

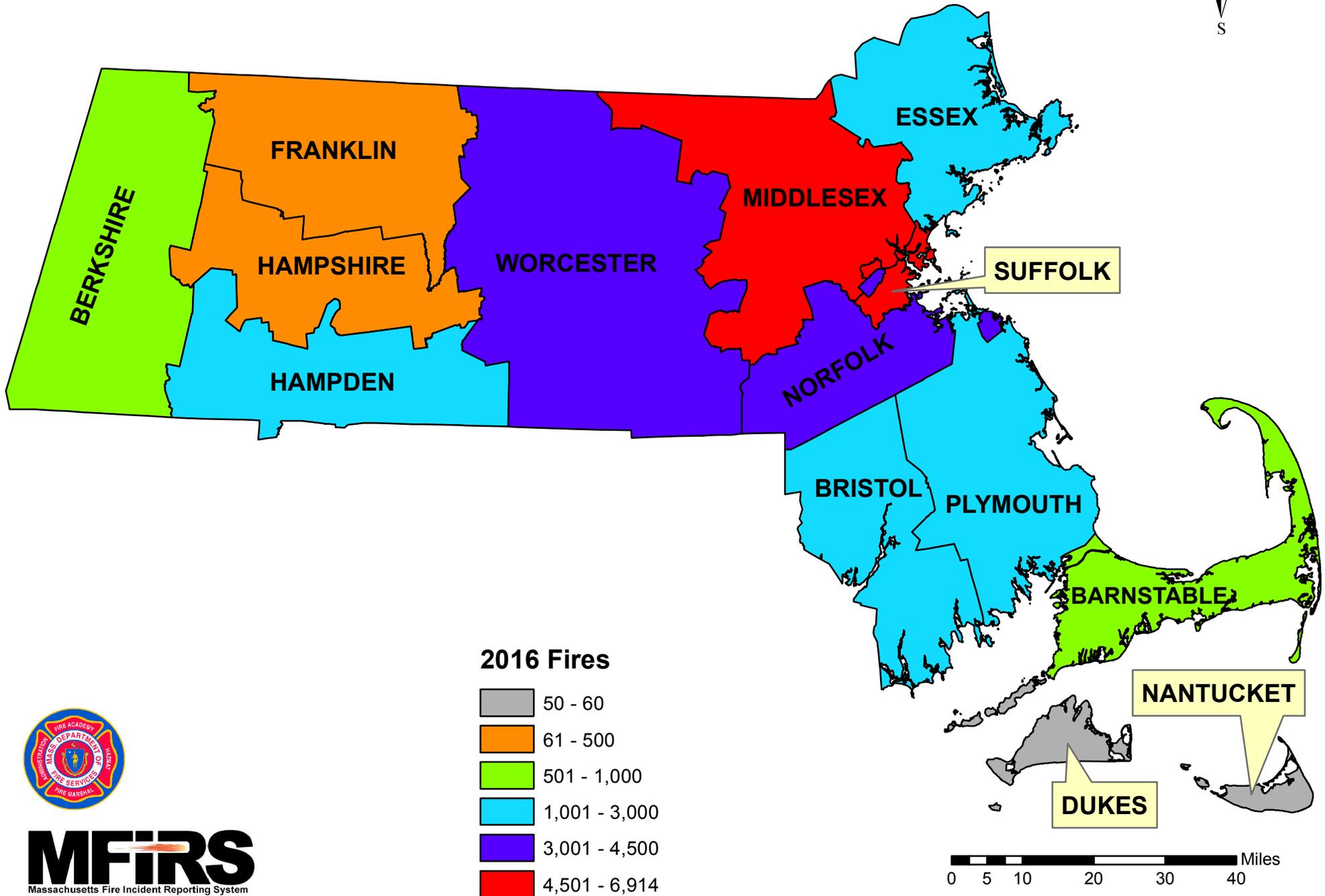


County Profiles

2016 Fire Data Analysis

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

2016 Fires in Massachusetts Counties



MFIRS
Massachusetts Fire Incident Reporting System

0 5 10 20 30 40 Miles
Massachusetts Fire Incident Reporting System 2016

Table of Contents

Tables **2016 Fires by County and 2016 Arsons by County**
 2016 Fires, Arson and Deaths by County and Population
 2016 Non-fire Responses by County and by Incident Type

Barnstable County Profile

Berkshire County Profile

Bristol County Profile

Dukes County Profile

Essex County Profile

Franklin County Profile

Hampden County Profile

Hampshire County Profile

Middlesex County Profile

Nantucket County Profile

Plymouth County Profile

Suffolk County Profile

Worcester County Profile

2016 Fires by County

County	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Civilian		Fire Service		Dollar Loss
					Deaths	Injuries	Deaths	Injuries	
Barnstable	829	346	75	408	1	16	0	12	\$7,276,344
Berkshire	548	301	55	192	1	10	0	14	4,148,891
Bristol	2,034	816	305	913	7	32	0	21	18,880,214
Dukes	50	12	10	28	0	0	0	0	840,601
Essex	2,870	1,308	209	1,353	3	21	0	65	28,312,749
Franklin	341	158	26	157	8	11	0	7	2,722,830
Hampden	2,134	1,033	215	886	2	29	0	59	13,382,435
Hampshire	369	168	30	171	0	11	0	7	5,204,955
Middlesex	6,131	3,354	350	2,427	6	48	0	126	45,155,094
Nantucket	51	26	4	21	0	0	0	0	5,120,000
Norfolk	3,154	1,638	213	1,303	4	25	0	43	19,942,109
Plymouth	2,075	820	215	1,040	8	39	0	29	17,893,607
Suffolk	6,914	4,627	304	1,983	5	12	0	44	54,875,212
Worcester	4,389	2,348	346	1,695	11	41	0	56	34,851,181
Total	31,889	16,955	2,357	12,577	56	295	0	483	\$258,607,032

2016 Arsons by County

County	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons	Civilian		Fire Service		Dollar Loss
					Deaths	Injuries	Deaths	Injuries	
Barnstable	28	8	0	20	1	0	0	0	\$979,501
Berkshire	26	11	2	13	0	0	0	1	20,000
Bristol	78	21	20	37	1	1	0	2	796,070
Dukes	2	0	1	1	0	0	0	0	2,500
Essex	100	17	10	73	0	0	0	0	677,824
Franklin	16	3	0	13	0	0	0	0	200
Hampden	94	21	12	61	0	0	0	7	741,125
Hampshire	24	5	1	18	0	0	0	1	143,202
Middlesex	72	10	11	51	0	1	0	0	271,202
Nantucket	0	0	0	0	0	0	0	0	0
Norfolk	54	9	2	43	0	0	0	0	259,054
Plymouth	41	10	2	29	1	1	0	0	689,520
Suffolk	123	20	11	92	1	1	0	0	1,024,441
Worcester	84	16	16	52	0	0	0	1	5,451,633
Total	742	151	88	503	4	4	0	15	\$11,056,272

2016 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	829	3.8	1	1.2	0.05	28	0.1
Berkshire	131,219	548	4.2	1	1.7	0.08	26	0.2
Bristol	548,285	2,034	3.7	7	3.4	0.13	78	0.1
Dukes	16,535	50	3.0	0	0.0	0.00	2	0.1
Essex	743,159	2,870	3.9	3	1.0	0.04	100	0.1
Franklin	71,372	341	4.8	8	23.5	1.12	16	0.2
Hampden	463,490	2,134	4.6	2	0.9	0.04	94	0.2
Hampshire	158,080	369	2.3	0	0.0	0.00	24	0.2
Middlesex	1,503,085	6,131	4.1	6	1.0	0.04	72	0.05
Nantucket	10,172	51	5.0	0	0.0	0.00	0	0.0
Norfolk	670,850	3,154	4.7	4	1.3	0.06	54	0.1
Plymouth	494,919	2,075	4.2	8	3.9	0.16	41	0.1
Suffolk	722,023	6,914	9.6	5	0.7	0.07	123	0.2
Worcester	798,552	4,389	5.5	11	2.5	0.14	84	0.1
Massachusetts	6,547,629	31,889	4.9	56	1.8	0.09	742	0.1

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

2016 Non-Fire Responses by County and by Incident Type

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 ¹ & Natural Disaster	Special Incident Type
Barnstable	51,237	44	36,856	1,930	3,679	2,361	6,109	38	220
Berkshire	11,589	7	6,772	720	1,534	634	1,845	22	55
Bristol	66,740	58	45,054	2,572	4,115	4,103	10,359	31	448
Dukes	927	4	95	77	53	146	543	0	9
Essex	96,934	80	55,353	3,735	15,128	6,272	15,569	63	734
Franklin	7,722	8	4,444	374	939	590	822	33	212
Hampden	42,275	60	24,131	1,821	3,498	5,976	6,630	16	143
Hampshire	13,343	22	9,005	572	826	771	2,074	21	52
Middlesex	187,432	143	110,661	9,861	19,782	11,294	29,978	119	5,639
Nantucket	2,885	7	1,274	239	125	133	1,102	4	1
Norfolk	86,479	84	52,951	5,421	8,387	5,805	11,976	111	1,744
Plymouth	83,906	81	57,667	4,378	6,898	5,088	9,457	120	217
Suffolk	105,331	81	56,981	4,775	14,074	9,126	17,898	21	2,375
Worcester	98,574	91	65,881	3,822	8,557	6,506	12,503	68	1,146
Massachusetts	855,374	770	527,125	40,552	87,595	58,805	126,865	667	12,995

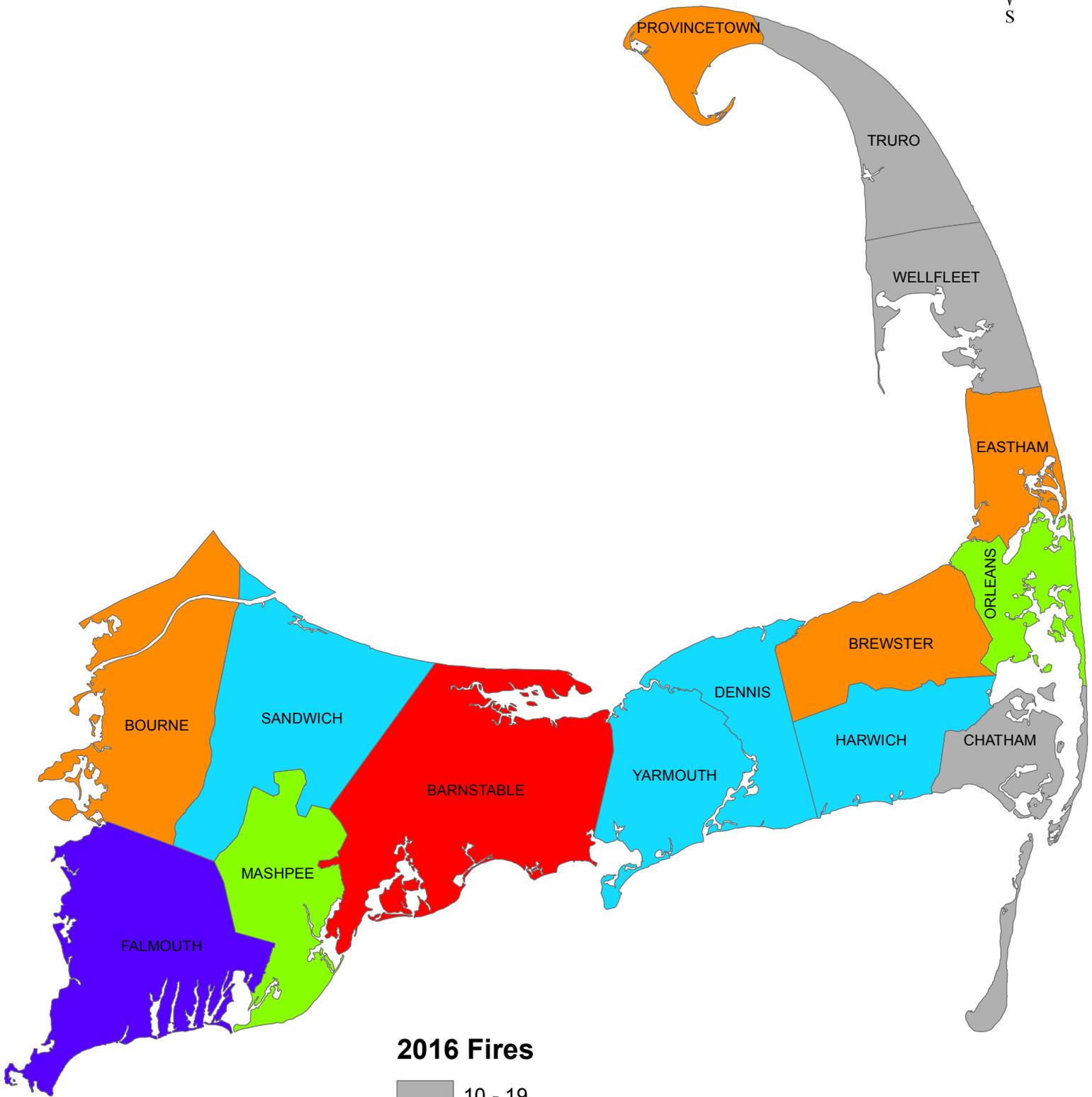
¹ WX is the abbreviation for Weather.



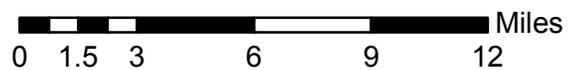
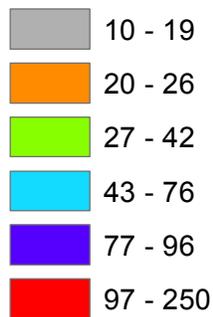
Barnstable County

2016 Fire Data Analysis

Barnstable County Fires 2016



2016 Fires



Massachusetts Fire Incident Reporting System 2016



Barnstable County Fires in 2016

829 Total Fires — 346 Structures, 75 Vehicles & 408 Other Fires

Barnstable County ranked ninth out of the 14 Massachusetts counties in total reported fires. Barnstable County fire departments reported 829 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 346 structure fires, 75 motor vehicle fires, 282 brush, tree, or lawn fires, 69 outside rubbish fires, 37 special outside fires, four cultivated crop or vegetation fires, and 16 unclassified fires caused one civilian death, 16 civilian injuries, 12 fire service injuries and an estimated dollar loss of \$7.3 million. Barnstable County's fires accounted for 3% of the 31,889 Massachusetts fires reported in 2016.

All 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 2016.

MV & Outside Fires Down

The total number of reported fire incidents decreased by 31 from the 860 reported in 2015. Reported structure fires increased by 10 from the 336 reported during the previous year. Motor vehicle fires decreased by 25 from the 100 reported during 2015. Outside and other fires decreased by 16 from the 424 reported the year before.

BARNSTABLE COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	900	360	117	423	47	9	5	333
2013	805	395	90	320	48	8	0	40
2014	902	413	82	407	55	7	4	44
2015	860	336	100	424	48	5	2	41
2016	829	346	75	408	28	8	0	20

Fire and Fire Death Rates

Barnstable County had 3.8 fires per 1,000 population. That figure ranks Barnstable County eleventh in the state and below the state rate of 4.9 fires per 1,000 population. Barnstable County also had 0.05 fire deaths per 10,000 population, ranking it eighth and below the state rate of 0.09 fire deaths per 10,000 population.

1 Fatal Fire in Barnstable County

In 2016, Barnstable County had one fatal fire kill one person.

- On December 23, 2016, at 5:31 p.m., the Brewster Fire Department was called to a fatal self-immolation fire in a single-family home. The victim, a 31-year old man, started the fire in a first floor bedroom. No one else was injured at this fire. It was undetermined if alarms were present, but the victim was intimately involved with the ignition of the fire. The home was not sprinklered. Damages from this fire were estimated to be \$250,000.

Mashpee Had Barnstable County's Largest Loss Fire

In 2016 Barnstable County did not have any large loss fires over \$1 million in estimated damages. Mashpee had the fire with the most estimated damages, which was 8% of the county's total dollar loss.

- On March 24, 2016, at 11:52 a.m., the Mashpee Fire Department responded to a heating fire in an apartment building. No one was injured at this fire. Alarms were present and they alerted the occupants. The building was not equipped with sprinklers. Damages were estimated to be \$591,000.

STRUCTURE FIRES

Reported Structure Fires Up Slightly

The 346 structure fires caused one civilian death, 15 civilian injuries, nine fire service injuries and an estimated dollar loss of \$6.3 million. These incidents represented 42% of Barnstable County's reported fires in 2016. The total number of reported structure fires increased by 10, or 3%, from the 336 reported in 2015. The average estimated dollar loss per structure fire was \$18,272.

Arson Caused 2% of Structure Fires

The eight structure arsons caused the one civilian death¹ and an estimated dollar loss of \$979,501. Arson was indicated as the cause of 2% of the structure fires and 15% of Barnstable County's structure fire dollar loss. The eight structure arsons accounted for 29% of the Barnstable County arson fires reported in 2016. The total number of reported structure arsons increased by three from the five reported in 2015.

3/4 of Structure Arsons Occurred in Residences

Seventy-five percent (75%) of Barnstable County's eight structure arsons occurred in residential occupancies, 13% happened in institutional facilities; and 13% occurred in storage facilities.

BUILDING FIRES

There were 344 building fires of different types in Barnstable County in 2016. These 344 building fires accounted for 99.4% 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 83%, of Barnstable County's 344 building fires occurred in residential occupancies. Seventeen (17) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties also had 17 fires. Hospitals, prisons, and other institutional buildings experienced nine fires. Five (5) fires also took place in storage properties. Five (5) fires took place in educational facilities and four fires occurred at industrial facilities. Three (3) fires took place in manufacturing or processing facilities.

¹ This death was a self-immolation.

RESIDENTIAL FIRES

Residential Building Fires Are Up Slightly

There were 284 reported residential building fires in Barnstable County in 2016. These 284 fires are an increase of nine, or 3%, from the 275 residential building fires reported in 2015.

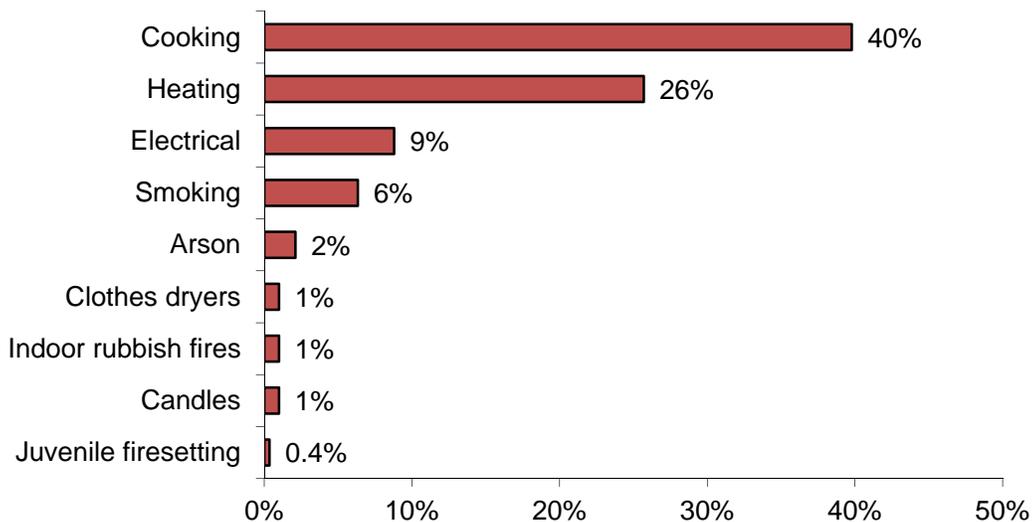
1- & 2-Family Homes Accounted for 71% of Residential Building Fires

The peak fixed property use for residential building fires were one- or two-family homes, accounting for 71% of the building fires in Barnstable County; 19% occurred in apartments; 3% happened in hotels or motels; 3% occurred in residential board and care facilities; 1% happened in dormitories and less than 1% occurred in rooming houses. Four (4), or 1%, 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 40% of the fires. Heating fires accounted for 26% of the fires in people’s homes in 2016; 58% involved a chimney or flue and 36% involved a fuel burner or boiler. Electrical problems caused 9% of fires in residential buildings. Smoking caused 6% of these fires. Arsons caused 2% of these fires. Clothes dryers, indoor rubbish fires and candles each accounted for 1% of these fires. Juvenile set fires were responsible for less than 1% of these fires.

2016 Leading Causes of Fires in Barnstable County Homes



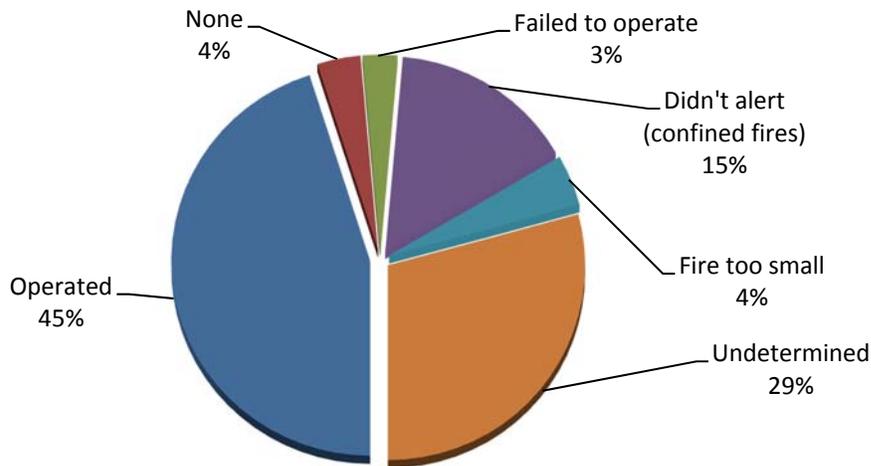
59% of Residential Building Fires Are Confined to Non-Combustible Containers²

One hundred and sixty-eight (168), or 59%, of all residential building fires were reported as confined to non-combustible containers in Barnstable County in 2016. One hundred and three (103), or 36%, of all residential building fires reported in 2016 were cooking fires contained to a non-combustible container. Thirty-nine (39) of the reported fires were confined to a chimney, accounting for 14% of residential building fires. Twenty-three (23), or 8%, were fires confined to a fuel burner or boiler malfunction. Three (3), or 1%, of these fires were rubbish fires contained to a non-combustible container.

Detectors Alerted Occupants in Only 45% of Fires

Smoke or heat detectors operated and alerted the occupants in 128, or 45%, of the residential building fires. In 15% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 3% 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 residential fires. Smoke detector performance was undetermined in 83 incidents, or 29%, of Barnstable County’s residential building fires.

Detector Status in Barnstable County's Residential Structure Fires 2016



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.

4 of 8 Detectors Failed from Missing or Dead Batteries

Of the eight fires where smoke detectors were present but failed to operate, two, or 25%, failed because of missing or disconnected batteries. Another two, or 25%, failed because the batteries were dead. One (1), or 13%, failed from a power failure, shut off or disconnect. It was undetermined in three cases, or 38%, why the detector failed.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Barnstable County reported 11 fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the 344 building fires reported to MFIRS in 2016. Seven (7) one- or two-family homes, two sheds, one restaurant, and one apartment building were reported as vacant building fire incidents.

Three (3), or 27%, of the vacant building fires in Barnstable County in 2016 were determined to be intentionally set. These fires occurred in a single-family home, an apartment building and a shed.

JUVENILE-SET FIRES

12 Juvenile-set Fires

There were 12 reported juvenile-set fires in Barnstable County in 2016. There were 11 brush fires and one structure fire. These 12 fires accounted for \$4,100 in estimated damages.

ARSONS

28 Total Arsons — 8 Structures, 0 Vehicle & 20 Other Arsons

Twenty-eight (28), or 3%, of Barnstable County's 829 fires were considered intentionally set, or, for purposes of this analysis, arson. The eight structure arsons and 20 outside and other arsons caused one civilian death⁴ and an estimated dollar loss of \$979,501.

Outside Arson Down in 2016

The total number of reported arson fires decreased by 20, or 42%, from the 55 reported in 2015. Reported structure arsons increased by three from the five reported in 2015. Motor vehicle arsons decreased by two from two reported in 2015. Reported outside and other arsons decreased by 21 from the 41 reported in 2015.

ALL INCIDENTS

Rescue & EMS Calls Are 71% of All Reported Incidents

In 2016, Barnstable County fire departments reported 52,237 responses⁵ to MFIRS. Of these 52,237 incidents, 51,237 non-fire calls were voluntarily reported.

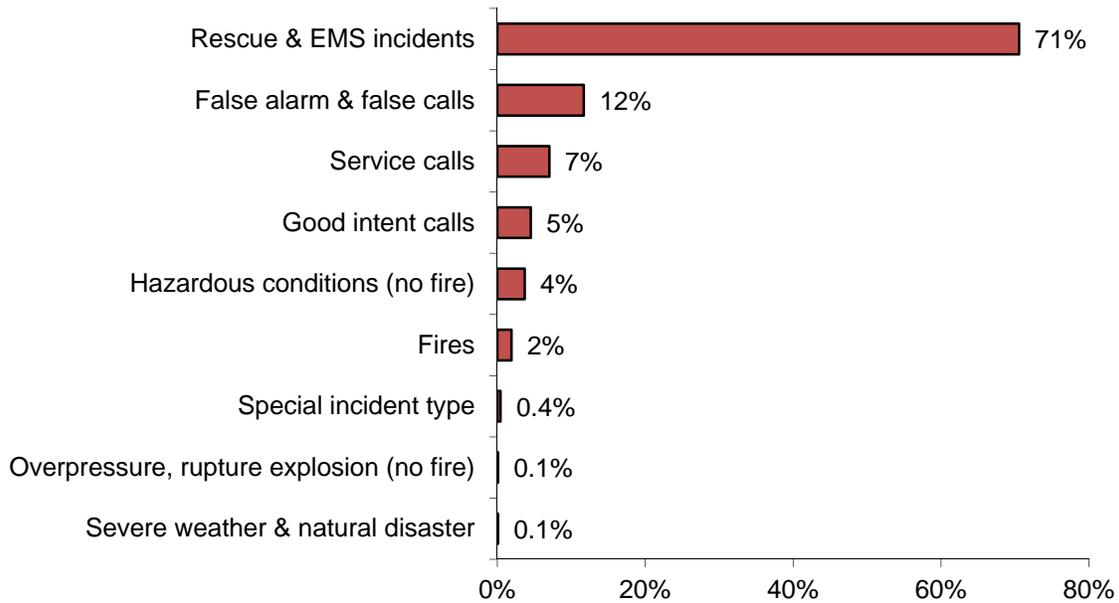
⁴ This death was a self-immolation

⁵ These figures include responses in which Barnstable County fire departments gave mutual aid to other fire departments.

Of these 51,237 non-fire calls, 36,856, or 71%, of all of the responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 6,109, or 12%, were reported false alarm or false calls; 3,679, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 2,361, or 5%, reported good intent calls; 1,930, or 4%, were reported hazardous condition calls with no fire; 220, or 0.4%, were special incident type calls such as citizen complaints; 44, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire and 38, or 0.1%, were severe weather responses.

One thousand (1,000), or 2%, of the total responses submitted by Barnstable County fire departments were fires.

2016 Responses by Incident Type



Barnstable County Departments Gave Aid 1,699 Times

In 2016, Barnstable County fire departments reported coming to the aid of other fire departments 1,699 times. Of these 1,699 responses, 950, or 56%, were for rescue or EMS incidents; 271, or 16%, were for service calls such as cover assignments; 235, or 14%, were for good intent calls; 170, or 10%, were for fires; 31, or 2%, were for false alarms or false calls; 20, or 1%, were for hazardous conditions calls with no fire; 19, or 1%, were special incident types; two, or 0.1%, were for overpressure, rupture or explosion calls with no ensuing fire; and one, or 0.1%, was for a severe weather call.

Barnstable County Received Mutual Aid in 985 Incidents

In 2016, Barnstable County fire departments received aid from surrounding departments in 985 incidents. Of these 985 incidents, 748, or 76%, were rescue and emergency medical services calls; 111, or 11%, were for fires; 40, or 4%, were false alarms or false

calls; 34, or 3%, were good intent calls; 25, or 3%, were service calls; 22, or 3%, were hazardous conditions calls with no fire; three, or 0.3%, was for a special incident type one, or 0.1%, were overpressure, rupture, explosion or overheat calls with no fire; three, and one or 0.1%, was a severe weather call.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	37%	Abandoned materials	5%	11%
Film, residue (creosote)	14%	Too close to combustibles	4%	9%
Flammable or comb. liquid	8%	Failure to clean	3%	7%
Structural member, framing	4%	Electrical failure, malfunc.	2%	6%
Exterior sidewall covering	4%	Misuse of mater. or prod.	2%	5%
Electrical wire, cable insulation	3%	Storm	2%	5%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	39%	Unintentional	25%	60%
None	24%	Failure of eq. or heat source	4%	9%
Chimney or flue	14%	Intentional	2%	4%
Boiler, furnace, cent. heat unit	8%	Act of nature	3%	7%
Fan	1%	Undetermined	5%	11%
		Cause Under Investigation	2%	6%

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

Alerted Occupants	43%
Didn't Alert Occupants	26%
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	48	34	5	9
February	47	35	6	6
March	42	28	4	10
April	89	34	12	43
May	87	19	12	56
June	126	36	3	87
July	128	40	13	75
August	96	28	4	64
September	49	19	7	23
October	42	23	6	13
November	27	16	1	10
December	48	34	2	12

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	143	60	9	74
Monday	129	46	12	71
Tuesday	92	40	9	43
Wednesday	114	51	7	56
Thursday	103	44	13	46
Friday	133	61	12	60
Saturday	115	44	13	58

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	37	21	6	10
04:01 - 08:00	67	26	5	36
08:01 - 12:00	145	59	21	65
12:01 - 16:00	252	81	17	154
16:01 - 20:00	218	109	17	92
20:01 - 24:00	110	50	9	51

Motor Vehicle Fires

Total: 75

Automobiles: 55 (73%)

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

Arson Fires

Total Arsons: 28

Dollar loss: \$979,501

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	8	2%	29%	\$979,501
Vehicle Arsons	0	0%	0%	0
Other Arsons	20	5%	71%	0

0.04 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.09 Other arsons/1,000 population

1 Civilian Death

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
08:01 - 12:00	4	50%			
12:01 - 16:00	2	25%			
00:01 - 04:00	1	13%			
16:01 - 20:00	1	13%			

Other Arsons	#	%
08:01 - 12:00	6	30%
12:01 - 16:00	6	30%
16:01 - 20:00	6	30%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	4	50%
Hotel/motel, commercial	1	13%
Multifamily dwellings	1	13%
Adult education center, college classroom	1	13%
Outbuilding or shed	1	13%

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
2012	29	9	1	19	2	0	0	2
2013	24	6	6	12	2	0	0	2
2014	24	9	6	9	0	0	0	0
2015	18	5	5	8	1	0	1	0
2016	30	7	2	21	2	0	0	2

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
2012	60	33	8	19	2	1	1	0
2013	68	29	14	25	7	1	0	6
2014	60	36	2	22	4	1	0	3
2015	75	33	4	38	6	2	0	4
2016	51	23	1	27	1	1	0	0

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2012	3	1	0	2	0	0	0	0
2013	1	0	1	0	0	0	0	0
2014 ¹²	10	3	0	7	2	0	0	2
2015	5	0	0	5	1	0	0	1
2016	18	5	2	11	2	0	0	2

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2012	125	47	14	64	5	3	1	1
2013	115	53	11	51	2	2	0	0
2014	152	72	11	69	4	1	0	3
2015	151	45	16	90	3	0	0	3
2016	135	51	11	73	2	0	0	2

¹² Cotuit reported 10 fires after this 2014 database was closed. None of these were included in the analysis.

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	31	8	6	17	2	1	0	1
2013	15	7	4	4	1	0	0	1
2014	10	4	1	5	0	0	0	0
2015	4	0	1	3	0	0	0	0
2016	16	4	3	9	2	1	0	1

Bourne**Population: 19,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	75	27	17	31	7	0	3	4
2013	27	20	3	4	0	0	0	0
2014	79	33	11	35	8	0	0	8
2015	77	19	20	38	7	0	1	6
2016	16	14	0	2	1	0	0	1

Brewster**Population: 9,820**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	28	14	4	10	2	1	0	1
2013	36	17	1	18	0	0	0	0
2014	31	9	3	19	3	0	1	2
2015	35	11	1	23	3	0	0	3
2016	26	11	3	12	1	1	0	0

Chatham**Population: 6,125**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	21	8	2	11	0	0	0	0
2013	21	7	1	13	3	1	0	2
2014	39	20	1	18	1	0	0	1
2015	21	11	2	8	0	0	0	0
2016	17	8	1	8	1	0	0	1

Dennis					Population: 14,207			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	74	14	6	54	9	0	0	9
2013	60	30	5	25	6	1	0	5
2014	74	24	3	47	13	1	0	12
2015	88	35	7	46	3	0	0	3
2016	74	27	4	43	4	1	0	3

Eastham					Population: 4,956			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	16	5	0	11	1	1	0	0
2013	29	16	3	10	0	0	0	0
2014	16	11	0	5	0	0	0	0
2015	16	10	2	4	1	0	0	1
2016	23	9	1	13	0	0	0	0

Falmouth					Population: 31,531			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	83	27	22	34	4	0	0	4
2013	65	35	9	21	5	2	0	3
2014	51	21	8	22	3	2	0	1
2015	9	8	0	1	1	1	0	0
2016	96	33	1	52	0	0	0	0

Harwich					Population: 12,243			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	54	21	6	27	1	1	0	0
2013	46	18	5	23	3	0	0	3
2014	49	21	8	20	2	1	0	1
2015	45	21	5	19	1	0	0	1
2016	55	27	5	23	2	1	0	1

Joint Base Cape Cod (formerly: MA Military Reservation) Population: 0

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	6	1	3	2	0	0	0	0
2013	11	1	0	10	4	0	0	4
2014	8	2	0	6	1	0	0	1
2015	6	1	2	3	1	0	0	1
2016	7	2	1	4	0	0	0	0

Mashpee Population: 14,006

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	34	17	4	13	2	0	0	2
2013	40	17	5	18	4	0	0	4
2014	53	33	4	16	2	0	0	2
2015	41	13	5	23	2	0	0	2
2016	42	20	5	17	4	2	0	2

Orleans Population: 5,890

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	40	15	4	21	1	0	0	1
2013	18	6	2	10	1	0	0	1
2014	25	8	5	12	1	0	1	0
2015	29	9	1	19	2	0	0	2
2016	36	14	6	16	2	0	0	2

Provincetown Population: 2,942

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	21	12	2	7	0	0	0	0
2013	28	21	2	5	0	0	0	0
2014	21	12	2	7	1	0	0	1
2015	32	21	2	9	0	0	0	0
2016	23	16	0	7	0	0	0	0

Sandwich					Population: 20,675			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	108	71	10	27	2	1	0	1
2013	118	80	10	28	3	0	0	3
2014	94	56	9	29	4	0	1	3
2015	90	40	14	36	4	1	0	3
2016	76	34	7	35	1	1	0	0

Truro					Population: 2,003			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	2	0	0	0	0	0	0
2013	2	1	1	0	0	0	0	0
2014	2	1	0	1	0	0	0	0
2015	1	0	0	1	0	0	0	0
2016	10	4	0	6	0	0	0	0

Wellfleet					Population: 2,750			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	25	10	4	11	1	0	0	1
2013	18	7	3	8	1	0	0	1
2014	19	6	1	12	0	0	0	0
2015	23	13	1	9	2	0	0	2
2016	19	7	3	9	0	0	0	0

Yarmouth					Population: 23,793			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	64	17	4	43	6	0	0	6
2013	46	19	3	24	2	0	0	2
2014	74	25	7	42	5	1	1	3
2015	94	41	12	41	10	1	0	9
2016	59	30	9	20	3	0	0	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
01919	Barnstable	1,239	35	0	741	48	129	37	234	0	15
01036	Bourne	1,449	19	5	1,103	42	76	37	156	1	10
01041	Brewster	2,927	44	1	2,311	60	106	90	288	14	13
01055	Chatham	1,982	17	2	1,303	75	201	108	269	3	4
01921	Cotuit	790	19	0	497	18	95	27	130	0	4
01920	C.O.M.M.	4,143	57	2	2,853	135	322	114	638	1	21
01075	Dennis	5,058	95	3	3,540	254	457	207	491	3	8
01086	Eastham	1,709	38	3	1,216	72	96	73	200	3	8
01096	Falmouth	7,222	97	3	5,786	163	209	327	588	2	47
01126	Harwich	4,321	70	3	3,343	188	182	163	365	1	6
01922	Hyannis	1,306	138	6	57	230	203	92	574	0	6
01936	Joint Base Cape Cod	681	7	1	69	109	254	13	228	0	0
01172	Mashpee	3,587	64	0	2,452	102	316	165	482	0	6
01224	Orleans	2,505	53	2	1,949	53	136	66	234	2	10
01242	Provincetown	170	27	1	8	25	17	30	61	0	1
01261	Sandwich	4,013	79	2	2,828	148	329	204	371	3	49
01300	Truro	822	22	0	245	23	92	317	117	3	3
01318	Wellfleet	900	25	0	594	26	108	49	98	0	0
01923	West Barnstable	620	31	3	397	19	70	36	63	0	1
01351	Yarmouth	6,793	63	7	5,564	140	281	206	522	2	8
Total	Barnstable County	52,237	1,000	44	36,856	1,930	3,679	2,361	6,109	38	220

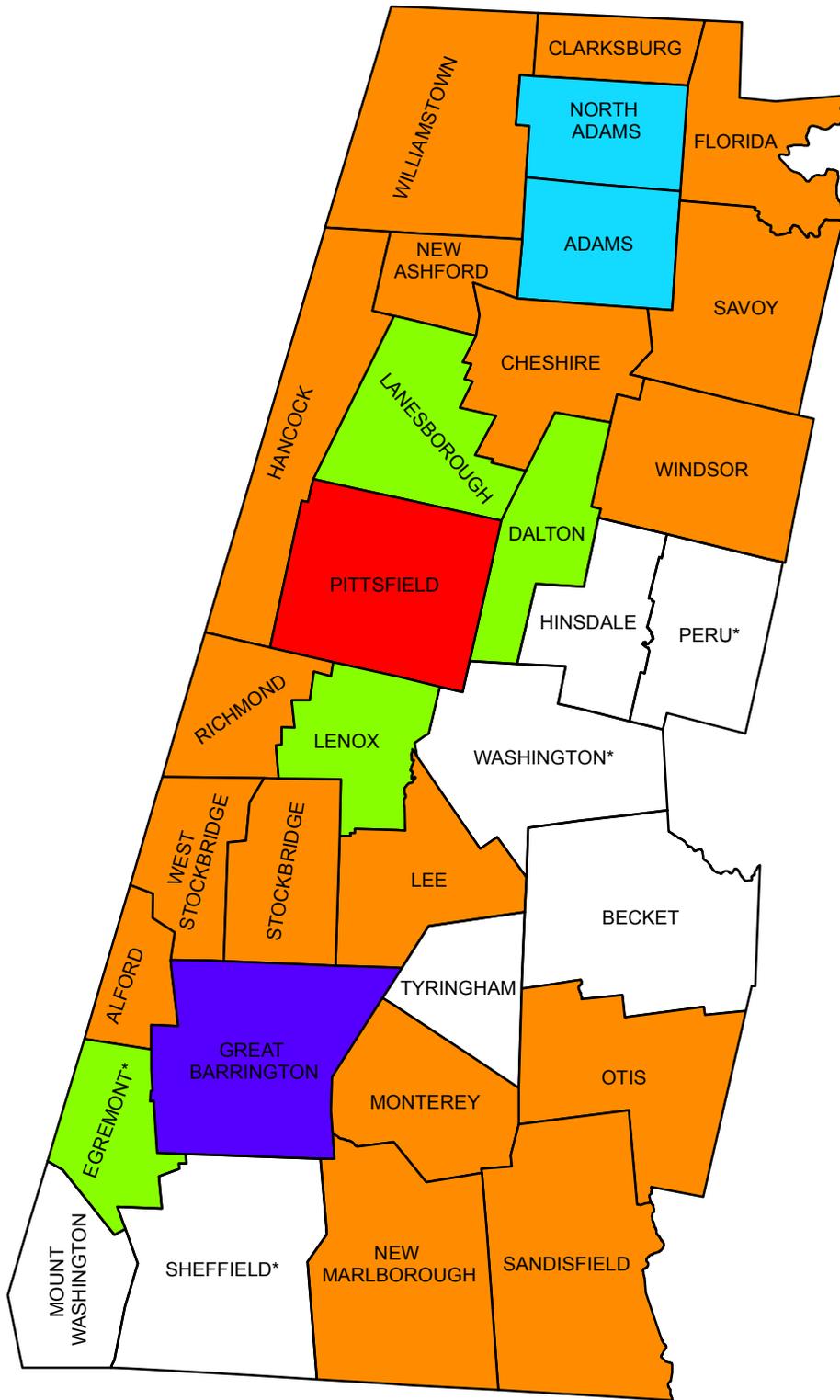
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



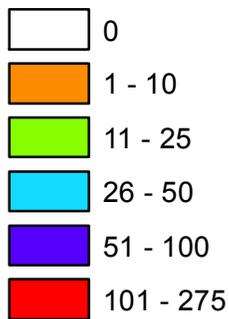
Berkshire County

2016 Fire Data Analysis

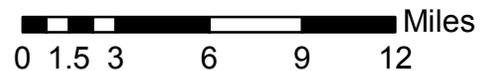
Berkshire County Fires 2016



2016 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Berkshire County Fires in 2016

548 Total Fires — 301 Structures, 55 Vehicles & 192 Outside and Other Fires

Berkshire County ranked tenth out of the fourteen Massachusetts counties in total reported fires. Berkshire County fire departments reported 301 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 301 structure fires, 55 motor vehicle fires, 102 brush, tree or lawn fires, 49 outside rubbish fires, 21 special outside fires, three cultivated crop or orchard fires; and 17 other fires caused one civilian death, 10 civilian injuries, 14 fire service injuries and an estimated dollar loss of \$4.1 million. Berkshire County's fires accounted for 2% of the 31,889 Massachusetts fires reported in 2016.

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 2016.

All Fires Down

The total number of reported fire incidents decreased by 97 from the 575 reported in 2015. Reported structure fires decreased by 27 from the 328 reported during the previous year. Motor vehicle fires increased by three from the 52 reported in 2015. Outside and other fires decreased by three from the 195 reported in 2015.

BERKSHIRE COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	606	350	34	222	25	6	0	19
2013	481	294	39	148	13	6	0	7
2014	478	296	45	137	19	3	3	13
2015	575	328	52	195	28	9	6	13
2016	548	301	55	192	26	11	2	13

Fire and Fire Death Rates

Berkshire County had 4.2 fires per 1,000 population. That figure ranks Berkshire County tied for seventh in the state and below the state rate of 4.9 fires per 1,000 population. Berkshire County also had 0.08 fire deaths per 10,000 populations ranking it tied for sixth among Massachusetts counties and below the state rate of 0.09 fire deaths per 10,000 population.

1 Person Killed in a Berkshire County Fire

In 2016 one person died in a fire in Berkshire County.

- On December 8, 2016, at 4:13 a.m., the Pittsfield Fire Department responded to a fatal fire in a mixed use building of undetermined cause. The building contained a restaurant as well as two apartments. The fire began in the bedroom of the victim. The victim, a 74-year old man was sleeping at the time of the fire. First arriving firefighters pulled the victim out of the building and transported him to a local

hospital where he succumbed to his injuries about a week later. One (1) firefighter was injured at this fire. Alarms were present and alerted the occupants. The building did not have any sprinklers. Damages from this fire were estimated to be \$250,000.

Adams Had Berkshire County's Largest Loss Fire

Berkshire County did not have any fires that reported a dollar loss over \$1 million. Adams reported the incident that had the greatest dollar loss in Berkshire County in 2016. This fire was responsible for 20% of the total county fire loss in 2016.

- On June 3, 2016, at 1:10 p.m., the Adams Fire Department was called to an electrical fire in an eight-unit apartment building. One (1) firefighter was injured at this fire. Alarms were present and alerted the occupants of the building. The building was not sprinklered. Damages from this fire were estimated to be \$841,386.

STRUCTURE FIRES

Reported Structure Fires Down

The 301 structure fires caused one civilian death, nine civilian injuries, 11 fire service injuries and an estimated dollar loss of \$3.8 million. These incidents represented 55% of Berkshire County's reported fires in 2016. The average estimated dollar loss per structure fire was \$12,829. The total number of reported structure fires decreased by 27, or 8%, from the 328 reported in 2015.

Arson Caused 4% of Structure Fires

The 11 structure arsons caused one fire service injury and an estimated dollar loss of \$14,000. Arson was indicated as the cause of 4% of the structure fires and less than 1% of Berkshire County's structure fire dollar loss. The 11 structure arsons accounted for 42% of the Berkshire County arson fires reported in 2016. The total number of reported structure arsons increased by two from the nine reported in 2015.

82% of Structure Arsons Occurred in Residences

Nine (9), or 82% of Berkshire County's structure arsons occurred in residential occupancies in 2016. One (1), or 9%, occurred in a public assembly facility and another one, or 9%, happened in a special property.

BUILDING FIRES

There were 299 building fires of different types in Berkshire County in 2016. These 299 building fires accounted for 99.3% of structure fires in Berkshire County.

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

Two hundred and forty-nine (249), or 83%, of Berkshire County's 299 building fires occurred in residential occupancies. Fifteen (15) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 15 fires. Five (5) fires occurred at educational facilities. Hospitals, prisons, and other institutional buildings experienced five fires. Storage facilities had four fires. Special properties, such as outbuildings or sheds had three fires. Manufacturing or processing

facilities had two fires and one fire occurred in an unclassified property in Berkshire County in 2016.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 249 reported residential building fires in Berkshire County in 2016. These 249 fires are a decrease of 30, or 11%, from the 279 residential building fires reported in 2015.

