire. Alarms were present and operated. The building did not have sprinklers. Damages from this fire were estimated to be \$2 million.

STRUCTURE FIRES

Reported Structure Fires Decreased

The 3,698 structure fires caused 10 civilian deaths, 33 civilian injuries, 183 fire service injuries and an estimated dollar loss of \$33.4 million. These incidents represented 60% of Middlesex County's reported fires in 2020. The average estimated dollar loss per structure fire was \$9,020. The total number of reported structure fires decreased by 80, or 2%, from the 3,778 reported in 2019.

Arson Caused Less Than 1% of Structure Fires

The 14 structure arsons caused one civilian injury, one fire service injury and an estimated dollar loss of \$61,400. Arson was indicated as the cause of less than 1% of the structure fires and less than 1% of Middlesex County's structure fire dollar loss. The 14 structure arsons accounted for 17% of the Middlesex County arson fires reported in 2020. The total number of reported structure arsons decreased by one, or 7%, from 15 in 2019.

62% of Structure Arsons Occurred in Residences

Sixty-two percent (62%) of Middlesex County's 14 structure arsons occurred in residential occupancies. Institutional facilities, businesses, public assembly properties, storage facilities and special properties each accounted for 8% of the structure arsons in Middlesex County in 2020.

BUILDING FIRES

There were 3,681 building fires of different types in Middlesex County in 2020. These 3,681 building fires accounted for 99.5% of all structure fires in Middlesex County.

84% of Middlesex Building Fires Occurred in People's Homes

Three thousand and ninety-five (3,095), or 84%, of Middlesex County's 3,681 building fires occurred in residential occupancies. One hundred and seventy-six (176) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 131 fires. Hospitals, prisons, and other institutional buildings experienced 86 fires. Seventy-two (72) building fires in Middlesex County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Forty-two (42) fires took place in storage properties. Thirty-six (36) building fires took place in educational facilities. Twenty (20) fires occurred in manufacturing and processing facilities. Nineteen (19) fires in Middlesex County in 2020 took place in industrial, utility, defense, agricultural or mining facilities. The *Property Use* field was coded as 'Other' or was not reported for four fires.

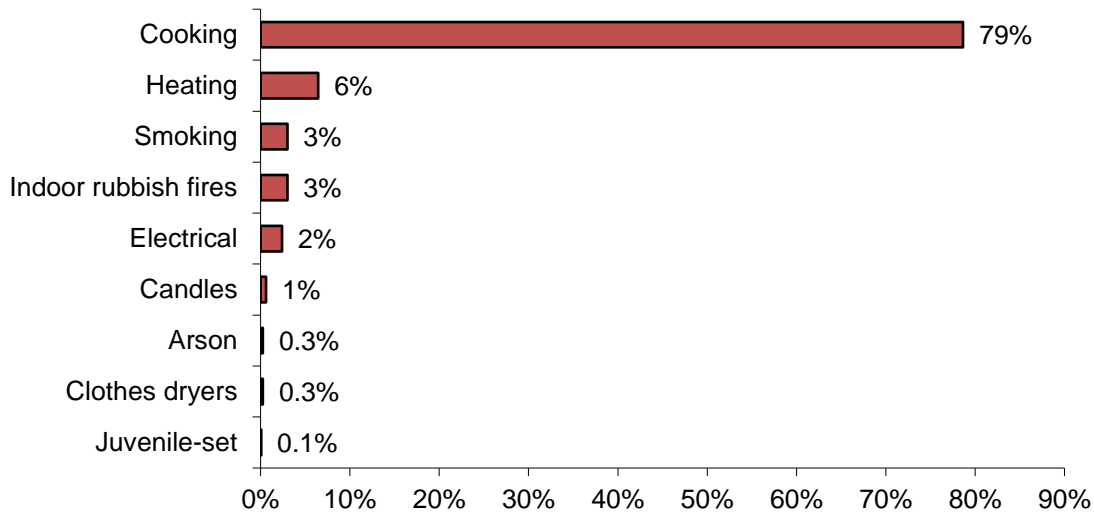
RESIDENTIAL FIRES**Residential Building Fires Increased**

There were 3,095 reported residential building fires in Middlesex County in 2020. These 3,095 fires are an increase of 28, or 1%, from the 3,067 residential building fires reported in 2019.

Unsafe Cooking Caused 79% of All Residential Fires

The leading cause of residential building fires in Middlesex County was unattended cooking and other unsafe cooking practices, accounting for 79% of these fires. Heating caused 6% of fires in people's homes. Smoking and indoor rubbish fires each accounted for 3% of these fires. Electrical problems caused 2%. Candles caused 1%; and arson, clothes dryers and juvenile-set fires each caused less than 1% of the residential fires in Middlesex County in 2020.

2020 Leading Causes of Fires in Middlesex County Homes



85% of Residential Building Fires Were Confined to Non-Combustible Containers²

Two thousand six hundred and twenty-seven (2,627), or 85%, of all residential building fires were reported as confined to non-combustible containers in 2020. Two thousand three hundred and seventy-eight (2,378) of the reported fires were cooking fires contained to a non-combustible container, accounting for 78% of residential building fires. One hundred and nine (109), or 4%, were fires confined to a fuel burner or boiler malfunction. Seventy (70), or 2%, of these fires were rubbish fires contained to a non-combustible container. Sixty-nine (69), or 2%, of all residential building fires reported in 2020 were fires confined to a chimney. One (1) commercial compactor fire accounted for less than 1% of the residential fires in Middlesex County in 2020.

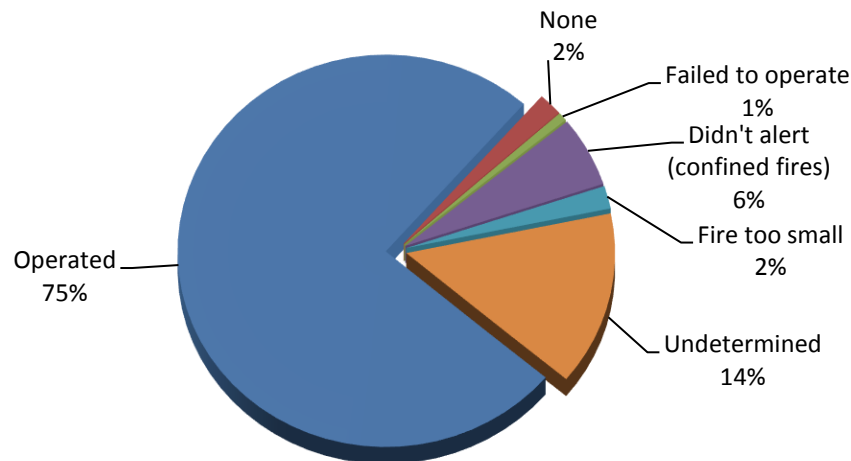
Alarms Alerted Occupants in 3/4 of Fires

Smoke or heat alarms operated and alerted the occupants in 2,334, or 75%, of the residential building fires. In 6% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 1% of these incidents. In 2% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 2% of the residential fires. Smoke alarm performance was undetermined in 444 incidents, or 14%, of Middlesex County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Middlesex County's Residential Structure Fires 2020



45% of Failed Alarms Had Missing or Dead Batteries

Of the 22 fires where smoke alarms were present but failed to operate, nine, or 41%, failed because the batteries were either missing or disconnected. In one, or 5%, of these cases the battery was dead. One (1), or 5%, failed from a power failure, shutoff or disconnect. One (1), or 5%, failed from a lack of maintenance; and another one, or 5%, failed because it was defective. One (1), or 5%, didn't work because of improper installation or placement; It was undetermined or unclassified in eight cases, or 36%, why the alarms failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Middlesex County reported 37 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 3,681 building fires reported to MFIRS in 2020. Twenty-one (21) fires occurred in vacant residential properties. Six (6) happened in public assembly properties. Storage facilities had four of these fires. Mercantile or business properties and special properties each had two fires. One (1) each occurred in an industrial facility and a manufacturing or processing facility in Middlesex County in 2020.

Two (2), or 5%, of the vacant building fires in Middlesex County in 2020 were determined to be intentionally-set. One (1) was in an unclassified government facility and the other was in an unclassified storage facility.

JUVENILE-SET FIRES

9 Juvenile-set Fires

There were nine reported juvenile-set fires in Middlesex County in 2020. There were four structure fires and five brush fires. These nine fires caused one fire service injury and an estimated dollar loss of \$1,100.

ARSONS

82 Total Arsons — 14 Structures, 9 Vehicles & 59 Other Arsons

Eighty-two (82), or 1%, of Middlesex County's 6,141 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 14 structure arsons, nine motor vehicle arsons and 59 outside and other arsons caused one civilian injury, two fire service injuries and an estimated dollar loss of \$81,598.

All Arson Up Slightly

The total number of reported arson fires increased by 13 from the 69 reported in 2019. Reported structure arsons decreased by one from the 15 reported in the previous year. Motor vehicle arsons increased by one from the eight reported in 2019. Reported outside and other arsons increased by 13 from 46 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 57% of All Reported Responses

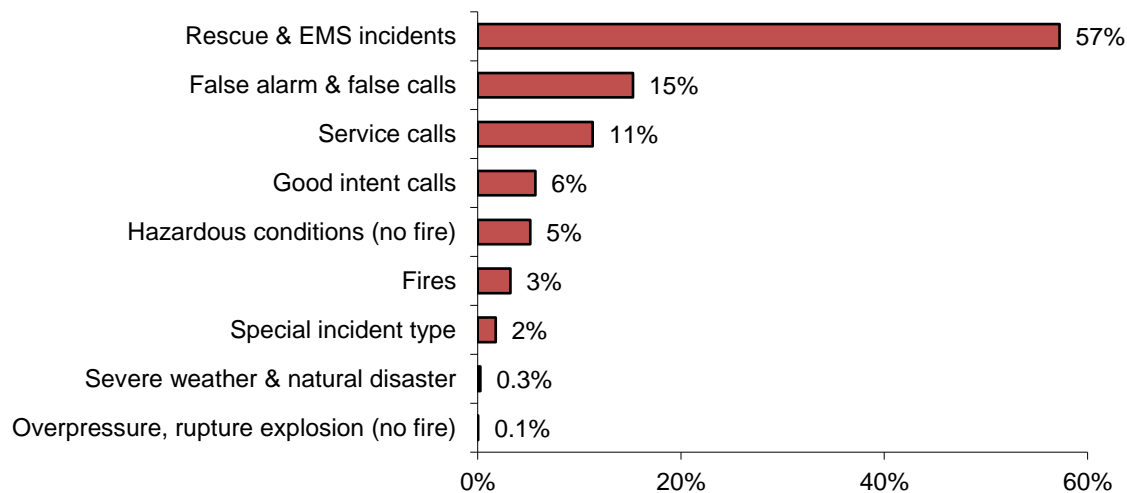
In 2020, fire departments in Middlesex County reported 202,228 responses⁴ to MFIRS. This is a 5% decrease from the 213,750 responses reported in 2019. Of these 202,228 incidents, 195,733 non-fire calls were voluntarily reported.

Of these 195,733 non-fire calls, 115,733, or 57%, of all the responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 30,886, or 15%, were reported false alarm or false calls; 22,903, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 11,507, or 6%, were reported good intent calls; 10,478, or 5%, were reported hazardous condition calls with no fire; 3,593, or 2%, were special incident type calls such as citizen complaints; 513, or 0.3%, were severe weather responses; and 109, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Six thousand four hundred and ninety-five (6,495), or 3%, of the total responses submitted by Middlesex County fire departments were fires.

⁴ These figures include incidents in which Middlesex County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Middlesex County Fire Departments Gave Mutual Aid 3,645 Times

In 2020, Middlesex County fire departments reported coming to the aid of other fire departments 4,012 times. Of these 3,645 responses, 1,664, or 46%, were for rescue or EMS calls; 763, or 21%, were for service calls such as cover assignments; 678, or 19%, were for good intent calls; 353, or 10%, were for fires; 126, or 3%, were for false alarms or false calls; 47, or 1%, were for hazardous conditions calls with no fire; 11, or 0.3%, were special incident types; two, or 0.1%, were severe weather or natural disaster calls; and one, or 0.03%, was for a reported overpressure, rupture, explosion or overheat calls with no fire.

Middlesex County Received Mutual Aid in 2,175 Incidents

In 2020, Middlesex County fire departments reported receiving aid from surrounding departments in 2,175 incidents. Of these 2,175 incidents, 1,481, or 68%, were rescue and emergency medical services calls; 265, or 12%, were for fires; 217, or 10%, were false alarms or false calls; 77, or 4%, were hazardous conditions calls with no fire; 66, or 3%, were good intent calls; 39, or 2%, were service calls; 22, or 1%, were for severe weather or natural disaster calls; and eight, or 0.4%, were for reported overpressure, rupture, explosion or overheat calls with no fire;.

Middlesex County**Population: 1,503,085⁵****4.1 Fires/1,000 Population****Total Fires: 6,141 \$37,102,354**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	3,698	60%	\$33,354,404
Vehicle Fires	369	6%	3,089,559
Other Fires	2,074	34%	658,391

10 Fatal Fires 1.79 Civilian Deaths/1,000 Fires
 11 Civilian Deaths 0.07 Civilian Deaths/10,000 Population
 38 Civilian Injuries 194 Fire Service Injuries

Building Fires: 3,681**Residential Building Fires: 3,095****Residential Building Fires Confined to Non-Combustible Containers: 2,627****Unconfined Residential Building Fires: 468**

10 Civilian Deaths 29 Civilian Injuries 153 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	1,565	51%	Operated	2,334	75%
1- & 2-Family homes	1,101	32%	Didn't operate	22	1%
Dormitories	157	5%	None	58	2%
Rooming houses	85	3%	Fire too small	58	1%
Residential board & care	52	2%	Didn't alert (confined)	179	6%
Hotels or motels	18	1%	Undetermined	444	14%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	80%	Heat from operating eq.	2%	16%
Heating equipment room	4%	Cigarette	2%	14%
Chimney or flue	2%	Arcing	1%	9%
Bedroom	2%	Hot ember or ash	1%	6%
Ext. balcony, unencl. porch	1%	Radiated heat/oper. eq.	1%	5%

⁵ We are still using the 2010 US Census figures because the 2020 Census figures have not been released as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	78%	Abandoned materials	1%	10%
Flammable, combustible liquid	4%	Too close to combustibles	1%	8%
Rubbish, trash, waste	3%	Electrical failure or malf.	1%	7%
Film, residue (creosote)	2%	Misuse of mater. or prod.	1%	6%
Electrical wire, cable insulation	1%	Mech. failure or malf.	0.5%	4%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	78%	Unintentional	9%	62%
None	10%	Failure of eq. or heat source	2%	12%
Boiler, furnace, cent. heat unit	4%	Intentional	0.2%	1%
Chimney or flue	2%	Act of nature	0.5%	3%
Fan	0.4%	Undetermined	1%	9%
Stove, heating	0.3%	Cause under investigation	2%	11%

Detector Alerted Occupants (Confined Fires in Non-Combustible Containers)

Alerted occupants	80%
Didn't alert occupants	7%
Undetermined	14%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	400	317	25	58
February	388	294	24	70
March	607	378	21	208
April	465	321	24	120
May	743	332	29	382
June	665	287	42	36
July	443	213	44	186
August	492	235	28	229
September	523	293	26	204
October	504	330	37	137
November	493	343	38	112
December	418	355	31	32

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	947	553	52	342
Monday	844	508	52	284
Tuesday	851	525	56	270
Wednesday	862	532	47	283
Thursday	890	545	51	294
Friday	832	498	59	275
Saturday	915	537	52	326

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	304	186	31	87
04:01 - 08:00	349	174	34	141
08:01 - 12:00	1,003	580	91	332
12:01 - 16:00	1,652	895	92	665
16:01 - 20:00	1,905	1,251	72	582
20:01 - 00:00	928	612	49	267

Motor Vehicle Fires

Total: 369

Automobiles: 283 (777%)

9, or (3%), of the automobile fires considered intentionally-set.

Arson Fires

Total Arsons: 82

Dollar loss: \$81,598

0.05 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	14	0.4%	17%	\$61,400
Vehicle Arsons	9	2%	11%	18,100
Other Arsons	59	3%	72%	2,098

0.01 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.04 Other arsons/1,000 population

1 Civilian Injuries

2 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	4	29%	00:01 - 04:00	3	33%
20:01 - 00:00	4	29%	20:01 - 00:00	3	33%
08:01 - 12:00	2	14%	04:01 - 08:00	2	22%
16:01 - 20:00	2	14%	12:01 - 16:00	1	11%

Other Arsons	#	%
16:01 - 20:00	17	29%
12:01 - 16:00	16	27%
08:01 - 12:00	11	19%
20:01 - 00:00	11	19%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	4	29%
Apartment buildings	2	14%

Acton **Population: 21,924**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	55	22	5	28	0	0	0	0
2017	38	17	3	18	0	0	0	0
2018	43	22	4	17	3	0	0	3
2019	36	21	5	10	1	0	0	1
2020	55	23	4	28	5	0	0	5

Arlington **Population: 42,844**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	93	43	7	43	5	0	0	5
2017	76	43	4	29	3	0	0	3
2018	111	68	10	33	1	0	0	1
2019	103	63	9	31	7	0	1	6
2020	77	54	4	19	1	0	0	1

Ashby **Population: 3,074**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	2	2	0	0	0	0	0	0
2020	10	3	1	6	0	0	0	0

Ashland **Population: 16,593**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	43	12	1	30	0	0	0	0
2017	46	15	1	30	1	1	0	0
2018	38	15	4	19	0	0	0	0
2019	32	14	2	16	1	0	0	1
2020	49	17	3	29	1	0	0	1

Ayer					Population: 7,427			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	28	14	3	11	1	0	0	1
2017	18	8	2	8	0	0	0	0
2018	27	17	4	6	0	0	0	0
2019	18	8	2	8	1	0	0	1
2020	16	5	2	9	0	0	0	0

Bedford					Population: 13,320			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	31	11	1	19	0	0	0	0
2017	13	6	2	5	1	0	0	1
2018	22	13	1	8	1	0	0	1
2019	25	11	6	8	1	0	1	0
2020	23	10	1	12	2	0	0	2

Belmont					Population: 24,729			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	140	78	3	59	0	0	0	0
2017	72	54	2	16	1	0	0	1
2018	102	76	5	21	0	0	0	0
2019	99	75	2	22	0	0	0	0
2020	91	59	6	26	2	1	0	1

Billerica					Population: 40,243			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	130	33	13	84	0	0	0	0
2017	94	46	15	33	0	0	0	0
2018	95	30	24	41	3	0	0	3
2019	81	33	15	33	2	0	1	1
2020	107	37	15	55	2	2	0	0

Boxborough **Population: 4,996**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	26	3	1	22	0	0	0	0
2017	22	4	4	14	0	0	0	0
2018	14	3	3	8	0	0	0	0
2019	21	0	7	14	0	0	0	0
2020	28	5	5	18	0	0	0	0

Burlington **Population: 24,498**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	122	23	16	83	0	0	0	0
2017	70	22	12	36	0	0	0	0
2018	72	27	14	31	1	0	0	1
2019	59	28	9	22	0	0	0	0
2020	103	24	5	74	0	0	0	0

Cambridge **Population: 105,162**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1,048	903	15	130	0	0	0	0
2017	1,103	974	11	118	0	0	0	0
2018	1,074	948	15	111	1	1	0	0
2019	1,008	925	13	70	0	0	0	0
2020	974	821	16	137	2	1	1	0

Carlisle **Population: 4,852**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	2	2	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							

¹² Carlisle did report one mutual aid given call for a building fire.

Chelmsford**Population: 33,802**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	39	15	14	10	1	0	1	0
2017	37	15	17	5	0	0	0	0
2018	39	23	11	5	0	0	0	0
2019	29	14	13	2	1	0	0	1
2020	23	7	12	4	0	0	0	0

Concord**Population: 17,668**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	67	18	5	44	3	0	0	3
2017	36	12	3	21	0	0	0	0
2018	37	13	5	19	2	1	0	1
2019	42	22	2	18	4	1	0	3
2020	35	13	4	18	2	0	0	2

Devens**Population: 3,290**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	4	2	7	0	0	0	0
2017	13	2	4	7	0	0	0	0
2018	4	2	0	2	0	0	0	0
2019	15	5	2	8	1	0	0	1
2020	35	3	2	30	0	0	0	0

Dracut**Population: 29,457**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	74	27	7	40	3	0	0	3
2017	53	29	4	20	1	0	0	1
2018	51	24	9	18	1	1	0	0
2019	47	23	9	15	0	0	0	0
2020	65	32	7	26	0	0	0	0

Dunstable**Population: 3,179**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	6	2	9	2	0	0	2
2017	8	2	1	5	0	0	0	0
2018	16	12	0	4	2	2	0	0
2019	9	7	1	1	0	0	0	0
2020	19	9	1	9	2	0	0	2

Everett**Population: 41,667**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	140	53	8	79	2	1	0	1
2017	106	59	9	38	6	2	0	4
2018	101	58	8	35	3	0	1	2
2019	166	59	15	92	1	0	0	1
2020	118	44	12	62	3	0	1	2

Framingham**Population: 68,318**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	599	455	28	116	2	2	0	0
2017	574	466	20	88	0	0	0	0
2018	655	529	23	103	1	1	0	0
2019	582	507	20	55	2	1	0	1
2020	567	433	25	109	8	2	3	3

Groton**Population: 10,646**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	48	13	0	35	0	0	0	0
2017	25	11	3	11	2	0	1	1
2018	8	7	0	1	0	0	0	0
2019	13	6	3	4	0	0	0	0
2020	26	12	3	11	0	0	0	0

Holliston**Population: 13,547**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	7	0	0	0	0	0	0
2017	8	8	0	0	0	0	0	0
2018	5	5	0	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							

Hopkinton**Population: 14,925**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	78	22	6	50	1	0	0	1
2017	42	19	5	18	0	0	0	0
2018	58	20	16	22	0	0	0	0
2019	40	14	12	14	0	0	0	0
2020	49	18	9	22	0	0	0	0

Hudson**Population: 19,063**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	74	24	1	49	10	1	0	9
2017	57	17	7	33	3	1	0	2
2018	41	17	5	19	2	0	1	1
2019	50	24	3	23	4	0	0	4
2020	54	24	3	27	0	0	0	0

Lexington**Population: 31,394**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	27	13	6	8	0	0	0	0
2017	33	11	8	14	0	0	0	0
2018	46	23	8	15	1	1	0	0
2019	36	9	9	18	3	1	0	2
2020	51	23	5	23	1	0	0	1

Lincoln**Population: 6,362**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	30	28	0	2	0	0	0	0
2017	73	73	0	0	0	0	0	0
2018	96	94	0	2	1	0	0	1
2019	95	87	2	6	1	0	0	1
2020	124	102	4	18	4	0	0	4

Littleton**Population: 8,924**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	27	11	6	10	0	0	0	0
2017	19	5	6	8	0	0	0	0
2018	31	15	12	4	0	0	0	0
2019	25	5	13	7	1	1	0	0
2020	31	10	6	15	0	0	0	0

Lowell**Population: 106,519**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
016	544	337	21	186	9	3	0	6
2017	385	261	33	91	4	0	2	2
2018	383	247	29	107	7	4	1	2
2019	320	204	18	98	2	1	0	1
2020	354	190	35	129	10	2	2	6

Malden**Population: 59,450**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	133	60	3	70	0	0	0	0
2017	122	64	5	53	0	0	0	0
2018	143	61	11	71	0	0	0	0
2019	120	55	5	60	0	0	0	0
2020	171	75	8	88	0	0	0	0

Marlborough**Population: 38,499**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	116	31	11	74	1	0	0	1
2017	105	22	16	67	0	0	0	0
2018	122	37	14	71	0	0	0	0
2019	104	42	10	52	0	0	0	0
2020	136	40	9	87	1	0	0	1

Maynard**Population: 10,106**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	21	9	1	11	1	1	0	0
2017	27	19	1	7	0	0	0	0
2018	24	10	1	13	1	0	0	1
2019	27	19	2	6	3	0	0	3
2020	30	21	2	7	1	0	0	1

Medford**Population: 56,173**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	242	143	16	83	0	0	0	0
2017	239	169	9	61	0	0	0	0
2018	215	131	25	59	0	0	0	0
2019	205	149	15	41	1	0	0	1
2020	288	182	12	94	0	0	0	0