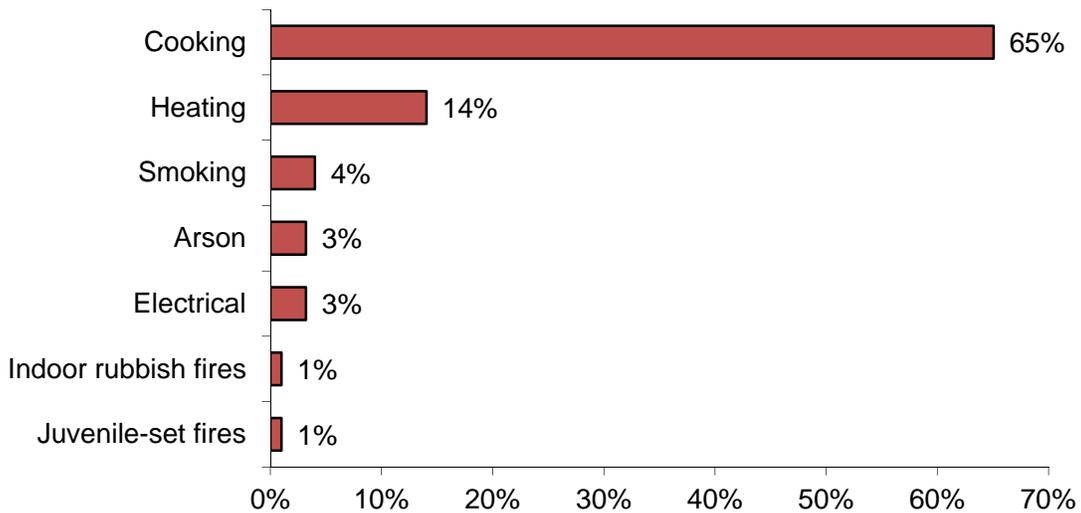
1- & 2-Family Homes Accounted for 54% of Residential Building Fires

The peak fixed property uses for residential building fires were one- or two-family homes, accounting for 54% of the building fires in Berkshire County; 36% occurred in apartments; 4% occurred in residential board and care facilities; 3% happened in dormitories; 2% happened in rooming houses ; and 1% occurred in hotels or motels. Four (4), or 2%, of the building fires in Berkshire County occurred in unclassified residential buildings.

Unattended Cooking Caused 65% of Residential Fires

The leading cause of residential building fires in Berkshire County was unattended cooking and other unsafe cooking practices, accounting for 65% of the fires. Heating caused 14% of the residential building fires, of which 19, or 54%, were caused by chimney, fireplace or flue fires. Smoking caused 4% of the fires. Electrical fires and arson each caused 3% of fires. Indoor rubbish fires and juvenile-set fires each caused 1% of Berkshire County’s residential building fires in 2016.

2016 Leading Causes of Fires in Berkshire County Homes



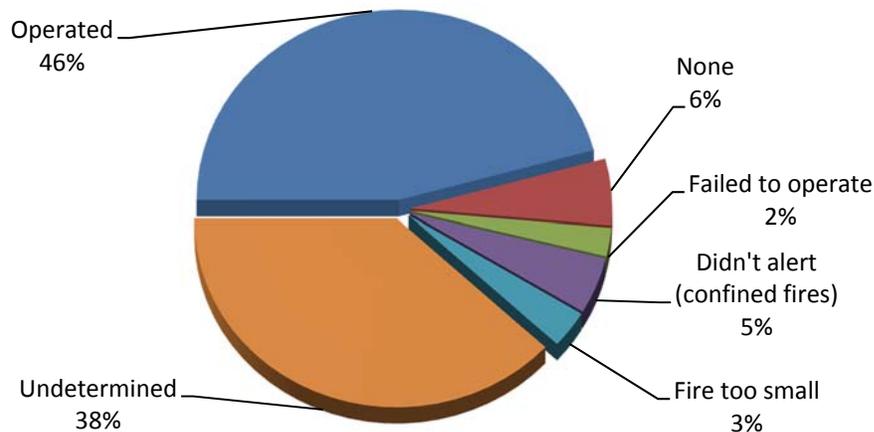
69% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One hundred and seventy-two (172), or 69%, of these fires were confined to a non-combustible container. One hundred and forty-one (141), or 57%, of all residential building fires reported in 2016 were cooking fires contained to a non-combustible container. Seventeen (17) of the reported fires were confined to a chimney, accounting for 7% of residential building fires. Fires confined to a fuel burner or boiler malfunction accounted for 11, or 4% of these fires. Three (3), or 1%, of these fires were confined indoor rubbish fires.

Detectors Undetermined in 46% of Fires

Smoke or heat detectors operated and alerted the occupants in 114, or 46%, of the residential building fires. In 5% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 6% 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 95 incidents, or 38%, of Berkshire County's residential building fires.

Detector Status in Berkshire County's Residential Structure Fires 2016



¹ 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.

²These represent confined fires where it was reported that the detector did not alert the occupants.

2 Failed from Missing Batteries

Of the six fires where smoke detectors were present but failed to operate, two, or 33%, failed because the battery was either missing or disconnected. A dead battery, a lack of maintenance, a defective detector and a power failure were each the reason why a detector failed in a residential fire in Berkshire County in 2016. In one fire it was undetermined why the detector failed.

VACANT BUILDINGS**3% of Building Fires Occurred in Vacant Buildings**

Berkshire County reported 10 fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the total 299 building fires reported to MFIRS in 2016. Six (6) of these occurred in residential building; two happened in special properties; one happened in a public assembly property; and another occurred in a mercantile or business property.

Three (3), or 30%, of the vacant building fires in Berkshire County in 2016 were determined to be intentionally set. Two (2) were in a single-family homes, and the other was unclassified.

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

There were two reported juvenile-set fires in Berkshire County in 2016. There two structure fires caused \$7,600 in estimated damages.

ARSONS**26 Total Arsons — 11 Structure, 2 Vehicle & 13 Other Arsons**

Twenty-six (26), or 5%, of Berkshire County's 301 fires were intentionally set, or, for purposes of this analysis, arson. The 11 structure arsons, two motor vehicle arsons and 13 outside and other arsons caused one fire service injury and an estimated dollar loss of \$20,000.

Motor Vehicle Arsons Down

The total number of reported arson fires decreased by two from the 28 reported in 2015. Reported structure arsons increased by two from the nine reported in 2015. Motor vehicle arsons decreased by four from three reported in 2015. Reported outside and other arsons remained the same with 13 reported in both 2015 and 2016.

ALL INCIDENTS

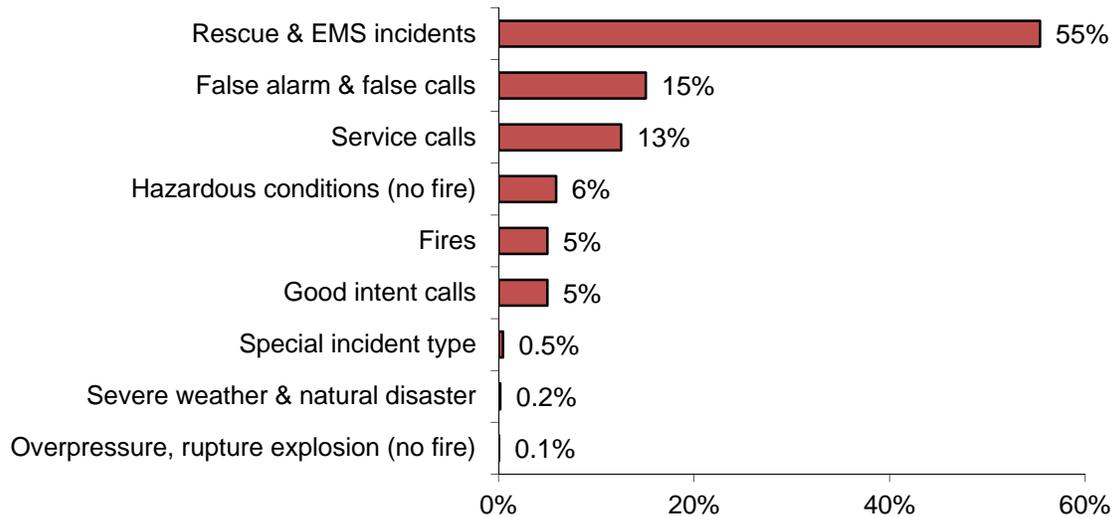
Rescue & EMS Calls Are 55% of All Reported Responses

In 2016, Berkshire County fire departments reported 12,242 responses³ to MFIRS. Of these 12,242 incidents, 11,602 non-fire incidents were voluntarily reported.

Of these 11,602 non-fire responses, 6,779 , or 55%, of all the responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 1,845, or 15%, were reported false alarm or false calls; 1,535, or 13%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 722, or 6%, were reported hazardous condition calls with no fire; 636, or 5%, were reported good intent calls; 56, or 0.5%, were special incident type calls such as citizen complaints; 22, or 0.2%, were severe weather responses; and seven, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Six hundred and forty (640), or 5%, of the total responses submitted by Berkshire County fire departments were fires.

2016 Responses by Incident Type



³ These figures include responses in which Berkshire County fire departments gave mutual aid to other fire departments.

Berkshire County Departments Reported Giving Mutual Aid 267 Times

In 2016, Berkshire County fire departments reported coming to the aid of other fire departments 267 times. Of these 267 responses, 107, or 40%, were for rescue or EMS calls; 91, or 34%, were for fires; 36 or 13%, were for service calls such as cover assignments; 21, or 8%, were good intent calls; seven, or 3%, were for false alarms; four, or 1%, were for hazardous condition calls with no ensuing fire; and one, or 0.4%, was a special incident call.

Berkshire County Received Mutual Aid in 660 Incidents

In 2016, Berkshire County fire departments reported receiving aid from surrounding departments in 660 incidents. Of these 660 incidents, 599, or 91%, were rescue and emergency medical services calls; 43, or 7%, were for fires; eight, or 1%, were service calls; four, or 1%, were hazardous conditions calls with no fire; three, or 0.5%, were good intent calls; two, or 0.3%, were false alarms or false calls; and one, or 0.2%, was an overpressure, rupture explosion with no fire..

Berkshire County

Population: 131,219

4.2 Fires/1,000 Population

Total Fires: 548 \$4,148,891

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	301	55%	\$3,861,560
Vehicle Fires	55	10%	254,780
Other Fires	192	35%	32,551

1 Fatal Fire 1.82 Civilian Deaths/1,000 Fires
 1 Civilian Death 0.08 Civilian Deaths/10,000 Population
 10 Civilian Injuries 14 Fire Service Injuries

Building Fires: 301

Residential Structure Fires: 249

Residential Structure Fires Confined to Non-Combustible Containers: 172

Unconfined Residential Structure Fires: 77

1 Civilian Death 9 Civilian Injuries 11 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	134	54%	Operated	114	46%
Apartments	86	36%	Didn't operate	6	2%
Residential board & care	9	4%	None	14	6%
Dormitories	7	3%	Fire too small	8	3%
Rooming houses	4	2%	Didn't alert (confined)	12	5%
Hotels or motels	2	1%	Undetermined	95	38%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	66%	Radiated heat from op. eq.	4%	14%
Chimney or flue	7%	Arcing	3%	10%
Heating equipment room	5%	Cigarette	3%	9%
Bedroom	3%	Heat from operating equip.	2%	8%
Ext. balcony, unencl. porch	3%	Heat op. flame or smok. mat.	2%	6%
Substructure area or crawl space	2%	Spark, ember, flame op. eq.	2%	5%

⁴ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁵ 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 Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	62%	Failure to clean	3%	9%
Film, residue (creosote)	7%	Improper start up/shut down	2%	8%
Flammable, combustible liquid	4%	Abandoned materials	1%	4%
Rubbish, trash, waste	2%	Equipment unattended	1%	4%
Exterior sidewall covering	2%	Too close to combustibles	1%	3%
Structural comp., finish, other	2%	Mech. failure, malf., other	1%	3%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	64%	Unintentional	17%	56%
None	18%	Failure of eq. or heat source	4%	12%
Chimney or flue	7%	Intentional	3%	10%
Boiler, furnace, cent. heat unit	5%	Act of Nature	1%	0.4%
Stove, heating	1%	Undetermined	4%	12%
		Cause under investigation	3%	9%

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

Alerted occupants	47%
Didn't alert occupants	7%
Undetermined	47%

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

⁷ 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.

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 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	29	21	3	5
February	33	20	5	8
March	49	24	4	21
April	80	31	10	39
May	45	20	3	22
June	49	23	4	22
July	39	22	3	14
August	46	23	7	16
September	35	21	4	10
October	44	25	4	15
November	50	32	5	13
December	49	39	3	7

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	92	53	2	37
Monday	77	45	7	25
Tuesday	69	42	9	18
Wednesday	76	37	10	29
Thursday	80	41	15	24
Friday	63	32	7	24
Saturday	91	51	5	35

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	31	18	3	10
04:01 - 08:00	23	12	2	9
08:01 - 12:00	94	48	17	29
12:01 - 16:00	133	60	13	60
16:01 - 20:00	178	110	14	54
20:01 - 00:00	89	53	6	30

Motor Vehicle Fires

Total: 55

Automobiles: 46 (84%)

2, or (4%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 26

Dollar loss: \$20,000

0.20 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	\$ Loss
Structure Arsons	11	4%	42%	14,000
Vehicle Arsons	2	4%	8%	5,000
Other Arsons	13	7%	50%	1,000

0.08 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.10 Other arsons/1,000 population

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	6	55%	08:01 - 12:00	1	50%
00:01 - 04:00	2	18%	16:01 - 20:00	1	50%
20:01 - 00:00	2	18%			

Other Arsons	#	%
08:01 – 12:00	4	31%
12:01 - 16:00	4	31%
20:01 - 00:00	3	23%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	5	45%
Apartments	3	27%

Adams					Population: 8,405			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	39	23	3	13	1	0	0	1
2013	31	21	1	9	1	1	0	0
2014	29	22	2	5	0	0	0	0
2015	20	11	7	2	1	0	0	1
2016	32	25	2	5	1	1	0	0

Alford					Population: 494			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013	2	2	0	0	0	0	0	0
2014	2	1	0	1	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	1	1	0	0	0	0	0	0

Becket					Population: 1,779			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Non-Reporting Community							
2013	Non-Reporting Community							
2014	3	3	0	0	0	0	0	0
2015	2	1	1	0	0	0	0	0
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Cheshire					Population: 3,235			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	14	5	2	7	1	0	0	1
2013	9	6	2	1	0	0	0	0
2014	2	0	1	1	0	0	0	0
2015	14	9	2	3	1	1	0	0
2016	6	5	1	0	0	0	0	0

Clarksburg					Population: 1,702			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013 ¹⁰	1	0	1	0	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	1	0	0	1	0	0	0	0
2016	2	2	0	0	0	0	0	0

Dalton					Population: 6,756			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	23	17	2	4	0	0	0	0
2013	13	7	1	5	0	0	0	0
2014	21	14	0	7	2	0	0	2
2015	18	8	4	6	6	3	2	1
2016	25	17	3	5	0	0	0	0

Egremont					Population: 1,225			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Non-Reporting Community							
2013	Non-Reporting Community							
2014	2	2	0	0	0	0	0	0
2015	15	7	2	6	0	0	0	0
2016	12	8	1	3	0	0	0	0

Florida					Population: 752			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	2	0	0	0	0	0	0
2013	4	3	0	1	0	0	0	0
2014	4	1	0	3	1	0	0	1
2015	2	1	1	0	0	0	0	0
2016	7	2	4	1	1	1	0	0

¹⁰ In 2014 Clarksburg reported 3 fire calls, all these were mutual aid calls to other fire departments.

Great Barrington **Population: 7,104**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	92	72	0	20	1	1	0	0
2013	79	63	3	13	0	0	0	0
2014	82	68	6	8	0	0	0	0
2015	90	73	2	15	1	0	0	1
2016	79	67	2	10	0	0	0	0

Hancock **Population: 717**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3	3	0	0	0	0	0	0
2013	2	1	0	1	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	2	2	0	0	0	0	0	0
2016	1	1	0	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
2012	1	1	0	0	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	3	3	0	0	0	0	0	0
2015	2	2	0	0	0	0	0	0
2016	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
2012	5	2	2	1	0	0	0	0
2013	3	0	0	3	0	0	0	0
2014	1	1	0	0	0	0	0	0
2015	10	6	2	2	0	0	0	0
2016	11	4	1	6	0	0	0	0

Lee					Population: 5,943			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	0	1	0	0	0	0	0
2013	3	3	0	0	0	0	0	0
2014	5	1	4	0	0	0	0	0
2015	4	3	0	1	0	0	0	0
2016	3	3	0	0	0	0	0	0

Lenox					Population: 5,025			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	38	27	0	11	1	1	0	0
2013	28	22	0	6	2	1	0	1
2014	31	23	3	5	0	0	0	0
2015	46	27	5	14	0	0	0	0
2016	24	10	7	7	0	0	0	0

Monterey					Population: 961			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3	1	1	1	1	0	0	1
2013	2	2	0	0	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Non-Reporting Community							
2016	2	1	1	0	0	0	0	0

New Ashford					Population: 228			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	1	1	0	0	0	0	0	0
2016	2	1	0	1	0	0	0	0

New Marlborough**Population: 1,509**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	15	9	0	6	0	0	0	0
2013	9	5	0	4	0	0	0	0
2014	5	0	3	2	0	0	0	0
2015	14	4	2	8	0	0	0	0
2016	5	3	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
2012	42	20	4	18	2	0	0	2
2013	35	17	5	13	0	0	0	0
2014	47	19	6	22	6	1	1	4
2015	44	21	4	19	2	1	0	1
2016	29	4	4	21	1	0	0	1

Otis**Population: 1,612**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Non-Reporting Community							
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	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
2012	7	2	1	4	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	7	3	1	3	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	Non-Reporting Community							

Pittsfield **Population: 44,737**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	281	142	14	125	16	3	0	13
2013	213	118	17	78	9	5	0	4
2014	180	103	15	62	7	2	1	4
2015	239	127	16	96	14	4	4	6
2016	263	135	21	107	15	8	2	5

Richmond **Population: 1,475**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	4	2	7	0	0	0	0
2013	5	3	2	0	0	0	0	0
2014	10	4	2	4	0	0	0	0
2015	7	4	0	3	0	0	0	0
2016	9	1	1	7	1	0	0	1

Sandisfield **Population: 915**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	6	2	0	4	1	0	0	1
2013	10	5	0	5	1	0	0	1
2014	3	3	0	0	0	0	0	0
2015	4	2	0	2	0	0	0	0
2016	9	0	0	9	2	0	0	2

Savoy **Population: 692**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	2	0	0	2	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	3	3	0	0	1	1	0	0

Sheffield					Population: 3,257			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	0	0	2	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	3	2	0	1	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	Non-Reporting Community							

Stockbridge					Population: 1,947			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	2	0	0	0	0	0	0
2013	2	2	0	0	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	2	2	0	0	0	0	0	0
2016	1	1	0	0	0	0	0	0

Tyringham					Population: 327			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Washington¹¹					Population: 7,754			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	0	0	0	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	1	0	0	0	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	Non-Reporting Community							

¹¹ 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 2012 and 2014.

West Stockbridge					Population: 1,306			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	1	1	0	0	0	0	0
2013	5	1	2	2	0	0	0	0
2014	11	5	1	5	0	0	0	0
2015	8	2	2	4	0	0	0	0
2016	7	2	4	1	1	0	0	1

Williamstown					Population: 7,754			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	11	7	0	4	0	0	0	0
2013	23	13	5	5	1	0	0	1
2014	18	11	1	6	3	0	1	2
2015	27	14	2	11	2	0	0	2
2016	7	2	2	3	0	0	0	0

Windsor					Population: 899			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	6	4	0	2	0	0	0	0
2015	3	1	0	2	1	0	0	1
2016	6	1	1	4	3	0	0	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
03004	Adams	272	39	1	80	32	15	25	79	1	0
03006	Alford	1	1	0	0	0	0	0	0	0	0
03022	Becket	1	1	0	0	0	0	0	0	0	0
03058	Cheshire	328	13	0	257	17	14	11	13	2	1
03063	Clarksburg	4	4	0	0	0	0	0	0	0	0
03070	Dalton	957	35	0	614	52	95	44	85	1	31
03090	Egremont	191	18	0	24	4	7	95	40	2	1
03098	Florida	102	10	0	67	2	9	11	3	0	0
03113	Great Barrington	515	85	1	161	42	46	13	164	2	1
03121	Hancock	1	1	0	0	0	0	0	0	0	0
03132	Hinsdale	0	0	0	0	0	0	0	0	0	0
03148	Lanesborough	360	14	1	259	16	12	9	48	0	1
03150	Lee	3	3	0	0	0	0	0	0	0	0
03152	Lenox	549	30	0	127	42	65	22	261	0	2
03193	Monterey	2	2	0	0	0		0	0	0	0
03203	New Marlborough	149	10	0	86	14	0	15	24	0	0
03200	New Ashford	27	4	0	16	2	1	0	3	1	0
03209	North Adams	759	29	0	196	76	218	67	172	1	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
03225	Otis	1	1	0	0	0	0	0	0	0	0
03233	Peru**	0	0	0	0	0	0	0	0	0	0
03236	Pittsfield	7,321	263	4	4,621	343	1,018	283	765	7	17
03249	Richmond	116	15	0	37	20	6	2	32	4	0
03260	Sandisfield	164	17	0	99	22	9	2	15	0	0
03263	Savoy	3	3	0	0	0	0	0	0	0	0
03267	Sheffield**	0	0	0	0	0	0	0	0	0	0
03283	Stockbridge	1	1	0	0	0	0	0	0	0	0
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	123	11	0	79	5	6	0	22	0	0
03341	Williamstown	210	12	0	10	25	12	34	115	1	1
03345	Windsor	82	18	0	46	8	2	3	4	0	1
Total	Berkshire County	12,242	640	7	6,779	722	1,535	636	1,845	22	56

* Certified no reportable fires.

**Non reporting department.

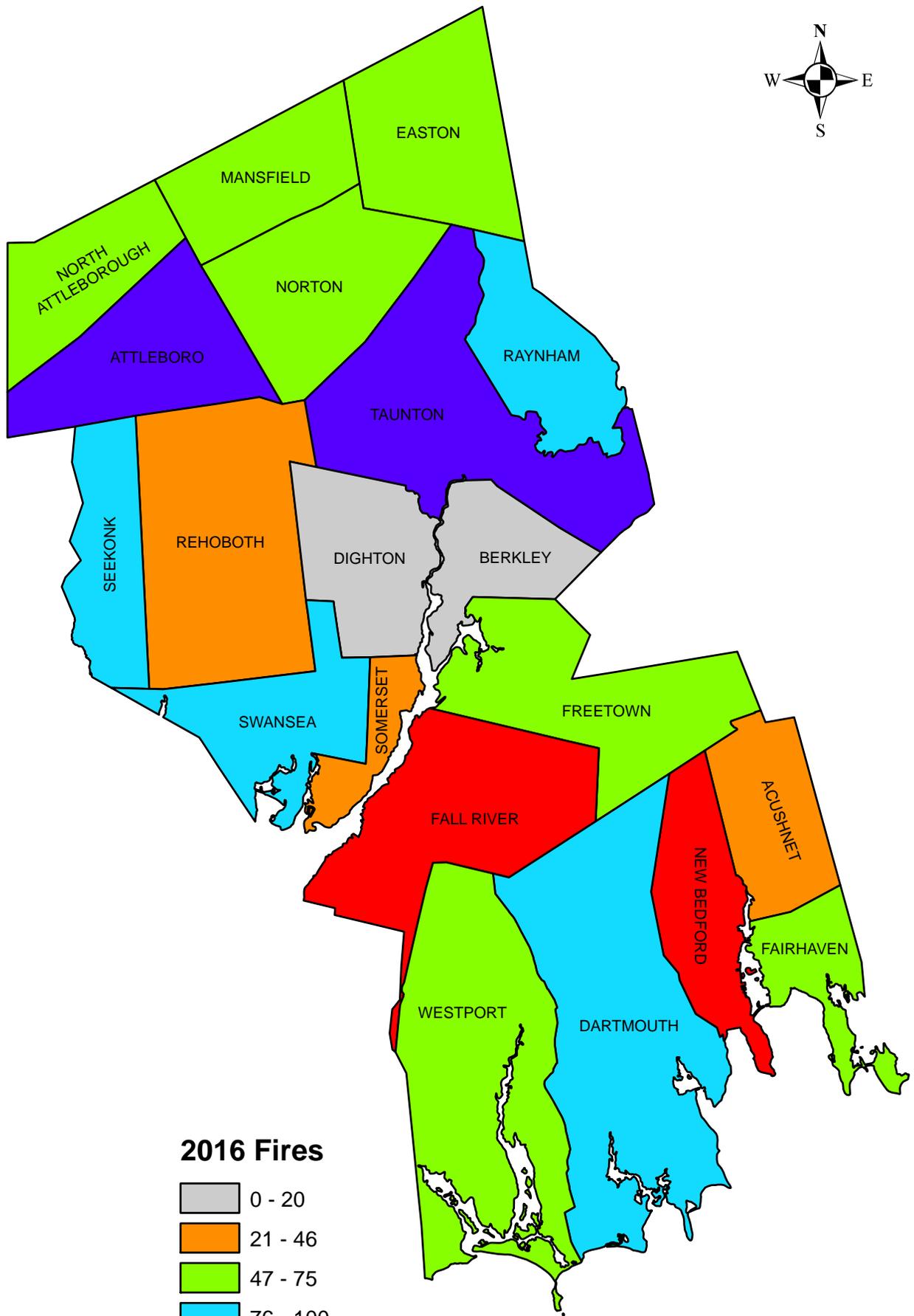
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.



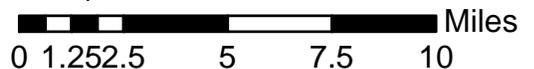
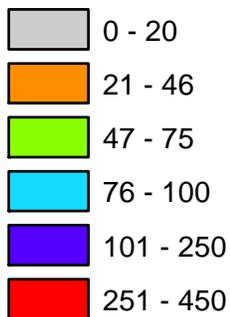
Bristol County

2016 Fire Data Analysis

Bristol County Fires 2016



2016 Fires



MFIRS
Massachusetts Fire Incident Reporting System

Bristol County Fires in 2016

2,034 Total Fires — 816 Structures, 305 Vehicles & 913 Other Fires

Bristol County ranked eighth out of the fourteen Massachusetts counties in total reported fires. The county reported 2,034 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 816 structure fires, 305 motor vehicle fires, 521 brush, tree or lawn fires, 237 outside rubbish fires, 62 special outside fires, four cultivated vegetation or crop fires, and 89 other fires caused seven civilian deaths, 32 civilian injuries, 21 fire service injuries and an estimated dollar loss of \$18.9 million. Bristol County's fires accounted for 6% of the 31,889 Massachusetts fires reported in 2016.

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

Structure Fires Down

The total number of reported fire incidents decreased by 86 from the 2,120 reported in 2015. Reported structure fires decreased by 123 from the 939 reported during the previous year. The total number of reported motor vehicle fires increased by 24 from the 281 incidents reported during 2015. Reported outside and other fires increased by 13 from the 900 reported the year before.

BRISTOL COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2,198	866	279	1,053	97	29	10	58
2013	2,006	899	270	837	90	31	4	55
2014	1,978	849	262	867	86	32	11	43
2015	2,120	939	281	900	87	29	17	41
2016	2,034	816	305	913	78	21	20	37

Fire and Fire Death Rates

Bristol County had 3.7 fires per 1,000 population. That figure ranks Bristol County tied for eleventh in the state and below the state rate of 4.9 fires per 1,000 population. Bristol County also had 0.13 fire deaths per 10,000 populations ranking it fourth among Massachusetts counties and above the state rate of 0.09 fire deaths per 10,000 population.

7 Fires Kill 7 People in Bristol County

In 2016, seven fires in Bristol County killed seven people.

- On January 9, 2016, at 5:17 a.m., the Rehoboth Fire Department was called to a fatal smoking fire in a single-family home. The victim, a 43-year old woman ignited her clothing when she fell asleep while smoking in the living room. She escaped the building with her clothes on fire. She was transported to a local hospital where she succumbed to her injuries. No one else was injured at this fire. Alarms were present and operated. Sprinklers were not present. Damages were estimated to be \$60,000.

- On February 11, 2016, at 2:09 p.m., the Attleboro Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire originated in the first floor living room on the couch. The victim was a 59-year old woman was injured while trying to escape. She was transported to a local hospital where she succumbed to her injuries. No one else was injured at this fire. Alarms were not present, and the building was not sprinklered. Damages from the blaze were not estimated.
- On February 14, 2016, at 6:23 p.m., the Fall River Fire Department was called to a fatal smoking fire in a 3-unit apartment building. The victim was a 61-year old male. One (1) firefighter was also injured at this fire. Alarms were present but they failed to operate. There were no sprinklers. Damages from this fire were estimated to be \$150,000.
- On May 8, 2016, at 5:51 a.m., the Fall River Fire Department was called to a fatal smoking fire in a 3-unit apartment building. The fire was started by a cigarette igniting the furniture in the living room. The victim, who was intimately involved with the start of the fire, was a 61-year old man who was asleep at the time of the fire but did try to escape. He was overcome by the heat and smoke. There were no other injuries at this fire. Alarms were present and operated. The home did not have sprinklers. Damages from this fire were estimated to be \$180,000.
- On June 7, 2016, at 11:09 a.m., the New Bedford Fire Department was called to a fatal fire in a 4-unit apartment building of undetermined cause. First arriving firefighters found the victim, a 50-year old woman, with burn injuries to over half her body, inside her apartment with no signs of any active fire except some burned clothes in a sink. The patient was transported to a local hospital where she succumbed to her injuries weeks later. 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 the fire were not estimated.
- On August 14, 2016, at 11:30 p.m., the North Attleboro Fire Department was dispatched to a motor vehicle fire in a parking lot. It is believed that the driver, a 28-year old man and only occupant of the vehicle set the car on fire. When the car burst into flames he was unable to be rescued and died by suicide. No one else was injured in this fire. Damages from this fire were not estimated.
- On November 23, 2016, at 1:19 p.m., the Attleboro Fire Department was called to a fatal cooking fire in a 6-unit apartment building. The victim, a 77-year old woman, applied isopropyl alcohol on a turkey and lit it with a match, and her clothing ignited. She was transported to a local hospital and succumbed to her injuries a week later. No one else was injured at this fire. Alarms were present but the fire was too small to activate them. The building was not sprinklered. Damages from this fire were not estimated.

Fall River & Taunton Have Bristol County's Largest Loss Fire

In 2016 Bristol County had two incidents with an estimated dollar loss over \$1 million. These two incidents' dollar loss was responsible for 12% of the county's total 2016 dollar loss.

- On February 20, 2016, at 3:11 a.m., the Fall River Fire Department responded to a fire of undetermined cause in a warehouse. The fire began on the second floor. No one was injured at this fire. It was undetermined if any alarms were present. The building did have dry pipe sprinklers but they did not operate because of damaged components. Damages were estimated to be \$1.1 million. Heat from this fire damaged three other nearby buildings.
- On April 21, 2016, at 7:44 p.m., the Taunton Fire Department responded to a fire of undetermined cause in a 10-unit apartment building. The fire started on a second floor balcony. No one was injured at this fire. Alarms were present and alerted the occupants. The building did not have any sprinklers. Damages were estimated to be \$1.1 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 816 structure fires caused three civilian deaths, 27 civilian injuries, 18 fire service injuries and an estimated dollar loss of \$17.1 million. These incidents represented 40% of Bristol County's reported fires in 2016. The average estimated dollar loss per structure fire was \$21,003. The total number of reported structure fires decreased by 123, or 13%, from the 939 reported in 2015.

Structure Arsons Down

The 21 structure arsons caused one civilian injury, two fire service injuries and an estimated dollar loss of \$625,420. Arson was indicated as the cause of 3% of the structure fires and 4% of Bristol County's structure fire dollar loss. The 21 structure arsons accounted for 27% of the Bristol County arson fires reported in 2016. The total number of reported structure arsons decreased by eight from the 29 reported in 2015.

67% of Structure Arsons Occurred in Residences

Sixty-seven percent (67%) of Bristol County's 21 structure arsons occurred in residential occupancies. Educational facilities had 14% and storage facilities had 10%. Mercantile or business properties and special properties each accounted for 5% of these fires.

BUILDING FIRES

There were 806 building fires of different types in Bristol County in 2016. These 806 building fires accounted for 98.8% of all building fires in Bristol County.

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

Six hundred and seventy-four (674), or 84%, of Bristol County's 806 building fires occurred in residential occupancies. Mercantile and business properties had 34 fires. Thirty-three (33) fires took place in storage properties. Twenty-two (22) fires took place

in public assembly properties, including restaurants and churches. Educational facilities had 19 fires. Manufacturing and processing facilities experienced 11 fires. Special properties had five fires. Hospitals, prisons, and other institutional buildings and industrial facilities each experienced four fires.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 674 reported residential building fires in Bristol County in 2016. These 674 fires are a decrease of 90, or 12%, from the 764 residential building fires reported in 2015.

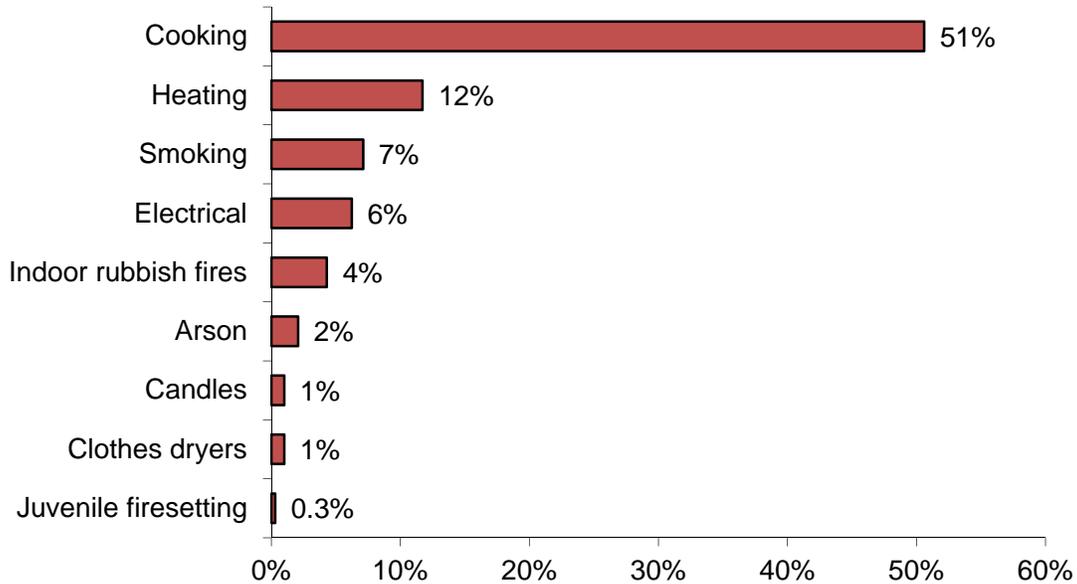
Single Homes Accounted for Almost 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 49% of the building fires in Bristol County; 48% occurred in apartments; 1% occurred in residential board and care facilities; another 1% happened in rooming houses. Less than 1% occurred in hotels or motels. Seven (7), or 1%, of the residential building fires in Bristol County occurred in unclassified residential buildings.

Unsafe Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Bristol County was unattended cooking and other unsafe cooking practices, accounting for 51% of these fires. The second leading cause of residential building fires was heating equipment, accounting for 12%. Smoking caused 7% and electrical problems caused 6% and of the fires in people's homes. Indoor rubbish fires were responsible for 4% of these fires. Arson caused 2%. Candles and clothes dryers each accounted for 1%. Juvenile-set fires accounted for less than 1% of Bristol County's residential building fires in 2016.

2016 Leading Causes to Fires in Bristol County Homes



59% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Three hundred and ninety-eight (398), or 59%, of all residential building fires were reported as confined to non-combustible containers in 2016. Three hundred and seven (307), or 46%, of all residential building fires reported in 2016 were cooking fires contained to a non-combustible container. Thirty-four (34), or 5%, were fires confined to a fuel burner or boiler malfunction. Thirty-one (31) of the reported fires were confined to a chimney, accounting for 5% of residential building fires. Twenty-six (26), or 4%, of these fires were rubbish fires.

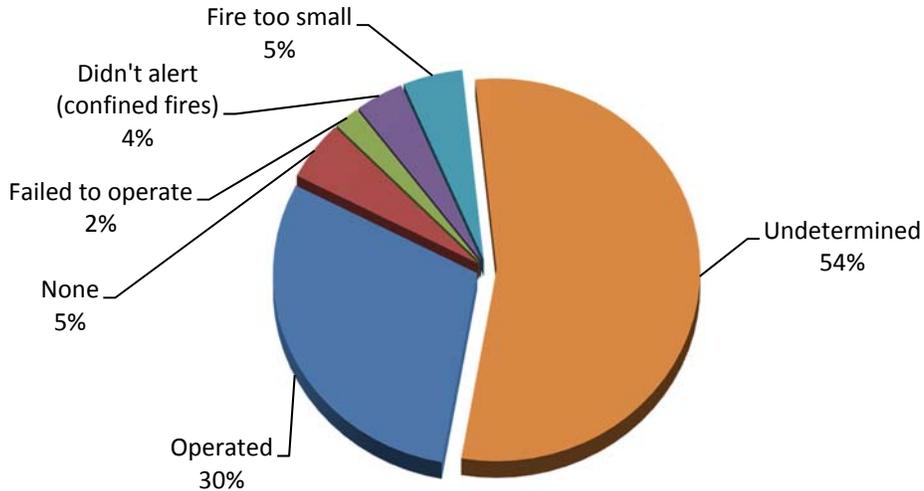
Detectors Alerted Occupants in Only 30% of Fires

Smoke or heat detectors operated and alerted the occupants in 201, or 30%, of the residential building fires. In 4% of these fires², 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 367 incidents, or 54%, of Bristol County’s residential building fires.

¹ 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.

² 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 2016



Over 1/4 of Failed Detectors Had Missing or Dead Batteries

Of the 14 fires where smoke detectors were present but failed to operate, three, or 21%, failed because the batteries were either missing or disconnected and one, or 7%, failed because of dead batteries. One (1), or 7%, failed from a power failure, shutoff or disconnect. A defective detector caused one, or 7% of the detectors that failed to operate. It was undetermined or unclassified in six cases, or 57%, why the detectors failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Bristol County reported 33 fires that occurred in buildings that were vacant, under construction or demolition. This represented 4% of the total 806 building fires reported to MFIRS in 2016. Eighteen (18) fires occurred in vacant residential properties. Nine (9) vacant building fires occurred in storage facilities. Two (2) happened in manufacturing or processing facilities. An educational facility, a public assembly property, a business, and an industrial facility each had one of these fire incidents in Bristol County in 2016.

Four (4), or 12%, of the vacant building fires in Bristol County in 2016 were determined to be intentionally set. An elementary school, a one- or two-family home, an apartment building and a detached residential garage each had a vacant arson in 2016.

JUVENILE-SET FIRES

57 Juvenile-set Fires

There were 57 reported juvenile-set fires in Bristol County in 2016. The four structure fires, 47 brush fires, two outside rubbish fires, two special outside fires and two unclassified fires caused one civilian injury and \$7,900 in estimated damages.

ARSONS

78 Total Arsons — 21 Structures, 20 Vehicles & 37 Other Arsons

Bristol County fire departments reported that 78, or 4%, of Bristol County's 2,034 fires were considered intentionally set, or, for purposes of this analysis, arson. The 21 structure arsons, 20 motor vehicle arsons and 37 outside and other arsons caused one civilian death and an estimated dollar loss of \$796,070.

Structure Arsons Down Slightly

The total number of reported arson fires decreased by nine from the 87 reported in 2015. Structure arsons decreased by eight from 29 in 2015. Motor vehicle arsons increased by three from the 11 reported last year. Outside and other arsons dropped by four from the 41 reported in 2015.

ALL INCIDENTS

Rescue & EMS Calls Are 65% of All Reported Responses

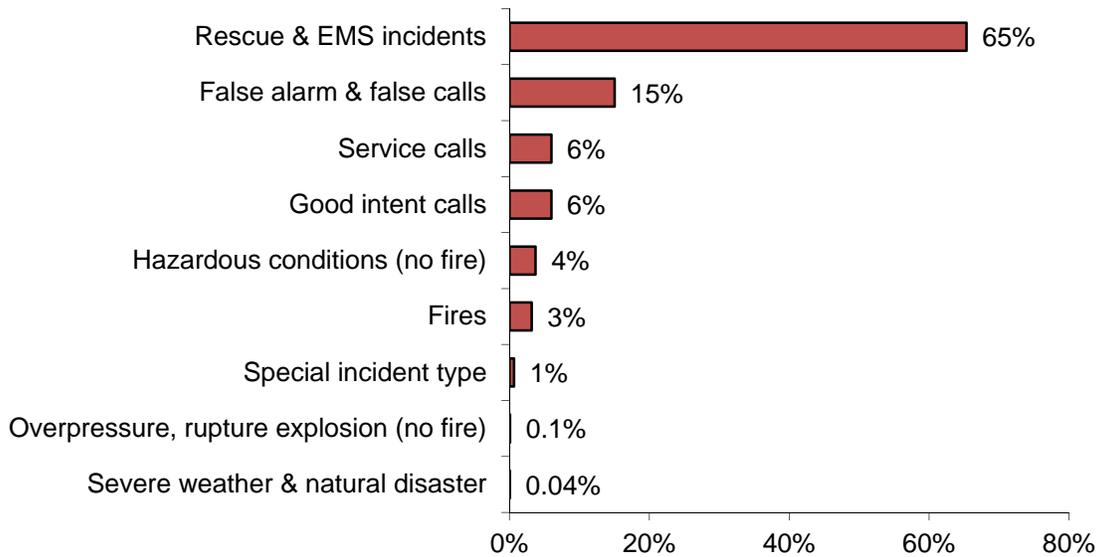
In 2016, fire departments in Bristol County reported 68,933 responses³ to MFIRS. Of these 68,933 incidents, 66,740 non-fire calls were voluntarily reported.

Of these 66,740 non-fire calls, 45,054, or 65%, of all the reported responses were reported rescue and emergency medical services (EMS) calls; 10,359, or 15%, were reported false alarm or false calls; 4,115, or 6%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 4,103, or 6%, were reported good intent calls; 2,572, or 4%, were reported hazardous condition calls with no fire; 448, or 1%, were special incident type calls such as citizen complaints; 58, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 31, or 0.04%, were severe weather responses.

Two thousand one hundred and ninety-three (2,193), or 3%, of the total responses submitted by Bristol County fire departments were fires.

³ These figures include responses in which Bristol County fire departments gave mutual aid to other fire departments.

2016 Responses by Incident Type



Bristol County Fire Departments Gave Mutual Aid 1,824 Times

In 2016, Bristol County fire departments reported coming to the aid of other fire departments 1,824 times. Of these 1,824 responses, 1,296, or 71%, were for rescue or EMS calls; 271, or 15%, were for good intent calls; 149, or 8%, were for service calls such as cover assignments; 89, or 5%, were for fires; nine, or less than 1%, were for false alarms or false calls; four, or less than 1%, were for hazardous conditions calls with no fire; four, or less than 1%, were special incident types; and two, or less than 1%, were for severe weather or natural disaster calls.

Bristol County Received Mutual Aid in 1,090 Incidents

In 2016, Bristol County fire departments reported receiving aid from surrounding departments in 1,090 incidents. Of these 1,090 incidents, 894, or 82%, were rescue and emergency medical services calls; 100, or 9%, were for fires; 37, or 3%, were false alarms or false calls; 21, or 2%, were good intent calls; 20, or 2%, of the mutual aid received calls, were service calls; 17, or 2%, were hazardous conditions calls with no fire; one, or less than 1%, was an overpressure, rupture, explosion or overheat call with no fire.

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	47%	Abandoned materials	3%	6%
Flammable or combust. Liquid	5%	Too close to combustibles	3%	6%
Rubbish, trash, waste	5%	Equipment unattended	1%	3%
Film or residue (creosote)	5%	Misuse of mater. or product	1%	3%
Exterior sidewall covering	3%	Electrical failure, malfunc.	1%	2%
Electrical wire, cable insulation	3%	Failure to clean	1%	2%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	48%	Unintentional	25%	61%
None	27%	Failure of eq. or heat source	2%	5%
Chimney or flue	5%	Intentional	2%	5%
Boiler, furnace, cent. Heat unit	5%	Cause under investigation	4%	9%
Electrical wiring, other	2%	Undetermined	7%	16%
Stove, heating	1%	Act of Nature	1%	2%

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

Alerted Occupants	18%
Didn't Alert Occupants	7%
Undetermined	75%

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

⁷ 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.

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 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	65	24	16
February	117	76	15	26
March	172	80	24	68
April	248	81	34	133
May	211	66	27	118
June	220	80	25	115
July	231	66	29	136
August	194	61	23	110
September	207	79	32	96
October	108	52	28	28
November	108	44	21	43
December	113	66	23	24

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	304	119	39	146
Monday	315	113	50	152
Tuesday	250	111	39	100
Wednesday	273	111	38	124
Thursday	294	125	44	125
Friday	277	116	46	115
Saturday	321	121	49	151

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	146	69	35	42
04:01 – 08:00	139	58	29	52
08:01 – 12:00	326	122	55	149
12:01 – 16:00	581	200	66	315
16:01 – 20:00	560	228	72	260
20:01 – 24:00	282	139	48	95

Motor Vehicle Fires

Total: 305

Automobiles: 243 (80%)

17, or 7%, of the automobile fires considered intentionally set.

Arson Fires**Total Arsons: 78****Dollar loss: \$796,070**

533.07

Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	21	3%	27%	\$625,420
Vehicle Arsons	20	7%	26%	165,350
Other Arsons	37	4%	47%	5,300

0.04 Structure arsons/1,000 population

0.04 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

1 Civilian Fire Death

1 Civilian Injury

2 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 – 00:00	8	38%	04:01 – 08:00	6	30%
16:01 – 20:00	7	33%	20:01 – 00:00	6	30%
08:01 – 12:00	2	10%	00:01 – 04:00	4	20%
12:01 – 16:00	2	10%	16:01 – 20:00	4	20%

Other Arsons	#	%
16:01 – 20:00	14	38%
08:01 – 12:00	8	22%
12:01 – 16:00	7	19%
20:01 – 00:00	7	19%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	8	38%
1- and 2-Family homes	6	29%
Parking garage (detached residential garage)	2	10%

Acushnet					Population: 10,303			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	19	10	1	8	2	1	0	1
2013	23	13	4	6	1	0	0	1
2014	11	7	1	3	1	1	0	0
2015	19	12	2	5	1	0	0	1
2016	28	18	5	5	1	0	0	1

Attleboro					Population: 43,593			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	128	41	22	65	5	2	0	3
2013	135	51	23	61	3	2	1	0
2014	114	45	19	50	1	1	0	0
2015	145	46	22	77	0	0	0	0
2016	130	50	17	63	2	1	1	0

Berkley					Population: 6,411			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	15	10	3	2	0	0	0	0
2013	18	9	2	7	0	0	0	0
2014	10	5	4	1	0	0	0	0
2015	13	7	1	5	0	0	0	0
2016	15	4	3	8	0	0	0	0

Dartmouth Fire Districts¹⁰					Population: 34,032			
Dartmouth District # 1					<i>Est. Pop. Protected: 13,272</i>			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	40	18	2	20	4	2	0	2
2013	27	12	1	14	0	0	0	0
2014	31	17	5	9	0	0	0	0
2015	23	12	2	9	1	1	0	0
2016	18	8	3	7	0	0	0	0

¹⁰ 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
2012	10	3	0	7	0	0	0	0
2013	7	0	1	6	0	0	0	0
2014 ¹¹	Fire Department in Good Standing							
2015	1	0	1	0	0	0	0	0
2016 ¹²	Fire Department in Good Standing							

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	97	24	12	61	3	1	0	2
2013	102	35	16	51	2	2	0	0
2014	77	19	17	41	2	0	1	1
2015	87	19	17	51	6	0	0	6
2016	73	23	10	40	4	2	0	2

Dighton**Population: 7,086**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	14	4	5	5	0	0	0	0
2013	18	11	0	7	3	0	0	3
2014	15	8	3	4	0	0	0	0
2015	8	1	3	4	1	0	1	0
2016	18	6	5	7	0	0	0	0

Easton**Population: 23,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	9	6	3	0	0	0	0	0
2013	10	5	4	1	0	0	0	0
2014	21	16	2	3	0	0	0	0
2015	78	31	1	46	4	1	0	3
2016	54	19	7	28	2	0	0	2

¹¹ In 2014, Dartmouth District #2 reported 8 calls.¹² In 2014, 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
2012	53	21	8	24	2	0	0	2
2013	34	16	7	11	0	0	0	0
2014	55	22	8	25	4	0	0	4
2015	54	23	8	23	1	0	0	1
2016	56	19	7	30	1	0	0	1

Fall River					Population: 88,857			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	519	282	34	203	18	8	1	9
2013	453	255	48	150	22	15	1	6
2014	414	232	45	137	19	12	1	6
2015	472	301	42	129	8	6	2	0
2016	437	254	58	125	22	13	9	0

Freetown					Population: 8,870			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	64	27	10	27	6	2	1	3
2013	55	21	12	22	1	0	0	1
2014	44	20	11	13	2	2	0	0
2015	44	15	10	19	0	0	0	0
2016	48	16	13	19	2	0	2	0

Mansfield					Population: 23,184			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	61	11	13	37	2	0	0	2
2013	62	14	14	34	1	0	0	1
2014	51	11	11	29	2	0	0	2
2015	44	13	4	27	2	1	0	1
2016	61	14	15	32	1	0	0	1

New Bedford					Population: 95,072			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	434	194	64	176	15	6	5	4
2013	393	216	50	127	12	6	2	4
2014	456	227	50	179	19	8	7	4
2015	478	213	63	202	24	9	11	4
2016	445	213	49	183	13	6	6	1

North Attleboro					Population: 28,712			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	68	22	17	29	1	1	0	0
2013	49	21	10	18	0	0	0	0
2014	42	16	6	20	1	1	0	0
2015	46	19	6	21	0	0	0	0
2016	67	21	14	32	1	0	1	0

Norton					Population: 19,031			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	64	18	8	38	3	1	0	2
2013	34	9	6	19	1	0	0	1
2014	49	40	6	33	3	0	1	2
2015	37	18	1	18	0	0	0	0
2016	48	10	11	27	6	0	1	5

Raynham					Population: 13,383			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	72	34	8	30	0	0	0	0
2013	58	22	10	26	0	0	0	0
2014	61	13	15	33	0	0	0	0
2015	63	19	17	27	2	0	1	1
2016	76	14	16	46	0	0	0	0

Rehoboth					Population: 11,608			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	46	24	3	19	2	0	0	2
2013	31	17	6	8	0	0	0	0
2014	28	16	6	6	0	0	0	0
2015	61	21	11	29	20	4	0	16
2016	43	18	7	18	3	1	0	2

Seekonk					Population: 13,722			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	63	27	8	28	4	1	1	2
2013	59	27	9	23	0	0	0	0
2014	59	10	5	44	0	0	0	0
2015	61	11	11	39	1	1	0	0
2016	86	23	13	50	2	1	0	1

Somerset					Population: 18,165			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	26	5	4	17	0	0	0	0
2013	43	22	5	16	0	0	0	0
2014	41	14	3	24	0	0	0	0
2015	35	16	8	11	0	0	0	0
2016	43	18	10	15	0	0	0	0

Swansea					Population: 15,865			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	89	45	7	37	3	1	0	2
2013	89	42	9	38	4	1	0	3
2014	86	38	15	33	0	0	0	0
2015	78	37	18	23	0	0	0	0
2016	78	33	16	29	1	0	0	1

Taunton					Population: 55,874			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	230	32	30	168	21	1	2	18
2013	240	63	24	153	36	5	0	31
2014	240	77	26	137	24	7	1	16
2015	213	90	20	103	16	6	2	8
2016	218	76	21	121	20	1	2	17

Westport					Population: 15,532			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	77	15	16	46	7	2	0	5
2013	66	18	9	39	4	0	0	4
2014	71	25	4	42	8	0	0	8
2015	60	15	13	32	0	0	0	0
2016	62	9	13	40	3	0	1	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
05003	Acushnet	540	30	1	237	83	98	13	74	1	3
05016	Attleboro	6,393	138	0	4,448	169	406	426	792	2	12
05027	Berkley	731	24	0	518	23	37	60	69	0	0
05972	Dartmouth Distr.#1	362	20	0	24	49	40	38	189	1	1
05973	Dartmouth Distr.#2	9	0	0	1	2	1	3	2	0	0
05974	Dartmouth Distr.#3	888	83	2	228	88	144	108	234	0	1
05076	Dighton	209	18	0	46	24	26	14	81	0	0
05088	Easton	3,389	54	1	2,424	170	330	84	306	13	7
05094	Fairhaven	3,535	57	4	2,786	154	134	136	258	0	6
05095	Fall River	6,928	437	6	2,672	385	302	503	2,594	1	28
05102	Freetown	1,501	52	12	991	50	116	188	80	0	12
05167	Mansfield	3,016	61	5	2,018	125	202	175	401	1	28
05201	New Bedford	16,259	447	6	11,693	361	463	1,102	2,163	1	23
05211	North Attleboro	2,810	72	3	1,912	107	276	83	356	0	1
05218	Norton	3,072	51	0	1,927	153	318	31	414	0	178
05245	Raynham	2,500	88	6	1,758	73	107	103	350	3	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	554	50	0	237	49	54	38	118	1	7
05265	Seekonk	3,146	87	1	2,050	75	177	318	433	1	4
05273	Somerset	3,198	47	0	2,617	56	156	164	141	1	16
05292	Swansea	472	90	4	30	88	53	54	152	1	0
05293	Taunton	8,888	220	6	6,326	224	601	410	1,000	2	99
05334	Westport	533	67	1	111	64	74	52	152	2	10
	Bristol County	68,933	2,193	58	45,054	2,572	4,115	4,103	10,359	31	448

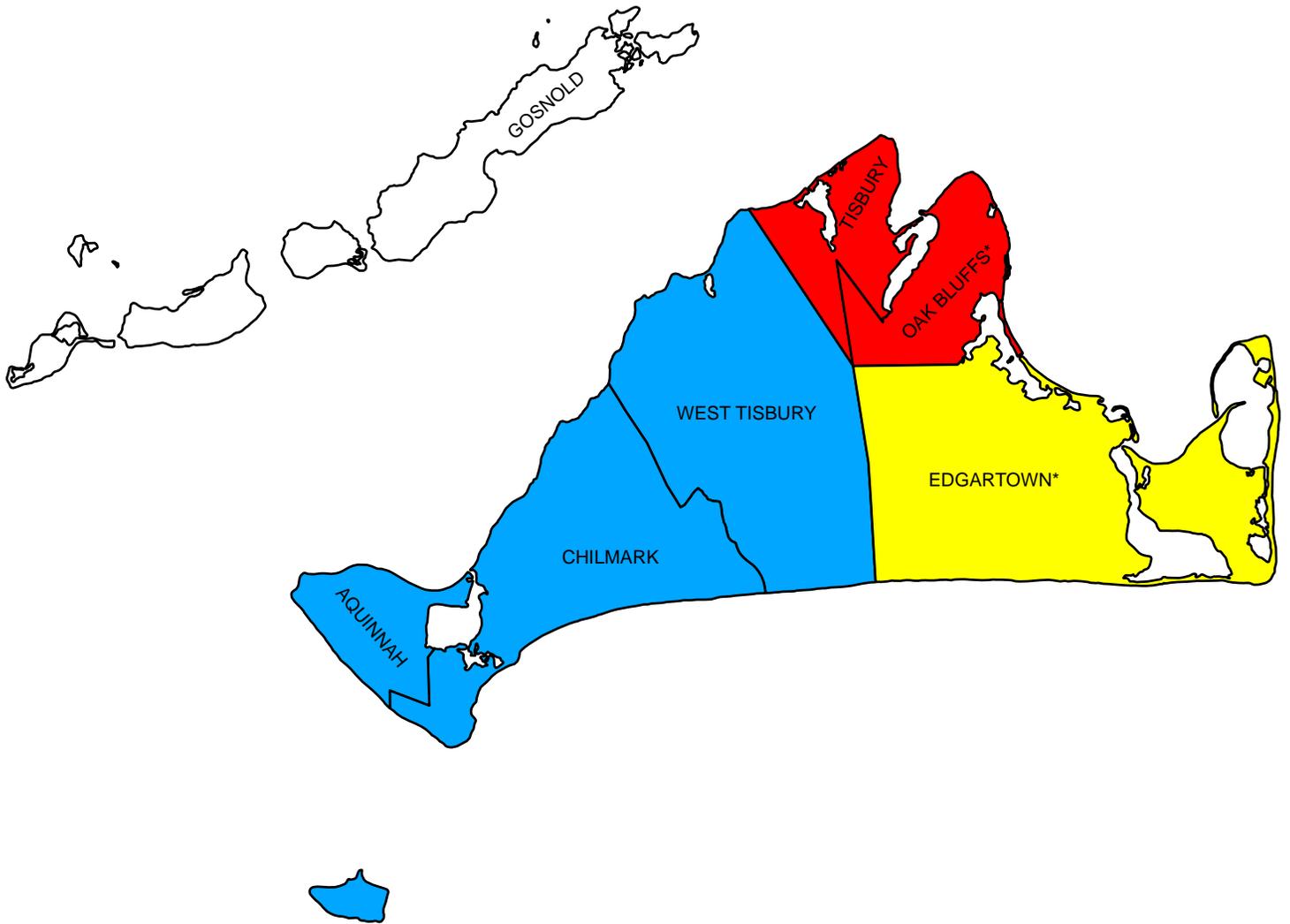
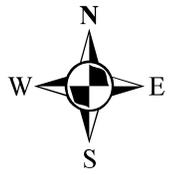
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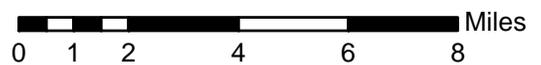
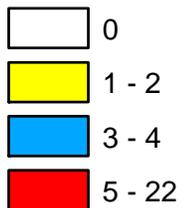
Dukes County

2016 Fire Data Analysis

Dukes County Fires 2016



2016 Fires



Dukes County Fires in 2016

50 Total Fires — 12 Structures, 10 Vehicles Fires & 28 Outside & Other Fires

Dukes County ranked last out of the fourteen Massachusetts counties in total fires. Dukes County fire departments reported 50 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2015. The reported 12 structure fires, 10 motor vehicle fire, 17 brush fires, four outside rubbish fires, three special outside fires, and four unclassified fires caused an estimated dollar loss of \$840,601. Dukes County's fires accounted for 0.2% of the 31,889 Massachusetts fires reported in 2016.

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 2016.

All Fires Up

The total number of reported fire incidents increased by 13 from the 37 reported in 2015. Reported structure fires increased by two from the 10 reported in 2015. Motor vehicle fires increased by five from the five reported the previous year. Outside and other fires increased by six from the 22 reported in 2015.

DUKES COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	39	17	6	16	2	0	1	1
2013	42	15	7	20	1	0	0	1
2014	22	10	1	11	1	0	0	1
2015	37	10	5	22	1	0	0	1
2016	50	12	10	28	2	0	1	1

Fire and Fire Death Rates

Dukes County had 3.0 fires per 1,000 population. That figure ranks Dukes County thirteenth in the state and below the state rate of 4.9 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 0.09 fire deaths per 10,000 population.

No Fire Deaths in Dukes County in 2016

In 2016 there were no fatal fires in Dukes County.

Aquinnah Had Dukes County Largest Loss Fire

The largest loss fire in Dukes County in 2016 was a fire of undetermined cause in a single-family home in Aquinnah. This fire occurred on March 3, 2016, at 2:16 p.m. No one was injured at this fire. Damages were estimated at \$719,000. This one fire accounted for 86% of Dukes County total estimated damages.

STRUCTURE FIRES

Reported Structure Fires 24% of All Reported Fires

There were 12 reported structure fires in Dukes County in 2016. These incidents represented 24% of Dukes County’s reported fires in 2016 and 86% of the county’s reported dollar loss. The total number of reported structure fires increased by two with 10 reported in 2015.

0 Reported Structure Arson in 2016

There was no reported structure arson in Dukes County in 2016

BUILDING FIRES

There were 12 building fires of different types in Dukes County in 2016. These 12 building fires accounted for all of the structure fires in Dukes County.

3/4 of Dukes Building Fires Occurred in People’s Homes

Nine (9), or 75%, of Dukes County’s 12 building fires occurred in residential occupancies. Two (2) fires occurred in storage facilities and one occurred in an educational facility.

RESIDENTIAL FIRES

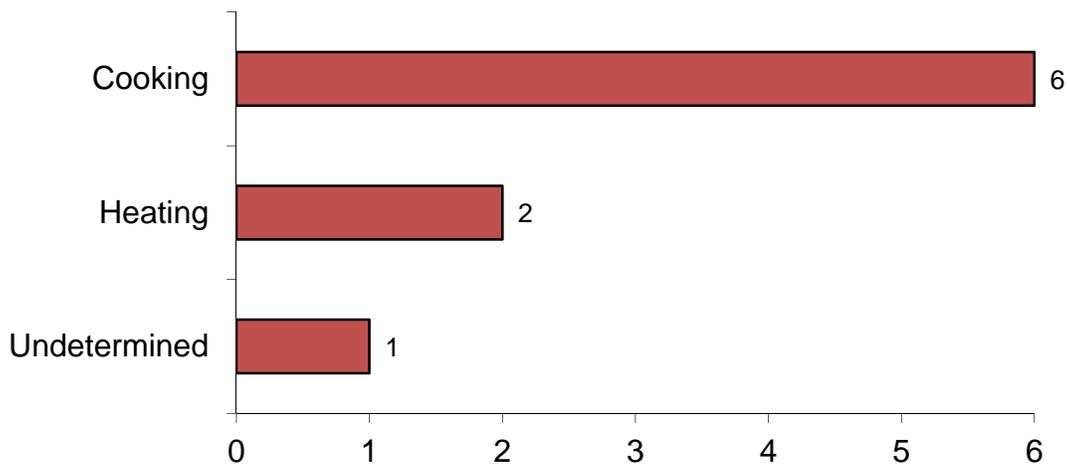
9 Residential Building Fires

There were nine reported residential building fires in Dukes County in 2016. These nine fires are the same number reported in 2015. They caused \$724,001 in estimated damages.

Cooking Was the Leading Cause of Residential Fires

The six cooking fires, or 67%, were the leading cause of residential building fires in Dukes County in 2016. Two (2), or 22%, of these fires were heating fires, both were chimney fires. The cause of the other fire was undetermined.

2016 Leading Causes of Fires in Dukes County Homes



7 Residential Building Fires Were Confined to Non-Combustible Containers¹

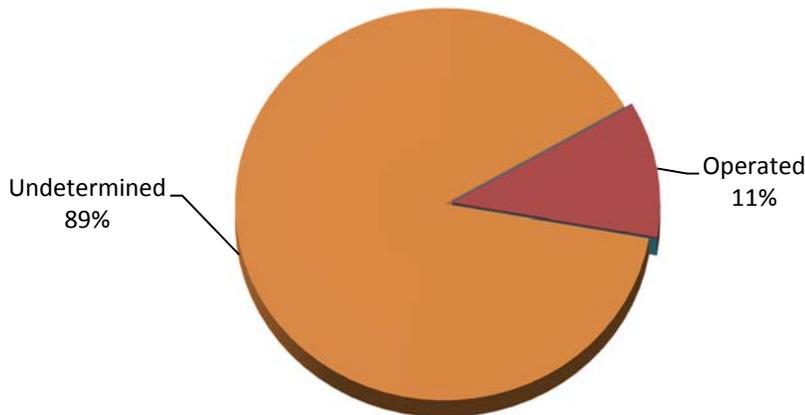
Seven (7), or 78%, of the reported fires in Dukes County were confined to a non-combustible container. Five (5), or 56%, of these fires were confined cooking fires and two, or 22%, were confined to a chimney or flue.

Detector Operation Undetermined in 8 of 9 of Fires

Smoke or heat detectors operated and alerted the occupants in one, or 11%, of the residential building fires. Smoke detector performance was undetermined in the other eight incidents, or 89%, of Dukes County’s residential building fires.

The reason the one detector failed to operate was unclassified.

Detector Status in Dukes County's Residential Fires 2016



VACANT BUILDINGS

1 Vacant Building Fires

There was one reported fire in a vacant building in Dukes County in 2016. This fire happened in a single-family home.

¹ 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.

JUVENILE-SET FIRES

No Juvenile-set Fires

There were no reported juvenile-set fires in Dukes County in 2016.

ARSONS

2 Outside Arsons

There were two reported arsons in Dukes County in 2016. These two arsons caused an estimated \$2,500 in damages. The one motor vehicle fire and one brush fire was an increase of one over the one arson in Dukes County in 2015.

ALL INCIDENTS

False Alarms Are Over 1/2 of All Reported Responses

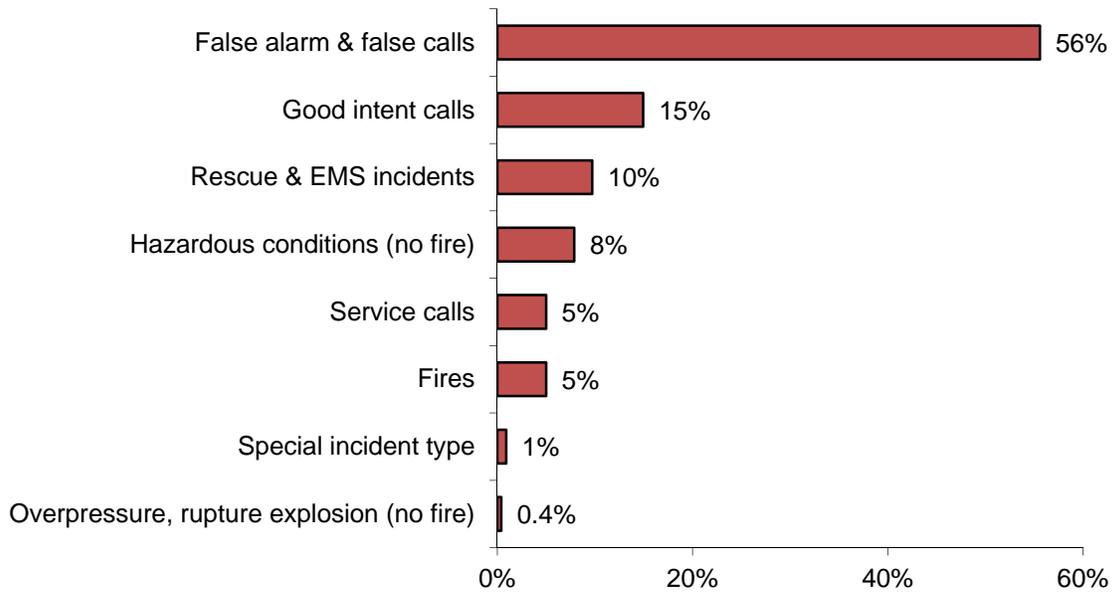
In 2016, Dukes County fire departments reported 977 responses² to MFIRS. Of these 977 incidents, 927 non-fire calls were voluntarily reported. The vast majority of these calls came from three departments, Tisbury, Oak Bluffs and West Tisbury.

Of these 927 non-fire calls, 543, or 56%, were reported false alarm or false calls; 146, or 15%, were reported good intent calls; 95, or 10%, of all of the responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 77, or 8%, were reported hazardous condition calls with no fire; 53, or 5%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; nine, or 1%, were special incident types; and four, or less than 1%, were overpressure, rupture explosions with no ensuing fire calls.

Fifty (50), or 5%, of the total incidents submitted by Dukes County fire departments were fires.

² These figures include responses in which Dukes County fire departments gave mutual aid to other fire departments.

2016 Incidents by Incident Type



Dukes County Fire Departments Gave Mutual Aid 3 Times

In 2016, Dukes County fire departments reported coming to the aid of other fire departments three times. Of these responses, one, or 33%, was for a fire; one, or 33%, was a service call; and one, or 33%, was for a false alarm or false call.

Dukes County Fire Departments Received Mutual Aid in 9 Incidents

In 2016, Dukes County fire departments reported receiving aid from surrounding departments in nine incidents. Five (5), or 56%, were for rescue or EMS calls; two, or 22%, of these incidents were for false alarms or false calls; one, or 11%, was a good intent call; and one, or 11%, was for a service call.

Dukes County

Population: 16,535

3.0 Fires/1,000 Population

Total Fires: 50 \$840,601

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	12	24%	\$725,601
Vehicle Fires	10	20%	112,000
Other Fires	28	56%	3,000

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

Building Fires: 12

Residential Structure Fires: 9

Residential Structure Fires Confined to Non-Combustible Containers: 7

Unconfined Residential Structure Fires: 2

No Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	9	100%	Operated	1	11%
			Didn't operate	0	0%
			None	0	0%
			Fire too small	0	0%
			Didn't alert (confined)	0	0%
			Undetermined	8	89%

Area of Origin ³	%	Heat Source	%	%Unconfined ⁴
Kitchen	67%	Undetermined	11%	0%
Chimney or flue	22%	Hot or smold. obj., other	11%	50%
Substructure area or crawl space	11%			

³ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁴ 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 Ignited⁵	%	Factor Contrib. to Ignit.	%	%Unconfined⁶
Cooking materials	67%	Not reported (Null)	67%	0%
Film, residue (creosote)	22%	Other	22%	100%
Therm., acoustical insulation	11%	None	11%	0%

Equipment⁷	%	Cause of Ignition	%	%Unconfined⁸
Kitchen & cooking equipment	67%	Unintentional	11%	50%
Chimney or flue	22%	Failure of eq. or heat source	0%	0%
None	22%	Undetermined	11%	50%
		Cause under investigation	0%	0%

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

Alerted occupants	14%
Didn't alert occupants	0%
Undetermined	86%

⁵ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁶ 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.

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 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	2	1	1	0
February	3	2	0	1
March	3	1	0	2
April	5	0	2	3
May	3	1	0	2
June	7	1	3	3
July	7	3	1	3
August	7	0	1	6
September	5	1	1	3
October	0	0	0	0
November	6	0	1	5
December	2	2	0	0

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	9	1	1	7
Monday	6	2	0	2
Tuesday	5	2	1	2
Wednesday	11	3	2	6
Thursday	5	1	0	4
Friday	7	1	4	2
Saturday	7	2	2	3

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	2	1	0	1
04:01 - 08:00	3	1	1	1
08:01 - 12:00	4	3	0	1
12:01 - 16:00	17	4	3	10
16:01 - 20:00	12	3	2	7
20:01 - 00:00	12	0	4	8

Motor Vehicle Fires

Total: 10

Automobiles: 9 (90%)

1 (11%) of the automobile fires were incendiary in 2016.

Arson Fires

Total Arsons: 2 Dollar loss: \$2,500

0.12 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	1	10%	50%	2,500
Other Arsons	1	4%	50%	0

0.00 Structure arsons/1,000 population

0.06 Vehicle arsons/1,000 population

0.06 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
			20:01 – 00:00	1	100%

Other Arsons	#	%
20:01 – 00:00	1	100%

Peak Fixed Property Uses for Structure Arsons # %

Aquinnah					Population: 311			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	0	0	1	0	0	0	0
2013	2	1	0	1	0	0	0	0
2014	1	0	0	1	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	3	2	1	0	0	0	0	0

Chilmark					Population: 866			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	0	1	0	0	0	0	0
2013	8	2	2	4	0	0	0	0
2014	1	0	0	1	0	0	0	0
2015	1	0	1	0	0	0	0	0
2016	4	0	0	4	0	0	0	0

Edgartown					Population: 4,067			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Non-Reporting Community							
2013	2	1	1	0	0	0	0	0
2014	2	1	0	1	0	0	0	0
2015	1	1	0	0	0	0	0	0
2016	2	0	0	2	0	0	0	0

Gosnold (Cuttyhunk)					Population: 75			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Oak Bluffs **Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	7	5	0	2	1	0	0	1
2013	6	3	0	3	0	0	0	0
2014	3	2	0	1	0	0	0	0
2015	Non-Reporting Community							
2016	22	3	5	14	2	0	1	1

Tisbury **Population: 3,959**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	29	11	5	13	1	0	1	0
2013	15	7	4	4	0	0	0	0
2014	10	7	0	3	0	0	0	0
2015	21	9	3	9	0	0	0	0
2016	16	6	4	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
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	6	1	0	5	1	0	0	1
2014	5	0	1	4	1	0	0	1
2015	14	0	1	13	1	0	0	1
2016	3	1	0	2	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
07104	Aquinnah	30	3	0	2	2	0	5	18	0	0
07062	Chilmark	5	4	0	1	0	0	0	0	0	0
07089	Edgartown	90	2	0	9	9	6	28	36	0	0
07109	Gosnold*	0	0	0	0	0	0	0	0	0	0
07221	Oak Bluffs	347	22	1	35	22	28	40	197	0	2
07296	Tisbury	360	16	3	42	34	19	54	189	0	3
07327	West Tisbury	145	3	0	6	10	0	19	103	0	4
Total	Dukes County	977	50	4	95	77	53	146	543	0	9

* Certified no reportable fires.

**Non reporting department.

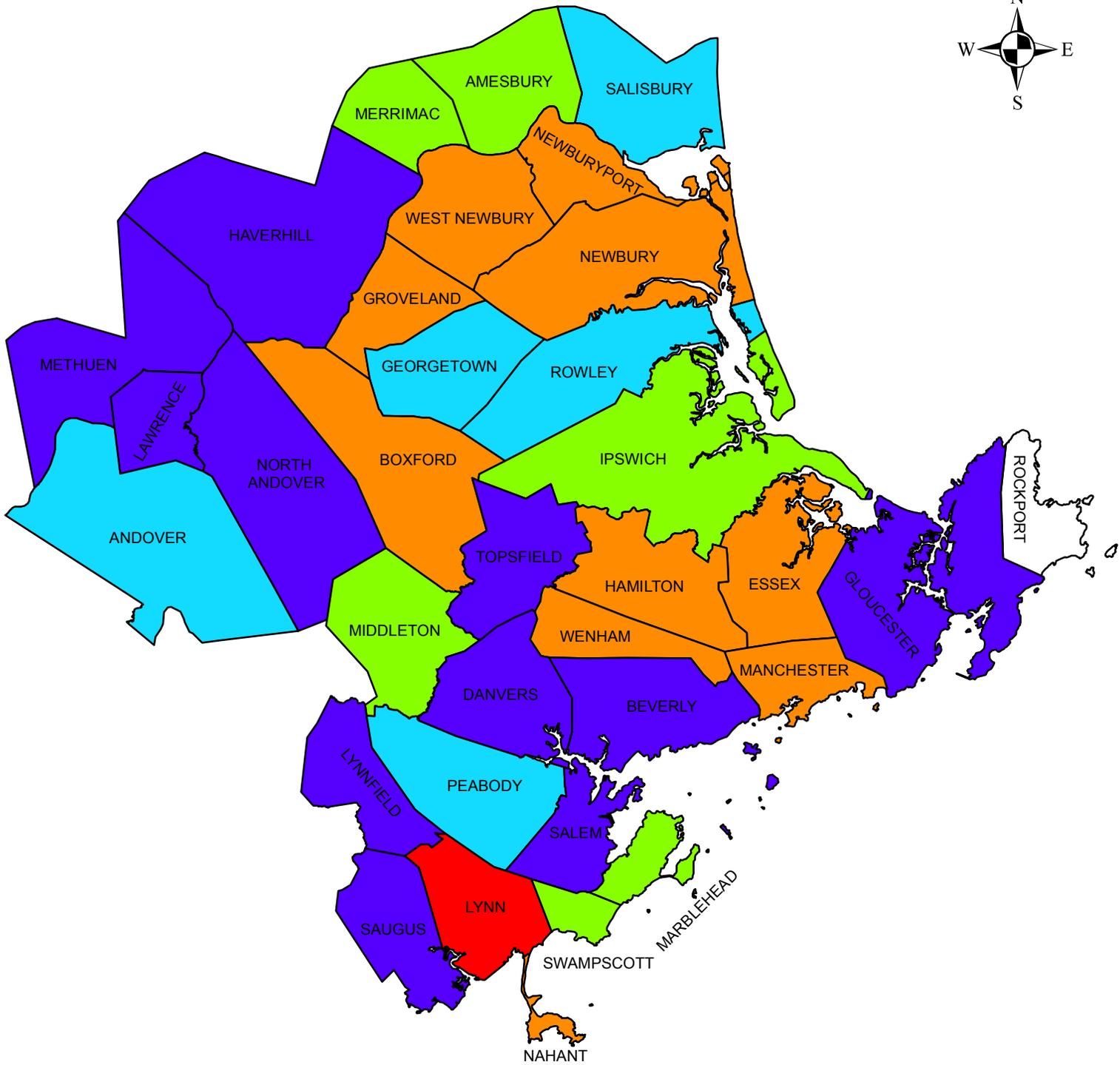
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Essex County

2016 Fire Data Analysis

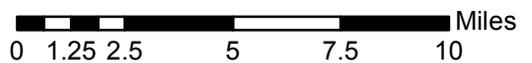
Essex County Fires 2016



2016 Fires



*Non-reporting Department



Essex County Fires in 2016

2,870 Total Fires — 1,308 Structures, 209 Vehicles & 1,353 Other Fires

Essex County ranked fifth out of the fourteen Massachusetts counties in total reported fires. The county reported 2,870 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 1,308 structure fires, 209 motor vehicle fires, 889 brush, tree or lawn fires, 229 outside rubbish fires, 107 special outside fires, eight cultivated crop or vegetation fires, and 120 other fires caused three civilian deaths, 21 civilian injuries, 65 fire service injuries and an estimated dollar loss of \$28.3 million. Essex County's fires accounted for 9% of the 31,889 Massachusetts fires reported in 2016.

All 34 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 2016.

Structure Fires Down

The total number of reported fire incidents decreased by 27 incidents from the 2,897 that were reported in 2015. Reported structure fires decreased by 106 from the 1,414 reported during the previous year. The total number of motor vehicle fires decreased by 65 from the 274 incidents reported during 2015. Reported outside and other fires increased by 144 from the 1,209 reported the year before.

ESSEX COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3,002	1,579	235	1,188	104	23	11	70
2013	2,952	1,512	268	1,172	111	21	10	80
2014	2,858	1,639	244	975	80	13	7	60
2015	2,897	1,414	274	1,209	86	19	15	52
2016	2,870	1,308	209	1,353	97	17	10	70

Fire and Fire Death Rates

Essex County had 3.9 fires per 1,000 population. That figure ranks Essex County tenth in the state and below the state rate of 4.9 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 0.09 deaths per 10,000 population.

3 People Died in 3 Essex County Fires

In 2016 there were three fatal fires in Essex County that killed three people.

- On February 6, 2016, at 12:52 p.m., the North Andover Fire Department was called to a fatal smoking fire in a two-family home. The fire was started by a cigarette in the living room. The victim, a 63-year old woman, fell asleep while smoking. No one else was injured at this fire. Alarms were present but did not operate because of missing batteries. There were no sprinklers. Damages from this fire were estimated to be \$330,000.

- On March 8, 2016, at 7:20 a.m., the West Newbury Fire Department was called to a fatal electrical fire in a single-family home. The fire was started by arcing in a washing machine in the basement. The victim, an 82-year old man, was sleeping in his second floor bedroom at the time of the fire. Three (3) firefighters were also injured at this fire. There were no alarms present, and there were no sprinklers. The fire caused an estimated \$500,000 worth of damage.
- On May 19, 2016, at 7:06 a.m., the Beverly Fire Department was called to a fatal electrical fire in an apartment building. The fire was caused by a lamp in the living room being too close to combustibles. The victim, a 78-year old man was overcome while trying to escape. He was transported to a local hospital where he later succumbed to his 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 \$430,000.

Swampscott Had Largest Loss Fire in 2016

In 2016, Essex County had three fires that were considered large loss, or greater than \$1 million in estimated damages. The largest loss fire was in Swampscott.

- On July 3, 2016, at 12:23 p.m., the Swampscott Fire Department was dispatched to a fire of undetermined cause in a single-family home. There were no injuries at this fire. Alarms were present and alerted. The building did not have sprinklers. Damages from this fire were estimated to be \$1.4 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 1,308 structure fires caused all three civilian deaths, 20 civilian injuries, 55 fire service injuries and an estimated dollar loss of \$26.5 million. These incidents represented 46% of Essex County's reported fires in 2016. The average estimated dollar loss per structure fire was \$20,279. The total number of reported structure fires decreased by 106, or 7%, from the 1,414 reported in 2015.

Arson Caused 1% of Structure Fires

The 17 structure arsons caused three fire service injuries and an estimated dollar loss of \$588,215. Arson was indicated as the cause of 1% of the structure fires and 2% of Essex County's structure fire dollar loss. The 17 structure arsons accounted for 18% of the Essex County arson fires reported in 2016. The number of reported structure arsons decreased by two from the 19 reported in 2015.

88% of Structure Arsons Occurred in Residences

Eighty-eight percent (88%) of Essex County's 17 structure arsons occurred in residential occupancies. Six percent (6%) took place in public assembly properties, and another 6% occurred in educational facilities.

BUILDING FIRES

There were 1,299 building fires of different types in Essex County in 2016. These 1,299 building fires accounted for 99.3% of all structure fires in Essex County.

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

One thousand one hundred and five (1,105), or 85%, of Essex County's 1,299 building fires occurred in residential occupancies. Fifty-nine (59) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 56 fires. Hospitals, prisons, and other institutional buildings experienced 30 fires. Thirteen (13) building fires took place in educational properties. Twelve (12) fires took place in storage properties. Eleven (11) fires took place in manufacturing and processing facilities. Seven (7) building fires in Essex County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Three (3) fires happened in industrial facilities, and three fires occurred in unclassified properties in Essex County in 2016.

RESIDENTIAL FIRES

Residential Building Fires Down in 2016

There were 1,105 reported residential building fires in Essex County in 2016. These 1,105 fires are a decrease of 90, or 8%, from the 1,195 residential building fires reported in 2015.

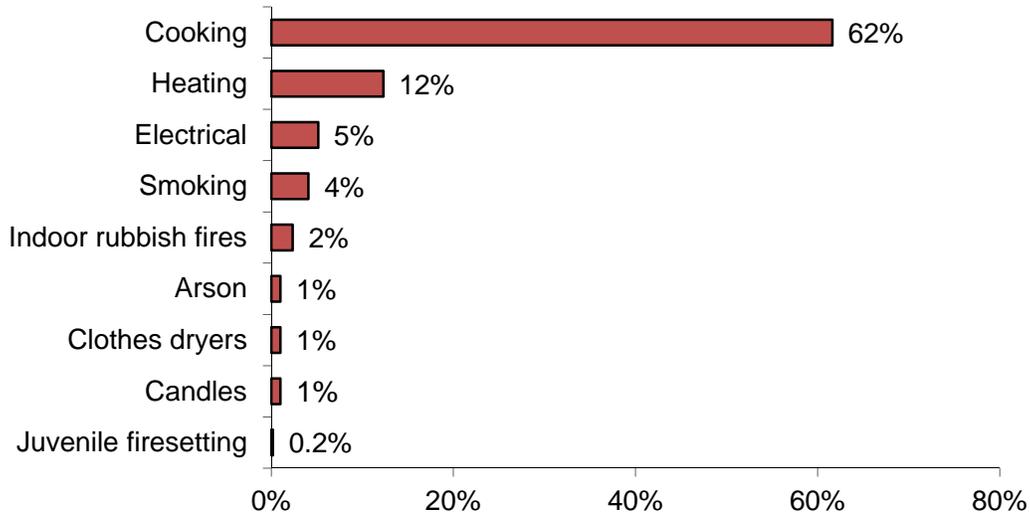
Apartments Accounted for 47% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments accounting for almost half, or 47%, of the building fires in Essex County; 46% occurred in 1- and 2-family homes; 2% happened in rooming houses; 1% took place in residential board and care facilities, 1% occurred in dormitories; and 1% happened in hotels or motels. Thirty-eight (38), 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 62% of these fires. Heating was the second leading cause, accounting for 12% of these fires. Electrical problems caused 5%. Smoking caused 4% and indoor rubbish fires caused 2% of these fires. Arsons, clothes dryers and candles each caused 1% of these fires; and juvenile-set fires caused less than 1% of the fires in people's homes in Essex County in 2016.

2016 Leading Causes of Fires in Essex County Homes



73% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Eight hundred and two (802), or 73%, of all residential building fires were reported as confined to non-combustible containers in 2016. Six hundred and fifty-one (651), or 59%, of all residential building fires reported in 2016 were cooking fires contained to a non-combustible container. Eighty-four (84), or 10%, were fires confined to a fuel burner or boiler malfunction. Forty-three (43) of the reported fires were confined to a chimney, accounting for 5% of residential building fires. Twenty-two (22), or 3%, of these fires were rubbish fires contained to a non-combustible container. There was one reported incinerator overload or malfunction and one confined commercial compactor fire, each accounting for less than 1% of Essex County's residential fires in 2016.

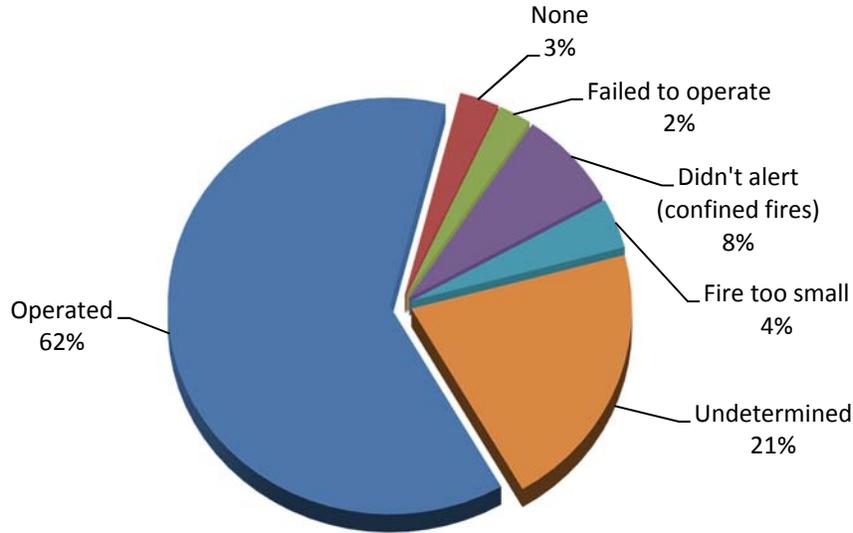
Detectors Operated in 62% of Fires

Smoke or heat detectors operated and alerted the occupants in 689, or 62%, of the residential building fires. In 8% of these fires², 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 4% of the residential fires. Smoke detector performance was undetermined in 230 incidents, or 21%, of Essex County's residential building fires.

¹ 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.

² 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 2016



10 Failed Detectors Had Missing or Dead Batteries

Of the 27 fires where smoke detectors were present but failed to operate, five, or 19%, failed because the batteries were either missing or disconnected. Another five, or 19%, did not operate because of dead batteries. Three (3), or 11%, failed because of power failures, shutoffs or disconnects. One (1) detector, or 4%, failed from a lack of maintenance. It was undetermined or unclassified in 13 cases, or 48%, why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Essex County reported 28 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 1,299 building fires reported to MFIRS in 2016. Nineteen (19) fires occurred in vacant residential properties. Mercantile and business properties had four of these fires. Public assembly facilities had two vacant building fires. Storage facilities accounted for two vacant building fire incidents. Special properties had one vacant building fire incident in Essex County in 2016.

Three (3) of the vacant building fires in Essex County in 2016 were determined to be intentionally set. Two (2) were in single-family homes, and one was in an apartment.

JUVENILE-SET FIRES

18 Juvenile-set Fires

There were 18 reported juvenile-set fires in Essex County in 2016. The three structure fires, six brush fires, one motor vehicle fire and eight unclassified fires caused \$64,415 in estimated damages.

ARSONS

97 Total Arsons — 17 Structures, 10 Vehicles & 70 Other Arsons

Ninety-seven (97), or 3%, of Essex County's 2,870 fires were considered intentionally set, or, for purposes of this analysis, arson. The 17 structure arsons, 10 motor vehicle arsons and 70 outside and other arsons caused three fire service injuries and an estimated dollar loss of \$677,824.

Outside & Other Arsons Up

The total number of reported arson fires increased by 11 from the 86 reported in 2015. Reported structure arsons decreased by two from the 19 reported in 2015. Motor vehicle arsons decreased by five from the 15 reported in 2015. Outside and other arsons increased by 18 from 52 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 55% of All Reported Responses

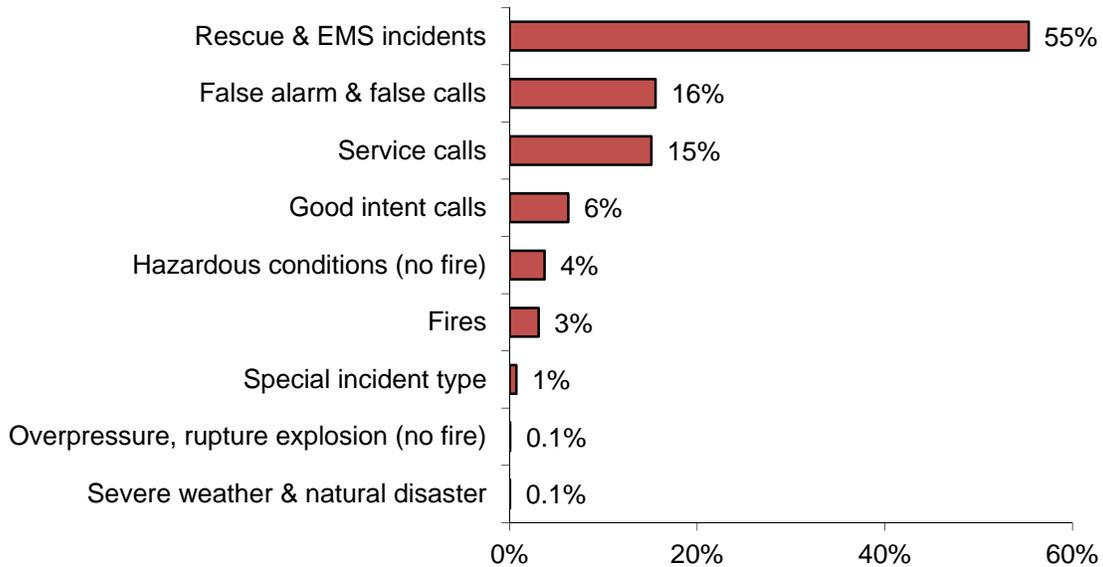
In 2016, fire departments in Essex County reported 100,050 responses³ to MFIRS. Of these 100,050 incidents, 96,934 non-fire calls were voluntarily reported.

Of these 96,934 non-fire calls, 55,353, or 55%, of all the reported responses in 2016 were reported rescue and emergency medical services (EMS) calls; 15,569, or 16%, were reported false alarm or false calls; 15,128, or 15%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 6,272, or 6%, were reported good intent calls; 3,735, or 4%, were reported hazardous condition calls with no fire; 734, or 1%, were special incident type calls such as citizen complaints; 80, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 63, or 0.1%, were severe weather responses.

Three thousand one hundred and sixteen (3,116), or 3%, of the total incidents submitted by Essex County fire departments were fires.

³ These figures include responses in which Essex County fire departments gave mutual aid to other fire departments.

2016 Responses by Incident Type



Essex County Fire Departments Reported Giving Mutual Aid 1,438 Times

In 2016, Essex County fire departments reported coming to the aid of other fire departments 1,438 times. Of these 1,438 responses, 618, or 43%, were for service calls such as cover assignments; 392, or 27%, were for rescue or EMS calls; 194, or 13%, were for good intent calls; 148, or 10%, were for fires; 63, or 4%, were for false alarms or false calls; 17, or 1%, were for hazardous conditions calls with no fire; three, or 0.2%, were special incident types; two, or 0.1%, was for overpressure, rupture explosion with no fire calls; and one, or 0.1%, was severe weather or natural disaster call.

Essex County Received Mutual Aid in 843 Incidents

In 2016, Essex County fire departments reported receiving aid from surrounding departments in 843 incidents. Of these 843 incidents, 468, or 56%, were rescue and emergency medical services calls; 197, or 23%, were for fires; 103, or 12%, were false alarms or false calls; 31, or 4%, were good intent calls; 24, or 3%, were hazardous conditions calls with no fire; and 20, or 2%, were service calls.