Melrose**Population: 26,983**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	23	12	5	6	0	0	0	0
2017	20	15	4	1	3	3	0	0
2018	16	13	1	2	0	0	0	0
2019	227	201	4	22	1	0	0	1
2020	282	246	2	34	0	0	0	0

Natick**Population: 33,006**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	107	29	8	70	0	0	0	0
2017	68	28	7	33	1	1	0	0
2018	67	19	6	42	0	0	0	0
2019	63	16	12	35	1	0	1	0
2020	69	21	7	41	2	0	0	2

Newton**Population: 85,146**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	205	87	8	110	0	0	0	0
2017	295	211	16	68	0	0	0	0
2018	280	222	8	50	1	1	0	0
2019	377	312	3	62	2	2	0	0
2020	492	396	13	83	0	0	0	0

North Reading**Population: 14,892**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	46	13	7	26	5	0	0	5
2017	34	23	3	8	1	1	0	0
2018	34	18	6	10	2	0	0	2
2019	26	17	2	7	3	0	0	3
2020	26	7	1	18	4	0	0	4

Pepperell**Population: 11,497**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	35	15	2	18	0	0	0	0
2017	26	14	1	11	0	0	0	0
2018	24	12	4	8	0	0	0	0
2019	27	22	1	4	0	0	0	0
2020	19	9	2	8	1	0	0	1

Reading **Population: 24,747**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	77	34	9	34	1	0	0	1
2017	58	28	10	20	5	0	0	5
2018	75	54	5	16	1	1	0	0
2019	71	45	6	20	11	2	0	9
2020	44	22	6	16	2	0	0	2

Sherborn **Population: 4,119**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	9	0	1	8	0	0	0	0
2017	15	4	1	10	0	0	0	0
2018	15	7	0	8	1	1	0	0
2019	7	2	1	4	1	0	0	1
2020	23	9	2	12	1	0	0	1

Shirley **Population: 7,211**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3	2	0	1	0	0	0	0
2017	13	4	3	6	1	0	1	0
2018	14	9	2	3	0	0	0	0
2019	10	5	1	4	0	0	0	0
2020	13	6	1	6	0	0	0	0

Somerville **Population: 75,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	413	309	12	92	5	0	5	0
2017	433	334	16	83	1	0	0	1
2018	434	353	16	65	1	1	0	0
2019	373	308	12	53	3	1	1	1
2020	410	332	9	69	3	1	0	2

Stoneham**Population: 21,437**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	138	73	7	58	0	0	0	0
2017	96	63	8	25	0	0	0	0
2018	80	56	7	17	1	1	0	0
2019	80	54	8	18	1	1	0	0
2020	101	50	11	40	1	0	1	0

Stow**Population: 6,590**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	20	6	1	13	1	0	0	1
2017	11	5	1	5	0	0	0	0
2018	12	2	1	9	0	0	0	0
2019	13	8	1	4	1	1	0	0
2020	19	3	0	16	1	0	0	1

Sudbury**Population: 17,659**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	32	11	2	19	1	0	0	1
2017	8	6	0	2	0	0	0	0
2018	21	15	1	5	0	0	0	0
2019	16	7	2	7	0	0	0	0
2020	30	8	1	21	3	0	0	3

Tewksbury**Population: 28,961**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	91	19	11	61	1	0	0	1
2017	81	25	15	41	1	0	0	1
2018	87	30	6	51	1	0	1	0
2019	74	30	11	33	2	1	0	1
2020	88	21	6	61	0	0	0	0

Townsend					Population: 8,926			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	31	6	2	23	4	0	0	4
2017	23	14	1	8	3	0	0	3
2018	17	8	4	5	0	0	0	0
2019	26	11	2	13	0	0	0	0
2020	22	9	3	10	0	0	0	0

Tyngsborough					Population: 11,292			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	29	6	10	13	6	0	5	1
2017	25	11	7	7	1	0	0	1
2018	26	11	4	11	0	0	0	0
2019	35	17	8	10	0	0	0	0
2020	30	11	8	11	0	0	0	0

Wakefield					Population: 24,932			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	54	39	11	4	0	0	0	0
2017	60	48	8	4	0	0	0	0
2018	39	34	3	2	1	1	0	0
2019	39	25	11	3	0	0	0	0
2020	56	24	8	24	2	1	0	1

Waltham					Population: 60,632			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	249	79	14	156	2	1	0	1
2017	165	67	21	77	3	2	0	1
2018	142	62	14	66	1	1	0	0
2019	136	58	24	54	6	2	3	1
2020	196	59	18	119	5	2	1	2

Watertown **Population: 31,915**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	50	20	2	28	0	0	0	0
2017	40	17	4	19	0	0	0	0
2018	29	16	2	11	0	0	0	0
2019	41	14	5	22	0	0	0	0
2020	57	22	4	31	1	1	0	0

Wayland **Population: 12,994**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	29	8	1	20	0	0	0	0
2017	21	11	1	9	0	0	0	0
2018	25	9	1	15	1	0	0	1
2019	16	9	2	5	0	0	0	0
2020	38	18	2	18	2	1	0	1

Westford **Population: 21,951**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	71	15	2	54	1	0	0	1
2017	45	17	5	23	0	0	0	0
2018	43	21	2	20	1	0	0	1
2019	43	20	4	19	0	0	0	0
2020	69	12	5	52	2	0	0	2

Weston **Population: 11,261**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	38	12	5	21	0	0	0	0
2017	30	13	9	8	0	0	0	0
2018	29	13	7	9	1	0	1	0
2019	25	14	6	5	0	0	0	0
2020	31	9	10	12	3	0	0	3

Wilmington **Population: 22,325**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	95	26	8	61	0	0	0	0
2017	22	5	9	8	0	0	0	0
2018	35	10	11	14	3	0	0	3
2019	40	2	9	29	0	0	0	0
2020	98	10	11	77	0	0	0	0

Winchester **Population: 21,374**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	37	19	1	17	0	0	0	0
2017	26	10	2	14	0	0	0	0
2018	20	8	2	10	0	0	0	0
2019	20	15	2	3	0	0	0	0
2020	38	14	3	21	2	0	0	2

Woburn **Population: 38,120**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	243	99	20	124	4	1	0	3
2017	164	75	20	69	1	0	0	1
2018	199	126	24	49	2	0	0	2
2019	215	134	25	56	0	0	0	0
2020	181	84	15	82	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17002	Acton	4,031	55	0	1,574	172	545	117	398	5	1,165
17010	Arlington	4,510	93	1	2,926	396	396	102	573	9	14
17012	Ashby	484	17	0	267	9	142	5	41	3	0
17014	Ashland	2,273	64	4	1,487	118	156	123	315	4	2
17019	Ayer	717	26	3	94	96	269	58	165	3	3
17023	Bedford	2,541	31	2	1,463	156	190	97	332	5	265
17026	Belmont	2,535	92	3	1,404	112	198	219	480	23	4
17031	Billerica	4,828	107	3	3,034	258	622	120	668	7	9
17037	Boxborough	550	34	0	188	29	111	24	150	5	9
17048	Burlington	4,052	103	1	2,397	95	790	129	527	8	2
17049	Cambridge	13,073	975	11	6,197	924	596	1,448	2,914	1	7
17051	Carlisle*	0	0	0	0	0	0	0	0	0	0
17056	Chelmsford	24	23	0	0	1	0	0	0	0	0
17067	Concord	3,391	43	0	1,794	182	340	232	782	8	10
17919	Devens	639	41	0	216	18	180	20	157	4	3

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17079	Dracut	3,868	65	2	2,322	118	532	150	674	1	4
17081	Dunstable	305	19	0	147	9	83	11	34	2	0
17093	Everett	5,517	130	0	3,584	209	290	517	753	2	32
17100	Framingham	10,933	570	3	7,151	259	1,112	700	1,132	4	2
17115	Groton	690	34	3	215	80	38	37	238	45	0
17136	Holliston*	0	0	0	0	0	0	0	0	0	0
17139	Hopkinton	2,204	73	4	1,299	172	160	172	314	7	3
17141	Hudson	2,874	63	2	1,798	124	270	103	399	9	106
17155	Lexington	66	51	1	0	14	0	0	0	0	0
17157	Lincoln	1,400	129	0	738	68	51	108	287	15	4
17158	Littleton	1,888	41	1	1,217	65	133	224	200	3	4
17160	Lowell	10,977	361	11	5,677	609	1,259	534	2,446	21	59
17165	Malden	8,504	172	4	5,894	183	753	494	998	2	4
17170	Marlborough	6,989	141	3	4,707	254	538	292	992	6	56
17174	Maynard	1,612	32	0	928	56	162	157	265	9	3

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17176	Medford	10,525	298	4	7,089	562	798	386	1,365	7	16
17178	Melrose	4,155	293	1	2,491	229	491	236	395	16	3
17198	Natick	4,822	73	1	2,855	232	566	357	713	15	10
17207	Newton	8,747	494	3	4,533	458	860	348	2,028	17	6
17213	North Reading	2,330	34	4	1,311	141	310	221	281	22	6
17232	Pepperell	1,356	19	0	948	64	63	79	166	12	5
17246	Reading	3,617	56	1	1,776	130	821	352	405	20	56
17269	Sherborn	616	25	0	253	144	67	46	79	2	0
17270	Shirley	1,041	22	0	709	44	78	42	107	39	0
17274	Somerville	13,518	444	4	6,188	982	2,834	590	2,005	0	471
17284	Stoneham	3,641	118	4	2,232	117	300	323	303	6	238
17286	Stow	872	30	0	571	49	61	48	96	14	3
17288	Sudbury	2,286	36	0	1,373	179	121	160	408	9	0
17295	Tewksbury	4,496	89	1	2,586	94	851	314	531	1	29
17299	Townsend	1,294	26	1	894	43	92	130	96	5	7

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17301	Tyngsborough	1,498	31	1	964	44	159	69	230	0	0
17305	Wakefield	3,732	74	1	2,308	106	401	223	559	52	8
17308	Waltham	7,364	205	6	4,186	603	512	381	1,424	13	34
17314	Watertown	5,916	58	1	2,989	254	1,709	172	677	2	54
17315	Wayland	2,895	40	1	994	371	333	63	306	10	777
17330	Westford	3,084	75	5	1,787	100	419	110	534	22	32
17333	Weston	2,060	38	2	1,004	267	169	72	503	3	2
17342	Wilmington	3,053	98	3	2,098	60	259	172	341	3	19
17344	Winchester	2,221	48	0	1,213	234	178	152	374	11	11
17347	Woburn	5,486	185	3	3,650	124	513	267	712	1	31
Middlesex County		202,100	6,494	109	115,720	10,417	22,881	11,506	30,872	513	3,588

* Certified no reportable fires.

**Non reporting department.

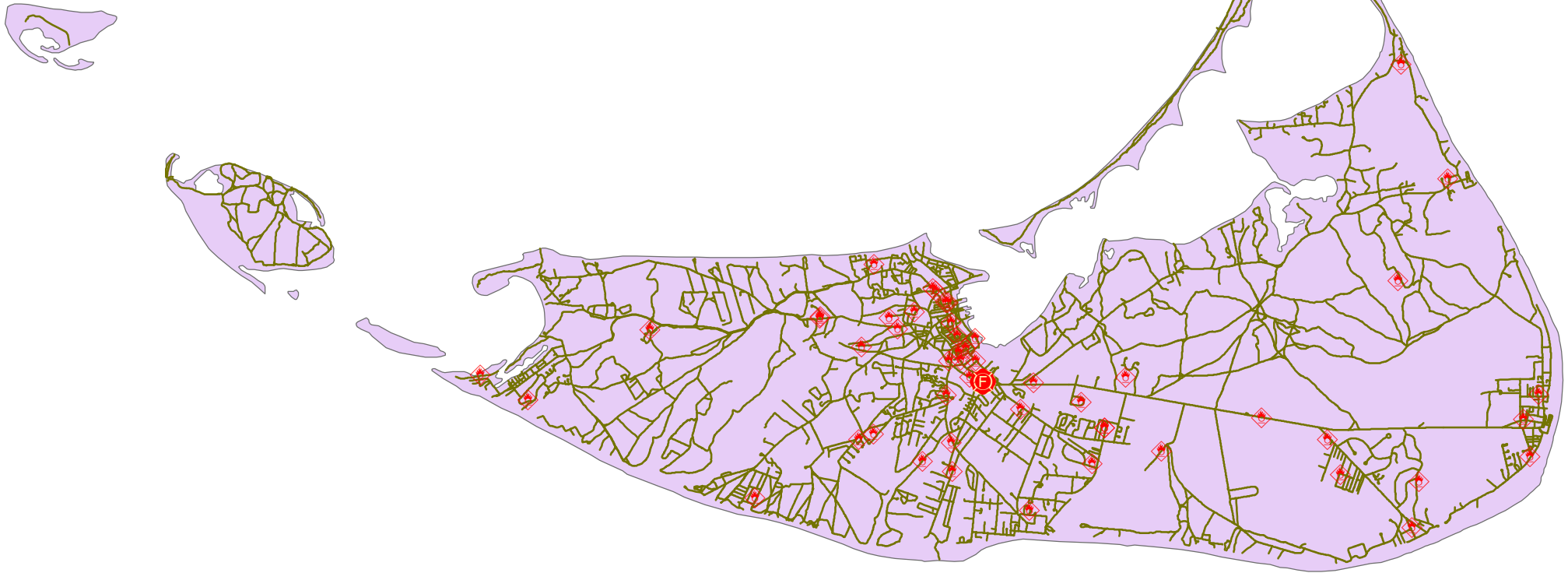
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Nantucket County

2020 Fire Data Analysis

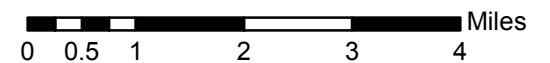
Nantucket County Fires 2020



2020 Nantucket Fires

-  2020 Nantucket Fires
-  Fire Stations

MFIRS
Massachusetts Fire Incident Reporting System



Massachusetts Fire Incident Reporting System 2020

Nantucket County Fires in 2020

50 Total Fires — 23 Structures, 3 Vehicles & 24 Outside and Other Fires

Nantucket County ranked last out of the fourteen Massachusetts counties in total reported fires. The Nantucket Fire Department reported 50 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 23 structure fires, three motor vehicle fires, 12 brush fires, seven outside rubbish fires, and five special outside fires caused one civilian death, three civilian injuries and an estimated dollar loss of \$4.5 million. Nantucket County's fires accounted for 0.2% of the 29,461 Massachusetts fires reported in 2020.

All Fires Up

The total number of reported fire incidents increased by 19 from the 31 fires reported in 2019. Structure fires increased by seven from the 16 reported in 2019. Motor vehicle fires increased by one from two reported the previous year. Reported outside and other fires increased by 11 from the 13 reported in 2019.¹

Nantucket is an island community with a small year round population. During the summer months, the population increases immensely. Reflecting this trend in population fluctuation, 58% of Nantucket's fires occurred between the months of May and September.

NANTUCKET FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	52	27	4	21	0	0	0	0
2017	54	19	13	22	4	2	1	1
2018	49	37	5	7	0	0	0	0
2019	31	16	2	13	0	0	0	0
2020	50	23	3	24	1	0	0	1

Fire and Fire Death Rates

Nantucket County had 4.9 fires per 1,000 population. That figure ranks Nantucket County fourth in the state and above the state rate of 4.5 fires per 1,000 population. Nantucket County also had 0.98 fire deaths per 10,000 population, ranking it first among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

1 Reported Fire Death in Nantucket County

There was one fatal fire and one fire death in 2020 in Nantucket County

- On April 12, 2020, at 2:22 p.m., the Nantucket Fire Department was called to a fatal electrical fire in a single-family home. The fire was caused by an unspecified short circuit arc in the living room. The victim, a 27-year old man, was found by a police officer just inside the home behind the front door. No one else was injured at this fire.

¹ 2019 was another down year across the state for brush fires.

The home did not have an alarms or sprinklers. Damages were estimated to be \$389,548.

Single-Family Home Largest Dollar Loss in 2020

In 2020, Nantucket had one fire with a dollar loss greater than \$1 million. This fire was responsible for 55% of the total dollar loss for Nantucket in 2020.

- On November 12, 2020, at 12:05 p.m., the Nantucket Fire Department was called to a fire in a single-family home of undetermined cause. A major explosion happened on the property starting the fire. One (1) civilian was injured at this fire. It was undetermined if alarms or sprinklers were present. Damages to the building were estimated to be \$2.5 million. This fire started two other exposure fires to nearby properties. This caused another \$3 million in estimated damages.

STRUCTURE FIRES

Reported Structure Fires Up

There were 23 structure fires in Nantucket in 2020. These incidents represented 46% of Nantucket County's reported fires in 2020. These 23 fires caused one civilian injury and \$4.5 million in estimated losses in 2020. The total number of reported structure fires increased by seven from the 16 reported in 2019.

No Reported Structure Arsons

There were no reported structure arsons in Nantucket in 2020. The total number of reported structure arsons remained the same with none reported as well in 2019.

BUILDING FIRES

There were 23 building fires of different types in Nantucket County in 2020. These 23 building fires accounted for all the structure fires in Nantucket County.

96% of Nantucket Building Fires Occurred in People's Homes

Twenty-two (22), or 96%, of Nantucket County's 23 building fires occurred in residential occupancies. The other fire happened in an industrial facility.

RESIDENTIAL FIRES

Residential Building Fires Down

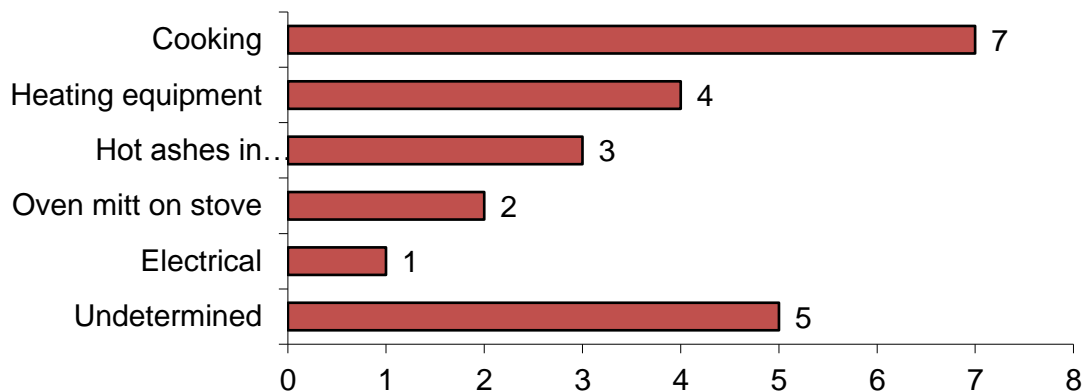
There were 22 reported residential building fires in Nantucket County in 2020. These 22 fires are an increase of 10, or 83%, from the 12 reported in 2019. Eighteen (18), or 82%, occurred in one- or two-family homes. Apartments and hotels each had two, or 9%, of Nantucket's residential fires.

Cooking Fires Caused 32% of Residential Fires

The leading cause of residential building fires in Nantucket County was unattended cooking and other unsafe cooking practices, accounting for 7, or 32%, of these fires. Heating equipment caused four, or 18%. Hot ashes left in combustible containers on or

under stairs or a deck caused three fires, or 14%. Two (2) fires, or 9%, were caused by someone leaving an oven mitt on or near a stove. Electrical problems caused one, or 5%, of these fires. The cause was not determined for five, or 23%, of the residential fires.

2020 Leading Causes of Fires in Nantucket Homes



10 Residential Building Fires Are Confined to Non-Combustible Containers²

Ten (10), or 45%, of all residential building fires were reported as confined to non-combustible containers in 2020. Seven (7) of the reported fires were cooking fires contained to a non-combustible container accounting for 32% of the residential fires. Two, or 9%, were fires confined to the chimney or flue. One (1), or 5%, of Nantucket's residential fires was a fuel burner or boiler malfunction.

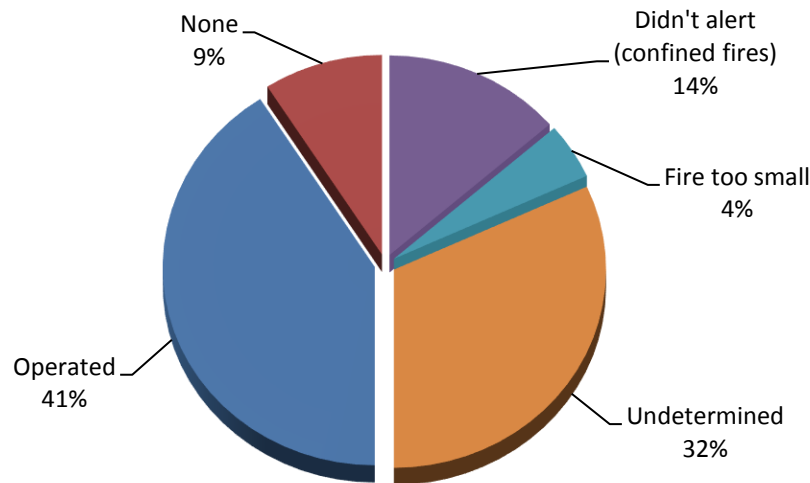
Alarms Operated Occupants in 41% of Fires

Smoke or heat alarms operated in nine, or 41%, of the residential building fires. There were three reported fires³, where alarms did not alert the occupants, accounting for 14% of these fires. There were no fires where the alarm failed to operate. There were two reported fire where there were no alarms, accounting for 9% of these fires. The fire was too small to activate the alarm in one, or 5%, of these fires. Alarm performance was undetermined in seven, or 32%, of Nantucket's residential fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Nantucket County's Residential Fires 2020



VACANT BUILDING FIRES

1 Building Fires Occurred in Vacant Buildings

Nantucket County reported one fire that occurred in a building that was vacant, under construction or demolition. This fire occurred in a single-family home and accounted for 4% of all building fires.

None of the vacant building fires were reported as arson.

JUVENILE-SET FIRES

0 Juvenile-set Fire

Nantucket County did not report any juvenile-set fires in 2020.

ARSONS

1 Total Arson⁴ — 0 Structures, 0 Vehicles & 1 Other Arson

In 2020, Nantucket reported one incident. This was a brush fire. The one brush fire is an increase of one over the none reported in 2019.

⁴ In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

All Arson Up 1

The total number of arsons increased by one from the zero arsons reported 2018 and 2019.

ALL INCIDENTS

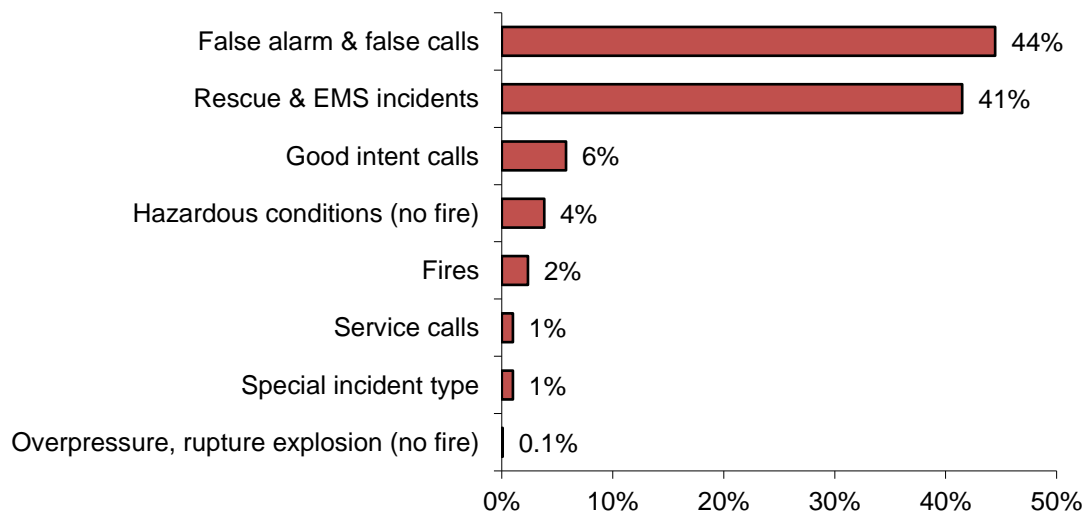
False Alarms Are 44% of All Reported Incidents

In 2020, Nantucket County reported 2,123 responses to MFIRS. Of these 2,123 incidents, 2,073 non-fire calls were voluntarily reported.