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	60%	Abandoned materials	2%	7%
Flammable/comb. liquid	8%	Too close to combustibles	2%	6%
Film, residue (creosote)	4%	Electrical failure, malfunc.	2%	6%
Rubbish, trash, waste	3%	Misuse of materials or prod.	1%	4%
Structural member, framing	2%	Failure to clean	1%	2%
Electrical wire, cable insulation	2%	Mechanical failure, malf.	0.5%	2%

Equipment⁸		Cause of Ignition	%	%Unconfined⁹
Kitchen & cooking equipment	61%	Unintentional	14%	52%
None	20%	Failure of eq. or heat source	4%	13%
Boiler, furnace, cent. heat. unit	8%	Intentional	1%	5%
Chimney, flue	4%	Undetermined	3%	11%
Electrical wiring, other	1%	Cause under investigation	5%	17%
Clothes dryer	1%	Act of Nature	0.2%	1%

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

Alerted occupants	70%
Didn't alert occupants	10%
Undetermined	20%

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

⁷ 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.

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 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	194	1148	23	23
February	172	135	10	27
March	234	137	20	77
April	297	123	14	160
May	318	124	17	177
June	330	99	20	211
July	378	95	18	265
August	291	84	17	190
September	204	69	19	116
October	155	97	20	38
November	142	88	7	47
December	155	109	24	22

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	459	188	23	248
Monday	444	185	37	222
Tuesday	379	183	24	172
Wednesday	372	168	29	175
Thursday	360	178	22	160
Friday	378	173	35	170
Saturday	478	233	39	206

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	157	83	22	52
04:01 - 08:00	205	90	17	98
08:01 - 12:00	477	247	37	193
12:01 - 16:00	828	295	65	468
16:01 - 20:00	792	377	34	381
20:01 - 00:00	411	216	34	161

Motor Vehicle Fires

Total: 209

Automobiles: 160 (77%)

10, or (6%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 97

Dollar loss: \$677,824

0.13 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	17	1%	18%	\$588,215
Vehicle Arsons	10	5%	10%	78,701
Other Arsons	70	5%	72%	10,908

0.02 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.09 Other arsons/1,000 population

3 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 04:00	5	29%	00:01 - 04:00	7	70%
20:01 - 00:00	5	29%	20:01 - 00:00	2	20%
08:01 - 12:00	3	18%	04:00 - 08:00	1	10%
12:01 - 16:00	3	18%			

Other Arsons	#	%
16:01 - 20:00	22	30%
12:01 - 16:00	18	25%
00:01 - 04:00	11	15%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartment buildings	8	47%
1- and 2-Family homes	6	35%
Residential board and care	1	6%
High/junior high/middle school	1	6%
Church, mosque, synagogue, temple, chapel	1	6%

Amesbury					Population: 16,283			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	64	35	6	23	0	0	0	0
2013	41	24	2	15	1	0	0	1
2014	74	43	8	23	1	0	0	1
2015	15	12	1	2	0	0	0	0
2016	45	19	3	23	0	0	0	0

Andover					Population: 33,201			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	92	40	14	38	5	0	0	5
2013	65	35	13	17	1	0	0	1
2014	51	17	12	22	1	0	0	1
2015	74	25	18	31	2	0	0	2
2016	80	29	7	44	1	0	0	1

Beverly					Population: 39,502			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	98	40	7	51	3	1	1	1
2013	105	35	8	62	3	1	0	2
2014	93	35	3	55	6	2	0	4
2015	127	57	8	62	2	0	0	2
2016	142	43	12	87	9	0	0	9

Boxford					Population: 7,965			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	30	12	5	13	0	0	0	0
2013	34	10	6	18	0	0	0	0
2014	21	9	8	4	0	0	0	0
2015	30	7	2	21	3	0	0	3
2016	19	4	3	12	1	0	0	1

Danvers**Population: 26,493**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	130	34	19	77	11	0	0	11
2013	103	15	8	80	5	0	0	5
2014	69	18	11	40	5	1	1	3
2015	122	33	11	78	1	1	0	0
2016	142	20	12	110	2	0	0	2

Essex**Population: 3,504**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	9	0	4	1	0	0	1
2013	10	1	3	6	0	0	0	0
2014	15	9	1	5	0	0	0	0
2015	17	7	2	8	1	0	0	1
2016	17	8	2	7	2	0	0	2

Georgetown**Population: 8,183**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	58	45	6	7	0	0	0	0
2013	43	35	1	7	0	0	0	0
2014	48	42	3	3	0	0	0	0
2015	53	42	3	8	1	1	0	0
2016	63	49	0	14	2	0	0	2

Gloucester**Population: 28,789**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	134	72	7	55	5	0	0	5
2013	123	62	6	55	6	1	0	5
2014	113	64	4	45	5	1	0	4
2015	117	58	11	48	2	1	0	1
2016	115	65	4	46	1	1	0	0

Groveland					Population: 6,459			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013	2	0	1	1	0	0	0	0
2014	15	6	0	9	2	0	0	2
2015	22	8	1	13	2	0	0	2
2016	25	5	1	19	3	0	0	3

Hamilton					Population: 7,764			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	36	24	1	11	2	0	0	2
2013	24	15	0	9	3	0	0	3
2014	27	21	0	6	3	1	0	2
2015	19	9	1	9	0	0	0	0
2016	16	9	0	7	0	0	0	0

Haverhill					Population: 60,879			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	263	94	24	145	4	0	0	4
2013	265	93	25	147	19	3	0	16
2014	245	140	28	77	2	1	0	1
2015	249	97	16	136	8	2	0	6
2016	270	112	25	133	4	2	1	1

Ipswich					Population: 13,175			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	21	4	2	15	1	0	0	1
2013	34	15	3	16	3	1	1	1
2014	23	8	5	10	0	0	0	0
2015	29	9	8	12	3	0	2	1
2016	35	12	2	21	1	0	0	1

Lawrence					Population: 76,377			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	294	134	34	126	37	18	7	12
2013	273	98	44	131	21	8	5	8
2014	300	171	30	99	10	3	4	3
2015	294	131	41	122	33	10	11	12
2016	253	72	31	150	27	7	7	13

Lynn					Population: 90,329			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	436	331	13	92	2	0	0	2
2013	483	366	25	92	0	0	0	0
2014	487	374	28	85	1	1	0	0
2015	524	379	30	115	0	0	0	0
2016	459	323	23	113	13	5	2	6

Lynnfield					Population: 11,596			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	87	60	4	23	4	0	0	4
2013	95	78	3	14	3	0	0	3
2014	76	55	4	17	3	0	0	3
2015	62	33	4	25	0	0	0	0
2016	112	61	7	44	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
2012	28	20	2	6	1	0	0	1
2013	14	11	2	1	1	0	0	1
2014	18	10	2	6	1	0	0	1
2015	20	12	0	8	0	0	0	0
2016	21	11	3	7	0	0	0	0

Marblehead**Population: 19,808**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	39	15	5	19	2	1	0	1
2013	45	18	3	24	1	0	0	1
2014	34	18	2	14	2	0	0	2
2015	22	10	1	11	2	0	0	2
2016	31	14	2	15	0	0	0	0

Merrimac**Population: 6,338**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	42	21	1	20	2	0	0	5
2013	48	17	6	25	9	0	0	9
2014	39	20	4	15	6	0	0	6
2015	39	16	6	17	8	0	0	8
2016	38	15	4	19	5	0	0	5

Methuen**Population: 47,255**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	141	60	23	58	2	0	1	1
2013	123	47	23	53	11	3	2	6
2014	114	38	15	61	6	0	0	6
2015	135	41	21	73	8	2	2	4
2016	163	44	19	100	8	0	1	7

Middleton**Population: 8,987**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	146	125	6	15	1	1	0	0
2013	92	82	1	9	1	0	0	1
2014	119	97	5	17	1	0	0	1
2015	54	22	6	26	1	0	0	1
2016	36	7	2	27	0	0	0	0

Nahant**Population: 3,410**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	16	13	0	3	1	0	0	1
2013	12	7	1	4	2	0	0	2
2014	15	2	0	13	1	0	0	1
2015	14	8	2	4	0	0	0	0
2016	16	9	1	6	1	0	0	1

Newbury**Population: 6,666**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	51	26	3	22	4	0	0	4
2013	63	39	8	16	1	0	0	1
2014	25	10	1	14	6	0	0	6
2015	18	6	3	9	3	0	0	3
2016	9	1	1	7	1	0	0	1

Newburyport**Population: 17,416**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	23	17	3	3	1	1	0	0
2013	12	7	0	5	0	0	0	0
2014	14	7	4	3	0	0	0	0
2015	26	16	8	2	0	0	0	0
2016	13	10	0	3	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
2012	9	8	0	1	0	0	0	0
2013	98	67	11	20	1	0	0	1
2014	97	65	12	20	4	0	0	4
2015	125	81	11	33	3	1	0	2
2016	127	67	5	55	7	3	0	4

Peabody					Population: 51,251			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	180	63	10	107	2	0	0	2
2013	153	65	18	70	1	0	0	1
2014	179	67	12	20	4	0	0	4
2015	150	60	17	73	0	0	0	0
2016	49	35	2	12	0	0	0	0

Rockport					Population: 6,952			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	18	7	1	10	0	0	0	0
2013	4	2	0	2	0	0	0	0
2014	18	10	1	7	0	0	0	0
2015	Non-Reporting Community							
2016 ¹⁰	23	17	3	3				

Rowley					Population: 5,856			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	34	27	2	5	0	0	0	0
2013	30	22	1	7	0	0	0	0
2014	23	16	2	5	0	0	0	0
2015	41	27	5	9	0	0	0	0
2016	56	33	3	20	0	0	0	0

Salem					Population: 41,340			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	181	80	17	84	3	1	1	1
2013	185	67	12	106	5	2	2	1
2014	161	70	11	80	0	0	0	0
2015	198	60	12	123	1	0	0	1
2016	174	59	10	105	3	0	0	3

¹⁰ 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
2012	14	5	2	7	0	0	0	0
2013	50	11	6	33	6	0	0	6
2014	32	4	5	23	2	0	0	2
2015	42	8	6	28	0	0	0	0
2016	55	14	3	38	2	0	0	2

Saugus					Population: 26,628			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	156	43	10	103	2	0	0	2
2013	154	51	18	85	3	2	0	1
2014	145	61	10	74	2	1	1	0
2015	116	47	10	59	1	1	0	0
2016	164	58	18	88	0	0	0	0

Swampscott					Population: 13,787			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	44	18	2	24	3	0	0	3
2013	45	23	5	17	0	0	0	0
2014	32	20	2	10	0	0	0	0
2015	28	15	1	12	1	0	0	1
2016	38	16	0	22	1	0	0	1

Topsfield					Population: 6,085			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	95	79	4	12	3	0	1	2
2013	94	77	1	16	4	0	0	4
2014	106	90	1	15	3	0	0	3
2015	93	68	5	20	0	0	0	0
2016	104	80	5	19	0	0	0	0

Wenham					Population: 4,875			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	11	6	2	3	0	0	0	0
2013	14	8	2	4	0	0	0	0
2014	13	9	0	4	1	0	0	1
2015	11	4	2	5	0	0	0	0
2016	6	2	0	4	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
2012	12	6	1	5	0	0	0	0
2013	16	9	2	5	0	0	0	0
2014	13	9	1	3	3	0	1	2
2015	11	6	1	4	0	0	0	0
2016	17	10	2	5	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
09007	Amesbury	3,449	51	4	2,037	120	577	267	378	8	7
09009	Andover	2,966	80	3	1,030	229	438	76	762	1	347
09030	Beverly	4,685	142	14	2,479	219	342	344	1,127	0	18
09038	Boxford	805	20	2	443	56	76	48	159	0	1
09071	Danvers	6,988	142	1	2,889	147	2,803	237	727	1	41
09092	Essex	194	27	0	42	24	14	22	64	1	0
09105	Georgetown	1,900	64	4	657	72	888	85	130	0	0
09107	Gloucester	5,066	115	6	3,156	108	605	430	600	0	46
09116	Groveland	593	35	0	361	26	67	23	80	0	1
09119	Hamilton	406	17	0	63	43	86	28	162	1	6
09128	Haverhill	7,360	276	10	4,161	254	877	612	1,162	2	6
09144	Ipswich	2,050	35	2	1,102	74	255	274	304	0	4
09149	Lawrence	6,385	269	3	3,381	223	423	294	1,760	2	30
09163	Lynn	11,954	466	3	7,439	287	1,136	826	1,776	5	16
09164	Lynnfield	1,523	122	3	1,013	56	102	62	163	2	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
09166	Manchester	1,574	32	1	532	84	651	72	199	0	3
09168	Marblehead	2,635	31	1	1,276	146	461	241	461	5	13
09180	Merrimac	816	58	0	504	32	65	61	86	10	0
09181	Methuen	8,012	163	0	5,736	251	708	252	878	1	23
09184	Middleton	1,998	70	1	990	71	294	150	415	2	5
09196	Nahant	703	18	0	383	38	162	37	62	1	2
09205	Newbury	777	14	0	300	35	237	88	97	0	6
09206	Newburyport	14	13	0	0	1	0	0	0	0	0
09210	North Andover	4,102	129	3	2,642	128	458	141	562	1	38
09229	Peabody	2,950	49	3	1,972	105	147	244	427	0	3
09252	Rockport	144	23	0	14	15	7	10	72	0	3
09254	Rowley	731	67	0	376	16	53	124	93	1	1
09258	Salem	6,968	175	7	3,989	354	586	361	1,490	4	2
09259	Salisbury	2,037	60	1	1,302	107	200	168	195	3	1
09262	Saugus	4,637	165	5	2,812	181	390	463	561	3	57

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
09291	Swampscott	2,112	47	3	1,162	131	283	114	320	1	51
09298	Topsfield	2,446	105	0	591	56	1,488	64	140	1	1
09320	Wenham	557	6	0	272	37	135	15	90	0	2
09324	West Newbury	513	30	0	247	9	114	39	67	7	0
Essex County		100,050	3,116	80	55,353	3,735	15,128	6,272	15,569	63	734

* Certified no reportable fires.

**Non reporting department.

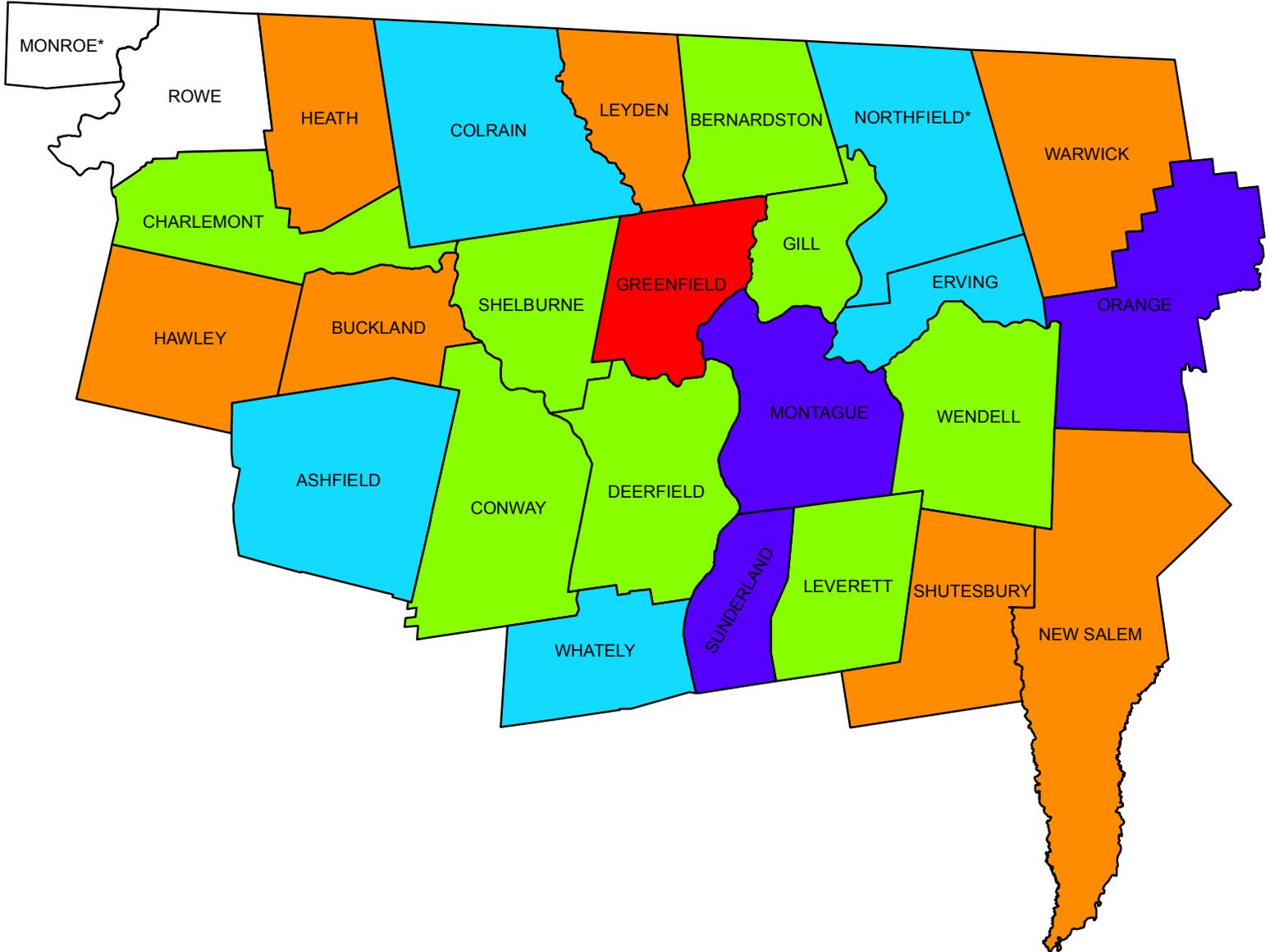
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



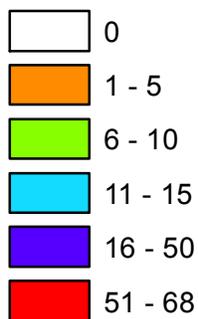
Franklin County

2016 Fire Data Analysis

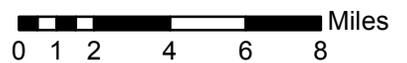
Franklin County Fires 2016



2016 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Franklin County Fires in 2016

341 Total Fires — 158 Structures, 26 Motor Vehicles & 157 Outside or Other Fires

Franklin County ranked twelfth out of the fourteen Massachusetts counties in total fires. Franklin County fire departments reported 341 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 158 structure fires, 26 motor vehicle fires, 101 brush, tree or lawn fires, 31 outside rubbish fires, 11 special outside fires, one cultivated vegetation and crop fire, and 13 unclassified fires caused eight civilian deaths, 11 civilian injuries, seven fire service injuries and an estimated dollar loss of \$2.7 million. Franklin County's fires accounted for 1% of the 31,889 Massachusetts fires reported in 2014.

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 2015.

Outside & Other Fires Up

The total number of reported fire incidents increased by 27, or 9%, from the 314 reported in 2015. Reported structure fires decreased by one from the 159 reported during the previous year. Motor vehicle fires decreased by nine from the 35 reported in 2015. Outside and other fires increased by 37 from the 120 reported the year before.

FRANKLIN COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	285	129	29	127	18	6	1	11
2013	328	160	34	134	20	1	0	19
2014	262	114	24	124	18	3	0	15
2015	314	159	35	120	15	3	1	11
2016	341	158	26	157	16	3	0	13

Fire and Fire Death Rates

Franklin County had 4.8 fires per 1,000 population. That figure ranks Franklin County third in the state and below the state rate of 4.9 fires per 1,000 population. Franklin County had 1.12 fire deaths per 10,000 population ranking it first among Massachusetts counties and above the state rate of 0.09 fire deaths per 10,000 population.

8 Civilian Fire Deaths in Franklin County

Franklin County had eight of its residents die in four fires in 2016. All of the deaths occurred in building fires.

- On February 16, 2016, at 11:43 a.m., the Orange Fire Department was dispatched to a fire in a single-family mobile home of undetermined cause. The victim, a 56-year old man, was discovered just inside the front door. No one else was injured at this fire. Smoke alarms were present but they failed to operate. The building was not sprinklered. Damages from this fire were estimated to be \$40,000.

- On March 5, 2016, at 4:45 p.m., the Orange Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire originated in a second floor closet. The victims, 6 and 8-year old girls were in the general area of origin of the fire and were overcome by the smoke as they tried to escape. Three (3) other civilian were injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from the blaze were estimated to be \$170,000.
- On September 25, 2016, at 5:16 a.m., the Greenfield Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by a cigarette igniting the bedding in a first floor bedroom. Four (4) civilians - a 48-year old man, his 49-year old wife, a 28-year old adult son and his 5-year old son were killed in this fire. There were no other injuries at this fire. It was undetermined if alarms were present. The home did not have sprinklers. Damages from this fire were not estimated.
- On November 22, 2016, at 2:47 a.m., the Erving Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by a cigarette on an exterior porch. The victim, a 1-year old girl, was sleeping at the time of the fire. There were no other injuries at this fire. Alarms were present and operated. The building did not have sprinklers. Damages from this fire were not estimated.

Orange Has Franklin County's Largest Loss Fire

Franklin County did not report any fires with an estimated loss greater than \$1 million. Orange had the county's largest loss fire, representing 16% of the county's total fire loss.

- On November 12, 2016, at 2:59 a.m., the Orange Fire Department was called to a fire of undetermined cause in a single-family home. The fire was confined to the garage, its contents and the vehicles parked inside. Alarms were present and operated. There were no sprinklers. Damages from this fire were estimated to be \$425,000.

STRUCTURE FIRES

Reported Structure Fires Down Slightly

The 158 structure fires caused eight civilian deaths, 10 civilian injuries, seven fire service injuries, and an estimated dollar loss of \$2.3 million. These incidents represented 46% of Franklin County's reported fires in 2016. The average estimated dollar loss per structure fire was \$14,594. The total number of reported structure fires decreased by one, or 1%, from the 159 reported in 2015.

Arson Caused 2% of Structure Fires

The three structure arsons caused an estimated dollar loss of \$200. Arson was indicated as the cause of 2% of the structure fires and less than 1% of Franklin County's structure fire dollar loss. The three structure arsons accounted for 19% of the Franklin County arson fires reported in 2016. The total number of reported structure arsons remained the same with three reported in 2015 and 2016.

2 Structure Arsons Occurred in Residences

Two (2) of Franklin County's structure arsons in 2016 occurred in special properties. The other arson occurred in a manufacturing or processing facility.

BUILDING FIRES

There were 157 building fires of different types in Franklin County in 2016. These 157 building fires accounted for all but one, or 99.4% of the structure fires in Franklin County.

82% of Franklin Building Fires Occurred in People's Homes

One hundred and twenty-eight (128), or 82%, of Franklin County's 157 building fires occurred in residential occupancies. Mercantile or business properties had seven fires. Storage facilities had five fires. Public assembly facilities had four fires. Institutional facilities, manufacturing facilities and special properties each had three fires. Two (2) fires occurred in industrial facilities and educational facilities had one fire.

RESIDENTIAL FIRES

Residential Building Fires Down Slightly

There were 128 reported residential building fires in Franklin County in 2016. These 128 fires are a decrease of four, or 3%, from the 132 residential building fires reported in 2015.

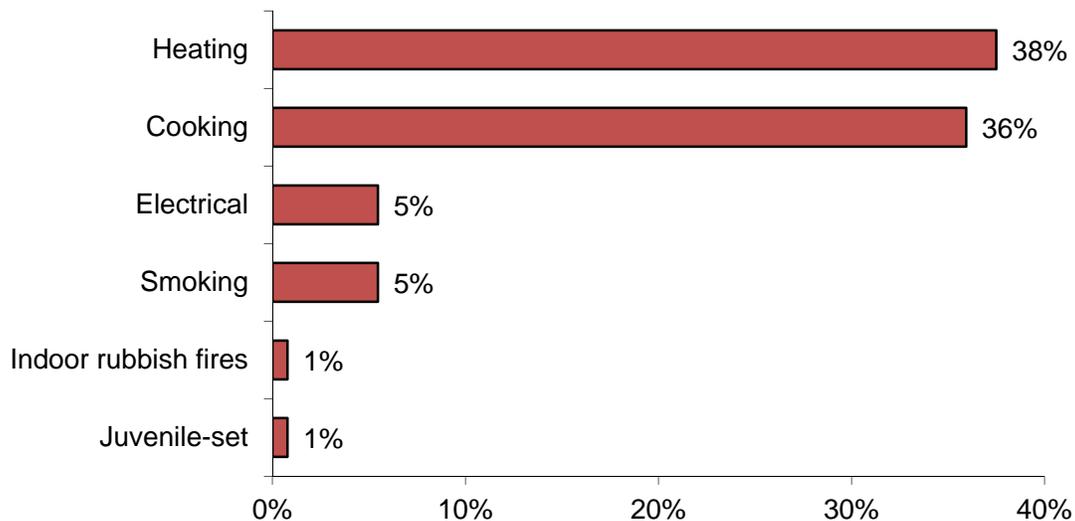
1- & 2-Family Homes Accounted for Over 2/3 of Residential Building Fires

The peak fixed property uses for residential building fires were one- & two-family homes, accounting for 68% of the building fires in Franklin County; 30% occurred in apartments; 1% in residential board and care facilities; and 1% happened in unclassified residential properties.

Heating Leading Cause of Residential Fires

Heating was the leading cause of residential fires in Franklin County in 2016. Thirty-eight percent (38%) of the residential fires were caused by heating. Seventy-three percent (73%) of these heating fires involved chimneys. Franklin County was the only county where cooking was not the leading cause of residential fires in 2016. Unattended cooking and other unsafe cooking practices accounted for 36% of the fires in people's homes. Electrical fires and smoking each accounted for 5% of the residential building fires. Indoor rubbish fires and juvenile-set fires each caused 1% of the fires in people's homes in Franklin County in 2016.

2016 Leading Causes of Fires in Franklin County Homes



65% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Eighty-three (83), or 65%, of these fires were confined to a non-combustible container. Thirty-nine (39) of the reported fires were cooking fires contained to a non-combustible container, accounting for 30% of residential building fires. Thirty-four (34), or 27%, of all residential building fires reported in 2016 were fires confined to a chimney or flue. Nine (9), or 7%, were fires confined to a fuel burner or boiler malfunction. One (1), or 1%, of these fires were indoor rubbish fires contained to a non-combustible container in Franklin County in 2016.

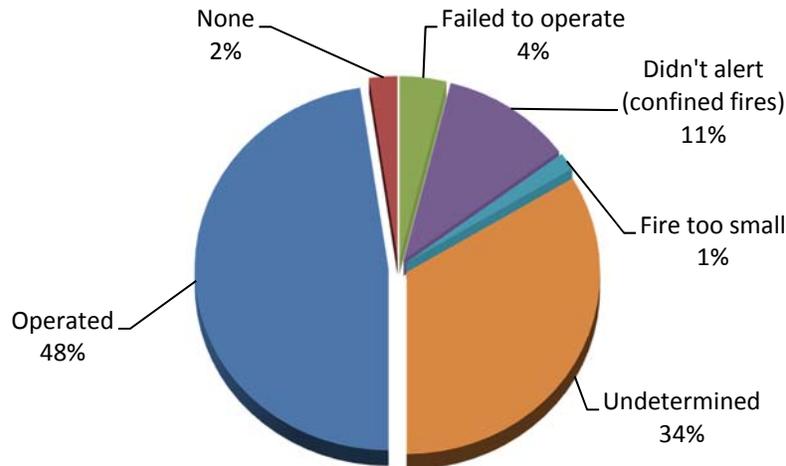
Detector Operation Undetermined in Almost 1/2 of Fires

Smoke or heat detectors operated and alerted the occupants in 61, or 48%, of the residential building fires. In 11% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 4% of these fires. 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 43 incidents, or 34%, of Franklin County's residential building fires.

¹ 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.

² These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Franklin County's Residential Structure Fires 2016



VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Franklin County reported seven fires that occurred in buildings that were vacant, under construction or demolition. This represented 4% of the total 157 building fires reported to MFIRS in 2016. Four (4) fires occurred at vacant residences, one occurred at a public assembly facility, one at an industrial facility and one at a manufacturing or processing facility.

One (1) of the vacant building fires in Franklin County in 2016 was determined to be intentionally set; this occurred at a manufacturing or processing facility.

JUVENILE-SET FIRES

7 Juvenile-set Fires

There were seven reported juvenile-set fires in Franklin County in 2016. Six (6) were brush fires and one was a structure fire.

ARSONS

16 Total Arsons — 3 Structure & 13 Other Arsons

Sixteen (16), or 5%, of Franklin County's 341 fires were intentionally set, or, for purposes of this analysis, arson. The three structure arsons and 13 outside and other arsons caused an estimated dollar loss of \$200.

All Arson Up Slightly

The number of arsons increased by one, or 7%, from the 15 reported in 2015. Structure arsons remained the same with three reported in 2015 and 2016. Motor vehicle arsons decreased by one from one reported in 2015. Outside and other arsons increased by two from the 15 reported in 2015.

ALL INCIDENTS

Rescue & EMS Calls Are 54% of All Reported Responses

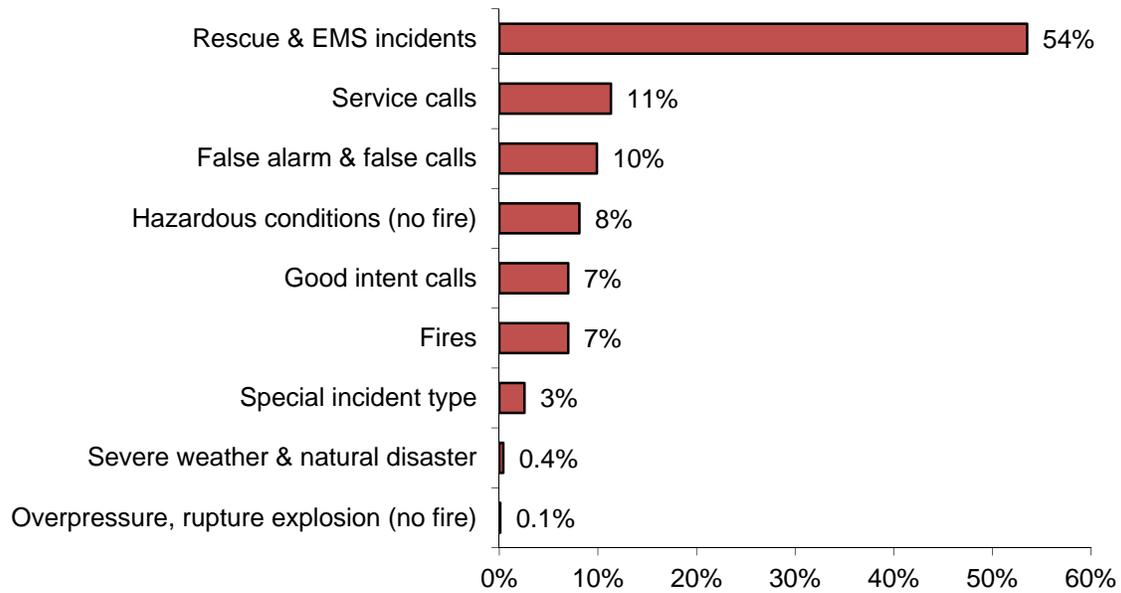
In 2016, Franklin County fire departments reported 8,301 responses³ to MFIRS. Of these 8,301 incidents, 7,722 non-fire calls were voluntarily reported.

Of these 7,722 non-fire calls, 4,444, or 54%, of all of the responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 939, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 822, or 10%, were reported false alarm or false calls; 674, or 8%, were reported hazardous condition calls with no fire; 590, or 7%, were reported good intent calls; 212, or 3%, were special incident type calls such as citizen complaints; 33, or 0.4%, were severe weather responses; and eight, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Five hundred and seventy-nine (579), or 7%, of the total incidents submitted by Franklin County fire departments were fires.

³ These figures include responses in which Franklin County fire departments gave mutual aid to other fire departments.

2016 Responses by Incident Type



Franklin County Fire Departments Gave Mutual Aid 722 Times

In 2016, Franklin County fire departments reported coming to the aid of other fire departments 722 times. Of these 722 responses, 317, or 44%, were for rescue or EMS calls; 229, or 32%, were for fires; 95, or 13%, were for service calls such as cover assignments; 51, or 7%, were for good intent calls; 14, or 2%, were for false alarms or false calls; 13, or 2%, were for hazardous conditions calls with no fire; two, or 0.3%, were special incident types; and one, or 0.1%, was for a severe weather or natural disaster call.

Franklin County Received Mutual Aid in 485 Incidents

In 2016, Franklin County fire departments reported receiving aid from surrounding departments in 485 incidents. Of these 485 incidents, 368, or 76%, were rescue and emergency medical services calls; 80, or 16%, were for fires; 15, or 3%, were hazardous conditions calls with no fire; 13, or 3%, were service calls; seven, or 1%, were false alarm or false calls; and two, or 0.4%, were good intent calls.

Franklin County

Population: 71,372

4.8 Fires/1,000 Population

Total Fires: 341 \$2,722,830

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	158	46%	\$2,305,875
Vehicle Fires	26	8%	64,180
Other Fires	157	46%	352,775

4 Fatal Fires 23.45 Civilian Deaths/1,000 Fires
 8 Civilian Deaths 1.12 Civilian Deaths/10,000 Population
 11 Civilian Injuries 7 Fire Service Injuries

Building Fires: 157

Residential Structure Fires: 128

Residential Structure Fires Confined to Non-Combustible Containers: 83

Unconfined Residential Structure Fires: 45

8 Civilian Deaths 10 Civilian Injuries 4 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	87	68%	Operated	61	48%
Apartments	39	30%	Didn't operate	5	4%
Residential board & care	1	1%	None	3	2%
Residential, other	1	1%	Fire too small	2	1%
			Didn't Alert (confined)	14	11%
			Undetermined	43	34%

Area of Origin ⁴	%	Heat Source	%	%Unconfined ⁵
Kitchen	36%	Hot ember or ash	5%	13%
Chimney or flue	27%	Arcing	4%	11%
Heating room or area	10%	Radiated heat from oper. eq.	3%	9%
Living room	3%	Heat from oper. eq., other	3%	9%
Bedroom	3%	Cigarette	2%	7%
Wall surface, exterior	3%			

⁴ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁵ 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 Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Cooking materials	34%	Failure to clean	5%	13%
Film, residue (creosote)	27%	Abandoned, discarded mat.	3%	9%
Flamm. or combustible liquid	7%	Fire spread or control, other	2%	9%
Structural member, framing	4%	Improper contain. or storage	2%	9%
Exterior sidewall covering	2%	Equipment unattended	2%	7%
		Mechanical failure, malfunc.	2%	7%
		Electrical failure, malfunc.	2%	7%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	35%	Unintentional	18%	51%
Chimney or flue	27%	Failure of eq. or heat source	5%	13%
None	23%	Intentional	0%	0%
Boiler, furnace, cent. heat. unit	7%	Act of nature	0%	0%
		Cause under investigation	9%	24%
		Undetermined	3%	9%

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

Alerted occupants	48%
Didn't alert occupants	17%
Undetermined	35%

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

⁷ 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.

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 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	24	13	2	9
March	45	11	2	32
April	55	15	2	38
May	24	15	2	7
June	21	5	4	12
July	31	14	1	16
August	25	12	3	10
September	17	9	1	7
October	23	12	3	8
November	20	8	1	11
December	25	21	3	1

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	57	28	1	28
Monday	40	21	1	18
Tuesday	51	24	4	23
Wednesday	44	19	5	20
Thursday	45	16	5	24
Friday	43	21	5	17
Saturday	61	29	5	27

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	28	17	4	7
04:01 - 08:00	15	10	0	5
08:01 - 12:00	76	28	9	39
12:01 - 16:00	81	24	8	49
16:01 - 20:00	80	41	5	34
20:01 - 00:00	61	38	0	23

Motor Vehicle Fires

Total: 26

Automobiles: 21 (81%)

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

Arson Fires**Total Arsons: 16****Dollar loss: \$200****0.2 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	3	2%	19%	\$200
Vehicle Arsons	0	0%	0%	0
Other Arsons	13	8%	81%	0

0.04 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.18 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
04:01 - 08:00	1	33%			
08:01 - 12:00	1	33%			
12:01 - 16:00	1	33%			

Other Arsons	#	%
08:01 - 12:00	4	31%
12:01 - 16:00	3	23%
16:01 - 20:00	3	23%
20:01 - 00:00	3	23%

Peak Fixed Property Uses for Structure Arsons	#	%
Manufacturing, processing	1	33%
Outside or special property, other	1	33%

Ashfield					Population: 1,737			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	14	1	1	12	0	0	0	0
2013	10	3	2	5	1	0	0	1
2014	17	8	1	8	0	0	0	0
2015	23	10	8	5	0	0	0	0
2016	15	3	1	11	0	0	0	0

Bernardston					Population: 2,129			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	6	0	7	1	0	0	1
2013	21	9	3	9	3	0	0	3
2014	4	1	0	3	0	0	0	0
2015	5	2	0	3	0	0	0	0
2016	7	2	0	5	0	0	0	0

Buckland					Population: 1,902			
<i>Buckland Fire District</i>					<i>Est. Pop. Protected: 951</i>			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	1	0	1	0	0	0	0
2013	7	4	0	3	0	0	0	0
2014	6	3	0	3	2	0	0	2
2015	11	2	0	9	1	0	0	1
2016	5	0	1	4	0	0	0	0

Charlemont					Population: 1,266			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013	8	6	0	2	0	0	0	0
2014	3	0	1	2	0	0	0	0
2015	16	7	1	8	0	0	0	0
2016	7	1	1	5	0	0	0	0

Colrain					Population: 1,671			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	26	12	3	11	0	0	0	0
2013	6	2	0	4	0	0	0	0
2014	12	7	0	5	0	0	0	0
2015	10	4	0	6	2	0	0	2
2016	13	5	0	8	0	0	0	0

Conway					Population: 1,897			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	7	4	0	3	1	1	0	0
2013	10	8	2	0	0	0	0	0
2014	5	4	0	1	0	0	0	0
2015	6	6	0	0	0	0	0	0
2016	7	5	0	2	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
2012	7	2	1	4	0	0	0	0
2013	5	2	1	2	0	0	0	0
2014	Non-Reporting Community							
2015	Non-Reporting Community							
2016	2	0	0	2	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
2012	6	2	1	3	0	0	0	0
2013	20	2	4	14	5	0	0	5
2014	18	4	3	11	1	0	0	1
2015	10	4	0	6	2	0	0	2
2016	6	1	2	3	0	0	0	0

Erving					Population: 1,800			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	1	0	1	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	4	0	0	4	0	0	0	0
2015	6	2	0	4	0	0	0	0
2016	15	7	1	7	1	1	0	0

Gill					Population: 1,500			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	15	2	2	11	1	0	0	1
2013	7	3	0	4	1	0	0	1
2014	12	1	4	7	1	0	0	1
2015	9	2	0	7	1	0	0	1
2016	7	1	0	6	1	0	0	1

Greenfield					Population: 18,745			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	88	44	10	34	4	1	0	3
2013	70	41	5	24	4	0	0	4
2014	57	30	3	24	5	1	0	4
2015	44	23	5	16	2	1	0	1
2016	68	40	5	23	2	0	0	2

Hawley					Population: 337			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	1	1	0	0	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	1	1	0	0	0	0	0	0
2016	2	0	0	2	0	0	0	0

Heath					Population: 706			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	4	1	1	2	1	0	1	0
2013	5	4	0	1	1	0	0	1
2014	7	4	0	3	0	0	0	0
2015	5	4	0	1	0	0	0	0
2016	5	2	1	2	0	0	0	0

Leverett					Population: 1,851			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5	4	0	1	0	0	0	0
2013	3	3	0	0	0	0	0	0
2014	2	1	1	0	0	0	0	0
2015	12	9	1	2	1	1	0	0
2016	10	6	0	4	2	0	0	2

Leyden					Population: 711			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5	2	1	2	0	0	0	0
2013	3	2	0	1	0	0	0	0
2014	3	2	0	1	0	0	0	0
2015	5	2	0	3	1	0	0	1
2016	3	2	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
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Non-Reporting Community							
2015	Non-Reporting Community							
2016	Non-Reporting Community							

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
2012	6	3	1	2	1	0	0	1
2013	15	7	3	5	0	0	0	0
2014	17	4	0	13	2	0	0	2
2015	9	8	0	1	2	1	0	1
2016	10	5	0	5	2	1	0	1

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	28	21	1	6	5	4	0	1
2013	40	19	4	17	2	0	0	2
2014	19	9	1	9	4	1	0	3
2015	38	22	3	13	1	0	0	1
2016	32	19	2	11	1	0	0	1

New Salem**Population: 990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	6	1	0	5	1	0	0	1
2013	4	1	0	3	1	0	0	1
2014	8	3	1	4	1	0	0	1
2015	1	0	0	1	0	0	0	0
2016	4	2	1	1	0	0	0	0

Northfield**Population: 3,032**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Non-Reporting Community							
2013	21	8	1	12	1	0	0	1
2014	8	4	1	3	0	0	0	0
2015	15	6	2	7	2	0	1	1
2016	13	6	1	6	0	0	0	0

Orange					Population: 7,839			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	9	5	1	3	1	0	0	1
2013	Non-Reporting Community							
2014	37	15	3	19	1	0	0	1
2015	50	19	9	22	0	0	0	0
2016	48	19	3	26	2	0	0	2

Rowe					Population: 393			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	4	3	1	0	0	0	0	0
2013	5	3	0	2	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	1	0	1	0	0	0	0	0
2016	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
2012	4	1	2	1	0	0	0	0
2013	14	7	3	4	1	1	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Non-Reporting Community							
2016	3	1	1	1	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
2012	2	2	0	0	0	0	0	0
2013	6	3	1	2	0	0	0	0
2014	5	1	1	3	0	0	0	0
2015	4	2	1	1	0	0	0	0
2016	3	2	0	1	1	1	0	0

Shutesbury					Population: 1,771			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5	5	0	0	0	0	0	0
2013	4	1	2	1	0	0	0	0
2014	7	7	0	0	0	0	0	0
2015	7	6	1	0	0	0	0	0
2016	2	1	1	0	0	0	0	0

Sunderland					Population: 3,684			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	10	2	2	6	1	0	0	1
2013	1	1	0	0	0	0	0	0
2014	4	3	1	0	0	0	0	0
2015	10	8	1	1	0	0	0	0
2016	34	22	1	11	1	0	0	1

Warwick					Population: 780			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	2	0	0	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	1	1	0	0	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	1	0	1	0	0	0	0	0

Wendell					Population: 848			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	1	1	0	0	0	0	0	0
2014	2	1	0	1	0	0	0	0
2015	8	6	1	1	0	0	0	0
2016	9	4	1	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
2012	8	0	1	7	1	0	0	1
2013	5	1	1	3	0	0	0	0
2014	4	1	3	0	0	0	0	0
2015	3	2	0	1	0	0	0	0
2016	11	2	2	7	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
11013	Ashfield	184	20	0	110	19	12	3	13	7	0
11029	Bernardston	286	34	0	177	26	17	14	15	2	1
11047	Buckland	41	6	0	6	7	10	6	2	0	4
11053	Charlemont	78	11	0	21	11	6	8	20	1	0
11066	Colrain	204	31	0	114	25	21	7	4	0	2
11068	Conway	58	13	0	7	25	6	0	7	0	0
11975	Deerfield	140	11	0	19	24	16	10	59	0	1
11091	Erving	154	32	0	96	3	7	2	13	0	1
11106	Gill	122	15	0	11	10	33	5	31	4	13
11114	Greenfield	2,441	88	1	1,429	239	190	207	276	8	3
11129	Hawley	33	6	0	19	3	4	0	1	0	0
11130	Heath	68	11	0	29	15	3	3	6	0	1
11154	Leverett	155	13	0	95	14	7	8	17	0	1
11156	Leyden	13	4	0	2	5	1	1	0	0	0
11190	Monroe**	0	0	0	0	0	0	0	0	0	0
11192	Montague Center	191	15	0	11	26	25	105	8	0	1
11204	New Salem	97	16	0	47	16	10	3	4	1	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
11217	Northfield	90	19	2	10	18	20	5	16	0	0
11223	Orange	2,177	67		1,348	45	386	50	105	3	173
11253	Rowe	4	0	0	4	0	0	0	0	0	0
11990	Shelburne Ctr	3	3	0	0	0	0	0	0	0	0
11989	Shelburne Falls	106	11	1	6	16	16	11	42	0	3
11272	Shutesbury	63	7	1	39	2	5	2	7	0	0
11976	South Deerfield	51	11	0	7	11	3	3	16	0	0
11289	Sunderland	170	42	1	48	25	2	12	39	1	0
11984	Turners Falls	1,252	59	2	744	73	131	123	107	5	8
11312	Warwick	1	1	0	0	0	0	0	0	0	0
11319	Wendell	61	13	0	28	8	4	1	7	0	0
11337	Whately	58	20	0	17	8	4	1	7	1	0
Total	Franklin County	8,301	579	8	4,444	674	939	590	822	33	212

* Certified no reportable fires.