Of these 2,073 non-fire calls, 944, or 44%, of the total responses reported in 2020 were reported false alarm or false calls; 881, or 41%, were reported rescue and emergency medical services (EMS) calls; 123, or 6%, were reported good intent calls; 81, or 4%, were reported hazardous condition calls with no fire; 30, or 1%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 12, or 1%, were special incident types; and two, or 0.1%, were overpressure, rupture or explosion calls with no fire.

Fifty (50), or 2%, of the total responses submitted by the Nantucket Fire Department were fires.

2020 Incidents by Incident Type



Nantucket Reported Giving Aid in 0 Calls

In 2020, Nantucket did not report any calls where they gave mutual or automatic aid.

Nantucket Reported Receiving Aid in 1 Call

In 2020, Nantucket reported receiving mutual aid for one call. This call was for hazardous condition call with no fire.

Nantucket County**Population: 10,172⁵****4.9 Fires/1,000 Population****Total Fires: 50 \$4,520,548**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	23	46%	\$4,520,548
Vehicle Fires	3	6%	0
Other Fires	24	48%	4,900

1 Fatal Fire 20.00 Civilian Deaths/1,000 Fires
 1 Civilian Death 0.98 Civilian Deaths/10,000 Population
 3 Civilian Injuries

Building Fires: 23**Residential Structure Fires: 22****Residential Structure Fires Confined to Non-Combustible Containers: 10****Unconfined Residential Structure Fires: 12**

1 Civilian Death 3 Civilian Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	18	82%	Operated	9	41%
Apartments	2	9%	Didn't operate	0	0%
Hotels or motels		9%	None	2	9%
			Fire too small	1	5%
			Didn't alert (confined)	3	14%
			Undetermined	7	32%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	45%	Hot ember or ash	14%	25%
Chimney or flue	9%	Hot or smoldering object	9%	17%
		Rad. or conduct. heat op. eq.	9%	17%

⁵ We used the figures from the 2010 US Census because the figures from the 2020 Census had not been released as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Cooking materials	32%	Too close to combustibles	9%	17%
Exterior sidewall covering	9%			
Film, residue (creosote)	9%			
Soft goods, wearing appar., other	9%			

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
None	50%	Unintentional	27%	50%
Cooking equipment	32%	Act of nature	0%	0%
Chimney or flue	9%	Failure of eq. or heat source	9%	17%
Boiler, furnace, cent. heat. unit	9%	Cause under investigation	9%	17%
		Undetermined	9%	17%
		Intentional	0%	0%

**Detector Alerted Occupants
(Confined Fires in Non-Combustible Containers)**

Alerted Occupants	40%
Didn't Alert Occupants	30%
Undetermined	30%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined Fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	0	0	0	0
February	0	0	0	0
March	3	1	0	2
April	8	7	0	1
May	6	2	0	4
June	6	2	0	4
July	6	2	0	4
August	6	1	2	3
September	5	2	0	3
October	3	1	0	2
November	5	3	1	1
December	2	2	0	0

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	6	1	0	5
Monday	11	5	1	5
Tuesday	10	4	2	4
Wednesday	5	3	0	2
Thursday	6	3	0	3
Friday	3	2	0	1
Saturday	9	5	0	4

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	3	3	0	0
04:01 - 08:00	5	2	1	2
08:01 - 12:00	8	6	0	2
12:01 - 16:00	10	2	1	7
16:01 - 20:00	16	5	0	11
20:01 - 00:00	8	5	1	2

Motor Vehicle Fires

Total: 3

Automobiles: 3 (100%)

0, or (0%), of the automobile fires were considered intentionally-set.

Arson Fires

Total Arsons: 1

Dollar loss: \$0

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	1	4%	100%	0

0.00 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.10 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
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Other Arsons	#	%
16:00 – 20:00	1	100%

Responses Reported to MFIRS by Month

Incident Type	# of Incidents	January	February	March	April	May	June	July	August	September	October	November	December
Fires	52	0	0	3	8	6	6	6	6	5	3	7	2
Overpressure, rupture explosion (no fire)	2	0	0	0	0	0	0	2	0	0	0	0	0
Rescue & EMS incidents	881	29	29	41	43	46	85	147	123	103	107	74	54
Hazardous conditions (no fire)	81	7	1	1	6	4	7	14	8	4	8	10	11
Service calls	30	2	0	1	1	1	2	8	6	7	2	0	0
Good intent calls	123	2	1	4	4	9	9	20	24	11	23	8	8
False alarm & false calls	944	30	16	40	36	57	103	183	138	117	100	69	55
Severe weather & natural disaster	0	0	0	0	0	0	0	0	0	0	0	0	0
Special incident type	12	0	0	0	0	1	0	1	8	1	1	0	0
Total	2,125	70	47	90	98	124	212	381	313	248	244	168	130

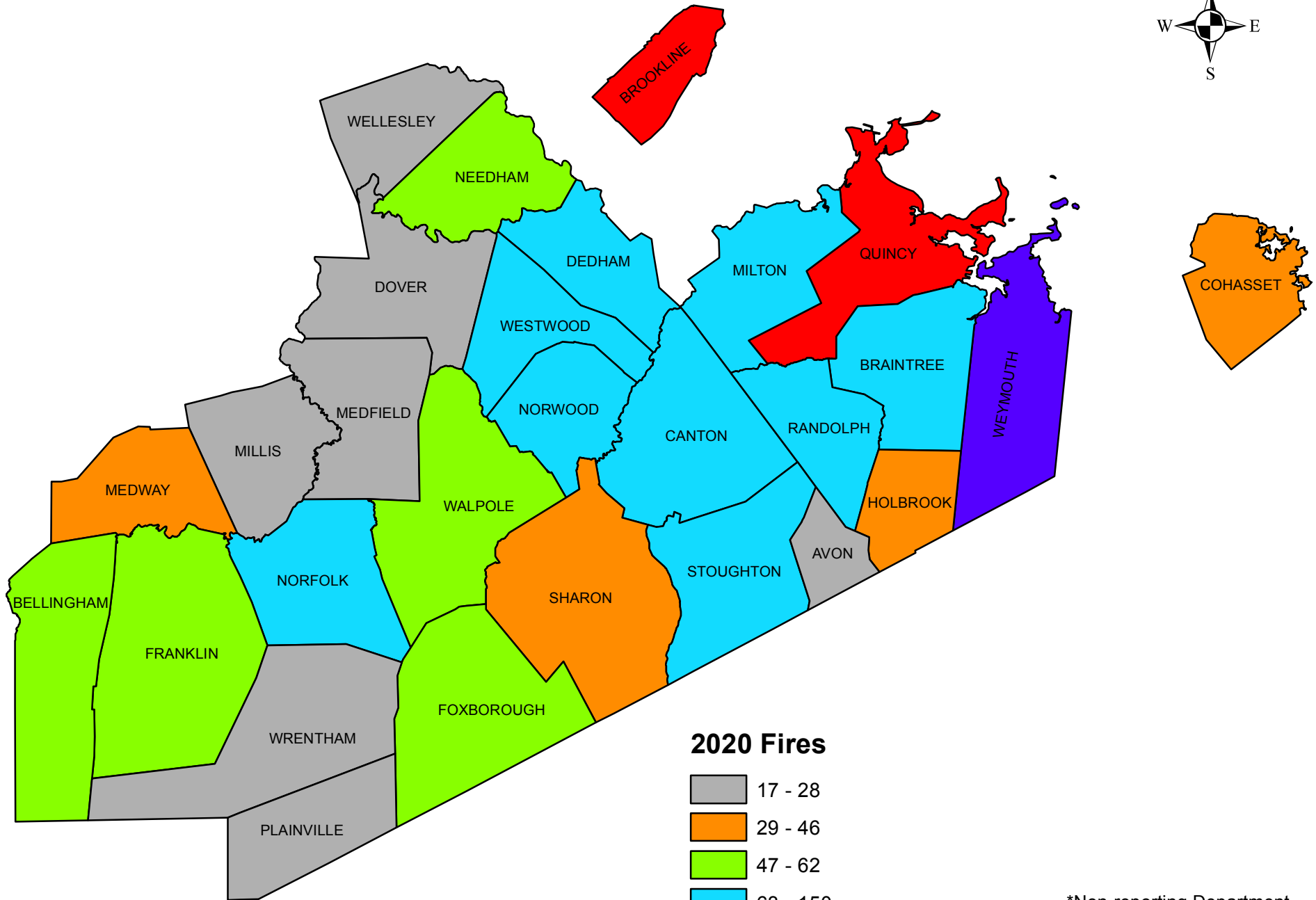
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Norfolk County

2020 Fire Data Analysis

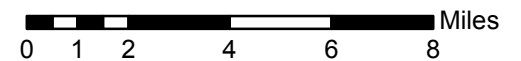
Norfolk County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2020

Norfolk County Fires in 2020

2,873 Total Fires — 1,554 Structures, 219 Vehicles & 1,100 Other Fires

Norfolk County ranked fourth out of the fourteen Massachusetts counties in total reported fires. Norfolk County fire departments reported 2,873 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 1,554 structure fires, 219 motor vehicle fires, 669 brush, tree or lawn fires, 182 outside rubbish fires, 118 special outside fires, 18 cultivated vegetation or crop fires, and 113 other fires caused three civilian deaths, 13 civilian injuries, 53 fire service injuries and an estimated dollar loss of \$17.9 million. Norfolk County's fires accounted for 10% of the 29,461 Massachusetts fires reported in 2020.

All 28 fire departments in Norfolk County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

Structure Fires Down

The total number of reported fire incidents increased by 320 from the 2,553 reported in 2019. Reported structure fires decreased by 150 from the 1,554 reported during the previous year. Motor vehicle fires increased by nine from the 210 reported the year before. Reported outside and other fires increased by 461 from the 639 reported a year earlier.¹

NORFOLK COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	3,207	1,679	216	1,312	54	9	2	43
2017	2,990	1,811	220	959	68	16	1	51
2018	2,541	1,558	249	734	48	8	3	37
2019	2,553	1,704	210	639	42	6	1	35
2020	2,873	1,554	219	1,100	59	8	4	47

Fire and Fire Death Rates

Norfolk County had 4.3 fires per 1,000 population. That figure ranks Norfolk County fifth in the state and just below the state rate of 4.5 fires per 1,000 population. Norfolk County also had 0.04 fire deaths per 10,000 population ranking it tied for ninth among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

3 Norfolk Fires Deaths

In 2020, three fatal fires killed three people in Norfolk County.

- On July 4, 2020, at 1:51 a.m., the Weymouth Fire Department was called to a fatal fire in a 40-unit apartment building of undetermined cause. The fire originated in the first floor kitchen. The victim was a 40-year old physically disabled man. One (1)

¹ 2019 was another down year for brush fires across the state.

firefighter was injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from the blaze were estimated to be 125,000.

- On November 3, 2020, at 5:32 a.m., the Quincy Fire Department was dispatched to a fire in a single-family building of undetermined cause. The victim was a 64-year old woman. No one else was injured at this fire. Alarms were present but it was undetermined if they operated. The building was not sprinklered. Damages from this fire were estimated to be \$90,000.
- On November 21, 2020, at 12:06 p.m., the Westwood Fire Department was called to a fatal cooking fire in a single-family home. The victim, an 87-year old physically disabled woman, had her clothes ignite while she was cooking on her gas stove. No one was injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from this fire were estimated to be \$20,000.

Wellesley Has Norfolk County's Largest Loss Fire in 2020

There were three reported fires in Norfolk County that caused over \$1 million in estimated damages. These three fires accounted for \$4.3 million in estimated damages and 24% of the total dollar loss for the county.

- The Wellesley Fire Department was dispatched to a fire of undetermined cause at a single-family home at 12:06 a.m. on December 20, 2020. No one was injured at this fire. It was undetermined if alarms were present and the building did not have sprinklers. Damages from this fire were estimated to be \$2.2 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 1,554 structure fires caused three civilian deaths, 12 civilian injuries, 47 fire service injuries and an estimated dollar loss of \$16 million. These incidents represented 54% of Norfolk County's reported fires in 2020. The average estimated dollar loss per structure fire was \$10,287. The total number of reported structure fires decreased by 150, or 9%, from the 1,704 reported in 2019.

Arson Caused Less Than 1% of Structure Fires

The eight structure arsons caused one civilian injury and an estimated dollar loss of \$6,500. Arson was indicated as the cause of less than 1% of the structure fires and less than 1% of Norfolk County's structure fire dollar loss. The eight structure arsons accounted for 14% of the Norfolk County arson fires reported in 2020. The total number of reported structure arsons increased by two, or 33%, from six in 2019.

63% of Structure Arsons Occurred in Residential Properties

Five (5), or 63%, of Norfolk County's eight structure arsons occurred in residential occupancies. One (1) fire, or 13%, each took place in an unclassified business, a dock and a playground.

BUILDING FIRES

There were 1,543 building fires of different types in Norfolk County in 2020. These 1,543 building fires accounted for 99.3% of all structure fires in Norfolk County.

87% of Norfolk Building Fires Occurred in People's Homes

One thousand three hundred and twenty-eight (1,328), or 87%, of Norfolk County's 1,543 building fires occurred in residential occupancies. Mercantile and business properties had 56 fires. Fifty-three (53) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 24 fires. Twenty-three (23) building fires in Norfolk County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Twenty-two (22) fires took place in storage properties. Eleven (11) building fires took place in educational properties. Another 11 fires took place in manufacturing and processing facilities. Four (4) fires occurred in industrial buildings, and 11 fires occurred in unclassified buildings in Norfolk County in 2020.

RESIDENTIAL FIRES

Apartments Accounted for 47% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 47% of the residential building fires in Norfolk County; 40% occurred in 1- or 2-family homes; 4% happened in rooming houses; 2% occurred in dormitories; 1% occurred in residential board and care facilities; and 1% happened in hotels or motels. Eighty-two (82), or 65%, of the residential building fires in Norfolk County occurred in unclassified residential buildings.

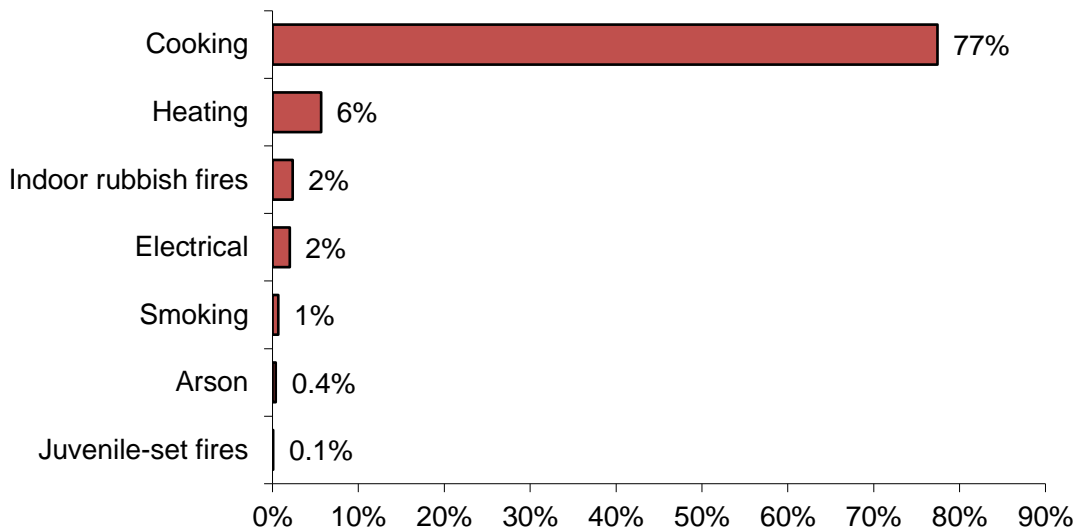
Residential Building Fires Down

There were 1,328 reported residential building fires in Norfolk County in 2020. These 1,328 fires are a decrease of 152, or 10%, from the 1,480 residential building fires reported in 2019.

Cooking Caused 77% of Residential Fires

The leading cause of residential building fires in Norfolk County was unattended cooking and other unsafe cooking practices, accounting for 77% of the fires. Heating caused 6% of fires in people's homes. Indoor rubbish fires and electrical problems each caused 2%. Smoking caused 1% of these fires. Arson and juvenile-set fires each caused less than 1% of the residential building fires in Norfolk County in 2020.

2020 Leading Causes of Fires in Norfolk County Homes



84% of Residential Building Fires Are Confined to Non-Combustible Containers²

One thousand one hundred and twenty-one (1,121), or 84%, of all residential building fires were reported as confined to non-combustible containers in 2020. One thousand and fourteen (1,014) of the reported fires were cooking fires contained to a non-combustible container, accounting for 76% of residential building fires. Forty (40), or 4%, of all residential building fires reported in 2020 were fires confined to a chimney. Thirty-five (35), or 3%, were fires confined to a fuel burner or boiler malfunction. Thirty-one (31), or 3% of Norfolk County's residential fires in 2020 were contained rubbish fires; and one, or less than 1%, was a commercial compactor fire.

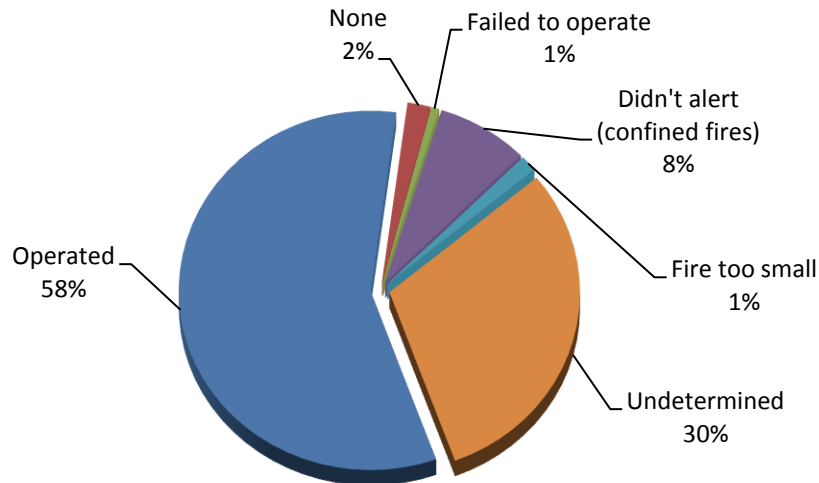
Detectors Alerted Occupants in 58% of Fires

Smoke or heat detectors operated and alerted the occupants in 766, or 58%, of the residential building fires. In 8% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 1% of the residential fires. Smoke detector performance was undetermined in 404 incidents, or 30%, of Norfolk County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Norfolk County's Residential Structure Fires 2020



1/3 Detectors Failed from Missing or Dead Batteries

Of the nine fires where smoke detectors were present but failed to operate, two, or 22%, failed because of missing or disconnected batteries and one, or 11% failed because of dead battery. One (1) detector, or 11%, failed from a lack of maintenance, and another one failed because it was defective. It was undetermined or unclassified in two cases, or 22%, why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Norfolk County reported 26 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 1,813 building fires reported to MFIRS in 2020. Thirteen (13) fires occurred in vacant residential properties. Six (6) happened in storage facilities. Two (2) occurred in public assembly properties; and another two in special properties. A manufacturing or processing facility had one fire in a vacant building.

None, of the vacant building fires in Norfolk County in 2020 were determined to be intentionally-set.

JUVENILE-SET FIRES

4 Juvenile-set Fires

There were four reported juvenile-set fires in Norfolk County in 2020. The three structure fires and one unclassified fire caused \$3,0000 in estimated damages.

ARSONS

59 Total Arsons - 8 Structures, 4 Vehicle & 47 Other Arsons

Fifty-nine (59), or 2%, of Norfolk County's 2,873 fires were intentionally-set, or, for purposes of this analysis, arson. The eight structure arsons, four motor vehicle arsons and 47 outside and other arsons caused one civilian injury and an estimated loss of \$111,500.

All Arsons Up

The total number of reported arson fires increased by 42 from the 42 reported in 2019. Reported structure arsons increased by two from the six reported the previous year. Motor vehicle arsons increased by three from the one reported in 2019. Reported outside and other arsons increased by 12 from 35 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 61% of All Reported Incidents

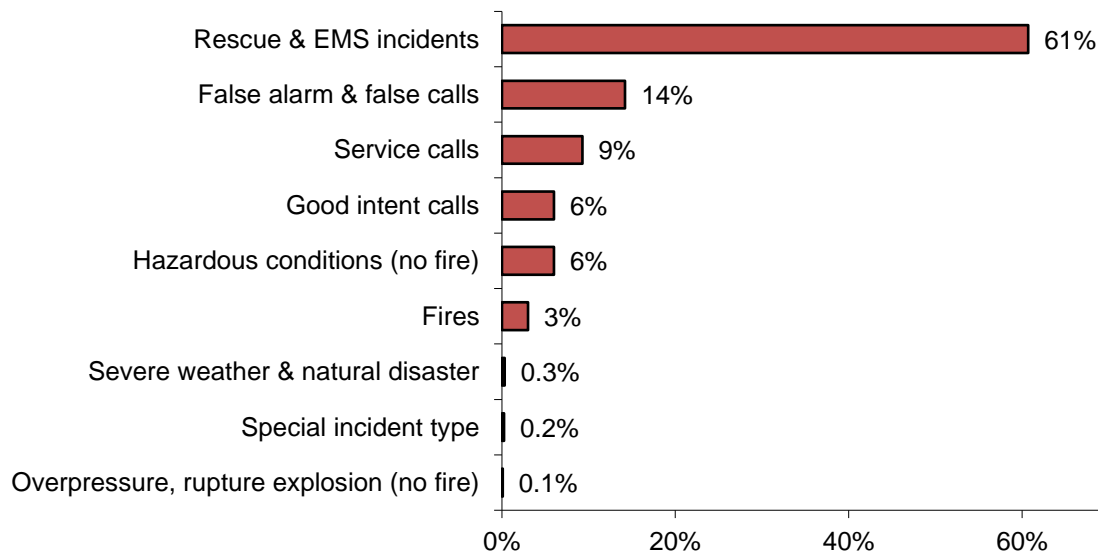
In 2020, fire departments in Norfolk County reported 102,316 responses⁴ to MFIRS. Of these 102,316 incidents, 99,243 non-fire calls were voluntarily reported.

Of these 99,243 non-fire incidents, 62,110, or 61%, of all the incidents reported in 2020 were reported rescue and emergency medical services (EMS) calls; 14,530, or 14%, were reported false alarm or false calls; 9,481, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 6,470, or 6%, were reported good intent calls; 5,996, or 6%, were reported hazardous condition calls with no fire; 321, or 0.3%, were severe weather responses; 246, or 0.2%, were special incident type calls such as citizen complaints; and 89, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Three thousand and seventy-three (3,073), or 3%, of the total responses submitted by Norfolk County fire departments were fires.

⁴ These figures include responses in which Norfolk County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Norfolk County Fire Departments Gave Mutual Aid 2,988 Times

In 2020, Norfolk County fire departments reported coming to the aid of other fire departments 2,988 times. Of these 2,988 responses, 1,722, or 58%, were for rescue or EMS calls; 491 or 16%, were for good intent calls; 406, or 14%, were for service calls such as cover assignments; 198, or 7%, were for fires; 127, or 4%, were for false alarms or false calls; 44, or 1%, were for hazardous conditions calls with no fire; two, or 0.1%, were severe weather or natural disaster calls; and one, or 0.03%, was a special incident type..

Norfolk County Received Mutual Aid in 1,766 Incidents

In 2020, Norfolk County fire departments reported receiving aid from surrounding departments in 1,766 incidents. Of these 1,766 incidents, 1,367, or 77%, were rescue and emergency medical services calls; 133, or 8%, were for fires; 110, or 6%, were false alarms or false calls; 65, or 4%, were good intent calls; 45, or 3%, were hazardous conditions calls with no fire; 42 or 2%, were service calls; three, or 0.2%, were overpressure, rupture explosions with no fire; and one, or 0.1%, was for a severe weather or natural disaster call.

Norfolk County**Population: 670,850⁵****4.3 Fires/1,000 Population****Total Fires: 2,873 \$17,859,747**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,554	54%	\$15,986,466
Vehicle Fires	219	8%	1,411,449
Other Fires	1,100	38%	461,832

3 Fatal Fires 1.04 Civilian Deaths/1,000 Fires
 3 Civilian Deaths 0.04 Civilian Deaths/10,000 Population
 13 Civilian Injuries 53 Fire Service Injuries

Building Fires: 1,543**Residential Structure Fires: 1,328****Residential Structure Fires Confined to Non-Combustible Containers: 1,121****Unconfined Residential Structure Fires: 207**

3 Civilian Deaths 10 Civilian Injuries 41 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	624	47%	Operated	766	58%
1- & 2-Family homes	532	40%	Didn't operate	9	1%
Rooming houses	47	4%	None	26	2%
Dormitories	21	2%	Fire too small	19	1%
Residential board & care	15	1%	Didn't alert (confined)	104	8%
Hotels or motels	7	1%	Undetermined	404	30%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	80%	Radiated heat from oper. eq.	2%	11%
Heating equipment room	3%	Heat from operating equip.	2%	10%
Chimney or flue	3%	Arcing	2%	10%
Living room	1%	Cigarette	1%	6%
Exterior balcony, unencl. porch	1%	Hot or smoldering obj., other	1%	5%

⁵ We are still using the figures from the 2010 US Census because figures from the 2020 Census have not been released as of the writing of this report.

⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	78%	Misuse of mater. or prod.	2%	13%
Flammable/comb. liquid	3%	Too close to combustibles	2%	12%
Film, residue (creosote)	3%	Abandoned materials	1%	9%
Rubbish, trash, waste	3%	Equipment unattended	1%	9%
		Elec. fail., malfunc., other	1%	7%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Kitchen & cooking equipment	77%	Unintentional	9%	61%
None	10%	Failure of eq. or heat source	1%	5%
Boiler, furnace, cent. heat. unit	3%	Intentional	0.2%	1%
Chimney, flue	3%	Act of nature	0.3%	2%
Stove, heating	1%	Cause under investigation	2%	14%
Clothes dryer	0.5%	Undetermined	2%	13%

Detector Alerted Occupants (Confined Fires in Non-Combustible Containers)

Alerted occupants	60%
Didn't alert occupants	9%
Undetermined	31%

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	186	143	9	34
February	176	125	16	35
March	273	161	15	97
April	251	167	22	62
May	299	139	19	141
June	276	86	23	167
July	251	101	27	123
August	307	115	18	174
September	243	115	10	118
October	227	129	20	78
November	209	141	19	49
December	175	132	21	22

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	487	249	32	206
Monday	402	205	30	167
Tuesday	353	196	32	125
Wednesday	378	213	25	140
Thursday	400	228	28	144
Friday	387	229	32	126
Saturday	466	234	40	192

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	136	73	14	49
04:01 - 08:00	158	66	17	75
08:01 - 12:00	464	243	43	178
12:01 - 16:00	801	363	73	365
16:01 - 20:00	924	574	46	304
20:01 - 00:00	390	235	26	129

Motor Vehicle Fires

Total: 219

Automobiles: 176 (80%)

4, or (2%), of the automobile fires were considered intentionally-set.

Arson Fires

Total Arsons: 59

Dollar loss: \$111,500

0.09 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	8	0.5%	14%	\$6,500
Vehicle Arsons	4	2%	7%	105,000
Other Arsons	47	4%	80%	0

0.01 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

1 Civilian Injury

Peak Times of Day for

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	4	50%	00:01 - 04:00	2	50%
00:01 - 04:00	1	13%	04:01 - 08:00	1	25%
08:01 - 12:00	1	13%	08:01 - 12:00	1	25%
16:01 - 20:00	1	13%			
20:01 - 00:00	1	13%			

Other Arsons	#	%
20:01 - 00:00	15	32%
16:01 - 20:00	14	30%
12:01 - 16:00	8	17%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	3	38%
1- and 2-Family homes	2	25%
Dock, marina, pier, wharf	1	13%
Mercantile, business other	1	13%
Playground	1	13%

Avon					Population: 4,356			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	43	3	10	30	2	0	0	2
2017	35	7	8	20	0	0	0	0
2018	24	7	9	8	2	0	0	2
2019	24	7	4	13	3	0	0	3
2020	21	2	7	12	1	0	1	0

Bellingham					Population: 16,332			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	40	11	6	23	1	1	0	0
2017	50	13	8	29	1	1	0	0
2018	36	16	9	11	2	1	0	1
2019	30	8	8	14	2	0	0	2
2020	49	19	8	22	0	0	0	0

Braintree					Population: 35,744			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	89	20	12	57	1	1	0	0
2017	90	23	16	51	4	0	0	4
2018	70	15	20	35	1	0	0	1
2019	69	14	12	43	0	0	0	0
2020	90	19	16	55	0	0	0	0

Brookline					Population: 58,732			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	442	346	7	89	1	0	0	1
2017	402	340	11	51	1	0	0	1
2018	385	350	7	28	3	1	0	2
2019	493	454	8	31	0	0	0	0
2020	430	372	6	52	3	1	0	2

Canton					Population: 21,561			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	34	15	8	11	0	0	0	0
2017	58	27	15	16	0	0	0	0
2018	77	32	13	32	2	2	0	0
2019	66	34	14	18	1	1	0	0
2020	82	32	13	37	3	1	0	2

Cohasset					Population: 7,542			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	78	52	4	22	3	0	0	3
2017	79	61	4	14	4	0	0	4
2018	45	26	1	18	5	0	0	5
2019	28	16	3	9	0	0	0	0
2020	37	19	1	17	0	0	0	0

Dedham					Population: 24,729			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	181	86	13	82	7	0	0	7
2017	146	78	9	59	4	1	0	3
2018	144	80	11	53	3	0	0	3
2019	89	54	13	22	3	0	0	3
2020	115	45	7	63	7	1	0	6

Dover					Population: 5,589			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	12	4	0	8	0	0	0	0
2017	11	7	0	4	0	0	0	0
2018	19	8	1	10	0	0	0	0
2019	12	6	1	5	0	0	0	0
2020	17	3	1	13	2	0	0	2

Foxborough **Population: 16,865**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	50	12	11	27	0	0	0	0
2017	44	15	8	21	0	0	0	2
2018	60	19	21	20	2	0	1	1
2019	39	13	13	13	5	0	0	5
2020	62	16	16	30	2	0	0	2

Franklin **Population: 31,635**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	71	12	15	44	3	1	1	1
2017	50	19	5	26	3	0	0	3
2018	58	24	14	20	1	0	0	1
2019	46	20	7	19	0	0	0	0
2020	59	11	7	41	1	0	0	1

Holbrook **Population: 10,791**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	52	28	3	21	0	0	0	0
2017	42	32	5	5	2	2	0	0
2018	45	27	6	12	0	0	0	0
2019	38	23	3	12	0	0	0	0
2020	37	17	2	18	2	0	0	2

Medfield **Population: 12,024**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	5	0	12	7	0	0	7
2017	25	5	0	20	9	0	0	9
2018	17	9	1	7	3	0	0	3
2019	17	6	2	9	0	0	0	0
2020	26	10	0	16	2	1	0	1

Medway**Population: 12,752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	49	21	5	23	2	1	0	1
2017	52	39	1	12	2	1	0	1
2018	33	23	2	8	0	0	0	0
2019	37	27	3	7	0	0	0	0
2020	46	31	2	13	0	0	0	0

Millis**Population: 7,891**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Non-Reporting Community							
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	15	6	0	9	1	0	0	1
2020	17	4	3	10	3	0	0	3

Milton**Population: 27,003**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	191	128	21	42	6	0	0	6
2017	166	116	14	36	3	0	0	3
2018	69	48	8	13	0	0	0	0
2019	111	87	10	14	2	0	0	2
2020	108	71	17	0	0	0	0	0

Needham**Population: 28,886**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	59	11	4	44	0	0	0	0
2017	53	13	11	29	3	1	0	2
2018	35	7	2	26	0	0	0	0
2019	50	10	8	32	1	0	0	1
2020	57	12	7	38	1	0	0	1

Norfolk **Population: 11,227**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	54	40	1	13	1	1	0	0
2017	71	53	1	17	3	1	0	2
2018	52	39	3	10	0	0	0	0
2019	74	68	1	5	0	0	0	0
2020	89	68	1	20	0	0	0	0

Norwood **Population: 28,602**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	143	42	3	98	2	1	0	1
2017	89	34	9	46	0	0	0	0
2018	82	32	7	43	1	0	1	0
2019	63	30	6	27	1	0	1	0
2020	100	35	8	57	0	0	0	0

Plainville **Population: 8,264**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	47	20	5	22	2	0	0	2
2017	40	21	2	17	1	0	0	1
2018	16	6	2	8	0	0	0	0
2019	22	8	2	12	1	0	0	1
2020	25	7	5	13	0	0	0	0

Quincy **Population: 92,271**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	540	258	22	260	11	0	1	10
2017	641	406	19	216	9	0	0	9
2018 ¹²	512	337	30	145	8	1	0	7
2019	588	414	23	151	9	2	0	7
2020	656	376	21	259	22	1	1	20

¹² Quincy only reported the first 3 months of 2018 runs to MFIRS before the database was closed for analysis. QFD reported 106 total fires, 89 structure fires, 7 motor vehicle fires and 10 outside & other fires. They did not report any arsons during the first 3 months. The above numbers are their actual totals for 2018. Only the 106 fires were included in the analysis of this report.

Randolph**Population: 32,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	193	120	15	58	0	0	0	0
2017	196	127	17	52	8	4	0	4
2018	192	133	18	41	9	1	0	8
2019	133	90	10	33	11	2	0	9
2020	150	81	19	50	4	1	1	2

Sharon**Population: 17,612**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	47	23	5	19	2	2	0	0
2017	41	25	4	12	0	0	0	0
2018	40	23	9	8	1	0	0	1
2019	35	21	6	8	0	0	0	0
2020	46	32	4	10	1	0	1	0

Stoughton**Population: 26,962**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	138	99	8	31	0	0	0	0
2017	108	76	9	23	1	1	0	0
2018	83	37	8	38	2	1	1	0
2019	95	48	15	32	1	1	0	0
2020	85	41	16	28	1	1	0	0

Walpole**Population: 24,070**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	50	24	4	22	0	0	0	0
2017	79	43	4	32	1	0	0	1
2018	70	43	5	22	0	0	0	0
2019	46	24	7	15	1	0	0	1
2020	52	20	4	28	0	0	0	0

Wellesley **Population: 27,982**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	60	25	3	32	0	0	0	0
2017	53	25	7	21	1	1	0	0
2018	32	14	7	11	0	0	0	0
2019	41	23	5	13	0	0	0	0
2020	28	12	4	12	1	0	0	1

Westwood **Population: 14,618**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	142	80	9	53	1	0	0	1
2017	105	63	10	32	1	0	1	0
2018	114	73	6	35	0	0	0	0
2019	56	34	5	17	0	0	0	0
2020	85	49	6	30	1	0	0	1

Weymouth **Population: 53,743**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	319	149	17	153	2	1	0	1
2017	252	136	21	95	4	3	0	1
2018	219	126	23	70	3	1	0	2
2019	223	156	17	50	0	0	0	0
2020	287	143	14	130	2	1	0	1

Wrentham **Population: 10,955**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	4	2	7	0	0	0	0
2017	12	7	2	3	1	0	0	1
2018	11	4	5	2	0	0	0	0
2019	14	3	4	7	0	0	0	0
2020	17	7	4	6	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
21018	Avon	1,122	30	4	714	36	106	118	110	2	2
21025	Bellingham	2,777	50	2	1,909	84	322	179	220	4	7
21040	Braintree	6,252	91	24	4,124	189	684	356	757	16	11
21046	Brookline	7,728	438	12	4,337	518	603	383	1,415	14	8
21050	Canton	4,001	90	1	2,358	121	517	258	637	12	7
21065	Cohasset	1,551	41	2	710	204	178	116	220	37	43
21073	Dedham	4,439	116	1	2,784	347	393	160	633	1	4
21078	Dover	269	22	0	33	29	14	12	153	6	0
21099	Foxborough	3,198	96	0	2,118	227	205	170	370	7	5
21101	Franklin	4,423	73	4	2,751	208	411	340	608	27	1
21133	Holbrook	2,854	38	0	1,647	147	531	146	318	27	0
21175	Medfield	1,414	26	1	731	217	154	77	191	9	8
21177	Medway	2,107	46	4	1,201	208	166	137	299	44	2
21187	Millis	758	22	4	528	27	67	27	56	8	19
21189	Milton	3,221	110	2	1,978	156	174	186	596	7	12
21199	Needham	3,648	57	1	1,859	219	586	247	671	4	4

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
21208	Norfolk	2,197	125	2	1,217	247	124	10	472	0	0
21220	Norwood	5,082	104	1	3,684	244	249	169	616	7	8
21238	Plainville	2,267	49	1	1,313	91	191	276	319	20	7
21243	Quincy	10,310	657	7	6,207	658	685	725	1,352	15	4
21244	Randolph	5,750	152	0	4,067	225	510	216	577	2	1
21266	Sharon	2,392	61	1	1,298	176	234	298	297	6	21
21285	Stoughton	5,259	91	2	3,350	145	414	341	902	5	9
21307	Walpole	3,625	52	2	2,212	267	354	231	488	19	0
21317	Wellesley	3,558	28	1	1,823	199	460	242	797	0	8
21335	Westwood	3,105	100	3	1,549	223	457	247	500	18	8
21336	Weymouth	6,832	288	4	4,176	459	494	648	748	4	11
21350	Wrentham	2,177	20	3	1,432	125	198	155	208	0	36
Norfolk County		102,316	3,073	89	62,110	5,996	9,481	6,470	14,530	321	246

* Certified no reportable fires.

**Non reporting department.

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



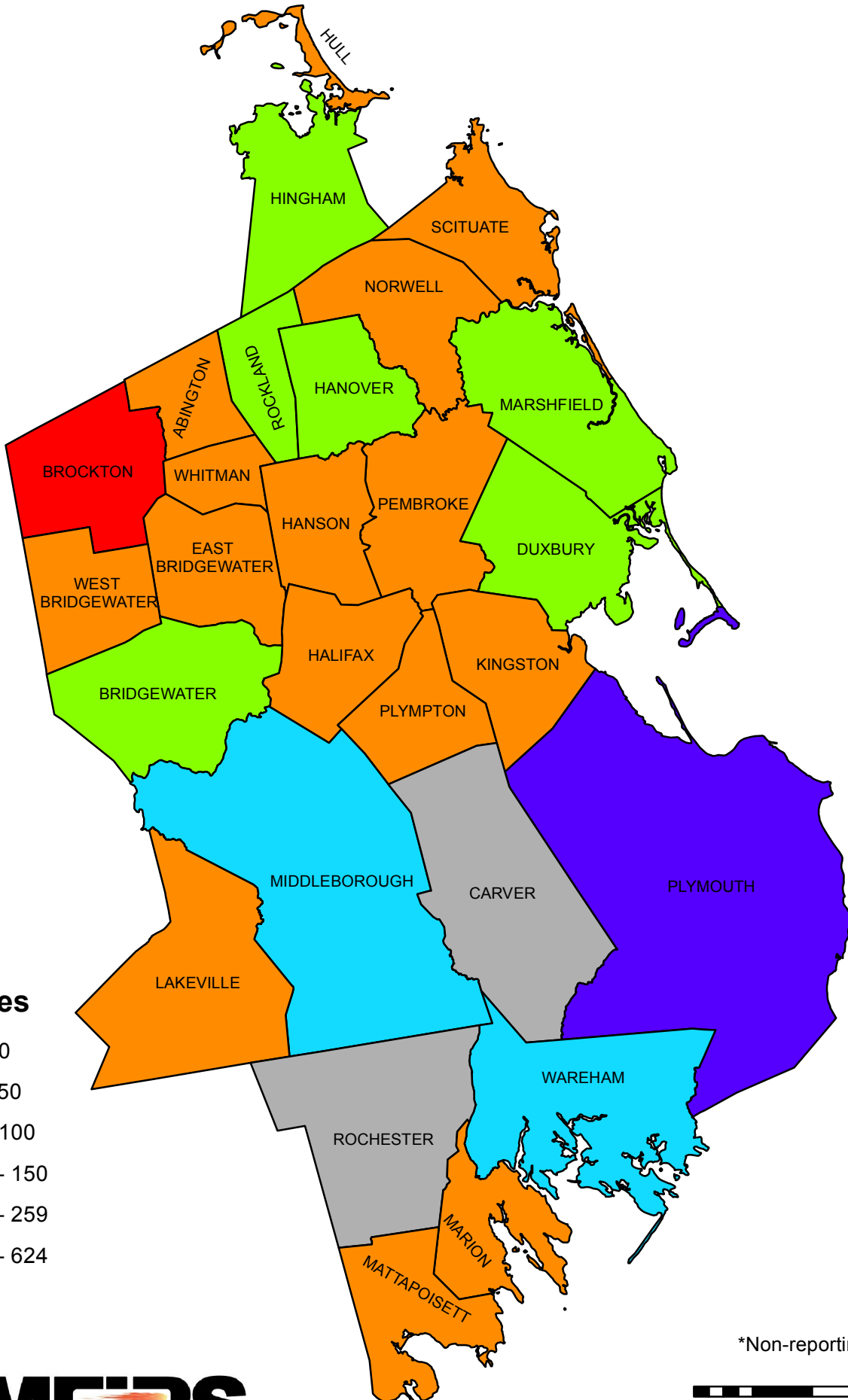
Plymouth County

2020 Fire Data Analysis

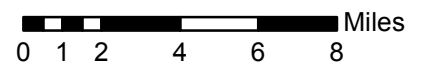
Plymouth County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2020

Plymouth County Fires in 2020

2,040 Total Fires — 838 Structures, 194 Vehicles & 1,008 Other Fires

Plymouth County ranked sixth out of the fourteen Massachusetts counties in total reported fires. Plymouth County fire departments reported 2,040 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 838 structure fires, 194 motor vehicle fires, 634 brush, tree or lawn fires, 167 outside rubbish fires, 144 special outside fires, three cultivated vegetation or crop fires and 60 other fires caused three civilian deaths, 43 civilian injuries, 42 fire service injuries and an estimated dollar loss of \$20.3 million. Plymouth County's fires accounted for 7% of the 29,461 Massachusetts fires reported in 2020.

All 28 fire departments, or 100%, in Plymouth County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

All Fires Up

The total number of reported fire incidents increased by 475, or 30%, from the 1,565 reported in 2020. Reported structure fires increased by 30 from 808 the year before. Motor vehicle fires decreased by four from 198 the previous year. Reported outside and other fires increased by 449 from 559 in 2019.¹

PLYMOUTH COUNTY FIRES FROM 2016 TO 2020

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
Year	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2016	2,077	820	215	1,042	39	10	1	28
2017	1,757	828	199	730	39	12	4	23
2018	1,646	834	219	593	39	11	4	24
2019	1,565	808	198	559	33	14	5	14
2020	2,040	838	194	1,008	48	15	3	30

Fire and Fire Death Rates

Plymouth County had 4.1 fires per 1,000 population. That figure ranks Plymouth County tied for seventh in the state and below the state rate of 4.5 fires per 1,000 population. Plymouth County also had 0.06 fire deaths per 10,000 population ranking it tied for seventh among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

3 Plymouth County Fatal Fires Killed 3 Civilians in 2020

Three (3) people died in three fatal fires in Plymouth County in 2020.

- On February 24, 2020, at 2:21 p.m., the West Bridgewater Fire Department was dispatched for an EMS call at a single-family home. The victim, a 50-year old physically disabled man, was burning brush in his back yard when he lost his balance

¹ 2019 was another down year statewide for brush fires.

and fell into the fire pit. He was transported to a local hospital and then transferred to a Boston hospital where he succumbed to his injuries.

- On May 4, 2020, at 9:11 p.m., the Hanson Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by a cigarette on a porch. The victim, a 58-year old woman, was possibly impaired by alcohol. Alarms were present and alerted the occupants. There were no sprinklers. Damages from this fire were estimated to be \$750,000.
- On June 6, 2020, at 2:21 a.m., the Plymouth Fire Department was dispatched to a motor vehicle fire in an open lot. It is believed that the driver, a 70-year old man and only occupant of the vehicle, set the car on fire. He died by suicide when the car burst into flames. No one else was injured in this fire. Damages from this fire were estimated to be \$4,000.

Brockton Has Plymouth County's Largest Loss Fire in 2020

In 2020, there were two large loss fires in Plymouth County with a dollar loss greater than \$1 million. These two fires caused \$2.8 million, or 14%, of Plymouth County's total dollar loss.

- On November 12, 2020, at 4:24 p.m., the Brockton Fire Department responded to a fire of undetermined cause, at Rice's Market, a convenience store. No one was injured at this fire. It was undetermined if alarms were present. The building did not have any sprinklers. Total damages were estimated to be \$1.8 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 838 structure fires caused one civilian death, 39 civilian injuries, 27 fire service injuries and an estimated dollar loss of \$17.2 million. These incidents represented 41% of Plymouth County's reported fires in 2020. The average estimated dollar loss per structure fire was \$20,613. The total number of reported structure fires increased by 30, or 4%, from the 808 reported in 2019.

Structure Arsons Up Slightly

The 15 structure arsons caused one civilian injury, one fire service injury and an estimated dollar loss of \$503,028. Arson was indicated as the cause of 2% of the structure fires and 3% of Plymouth County's structure fire dollar loss. The 15 structure arsons accounted for 31% of the Plymouth County arson fires reported in 2020. The total number of reported structure arsons increased by one, or 7%, from 14 in 2019.

2/3 of Structure Arsons Occurred in Residences

Ten (10), or 67%, of Plymouth County's 15 structure arsons occurred in residential occupancies; 20% occurred in mercantile or business properties; and 7% each happened in intentional facilities and storage properties.

BUILDING FIRES

There were 828 building fires of different types in Plymouth County in 2020. These 828 building fires accounted for 99.8% of all structure fires in Plymouth County.

85% of Plymouth Building Fires Occurred in People's Homes

Six hundred and fifty-three (702), or 85%, of Plymouth County's 828 building fires occurred in residential occupancies. Mercantile and business properties had 38 fires. Twenty-seven (27) fires took place in storage facilities. Twenty-two (22) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 12 fires. Ten (10) building fires took place in educational facilities. Special properties had seven fires. Six (6) fires occurred in industrial, utility, defense, agricultural or mining facilities. Four (4) fires took place in manufacturing and processing facilities in Plymouth County in 2020.

RESIDENTIAL FIRES

Residential Building Fires Up

There were 702 reported residential building fires in Plymouth County in 2020. These 702 fires are an increase of 49, or 8%, from the 653 residential building fires reported in 2019.

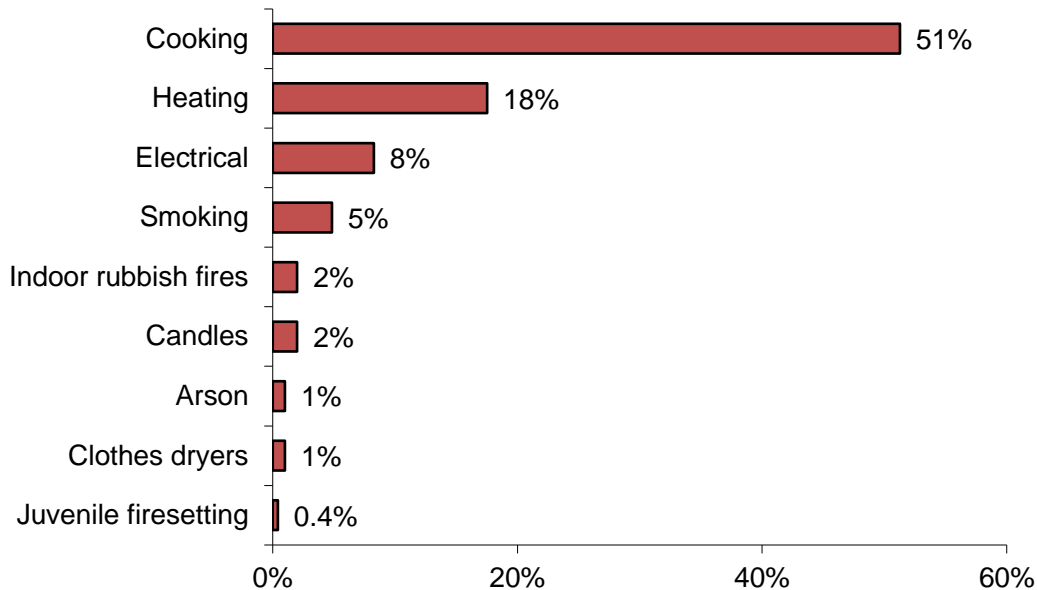
1- & 2-Family Homes Accounted for 57% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 57% of the residential building fires in Plymouth County; 37% occurred in apartments. Rooming houses had 3% of these fires. Dormitories and hotels or motels each had 1% of these fires. Residential board and care facilities had less than 1% of these fires. Five (5), or 1%, of the residential building fires in Plymouth County occurred in unclassified residential buildings.