**Non reporting department.

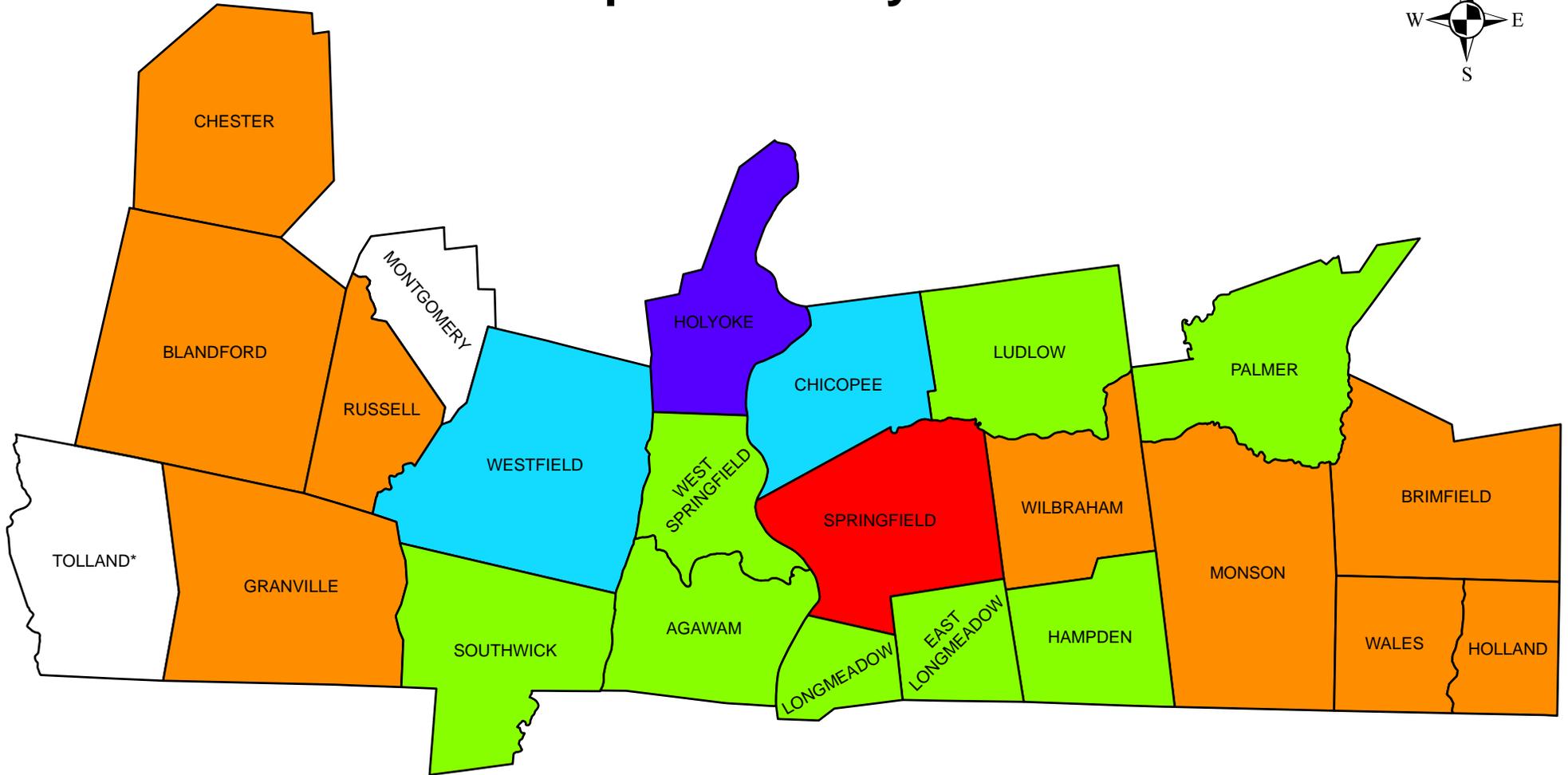
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that want to send all of their responses to do so.



Hampden County

2016 Fire Data Analysis

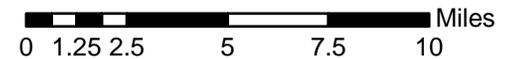
Hampden County Fires 2016



2015 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Hampden County Fires in 2016

2,134 Total Fires — 1,033 Structures, 215 Vehicles & 886 Other Fires

Hampden County ranked sixth out of the fourteen Massachusetts counties in total reported fires. Hampden County fire departments reported 2,134 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 1,033 structure fires, 215 motor vehicle fires, 519 brush, tree or lawn fires, 233 outside rubbish fires, 60 special outside fires, two cultivated vegetation or crop fires, and 72 other fires caused two civilian fire deaths, 29 civilian injuries, 59 fire service injuries and an estimated dollar loss of \$13.4 million. Hampden County's 2,134 fires accounted for 7% of the 31,889 fire incidents reported to MFIRS in 2016.

Twenty-three (23), or 92%, 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 2016.

Structure & Outside & Other Fires Up

The total number of reported fire incidents increased by 58 from the 2,076 reported in 2015. Reported structure fires increased by 12 from the 1,021 reported during the previous year. Motor vehicle fires decreased by 13 from the 228 reported during 2015. Outside and other fires increased by 59 from the 827 reported the year before.

HAMPDEN COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2,188	1,104	220	864	91	34	22	35
2013	2,057	1,088	240	729	60	13	19	28
2014	1,979	1,088	226	665	55	17	6	32
2015	2,076	1,021	228	827	105	29	15	61
2016	2,134	1,033	215	886	94	21	12	61

Fire and Fire Death Rates

Hampden County had 4.6 fires per 1,000 population. That figure ranks Hampden County sixth in the state and just below the state rate of 4.9 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 0.09 fire deaths per 10,000 population.

2 People Died in 2 Hampden County Fires

In 2016, Hampden County had two fatal fires that killed two people.

- On February 21, 2016, at 5:16 a.m., the Wales Fire Department was dispatched to a fire in a single-family home of undetermined cause. The fire started in a greenhouse attached to the house near a space heater plugged into an electrical cord. Investigators could not rule out an electrical malfunction or combustibles too close to the heater. The victim was a 91-year old woman. There were no other injuries associated with

this fire. Alarms were not present. The building was not sprinklered. Damages from this fire were estimated to be \$127,200.

- On April 8, 2016, at 5:32 a.m., the Bondsville Fire Department in Palmer was called to a fatal smoking fire in a single-family home. The fire was started by a cigarette lighter in the living room. The victim was a 69-year old man that was in the area of origin. Two other civilians were injured at this fire. Alarms were present but they did not operate because of missing batteries. The home did not have any sprinklers. Damages from this fire were estimated to be \$16,000.

Hampden Had Largest Loss Fire in Hampden County

There was one reported large loss fire in Hampden County in 2016. Hampden had the largest loss fire.

- On December 12, 2016, at 3:47 p.m., the Hampden Fire Department was dispatched to a candle fire in a single-family home. 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 \$1.2 million.

STRUCTURE FIRES

Reported Structure Fires Up Slightly

The 1,033 structure fires caused both civilian deaths, 25 civilian injuries, 48 fire service injuries and an estimated dollar loss of \$11.6 million. These incidents represented 48% of Hampden County's reported fires in 2016. The average estimated dollar loss per structure fire was \$11,190. The total number of reported structure fires increased by 12, or 1%, from the 1,021 reported in 2015.

Arson Caused 2% of Structure Fires

The 21 structure arsons caused six fire service injuries and an estimated dollar loss of \$700,675. Arson was indicated as the cause of 2% of the structure fires and 6% of Hampden County's structure fire dollar loss. The 21 structure arsons accounted for 22% of the Hampden County arson fires reported in 2016. The total number of reported structure arsons decreased by eight, or 28%, from the 29 reported in 2015.

Over 1/2 of Structure Arsons Occurred in Residences

Fifty-two percent (52%) of Hampden County's 21 structure arsons occurred in residential occupancies. Ten percent (10%) each occurred in institutional facilities, storage facilities, and special properties. Five percent (5%) each occurred in public assembly properties, educational facilities, businesses and manufacturing or processing facilities.

BUILDING FIRES

There were 1,029 building fires of different types in Hampden County in 2016. These 1,029 building fires accounted for 99.6% of all structure fires in Hampden County.

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

Eight hundred and forty-nine (849), or 83%, of Hampden County's 1,029 building fires occurred in residential occupancies. Mercantile and business properties experienced 39 fires. Hospitals, prisons, and other institutional buildings experienced 37 fires. Thirty-six (36) fires took place in public assembly properties, including restaurants and churches. Twenty-eight (28) fires took place in storage properties. Sixteen (16) fires took place in manufacturing and processing facilities. Special properties had 12 fires. Ten (10) building fires took place on educational properties. The property use of two building fires was not reported.

RESIDENTIAL FIRES**Residential Building Fires Up Slightly**

There were 849 reported residential building fires in Hampden County in 2016. These 849 fires are an increase of four, or less than 1%, from the 845 residential building fires reported in 2015.

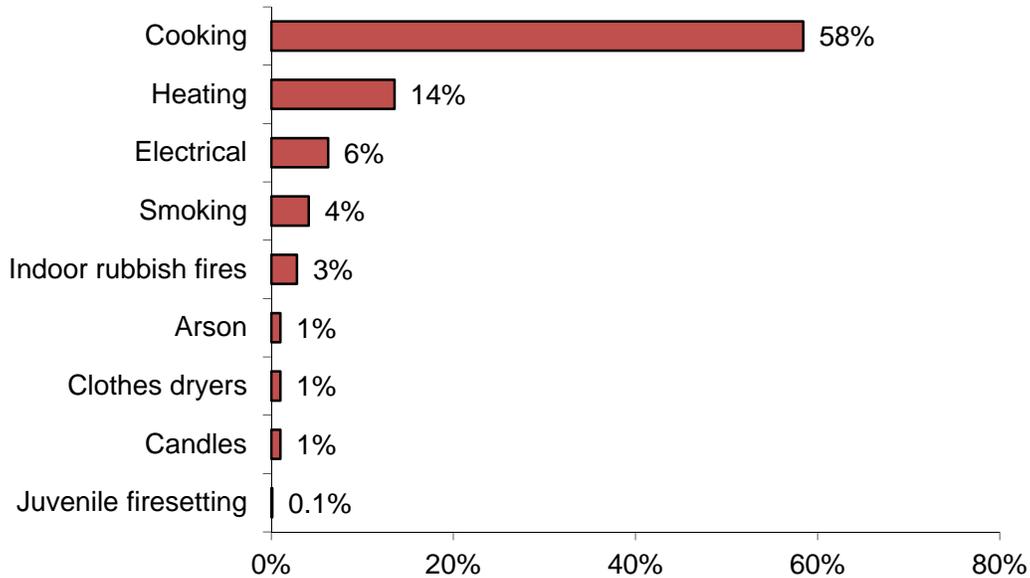
1 & 2-Family Homes Accounted for Over 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for over half, or 52%, of the building fires in Hampden County; 41% occurred in apartments; 2% happened in dormitories; 2% occurred in rooming houses; 1% happened in residential board and care facilities; and 1% happened in hotels or motels. Ten (10), or 1%, of the residential building fires in Hampden County occurred in unclassified residential buildings.

Cooking Causes 58% of Residential Fires

The leading cause of residential building fires in Hampden County was unattended cooking and other unsafe cooking practices, accounting for 58% of these fires. Heating was the second leading cause of fires in people's homes, accounting for 14% of these fires. Electrical problems caused 6% and smoking caused 4%. Indoor rubbish fires started 3% of these fires. Arson, clothes dryers and candles each caused 1% of these fires. Juvenile-set fires caused less than 1% of residential fires in Hampden County in 2016.

2016 Leading Causes of Fires in Hampden County Homes



69% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Five hundred and eighty-three (583), or 69% of all residential building fires, were reported as confined to non-combustible containers in 2016. Four hundred and fifty-nine (459) of the reported fires were cooking fires contained to a non-combustible container, accounting for 54% of residential building fires. Fifty-seven (57), or 7%, were fires confined to a fuel burner or boiler malfunction. Forty-three (43), or 5%, of all residential building fires reported in 2016 were fires confined to a chimney. Twenty-two (22), or 3%, of these fires were contained rubbish fires. One (1), or less than 1%, of confined fires, was a confined commercial compactor fire; and another one, or less than 1%, was a fire contained to an incinerator.

Detector Operation Undetermined in Over 1/2 of Fires

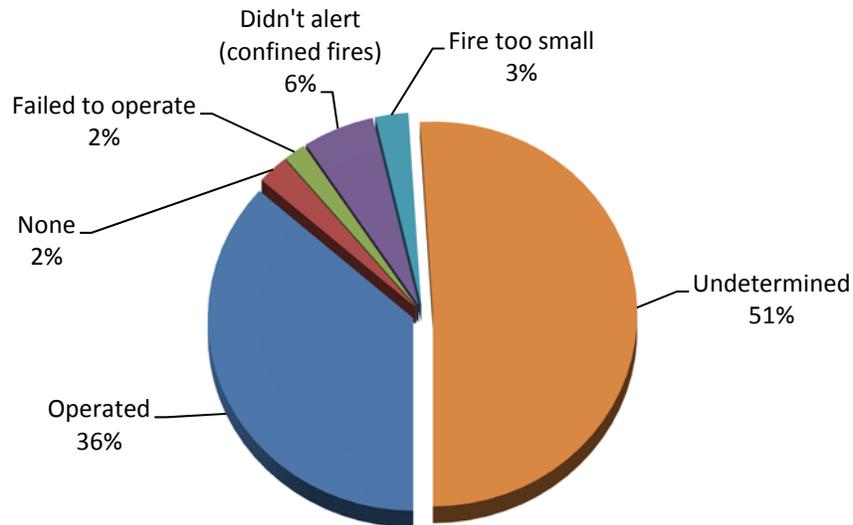
Smoke or heat detectors operated and alerted the occupants in 310, or 36%, of the residential building fires. In 6% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the

¹ 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.

² These represent confined fires where it was reported that the detector did not alert the occupants.

residential fires. Smoke detector performance was undetermined in 433 incidents, or 51%, of Hampden County’s residential building fires.

Detector Status in Hampden County's Residential Structure Fires 2016



5 of Failed Detectors Had Missing or Disconnected Batteries

Of the 15 fires where smoke detectors were present but failed to operate, five, or 33%, failed because the batteries were either missing or disconnected. In one fire, or 7%, the detector failed because of dead batteries. Nine (9), or 60%, of the detectors failed for unclassified or undetermined reasons.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Hampden County reported 22 fires that occurred in buildings that were vacant, under construction or demolition. This represents 2% of the total 1,029 building fires reported to MFIRS in 2016. Thirteen (13) fires occurred in vacant residential properties. Seven (7) fires in storage facilities were reported as vacant building fires. Mercantile and business properties accounted for the other two vacant building fires.

Three (3), or 14%, of the vacant building fires in Hampden County in 2016 were determined to be intentionally set.

JUVENILE-SET FIRES

13 Juvenile-set Fires

There were 13 reported juvenile-set fires in Hampden County in 2016. There were three structure fires, nine brush fires and one unclassified fire. These 13 fires caused one civilian injury and \$5,050 in estimated damages.

ARSONS

94 Total Arsons — 21 Structures, 12 Vehicles & 61 Other Arsons

Ninety-four (94), or 4%, of Hampden County's 2,134 fires were considered intentionally set, or, for purposes of this analysis, arson. The 21 structure arsons, 12 motor vehicle arsons and 61 outside and other arsons caused an estimated dollar loss of \$741,125.

All Arson Down

The total number of reported arson fires decreased by 11 from the 105 reported in 2015. Structure arsons decreased by eight from the 29 reported in 2015. Motor vehicle arsons decreased by three from the 15 reported in 2015. Outside and other fires remained the same with 61 reported in both 2015 and 2016.

ALL INCIDENTS

Rescue & EMS Calls Are 54% of All Reported Responses

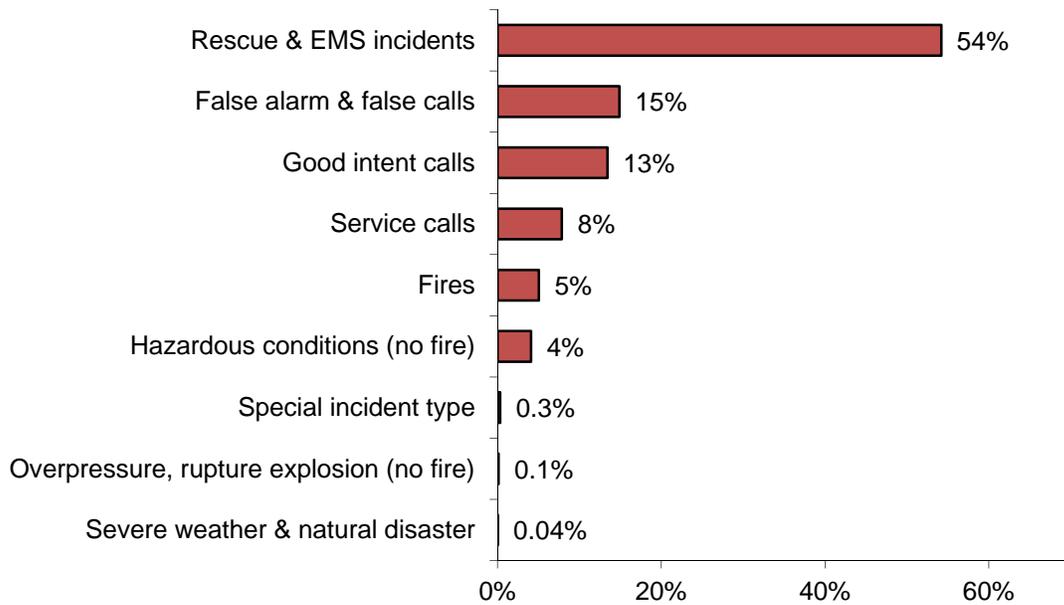
In 2016, fire departments in Hampden County reported 44,526 responses³ to MFIRS. Of these 44,526 incidents, 42,274 non-fire calls were voluntarily reported.

Of these 42,274 non-fire calls, 24,132, or 54% of all reported responses in 2016, were reported rescue and emergency medical services (EMS) calls; 6,628, or 15%, were reported false alarm or false calls; 5,976, or 13%, were reported good intent calls; 3,498, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,821, or 4%, were reported hazardous condition calls with no fire; 143, or 0.3%, were special incident type calls such as citizen complaints; 60, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 16, or 0.04%, were severe weather responses.

Two thousand two hundred and fifty-two (2,252), or 5%, of the total responses submitted by Hampden County fire departments were fires.

³ These figures include responses in which Hampden County fire departments gave mutual aid to other fire departments.

2016 Responses by Incident Type



Hampden County Fire Departments Gave Mutual Aid 585 Times

In 2016, Hampden County fire departments reported coming to the aid of other fire departments 585 times. Of these 585 responses, 291, or 50%, were for rescue or EMS calls; 120, or 21%, were for service calls such as cover assignments; 114, or 20%, were for fires; 31, or 5%, were for good intent calls; 16, or 3%, were for false alarms or false calls; 11, or 32%, were for hazardous conditions calls with no fire; and two, or less than 1%, were special incident types.

Hampden County Received Mutual Aid in 659 Incidents

In 2016, Hampden County fire departments reported receiving aid from surrounding departments in 659 incidents. Of these 659 incidents, 544, or 83%, were rescue and emergency medical services calls; 81, or 12%, were for fires; 14, or 2%, were false alarms or false calls; 10, or 2%, were hazardous conditions calls with no fire; six, or 1%, were good intent calls; and four, or 1%, were service calls.

Hampden County**Population: 463,490****4.6 Fires/1,000 Population****Total Fires: 2,134 \$13,382,435**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,033	48%	\$11,558,957
Vehicle Fires	215	10%	1,481,039
Other Fires	886	42%	342,439

2 Fatal Fires	0.94 Civilian Deaths/1,000 Fires ²
2 Civilian Deaths	0.04 Civilian Deaths/10,000 Population
29 Civilian Injuries	59 Fire Service Injuries

Building Fires: 1,029**Residential Structure Fires: 849****Residential Structure Fires Confined to Non-Combustible Containers: 583****Unconfined Residential Structure Fires: 266**

2 Civilian Deaths	25 Civilian Injuries	37 Fire Service Injuries
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Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	489	52%	Operated	310	36%
Apartments	351	41%	Didn't operate	15	2%
Rooming houses	17	2%	None	21	2%
Dormitories	15	1%	Fire too small	22	3%
Residential board & care	9	1%	Didn't alert (confined)	48	6%
Hotels or motels	8	1%	Undetermined	433	51%

Area of Origin⁴	%	Heat Source	%	% Unconfined⁵
Kitchen	62%	Heat from operating equip.	4%	14%
Heating room or area	7%	Cigarette	3%	9%
Chimney, flue	5%	Rad., cond. heat/oper. eq.	3%	9%
Bedroom	4%	Arcing	3%	9%
Exterior balcony/unencl. porch	2%	Hot or smoldering object	2%	8%

⁴ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁵ 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 Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	57%	Equipment unattended	7%	22%
Flammable or combust. liquid	7%	Too close to combustibles	5%	15%
Film, residue (creosote)	5%	Misuse of mat./prod. other	3%	9%
Rubbish, trash, waste	3%	Failure to clean	3%	9%
Structural member, framing	3%	Electrical failure/malfunc.	3%	7%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	58%	Unintentional	16%	61%
None	20%	Failure of eq./heat source	4%	13%
Boiler, furnace, cent. heat unit	7%	Intentional	1%	3%
Chimney or flue	5%	Act of Nature	0.3%	1%
Electrical wiring, other	1%	Undetermined	2%	6%
		Cause under investigation	4%	15%

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

Alerted occupants	36%
Didn't alert occupants	8%
Undetermined	56%

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

⁷ 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.

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

⁹These 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	91	10	36
February	130	81	21	28
March	184	87	18	79
April	238	105	12	121
May	186	86	26	74
June	215	71	19	125
July	230	77	21	132
August	205	71	29	105
September	161	81	17	63
October	151	85	19	47
November	153	90	10	53
December	144	108	13	23

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	313	170	21	122
Monday	312	149	39	124
Tuesday	282	131	29	122
Wednesday	311	138	37	136
Thursday	305	158	28	119
Friday	269	121	27	121
Saturday	342	166	34	142

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	164	76	29	59
04:01 – 08:00	139	68	19	52
08:01 – 12:00	336	184	36	116
12:01 – 16:00	588	261	57	270
16:01 – 20:00	565	284	39	242
20:01 – 00:00	342	160	35	147

Motor Vehicle Fires

Total: 215

Automobiles: 178 (83%)

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

Arson Fires**Total Arsons: 94****Dollar loss: \$741,125****0.20 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	21	2%	22%	\$700,675
Vehicle Arsons	12	6%	13%	38,400
Other Arsons	61	7%	65%	2,050

0.05 Structure arsons/1,000 population

0.03 Vehicle arsons/1,000 population

0.13 Other arsons/1,000 population

7 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	6	29%	00:01 - 04:00	4	33%
08:01 - 12:00	5	24%	04:01 - 08:00	3	25%
00:01 - 04:00	4	19%	20:01 - 00:00	3	25%
20:01 - 00:00	4	19%			

Other Arsons	#	%
16:00 - 20:00	18	30%
20:01 - 00:00	18	30%
12:01 - 16:00	13	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	7	33%
Apartment buildings	4	19%

Agawam					Population: 28,438			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	63	33	2	28	1	0	1	0
2013	60	30	10	20	1	0	1	0
2014	87	38	12	31	1	1	0	0
2015	80	34	8	38	1	0	0	1
2016	77	26	8	43	4	0	0	0

Blandford					Population: 1,233			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	8	0	2	6	1	0	0	1
2013	12	1	1	10	8	0	0	8
2014	2	1	0	1	0	0	0	0
2015	7	3	3	1	0	0	0	0
2016	4	0	0	4	0	0	0	0

Brimfield					Population: 3,609			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5	1	1	3	0	0	0	0
2013	16	10	3	3	0	0	0	0
2014	15	6	0	9	1	0	0	1
2015	13	2	4	7	1	1	0	0
2016	21	8	5	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
2012	4	3	0	1	0	0	0	0
2013	6	2	0	4	0	0	0	0
2014	3	2	0	1	0	0	0	0
2015	13	5	0	8	4	0	0	4
2016	2	2	0	0	0	0	0	0

Chicopee					Population: 55,298			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	228	104	24	100	8	2	3	3
2013	206	116	28	62	4	3	1	0
2014	164	95	17	52	2	0	0	2
2015	197	85	19	93	3	0	0	3
2016	176	85	13	78	3	0	1	2

East Longmeadow					Population: 15,720			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	31	11	2	18	2	0	1	1
2013	39	21	2	16	0	0	0	0
2014	51	25	3	23	7	2	0	5
2015	57	24	6	27	3	0	1	2
2016	46	21	5	20	4	0	0	4

Granville					Population: 1,566			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	8	3	0	5	0	0	0	0
2013	14	5	3	6	0	0	0	0
2014	6	3	0	3	0	0	0	0
2015	13	3	4	6	1	0	0	1
2016	4	0	1	3	0	0	0	0

Hampden					Population: 5,139			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	28	24	1	3	0	0	0	0
2013	34	22	3	9	4	0	0	4
2014	36	27	0	9	0	0	0	0
2015	40	24	3	13	0	0	0	0
2016	38	20	0	18	0	0	0	0

Holland					Population: 2,481			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	6	3	2	1	0	0	0	0
2013	7	7	0	0	0	0	0	0
2014	4	2	1	1	0	0	0	0
2015	15	6	3	6	1	0	0	1
2016	11	8	0	3	0	0	0	0

Holyoke					Population: 39,880			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	201	105	25	71	11	3	0	8
2013	272	128	23	121	6	2	0	4
2014	324	181	29	114	11	5	0	6
2015	362	222	33	107	42	12	2	28
2016	445	262	36	147	39	8	4	27

Longmeadow					Population: 15,784			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	34	13	3	18	1	1	0	0
2013	32	16	6	10	1	0	0	1
2014	35	15	6	14	1	0	0	1
2015	36	18	7	11	2	0	0	2
2016	42	15	8	19	4	0	0	4

Ludlow					Population: 21,103			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	77	43	6	28	7	3	1	3
2013	64	32	12	20	3	1	0	2
2014	45	18	12	15	2	0	1	1
2015	53	24	4	25	2	0	1	1
2016	64	33	7	24	0	0	0	0

Monson					Population: 8,560			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	65	14	5	46	0	0	0	0
2013	51	18	1	32	3	0	0	3
2014	34	15	2	17	5	0	0	5
2015	40	14	5	21	7	1	0	6
2016	22	5	1	16	4	0	0	4

Montgomery					Population: 838			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Non-Reporting Community							
2013	Non-Reporting Community							
2014	Non-Reporting Community							
2015	Non-Reporting Community							
2016	Non-Reporting Community							

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
2012	5	3	1	1	0	0	0	0
2013	5	3	0	2	0	0	0	0
2014	Non-Reporting Community							
2015	7	5	0	2	1	0	0	1
2016	15	6	1	8	1	0	0	1

Palmer District # 1					Est. Pop. Protected: 5,584			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	53	22	4	27	6	2	1	3
2013	33	20	7	6	1	0	0	1
2014	36	19	7	10	2	1	0	1
2015	40	19	16	5	1	1	0	0
2016	38	17	9	12	1	0	0	1

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	8	1	0	7	0	0	0	0
2013	3	1	2	0	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	15	5	0	10	0	0	0	0
2016	13	2	1	10	3	0	0	3

Russell**Population: 1,775**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	9	2	2	5	0	0	0	0
2013	10	2	1	7	0	0	0	0
2014	8	3	1	4	0	0	0	0
2015	2	0	1	1	1	0	0	1
2016	7	2	1	4	0	0	0	0

Southwick**Population: 9,502**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	49	18	8	23	3	1	1	1
2013	34	13	2	19	0	0	0	0
2014	32	17	2	13	2	0	0	2
2015	40	17	3	20	11	5	0	6
2016	56	22	2	32	1	0	0	1

Springfield**Population: 153,060**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1,004	548	98	358	19	9	2	8
2013	838	464	96	277	21	5	13	3
2014	779	439	87	253	18	6	5	7
2015	723	356	74	293	23	8	11	4
2016	782	371	87	324	24	11	7	6

Tolland					Population: 485			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	0	0	1	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Non-Reporting Community							
2016	Non-Reporting Community							

Wales					Population: 1,838			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Non-Reporting Community							
2013	Non-Reporting Community							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Non-Reporting Community							
2016	1	1	0	0	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
2012	104	47	16	41	2	1	0	1
2013	118	61	21	36	4	0	3	1
2014	124	67	20	37	1	0	0	1
2015	129	60	14	55	2	1	0	1
2016	91	47	8	36	4	0	0	4

Westfield					Population: 41,094			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	144	82	16	46	3	1	0	2
2013	161	94	16	51	2	1	1	0
2014	141	89	17	35	2	2	0	0
2015	139	72	20	47	0	0	0	0
2016	148	62	18	68	1	1	0	0

Wilbraham					Population: 14,219			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	51	22	2	27	3	1	0	2
2013	41	21	3	17	2	1	0	1
2014	39	19	7	13	0	0	0	0
2015	54	22	1	31	0	0	0	0
2016	31	18	4	9	1	1	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
13005	Agawam	2,398	78	2	1,492	54	376	129	229	0	38
13033	Blandford	86	5	0	64	1	2	3	11	0	0
13987	Bondsville	72	27	0	3	6	13	5	16	0	2
13043	Brimfield	393	43	2	253	7	21	33	27	7	0
13059	Chester	35	8	0	21	1	3	2	0	0	0
13061	Chicopee	5,103	177	2	2,828	128	689	575	670	0	34
13085	East Longmeadow	824	47	0	191	95	130	60	298	1	2
13112	Granville	161	10	0	103	16	11	5	16	0	0
13120	Hampden	110	39	0	14	17	6	6	28	0	0
13135	Holland	235	16	0	163	7	20	18	11	0	0
13137	Holyoke	4,989	453	8	1,903	147	192	1,357	920	1	8
13159	Longmeadow	2,392	50	3	1,562	91	218	130	335	1	2
13161	Ludlow	945	69	1	374	85	130	88	196		2
13191	Monson	207	32	0	39	31	43	24	34	2	2
13194	Montgomery**	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
13256	Russell	76	13	0	43	8	3	0	9	0	0
13986	Palmer #1	398	38	0	10	82	112	54	99	1	2
13279	Southwick	201	59	0	25	27	9	15	61	2	3
13281	Springfield	15,035	787	36	7,351	742	728	2,836	2,543	0	12
13988	Three Rivers	154	13	0	11	19	41	18	48	0	4
13297	Tolland**	0	0	0	0	0	0	0	0	0	0
13306	Wales	1	1	0	0	0	0	0	0	0	0
13325	West Springfield	6,545	98	3	5,522	117	263	188	344	0	10
13329	Westfield	2,883	152	2	1,266	109	383	356	597	0	18
13339	Wilbraham	1,283	37	1	894	31	105	74	136	1	4
Hampden County		44,526	2,252	60	24,132	1,821	3,498	5,976	6,628	16	143

* Certified no reportable fires.

**Non reporting department.

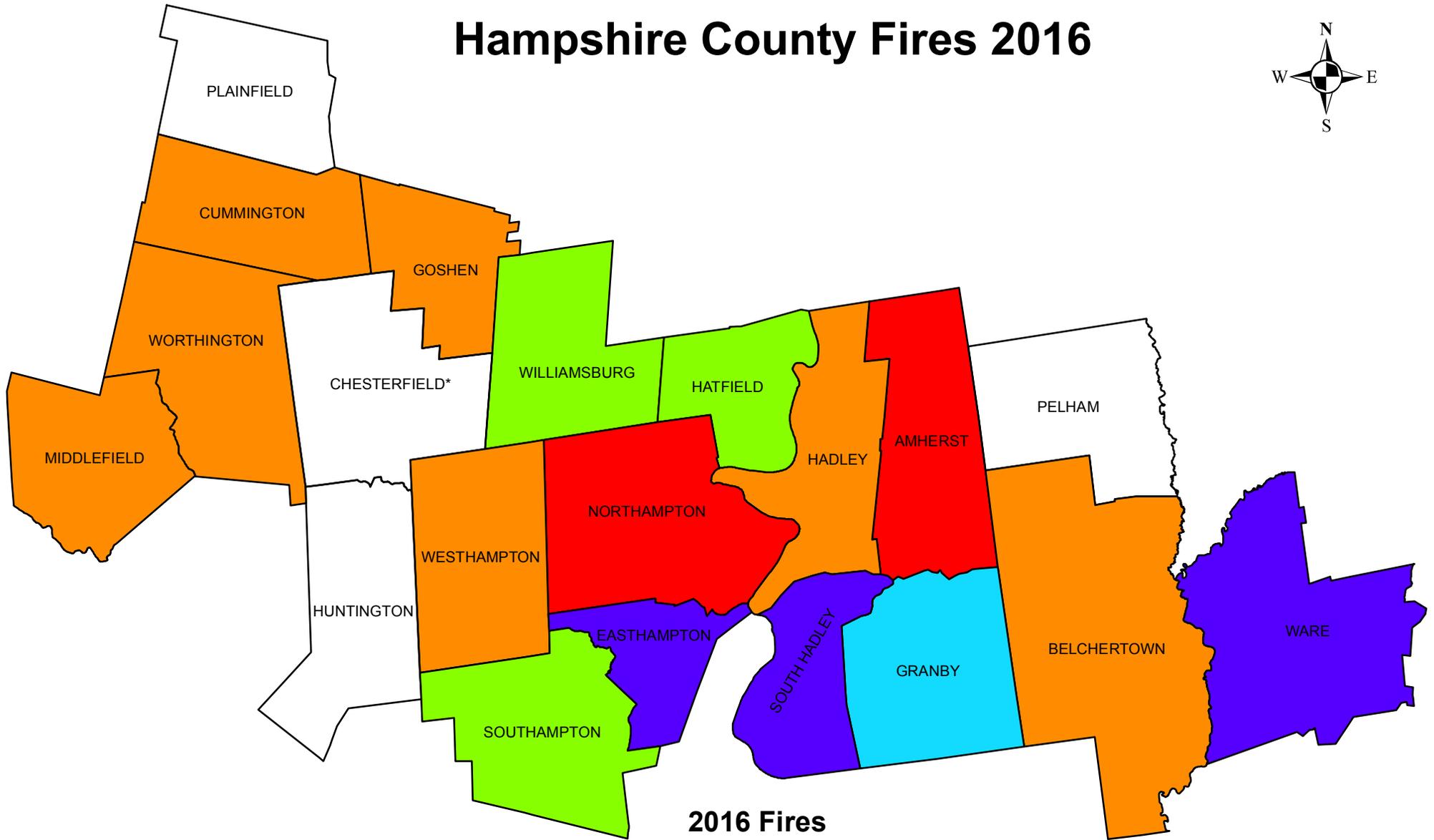
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



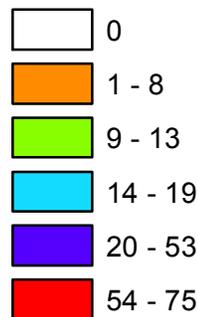
Hampshire County

2016 Fire Data Analysis

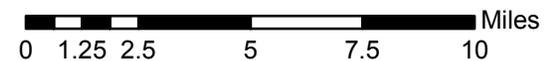
Hampshire County Fires 2016



2016 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2016

Hampshire County Fires in 2016

369 Total Fires — 168 Structures, 30 Vehicles & 171 Other Fires

Hampshire County ranked eleventh out of the fourteen Massachusetts counties in total reported fires. Hampshire County fire departments reported 369 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 168 structure fires, 30 motor vehicle fires, 96 brush, tree or lawn fires, 35 outside rubbish fires, 18 special outside fires, one cultivated vegetation or crop fire, and 21 other fires caused 11 civilian injuries, seven fire service injuries and an estimated dollar loss of \$5.2 million. Hampshire County's 369 total reported fires accounted for 1% of the 31,889 fires reported to MFIRS in 2016.

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 2016.

All Fires Down

The total number of reported fire incidents decreased by 136 from the 505 reported in 2015. Reported structure fires decreased by 34 from the 202 reported during the previous year. Motor vehicle fires decreased by 15 from 45 the year before. The number of outside and other fires decreased by 87 from 258 in 2015.

HAMPSHIRE COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	544	209	46	289	43	4	0	39
2013	512	244	42	226	33	5	0	28
2014	415	210	34	171	30	2	0	28
2015	505	202	45	258	35	6	1	28
2016	369	168	30	171	24	5	1	18

Fire and Fire Death Rates

Hampshire County had 2.3 fires per 1,000 population. That figure ranks Hampshire County fourteenth in the state and below the state rate of 4.9 fires per 1,000 population. Hampshire County also had zero fire deaths per 10,000 population, ranking it tied for twelfth among Massachusetts counties and below the state rate of 0.09 fire deaths per 10,000 population.

Hampshire County Has 0 Fire Deaths in 2016

There were no reported fire deaths in Hampshire County in 2016.

Amherst Has County's Largest Loss Fire

There were no reported fires in Hampshire County with a dollar loss greater than \$1 million in 2016. The largest loss fire was reported by Amherst. This fire was responsible for 15% of the county's total dollar loss in 2016.

- On June 4, 2016, at 1:24 p.m., the Amherst Fire Department was dispatched to a clothes dryer fire in an 8-unit apartment building. 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 \$800,000.

STRUCTURE FIRES

Reported Structure Fires Down

The 168 structure fires caused six civilian injuries, six fire service injuries and an estimated dollar loss of \$5 million. These incidents represent 46% of Hampshire County's reported fires in 2016. The average estimated dollar loss per structure fire was \$29,692. The total number of reported structure fires decreased by 34, or 17%, from the 202 reported in 2015.

4 Structure Arsons

Five (5) structure arsons caused an estimated dollar loss of \$103,000. Arson was indicated as the cause of 3% of the structure fires and 2% of Hampshire County's structure fire dollar loss. The five structure arsons accounted for 21% of the Hampshire County arson fires reported in 2016. The total number of reported structure arsons decreased by one, or 17%, from six reported in 2015.

BUILDING FIRES

There were 168 building fires of different types in Hampshire County in 2016. These 168 building fires accounted for all structure fires in Hampshire County.

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

One hundred and thirty-four (134), or 80%, of Hampshire County's 168 building fires occurred in residential occupancies. Nine (9) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had eight fires. Storage facilities experienced six fires. Five (5) fires occurred in educational facilities. Institutional facilities had two fires. Special properties had two fires. Manufacturing and processing facilities and an industrial facility each had one fire in Hampshire County in 2016.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 134 reported residential building fires in Hampshire County in 2016. Residential fires decreased by 37 from the 171 reported in 2015.

1- & 2-Family Homes Accounted for 53% of Residential Building Fires

The peak fixed property use for residential building fires were 1- & 2-family homes, accounting for 53% of the residential building fires in Hampshire County; 25% occurred in apartments; 17% occurred in dormitories. One percent (1%) each happened in rooming houses, residential board and care facilities and hotels or motels. Two percent (2%) of the

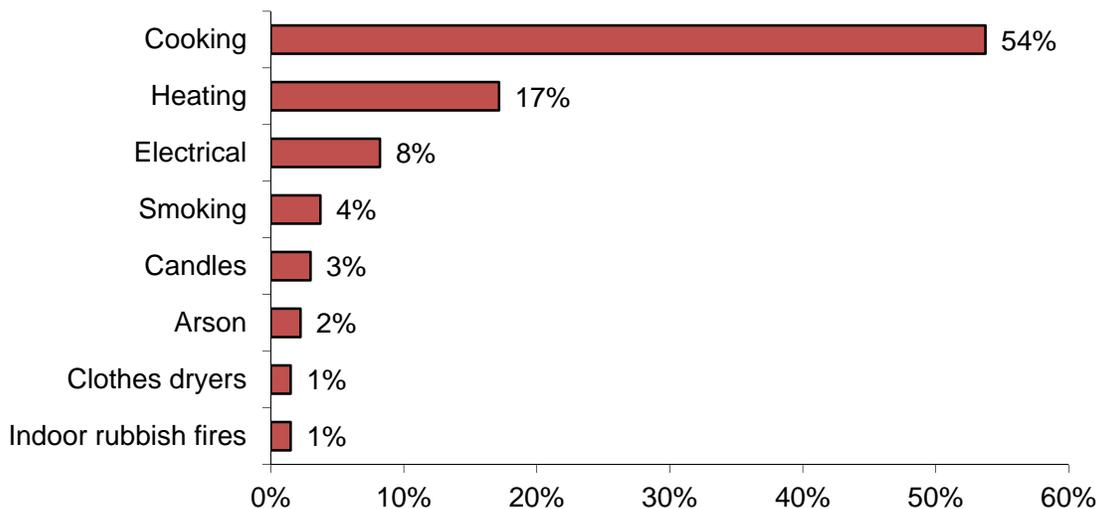
residential building fires in Hampshire County also occurred in unclassified residential buildings.

Although much of Hampshire County is rural, the county is home to several colleges and the main campus of the University of Massachusetts. Twenty-three (23), or 17%, of Hampshire County's residential fires occurred in dormitories. Dormitory fires make up smaller percentages of the other counties' fires.

Cooking Causes Over 1/2 of Residential Fires

Unattended cooking and other unsafe cooking practices was the leading cause of the 134 residential building fires in Hampshire County, accounting for 54% of these fires. Heating equipment fires accounted for 17% of home fires. Electrical problems caused 8% of the residential fires. Smoking fires were responsible for 4% of these fires. Candles accounted for 3% and arson caused 2%. Clothes dryers and indoor rubbish fires each accounted for 1% of the residential fires in Hampshire County in 2016.

2016 Leading Causes of Fires in Hampshire County Homes



66% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Eighty-eight (88), or 66%, of all residential building fires were reported as confined to non-combustible containers in 2016. Sixty-eight (68) of the reported fires were cooking fires contained to a non-combustible container, accounting for 51% of residential

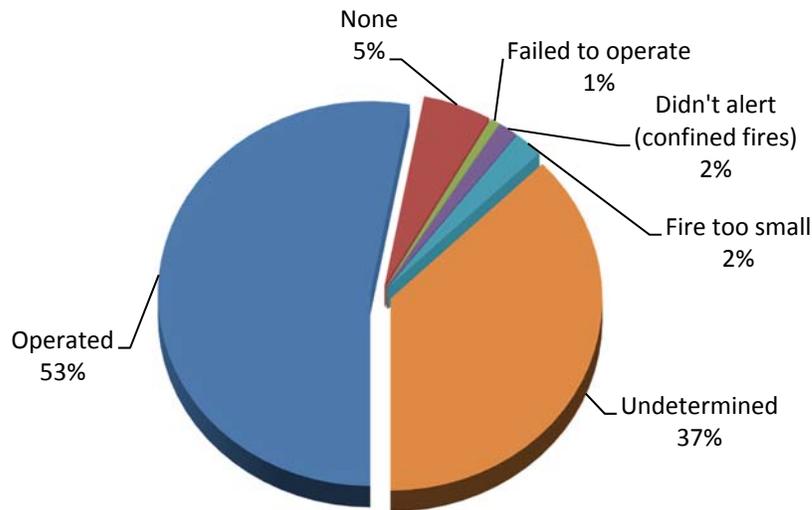
¹ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved In Ignition. These incidents are not included in the analysis of these fields.

building fires. Fourteen (14), or 17%, of all residential building fires reported in 2016 were fires confined to a chimney. Four (4), or 3%, were fires confined to a fuel burner or boiler malfunction. Two (2), or 1%, of these fires were indoor rubbish fires contained to a non-combustible container in Hampshire County in 2016.

Detectors Operated in 53% of Fires

Smoke or heat detectors operated and alerted the occupants in 71, or 53%, of the residential building fires. In 5% of these fires², 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 2% of the residential fires. Smoke detector performance was undetermined in 50 incidents, or 37%, of Hampshire County’s residential building fires.

Detector Status in Hampshire County's Residential Structure Fires 2016



1 Detector Failed From a Dead Battery

One (1) detector failed in Hampshire County in 2016 because of a dead battery.

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 168 building fires reported to MFIRS in 2016. A residential property, a business, a public assembly facility, an educational facility, a storage property and a special property each had a reported fire in a vacant building.

² These represent confined fires where it was reported that the detector did not alert the occupants.

None of the vacant building fires in Hampshire County in 2016 were determined to be intentionally set.

JUVENILE-SET FIRES

2 Juvenile-set Fires

There were two reported juvenile-set fires in Hampshire County in 2016. There was one brush fire and one unclassified fire. Neither of these fires caused any damages.

ARSONS

24 Total Arsons — 5 Structures, 1 Motor Vehicle & 18 Other Arsons

Twenty-four (24), or 7%, of Hampshire County's 369 fires were intentionally set, or, for purposes of this analysis, arson. The five structure arsons, one motor vehicle arson, 12 brush arsons, two outside rubbish arsons, one special outside arson, and three unclassified arsons caused one fire service injury and an estimated dollar loss of \$143,202.

All Arsons Decrease

The total number of reported arson fires decreased by 11 from the 35 reported in 2015. Structure arsons decreased by one from six reported the previous year. Motor vehicle arsons remained the same with one reported in both 2015 and 2016. Reported outside and other arsons decreased by 10 from the 28 reported in 2015.

ALL INCIDENTS

Rescue & EMS Calls Are 65% of All Reported Responses

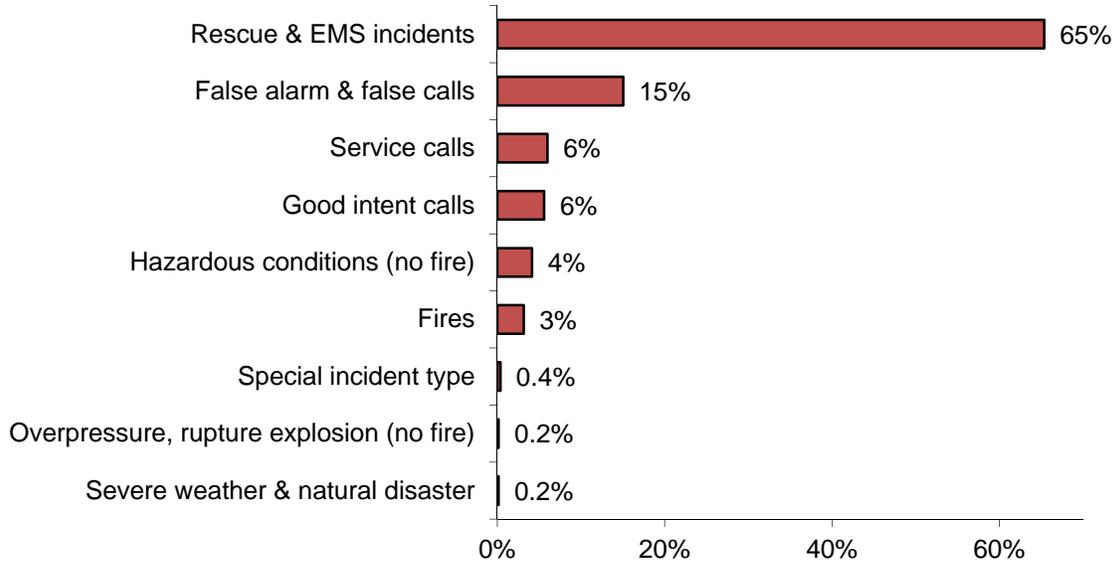
In 2016, Hampshire County fire departments reported 13,778 responses³ to MFIRS. Of these 13,778 incidents, 13,343 non-fire calls were voluntarily reported.