Cooking Was the Leading Causes of Residential Fires

The leading cause of the 702 residential building fires in Plymouth County was unattended cooking and other unsafe cooking practices, accounting for 51% of these fires. Heating problems caused 18% of the fires in people's homes. Electrical problems caused 8% and smoking caused 5% of these fires. Indoor rubbish fires and candles each caused 2%; and clothes dryers and arsons each caused 1% of these fires. Juvenile-set fires caused less than 1% of residential fires in Plymouth County in 2020.

2020 Leading Causes of Fires in Plymouth County Homes



67% of Residential Building Fires Were Confined to Non-Combustible Containers²

Four hundred and sixty-eight (468), or 67%, of all residential building fires were reported as confined to non-combustible containers in 2020. Three hundred and forty-two (342) of the reported fires were cooking fires contained to a non-combustible container, accounting for 49% of residential building fires. Sixty-three (63), or 9%, were fires confined to a fuel burner or boiler malfunction. Forty-seven (47), or 7%, of all residential building fires reported in 2020 were fires confined to a chimney. Sixteen (16), or 2%, of these fires were contained rubbish fires.

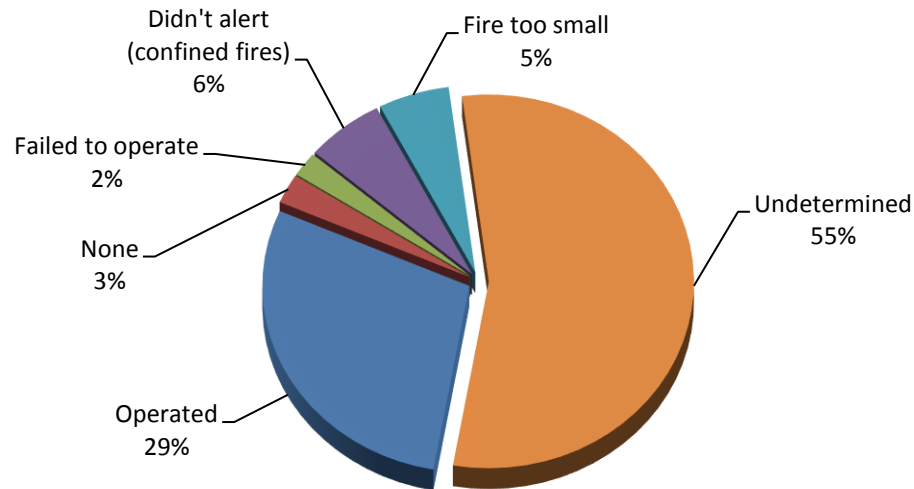
Detectors Alerted Occupants in Only 29% of Fires

Smoke or heat detectors operated and alerted the occupants in 202, or 29%, of the residential building fires. In 6% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 5% of the residential fires. Smoke detector performance was undetermined in 385 incidents, or 55%, of Plymouth County's residential building fires.

² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

³ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Plymouth County's Residential Structure Fires 2020



3 of Alarms Failed Because of a Dead or Missing Batteries

Of the 15 fires where smoke alarms were present but failed to operate, two, or 13%, failed because the batteries were either missing or disconnected, and one, or 7%, failed because the batteries were dead. Three, or 20%, failed from a power shutoff or disconnect. One (1), or 7%, failed from a lack of maintenance; and another alarm failed because it was defective. It was undetermined or unclassified in eight cases, or 47%, why the alarms failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Plymouth County reported 26 fires that occurred in buildings that were vacant, under construction or demolition⁴. This represented 3% of the total 828 building fires reported to MFIRS in 2020. Eleven (11) fires occurred in storage facilities. Ten (10) fires occurred in vacant residential properties; two each happened in public assembly properties and mercantile or business properties; and one in a special property in Plymouth County.

Two, or 8%, of the vacant building fires in Plymouth County in 2020 were determined to be intentionally-set. One (1) occurred in a residential property, and another in a warehouse.

⁴ In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However, in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1- Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

JUVENILE-SET FIRES

9 Juvenile-set Fires

There were nine reported juvenile-set fires in Plymouth County in 2020. The six structure fires, two brush fires and one outside rubbish fire caused one civilian injury and \$380,303 in estimated damages.

ARSONS

48 Total Arsons — 15 Structures, 3 Vehicles & 30 Other Arsons

Forty-eight (48), or 2%, of Plymouth County's 2,040 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 15 structure arsons, three motor vehicle arsons and 48 outside and other arsons caused one civilian death, one civilian injury, one fire service injury and an estimated dollar loss of \$527,028.

All Arsons Up

The total number of reported arson fires increased by 15 from the 33 reported in 2019. Reported structure arsons increased by one from the 14 reported in 2019. Motor vehicle arsons decreased by two from the five reported in 2019. Reported outside and other arsons increased by 16 from the 14 reported in 2019.

ALL INCIDENTS

Rescue & EMS Calls Are 64% of All Reported Responses

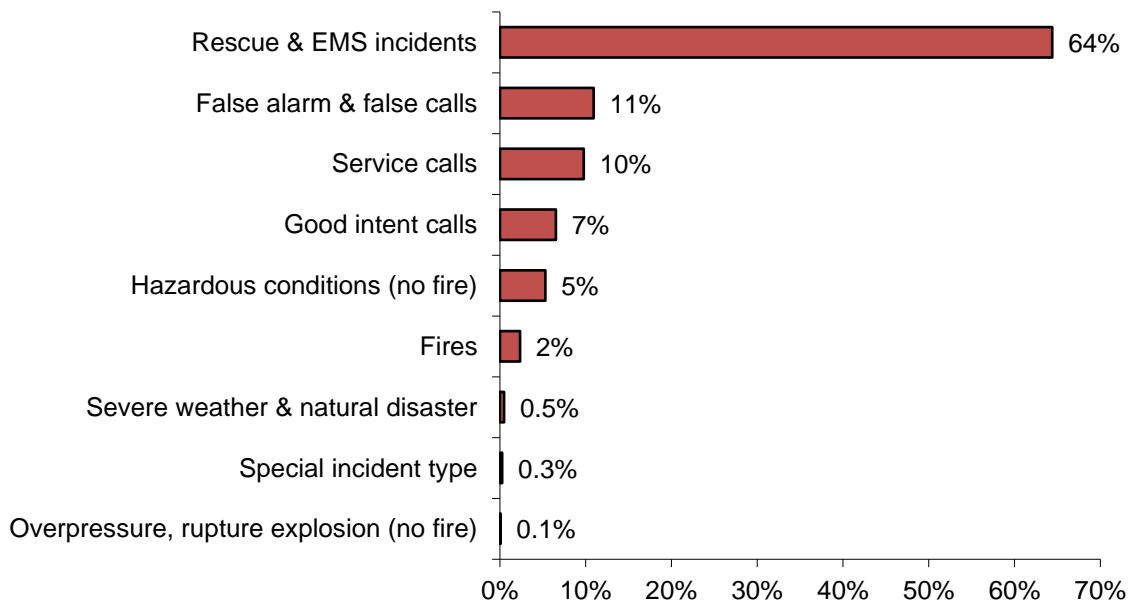
In 2020, Plymouth County fire departments reported 92,136 responses⁵ to MFIRS. Of these 92,136 incidents, 89,984 non-fire calls were voluntarily reported.

Of these 89,984 non-fire calls, 59,327, or 64%, of the total responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 10,070 or 11%, were reported false alarm or false calls; 9,003, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 6,005, or 7%, were reported good intent calls; 4,862, or 5%, were reported hazardous condition calls with no fire; 429, or 0.5%, were severe weather responses; 232, or 0.3%, were special incident type calls such as citizen complaints; and 56, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand one hundred and fifty-two (2,152), or 2%, of the total responses submitted by Plymouth County fire departments were fires.

⁵ These figures include responses in which Plymouth County fire departments gave mutual aid to other fire departments.

2020 Responses by Incident Type



Plymouth County Fire Departments Gave Mutual Aid 1,575 Times

In 2020, Plymouth County fire departments reported coming to the aid of other fire departments 1,575 times. Of these 1,575 responses, 935, or 59%, were for rescue or EMS calls; 255, or 16%, were for good intent calls; 236, or 15%, were for service calls such as cover assignments; 112, or 7%, were for fires; 24, or 2%, were for hazardous conditions calls with no fire; 12, or 1%, were for false alarms or false calls; and one, or 0.1%, was a reported overpressure, rupture, explosion or overheat call with no fire.

Plymouth County Received Mutual Aid in 998 Incidents

In 2020, Plymouth County fire departments received aid from surrounding departments in 998 incidents. Of these 998 incidents, 799, or 80%, were rescue and emergency medical services calls; 100, or 10%, were for fires; 28, or 3%, were good intent calls; 23, or 2%, were service calls; 23, or 2%, were hazardous conditions calls with no fire; 21, or 2%, were false alarms or false calls; and four, or 0.4%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Plymouth County**Population: 494,919⁶****4.1 Fires/1,000 Population****Total Fires: 2,040 \$20,267,067**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	838	41%	\$17,274,007
Vehicle Fires	194	10%	2,045,195
Other Fires	1,008	49%	947,865

3 Fatal Fires 1.47 Civilian Deaths/1,000 Fires
 3 Civilian Deaths 0.06 Civilian Deaths/10,000 Population
 43 Civilian Injuries 42 Fire Service Injuries

Building Fires: 828**Residential Building Fires: 702****Residential Building Fires Confined to Non-Combustible Containers: 468****Unconfined Residential Building Fires: 234**

1 Civilian Death 34 Civilian Injuries 22 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	400	48%	Operated	202	29%
Apartments	259	31%	Didn't operate	15	2%
Rooming houses	20	3%	None	18	3%
Dormitories	8	1%	Fire too small	39	5%
Hotels or motels	7	1%	Didn't Alert (confined)	43	6%
Residential board & care	3	0.4%	Undetermined	385	55%

Area of Origin⁷	%	Heat Source	%	%Unconfined⁸
Kitchen	54%	Arcing	6%	17%
Heating room or area	9%	Heat from operating eq.	3%	9%
Chimney or flue	7%	Cigarettes	3%	8%
Bedroom	4%	Hot or smoldering object	2%	7%
Exterior balcony, unencl. porch	3%	Radiated, cond./heat op. eq.	2%	6%

⁶ We used the 2010 US Census figures because the 2020 Census figures had not been published as of the writing of this report.

⁷ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	% Unconfined¹⁰
Food, cooking materials	50%	Too close to combustibles	2%	7%
Flammable or combust. liquid	9%	Electrical failure, malfunc.	2%	5%
Film, residue (creosote)	7%	Abandoned materials	2%	5%
Electrical wire, cable insulation	3%	Unspecified short circuit arc	2%	5%
Structural member, framing	3%	Mechanical failure, malfunc.	2%	5%
Rubbish, trash, waste	3%			

Equipment¹¹	%	Cause of Ignition	%	% Unconfined¹²
Cooking equipment	51%	Unintentional	19%	58%
None	21%	Failure of eq. or heat source	5%	14%
Boiler, furnace, cent. heat. unit	9%	Intentional	1%	3%
Chimney or flue	7%	Act of Nature	0.3%	1%
Electrical wiring, other	1%	Cause under investigation	4%	12%
Outlet, receptacle	1%	Undetermined	4%	11%

Detector Alerted Occupants (Confined Fires in Non-Combustible Containers)

Alerted Occupants	18%
Didn't Alert Occupants	9%
Undetermined	72%

⁹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹⁰ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	134	91	13	30
February	156	97	23	36
March	180	74	13	93
April	138	63	9	66
May	265	80	24	161
June	237	71	15	151
July	188	53	17	118
August	206	51	15	140
September	191	69	16	106
October	127	63	18	46
November	125	56	20	49
December	93	70	11	12

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	304	130	26	148
Monday	328	137	24	167
Tuesday	283	119	23	141
Wednesday	299	123	34	142
Thursday	263	117	20	126
Friday	268	93	34	141
Saturday	295	119	33	143

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	114	56	16	42
04:01 - 08:00	124	56	17	51
08:01 - 12:00	340	154	29	157
12:01 - 16:00	639	207	60	372
16:01 - 20:00	588	243	50	295
20:01 - 00:00	235	122	22	91

Motor Vehicle Fires

Total: 194

Automobiles: 151 (78%)

2, or (1%), of the automobile fires considered intentionally-set.

Arson Fires

Total Arsons: 48

Dollar loss: \$527,028

0.10 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	15	2%	31%	\$503,028
Vehicle Arsons	3	2%	6%	4,000
Other Arsons	30	3%	63%	20,000

0.03 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.06 Other arsons/1,000 population

1 Civilian Death

1 Civilian Injury

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
08:01 – 12:00	4	27%	00:01 – 04:00	1	33%
16:01 – 20:00	4	27%	04:01 – 08:00	1	33%
00:01 – 04:00	3	20%	16:01 – 20:00	1	33%

Other Arsons	#	%
16:01 – 20:00	11	37%
12:01 – 16:00	10	33%
08:01 – 12:00	4	13%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-family homes	6	40%
Apartments	2	13%

Abington**Population: 15,985**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	71	19	7	45	1	0	0	1
2017	39	13	3	23	1	0	0	1
2018	41	18	10	13	0	0	0	0
2019	36	17	6	13	0	0	0	0
2020	42	17	7	18	2	1	1	0

Bridgewater**Population: 26,563**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	127	71	13	43	0	0	0	0
2017	77	46	4	27	0	0	0	0
2018	79	45	9	25	1	1	0	0
2019	87	55	11	21	0	0	0	0
2020	81	48	7	26	1	0	0	1

Brockton**Population: 93,810**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	629	348	57	224	4	2	0	2
2017	561	313	43	205	10	4	1	5
2018	487	310	50	127	6	3	1	2
2019	533	339	53	141	6	2	1	3
2020	624	321	44	259	6	3	0	3

Carver**Population: 11,509**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	2	2	0	0	0	0	0	0
2017	7	6	1	0	0	0	0	0
2018	3	2	1	0	0	0	0	0
2019	5	4	1	0	0	0	0	0
2020	9	6	3	0	0	0	0	0

Duxbury**Population: 15,059**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	50	17	6	27	0	0	0	0
2017	40	12	3	25	1	0	0	1
2018	27	5	9	13	0	0	0	0
2019	32	18	2	12	1	1	0	0
2020	51	20	8	23	0	0	0	0

East Bridgewater**Population: 13,794**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	37	14	2	21	1	0	0	1
2017	34	14	3	17	1	0	1	0
2018	25	10	4	11	1	1	0	0
2019	29	20	4	5	2	1	0	1
2020	39	20	4	15	1	0	0	1

Halifax**Population: 7,518**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	23	7	1	15	0	0	0	0
2017	23	10	1	12	2	1	0	1
2018	29	13	1	15	0	0	0	0
2019	17	7	1	9	1	1	0	0
2020	22	12	1	9	0	0	0	0

Hanover**Population: 13,879**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	61	21	1	39	0	0	0	0
2017	47	20	6	21	1	1	0	0
2018	53	29	7	17	2	1	0	1
2019	51	27	6	18	1	0	0	1
2020	61	31	4	26	1	0	0	1

Hanson					Population: 10,209			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	40	9	1	30	3	0	0	3
2017	22	8	1	13	0	0	0	0
2018	26	10	2	14	4	0	1	3
2019	23	12	0	11	0	0	0	0
2020	32	9	1	22	4	0	0	4

Hingham					Population: 22,157			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	80	20	5	55	3	0	0	3
2017	66	34	4	28	1	1	0	0
2018	65	26	7	32	0	0	0	0
2019	45	14	7	24	0	0	0	0
2020	67	20	6	41	1	0	0	1

Hull					Population: 10,293			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	25	4	3	18	3	0	0	3
2017	24	11	2	11	0	0	0	0
2018	19	10	3	6	0	0	0	0
2019	26	12	4	10	0	0	0	0
2020	20	9	1	10	1	1	0	0

Kingston					Population: 12,629			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	59	17	9	33	1	0	1	0
2017	32	8	4	20	0	0	0	0
2018	36	15	6	15	1	0	0	1
2019	31	8	4	19	2	1	0	1
2020	48	9	7	32	0	0	0	0

Lakeville					Population: 10,602			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	25	8	3	14	2	1	0	1
2017	8	4	2	2	0	0	0	0
2018	35	9	5	21	2	0	0	2
2019	35	7	7	21	0	0	0	0
2020	47	11	8	28	2	0	1	1

Marion					Population: 4,907			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	16	1	3	12	0	0	0	0
2017	26	7	8	11	2	0	0	2
2018	19	6	3	10	5	1	0	4
2019	26	15	5	6	2	1	0	1
2020	18	11	0	7	3	0	0	3

Marshfield					Population: 25,132			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	79	35	4	40	2	1	0	1
2017	100	41	6	53	2	0	0	2
2018	78	34	7	37	1	0	0	1
2019	73	40	2	31	0	0	0	0
2020	100	40	4	56	4	2	0	2

Mattapoisett					Population: 6,045			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	13	1	1	11	0	0	0	0
2017	17	7	1	9	0	0	0	0
2018	18	10	2	6	0	0	0	0
2019	19	9	5	5	0	0	0	0
2020	19	8	2	9	0	0	0	0

Middleborough**Population: 23,116**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	88	22	24	42	4	0	1	3
2017	78	37	18	23	3	1	1	1
2018	67	21	16	30	1	0	0	1
2019	30	12	7	11	1	1	0	0
2020	117	24	22	71	3	1	0	2

Norwell**Population: 10,506**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	45	9	7	29	2	1	0	1
2017	54	20	9	25	3	0	0	3
2018	8	7	1	0	0	0	0	0
2019	6	3	1	2	0	0	0	0
2020	44	12	5	27	2	0	0	2

Pembroke**Population: 17,837**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	8	5	4	0	0	0	0
2017	4	2	0	2	0	0	0	0
2018	5	4	0	1	0	0	0	0
2019	Non-reporting Department							
2020	34	10	2	22	1	0	0	1

Plymouth**Population: 56,468**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	246	74	24	148	6	3	0	3
2017	176	81	30	65	1	1	0	0
2018	191	79	32	80	1	1	0	0
2019	147	51	28	68	4	2	1	1
2020	259	67	27	165	5	3	1	1

Plympton					Population: 2,820			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	4	1	0	3	1	0	0	1
2017	2	0	0	2	1	0	0	1
2018	9	5	2	2	1	1	0	0
2019	10	2	1	7	1	0	0	1
2020	11	6	0	5	0	0	0	0

Rochester					Population: 5,232			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	1	0	0	0	0	0	0
2017	4	4	0	0	1	1	0	0
2018	4	4	0	0	0	0	0	0
2019	3	3	0	0	0	0	0	0
2020	1	1	0	0	0	0	0	0

Rockland					Population: 17,489			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	78	11	7	60	3	1	0	2
2017	58	24	4	30	2	1	0	1
2018	69	35	5	29	1	1	0	0
2019	48	23	10	15	4	2	1	1
2020	56	25	6	25	3	2	0	1

Scituate					Population: 18,133			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	65	23	3	39	4	1	0	3
2017	65	30	3	32	4	0	1	3
2018	53	31	4	18	6	0	1	5
2019	80	46	6	28	3	0	0	3
2020	23	11	2	10	1	0	0	1

WAREHAM FIRE DISTRICTS**Population: 21,822****Onset****Est. Pop. Protected: 4,801**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	45	27	3	15	1	0	0	1
2017	33	28	2	3	0	0	0	0
2018	47	33	4	10	0	0	0	0
2019	31	20	1	10	0	0	0	0
2020	49	32	6	11	1	0	0	1

Wareham District**Est. Pop. Protected: 17,021**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	106	33	21	52	1	0	0	1
2017	75	22	26	27	1	0	0	1
2018	76	30	15	31	1	0	0	1
2019	68	21	12	35	1	1	0	0
2020	95	34	12	49	2	1	0	1

West Bridgewater**Population: 6,916**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	27	10	5	12	1	0	0	1
2017	44	11	11	22	1	0	0	1
2018	31	6	9	16	2	0	0	2
2019	45	10	11	24	1	0	1	0
2020	37	3	4	20	4	1	0	3

Whitman**Population: 14,489**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	18	7	0	11	0	0	0	0
2017	32	11	4	17	1	1	0	0
2018	26	13	5	8	2	1	1	0
2019	29	13	3	13	3	1	1	1
2020	34	12	2	20	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
23001	Abington	2,982	42	1	1,966	187	226	212	337	6	5
23042	Bridgewater	4,117	89	2	2,554	200	442	189	575	11	55
23044	Brockton	24,892	625	5	18,629	585	1,563	1,000	2,456	23	6
23052	Carver	9	9	0	0	0	0	0	0	0	0
23082	Duxbury	2,696	53	7	1,439	341	332	141	362	13	8
23083	East Bridgewater	2,322	50	1	1,659	157	93	79	260	21	2
23118	Halifax	1,483	29	0	1,039	107	142	45	98	18	5
23122	Hanover	3,547	70	0	1,612	277	1,128	157	261	39	3
23123	Hanson	1,911	36	3	1,235	184	206	63	165	11	8
23131	Hingham	4,264	74	1	2,559	251	348	418	468	135	10
23142	Hull	2,389	20	0	1,554	173	281	77	264	17	3
23145	Kingston	2,418	51	0	1,703	149	151	82	278	2	2
23146	Lakeville	1,804	54	2	1,184	65	194	126	163	8	8
23169	Marion	1,177	23	2	785	51	65	62	187	2	0
23171	Marshfield	4,002	106	2	2,829	265	325	35	427	7	6
23173	Mattapoisett	609	24	2	78	91	150	52	196	6	10

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
23182	Middleborough	4,686	126	4	1,930	143	484	1,471	494	15	19
23219	Norwell	1,911	49	2	1,108	213	150	118	222	41	8
23993	Onset	1,515	57	6	953	133	128	117	116	5	0
23231	Pembroke	3,046	35	2	2,077	183	345	75	306	16	7
23239	Plymouth	8,924	261	5	5,359	321	924	805	1,231	9	9
23240	Plympton	631	11	0	395	74	65	35	49	0	2
23250	Rochester	1	1	0	0	0	0	0	0	0	0
23251	Rockland	3,198	58	1	2,221	135	241	197	321	5	19
23264	Scituate	713	25	1	370	84	72	59	96	3	3
23992	Wareham	2,454	96	3	1,395	248	188	210	281	2	31
23322	West Bridgewater	1,967	44	3	1,105	83	457	48	213	13	1
23338	Whitman	2,468	34	1	1,589	162	303	132	244	1	2
Total	Plymouth County	92,136	2,152	56	59,327	4,862	9,003	6,005	10,070	429	232

* Certified no reportable fires.