Of these 13,343 non-fire calls, 9,005, or 65%, of all the responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 2,074, or 15%, were reported false alarm or false calls; 826, or 6%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 771, or 6%, were reported good intent calls; 572, or 4%, were reported hazardous condition calls with no fire; 52, or 0.4%, were special incident type calls such as citizen complaints; 22, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 21, or 0.2%, were severe weather responses.

Four hundred and thirty-five (435), or 3%, of the total responses submitted by Hampshire County fire departments were fires.

³ These figures include responses in which Hampshire County fire departments gave mutual aid to other fire departments.

2016 Responses by Incident Type



Hampshire County Fire Departments Gave Mutual Aid 361 Times

In 2016, Hampshire County fire departments reported coming to the aid of other fire departments 361 times. Of these 361 responses, 203, or 56%, were for rescue or EMS calls; 66, or 18%, were for fires; 47, or 13%, were for good intent calls; 31, or 9%, were for service calls such as cover assignments; seven, or 2%, were for false alarms or false calls; five, or 1%, were hazardous conditions calls with no fire; and two calls, or 1%, were for special incident types.

Hampshire County Received Mutual Aid in 235 Incidents

In 2016, Hampshire County fire departments received aid from surrounding departments in 235 incidents. Of these 235 incidents, 182, or 77%, were rescue and emergency medical services calls; 36, or 15%, were for fires; seven, or 3%, were false alarm or false calls; four were good intent calls accounting for 2%; four, or 2%, were service calls; one, or 0.4%, was a hazardous conditions call with no fire; and one, or 0.4%, was a reported overpressure, rupture, explosion or overheat call with no fire in Hampshire County in 2016.

Hampshire County

Population: 158,080

2.3 Fires/1,000 Population

Total Fires: 369 \$5,204,955

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	168	46%	\$4,988,232
Vehicle Fires	30	8%	108,203
Other Fires	171	46%	108,520

0 Fatal Fire 0.00 Civilian Deaths/1,000 Fires
 0 Civilian Death 0.00 Civilian Deaths/10,000 Population
 11 Civilian Injuries 7 Fire Service Injuries

Building Fires: 168

Residential Structure Fires: 134

Residential Structure Fires Confined to Non-Combustible Containers: 88

Unconfined Residential Structure Fires: 46

2 Civilian Injuries 6 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	71	53%	Operated	71	53%
Apartments	34	25%	Didn't operate	1	1%
Dormitories	23	17%	None	7	5%
Rooming houses	1	1%	Fire too small	3	2%
Residential board & care	1	1%	Didn't alert (confined)	2	2%
Hotel or motel	1	1%	Undetermined	50	37%

Area of Origin⁴	%	Heat Source	%	% Unconfined⁵
Kitchen	53%	Arcing	6%	17%
Chimney or flue	10%	Heat oper. equipment, other	5%	15%
Heating room or area	4%	Hot embers or ash	4%	13%
Bedroom	4%	Candles	3%	9%
Vehicle storage area, garage	2%	Cigarette	2%	7%
Ext. balcony, unencl. porch	2%	Radiated, con. Heat op. eq.	2%	7%
Substructure area, crawl space	2%			
Wall surface, exterior	2%			

⁴ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁵ 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 Ignited⁶	%	Factor Contrib. to Ignit.	%	% Unconfined⁷
Food, cooking materials	53%	Electrical failure, malfunc.	4%	13%
Film, residue (creosote)	10%	Abandoned materials	4%	11%
Exterior sidewall covering	4%	Too close to combustibles	4%	11%
Flamm. or combustible liquid	3%	Equipment unattended	4%	11%
Structural comp. or finish, other	2%	Failure to clean	4%	11%
Structural member, framing	2%	Mechanical failure, malfunc.	2%	7%

Equipment⁸	%	Cause of Ignition	%	% Unconfined⁹
Cooking equipment	54%	Unintentional	22%	63%
None	19%	Failure of eq. or heat source	6%	17%
Chimney or flue	10%	Intentional	1%	4%
Boiler, furnace, cent. heat unit	3%	Cause under investigation	1%	2%
		Undetermined	4%	11%
		Act of nature	1%	2%

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

Alerted occupants	52%
Didn't alert occupants	2%
Undetermined	45%

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

⁷ 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.

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 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	15	4	12
February	12	10	1	1
March	33	12	0	21
April	57	16	3	38
May	38	14	3	21
June	27	10	2	15
July	35	13	1	21
August	27	12	3	12
September	26	17	2	7
October	25	10	6	9
November	27	18	1	8
December	31	21	4	6

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	55	23	3	29
Monday	54	21	6	27
Tuesday	58	34	2	22
Wednesday	41	23	5	13
Thursday	51	29	5	17
Friday	48	21	6	21
Saturday	62	17	3	42

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	27	16	0	11
04:01 - 08:00	20	9	4	7
08:01 - 12:00	68	32	4	32
12:01 - 16:00	96	31	9	56
16:01 - 20:00	108	56	8	44
20:01 - 00:00	50	24	5	21

Motor Vehicle Fires

Total: 30

Automobiles: 24 (80%)

1, or (4%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 24

Dollar loss: \$143,202

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	5	3%	21%	\$103,000
Vehicle Arsons	1	3%	4%	40,100
Other Arsons	18	11%	75%	102

0.03 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.11 Other arsons/1,000 population

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 04:00	2	40%	16:01 – 20:00	1	100%
04:01 - 08:00	2	20%			
16:01 - 20:00	1	20%			

Other Arsons	#	%
16:01 - 20:00	6	33%
08:01 - 12:00	4	22%
12:01 - 16:00	3	17%
20:01 - 00:00	3	17%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family home	1	20%
Apartments	1	20%
Dormitory type residence, other	1	20%
Outbuilding or shed	1	20%
Parking garage (detached residential garage)	1	20%

Amherst					Population: 37,819			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	107	39	7	61	17	2	0	14
2013	99	42	6	51	9	3	0	6
2014	80	44	9	27	5	1	0	4
2015	93	26	5	62	8	0	0	8
2016	75	27	4	44	1	0	0	1

Belchertown					Population: 14,649			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	51	22	6	23	0	0	0	0
2013	59	28	6	25	2	0	0	2
2014	37	14	2	21	8	0	0	8
2015	34	14	2	18	0	0	0	0
2016	8	2	0	6	0	0	0	0

Chesterfield					Population: 1,222			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5	1	1	3	0	0	0	0
2013	7	4	1	2	0	0	0	0
2014	7	3	0	4	2	0	0	2
2015	4	2	0	2	1	0	0	1
2016	Non-reporting Department							

Cummington					Population: 872			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013	2	2	0	0	0	0	0	0
2014	1	0	0	1	0	0	0	0
2015	1	1	0	0	0	0	0	0
2016	2	0	0	2	0	0	0	0

Easthampton					Population: 16,053			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	34	18	4	12	0	0	0	0
2013	55	31	5	19	0	0	0	0
2014	43	27	4	12	0	0	0	0
2015	44	27	3	14	1	0	0	1
2016	44	18	6	20	2	0	0	2

Goshen					Population: 1,054			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	6	4	0	2	0	0	0	0
2013	4	4	0	0	0	0	0	0
2014	4	4	0	0	0	0	0	0
2015	6	4	0	2	0	0	0	0
2016	3	2	0	1	0	0	0	0

Granby					Population: 6,240			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	24	15	3	6	1	0	0	1
2013	31	12	1	18	4	0	0	4
2014	25	11	4	10	1	0	0	1
2015	24	12	3	9	0	0	0	0
2016	19	8	2	9	0	0	0	0

Hadley					Population: 5,250			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	10	3	2	5	0	0	0	0
2013	4	3	0	1	0	0	0	0
2014	Non-reporting Department							
2015	11	6	3	2	0	0	0	0
2016	6	3	3	0	1	1	0	0

Hatfield					Population: 3,279			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	12	3	3	6	0	0	0	0
2013	5	1	2	2	0	0	0	0
2014	9	3	0	6	1	0	0	1
2015	11	4	2	5	1	0	0	1
2016	13	2	0	11	2	0	0	2

Huntington					Population: 2,180			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	20	4	2	14	5	0	0	5
2013	11	1	0	10	6	0	0	6
2014	6	2	1	3	0	0	0	0
2015	25	5	1	19	0	0	0	0
2016 ¹⁰	Fire Department in Good Standing, Certified No Reportable Fires							

Middlefield					Population: 521			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	3	2	0	1	0	0	0	0

Northampton					Population: 28,549			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	77	21	6	50	1	0	0	1
2013	81	36	9	36	1	1	0	0
2014	67	24	7	36	0	0	0	0
2015	67	21	10	36	6	4	0	2
2016	73	36	9	28	0	0	0	0

¹⁰ 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
2012	1	0	1	0	0	0	0	0
2013	3	2	1	0	0	0	0	0
2014	2	2	0	0	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Plainfield					Population: 648			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	2	2	0	0	0	0	0	0
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	2	2	0	0	0	0	0	0
2016	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
2012	49	16	3	30	1	1	0	0
2013	34	19	2	13	2	0	0	2
2014	31	18	3	10	1	1	0	0
2015	56	23	4	29	3	0	0	3
2016	2	2	0	0	0	0	0	0

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
2012	39	33	2	4	2	0	0	2
2013	39	33	2	4	1	1	0	0
2014	35	34	0	1	0	0	0	0
2015	30	21	1	8	1	0	0	1
2016	51	44	2	5	2	1	1	0

Southampton					Population: 5,792			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	15	3	2	10	1	0	0	1
2013	6	0	3	3	1	0	0	1
2014	5	1	0	4	0	0	0	0
2015	2	1	1	0	0	0	0	0
2016	12	4	1	7	0	0	0	0

Ware					Population: 9,872			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	70	17	3	50	6	0	0	6
2013	53	18	2	33	7	0	0	7
2014	36	7	3	26	11	0	0	11
2015	43	14	4	25	8	0	0	8
2016	41	11	3	27	13	2	0	11

Westhampton					Population: 1,607			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	17	7	1	9	3	0	0	3
2013	5	2	0	3	0	0	0	0
2014	6	3	0	3	1	0	0	1
2015	16	7	0	9	0	0	0	0
2016	6	1	0	5	1	0	0	1

Williamsburg					Population: 2,482			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	10	3	2	5	0	0	0	0
2014	9	5	1	3	0	0	0	0
2015	15	4	4	7	0	0	0	0
2016	10	5	0	5	2	1	0	1

Worthington					Population: 1,156			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013	1	1	0	0	0	0	0	0
2014	3	2	0	1	0	0	0	0
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	1	1	0	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
15008	Amherst	1,064	83	2	189	49	58	96	579	2	6
15024	Belchertown	134	9	0	5	39	17	17	47	0	0
15069	Cummington	2	2	0	0	0	0	0	0	0	0
15060	Chesterfield**	0	0	0	0	0	0	0	0	0	0
15087	Easthampton	2,855	55	0	2,282	57	107	115	221	1	17
15108	Goshen	109	7	0	83	7	1	2	8	0	1
15111	Granby	194	21	1	11	14	42	28	76	0	1
15117	Hadley	6	6	0	0	0	0	0	0	0	0
15127	Hatfield	105	13	1	13	26	7	5	30	7	3
15143	Huntington	28	3	0	20	2	2	0	1	0	0
15183	Middlefield	3	3	0	0	0	0	0	0	0	0
15214	Northampton	7,033	81	15	5,245	239	249	368	814	7	15
15230	Pelham*	0	0	0	0	0	0	0	0	0	0
15237	Plainfield*	0	0	0	0	0	0	0	0	0	0
15978	South Hadley #1	6	2	0	1	0	1	1	1	0	0
15979	South Hadley #2	832	66	0	409	21	197	39	98	1	1

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	675	12	2	466	35	36	41	80	0	3
15309	Ware	254	47	0	4	41	43	42	73	1	3
15331	Westhampton	179	14	0	101	17	36	2	9	0	0
15340	Williamsburg	298	10	1	176	25	30	15	37	2	2
15349	Worthington	1	1	0	0	0	0	0	0	0	0
Total	Hampshire County	13,778	435	22	9,005	572	826	771	2,074	21	52

* Certified no reportable fires.

**Non reporting department.

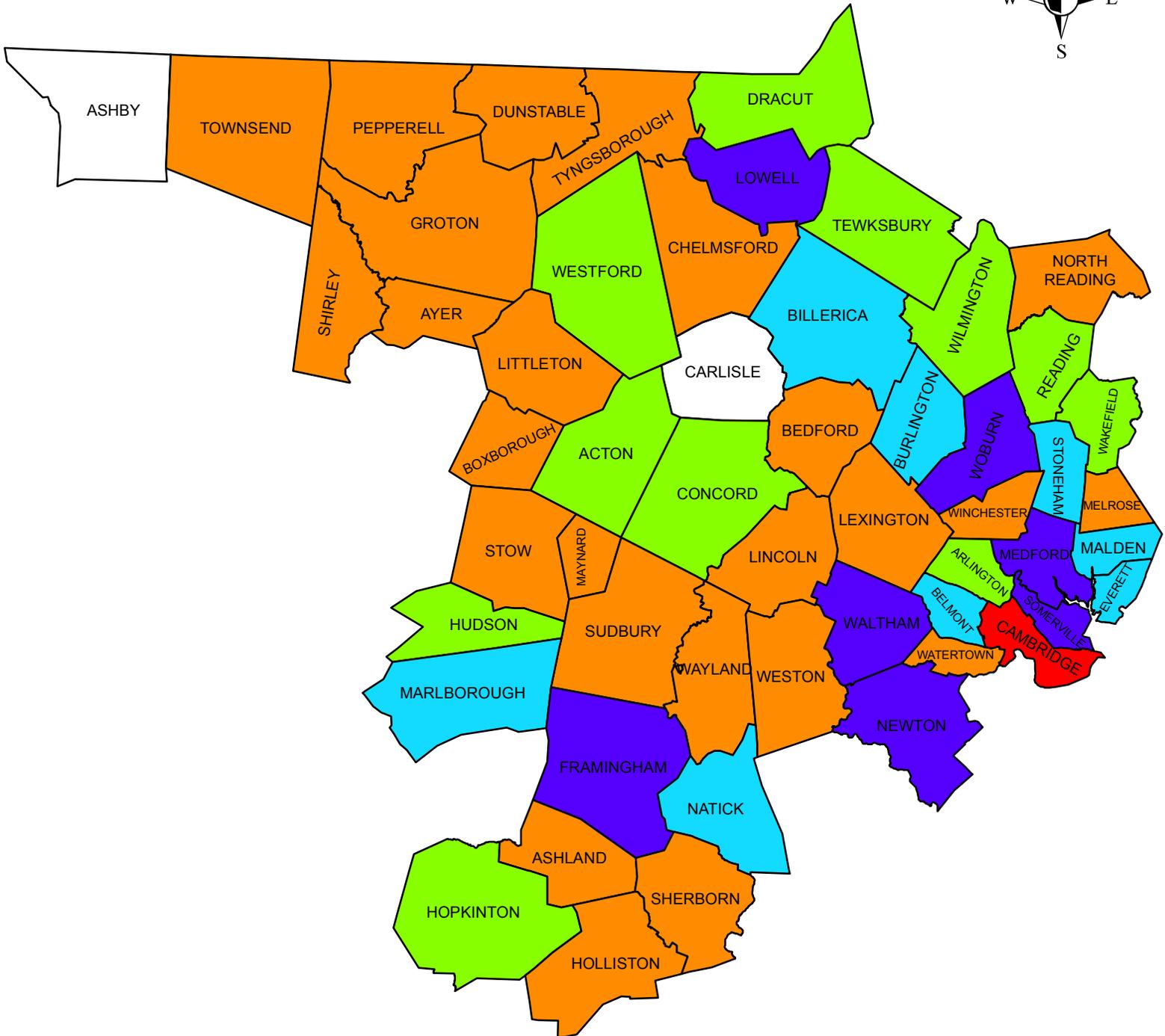
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



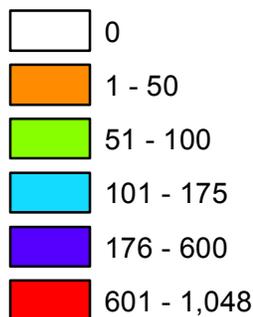
Middlesex County

2016 Fire Data Analysis

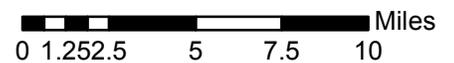
Middlesex County Fires 2016



2016 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Middlesex County Fires in 2016

6,131 Total Fires — 3,354 Structures, 350 Vehicles & 2,427 Other Fires

Middlesex County ranked second out of the fourteen Massachusetts counties in total reported fires. Middlesex County fire departments reported 6,131 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 3,354 structure fires, 350 motor vehicle fires, 1,640 brush fires, 433 outside rubbish fires, 187 special outside fires, nine cultivated vegetation or crop fires, and 158 unclassified fires caused six civilian deaths, 48 civilian injuries, 126 fire service injuries and an estimated dollar loss of \$45.2 million. Middlesex County's fires accounted for 19% of the 31,889 Massachusetts fires reported in 2016.

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 2016.

Structure & Outside & Other Fires Up

The total number of reported fire incidents increased by 469 from the 5,662 reported in 2015. Reported structure fires increased by 316 from 3,038 in the previous year. Motor vehicle fires decreased by 62 from the 412 reported during 2015. Reported outside and other fires increased by 215 from 2,212 the year before.

MIDDLESEX COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5,184	3,202	411	1,571	136	35	14	87
2013	5,054	3,000	429	1,625	109	33	11	65
2014	4,861	3,116	410	1,335	72	28	9	35
2015	5,662	3,038	412	2,212	68	21	9	38
2016	6,131	3,354	350	2,427	72	10	11	51

Fire and Fire Death Rates

Middlesex County had 4.1 fires per 1,000 population. That figure ranks Middlesex County ninth in the state and below the state rate of 4.9 fires per 1,000 population. Middlesex 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 0.09 fire deaths per 10,000 population.

5 Fatal Fires Killed 6 Middlesex County Residents

In 2016, five fatal fires killed six people in Middlesex County.

- On January 28, 2016, at 11:35 p.m., the Groton Fire Department was dispatched to a fire in a single-family home of undetermined cause. The victims were a 66-year old man and 55-year old woman. One (1) firefighter was also injured at this fire. It was

undetermined if alarms were present. The building was not sprinklered. Damages from this fire were estimated to be \$151,000.

- On February 20, 2016, at 7:38 a.m., the Natick Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by a cigarette lighter in the bedroom. The victim was a 72-year old man who was asleep and possibly impaired by alcohol. No one else was injured at this fire. Battery powered smoke alarms were present but did not operate because of missing batteries. There were no sprinklers. Damages from this fire were estimated to be \$200,000.
- On June 23, 2016, at 10:37 a.m., the Hudson Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by a smoking materials igniting the furniture in the living room. The victim, who was intimately involved with the start of the fire, was a 76-year old physically disabled woman. There were no other injuries at this fire. Alarms were present but it was undetermined if they operated. The home did not have sprinklers. Damages from this fire were estimated to be \$125,000.
- On September 25, 2016, at 2:37 a.m., the Lowell Fire Department was called to a fatal cooking fire in a 60-unit apartment building. A stove fire extended to the cabinets in a third floor apartment. The victim, a 78-year old woman, was sleeping at the time of the fire. She was overcome by the smoke attempting to escape and was found by firefighters and transported to a local hospital, where she succumbed to her injuries. No one else was injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from this fire were not estimated.
- On November 28, 2016, at 7:02 p.m., the Tewksbury Fire Department was called to a fatal smoking fire in a single-family home. The fire was started by a cigarette lighter igniting the clothing on the victim. The victim who was intimately involved with the start of the fire, was an 84-year old man who was physically disabled. There was one other injury at this fire. Alarms were present and operated. The home did not have sprinklers. Damages from this fire were estimated to be \$130,000.

Largest Loss Fire in 2016

In 2016, Middlesex County fire departments reported seven fires with a reported dollar loss of \$1 million or greater. The combined dollar loss of these six fires totaled \$14.6 million, or 32%, of the county's total dollar loss.

- On November 14, 2016, at 2:40 a.m., the Belmont Fire Department was called to a fire of undetermined cause at McLean Hospital. The building was vacant and secured. The fire started on the second floor. No one was injured at this fire. Alarms were present but it was undetermined if they operated. The building did not have sprinklers. Damages from this fire were estimated to be \$5 million.

STRUCTURE FIRES

Reported Structure Fires Increase

The 3,354 structure fires caused six civilian deaths, 42 civilian injuries, 113 fire service injuries and an estimated dollar loss of \$41.8 million. These incidents represented 55% of Middlesex County's reported fires in 2016. The average estimated dollar loss per structure fire was \$12,463. The total number of reported structure fires increased by 316, or 10%, from the 3,038 reported in 2015.

Arson Caused Less Than 1% of Structure Fires

The 10 structure arsons caused an estimated dollar loss of \$196,600. 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 10 structure arsons accounted for 14% of the Middlesex County arson fires reported in 2016. The total number of reported structure arsons decreased by 11, or 52%, from 21 in 2015.

70% of Structure Arsons Occurred in Residences

Seventy percent (70%) of Middlesex County's 10 structure arsons occurred in residential occupancies. Educational facilities, storage facilities and special properties each accounted for 10% of the structure arsons in Middlesex County in 2016.

BUILDING FIRES

There were 3,329 building fires of different types in Middlesex County in 2016. These 3,329 building fires accounted for 99.3% of all structure fires in Middlesex County.

82% of Middlesex Building Fires Occurred in People's Homes

Two thousand seven hundred and thirty-four (2,734), or 82%, of Middlesex County's 3,329 building fires occurred in residential occupancies. One hundred and seventy-one (171) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 120 fires. Hospitals, prisons, and other institutional buildings experienced 94 fires. Sixty-seven (67) building fires took place in educational facilities. Fifty-six (56) building fires in Middlesex County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Forty-one (41) fires took place in storage properties. Twenty-six (26) fires in Middlesex County in 2016 took place in industrial, utility, defense, agricultural or mining facilities. Seventeen (17) fires occurred in manufacturing and processing facilities. The *Property Use* field was coded as 'Other' or was not reported for three fires.

RESIDENTIAL FIRES

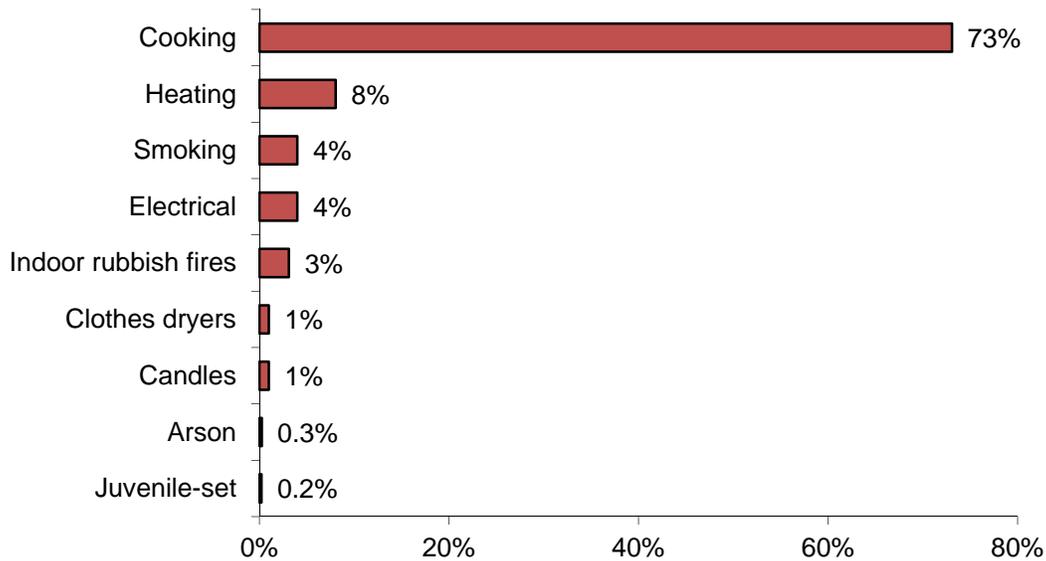
Residential Building Fires Are Up

There were 2,734 reported residential building fires in Middlesex County in 2016. These 2,734 fires are an increase of 209, or 8%, from the 2,525 residential building fires reported in 2015.

Unsafe Cooking Causes Almost 3/4 of All Residential Fires

The leading cause of residential building fires in Middlesex County was unattended cooking and other unsafe cooking practices, accounting for 73% of these fires. Heating caused 8% of fires in people’s homes. Smoking and electrical problems each caused 4%. Indoor rubbish fires accounted for 3% of these fires. Clothes dryers and candles each caused 1%; and arson and juvenile-set fires each caused less than 1% of the residential fires in Middlesex County in 2016.

2016 Leading Causes of Fires in Middlesex County Homes



81% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Two thousand two hundred and seven (2,207), or 81%, of all residential building fires were reported as confined to non-combustible containers in 2016. One thousand nine

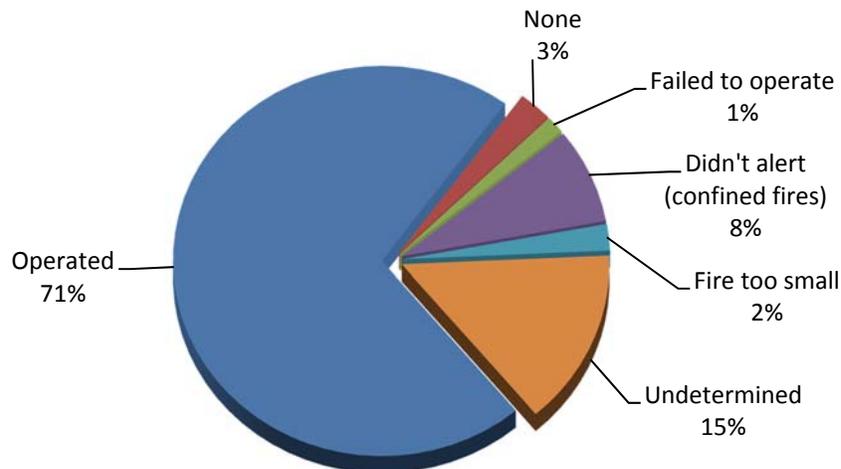
¹ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved In Ignition. These incidents are not included in the analysis of these fields.

hundred and thirty-seven (1,937) of the reported fires were cooking fires contained to a non-combustible container accounting for 71% of residential building fires. One hundred and twenty-four (124), or 5%, were fires confined to a fuel burner or boiler malfunction. Eighty-two (82), or 3%, of these fires were rubbish fires contained to a non-combustible container. Sixty-three (63), or 2%, of all residential building fires reported in 2016 were fires confined to a chimney. One (1) commercial compactor fire accounted for less than 1% of the residential fires in Middlesex County in 2016.

Alarms Alerted Occupants in 71% of Fires

Smoke or heat alarms operated and alerted the occupants in 1,946, or 71%, of the residential building fires. In 8% of these fires², 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 2% of the residential fires. Smoke alarm performance was undetermined in 399 incidents, or 15%, of Middlesex County's residential building fires.

Detector Status in Middlesex County's Residential Structure Fires 2016



40% of Failed Alarms Had Missing or Dead Batteries

Of the 40 fires where smoke alarms were present but failed to operate, 15, or 38%, failed because the batteries were either missing or disconnected. In one, or 3%, of these cases the batteries were dead. Four (4), or 10%, failed from a power failure, shutoff or disconnect. Three (3), or 8%, failed from a lack of maintenance. Two (2), or 5%, didn't work because of improper installation or placement; and one, or 3%, was defective. It

² These represent confined fires where it was reported that the detector did not alert the occupants.

was undetermined or unclassified in 14 cases, or 35%, why the alarms failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Middlesex County reported 48 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 3,329 building fires reported to MFIRS in 2016. Thirty-three (33) fires occurred in vacant residential properties. Mercantile and business properties had one of these fires. Public assembly facilities had four of these fires. Three (3) vacant building fires occurred in storage facilities and three in special properties. Industrial facilities had two vacant building fires. Educational facilities, institutional facilities and mercantile or business properties each had one vacant fire incident in Middlesex County in 2016.

One (1), or 2%, of the vacant building fires in Middlesex County in 2016 was determined to be intentionally set. One occurred in a structure on a vacant lot.

JUVENILE-SET FIRES

85 Juvenile-set Fires

There were 85 reported juvenile-set fires in Middlesex County in 2016. The six structure fires, 71 brush fires, seven special outside fire, and one unclassified fire caused an estimated \$148,325 in damages.

ARSONS

72 Total Arsons — 10 Structures, 11 Vehicles & 51 Other Arsons

Seventy-two (72), or 1%, of Middlesex County's 6,131 fires were considered intentionally set, or, for purposes of this analysis, arson. The 10 structure arsons, 11 motor vehicle arsons and 51 outside and other arsons caused one civilian injury and an estimated dollar loss of \$271,202.

Structure Arson Down

The total number of reported arson fires increased by four from the 68 reported in 2015. Reported structure arsons decreased by 11 from the 21 reported in the previous year. Motor vehicle arsons increased by two from the nine reported in both 2015. Reported outside and other arsons increased by 13 from 38 the year before.

ALL INCIDENTS

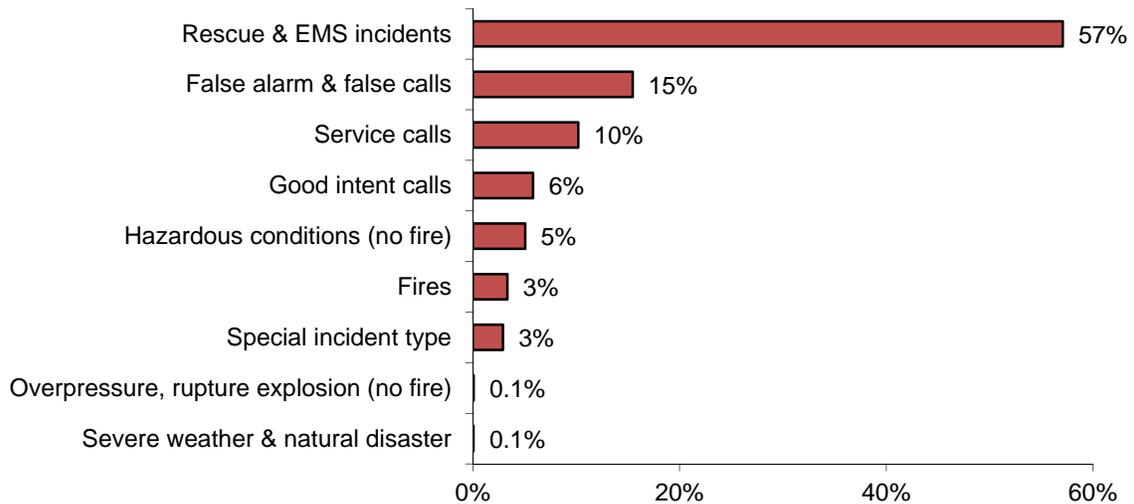
Rescue & EMS Calls Are 57% of All Reported Responses

In 2016, fire departments in Middlesex County reported 193,862 responses³ to MFIRS. This is a 5% increase from the 184,540 responses reported in 2015. Of these 193,862 incidents, 187,380 non-fire calls were voluntarily reported.

Of these 187,380 non-fire calls, 110,627, or 57%, of all the responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 29,968, or 15%, were reported false alarm or false calls; 19,778, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 11,291, or 6%, were reported good intent calls; 9,815, or 5%, were reported hazardous condition calls with no fire; 5,639, or 3%, were special incident type calls such as citizen complaints; 143, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 119, or 0.1%, were severe weather responses.

Five thousand six hundred and thirty-nine (5,639), or 3%, of the total responses submitted by Middlesex County fire departments were fires.

2016 Responses by Incident Type



³ These figures include incidents in which Middlesex County fire departments gave mutual aid to other fire departments.

Middlesex County Fire Departments Gave Mutual Aid 3,574 Times

In 2016, Middlesex County fire departments reported coming to the aid of other fire departments 3,574 times. Of these 3,574 responses, 1,543, or 43%, were for rescue or EMS calls; 763, or 21%, were for service calls such as cover assignments; 646, or 18%, were for good intent calls; 344, or 10%, were for fires; 165, or 5%, were for false alarms or false calls; 81, or 2%, were for hazardous conditions calls with no fire; 26, or 1%, were special incident types; five, or 0.1%, were severe weather or natural disaster calls; and one, or 0.1%, was for an overpressure, rupture explosion with no ensuing fire call.

Middlesex County Received Mutual Aid in 1,713 Incidents

In 2016, Middlesex County fire departments reported receiving aid from surrounding departments in 1,713 incidents. Of these 1,713 incidents, 1,174, or 69%, were rescue and emergency medical services calls; 237, or 14%, were for fires; 139, or 8%, were false alarms or false calls; 52, or 3%, were good intent calls; 52, or 3%, were service calls; 51, or 3%, were hazardous conditions calls with no fire; four, or 0.2%, were for severe weather or natural disaster calls; three, or 0.2%, were for reported overpressure, rupture, explosion or overheat calls with no fire; and one, or less than 1%, was a special incident type.

Middlesex County**Population: 1,503,085****4.1 Fires/1,000 Population**

Total Fires:	6,131		\$45,155,904
Situation	Fires	% of Fires	Dollar Loss
Structure Fires	3,354	55%	\$41,801,369
Vehicle Fires	350	6%	2,897,657
Other Fires	2,427	40%	456,878

5 Fatal Fires	0.98 Civilian Deaths/1,000 Fires
6 Civilian Deaths	0.04 Civilian Deaths/10,000 Population
48 Civilian Injuries	126 Fire Service Injuries

Building Fires: 3,329**Residential Building Fires: 2,734****Residential Building Fires Confined to Non-Combustible Containers: 2,207****Unconfined Residential Building Fires: 527**

6 Civilian Deaths 34 Civilian Injuries 105 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	1,361	50%	Operated	1,946	71%
1- & 2-Family homes	886	32%	Didn't operate	40	1%
Dormitories	211	5%	None	72	3%
Rooming houses	56	2%	Fire too small	60	2%
Residential board & care	38	1%	Didn't alert (confined)	217	8%
Hotels or motels	33	1%	Undetermined	399	15%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	75%	Heat from operating eq.	3%	13%
Heating equipment room	5%	Cigarette	3%	13%
Chimney or flue	2%	Arcing	2%	13%
Bedroom	2%	Radiated heat/oper. eq.	1%	6%
Exterior balcony/unencl. porch	2%	Hot or smoldering obj. other	1%	5%
		Candle	1%	4%

⁴ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁵ 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 Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	72%	Abandoned materials	2%	9%
Flammable, combustible liquid	5%	Too close to combustibles	1%	8%
Rubbish, trash, waste	3%	Misuse of material or prod.	1%	5%
Film, residue (creosote)	2%	Electrical failure or malf.	1%	4%
Structural member, framing	1%	Mechanical failure or malf.	1%	3%
		Equipment unattended	0.4%	2%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	73%	Unintentional	12%	65%
None	12%	Failure of eq. or heat source	3%	13%
Boiler, furnace, cent. heat unit	5%	Intentional	0.3%	2%
Chimney or flue	2%	Act of nature	0.2%	1%
Clothes dryer	1%	Undetermined	2%	10%
Electrical wiring, other	1%	Cause under investigation	1%	8%
Stove, heating	0.5%			

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

Alerted occupants	77%
Didn't alert occupants	10%
Undetermined	13%

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

⁷ 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.

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 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	377	323	23	31
February	347	271	24	52
March	479	310	21	148
April	614	301	30	283
May	642	304	35	303
June	744	270	35	439
July	815	245	38	532
August	570	233	35	302
September	433	235	29	169
October	360	268	32	60
November	393	307	23	63
December	357	287	25	45

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	902	502	37	363
Monday	986	480	61	445
Tuesday	756	407	55	294
Wednesday	863	498	50	315
Thursday	896	491	51	354
Friday	836	470	40	362
Saturday	892	506	56	330

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	317	185	40	92
04:01 - 08:00	412	178	43	191
08:01 - 12:00	985	560	58	367
12:01 - 16:00	1,704	741	86	877
16:01 - 20:00	1,808	1,080	80	648
20:01 - 00:00	905	610	46	252

Motor Vehicle Fires

Total: 350

Automobiles: 282 (81%)

10, or (4%), of the automobile fires considered intentionally set.

Arson Fires**Total Arsons: 72****Dollar loss: \$271,202****0.05 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	10	0.3%	14%	\$196,600
Vehicle Arsons	11	3%	15%	63,000
Other Arsons	51	2%	71%	11,602

0.01 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.03 Other arsons/1,000 population

1 Civilian Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 20:00	3	30%	00:01 - 04:00	8	73%
16:01 - 20:00	3	30%	04:01 - 08:00	3	27%
08:01 - 12:00	2	20%			

Other Arsons	#	%
12:01 - 16:00	13	25%
20:01 - 00:00	12	24%
16:01 - 20:00	11	22%
08:01 - 12:00	10	20%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartment buildings	3	30%
1- & 2-Family homes	2	20%

Acton	Population: 21,924							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	54	36	5	13	1	0	1	0
2013	58	23	3	32	1	0	0	1
2014	38	18	3	17	3	0	0	3
2015	43	24	1	18	1	0	0	1
2016	55	22	5	28	0	0	0	0

Arlington	Population: 42,844							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	122	59	6	57	10	1	0	9
2013	89	43	7	39	7	0	2	5
2014	62	32	7	23	3	1	0	2
2015	104	46	13	45	1	0	0	4
2016	93	43	7	43	5	0	0	5

Ashby	Population: 3,074							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3	3	0	0	0	0	0	0
2013	7	5	0	2	0	0	0	0
2014	3	3	0	0	0	0	0	0
2015	Non-Reporting Community							
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Ashland	Population: 16,593							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5	1	4	0	0	0	0	0
2013	6	4	0	2	1	1	0	0
2014	1	1	0	0	0	0	0	0
2015	3	3	0	0	0	0	0	0
2016	43	12	1	30	0	0	0	0

Ayer					Population: 7,427			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	34	15	1	18	0	0	0	0
2013	25	16	6	3	1	0	0	1
2014	14	8	0	6	1	0	0	1
2015	33	14	2	17	0	0	0	0
2016	28	14	3	11	1	0	0	1

Bedford					Population: 13,320			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	33	18	4	11	2	0	0	2
2013	34	15	2	17	2	0	0	2
2014	23	12	3	8	2	0	0	2
2015	22	10	3	9	0	0	0	0
2016	31	11	1	19	0	0	0	0

Belmont					Population: 24,729			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	100	71	6	23	5	0	0	5
2013	109	85	2	22	3	1	0	2
2014	97	74	5	18	2	0	0	2
2015	81	58	4	19	1	0	0	1
2016	140	78	3	59	0	0	0	0

Billerica					Population: 40,243			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	128	43	16	69	7	0	1	6
2013	141	55	14	72	5	1	0	4
2014	103	47	17	39	5	4	1	0
2015	164	40	19	105	0	0	0	0
2016	130	33	13	84	0	0	0	0

Boxborough					Population: 4,996			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	28	1	8	19	0	0	0	0
2013	16	2	4	10	0	0	0	0
2014	16	3	2	11	0	0	0	0
2015	17	6	4	7	0	0	0	0
2016	26	3	1	22	0	0	0	0

Burlington					Population: 24,498			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	77	41	16	20	1	0	0	1
2013	95	27	11	57	5	0	1	4
2014	74	33	7	34	0	0	0	0
2015	155	28	10	117	1	1	0	0
2016	122	23	16	83	0	0	0	0

Cambridge					Population: 105,162			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	932	830	19	83	2	2	0	0
2013	932	778	11	143	0	0	0	0
2014	824	741	10	73	4	2	0	2
2015	932	766	7	159	1	1	0	0
2016	1,048	903	15	130	0	0	0	0

Carlisle					Population: 4,852			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	4	2	2	0	0	0	0	0
2013	4	3	1	0	0	0	0	0
2014	2	1	1	0	0	0	0	0
2015	1	1	0	0	0	0	0	0
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Chelmsford					Population: 33,802			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	30	13	10	7	1	0	0	1
2013	15	8	4	3	0	0	0	0
2014	24	9	12	3	0	0	0	0
2015	33	17	11	5	2	0	1	1
2016	39	15	14	10	1	0	1	0

Concord					Population: 17,668			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	38	16	5	17	0	0	0	0
2013	43	20	4	19	0	0	0	0
2014	44	17	8	19	2	0	0	2
2015	58	17	5	36	3	2	1	0
2016	67	18	5	44	3	0	0	3

Devens					Population: 3,290			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	11	2	4	5	1	0	0	1
2013	35	4	1	30	0	0	0	0
2014	24	1	2	18	0	0	0	0
2015	49	3	1	45	0	0	0	0
2016	13	4	2	7	0	0	0	0

Dracut					Population: 29,457			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	82	38	7	37	7	1	0	6
2013	77	39	8	30	4	0	1	3
2014	53	24	12	17	3	1	1	1
2015	64	22	16	26	4	1	1	2
2016	74	27	7	40	3	0	0	3

Dunstable					Population: 3,179			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	4	2	7	0	0	0	0
2013	8	0	1	7	0	0	0	0
2014	12	7	1	4	0	0	0	0
2015	12	6	0	6	1	0	0	1
2016	17	6	2	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
2012	142	75	16	51	11	2	3	6
2013	154	81	20	53	12	6	0	6
2014	128	78	10	40	7	3	0	4
2015	132	32	7	93	5	1	0	4
2016	140	53	8	79	2	1	0	1

Framingham					Population: 68,318			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	481	410	21	50	4	3	0	1
2013	471	366	21	84	4	2	1	1
2014	494	401	27	66	2	0	1	1
2015	632	483	28	121	0	0	0	0
2016	599	455	28	116	2	2	0	0

Groton					Population: 10,646			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	10	7	2	1	0	0	0	0
2013	10	9	0	1	0	0	0	0
2014	1	1	0	0	0	0	0	0
2015	20	12	1	7	1	0	0	1
2016	48	13	0	35	0	0	0	

Holliston					Population: 13,547			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	7	7	0	0	0	0	0	0
2013	7	5	1	1	0	0	0	0
2014	5	4	1	0	0	0	0	0
2015	1	1	0	0	0	0	0	0
2016	7	7	0	0	0	0	0	0

Hopkinton					Population: 14,925			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	63	31	11	21	1	0	0	1
2013	65	21	11	33	2	0	0	2
2014	51	24	5	22	2	0	1	1
2015	29	16	4	9	0	0	0	0
2016	78	22	6	50	1	0	0	1

Hudson					Population: 19,063			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	67	26	4	37	0	0	0	0
2013	47	18	5	24	2	0	0	2
2014	30	15	3	12	3	1	1	1
2015	50	24	4	22	2	0	1	1
2016	74	24	1	49	10	1	0	9

Lexington					Population: 31,394			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	31	16	8	7	0	0	0	0
2013	42	24	10	8	0	0	0	0
2014	26	16	8	2	0	0	0	0
2015	40	14	10	16	2	1	0	1
2016	27	13	6	8	0	0	0	0

Lincoln					Population: 6,362			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	41	33	1	7	2	0	0	2
2013	39	32	2	5	2	0	0	2
2014	36	35	1	0	1	1	0	0
2015	75	69	1	5	2	0	0	2
2016	30	28	0	2	0	0	0	0

Littleton					Population: 8,924			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	50	26	7	17	1	1	0	0
2013	50	18	13	19	0	0	0	0
2014	28	12	6	10	0	0	0	0
2015	40	10	6	24	0	0	0	0
2016	27	11	6	10	0	0	0	0

Lowell					Population: 106,519			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	552	371	28	153	20	8	4	8
2013	514	305	44	165	22	13	4	5
2014	478	307	43	128	11	8	2	1
2015	496	314	28	154	10	6	3	1
2016	544	337	21	186	9	3	0	6

Malden					Population: 59,450			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	189	87	15	87	17	3	0	14
2013 ¹⁰	97	61	10	26	0	0	0	0
2014	148	94	9	45	0	0	0	0
2015	169	91	8	70	1	1	0	0
2016	133	60	3	70	0	0	0	0

¹⁰ Malden only reported the last 6 months of runs for 2013.

Marlborough					Population: 38,499			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	145	56	14	75	9	5	2	2
2013	141	55	15	71	4	1	0	3
2014	130	56	23	51	1	1	0	0
2015	142	43	21	78	2	0	0	2
2016	116	31	11	74	1	0	0	1

Maynard					Population: 10,106			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	27	11	2	14	0	0	0	0
2013	23	13	2	8	1	1	0	0
2014	19	17	1	1	0	0	0	0
2015	18	9	1	8	2	0	1	1
2016	21	9	1	11	1	1	0	0

Medford					Population: 56,173			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	291	175	16	100	1	0	0	1
2013	276	166	21	89	5	0	0	5
2014	225	125	15	85	0	0	0	0
2015	286	143	20	123	1	1	0	0
2016	242	143	16	83	0	0	0	0

Melrose					Population: 26,983			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	18	13	3	2	0	0	0	0
2013	9	5	2	2	0	0	0	0
2014	26	19	4	3	1	1	0	0
2015	17	9	4	4	0	0	0	0
2016	23	12	5	6	0	0	0	0

Natick					Population: 33,006			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	93	50	5	38	3	0	0	3
2013	106	61	6	39	0	0	0	0
2014	86	31	8	47	0	0	0	0
2015	92	24	8	60	0	0	0	0
2016	107	29	8	70	0	0	0	0

Newton					Population: 85,146			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	145	75	9	61	2	1	1	0
2013	178	80	11	87	1	0	0	1
2014	118	61	14	43	0	0	0	0
2015	152	57	12	83	0	0	0	0
2016	205	87	8	110	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
2012	44	20	2	22	2	1	0	1
2013	30	16	5	9	2	1	0	1
2014	12	11	0	1	0	0	0	0
2015	26	9	2	15	3	1	0	2
2016	46	13	7	26	5	0	0	5

Pepperell					Population: 11,497			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	59	40	3	16	1	0	0	1
2013	58	47	4	7	0	0	0	0
2014	35	15	4	16	0	0	0	0
2015	40	18	6	16	0	0	0	0
2016	35	15	2	18	0	0	0	0

Reading					Population: 24,747			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	53	33	0	20	5	1	0	4
2013	66	42	6	18	1	0	1	3
2014	62	39	7	16	2	0	0	2
2015	63	30	7	26	4	0	0	4
2016	77	34	9	34	1	0	0	1

Sherborn					Population: 4,119			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	43	8	4	31	3	0	0	3
2013	29	12	1	16	2	0	0	2
2014	15	5	2	8	0	0	0	0
2015	22	8	3	11	1	1	0	0
2016	9	0	1	8	0	0	0	0

Shirley					Population: 7,211			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	11	9	2	0	0	0	0	0
2013	5	4	1	0	0	0	0	0
2014 ¹¹	Fire Department in Good Standing, Certified No Reportable Fires							
2015	1	1	0	0	0	0	0	0
2016	3	2	0	1	0	0	0	0

Somerville					Population: 75,754			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	37	23	13	1	1	0	1	0
2013	29	21	7	1	0	0	0	0
2014	370	275	14	81	2	0	1	1
2015	199	109	8	82	0	0	0	0
2016	413	309	12	92	5	0	5	0

¹¹ In 2014 Shirley did not report any fires but they did report 1 Hazardous conditions with no fire incident.