**Non reporting department.

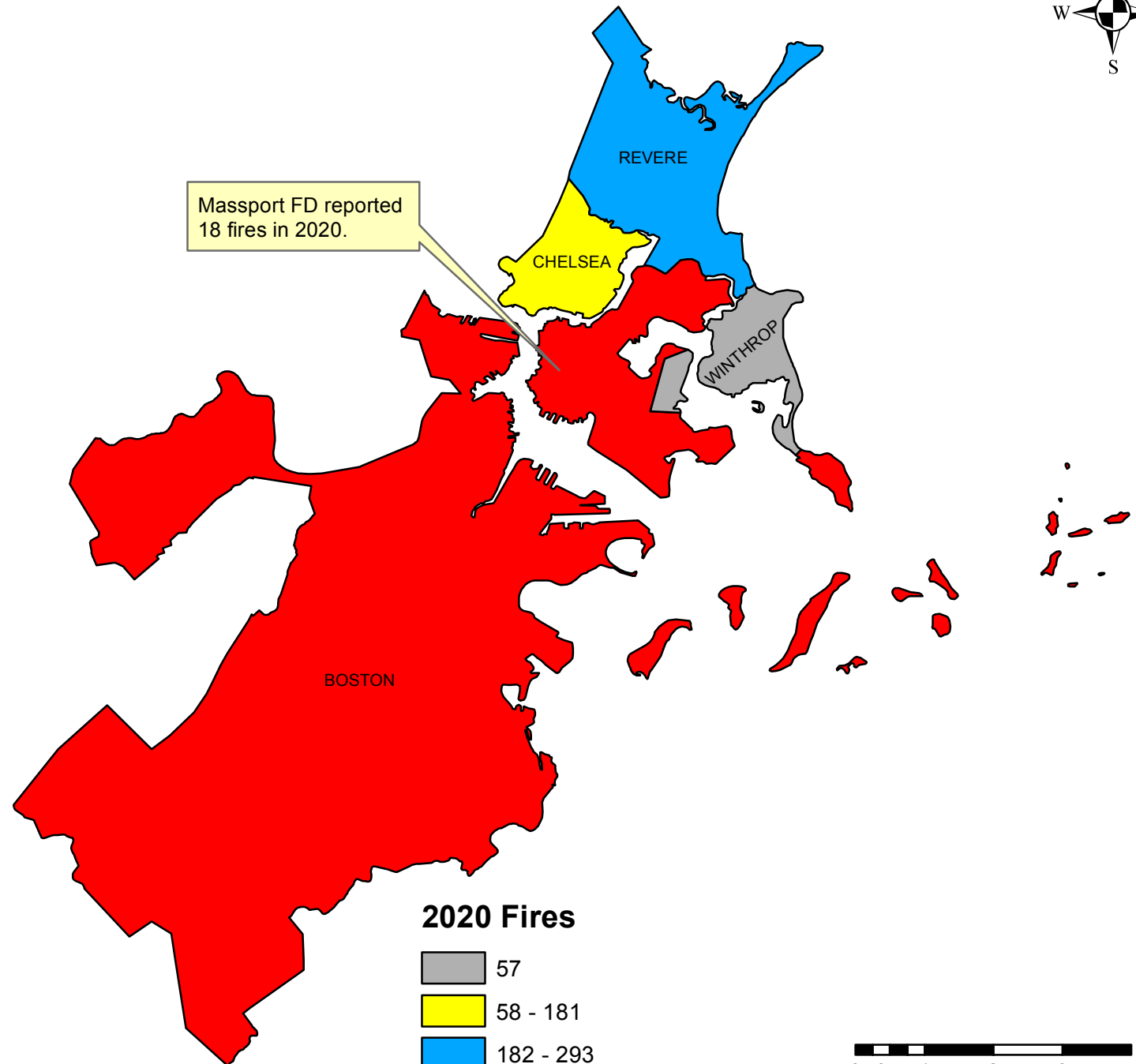
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



Suffolk County

2020 Fire Data Analysis

Suffolk County Fires 2020



Suffolk County Fires in 2020

5,147 Total Fires — 3,509 Structures, 204 Vehicles & 1,434 Other Fires

Suffolk County ranked second out of the fourteen Massachusetts counties in total reported fires. Suffolk County fire departments reported 5,147 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 3,509 structure fires, 204 motor vehicle fires, 556 brush fires, 753 outside rubbish fires, 86 special outside fires, six cultivated vegetation or crop fires, and 33 unclassified fires caused five civilian deaths, seven civilian injuries, 14 fire service injuries and an estimated dollar loss of \$40.6 million. Suffolk County's fires accounted for 17% of the 29,461 Massachusetts fires reported in 2020.

All five fire departments in Suffolk County reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS).

Structure & MV Fires Down

Total fires increased by 161, or 3%, from 4,986 incidents in 2019. Reported structure fires decreased by 334, or 9%, from the 3,843 reported during the previous year. Motor vehicle fires decreased by 35, or 15%, from the 239 reported in 2019. Outside and other fires increased by 530, or 59%, from 904 the year before¹.

SUFFOLK COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	6,914	4,627	304	1,983	123	20	11	92
2017	6,196	4,555	256	1,385	129	33	12	84
2018	5,431	4,139	277	1,015	88	8	10	70
2019	4,986	3,843	239	904	74	21	5	48
2020	5,147	3,509	204	1,434	104	22	5	77

Fire and Fire Death Rates

Suffolk County had 7.1 fires per 1,000 population. That figure ranks Suffolk County first in the state and above the state rate of 4.5 fires per 1,000 population. Suffolk County also had 0.07 fire deaths per 10,000 population ranking it tied for fifth among Massachusetts counties and also tied with the state rate of 0.07 fire deaths per 10,000 population.

5 Residents Died in 5 Suffolk County Fires

Suffolk County had five residents die in five fires in 2020.

- On April 5, 2020, at 7:05 p.m., the Boston Fire Department responded to a fatal fire in a 15-unit apartment building. The fire was started when ignited nearby combustibles in the living room. The victim, a 70-year-old man, was overcome trying to escape. He was transported to a local hospital where he succumbed to his injuries. No one else was injured at this fire. Alarms were present and alerted the occupants.

¹ 2019 was another down year for brush fires across the state.

The building did not have any sprinklers. Damages from this fire were estimated to be \$100,000.

- On September 18, 2020, at 4:44 p.m., the Chelsea Fire Department was dispatched to a fire in a three-unit apartment building of undetermined cause. The fire started on the second-floor deck. Investigators were unable to rule out careless disposal of smoking materials or the solar powered strip in the area of origin. The victim, a 74-year-old man who lived in a neighboring home, came to help extinguish the fire early on and suffered cardiac arrest. He was transported to a local hospital and died shortly thereafter. No one else was injured at this fire. Smoke alarms were present and operated. The building was not sprinklered. Damages from this fire were estimated to be \$600,000.
- On November 15, 2020, at 1:39 p.m., the Chelsea Fire Department was called to a fatal cooking fire in a three-unit apartment building. The victim, an 87-year-old man, was in the area of origin. Two firefighters were also injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from this fire were estimated to be \$4,500.
- On December 8, 2020, at 2:31 a.m., the Revere Fire Department responded to a fatal candle fire in a three-unit apartment building. The fire was started when a candle ignited a cardboard box in the living room. The victim, a 31-year-old man, was intimately involved in the ignition. Two (2) civilians and one firefighter were injured at this fire. It was undetermined if alarms were present, and the building did not have any sprinklers. Damages from this fire were estimated to be \$1.1 million.
- On December 26, 2020, at 3:54 a.m., the Boston Fire Department was called to a fatal smoking fire in a single-family home. The fire was caused by careless disposal of a cigarette on a porch. The victim, a 70-year-old man, was found by firefighters on the second floor. He was transported to a local hospital where he succumbed to his injuries. No one else was injured at this fire. There were no smoke alarms or sprinklers in the home. Damages from this fire were estimated to be \$350,000.

Boston Has Suffolk County's Largest Loss Fire in 2020

In 2020, Suffolk County fire departments reported six fires with a reported dollar loss of \$1 million or greater. All but one of these fires occurred in Boston. The total dollar loss of these six fires was \$9.2 million, or 23%, of the county's total dollar loss.

- On May 30, 2020, at 3:23 a.m., the Boston Fire Department was called to a fire of 1428 Columbia St., a three-unit apartment building. No one was injured at this fire. Alarms were present but it was undetermined if they operated, and the building did not have sprinklers. Damages from this fire were estimated to be \$2 million. The fire spread to 11 nearby buildings.

STRUCTURE FIRES

Reported Structure Fires Down

The 3,509 structure fires caused all five of the civilian deaths, six civilian injuries, 12 fire service injuries and an estimated dollar loss of \$38.6 million. These incidents represented 68% of Suffolk County's reported fires in 2020. The average estimated dollar loss per structure fire was \$11,000. The total number of reported structure fires decreased by 334, or 9%, from the 3,843 reported in 2019.

Arson Caused 1% of Structure Fires

The 22 structure arsons caused an estimated dollar loss of \$352,250. Arson was indicated as the cause of 1% of the structure fires and less than 1% of Suffolk County's structure fire dollar loss. The 22 structure arsons accounted for 21% of the Suffolk County arson fires reported in 2020. The total number of reported structure arsons increased by one, or 5%, from the 21 reported in 2019.

64% of Structure Arsons Occurred in Residences

Fourteen (14) of Suffolk County's 22 structure arsons occurred in residential occupancies. Five (5) occurred in public assembly properties. One (1) each happened in institutional facilities, mercantile or business facilities and storage facilities.

BUILDING FIRES

There were 3,494 building fires of different types in Suffolk County in 2020. These 3,494 building fires accounted for 99.6% of all structure fires in Suffolk County.

89% of Suffolk Building Fires Occurred in People's Homes

Three thousand one hundred and fourteen (3,114), or 89%, of Suffolk County's 3,494 building fires occurred in residential occupancies. Mercantile and business properties had 119 fires. One hundred and eighteen (118) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 92 fires. Twenty (20) building fires took place in educational properties. Fourteen (14) fires took place in storage properties. Four (4) fires took place in manufacturing and processing facilities. Four (4) fires occurred in industrial, utility, defense, agricultural or mining facilities. Two (2) building fires in Suffolk County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. There were 11 fires where the property use was coded as *Other* and one other fire whose property use was unclassified.

RESIDENTIAL FIRES

Residential Building Fires Were Down

There were 3,114 reported residential building fires in Suffolk County in 2020. These 3,114 fires are a decrease of 171, or 5%, from the 3,285 residential building fires reported in 2019.

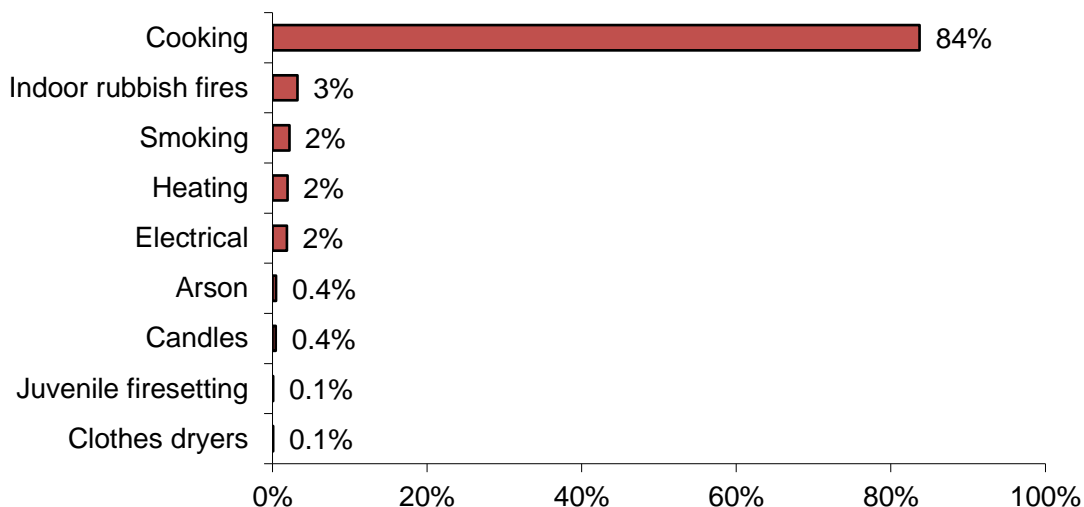
Apartment Accounts for 60% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 60% of the residential building fires in Suffolk County; 11% occurred in one- or two-family homes; 5% happened in rooming houses; 4% occurred in dormitories; 1% occurred in residential board and care facilities; 1% happened in hotels or motels. Five hundred and fifty (550), or 168, of the residential building fires in Suffolk County occurred in unclassified residential buildings.

Unattended Cooking Caused 84% of Residential Fires

The leading cause of residential building fires in Suffolk County was unattended cooking and other unsafe cooking practices, accounting for 86% of these fires. Indoor rubbish fires caused 3%. Smoking, electrical problems and heating equipment each caused 2% of these fires. Arson, candles, clothes dryers and juvenile-set fires each caused less than 1% of these fires in 2020.

2020 Leading Causes of Fires in Suffolk County Homes



88% of Residential Building Fires Are Confined to Non-Combustible Containers²

Two thousand seven hundred and thirty-four (2,734), or 88%, of all residential building fires were reported as confined to non-combustible containers in 2020. Two thousand five hundred and seventy-six (2,576) of the reported fires were cooking fires contained to a non-combustible container, accounting for 83% of residential building fires.

Ninety-seven (97), or 3%, of the residential building fires in Suffolk County in 2020 were

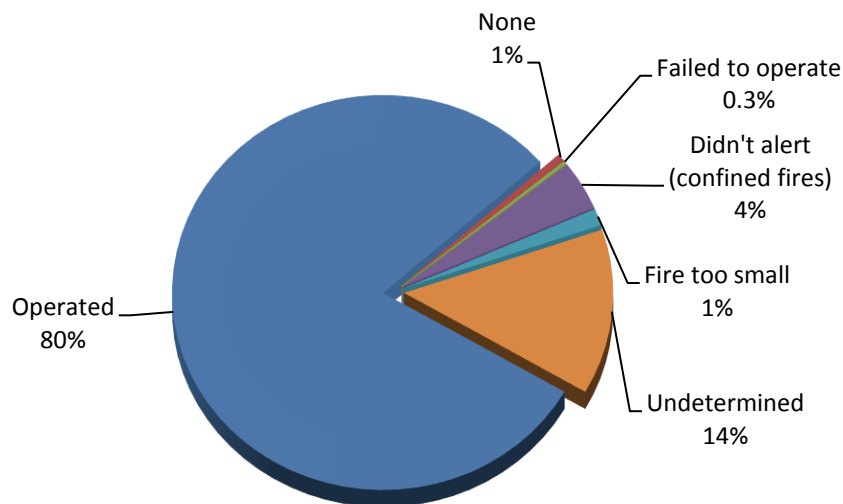
² In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

contained rubbish fires. Forty-five (45), or 1%, were fires confined to a fuel burner or boiler malfunction. Twelve (12), or less than 1%, of all residential building fires reported in 2020 were confined to a chimney. Three (3), or less than 1% were confined to commercial compactors; and one, or less than 1%, was an incinerator overload or malfunction.

Alarms Alerted Occupants in 80% of Fires

Smoke or heat alarms operated and alerted the occupants in 2,496, or 80%, of the residential building fires. In 4% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 0.3% of these incidents. In 1% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 1% of the residential fires. Smoke alarm performance was undetermined in 421 incidents, or 14%, of Suffolk County's residential building fires.

Detector Status in Suffolk County's Residential Structure Fires 2020



8 Failed Alarms

Of the eight fires where smoke alarms were present but failed to operate, one, or 13%, failed because of a dead battery. Another one, or 13%, failed because it was defective. A lack of maintenance caused the other alarm, or 13%, to fail. It was undetermined or unclassified in five cases, or 63%, why the alarms failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Suffolk County reported 31 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 3,494 building fires reported

³ These represent confined fires where it was reported that the alarm did not alert the occupants.

to MFIRS in 2020. Twenty-one (21) fires occurred in vacant residential properties. Five (5) of these fires occurred in mercantile or business properties. Two (2) occurred in educational facilities. One each happened at a public assembly property and a storage facility. Another one occurred at an unclassified property.

One (1), or 3%, of the vacant building fires in Suffolk County in 2020 was determined to be intentionally-set. This fire occurred in an apartment building.

JUVENILE-SET FIRES

5 Juvenile-set Fires

There were five reported juvenile-set fires in Suffolk County in 2020. The three structure fires, one brush fire and one special outside fire caused \$605,300 in estimated damages.

ARSONS

104 Total Arsons⁴ — 22 Structures, 5 Vehicles & 74 Other Arsons

One hundred and four (104), or 2%, of Suffolk County's 5,147 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 22 structure arsons, five motor vehicle arsons and 77 outside and other arsons caused an estimated dollar loss of \$436,900. Suffolk County's arson fires accounted for 12% of the state's total arson fires and 11% of the state's total dollar loss from arson.

Outside & Other Arson Up

The total number of arsons increased by 30 from 74 in 2019. Reported structure arsons increased by one from the 21 reported in 2019. Motor vehicle remained the same with five reported in 2020 and 2019. Outside and other arsons increased by 29 from the 48 reported last year.

ALL INCIDENTS

Rescue & EMS Calls Are 45% of All Reported Responses

In 2020, fire departments in Suffolk County reported 95,872 responses⁵ to MFIRS. This is a decrease of 13,166 runs, or 12%, over the 109,038 reported in 2019. Of these 95,872 responses, 90,704 non-fire calls were voluntarily reported.

Of these 90,704 non-fire calls, 43,548, or 45%, of all the responses reported in 2020, were reported rescue and emergency medical services (EMS) calls; 18,406, or 19%, were

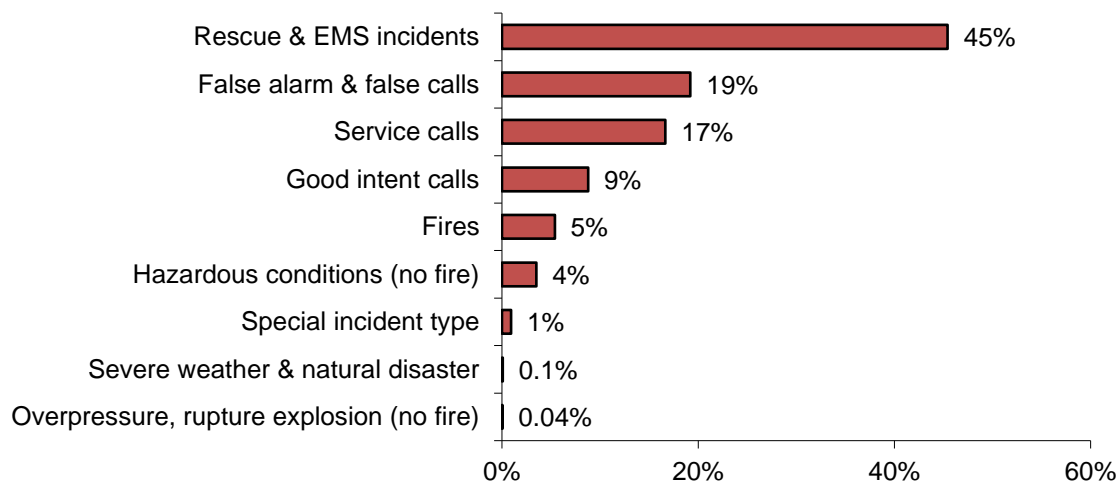
⁴ In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

⁵ These figures include responses in which Suffolk County fire departments gave mutual aid to other fire departments.

reported false alarm or false calls; 15,965, or 17%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 8,413, or 9%, were reported good intent calls; 3,363, or 4%, reported hazardous condition calls with no fire; 899, or 1%, were special incident type calls such as citizen complaints; 70, or 0.1%, were severe weather calls; and 40, or 0.04%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Five thousand one hundred and sixty-eight (5,168), or 5%, of the total responses submitted by Suffolk County fire departments were fires.

2020 Responses by Incident Type



Suffolk County Fire Departments Reported Giving Mutual Aid 201 Times

In 2020, Suffolk County fire departments reported coming to the aid of other fire departments 201 times. Of these 201 responses, 128, or 64%, were for service calls such as cover assignments; 21, or 10%, were for fires; 20, or 10%, were for rescue or EMS incidents; 12, or 6%, were for false alarm or false calls; 11, or 5%, were for hazardous conditions calls with no fire; and nine, or 5%, were for good intent calls.

Suffolk County Fire Departments Received Mutual Aid in 54 Incidents

In 2020, Suffolk County fire departments reported receiving aid from surrounding departments in 54 incidents. Of these 54 incidents, 24 or 44% were rescue and emergency medical services calls; 12, or 22%, were hazardous conditions calls with no fire; eight, or 15%, were for fires; five, or 9%, were false alarms or false calls; four, or 7%, were for service calls; and one, or 2%, was a good intent call.

Suffolk County**Population: 722,023⁶****7.1 Fires/1,000 Population****Total Fires: 5,147 \$40,636,108**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	3,509	68%	\$38,600,300
Vehicle Fires	204	4%	1,745,710
Other Fires	1,434	28%	290,098

5 Fatal Fires 0.97 Civilian Deaths/1,000 Fires
 5 Civilian Deaths 0.07 Civilian Deaths/10,000 Population
 7 Civilian Injuries 14 Fire Service Injuries

Building Fires: 3,494**Residential Structure Fires: 3,114****Residential Structure Fires Confined to Non-Combustible Containers: 2,734****Unconfined Residential Structure Fires: 380**

5 Civilian Deaths 6 Civilian Injuries 12 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	1,875	60%	Operated	2,496	80%
1- & 2-Family homes	358	11%	Didn't operate	8	0.3%
Rooming houses	166	5%	None	20	1%
Dormitories	114	4%	Fire too small	43	1%
Residential board & care	26	1%	Didn't Alert (confined)	126	4%
Hotels or motels	25	1%	Undetermined	421	14%

Area of Origin⁷	%	Heat Source	%	%Unconfined⁸
Kitchen	85%	Heat from operating eq.	1%	12%
Heating room or area	2%	Radiated heat from oper. eq.	1%	11%
Bedroom	1%	Hot or smoldering object	1%	10%
Exterior balcony/unencl. porch	1%	Arcing	1%	10%
Laundry room	1%	Cigarette	1%	7%

⁶ We used the population from the 2010 US Census because the figures from the 2020 Census had not been released at the time this report was written.

⁷ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	%Unconfined¹⁰
Food, cooking materials	84%	Abandoned materials	2%	15%
Rubbish, trash, waste	4%	Misuse of mater. or prod.	1%	7%
Flammable, combustible liquid	1%	Too close to combustibles	1%	7%
Structural member, framing	1%	Elec. fail., malfunc., other	1%	6%
Exterior sidewall covering	1%	Unspec. short circuit arc	0.4%	6%

Equipment¹¹	%	Cause of Ignition	%	%Unconfined¹²
Cooking equipment	83%	Unintentional	7%	60%
None	10%	Failure of eq. or heat source	1%	9%
Boiler, furnace, cent. heat. unit	1%	Intentional	0.4%	4%
Electrical wiring, other	0.5%	Act of Nature	0.03%	0.3%
Chimney or flue	0.3%	Cause under investigation	2%	15%
Fan	0.2%	Undetermined	1%	8%

Detector Alerted Occupants (Confined Fires in Non-Combustible Containers)

Alerted Occupants	85%
Didn't Alert Occupants	4%
Undetermined	11%

⁹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹⁰ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	398	316	28	54
February	424	352	12	60
March	447	342	12	93
April	371	305	13	53
May	511	272	17	222
June	543	243	16	284
July	444	240	23	181
August	404	222	14	168
September	446	293	14	139
October	380	273	30	77
November	398	326	15	57
December	381	325	10	46

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	812	516	30	266
Monday	660	452	25	183
Tuesday	678	466	28	184
Wednesday	686	485	29	172
Thursday	779	575	35	169
Friday	717	478	29	210
Saturday	815	537	28	250

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	413	233	34	146
04:01 – 08:00	306	189	19	98
08:01 – 12:00	699	510	19	170
12:01 – 16:00	1,222	841	41	340
16:01 – 20:00	1,475	1,070	50	355
20:01 – 00:00	1,032	666	41	325

Motor Vehicle Fires

Total: 204

Automobiles: 179 (88%)

5, or (3%), of the automobile fires considered intentionally-set.