Stoneham					Population: 21,437			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	72	57	6	9	0	0	0	0
2013	67	57	8	2	0	0	0	0
2014	67	52	9	6	0	0	0	0
2015	101	40	10	51	0	0	0	0
2016	138	73	7	58	0	0	0	0

Stow					Population: 6,590			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	20	11	3	6	0	0	0	0
2013	21	8	2	11	1	0	0	1
2014	13	8	0	5	0	0	0	0
2015	22	11	1	10	2	0	0	2
2016	20	6	1	13	1	0	0	1

Sudbury					Population: 17,659			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	44	20	6	18	2	0	1	1
2013	33	14	0	19	2	0	0	2
2014	21	12	3	6	2	1	0	1
2015	33	8	5	20	0	0	0	0
2016	32	11	2	19	1	0	0	1

Tewksbury					Population: 28,961			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	87	38	7	42	4	1	0	2
2013	110	46	12	52	2	0	0	2
2014	84	30	13	41	2	0	0	2
2015	86	34	11	41	2	1	0	1
2016	91	19	11	61	1	0	0	1

Townsend					Population: 8,926			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	26	16	1	9	1	0	0	1
2013	10	4	4	2	0	0	0	0
2014	7	4	1	2	0	0	0	0
2015	26	7	2	17	3	0	0	3
2016	31	6	2	23	4	0	0	4

Tyngsborough					Population: 11,292			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	35	8	6	21	0	0	0	0
2013	30	7	4	17	0	0	0	0
2014	35	6	5	24	0	0	0	0
2015	26	2	9	15	0	0	0	0
2016	29	6	10	13	6	0	5	1

Wakefield					Population: 24,932			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	37	31	3	3	1	1	0	0
2013	47	37	9	1	0	0	0	0
2014	46	38	7	1	0	0	0	0
2015	51	43	7	1	0	0	0	0
2016	54	39	11	4	0	0	0	0

Waltham					Population: 60,632			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	170	65	15	90	1	1	0	0
2013	170	59	26	85	4	3	1	0
2014	167	73	16	78	3	1	1	1
2015	226	88	23	115	4	2	0	2
2016	249	79	14	156	2	1	0	1

Watertown					Population: 31,915			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	72	29	5	38	2	1	0	1
2013	77	32	9	36	0	0	0	0
2014	63	16	5	42	2	0	0	2
2015	76	24	9	43	1	0	1	0
2016	50	20	2	28	0	0	0	0

Wayland					Population: 12,994			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	32	12	1	19	0	0	0	0
2013	35	13	3	19	1	1	0	0
2014	20	8	3	9	0	0	0	0
2015	30	9	2	19	0	0	0	0
2016	29	8	1	20	0	0	0	0

Westford					Population: 21,951			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	54	14	8	32	1	0	0	1
2013	54	15	8	31	2	1	0	1
2014	29	5	3	21	0	0	0	0
2015	64	19	5	40	0	0	0	0
2016	71	15	2	54	1	0	0	1

Weston					Population: 11,261			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	38	13	10	15	1	0	0	1
2013	49	19	7	23	0	0	0	0
2014	38	20	11	7	1	1	0	0
2015	36	7	9	20	0	0	0	0
2016	38	12	5	21	0	0	0	0

Wilmington					Population: 22,325			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	96	40	12	44	1	1	0	0
2013	88	40	17	31	0	0	0	0
2014	67	35	12	20	1	0	0	1
2015	100	47	12	41	0	0	0	0
2016	95	26	8	61	0	0	0	0

Winchester					Population: 21,374			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	47	25	5	17	3	1	0	2
2013	52	17	3	32	5	1	0	4
2014	39	22	1	16	2	1	0	1
2015	44	22	6	16	1	1	0	0
2016	37	19	1	17	0	0	0	0

Woburn					Population: 38,120			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	60	28	22	10	0	0	0	0
2013	70	42	23	5	0	0	0	0
2014	230	114	26	90	2	1	0	1
2015	228	90	16	122	1	0	0	1
2016	243	99	20	124	4	1	0	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
17002	Acton	4,791	55	2	1,623	178	592	118	278	0	1,945
17010	Arlington	3,929	101	2	2,462	360	313	134	550	4	3
17012	Ashby**	0	0	0	0	0	0	0	0	0	0
17014	Ashland	2,197	61		1,360	128	175	132	330	5	6
17019	Ayer	896	42		126	71	338	140	176	0	3
17023	Bedford	3,068	43	2	1,454	222	245	108	391	3	600
17026	Belmont	2,768	144	2	1,436	105	314	244	511	7	5
17031	Billerica	4,238	133	11	2,781	270	419	85	525	7	7
17037	Boxborough	483	41		179	18	87	30	125	0	3
17048	Burlington	4,453	123	1	2,775	131	616	148	659	0	0
17049	Cambridge	14,457	1,048	14	6,472	812	884	2,198	3,012	6	11
17051	Carlisle**	0	0	0	0	0	0	0	0	0	0
17056	Chelmsford	43	39	1	0	2	0	0	0	0	1
17067	Concord	3,668	79	4	1,960	236	310	214	848	6	11
17919	Devens	728	24	1	213	21	304	19	145	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
17079	Dracut	3,819	76	1	2,478	140	454	122	541	2	5
17081	Dunstable	314	27	0	158	16	63	9	32	5	4
17093	Everett	5,727	148	3	3,658	184	318	473	937	4	2
17100	Framingham	11,071	603	1	7,256	302	1,001	565	1,335	2	6
17115	Groton	570	54	13	128	64	39	36	228	7	1
17136	Holliston	7	7	0	0	0	0	0	0	0	0
17139	Hopkinton	1,931	90	6	1,051	146	167	129	334	4	4
17141	Hudson	3,300	86	5	1,658	159	361	151	384	0	496
17155	Lexington	29	27	0	0	2	0	0	0	0	0
17157	Lincoln	835	33	0	416	42	73	41	210	0	20
17158	Littleton	1,842	46	0	1,154	76	176	145	236	0	9
17160	Lowell	15,713	562	11	9,731	662	1,335	778	2,546	12	76
17165	Malden	6,217	133	3	4,365	134	500	281	773	1	27
17170	Marlborough	6,342	119	10	3,764	273	654	535	957	1	29
17174	Maynard	1,481	29	0	858	81	154	125	229	2	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
17178	Melrose	25	24	0	0	1	0	0	0	0	0
17176	Medford	9,541	249	1	6,449	482	870	297	1,166	7	20
17198	Natick	5,140	114	3	3,063	386	462	297	799	6	10
17207	Newton	8,021	205	5	4,075	442	1,113	332	1,844	2	3
17213	North Reading	1,937	56	1	1,031	96	338	137	257	9	12
17232	Pepperell	1,377	44	0	961	58	62	75	171	3	3
17246	Reading	244	84	1	3	68	25	12	51	0	0
17269	Sherborn	585	14	0	310	53	89	52	66	1	
17270	Shirley	3	3	0	0	0	0	0	0	0	0
17274	Somerville	13,681	449	8	6,573	904	2,109	786	2,444	2	406
17284	Stoneham	3,887	150	3	2,505	213	129	186	291	0	410
17286	Stow	724	25	1	459	31	57	40	110	0	1
17288	Sudbury	2,115	36	1	1,259	154	128	129	361	3	44
17295	Tewksbury	4,659	91	4	2,792	103	923	244	475	1	26
17299	Townsend	1,468	36	0	927	58	207	128	112	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
17301	Tyngsborough	1,314	30	0	705	126	167	92	194	0	0
17305	Wakefield	148	54	0	0	20	0	0	74	0	0
17308	Waltham	8,696	255	4	5,114	572	764	376	1,569	2	40
17314	Watertown	4,771	50	2	3,096	242	517	145	674	0	45
17315	Wayland	3,584	36	3	1,204	305	535	75	209	1	1,216
17330	Westford	3,123	75	0	1,838	99	341	115	637	1	17
17333	Weston	2,151	42	2	1,151	146	168	125	516	0	1
17342	Wilmington	3,131	95	1	2,047	104	235	197	420	3	29
17344	Winchester	2,249	47	3	1,282	217	173	135	392	0	0
17347	Woburn	6,371	245	7	4,267	100	474	356	844	0	78
	Middlesex County	193,862	6,482	143	110,627	9,815	19,778	11,291	29,968	119	5,639

* Certified no reportable fires.

**Non reporting department.

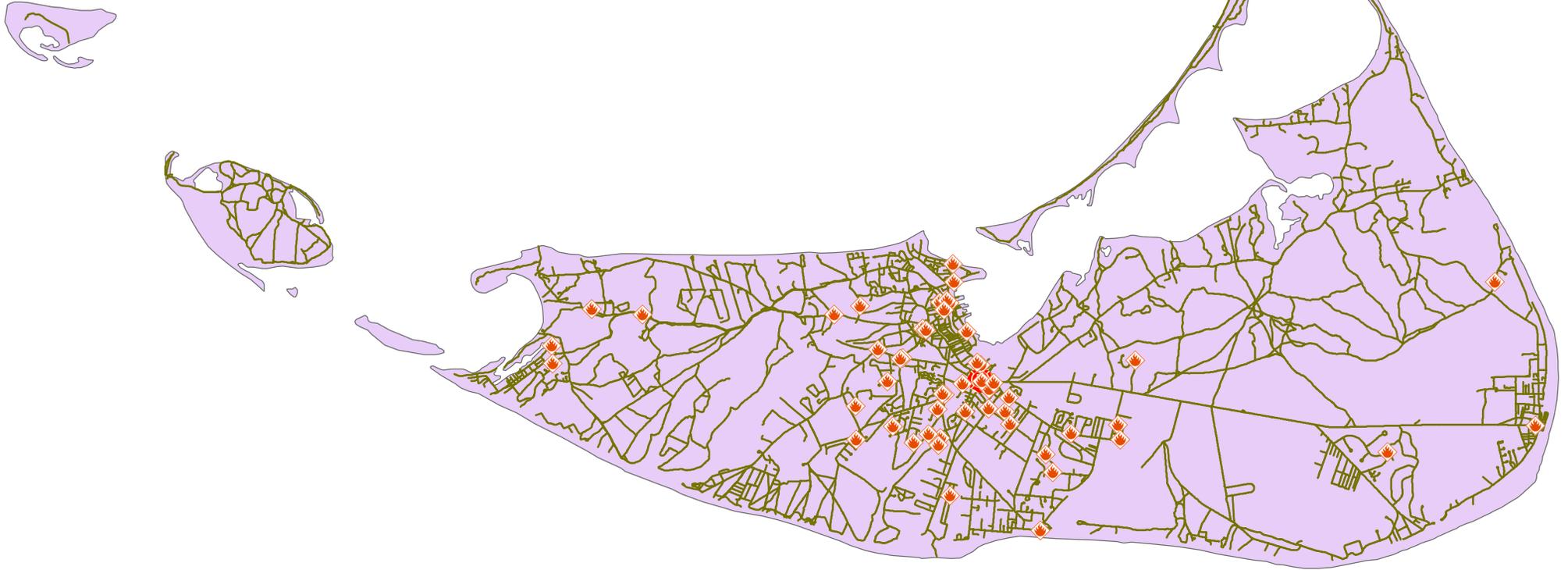
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.



Nantucket County

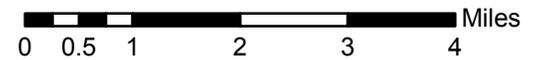
2016 Fire Data Analysis

Nantucket County Fires 2016



2016 Nantucket Fires

-  2016 Nantucket Fires
-  Fire Stations



Massachusetts Fire Incident Reporting System 2016

Nantucket County Fires in 2016

51 Total Fires — 26 Structures, 4 Vehicles & 21 Outside and Other Fires

Nantucket County ranked thirteenth out of the fourteen Massachusetts counties in total reported fires. The Nantucket Fire Department reported 51 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 26 structure fires, four motor vehicle fires, 10 brush fires, six outside rubbish fires, two special outside fires, and three unclassified fires caused an estimated dollar loss of \$5.1 million. Nantucket County's fires accounted for 0.2% of the 31,889 Massachusetts fires reported in 2016.

All Fires Down

The total number of reported fire incidents decreased by 29 from the 80 fires reported in 2015. Structure fires decreased by 25 from the 51 reported in 2015. Motor vehicle fires decreased by three from seven reported the previous year. Reported outside and other fires decreased by one from the 22 reported in 2015.

Nantucket is an island community with a small year round population. During the summer months, the population increases immensely. Consequently, 47% of Nantucket's fires occurred between the months of May and September.

NANTUCKET FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	39	31	3	5	1	0	0	1
2013	46	36	0	10	0	0	0	0
2014	90	46	11	33	3	0	1	2
2015	80	51	7	22	0	0	0	0
2016	51	26	4	21	0	0	0	0

Fire and Fire Death Rates

Nantucket County had 5.0 fires per 1,000 population. That figure ranks Nantucket County third in the state and above the state rate of 4.9 fires per 1,000 population. Nantucket County also had 0.0 fire deaths per 10,000 population, ranking it tied for last among Massachusetts counties and below the state rate of 0.09 fire deaths per 10,000 population.

0 Reported Fire Deaths in Nantucket County

There were no fire deaths in 2016 in Nantucket County

1-Family Home Fire Largest Dollar Loss in 2016

In 2016 Nantucket had one fire with a dollar loss greater than \$1 million. This fire caused \$5 million in estimated damages and was responsible for 98% of the total dollar for Nantucket in 2016.

- On June 10, 2016, at 10:23 p.m., the Nantucket Fire Department was called to a fire in a home improvement business of undetermined cause. No one was injured at this

fire. It was undetermined if alarms were present. The building did not have any sprinklers. Damages to the building were estimated to be \$5 million.

STRUCTURE FIRES

Reported Structure Fires Down

There were 26 structure fires in Nantucket in 2016. These incidents represented 51% of Nantucket County's reported fires in 2016. These 26 fires caused \$5.1 million¹ in estimated losses in 2016. The total number of reported structure fires decreased by 25 from the 51 reported in 2014.

No Reported Structure Arsons

Nantucket County did not report any structure arsons in 2016. The last year that Nantucket reported a structure arson was 2003.

BUILDING FIRES

There were 26 building fires of different types in Nantucket County in 2016. These 26 building fires accounted for all of the structure fires in Nantucket County.

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

Twenty-two (22), or 85%, of Nantucket County's 26 building fires occurred in residential occupancies. Three (3) happened at mercantile or business properties and one occurred in a public assembly property.

RESIDENTIAL FIRES

Residential Building Fires Down

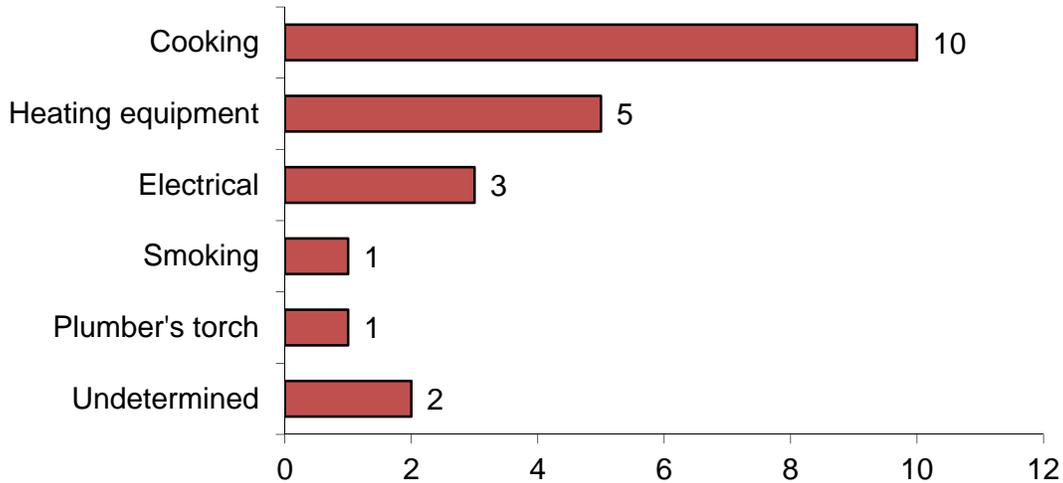
There were 22 reported residential building fires in Nantucket County in 2016. These 22 fires are a decrease of 23, or 51%, over the 45 reported in 2015. Sixteen (16), or 73%, occurred in one- or two-family homes; three, or 14%, occurred in apartments; two, or 9%, happened in dormitories; and one, or 5%, happened in a hotel or motel.

Cooking Fires Cause 10 of 22 Residential Fires

The leading cause of residential building fires in Nantucket County was unattended cooking and other unsafe cooking practices, accounting for 10, or 45%, of these fires. Heating equipment caused five, or 23%, of these fires. Electrical problems caused three, or 14%, of these fires. Smoking and a plumber's torch were each the cause of one, or 5%, of Nantucket's 2016 residential fires. The cause was not determined for two of the residential fires.

¹ \$5 million is attributed to a single building fire incident on 6/10/16. See Large Loss anecdote.

2016 Leading Causes of Fires in Nantucket Homes



12 Residential Building Fires Are Confined to Non-Combustible Containers²

Twelve (12), or 55%, of all residential building fires were reported as confined to non-combustible containers in 2016. Nine (9) of the reported fires were cooking fires contained to a non-combustible container accounting for 41% of the residential fires. Two (2), or 9%, were confined to a chimney or flue and one, or 5%, of Nantucket’s residential fires were fuel burner or boiler malfunctions.

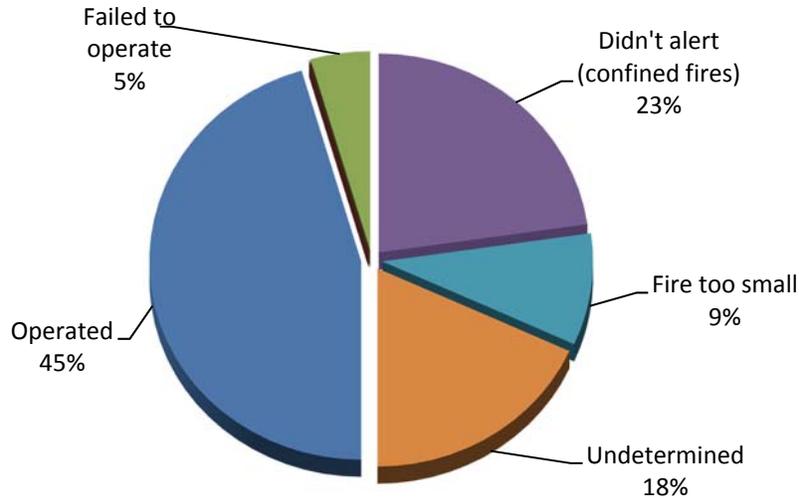
Detectors Alerted Occupants in 45% of Fires

Smoke or heat detectors operated and alerted the occupants in 10, or 45%, of the residential building fires. In five, or 23%, of these fires³, detectors did not alert the occupants. There was one fire where the detector failed to operate accounting for 5% of these fires. There were no reported fires where there were no detectors. The fire was too small to activate the detector in two, or 9%, of these fires. Detector performance was undetermined in four, or 18%, 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 2016



VACANT BUILDING FIRES

4% of Building Fires Occurred in Vacant Buildings

Nantucket County reported one fire that occurred in a building that was vacant, under construction or demolition. This represented 1% of the total 26 building fires reported to MFIRS in 2016. This fire occurred in a vacant home.

None of the vacant building fires in Nantucket County in 2016 were determined to be intentionally set.

JUVENILE-SET FIRES

1 Juvenile-set Fire

Nantucket County reported one juvenile-set fire in 2016. This was a grass fire.

ARSONS

0 Total Arsons⁴

None of Nantucket County's 51 fires were considered intentionally set, or, for purposes of this analysis, arson.

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 Remains the Same

The total number of arsons remained the same as none were reported in 2015 or 2016.

ALL INCIDENTS

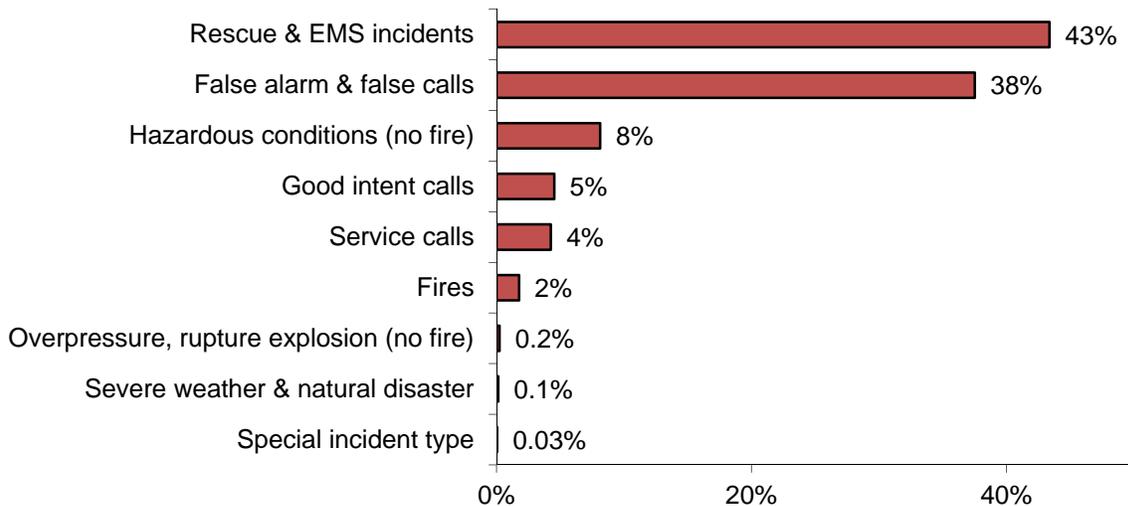
Rescue & EMS Calls Are 43% of All Reported Incidents

In 2016, Nantucket County reported 2,937 responses to MFIRS. Of these 2,936 incidents, 2,885 non-fire calls were voluntarily reported.

Of these 2,885 non-fire calls, 1,274, or 43%, of the total responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 1,102, or 38%, were reported false alarm or false calls; 239, or 8%, were reported hazardous condition calls with no fire; 133, or 5%, were reported good intent calls; 125, or 4%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; seven, or 0.2%, were overpressure, rupture or explosion calls with no fire; four, or 0.1%, were special incident types; and one, or 0.03% was a severe weather incident.

Fifty-one (51), or 2%, of the total responses submitted by the Nantucket Fire Department were fires.

2016 Incidents by Incident Type



Nantucket Gave Aid in 2 Calls

In 2016, Nantucket reported giving mutual aid twice. Both calls were for Rescue or EMS incidents. Nantucket also reported receiving aid for two calls. One was for a Rescue or EMS call and the other was a false alarm or false call.

Nantucket County

Population: 10,172

5.0 Fires/1,000 Population

Total Fires: 51 \$5,120,000

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	26	51%	\$5,120,000
Vehicle Fires	4	8%	0
Other Fires	21	41%	0

0 Fatal Fires 0.00 Civilian Deaths/1,000 Fires
 0 Civilian Deaths 0.0 Civilian Deaths/10,000 Population
 No Injuries

Building Fires: 26

Residential Structure Fires: 22

Residential Structure Fires Confined to Non-Combustible Containers: 12

Unconfined Residential Structure Fires: 10

No Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	16	73%	Operated	10	45%
Apartments	3	14%	Didn't operate	1	5%
Dormitories	2	9%	None	0	0%
Hotels, motels	1	5%	Fire too small	2	9%
			Didn't alert (confined)	5	23%
			Undetermined	4	18%

Area of Origin⁵	%	Heat Source	%	%Unconfined⁶
Kitchen	41%	Arcing	14%	30%
Heating room or area	9%	Rad, cond. heat from op. eq	9%	20%
Chimney or flue	9%	Hot ember or ash	5%	10%
		Spark/ember/flame op. eq.	5%	10%
		Hot or smoldering obj. other	5%	10%

⁵ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁶ 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 Ignited⁷	%	Factor Contrib. to Ignit.	%	%Unconfined⁸
Cooking materials	41%	Too close to combustibles	9%	20%
Film, residue (creosote)	9%	Abandoned materials	5%	10%
Structural member, flaming	9%	Improper container/storage	5%	10%
Flammable, combustible liquid	5%	Equipment unattended	5%	10%
		Short-circuit arc, def./worn	5%	10%
		Equipment overloaded	5%	10%
		Electrical fail./malf. other	5%	10%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Cooking equipment	45%	Unintentional	13%	60%
None	32%	Act of nature	0%	0%
Chimney or flue	9%	Failure of eq. or heat source	7%	30%
Boiler, furnace, cent. heat. unit	5%	Cause under investigation	2%	10%
Heater	5%	Undetermined	0%	0%
HVAC, other	5%	Intentional	0%	0%

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

Alerted Occupants	50%
Didn't Alert Occupants	42%
Undetermined	8%

⁷ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁸ 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.

⁹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹⁰ 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	3	2	1	0
February	2	2	0	0
March	5	3	0	2
April	6	0	0	6
May	2	1	0	1
June	5	2	0	3
July	5	4	0	1
August	8	3	2	3
September	4	2	1	1
October	3	1	0	2
November	1	1	0	0
December	7	5	0	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	5	2	0	3
Monday	13	8	1	4
Tuesday	8	3	1	4
Wednesday	6	3	1	2
Thursday	10	6	1	3
Friday	5	3	0	2
Saturday	4	1	0	3

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	3	2	0	1
04:01 - 08:00	3	0	1	2
08:01 - 12:00	6	4	0	2
12:01 - 16:00	14	4	0	10
16:01 - 20:00	14	8	3	3
20:01 - 00:00	11	8	0	3

Motor Vehicle Fires

Total: 4

Automobiles: 4 (100%)

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

Responses Reported to MFIRS by Month

Incident Type	# of												
	Incidents	January	February	March	April	May	June	July	August	September	October	November	December
Fires	51	3	2	5	6	2	5	5	8	4	3	1	7
Overpressure, rupture explosion (no fire)	7	0	0	0	0	1	2	1	0	0	0	1	2
Rescue & EMS incidents	1,274	70	53	70	69	105	115	166	196	115	119	93	103
Hazardous conditions (no fire)	239	15	20	12	24	24	30	32	44	19	7	7	5
Service calls	125	15	18	13	10	5	8	12	10	9	8	13	4
Good intent calls	133	8	6	2	2	13	11	30	18	8	4	20	11
False alarm & false calls	1,102	84	91	66	75	73	100	137	155	98	92	74	57
Severe weather & natural disaster	4	1	0	2	0	0	0	1	0	0	0	0	0
Special incident type	1	0	0	1	0	0	0	0	0	0	0	0	0
Total	2,936	196	190	171	186	223	271	384	431	253	233	209	189

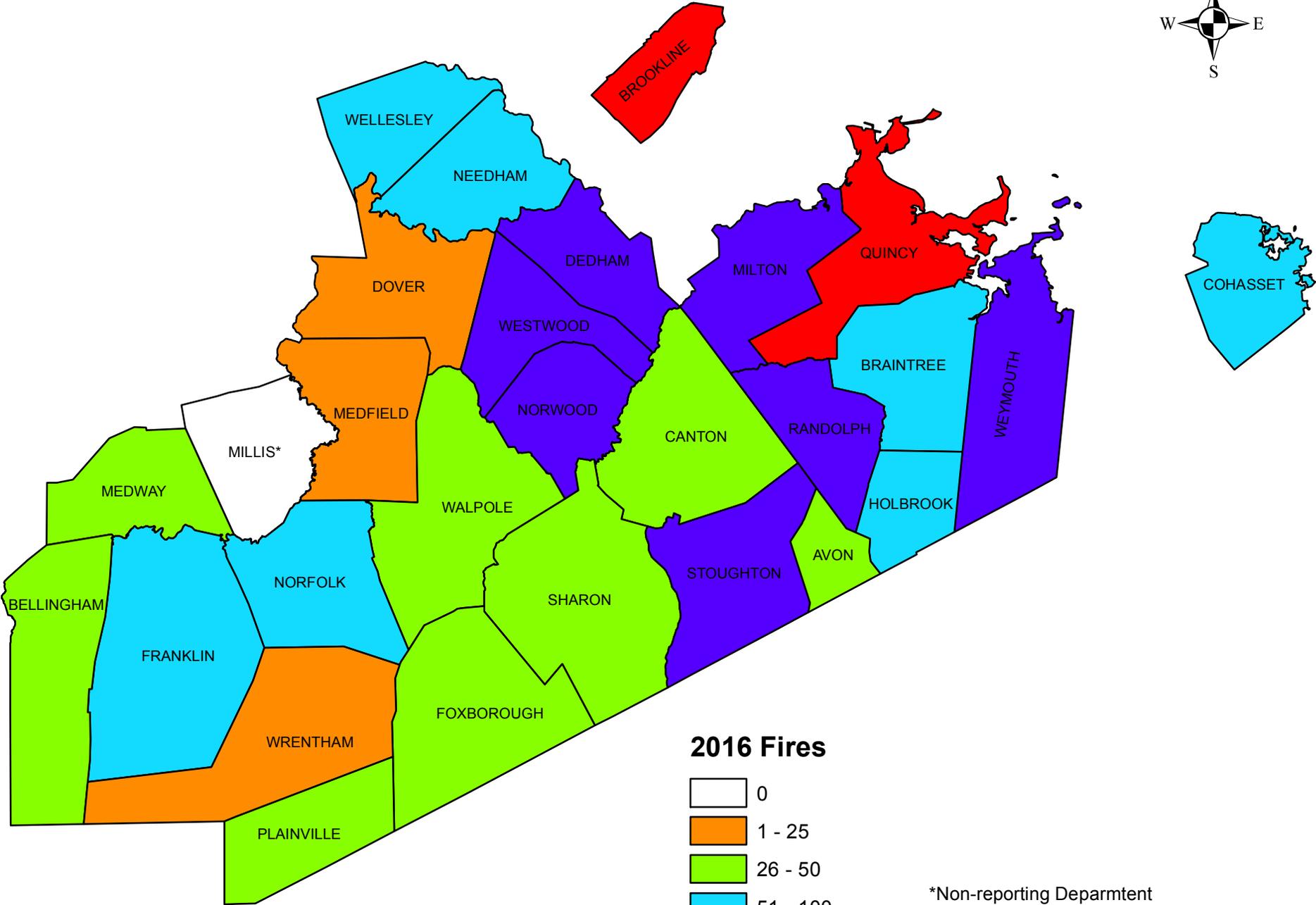
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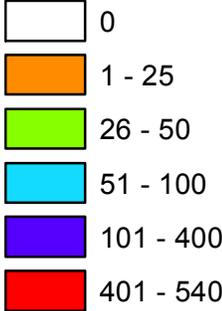
Norfolk County

2016 Fire Data Analysis

Norfolk County Fires 2016



2016 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Norfolk County Fires in 2016

3,154 Total Fires — 1,638 Structures, 213 Vehicles & 1,303 Other Fires

Norfolk County ranked fourth out of the fourteen Massachusetts counties in total reported fires. Norfolk County fire departments reported 3,154 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 1,638 structure fires, 213 motor vehicle fires, 902 brush, tree or lawn fires, 163 outside rubbish fires, 124 special outside fires, 32 cultivated vegetation or crop fires, and 82 other fires caused four civilian deaths, 25 civilian injuries, 43 fire service injuries and an estimated dollar loss of \$19.9 million. Norfolk County's fires accounted for 10% of the 31,889 Massachusetts fires reported in 2016.

Twenty-seven (27) of the 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 2016. This represents 96.4% of all Norfolk County fire departments.

Structure Fires Down

The total number of reported fire incidents decreased by 69 from the 3,223 reported in 2015. Reported structure fires decreased by 187 from the 1,825 reported during the previous year. Motor vehicle fires decreased by 12 from the 225 reported the year before. Reported outside and other fires increased 130 from the 1,173 reported a year earlier.

NORFOLK COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3,296	1,901	226	1,169	96	10	10	76
2013	2,886	1,800	240	846	59	6	4	49
2014	3,153	1,820	249	1,084	79	11	5	63
2015	3,223	1,825	225	1,173	59	8	5	46
2016	3,154	1,638	213	1,303	54	9	2	43

Fire and Fire Death Rates

Norfolk County had 4.7 fires per 1,000 population. That figure ranks Norfolk County fifth in the state and below the state rate of 4.9 fires per 1,000 population. Norfolk County also had 0.06 fire deaths per 10,000 population ranking it seventh among Massachusetts counties and below the state rate of 0.09 fire deaths per 10,000 population.

3 Norfolk Fires Kill 4 People

In 2016, three fires killed four people in Norfolk County.

- On February 5, 2016, at 10:53 p.m., the Avon Fire Department was dispatched to a fatal candle fire in a single-family home. There was a power outage due to the heavy snow fall for nine hours prior to the report of the fire. The sole occupant of the home, a 56-year old woman, discovered the fire and called 911. Arriving firefighters found her outside of the home with respiratory distress. She refused medical treatment. She did state that she left a candle she was using for light unattended in the kitchen. The

candle ignited nearby paper products. She passed away a week later from respiratory failure due to smoke inhalation. No one else was injured at this fire. Alarms were present but the failed to operate. The building did not have any sprinklers Damages from this fire were estimated to be \$199,694.

- On February 10, 2016, at 1:28 a.m., the Milton Fire Department was called to a fatal motor vehicle crash with ensuing fire. Two (2) of the three occupants of the vehicle, a 32-year old man and a 35-year old man, were trapped in the vehicle and died in the fire. A third occupant was transported to a hospital with severe injuries. One (1) firefighter was also injured at this fire. Damages from this fire were estimated to be \$5,000.
- On October 30, 2016, at 12:34 a.m., the Dedham Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire started in a first floor bedroom. The victim, a 68-year old woman, was believed to be in the area of origin and somehow involved in starting the fire. Two (2) firefighters were injured at this fire. Alarms and sprinklers were not present. Damages from the blaze were not estimated.

Weymouth Has Norfolk County's Largest Loss Fire in 2016

There were two fires in Norfolk County that caused over \$1 million in estimated damages. These two fires accounted for \$2 million in estimated damages and 10% of the total dollar loss for the county.

- The Weymouth Fire Department was dispatched to an electrical fire in a powdered food manufacturing center at 7:19 p.m. on December 19, 2016. The fire started in the HVAC ductwork. Alarms were present and alerted the occupants of the building. There were no sprinklers present. Damages from this fire were estimated to be \$1 million, most of that the food contents that the company produces.

STRUCTURE FIRES

Reported Structure Fires Down

The 1,638 structure fires caused two civilian deaths, 21 civilian injuries, 39 fire service injuries and an estimated dollar loss of \$16.3 million. These incidents represented 52% of Norfolk County's reported fires in 2016. The average estimated dollar loss per structure fire was \$9,978. The total number of reported structure fires decreased by 187, or 10%, from the 1,825 reported in 2015.

Arson Caused Less Than 1% of Structure Fires

The nine structure arsons caused an estimated dollar loss of \$247,802. Arson was indicated as the cause of less than 1% of the structure fires and 2% of Norfolk County's structure fire dollar loss. The nine structure arsons accounted for 17% of the Norfolk County arson fires reported in 2016. The total number of reported structure arsons increased by one, or 13%, from eight in 2015.

6 of 9 Structure Arsons Occur in Residential Properties

Six, or 67%, of Norfolk County's nine structure arsons occurred in residential occupancies. One (1) fire each, or 11%, happened at an institutional facility, a storage facility and an outside or special property.

BUILDING FIRES

There were 1,629 building fires of different types in Norfolk County in 2016. These 1,629 building fires accounted for 99.5% of all structure fires in Norfolk County.

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

One thousand three hundred and seventy-two (1,372), or 84%, of Norfolk County's 1,629 building fires occurred in residential occupancies. Seventy-nine (79) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 69 fires. Hospitals, prisons, and other institutional buildings experienced 48 fires. Nineteen (19) fires took place in storage properties. Sixteen (16) building fires took place in educational properties. Eleven (11) building fires in Norfolk County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Ten (10) fires took place in manufacturing and processing facilities. Three (3) fires occurred in an industrial buildings' and two fires occurred in unclassified buildings in Norfolk County in 2016.

RESIDENTIAL FIRES**Apartments Accounted for 1/2 of Residential Building Fires**

The peak fixed property uses for residential building fires were apartments, accounting for 50% of the residential building fires in Norfolk County; 39% occurred in 1- or 2-family homes; 3% happened in rooming houses; 2% occurred in dormitories; 1% occurred in residential board and care facilities; and 1% happened in hotels or motels. Fifty-four (54), or 4%, of the residential building fires in Norfolk County occurred in unclassified residential buildings.

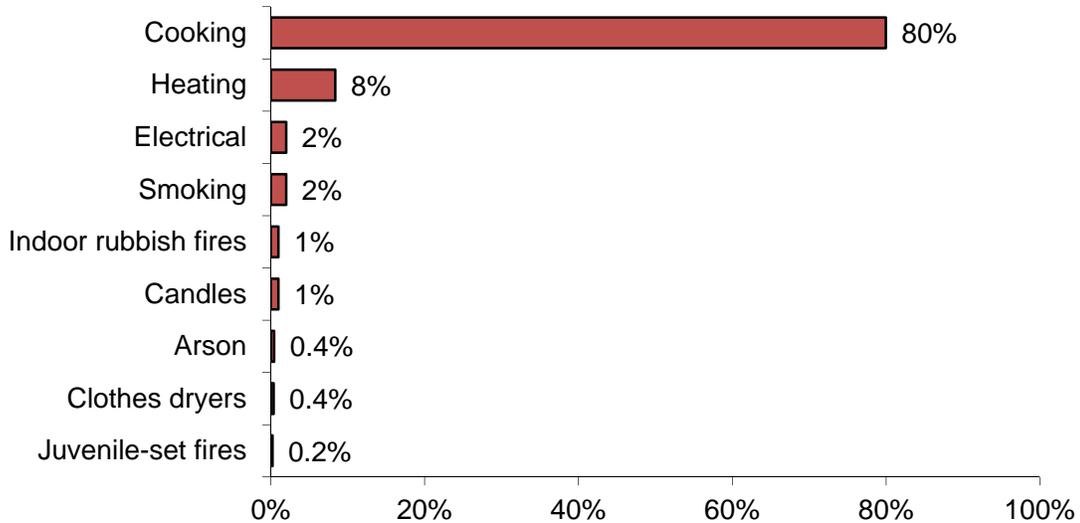
Residential Building Fires Decreased

There were 1,372 reported residential building fires in Norfolk County in 2016. These 1,372 fires are a decrease of 156, or 10%, from the 1,528 residential building fires reported in 2015.

Cooking Caused 80% of Residential Fires

The leading cause of residential building fires in Norfolk County was unattended cooking and other unsafe cooking practices, accounting for 80% of the fires. Heating caused 8% of fires in people's homes. Electrical problems and smoking each caused 2%. Indoor rubbish fires and candles each caused 1% of these fires. Arson, clothes dryers and juvenile-set fires each caused less than 1% of the residential building fires in Norfolk County in 2016.

2016 Leading Causes of Fires in Norfolk County Homes



87% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One thousand one hundred and eighty-nine (1,189), or 87%, of all residential building fires were reported as confined to non-combustible containers in 2016. One thousand and seventy-eight (1,078) of the reported fires were cooking fires contained to a non-combustible container, accounting for 79% of residential building fires. Fifty (50), or 4%, were fires confined to a fuel burner or boiler malfunction. Forty-seven (47), or 3%, of all residential building fires reported in 2016 were fires confined to a chimney. Thirteen (13), or 1% of Norfolk County's residential fires in 2016 were contained rubbish fires; and one, or less than 1%, was a confined commercial compactor fire.

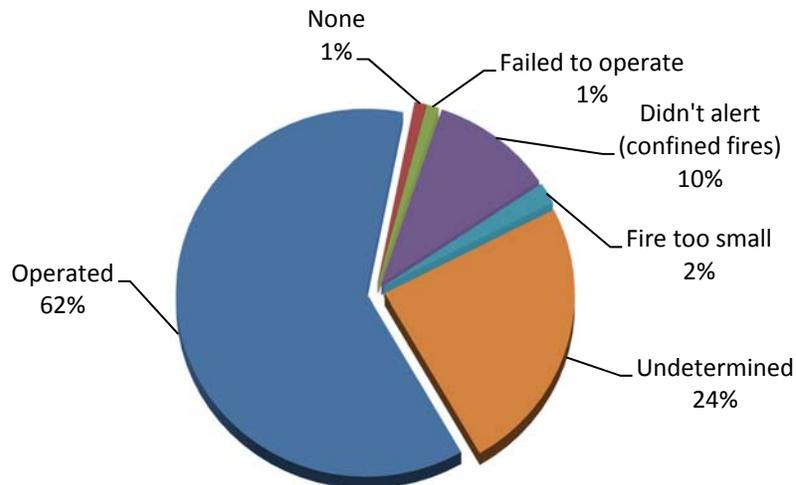
Detectors Alerted Occupants in 62% of Fires

Smoke or heat detectors operated and alerted the occupants in 843, or 62%, of the residential building fires. In 10% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 1% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 2% of the residential fires. Smoke detector performance was undetermined in 332 incidents, or 24%, of Norfolk County's residential building fires.

¹ 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.

² 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 2016



3 Detectors Failed from Missing Batteries

Of the 14 fires where smoke detectors were present but failed to operate, three, or 21%, failed because of missing or disconnected batteries. In another three cases, or 21%, the detector failed because of a power failure, shut off or disconnect. The battery was dead in two detectors, or 14% of these fires. It was undetermined or unclassified in six cases, or 43%, why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Norfolk County reported 12 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 1,813 building fires reported to MFIRS in 2016. Seven (7) fires occurred in vacant residential properties. Two (2) fires occurred at storage facilities; and one each at an institution facility, a business and a manufacturing or processing facility.

None of the vacant building fires in Norfolk County in 2016 were determined to be intentionally set.

JUVENILE-SET FIRES

21 Juvenile-set Fires

There were 21 reported juvenile-set fires in Norfolk County in 2016. The three structure fires, 17 brush fires, and one outside rubbish fire caused \$100,602 in estimated damages.

ARSONS

54 Total Arsons - 9 Structures, 2 Vehicles & 43 Other Arsons

Fifty-four (54), or 2%, of Norfolk County's 3,154 fires were intentionally set, or, for purposes of this analysis, arson. The nine structure arsons, two motor vehicle arsons and 43 outside and other arsons caused an estimated loss of \$259,056.

All Arsons Down Slightly

The total number of reported arson fires decreased by five from the 59 reported in 2015. Reported structure arsons increased by one from the eight reported the previous year. Motor vehicle arsons decreased by three from the five reported in 2015. Reported outside and other arsons decreased by three from 46 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 59% of All Reported Incidents

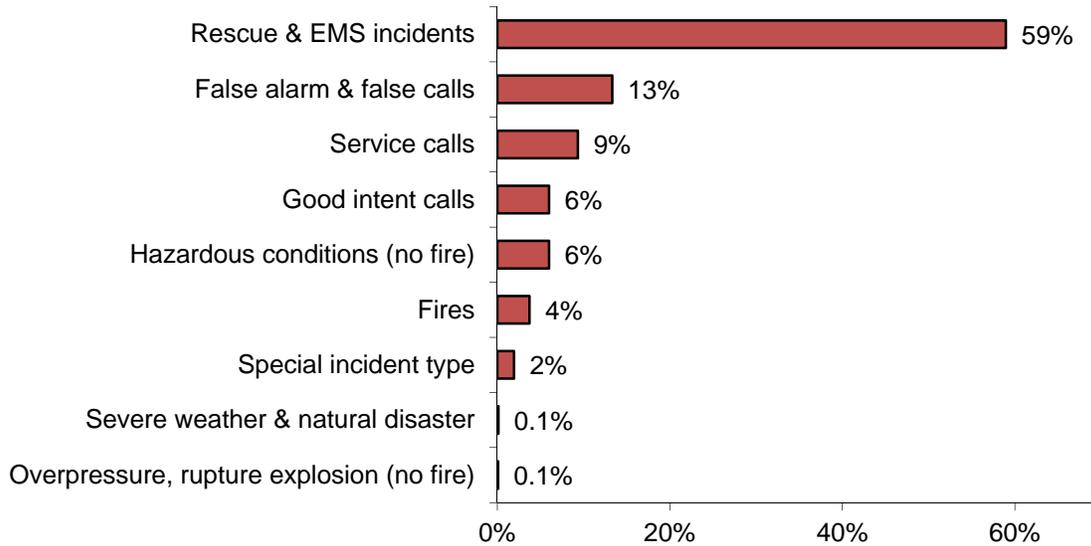
In 2016, fire departments in Norfolk County reported 89,822 responses³ to MFIRS. Of these 89,822 incidents, 86,479 non-fire calls were voluntarily reported.