Arson Fires

Total Arsons: 104

Dollar loss: \$436,900

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	22	1%	21%	\$352,250
Vehicle Arsons	5	2%	5%	84,000
Other Arsons	77	5%	74%	650

0.03 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.11 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 – 20:00	5	23%	20:01 – 00:00	3	60%
20:01 – 00:00	5	23%	00:01 – 04:00	1	20%
04:01 – 08:00	4	18%	12:01 – 16:00	1	20%
08:01 – 12:00	4	18%			

Other Arsons	#	%
20:01 – 00:00	34	44%
16:01 – 20:00	23	30%
12:01 – 16:00	7	9%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	10	45%
1- or 2-Family home	2	9%
Rapid transit station	2	9%

Boston **Population: 617,594**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	5,979	4,096	252	1,631	117	19	8	90
2017	5,469	4,077	219	1,173	126	32	11	83
2018	4,783	3,709	236	838	84	5	9	70
2019	4,434	3,477	193	764	69	18	4	47
2020	4,598	3,209	178	1,211	93	17	5	71

Chelsea **Population: 35,177**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	359	248	17	94	5	1	3	1
2017	271	199	9	63	1	1	0	0
2018	236	166	9	61	2	2	0	0
2019	200	138	18	44	4	2	1	1
2020	181	110	7	64	4	1	0	3

Massport **Population: 0**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	73	2	18	53	0	0	0	0
2017	39	5	8	26	0	0	0	0
2018	58	5	11	42	0	0	0	0
2019	34	3	11	20	0	0	0	0
2020	18	3	5	10	0	0	0	0

Revere **Population: 51,755**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	423	233	17	173	1	0	0	1
2017	347	223	18	106	2	0	1	1
2018	301	228	18	55	1	0	1	0
2019	263	191	15	57	1	1	0	0
2020	293	154	14	125	7	4	0	3

Winthrop **Population: 17,497**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	80	48	0	32	0	0	0	0
2017	70	51	2	17	0	0	0	0
2018	53	31	3	19	1	1	0	0
2019	55	34	2	19	0	0	0	0
2020	57	33	0	24	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
25035	Boston	73,276	4,600	34	28,605	2,733	13,675	6,851	15,877	59	842
25057	Chelsea	7,242	192	3	4,982	216	513	526	791	2	17
25935	Massport	1,895	26	1	1,288	147	84	114	229	0	6
25248	Revere	10,506	293	2	6,784	200	1,274	725	1,189	9	30
25346	Winthrop	2,953	57	0	1,889	67	419	197	320	0	4
Total	Suffolk County	95,872	5,168	40	43,548	3,363	15,965	8,413	18,406	70	899

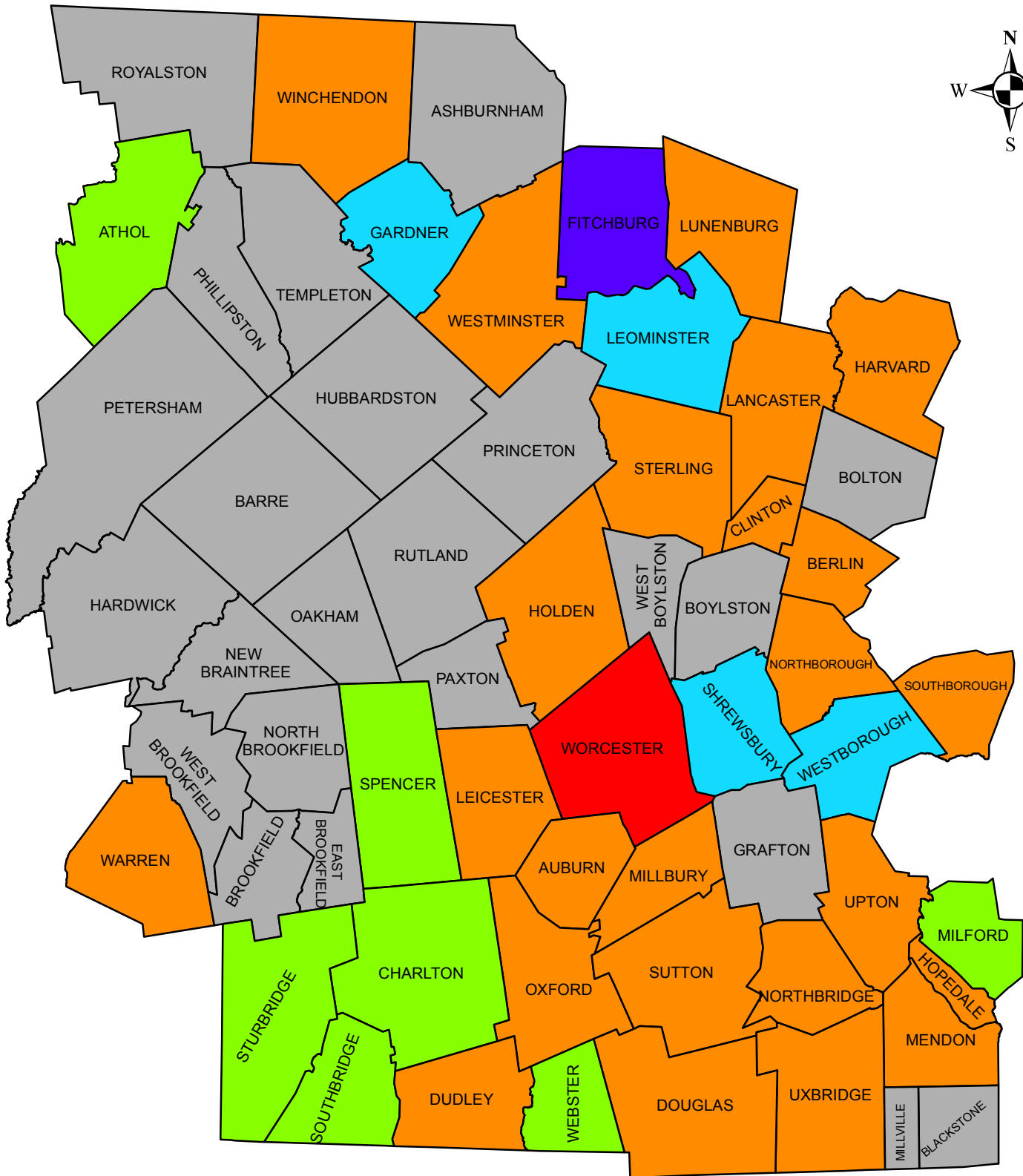
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Division of Fire Safety strongly encourages any department that wants to send in all of their responses to do so.



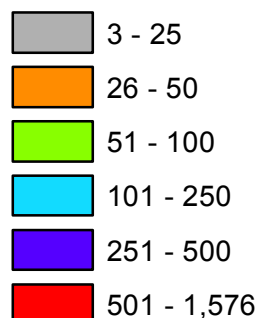
Worcester County

2020 Fire Data Analysis

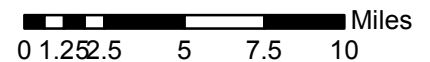
Worcester County Fires 2020



2020 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2020

Worcester County Fires in 2020

4,467 Total Fires — 2,334 Structures, 313 Vehicles & 1,820 Other Fires

Worcester County ranked third out of the fourteen Massachusetts counties in total reported fires. Worcester County fire departments reported 4,467 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 2,334 structure fires, 313 motor vehicle fires, 909 brush fires, 671 outside rubbish fires, 161 special outside fires, and 72 unclassified fires caused eight civilian deaths, 18 civilian injuries, 73 fire service injuries and an estimated dollar loss of \$54 million. Worcester County's fires accounted for 15% of the 29,461 Massachusetts fires reported in 2020.

Fifty-eight (58), or 96.7%, of the fire departments in Worcester County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2020.

Outside & Other Fires Up

Total fires increased by 723, or 19%, from 3,744 incidents in 2019. Reported structure fires decreased by 78 from the 2,412 reported during the previous year. Motor vehicle fires decreased by 81 from the 394 reported in both 2019. Outside and other fires increased by 882 from 938 the year before¹.

WORCESTER COUNTY FIRES FROM 2016 TO 2020

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	4,432	2,370	353	1,709	84	16	16	52
2017	3,853	2,484	348	1,021	80	31	10	39
2018	3,738	2,483	378	877	84	31	13	40
2019	3,744	2,412	394	938	93	24	9	60
2020	4,467	2,334	313	1,820	81	19	6	56

Fire and Fire Death Rates

Worcester County had 5.6 fires per 1,000 population. That figure ranks Worcester County second in the state and above the state rate of 4.5 fires per 1,000 population. Worcester County had 0.1 fire deaths per 10,000 population ranking it third among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

8 Residents Died in 7 Worcester County Fires

Worcester County had eight residents die in seven fires in 2020. All but one of the deaths occurred in building fires. The other death occurred outside.

- On January 5, 2020, at 12:36 a.m., the Fitchburg Fire Department was called to a fatal electrical fire in a single-family home. The fire was started by an overloaded power strip in the bedroom. The victims, who were asleep at the time of the fire, were a 61-year old man and his 50-year old brother. No one else was injured at this fire. It

¹ 2019 was another down year for brush fires across the state.

was undetermined if alarms were present and there were no sprinklers. Damages from this fire were estimated to be \$79,000.

- On February 14, 2020, at 11:24 a.m., the Dudley Police Department was dispatched to an EMS call for a burned patient. Firefighters discovered the victim in a seated position on the ground. The victim, a 63-year old man, committed suicide by self-immolation. He had been sitting in lawn chair, when he set himself on fire. The seat burned through, dropping him to the ground.
- On February 27, 2020, at 2:28 p.m., the Oxford Fire Department responded to a fatal fire in a detached residential garage of undetermined causes. The victim was a 53-year old man. The car in the garage was the source of the fire. No one else was injured by this fire. It was undetermined if any alarms were present and the garage did not have any sprinklers. Damages from this fire were estimated to be \$50,000.
- On August 2, 2020, at 4:30 p.m., the Worcester Fire Department was called to a fatal electrical fire in a single-family house. The fire was caused by an unclassified electrical failure in a home office. The victim, a 50-year old man, was in the area of origin. No one else was injured at the fire. It was undetermined if alarms were present. Sprinklers were not present in the home. Damages were estimated to be \$207,000.
- On October 15, 2020, at 7:00 a.m., the Southbridge Fire Department was called to a fatal fire in a single-family home of undetermined cause. The victim, a 74-year old woman, was in the area of origin. Rescue efforts were hindered due to hoarding conditions inside the home. No one else was injured at this fire. Smoke alarms were present but failed operated. The building was not sprinklered. Damages from the blaze were estimated to be \$201,600.
- On November 10, 2020, at 10:20 p.m., the Douglas Fire Department was called to a fatal fire in a single-family home of undetermined cause. The victim was a 62-year old man. No one else was injured at this fire. The building did not have any smoke alarms and it was not sprinklered. Damages from the blaze were estimated to be \$300,000.
- On December 4, 2020, at 6:55 p.m., the Worcester Fire Department was called to a fatal smoking fire in a four-unit apartment building. The fire was caused by undetermined smoking materials igniting nearby combustibles in the kitchen. The victim, 60-year old man who used home oxygen, was in the area of origin of the fire. No one else was injured at this fire. Alarms were present and operated. Sprinklers were not present. Damages from this fire were estimated to be \$19,000.

Worcester Had Largest Loss Fire in 2020

In 2020, Worcester County fire departments reported two fires with a reported dollar loss of \$1 million or greater, both of these fires occurred in Worcester. The dollar loss of these fires totaled \$26.1 million, or 48%, of the county's total dollar loss.

- On July 29, 2020, at 4:06 p.m., the Worcester Fire Department was called to a fire of undetermined cause in a refrigerated storage facility, A & D Cold Storage at 512 Southbridge St. Five (5) firefighters were injured at this fire. Alarms were present but it was undetermined if they operated. The building had a partial sprinkler system, but it was not reported if it operated. Damages from this fire were estimated to be \$20 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 2,334 structure fires caused seven civilian deaths, 16 civilian injuries, 66 fire service injuries and an estimated dollar loss of \$50.5 million. These incidents represented 52% of Worcester County's reported fires in 2020. The average estimated dollar loss per structure fire was \$21,652². The total number of reported structure fires decreased by 78, or 3%, from the 2,412 reported in 2019.

Arson Caused 1% of Structure Fires

The 19 structure arsons caused two fire service injuries and an estimated dollar loss of \$217,016. Arson was indicated as the cause of 1% of the structure fires and less than 1% of Worcester County's structure fire dollar loss. The 19 structure arsons accounted for 23% of the Worcester County arson fires reported in 2020. The total number of reported structure arsons decreased by five, or 21%, from the 24 reported in 2019.

74% of Structure Arsons Occurred in Residences

Seventy-four percent (74%) of Worcester County's 19 structure arsons occurred in residential occupancies; 11% each happened in educational facilities and mercantile or business properties; and 5% occurred in special properties.

BUILDING FIRES

There were 2,319 building fires of different types in Worcester County in 2020. These 2,319 building fires accounted for 99.4% of all structure fires in Worcester County.

87% of Worcester Building Fires Occurred in People's Homes

Two thousand fifteen (2,015), or 87%, of Worcester County's 2,319 building fires occurred in residential occupancies. Mercantile and business properties had 75 fires. Sixty-six (66) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 65 fires. Thirty-eight (38) fires took place in storage properties. Twenty-six (26) fires took place in manufacturing and processing facilities. Twenty-three (23) building fires took place in educational properties. Six (6) building fires in Worcester County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Three (3) fires occurred

² There was one large loss building fire in Worcester that had an estimated dollar loss of \$26 million.

in industrial, utility, defense, agricultural or mining facilities. Two (2) fires were reported to have *None* as their property use.

RESIDENTIAL FIRES

Residential Building Fires Were Down Slightly

There were 2,015 reported residential building fires in Worcester County in 2020. These 2,015 fires were a decrease of 23, or 1%, from the 2,038 residential building fires reported in 2019.

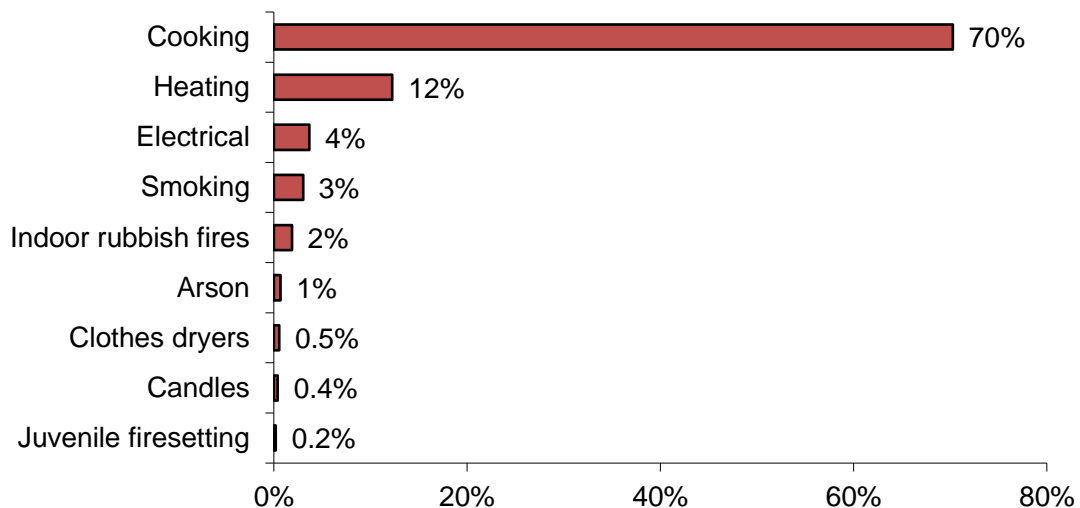
Apartments Accounted for 44% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 44% of the residential building fires in Worcester County; 37% occurred in one- or two-family homes; 8% happened in rooming houses; 4% occurred in dormitories; 4% happened in hotels or motels; and 2% occurred in residential board and care facilities. Twenty (20), or 1%, of the residential building fires in Worcester County occurred in unclassified residential buildings.

Unattended Cooking Caused 70% of Residential Fires

The leading cause of residential building fires in Worcester County was unattended cooking and other unsafe cooking practices, accounting for 70% of these fires. Heating caused 12% of fires in people's homes. Electrical problems caused 4% and smoking accounted for 3% of these fires. Indoor rubbish fires caused 2% and arsons caused 1%. Candles, clothes dryers and juvenile-set fires each caused less than 1% of the fires in people's homes in Worcester County in 2020.

2020 Leading Causes of Fires in Worcester County Homes



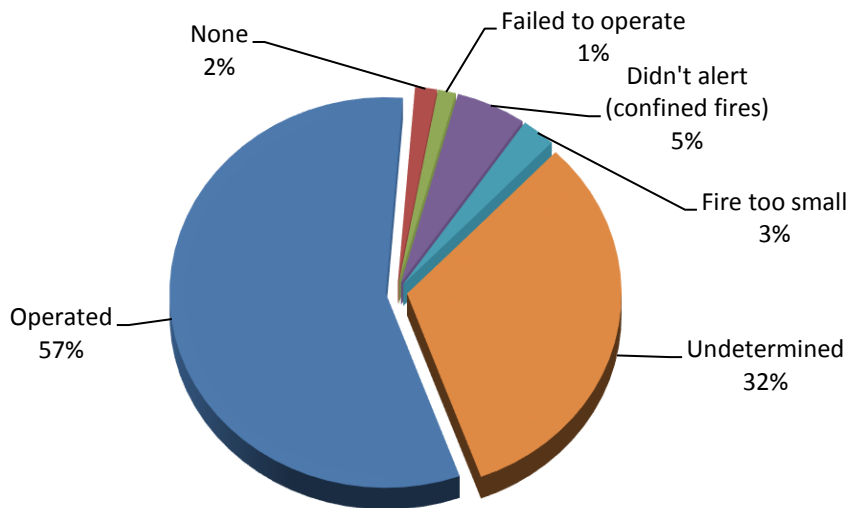
80% of Residential Building Fires Are Confined to Non-Combustible Containers³

One thousand six hundred and eighteen (1,618), or 80%, of all residential building fires were reported as confined to non-combustible containers in 2020. One thousand three hundred and fifty-eight (1,358) of the reported fires were cooking fires contained to a non-combustible container, accounting for 67% of residential building fires. One hundred and twenty-two (122), or 6%, were fires confined to a fuel burner or boiler malfunction. One hundred and three (103), or 5%, of all residential building fires reported in 2020 were confined to a chimney. Thirty-five (35), or 2%, of the residential building fires in Worcester County in 2020 were contained rubbish fires.

Alarms Alerted Occupants in 57% of Fires

Smoke or heat alarms operated and alerted the occupants in 1,145, or 57%, of the residential building fires. In 5% of these fires⁴, the alarms did not alert the occupants. Alarms were present but did not operate in 1% of these incidents. In 2% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 3% of the residential fires. Smoke alarm performance was undetermined in 651 incidents, or 32%, of Worcester County's residential building fires.

Detector Status in Worcester County's Residential Structure Fires 2020



³ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

⁴ These represent confined fires where it was reported that the alarm did not alert the occupants.

26% of Failed Alarms Had Missing or Dead Batteries

Of the 27 fires where smoke alarms were present but failed to operate, seven, or 26%, failed because the batteries were either missing or disconnected. Five (5), or 15%, failed from an improper installation or placement. A lack of maintenance caused two, or 7%, alarms to fail. One (1) or 4%, failed from a power failure, shutoff or disconnect. A defective detector caused one, or 4%, of the alarms to fail. It was undetermined or unclassified in 11 cases, or 41%, why the alarms failed to operate.

VACANT BUILDINGS**2% of Building Fires Occurred in Vacant Buildings**

Worcester County reported 42 fires that occurred in buildings that were vacant, under construction or demolition. This represents 2% of the total 2,319 building fires reported to MFIRS in 2020. Twenty-four (24) fires occurred in vacant residential properties. Nine (9) of these fires occurred at storage facilities. Three (3) vacant building fires occurred each in mercantile or business properties and manufacturing and processing facilities; two in public assembly properties; and one vacant building fire in Worcester County in 2020 occurred in an educational facility.

Two (2), or 5%, of the vacant building fires in Worcester County in 2020 were determined to be intentionally-set. Both of these occurred in one- or two-family homes.

JUVENILE-SET FIRES**13 Juvenile-set Fires**

There were 13 reported juvenile-set fires in Worcester County in 2020. The four structure fires, eight brush fires, and one outside rubbish fire caused \$390,604 in estimated damages.

ARSONS**81 Total Arsons⁵ — 19 Structures, 6 Vehicles & 56 Other Arsons**

Eighty-one (81), or 2%, of Worcester County's 4,467 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 19 structure arsons, six motor vehicle arsons and 56 outside and other arsons caused one civilian death, five three fire service injuries and an estimated dollar loss of \$281,353. Worcester County's arson fires accounted for 9% of the state's total arson fires and 7% of the state's total dollar losses from arson.

⁵ In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

All Arsons Down Slightly

The total number of arsons decreased by 12 from 93 in 2019. Reported structure arsons decreased by five from the 24 reported in 2019. Motor vehicle arsons decreased by three from the nine reported in 2019. Outside and other arsons decreased by four from the 60 reported last year.

ALL INCIDENTS

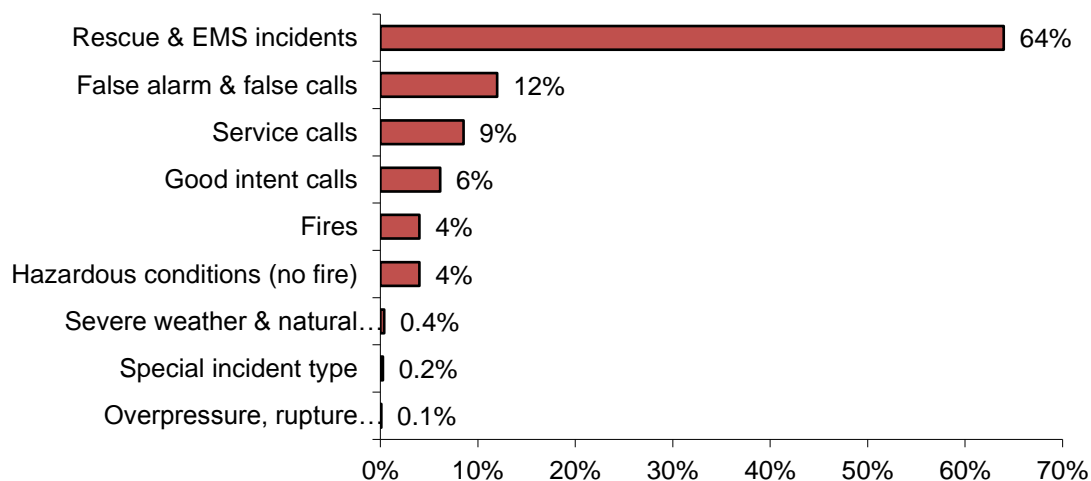
Rescue & EMS Calls Are 64% of All Reported Responses

In 2020, fire departments in Worcester County reported 113,257 responses⁶ to MFIRS. This is an increase of 3,113 runs, or 3%, over the 110,144 reported in 2019. Of these 113,257 responses, 108,295 non-fire calls were voluntarily reported.

Of these 108,295 non-fire calls, 72,422, or 64%, of all the responses reported in 2020 were reported rescue and emergency medical services (EMS) calls; 13,564, or 12%, were reported false alarm or false calls; 9,671, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 6,949, or 6%, were reported good intent calls; 4,837, or 4%, reported hazardous condition calls with no fire; 454, or 0.4%, were severe weather calls 283, or 0.2%, were special incident type calls such as citizen complaints; and 115, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four thousand nine hundred and sixty-two (4,962), or 4%, of the total responses submitted by Worcester County fire departments were fires.

2020 Responses by Incident Type



⁶ These figures include responses in which Worcester County fire departments gave mutual aid to other fire departments.

Worcester County Fire Departments Reported Giving Mutual Aid 3,746 Times

In 2020, Worcester County fire departments reported coming to the aid of other fire departments 3,746 times. Of these 3,746 responses, 2,083, or 56%, were for rescue or EMS incidents; 540, or 14%, were for service calls such as cover assignments; 530, or 14%, were for good intent calls; 492, or 13%, were for fires; 54, or 1%, were for hazardous conditions calls with no fire; 34, or 1%, were for false alarms or false calls; 10, or 0.3%, were special incident types; two, or 0.1%, were for overpressure, rupture explosion calls with no fire; and one, or 0.03%, was for a severe weather or natural disaster.

Worcester County Fire Departments Received Mutual Aid in 1,866 Incidents

In 2020, Worcester County fire departments reported receiving aid from surrounding departments in 1,866 incidents. Of these 1,866 incidents, 1,410 or 76% were rescue and emergency medical services calls; 253, or 14%, were for fires; 61, or 3%, were false alarms or false calls; 54, or 3%, were good intent calls; 46, or 2%, were hazardous conditions calls with no fire; 32, or 2%, were service calls; six, or 0.3%, were for overpressure, rupture explosion calls with no fire; and four, or 0.2%, were for severe weather or natural disasters.

Worcester County**Population: 798,552⁷****5.6 Fires/1,000 Population****Total Fires: 4,467 \$53,987,551**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	2,334	52%	\$50,536,110
Vehicle Fires	313	7%	2,924,856
Other Fires	1,820	41%	526,585

7 Fatal Fires 1.79 Civilian Deaths/1,000 Fires

8 Civilian Deaths 0.10 Civilian Deaths/10,000 Population

18 Civilian Injuries 73 Fire Service Injuries

Building Fires: 2,319**Residential Structure Fires: 2,015****Residential Structure Fires Confined to Non-Combustible Containers: 1,618****Unconfined Residential Structure Fires: 397**

6 Civilian Deaths 14 Civilian Injuries 49 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	895	44%	Operated	1,145	57%
1- & 2-Family homes	753	37%	Didn't operate	27	1%
Rooming houses	152	8%	None	33	2%
Dormitories	79	4%	Fire too small	52	3%
Hotels or motels	78	4%	Didn't Alert (confined)	107	5%
Residential board & care	38	2%	Undetermined	651	32%

Area of Origin⁸	%	Heat Source	%	%Unconfined⁹
Kitchen	72%	Heat from operating eq.	2%	12%
Heating room or area	6%	Radiated heat from oper. eq.	2%	12%
Chimney or flue	5%	Arcing	2%	11%
Bedroom	2%	Hot ember or ash	1%	8%
Exterior Balcony, unencl. porch	1%	Cigarette	1%	7%
Living room	1%	Hot or smoldering object	1%	6%

⁷ We are still using the US Census 2010 figures because at the time of writing this report the 2020 census figures had not been released.

⁸ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited¹⁰	%	Factor Contrib. to Ignit.	%	%Unconfined¹¹
Food, cooking materials	69%	Abandoned materials	2%	11%
Flammable, combustible liquid	6%	Too close to combustibles	2%	10%
Film or residue (creosote)	5%	Elec. fail., malfunc., other	1%	7%
Rubbish, trash, waste	2%	Equipment unattended	1%	4%
Structural member, framing	2%	Failure to clean	1%	4%
		Mech. fail., malfunc., other	1%	3%

Equipment¹²	%	Cause of Ignition	%	%Unconfined¹³
Cooking equipment	69%	Unintentional	13%	66%
None	13%	Failure of eq. or heat source	2%	11%
Boiler, furnace, cent. heat. unit	6%	Intentional	1%	3%
Chimney or flue	5%	Act of Nature	0.4%	2%
Stove, heating	1%	Cause under investigation	1%	5%
		Undetermined	2%	11%

**Detector Alerted Occupants
(Confined Fires in Non-Combustible Containers)**

Alerted Occupants	58%
Didn't Alert Occupants	7%
Undetermined	36%

¹⁰ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹¹ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹² This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹³ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	305	244	25	36
February	308	244	21	43
March	438	229	23	186
April	344	194	23	127
May	537	188	29	320
June	519	160	32	327
July	372	145	28	199
August	351	147	30	174
September	357	164	32	161
October	308	196	24	88
November	343	201	25	117
December	285	22	21	42

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	711	354	34	323
Monday	673	346	52	275
Tuesday	594	309	44	241
Wednesday	615	341	37	238
Thursday	600	347	44	209
Friday	565	294	47	224
Saturday	709	344	55	310

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	258	147	27	84
04:01 – 08:00	249	149	26	74
08:01 – 12:00	671	360	49	262
12:01 – 16:00	1,248	554	90	604
16:01 – 20:00	1,342	745	86	511
20:01 – 00:00	699	379	35	285

Motor Vehicle Fires

Total: 313

Automobiles: 228 (73%)

5, or (2%), of the automobile fires considered intentionally-set.

Arson Fires

Total Arsons: 81

Dollar loss: \$281,353

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	19	1%	23%	\$217,016
Vehicle Arsons	6	2%	7%	58,774
Other Arsons	56	3%	69%	5,563

0.02 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

1 Civilian Death

3 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 – 00:00	7	37%	00:01 – 04:00	2	33%
00:01 – 04:00	3	16%	04:01 – 08:00	1	17%
04:01 – 08:00	3	16%	08:01 – 12:00	1	17%
12:01 – 16:00	3	16%	12:01 – 20:00	1	17%
			20:01 – 00:00	1	17%

Other Arsons	#	%
12:01 – 16:00	18	32%
16:01 – 20:00	17	30%
08:01 – 12:00	14	25%
20:01 – 00:00	6	11%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	6	32%
1- or 2-Family homes	6	32%

Ashburnham					Population: 6,081			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	14	3	0	11	0	0	0	0
2017	20	8	2	10	1	0	0	1
2018	18	10	3	5	0	0	0	0
2019	12	6	3	3	0	0	0	0
2020	22	4	4	14	1	0	0	1

Athol					Population: 11,584			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	60	27	5	28	2	1	0	1
2017	45	22	7	16	2	1	0	1
2018	42	19	5	18	1	1	0	0
2019	45	23	0	22	2	2	0	0
2020	94	37	1	56	10	1	0	9

Auburn					Population: 16,188			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	71	23	15	33	3	0	0	3
2017	52	25	11	16	6	1	1	4
2018	63	25	14	21	4	1	0	6
2019	56	24	18	14	4	3	0	1
2020	49	16	8	25	3	0	0	3

Barre					Population: 5,398			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	36	9	0	27	2	0	0	2
2017	34	18	2	14	0	0	0	0
2018	32	19	4	9	4	2	2	0
2019	30	14	1	15	0	0	0	0
2020	23	11	1	11	0	0	0	0

Berlin					Population: 2,886			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	21	0	4	17	2	0	1	1
2017	18	5	4	9	0	0	0	0
2018	23	5	7	11	2	1	0	1
2019	19	4	5	10	0	0	0	0
2020	31	6	9	16	0	0	0	0

Blackstone					Population: 9,026			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	20	4	1	15	0	0	0	0
2017	17	8	1	8	1	0	0	1
2018	11	5	0	6	1	1	0	0
2019	9	5	2	2	0	0	0	0
2020	15	4	1	10	0	0	0	0

Bolton					Population: 4,897			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	22	6	5	11	1	0	1	0
2017	13	3	5	5	0	0	0	0
2018	21	9	7	5	0	0	0	0
2019	19	10	7	2	0	0	0	0
2020	17	4	6	7	0	0	0	0

Boylston					Population: 4,355			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	11	3	1	7	2	0	0	2
2017	14	4	1	9	0	0	0	0
2018	15	9	1	5	3	1	0	2
2019	19	12	4	3	1	0	0	1
2020	13	7	2	4	0	0	0	0

Brookfield **Population: 3,390**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	7	1	9	4	2	0	2
2017	13	5	2	6	1	0	0	1
2018	6	3	0	3	3	1	0	2
2019	10	5	2	3	1	0	0	1
2020	16	6	0	10	4	1	0	3

Charlton **Population: 12,981**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	51	25	12	14	2	0	0	2
2017	60	32	16	12	2	0	1	1
2018	47	25	13	9	1	0	0	1
2019	51	24	19	8	0	0	0	0
2020	55	20	6	29	2	1	0	1

Clinton **Population: 13,606**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	66	34	2	30	1	0	0	1
2017	49	31	6	12	2	2	0	0
2018	42	27	2	13	0	0	0	0
2019	32	20	1	11	0	0	0	0
2020	50	28	2	20	5	0	0	5

Douglas **Population: 8,471**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	33	11	1	21	1	0	0	1
2017	18	7	3	8	1	0	0	1
2018	15	6	3	6	1	0	0	1
2019	24	9	5	10	1	1	0	0
2020	31	8	2	21	0	0	0	0

Dudley **Population: 11,390**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	32	18	2	12	0	0	0	0
2017	41	19	4	18	2	1	0	1
2018	30	21	3	6	2	1	1	0
2019	29	10	7	12	1	0	0	1
2020	33	18	2	13	1	0	0	1

East Brookfield **Population: 2,183**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	11	4	1	6	0	0	0	0
2017	5	2	0	3	0	0	0	0
2018	14	1	2	11	0	0	0	0
2019	9	2	1	6	3	0	0	3
2020	4	2	0	2	2	0	0	2

Fitchburg **Population: 40,318**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	548	364	21	163	4	2	2	0
2017	458	406	15	37	6	4	2	0
2018	428	359	19	50	4	2	2	0
2019	489	399	21	69	4	4	0	0
2020	498	321	21	156	2	1	0	1

Gardner **Population: 20,228**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	232	189	7	36	1	0	1	0
2017	183	150	9	24	3	2	1	0
2018	147	119	11	17	2	1	1	0
2019	153	124	13	16	5	3	0	2
2020	162	131	8	23	1	0	0	1

Grafton **Population: 17,765**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	8	5	2	1	0	0	0	0
2017	21	15	1	5	0	0	0	0
2018	14	12	2	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	24	12	4	8	0	0	0	0

Hardwick **Population: 2,990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	15	10	1	4	0	0	0	0
2017	10	6	0	4	0	0	0	0
2018	5	3	0	2	0	0	0	0
2019	11	5	2	4	0	0	0	0
2020	17	8	0	9	0	0	0	0

Harvard **Population: 6,520**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	19	6	2	11	0	0	0	0
2017	19	10	7	2	0	0	0	0
2018	22	9	4	9	0	0	0	0
2019	35	19	6	10	0	0	0	0
2020	32	22	0	10	0	0	0	0

Holden **Population: 17,346**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	36	20	3	13	0	0	0	0
2017	37	21	3	13	2	0	0	2
2018	21	15	1	5	1	0	0	1
2019	35	19	3	13	1	0	0	1
2020	37	20	3	14	1	0	0	1

Hopedale					Population: 5,911			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	35	19	0	16	4	0	0	4
2017	19	8	3	8	4	0	0	4
2018	28	14	1	13	4	0	0	4
2019	25	19	1	5	2	0	0	2
2020	29	17	1	11	3	0	0	3

Hubbardston					Population: 4,382			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	33	13	3	17	2	0	0	2
2017	14	6	1	7	0	0	0	0
2018	14	8	3	3	0	0	0	0
2019	9	7	1	1	0	0	0	0
2020	22	10	3	9	0	0	0	0

Lancaster					Population: 8,055			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	21	4	3	14	0	0	0	0
2017	22	9	5	8	0	0	0	0
2018	14	7	3	4	0	0	0	0
2019	19	8	1	10	0	0	0	0
2020	33	12	5	16	1	1	0	0

Leicester					Population: 10,970			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	31	7	7	17	4	0	0	4
2017	33	30	2	1	0	0	0	0
2018	27	18	3	6	1	0	0	1
2019	47	27	6	14	5	0	0	5
2020	42	16	5	21	0	0	0	0

Leominster **Population: 40,759**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	257	142	8	107	2	0	0	2
2017	245	176	15	54	5	4	0	1
2018	219	154	20	45	2	1	0	1
2019	221	153	14	54	0	0	0	0
2020	250	142	19	89	1	0	1	0

Lunenburg **Population: 10,086**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	17	4	0	13	0	0	0	0
2017	45	21	5	19	1	0	0	1
2018	28	21	1	6	0	0	0	0
2019	22	14	1	7	0	0	0	0
2020	37	19	3	15	1	0	1	0

Mendon **Population: 5,839**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	4	1	1	2	0	0	0	0
2017	6	1	2	3	0	0	0	0
2018	4	0	2	2	0	0	0	0
2019	21	10	1	10	0	0	0	0
2020	30	8	1	21	0	0	0	0

Milford **Population: 27,999**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	118	41	14	63	1	0	0	1
2017	104	50	13	41	2	1	0	1
2018	72	45	8	19	0	0	0	0
2019	73	39	15	19	3	1	1	1
2020	87	36	8	43	2	0	0	2

Millbury **Population: 13,261**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	56	29	6	21	0	0	0	0
2017	55	30	5	20	0	0	0	0
2018	54	33	12	9	0	0	0	0
2019	52	36	9	7	1	1	0	0
2020	40	13	6	21	0	0	0	0

Millville **Population: 3,190**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	10	8	1	1	0	0	0	0
2017	4	2	1	1	0	0	0	0
2018	7	4	0	3	1	1	0	0
2019	10	8	1	1	0	0	0	0
2020	15	7	2	6	0	0	0	0

New Braintree **Population: 999**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	1	0	0	0	0	0	0
2017	6	2	1	3	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Non-reporting Department							
2020	Non-reporting Department							

North Brookfield **Population: 4,680**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	0	1	0	0	0	0	0
2017	20	8	0	12	1	0	0	1
2018	23	14	0	9	0	0	0	0
2019	9	4	3	2	0	0	0	0
2020	17	7	1	9	0	0	0	0

Northborough**Population: 14,155**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	45	9	7	29	2	0	0	2
2017	32	11	5	16	0	0	0	0
2018	38	15	4	19	0	0	0	0
2019	38	16	8	14	0	0	0	0
2020	45	15	7	23	0	0	0	0

Northbridge**Population: 15,707**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	54	23	2	29	2	0	0	2
2017	42	18	5	19	0	0	0	0
2018	29	19	5	5	1	0	0	1
2019	35	18	9	8	1	0	0	1
2020	46	20	6	20	0	0	0	0

Oakham**Population: 1,902**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	9	3	0	6	0	0	0	0
2017	4	0	2	2	0	0	0	0
2018	8	6	0	2	2	1	0	1
2019	3	3	0	0	0	0	0	0
2020	5	2	0	3	0	0	0	0

Oxford**Population: 13,709**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	66	22	9	35	0	0	0	0
2017	61	32	6	23	1	0	1	0
2018	54	32	7	15	1	1	0	0
2019	47	24	6	17	1	1	0	0
2020	48	17	4	27	0	0	0	0

Paxton **Population: 4,806**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	19	9	1	9	0	0	0	0
2017	12	9	0	3	0	0	0	0
2018	14	10	2	2	0	0	0	0
2019	9	9	0	0	0	0	0	0
2020	24	18	4	2	0	0	0	0

Petersham **Population: 1,234**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	1	0	1	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	10	4	2	4	0	0	0	0

Phillipston **Population: 1,682**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	10	3	1	6	0	0	0	0
2017	5	2	0	3	0	0	0	0
2018	5	1	3	1	0	0	0	0
2019	4	2	2	0	0	0	0	0
2020	7	0	2	5	2	0	0	2

Princeton **Population: 3,413**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	7	3	1	3	0	0	0	0
2017	14	13	0	1	1	0	0	1
2018	8	5	1	2	0	0	0	0
2019	14	8	1	5	0	0	0	0
2020	15	9	1	5	0	0	0	0

Royalston **Population: 1,258**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	Fire Department in Good Standing, Certified No Reportable Fires							
2017	7	3	0	4	0	0	0	0
2018	10	3	0	7	3	0	0	3
2019	4	2	0	2	1	0	0	1
2020	13	2	0	11	1	0	0	1

Rutland **Population: 7,973**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	26	6	7	13	2	0	0	2
2017	22	13	0	9	0	0	0	0
2018	22	8	1	13	0	0	0	0
2019	17	9	2	6	0	0	0	0
2020	18	9	0	9	1	0	0	1

Shrewsbury **Population: 35,608**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	150	77	17	56	1	0	0	1
2017	99	54	14	31	2	1	0	1
2018	116	63	17	36	2	0	0	2
2019	90	56	12	22	6	0	1	5
2020	125	55	19	51	1	0	0	1

Southborough **Population: 9,767**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	36	10	4	22	1	0	0	1
2017	25	8	7	10	0	0	0	0
2018	30	18	7	5	0	0	0	0
2019	21	8	6	7	4	0	1	3
2020	39	11	4	24	3	0	0	3

Southbridge					Population: 16,719			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	49	30	6	13	0	0	0	0
2017	36	21	12	3	0	0	0	0
2018	45	28	6	11	0	0	0	0
2019	51	28	12	11	0	0	0	0
2020	57	36	4	17	0	0	0	0

Spencer					Population: 11,688			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	62	44	5	13	0	0	0	0
2017	56	39	3	14	1	0	0	1
2018	28	17	5	6	1	0	0	1
2019	48	25	4	19	1	1	0	0
2020	52	27	2	23	2	1	0	1

Sterling					Population: 7,808			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	24	7	3	14	1	0	1	0
2017	21	8	6	7	3	1	0	2
2018	13	5	5	3	0	0	0	0
2019	17	7	2	8	0	0	0	0
2020	31	10	2	19	0	0	0	0

Sturbridge					Population: 9,268			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	44	14	5	25	5	1	0	4
2017	44	16	8	20	0	0	0	0
2018	32	13	10	9	0	0	0	0
2019	47	20	8	19	4	0	0	4
2020	62	19	13	30	0	0	0	0

Sutton					Population: 8,963			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	41	16	7	18	1	1	0	0
2017	26	8	6	12	0	0	0	0
2018	24	16	2	6	0	0	0	0
2019	31	19	6	6	0	0	0	0
2020	35	10	8	17	0	0	0	0

Templeton					Population: 8,013			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	8	6	1	1	0	0	0	0
2017	11	9	0	2	0	0	0	0
2018	6	2	3	1	0	0	0	0
2019	Non-reporting Department							
2020	13	8	0	5	1	0	0	1

Upton					Population: 7,542			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	21	10	2	9	2	0	0	2
2017	14	10	0	4	2	0	0	2
2018	24	15	4	5	0	0	0	0
2019	14	8	1	5	1	0	0	1
2020	40	23	3	14	0	0	0	0

Uxbridge					Population: 13,457			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	53	23	8	22	2	1	1	0
2017	36	11	6	19	50	0	0	5
2018	22	12	6	4	1	0	0	1
2019	32	11	9	12	2	0	0	2
2020	39	17	4	18	0	0	0	0

Warren					Population: 5,135			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	23	4	3	16	1	0	0	1
2017	14	5	3	6	0	0	0	0
2018	12	8	2	2	0	0	0	0
2019	29	11	8	10	3	0	0	3
2020	27	17	4	6	1	0	0	1

Webster					Population: 16,767			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	62	31	10	21	6	0	1	5
2017	57	36	10	11	5	2	1	2
2018	53	32	11	10	0	0	0	0
2019	41	25	5	11	1	0	0	1
2020	55	29	3	23	1	0	0	1

West Boylston					Population: 7,669			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	38	17	4	17	0	0	0	0
2017	17	7	4	6	0	0	0	0
2018	17	9	2	6	1	0	0	1
2019	19	7	6	6	0	0	0	0
2020	21	8	2	11	3	1	0	2

West Brookfield					Population: 3,701			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1	0	1	0	0	0	0	0
2017	10	6	3	1	1	0	0	1
2018	13	5	2	6	4	0	0	4
2019	2	2	0	0	0	0	0	0
2020	3	2	0	1	0	0	0	0

Westborough						Population: 18,272		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	135	81	12	42	2	0	0	2
2017	138	109	9	20	5	3	0	2
2018	96	72	4	20	2	1	0	1
2019	150	114	23	13	1	0	1	0
2020	161	121	9	31	2	1	0	1

Westminster						Population: 7,277		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	43	18	10	15	1	0	0	1
2017	27	10	11	6	0	0	0	0
2018	25	12	5	8	1	1	0	0
2019	31	11	9	11	1	0	0	1
2020	42	13	9	20	0	0	0	0

Winchendon						Population: 10,300		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	37	23	3	11	1	0	1	0
2017	19	10	3	6	1	0	0	1
2018	41	19	10	12	3	1	2	0
2019	23	14	2	7	0	0	0	0
2020	33	15	1	17	1	0	0	1

Worcester						Population: 181,045		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2016	1,426	827	88	511	16	8	7	1
2017	1,270	852	70	348	11	8	3	0
2018	1,384	963	87	334	24	11	5	8
2019	1,300	878	74	348	32	7	5	20
2020	1,576	845	66	665	22	11	4	7

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27011	Ashburnham	821	26	1	483	16	137	44	108	2	4
27015	Athol	2,788	99	9	2,169	103	77	152	171	7	1
27017	Auburn	3,631	75	2	2,599	126	231	262	294	37	5
27021	Barre	1,189	40	1	787	135	92	36	85	13	0
27028	Berlin	881	34	0	338	33	347	26	102	0	1
27032	Blackstone	449	20	0	183	34	35	48	126	3	0
27034	Bolton	572	19	1	337	38	33	38	103	3	0
27039	Boylston	466	22	0	358	14	9	5	57	1	0
27045	Brookfield	141	30	1	31	19	10	15	33	2	0
27054	Charlton	2,202	71	3	1,542	151	182	110	137	1	5
27064	Clinton	1,769	54	1	1,155	25	89	30	399	15	1
27077	Douglas	341	34	0	95	35	63	23	86	4	1
27080	Dudley	510	61	0	135	49	38	72	145	3	7
27084	East Brookfield	87	6	0	23	11	21	4	17	5	0
27097	Fitchburg	4,474	518	3	1,893	166	484	455	940	10	5
27103	Gardner	5,202	168	7	3,585	170	463	211	553	34	11

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Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27110	Grafton	470	27	3	42	57	70	50	213	5	3
27124	Hardwick	112	17	0	13	17	11	4	46	3	1
27125	Harvard	370	38	1	70	32	45	42	99	42	1
27134	Holden	2,030	45	0	1,533	70	82	107	180	5	8
27138	Hopedale	1,563	50	2	793	92	384	83	135	16	8
27140	Hubbardston	694	22	0	370	60	126	69	44	3	0
27147	Lancaster	1,065	36	1	805	26	34	56	96	2	9
27151	Leicester	351	46	0	64	65	38	27	106	3	2
27153	Leominster	7,932	252	4	5,171	256	917	455	797	24	56
27162	Lunenburg	474	47	0	78	73	66	41	162	1	6
27179	Mendon	683	38	0	461	38	30	39	72	3	2
27185	Milford	5,317	99	0	3,705	142	575	324	445	21	6
27186	Millbury	383	42	0	17	26	80	23	178	17	0
27188	Millville	381	22	0	225	23	25	65	21	0	0
27202	New Braintree**	0	0	0	0	0	0	0	0	0	0

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FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27212	North Brookfield	250	29	1	46	32	24	5	93	17	3
27215	Northborough	2,349	55	1	1,487	89	233	136	342	5	1
27216	Northbridge	3,081	54	3	2,361	73	149	127	299	13	2
27222	Oakham	217	5	0	134	22	27	11	16	0	2
27226	Oxford	494	48	2	62	58	84	79	145	14	2
27228	Paxton	1,065	35	0	572	15	313	62	68	0	0
27234	Petersham	10	10	0	0	0	0	0	0	0	0
27235	Phillipston	227	13	1	148	8	22	13	17	0	5
27241	Princeton	352	15	0	205	10	39	21	60	2	0
27255	Royalston	108	28	0	19	14	20	19	7	1	0
27257	Rutland	1,410	18	1	969	56	171	103	90	0	2
27271	Shrewsbury	4,001	129	2	2,779	215	264	143	440	5	24
27277	Southborough	1,287	49	1	716	59	88	143	214	13	4
27278	Southbridge	2,755	69	1	2,145	95	104	76	236	9	20
27280	Spencer	1,458	75	2	1,000	103	60	58	150	7	3

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Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27282	Sterling	1,793	42	1	1,139	26	156	288	122	19	0
27287	Sturbridge	1,939	70	9	1,258	69	215	89	217	0	12
27290	Sutton	584	73	1	293	36	33	52	92	4	0
27294	Templeton	546	15	1	410	13	34	20	46	5	2
27303	Upton	271	40	1	16	49	43	25	89	4	4
27304	Uxbridge	1,367	54	3	830	66	86	101	226	0	1
27311	Warren	861	45	1	584	66	46	70	43	1	5
27316	Webster	726	68	1	110	67	80	87	299	3	11
27321	West Boylston	1,271	27	2	936	30	66	62	144	2	2
27323	West Brookfield	3	3	0	0	0	0	0	0	0	0
27328	Westborough	4,356	178	10	2,901	226	222	254	560	5	0
27332	Westminster	1,679	42	1	1,010	70	192	81	250	24	9
27343	Winchendon	2,099	39	5	1,476	78	250	96	142	12	1
27348	Worcester	29,321	1,576	23	19,748	1,076	1,853	1,810	3,207	4	24
Total	Worcester County	113,228	4,962	114	72,414	4,823	9,668	6,947	13,564	454	282

* Certified no reportable fires.

**Non reporting department.

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