Of these 86,479 non-fire incidents, 52,951, or 59%, of all the incidents reported in 2016 were reported rescue and emergency medical services (EMS) calls; 11,976, or 13%, were reported false alarm or false calls; 8,387, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,805, or 6%, were reported good intent calls; 5,421, or 6%, were reported hazardous condition calls with no fire; 1,744, 2%, were special incident type calls such as citizen complaints; 111, or 0.1%, were severe weather responses; and 84, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Three thousand three hundred and forty-three (3,343), or 4%, of the total responses submitted by Norfolk County fire departments were fires.

³ These figures include responses in which Norfolk County fire departments gave mutual aid to other fire departments.

2016 Responses by Incident Type



Norfolk County Fire Departments Gave Mutual Aid 3,182 Times

In 2016, Norfolk County fire departments reported coming to the aid of other fire departments 3,182 times. Of these 3,180 responses, 1,801, or 57%, were for rescue or EMS calls; 511, or 16%, were for good intent calls; 472, or 15%, were for service calls such as cover assignments; 185, or 6%, were for fires; 140, or 4%, were for false alarms or false calls; 39, or 1%, were special incident types; and 34, or 1%, were for hazardous conditions calls with no fire.

Norfolk County Received Mutual Aid in 1,879 Incidents

In 2016, Norfolk County fire departments reported receiving aid from surrounding departments in 1,879 incidents. Of these 1,879 incidents, 1,518, or 81%, were rescue and emergency medical services calls; 153, or 8%, were for fires; 123, or 7%, were false alarms or false calls; 45, or 2%, were good intent calls; 22, or 1%, were hazardous conditions calls with no fire; 16 or 1%, were service calls; and two, or 0.1%, were overpressure, rupture explosions with no after fire.

Norfolk County**Population: 670,850****4.7 Fires/1,000 Population****Total Fires: 3,154 \$19,942,109**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,638	52%	\$16,343,305
Vehicle Fires	213	7%	1,434,078
Other Fires	1,303	41%	2,164,726

3 Fatal Fires 1.27 Civilian Deaths/1,000 Fires
 4 Civilian Deaths 0.06 Civilian Deaths/10,000 Population
 25 Civilian Injuries 43 Fire Service Injuries

Building Fires: 1,629**Residential Structure Fires: 1,372****Residential Structure Fires Confined to Non-Combustible Containers: 1,189****Unconfined Residential Structure Fires: 183**

2 Civilian Deaths 18 Civilian Injuries 37 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	690	50%	Operated	843	62%
1- & 2-Family homes	533	39%	Didn't operate	14	1%
Rooming houses	48	3%	None	14	1%
Dormitories	26	2%	Fire too small	26	2%
Hotels or motels	11	1%	Didn't alert (confined)	143	10%
Residential board & care	10	1%	Undetermined	332	24%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	81%	Radiated heat from oper. eq.	2%	12%
Heating equipment room	4%	Heat from operating equip.	1%	11%
Chimney or flue	3%	Arcing	1%	9%
Bedroom	1%	Cigarette	1%	7%
Wall assembly, concealed space	1%	Hot ember or ash	1%	7%
Ext. balcony, unenclosed porch	1%			

⁴ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁵ 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 Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	79%	Abandoned materials	1%	6%
Flammable/comb. liquid	4%	Misuse of mater. or prod.	1%	6%
Film, residue (creosote)	3%	Too close to combustibles	1%	5%
Structural member, framing	1%	Equipment unattended	1%	5%
Rubbish, trash, waste	1%	Electrical failure, malfunc.	0.5%	4%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Kitchen & cooking equipment	80%	Unintentional	8%	58%
None	8%	Failure of eq. or heat source	1%	9%
Boiler, furnace, cent. heat. unit	4%	Intentional	0.3%	2%
Chimney, flue	3%	Act of nature	0.5%	4%
Clothes dryer	0.4%	Cause under investigation	2%	13%
Fan	0.4%	Undetermined	2%	12%

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

Alerted occupants	64%
Didn't alert occupants	12%
Undetermined	24%

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

⁷ 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.

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 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	222	184	12	26
February	206	154	24	28
March	219	124	12	83
April	301	157	11	133
May	325	142	24	159
June	345	123	24	198
July	431	128	22	281
August	359	115	32	212
September	214	128	10	76
October	179	134	18	27
November	186	125	12	49
December	167	124	12	31

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	490	284	24	182
Monday	527	242	30	255
Tuesday	408	216	35	157
Wednesday	410	218	33	159
Thursday	432	228	28	176
Friday	450	236	37	177
Saturday	437	214	26	197

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	128	64	23	41
04:01 - 08:00	208	91	16	101
08:01 - 12:00	559	314	41	204
12:01 - 16:00	857	348	49	460
16:01 - 20:00	978	557	53	368
20:01 - 00:00	424	264	31	129

Motor Vehicle Fires

Total: 213

Automobiles: 169 (79%)

2, or (1%), of the automobile fires were considered intentionally set.

Arson Fires**Total Arsons: 54****Dollar loss: \$259,056****0.08 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	9	0.5%	17%	\$247,802
Vehicle Arsons	2	1%	4%	10,250
Other Arsons	43	3%	80%	1,004

0.01 Structure arsons/1,000 population

0.003 Vehicle arsons/1,000 population

0.06 Other arsons/1,000 population

No Injuries

Peak Times of Day for

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	5	56%	00:01 - 04:00	1	50%
08:01 - 12:00	2	22%	20:01 - 00:00	1	50%
04:01 - 08:00	1	11%			
12:01 - 16:00	1	11%			

Other Arsons	#	%
12:01 - 16:00	13	30%
16:01 - 20:00	11	26%
20:01 - 00:00	9	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	5	56%
Dormitory type residence, other	1	11%
Jail, prison (not juvenile)	1	11%
Parking garage (detached residential garage)	1	11%

Avon					Population: 4,356			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	43	14	9	20	3	1	0	2
2013	27	2	8	17	0	0	0	0
2014	3	2	1	0	1	0	1	0
2015	42	4	13	25	2	0	1	1
2016	43	3	10	30	2	0	0	2

Bellingham					Population: 16,332			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	60	26	4	30	0	0	0	0
2013	63	28	15	20	0	0	0	0
2014	50	25	4	21	0	0	0	0
2015	58	25	8	25	2	2	0	0
2016	40	11	6	23	1	1	0	0

Braintree					Population: 35,744			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	102	24	20	58	1	0	1	0
2013	90	30	14	46	0	0	0	0
2014	128	27	21	80	5	2	1	2
2015	115	31	15	69	6	0	2	4
2016	89	20	12	57	1	1	0	0

Brookline					Population: 58,732			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	432	379	10	43	1	0	0	1
2013	478	401	15	62	1	1	0	0
2014	442	377	8	57	3	1	0	2
2015	391	332	11	48	3	2	0	1
2016	442	346	7	89	1	0	0	1

Canton	Population: 21,561							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	36	16	13	7	1	1	0	0
2013	16	3	8	5	0	0	0	0
2014	35	14	13	8	0	0	0	0
2015	25	13	6	6	0	0	0	0
2016	34	15	8	11	0	0	0	0

Cohasset	Population: 7,542							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	31	8	0	23	9	0	0	9
2013	50	31	2	17	6	0	0	6
2014	73	43	6	24	4	0	0	4
2015	92	74	1	17	3	0	0	3
2016	78	52	4	22	3	0	0	3

Dedham	Population: 24,729							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	196	107	8	81	11	0	2	9
2013	170	101	9	60	6	0	0	6
2014	206	123	16	64	12	1	1	10
2015	210	120	11	79	6	0	0	6
2016	181	86	13	82	7	0	0	7

Dover	Population: 5,589							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	29	14	1	14	0	0	0	0
2013	15	7	0	8	0	0	0	0
2014	1	1	0	0	0	0	0	0
2015	8	6	0	2	1	1	0	0
2016	12	4	0	8	0	0	0	0

Foxborough					Population: 16,865			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	64	20	13	31	2	0	0	2
2013	21	10	2	9	0	0	0	0
2014	43	11	10	22	1	0	0	1
2015	36	8	2	26	0	0	0	0
2016	50	12	11	27	0	0	0	0

Franklin					Population: 31,635			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	88	27	8	53	4	0	0	4
2013	71	23	10	38	5	1	0	4
2014	46	16	7	23	1	0	0	1
2015	76	24	12	40	0	0	0	0
2016	71	12	15	44	3	1	1	1

Holbrook					Population: 10,791			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	47	23	4	20	4	0	2	2
2013	37	26	0	11	0	0	0	0
2014	67	32	6	29	1	1	0	0
2015	44	18	2	24	2	1	0	1
2016	52	28	3	21	0	0	0	0

Medfield					Population: 12,024			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	27	13	3	11	5	0	1	4
2013	19	12	1	6	3	0	0	3
2014	20	6	0	14	8	0	0	8
2015	22	8	1	13	2	0	0	2
2016	17	5	0	12	7	0	0	7

Medway **Population: 12,752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	59	41	2	16	0	0	0	0
2013 ¹⁰	Fire Department in Good Standing							
2014	4	2	0	2	0	0	0	0
2015	39	32	1	6	0	0	0	0
2016	49	21	5	23	2	1	0	1

Millis **Population: 7,891**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1	1	0	0	0	0	0	0
2013	2	1	1	0	0	0	0	0
2014	Non-Reporting Community							
2015	Non-Reporting Community							
2016	Non-Reporting Community							

Milton **Population: 27,003**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	165	87	9	69	20	0	0	20
2013	142	103	12	27	9	0	0	9
2014	169	121	17	31	8	0	1	7
2015	193	126	17	50	4	0	0	4
2016	191	128	21	42	6	0	0	6

Needham **Population: 28,886**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	67	26	6	35	0	0	0	0
2013	57	17	10	30	1	0	1	0
2014	39	10	6	23	0	0	0	0
2015	101	34	5	62	2	0	0	2
2016	59	11	4	44	0	0	0	0

¹⁰ Medway only reported 95 total incidents in 2013. None of these were fires, and almost all were in December.

Norfolk					Population: 11,227			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	62	43	3	16	0	0	0	0
2013	53	43	0	10	1	0	0	1
2014	51	38	7	6	0	0	0	0
2015	59	41	3	15	1	1	0	0
2016	54	40	1	13	1	1	0	0

Norwood					Population: 28,602			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	103	37	6	60	0	0	0	0
2013	118	44	11	63	0	0	0	0
2014	98	33	3	62	2	1	1	0
2015	159	44	9	106	0	0	0	0
2016	143	42	3	98	2	1	0	1

Plainville					Population: 8,264			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	32	10	8	14	3	0	0	3
2013	21	9	5	7	0	0	0	0
2014	40	15	4	21	2	0	0	2
2015	53	30	2	21	1	0	0	1
2016	47	20	5	22	2	0	0	2

Quincy					Population: 92,271			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	606	326	24	256	16	2	1	13
2013	554	357	33	164	9	1	2	6
2014	699	389	27	283	17	0	0	17
2015	658	402	35	221	13	0	0	13
2016	540	258	22	260	11	0	1	10

Randolph					Population: 32,112			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	228	154	15	59	2	2	0	0
2013	177	136	16	25	2	0	1	1
2014	220	146	18	56	2	0	0	2
2015	138	103	8	27	0	0	0	0
2016	193	120	15	58	0	0	0	0

Sharon					Population: 17,612			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	44	21	6	17	1	0	0	1
2013	31	14	7	10	1	0	0	1
2014	47	27	4	16	2	1	0	1
2015	64	35	5	24	1	1	0	0
2016	47	23	5	19	2	2	0	0

Stoughton					Population: 26,962			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	195	160	6	29	2	1	1	0
2013	94	59	12	23	5	1	0	4
2014	86	45	19	22	2	0	0	2
2015	111	74	6	31	2	0	0	2
2016	138	99	8	31	0	0	0	0

Walpole					Population: 24,070			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	93	54	1	38	0	0	0	0
2013	80	51	6	23	0	0	0	0
2014	83	43	9	31	1	0	0	1
2015	90	44	8	38	1	0	0	1
2016	50	24	4	22	0	0	0	0

Wellesley					Population: 27,982			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	43	22	6	15	1	0	0	1
2013	57	31	8	18	0	0	0	0
2014	50	30	6	14	1	0	0	1
2015	37	14	9	14	0	0	0	0
2016	60	25	3	32	0	0	0	0

Westwood					Population: 14,618			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	73	59	4	10	0	0	0	0
2013	106	77	10	19	0	0	0	0
2014	97	70	9	18	2	1	0	1
2015	138	61	16	61	2	0	0	2
2016	142	80	9	53	1	0	0	1

Weymouth					Population: 53,743			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	338	178	32	128	5	2	2	1
2013	317	174	21	122	8	2	0	6
2014	322	160	20	142	3	3	0	0
2015	243	116	14	113	3	0	2	1
2016	319	149	17	153	2	1	0	1

Wrentham					Population: 10,955			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	31	10	5	16	5	1	0	4
2013	18	10	2	6	2	0	0	2
2014	11	6	1	4	0	0	0	0
2015	21	6	5	10	2	0	0	2
2016	13	4	2	7	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	1,470	53	1	936	40	173	151	115	0	1
21025	Bellingham	2,364	41	1	1,565	71	246	193	238	0	9
21040	Braintree	5,684	90	28	3,346	245	734	472	761	1	7
21046	Brookline	7,946	453	7	4,336	501	886	348	1,406	3	6
21050	Canton	35	34	0	0	1	0	0	0	0	0
21065	Cohasset	1,828	85	0	957	195	183	120	263	18	7
21073	Dedham	3,709	188	4	2,448	247	155	156	509	0	2
21078	Dover	213	16	0	28	41	4	17	107	0	0
21099	Foxborough	916	55	2	207	139	83	106	316	0	8
21101	Franklin	3,979	87	0	2,869	172	153	207	481	6	4
21133	Holbrook	2,639	53	2	1,475	151	495	249	207	0	7
21175	Medfield	683	20	0	353	104	106	24	70	2	4
21177	Medway	1,561	49	7	959	190	92	81	176	6	1
21187	Millis**	0	0	0	0	0	0	0	0	0	0
21189	Milton	4,137	200	2	2,220	210	339	96	603	4	463

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	1,850	83	0	1,064	356	39	23	285	0	0
21199	Needham	3,883	59	1	1,976	179	725	218	714	5	6
21220	Norwood	5,064	146	0	3,671	256	293	153	534	4	7
21238	Plainville	3,098	49	3	1,243	75	232	105	214	41	1,136
21243	Quincy	7,029	540	10	4,268	534	511	326	830	4	6
21244	Randolph	5,564	197	4	3,776	313	535	211	526	0	2
21266	Sharon	2,280	65	0	1,310	155	225	218	284	9	14
21285	Stoughton	5,381	159	3	3,323	184	522	507	663	0	20
21307	Walpole	1,915	55	1	1,242	113	148	125	229	0	2
21317	Wellesley	4,374	60	4	2,040	280	485	326	1,171	6	2
21335	Westwood	3,176	174	2	1,854	226	289	166	457	0	8
21336	Weymouth	7,403	319	2	4,355	363	521	1,109	712	2	20
21350	Wrentham	1,641	13	0	1,130	80	213	98	105	0	2
Norfolk County		89,822	3,343	84	52,951	5,421	8,387	5,805	11,976	111	1,744

* Certified no reportable fires.

**Non reporting department.

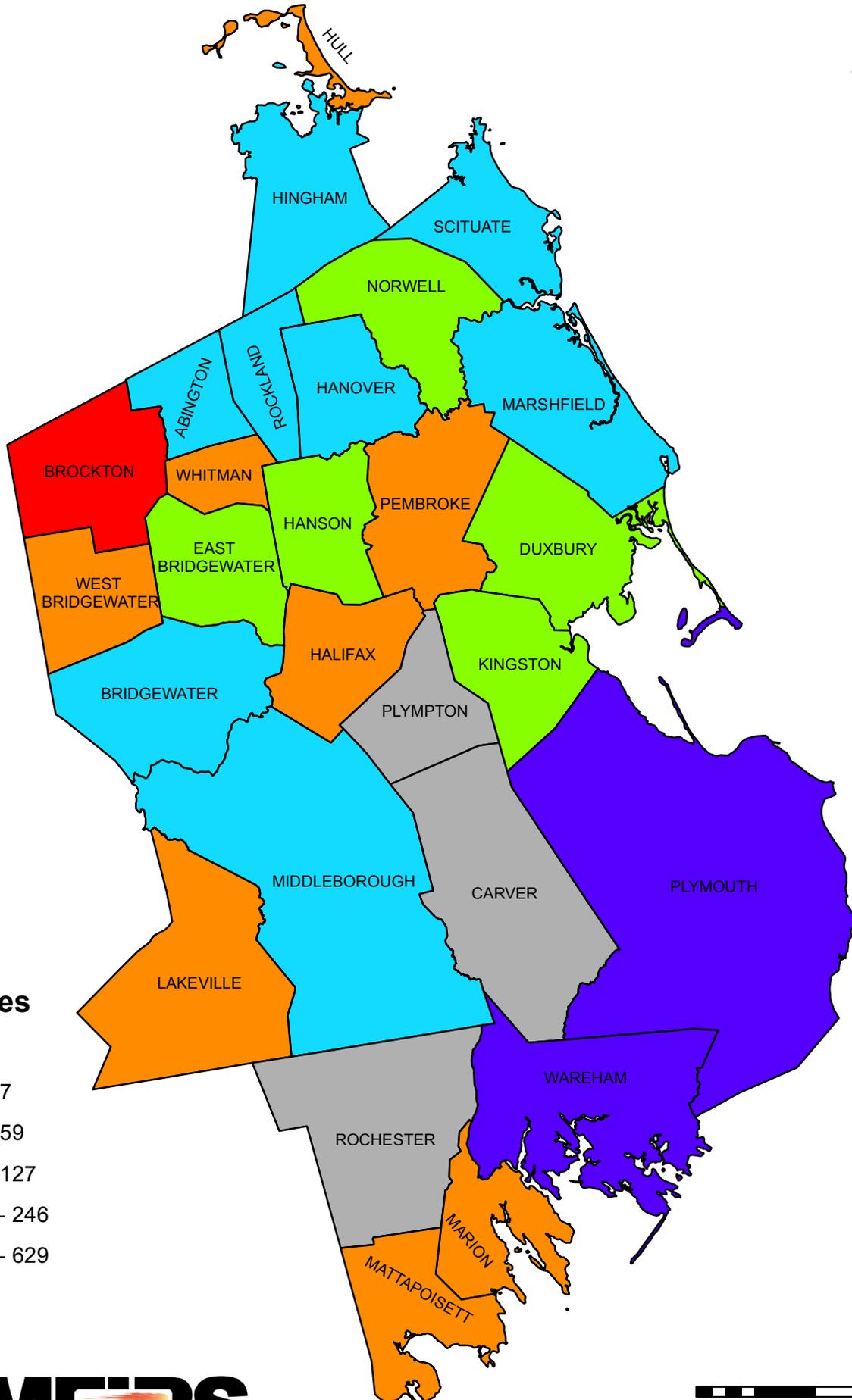
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



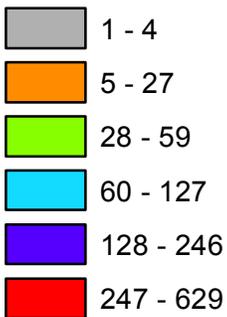
Plymouth County

2016 Fire Data Analysis

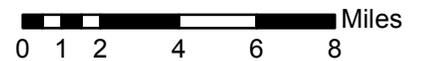
Plymouth County Fires 2016



2016 Fires



MFIRS
Massachusetts Fire Incident Reporting System



Plymouth County Fires in 2016

2,075 Total Fires — 820 Structures, 215 Vehicles & 1,040 Other Fires

Plymouth County ranked seventh out of the fourteen Massachusetts counties in total reported fires. Plymouth County fire departments reported 2,075 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 820 structure fires, 215 motor vehicle fires, 703 brush, tree or lawn fires, 167 outside rubbish fires, 119 special outside fires, six cultivated vegetation or crop fires and 45 other fires caused eight civilian deaths, 39 civilian injuries, 29 fire service injuries and an estimated dollar loss of \$17.9 million. Plymouth County's fires accounted for 7% of the 31,889 Massachusetts fires reported in 2016.

All 28 fire departments in Plymouth County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2016.

Structure & MV Fires Down

The total number of reported fire incidents increased by five, or less than 1%, from the 2,070 reported in 2015. Reported structure fires decreased by 77 from 897 the year before. Motor vehicle fires decreased by 21 from 236 the previous year. Reported outside and other fires increased by 103 from 937 in 2015.

PLYMOUTH COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2,073	830	213	1,030	134	40	10	84
2013	1,892	824	230	838	73	12	8	53
2014	1,891	814	211	866	72	26	5	41
2015	2,070	897	236	937	38	14	3	21
2016	2,075	820	215	1,040	41	10	2	29

Fire and Fire Death Rates

Plymouth County had 4.2 fires per 1,000 population. That figure ranks Plymouth County seventh in the state and below the state rate of 4.9 fires per 1,000 population. Plymouth County also had 0.16 fire deaths per 10,000 population ranking it second among Massachusetts counties and above the state rate of 0.09 fire deaths per 10,000 population.

5 Plymouth County Fatal Fires Killed 8 Civilians in 2016

Eight (8) people died in five fatal fires in Plymouth County in 2016.

- On January 19, 2016, at 7:44 p.m., the Scituate Fire Department was called to a fatal electrical fire in a single-family home. The fire was started by arcing in the kitchen. The victim, a 42-year old man, was sleeping and possibly impaired by alcohol at the time of the fire. One (1) firefighter was injured at this fire. Alarms were not present and there were no sprinklers. The fire caused an estimated \$400,000 worth of damage.

- On February 17, 2016, at 8:16 p.m., the Plymouth Fire Department was called to a fatal self-immolation fire in a single-family home. The victim, a 64-year old man, ignited gasoline on the first floor. No one else was injured at this fire. Alarms were present but it was undetermined if they operated, but the victim was intimately involved with the ignition of the fire. The home was not sprinklered. Damages from this fire were estimated to be \$500,000. The fire spread to one of the vehicles parked near the home, causing another \$12,000 in damages.
- On August 8, 2016, at 5:09 a.m., the West Bridgewater Fire Department was called to a fatal fire in a two-family home of undetermined cause. The fire started in the first floor kitchen. The victim, a 54-year old man, is believed to have been sleeping when the fire began but somehow involved with starting the fire. Three (3) firefighters were injured at this fire. It was undetermined if alarms were present. The building was not sprinklered. Damages from the blaze were estimated to be \$364,500.
- On October 6, 2016, at 11:06 p.m., the Middleborough Fire Department was called to a fatal motor vehicle crash with ensuing fire on Interstate 495. The car crashed into the trees on the side of the highway. The driver was not able to escape the car. The victim, a 58-year old man died at the scene. Damages were estimated to be \$4,500.
- On October 24, 2016, at 12:15 a.m., the Middleborough Fire Department was called to a fatal motor vehicle crash with ensuing fire on Interstate 495. The two cars crashed into one another. The driver and sole occupant of the first car was killed by the trauma of the collision. The four men in the second car were not able to escape the car. The victims were an 18-year old man, two 19-year old men, and a 20-year old man. Damages were estimated to be \$4,000.

Halifax Has Plymouth County's Largest Loss Fire in 2016

In 2016, there was one large loss fire in Plymouth County. Halifax had the largest loss fire and this fire accounted for 7% of the total dollar loss for Plymouth County in 2016.

- On September 5, 2016, at 1:04 p.m., the Halifax Fire Department responded to a fire of undetermined cause in a single-family home. One (1) firefighter was injured at this fire. It was undetermined if alarms were present and the building did not have any sprinklers. Total damages were estimated to be \$1.25 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 820 structure fires caused three civilian deaths, 34 civilian injuries, 23 fire service injuries and an estimated dollar loss of \$15.6 million. These incidents represented 40% of Plymouth County's reported fires in 2016. The average estimated dollar loss per structure fire was \$19,049. The total number of reported structure fires decreased by 77, or 9%, from the 897 reported in 2015.

Structure Arsons Down

The 10 structure arsons caused one civilian injury and an estimated dollar loss of \$686,520. Arson was indicated as the cause of 1% of the structure fires and 4% of

Plymouth County's structure fire dollar loss. The 10 structure arsons accounted for 24% of the Plymouth County arson fires reported in 2016. The total number of reported structure arsons decreased by four, or 29%, from 14 in 2015.

80% of Structure Arsons Occurred in Residences

Eighty percent (80%) of Plymouth County's 10 structure arsons occurred in residential occupancies; 10% each occurred in public assembly properties and institutional facilities.

BUILDING FIRES

There were 809 building fires of different types in Plymouth County in 2016. These 809 building fires accounted for 98.7% of all structure fires in Plymouth County.

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

Six hundred and seventy-three (673), or 83%, of Plymouth County's 809 building fires occurred in residential occupancies. Mercantile and business properties had 34 fires. Twenty-four (24) building fires took place in educational facilities. Twenty-three (23) fires took place in public assembly properties, including restaurants and churches. Twenty-three (23) fires took place in storage facilities. Hospitals, prisons, and other institutional buildings experienced 18 fires. Seven (7) building fires in Plymouth County occurred in special properties such as outbuildings and sheds. Six (6) fires took place in manufacturing and processing facilities. One (1) fire occurred in an industrial, utility, defense, agricultural or mining facility in Plymouth County in 2016.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 673 reported residential building fires in Plymouth County in 2016. These 673 fires are a decrease of 66, or 9%, from the 739 residential building fires reported in 2015.

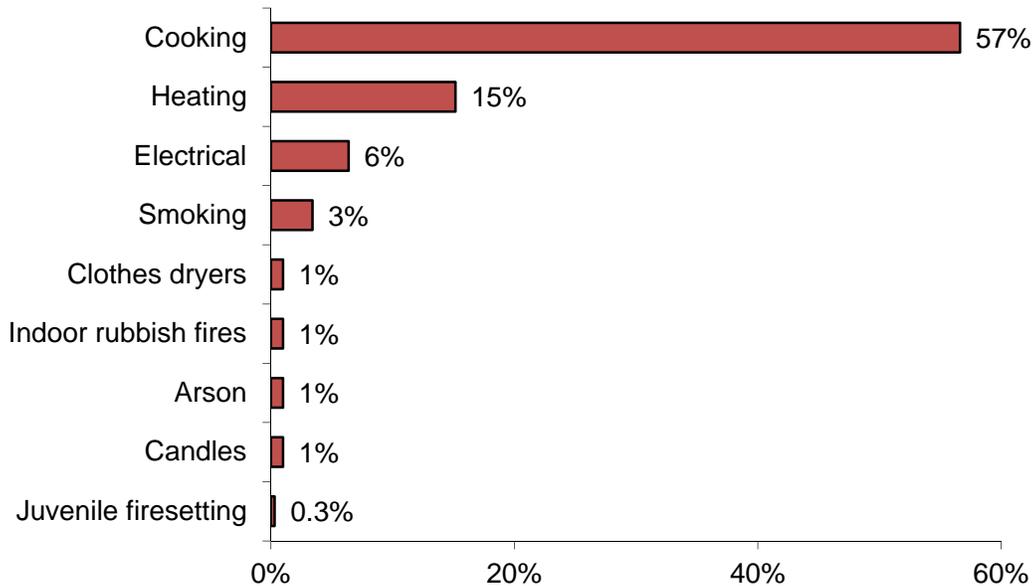
1- & 2-Family Homes Accounted for 51% of Residential Building Fires

The peak fixed property use for residential building fires were 1- & 2-family homes, accounting for 51% of the residential building fires in Plymouth County; 41% occurred in apartments. Rooming houses had 2% of these fires. Residential board and care facilities, and hotels or motels each had 1% of these fires. Dormitories had less than 1% of these fires. Nineteen (19), or 3%, of the residential building fires in Plymouth County occurred in unclassified residential buildings.

Cooking & Heating Leading Causes of Residential Fires

The leading cause of the 673 residential building fires in Plymouth County was unattended cooking and other unsafe cooking practices, accounting for 57% of these fires. Heating problems caused 15% of the fires in people's homes. Electrical problems caused 6% and smoking caused 3% of these fires. Clothes dryers, indoor rubbish fires, arson, and candles each caused 1% of these fires. Juvenile-set fires caused less than 1% of residential fires in Plymouth County in 2016.

2016 Leading Causes of Fires in Plymouth County Homes



68% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Four hundred and fifty-six (456), or 68%, of all residential building fires were reported as confined to non-combustible containers in 2016. Three hundred and fifty-six (356) of the reported fires were cooking fires contained to a non-combustible container, accounting for 53% of residential building fires. Forty-seven (47), or 7%, were fires confined to a fuel burner or boiler malfunction. Forty-four (44), or 7%, of all residential building fires reported in 2016 were fires confined to a chimney. Eight (8), or 1%, of these fires were contained rubbish fires; and one, or 0.1%, was a confined commercial compactor fire.

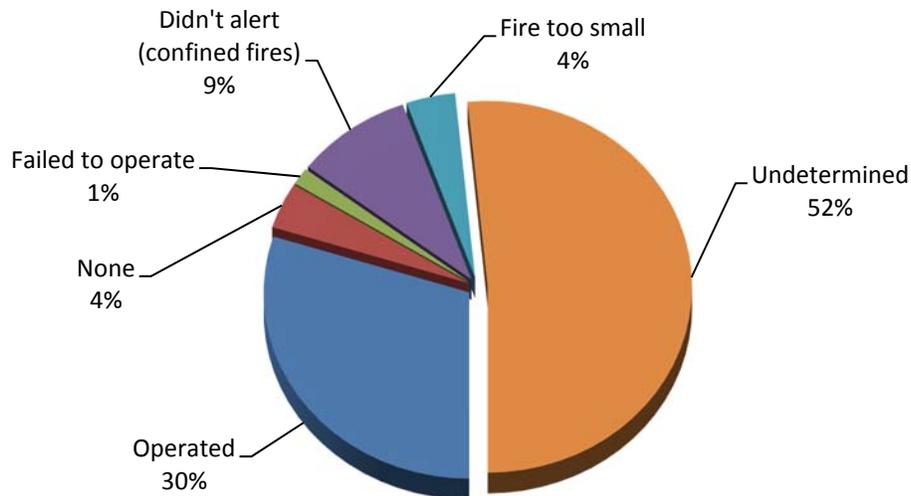
Detectors Alerted Occupants in Less Only 30% of Fires

Smoke or heat detectors operated and alerted the occupants in 201, or 30%, of the residential building fires. In 9% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 1% 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 residential fires. Smoke detector performance was undetermined in 347 incidents, or 52%, of Plymouth County’s residential building fires.

¹ 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.

² 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 2016



4 of Failed Detectors Had Missing or Dead Batteries

Of the 10 fires where smoke detectors were present but failed to operate, three, or 30%, failed because the batteries were either missing or disconnected. One (1), or 10%, failed because of a dead battery. One (1), or 10%, failed because of a power shut off or failure. It was undetermined or unclassified in five cases, or 50%, why the detectors failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Plymouth County reported 27 fires that occurred in buildings that were vacant, under construction or demolition³. This represented 3% of the total 809 building fires reported to MFIRS in 2016. Thirteen (13) fires occurred in vacant residential properties. Eight (8) fires occurred in storage facilities. Three (3) fires happened in mercantile or business properties. Two (2) vacant building fires occurred in public assembly properties and an one vacant building fire in Plymouth County happened in a special property.

Two (2), or 7%, of the vacant building fires in Plymouth County in 2016 were determined to be intentionally set. One (1) fire occurred in a restaurant and the other in a single-family home.

³ 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

8 Juvenile-set Fires

There were eight reported juvenile-set fires in Plymouth County in 2016. The two structure fires and six brush fires caused \$40,000 in estimated damages.

ARSONS

41 Total Arsons — 10 Structures, 2 Vehicles & 29 Other Arsons

Forty-one (41), or 2%, of Plymouth County's 2,075 fires were considered intentionally set, or, for purposes of this analysis, arson. The 10 structure arsons, two motor vehicle arsons and 29 outside and other arsons caused one civilian injury and an estimated dollar loss of \$689,520.

Structure & MV Arsons Down

The total number of reported arson fires increased by three from the 38 reported in 2015. Reported structure arsons decreased by four from the 14 reported in 2015. Motor vehicle arsons decreased by one from three in 2015. Reported outside and other arsons increased by eight from 21 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 67% of All Reported Responses

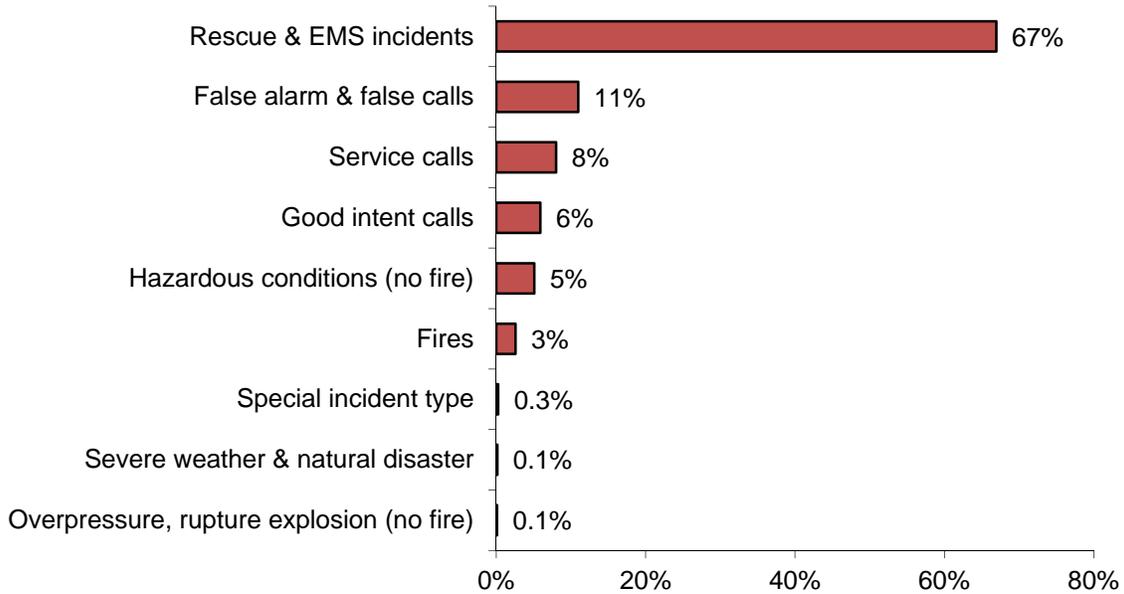
In 2016, Plymouth County fire departments reported 86,131 responses⁴ to MFIRS. Of these 86,131 incidents, 83,906 non-fire calls were voluntarily reported.

Of these 83,906 non-fire calls, 57,667, or 67%, of the total responses reported in 2016, were reported rescue and emergency medical services (EMS) calls; 9,457 or 11%, were reported false alarm or false calls; 6,898, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,088, or 6%, were reported good intent calls; 4,378, or 5%, were reported hazardous condition calls with no fire; 217, or 0.3%, were special incident type calls such as citizen complaints; 120, or 0.1%, were severe weather responses; and 81, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand two hundred and twenty-five (2,225), or 3%, of the total responses submitted by Plymouth County fire departments were fires.

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

2016 Responses by Incident Type



Plymouth County Fire Departments Gave Mutual Aid 2,301 Times

In 2016, Plymouth County fire departments reported coming to the aid of other fire departments 2,301 times. Of these 2,301 responses, 1,513, or 66%, were for rescue or EMS calls; 376, or 16%, were for good intent calls; 219, or 10%, were for service calls such as cover assignments; 146, or 6%, were for fires; 22, or 1%, were for hazardous conditions calls with no fire; 19, or 1%, were for false alarms or false calls; four, or 0.2%, were for special incident type calls; one, or 0.04%, were severe weather or natural disaster calls; and one, or 0.04%, was an overpressure, rupture explosion call with no ensuing fire.

Plymouth County Received Mutual Aid in 1,860 Incidents

In 2016, Plymouth County fire departments received aid from surrounding departments in 1,860 incidents. Of these 1,860 incidents, 1,625, or 87%, were rescue and emergency medical services calls; 100, or 5%, were for fires; 41, or 2%, were good intent calls; 36, or 2%, were hazardous conditions calls with no fire; 30, or 2%, were false alarms or false calls; 26, or 1%, were service calls; one, or 0.1%, was an reported overpressure, rupture, explosion or overheat call with no fire; and one, or 0.1%, was a special incident type call.

Plymouth County

Population: 494,919

4.2 Fires/1,000 Population

Total Fires: 2,075 \$17,893,607

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	820	40%	\$15,620,192
Vehicle Fires	215	10%	2,175,240
Other Fires	1,040	50%	98,175

5 Fatal Fires 3.86 Civilian Deaths/1,000 Fires
 8 Civilian Deaths 0.16 Civilian Deaths/10,000 Population
 39 Civilian Injuries 29 Fire Service Injuries

Building Fires: 809

Residential Building Fires: 673

Residential Building Fires Confined to Non-Combustible Containers: 456

Unconfined Residential Building Fires: 217

3 Civilian Deaths 34 Civilian Injuries 16 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	346	51%	Operated	201	30%
Apartments	276	31%	Didn't operate	10	1%
Rooming houses	16	2%	None	27	4%
Hotels or motels	8	1%	Fire too small	26	4%
Residential board & care	5	1%	Didn't Alert (confined)	62	9%
Dormitories	3	0.4%	Undetermined	347	52%

Area of Origin ⁵	%	Heat Source	%	%Unconfined ⁶
Kitchen	59%	Heat from operating eq.	4%	12%
Heating room or area	7%	Arcing	3%	11%
Chimney or flue	7%	Radiated, cond./heat op. eq.	3%	10%
Bedroom	3%	Hot or smoldering object	2%	6%
Wall surface, exterior	2%	Hot ember or ash	2%	5%

⁵ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁶ 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 Ignited⁷	%	Factor Contrib. to Ignit.	%	%Unconfined⁸
Food, cooking materials	55%	Too close to combustibles	3%	9%
Film, residue (creosote)	7%	Abandoned materials	2%	5%
Flammable or combust. liquid	7%	Mechanical failure, malfunc.	1%	5%
Electrical wire, cable insulation	3%	Misuse of mat. or prod, other	1%	4%
Structural member, framing	2%	Electrical failure, malfunc.	1%	3%
Rubbish, trash, waste	2%	Accident. turned on, not off	1%	3%
Exterior sidewall covering	2%	Failure to clean	1%	3%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Cooking equipment	55%	Unintentional	17%	52%
None	20%	Failure of eq. or heat source	5%	15%
Chimney or flue	7%	Intentional	1%	5%
Boiler, furnace, cent. heat. unit	7%	Act of Nature	0.4%	1%
Clothes dryer	2%	Cause under investigation	3%	10%
		Undetermined	5%	15%

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

Alerted Occupants	22%
Didn't Alert Occupants	14%
Undetermined	64%

⁷ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁸ 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.

⁹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹⁰ 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	126	85	21	20
February	95	63	14	18
March	171	70	14	87
April	217	75	18	124
May	241	79	25	137
June	260	57	21	182
July	249	74	26	149
August	221	60	20	141
September	142	36	16	90
October	104	66	12	26
November	133	77	16	40
December	116	78	12	26

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	328	110	29	189
Monday	355	138	27	190
Tuesday	259	112	28	119
Wednesday	272	106	38	128
Thursday	303	133	32	138
Friday	277	110	30	137
Saturday	281	111	31	139

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	101	49	22	30
04:01 - 08:00	140	59	22	59
08:01 - 12:00	342	141	46	155
12:01 - 16:00	673	205	49	419
16:01 - 20:00	540	241	41	258
20:01 - 00:00	279	125	35	119

Motor Vehicle Fires

Total: 215

Automobiles: 176 (82%)

2, or (1%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 41

Dollar loss: \$689,520

0.08 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	10	1%	24%	\$686,520
Vehicle Arsons	2	1%	5%	0
Other Arsons	29	3%	71%	3,000

0.02 Structure arsons/1,000 population

0.004 Vehicle arsons/1,000 population

0.06 Other arsons/1,000 population

1 Civilian Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 – 04:00	2	20%	08:01 – 12:00	1	50%
12:01 – 16:00	2	20%	12:01 – 16:00	1	50%
16:01 – 20:00	2	20%			
20:01 – 00:00	2	20%			

Other Arsons	#	%
20:01 – 00:00	11	38%
16:01 – 20:00	8	28%
12:01 – 16:00	7	24%
08:01 – 12:00	3	10%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	6	60%
Apartments	1	10%
Residential, other	1	10%
Eating, drinking places	1	10%
Alcohol or substance abuse recovery center	1	10%

Abington					Population: 15,985			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	71	32	9	30	4	1	0	3
2013	58	24	6	28	1	1	0	0
2014	86	18	8	60	0	0	0	0
2015	51	13	4	34	0	0	0	0
2016	71	19	7	45	1	0	0	1

Bridgewater					Population: 26,563			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	104	46	11	47	3	2	0	1
2013	83	35	16	32	2	0	2	0
2014	119	44	20	55	3	3	0	0
2015	119	56	15	48	0	0	0	0
2016	127	71	13	43	0	0	0	0

Brockton					Population: 93,810			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	505	201	41	263	58	17	3	37
2013	503	247	44	212	26	4	1	21
2014	561	300	50	211	23	12	0	11
2015	687	380	59	248	5	4	0	1
2016	629	348	57	224	4	2	0	2

Carver					Population: 11,509			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	10	8	2	0	0	0	0	0
2013	16	11	5	0	2	1	1	0
2014	7	5	2	0	0	0	0	0
2015	2	1	1	0	0	0	0	0
2016	2	2	0	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
2012	56	21	9	26	2	0	0	2
2013	54	20	14	20	0	0	0	0
2014	39	16	6	17	0	0	0	0
2015	50	21	7	22	1	0	0	1
2016	50	17	6	27	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
2012	58	23	7	28	0	0	0	0
2013	51	30	1	20	0	0	0	0
2014	53	29	2	22	0	0	0	0
2015	56	24	4	28	1	1	0	0
2016	37	14	2	21	1	0	0	1

Halifax					Population: 7,518			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	40	16	4	20	3	2	0	1
2013	28	17	1	10	2	1	0	1
2014	46	22	2	22	6	2	0	1
2015	24	8	2	14	1	0	0	1
2016	23	7	1	15	0	0	0	0

Hanover					Population: 13,879			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	77	30	4	43	1	0	0	1
2013	64	27	7	30	0	0	0	0
2014	56	23	5	28	3	3	0	0
2015	86	32	9	45	1	1	0	0
2016	61	21	1	39	0	0	0	0

	Hanson				Population: 10,209			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	20	9	1	10	2	0	0	2
2013	30	5	5	20	0	0	0	0
2014	31	9	2	20	4	0	0	4
2015	30	11	2	17	0	0	0	0
2016	40	9	1	30	3	0	0	3

	Hingham				Population: 22,157			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	66	22	6	38	2	0	0	2
2013	74	19	12	43	4	1	1	2
2014	68	27	8	33	1	0	0	1
2015	53	18	5	30	2	0	0	2
2016	80	20	5	55	3	0	0	3

	Hull				Population: 10,293			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	24	9	1	14	1	0	0	1
2013	23	12	3	8	1	0	0	1
2014	22	12	2	8	0	0	0	0
2015	24	10	3	11	2	0	0	2
2016	25	4	3	18	3	0	0	3

	Kingston				Population: 12,629			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	65	24	10	31	5	1	2	2
2013	46	16	8	22	1	0	0	1
2014	41	7	7	27	3	1	0	2
2015	38	11	7	20	0	0	0	0
2016	59	17	9	33	1	0	1	0

Lakeville					Population: 10,602			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	51	15	5	31	1	0	0	1
2013	7	4	0	3	0	0	0	0
2014	32	2	5	25	1	0	0	1
2015	14	6	0	8	0	0	0	0
2016	25	8	3	14	2	1	0	1

Marion					Population: 4,907			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	16	4	2	10	1	0	0	1
2013	16	8	0	8	2	0	0	2
2014	10	3	2	5	1	0	0	1
2015	22	9	5	8	0	0	0	0
2016	16	1	3	12	0	0	0	0

Marshfield					Population: 25,132			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	125	55	9	61	9	0	1	8
2013	115	63	13	39	4	0	0	4
2014	69	42	3	24	2	1	0	1
2015	75	36	7	32	2	0	0	2
2016	79	35	4	40	2	1	0	1

Mattapoisett					Population: 6,045			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	21	1	0	20	3	0	0	3
2013	21	5	1	15	3	0	0	3
2014	10	2	1	7	0	0	0	0
2015	28	14	1	13	2	0	0	1
2016	13	1	1	11	0	0	0	0

Middleborough					Population: 23,116			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	116	45	10	61	4	4	0	0
2013	115	37	23	55	3	0	0	3
2014	91	36	17	38	3	1	0	2
2015	84	22	16	46	2	1	0	1
2016	88	22	24	42	4	0	1	3

Norwell					Population: 10,506			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	31	11	6	14	2	1	0	1
2013	47	22	4	21	0	0	0	0
2014	31	16	2	13	3	0	0	3
2015	43	10	10	23	2	0	0	2
2016	45	9	7	29	2	1	0	1

Pembroke					Population: 17,837			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	17	10	6	1	0	0	0	0
2013	6	1	1	4	0	0	0	0
2014	6	2	2	2	0	0	0	0
2015	9	5	3	1	0	0	0	0
2016	17	8	5	4	0	0	0	0

Plymouth					Population: 56,468			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	208	96	19	93	11	6	1	4
2013	223	98	23	102	6	1	1	4
2014	202	70	27	105	4	1	2	1
2015	233	82	21	130	9	7	1	1
2016	246	74	24	148	6	3	0	3

Plympton					Population: 2,820			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	2	0	0	0	0	0	0
2013	8	4	1	3	0	0	0	0
2014	13	4	2	7	2	0	0	2
2015	8	4	0	4	1	0	0	1
2016	4	1	0	3	1	0	0	1

Rochester					Population: 5,232			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	6	5	1	0	0	0	0	0
2013	5	3	1	1	0	0	0	0
2014	2	2	0	0	0	0	0	0
2015	2	2	0	0	0	0	0	0
2016	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
2012	63	25	6	32	1	0	0	1
2013	42	13	2	27	5	0	1	4
2014	65	26	8	31	5	0	1	4
2015	52	17	7	28	1	0	0	1
2016	78	11	7	60	3	1	0	2

Scituate					Population: 18,133			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	98	40	8	50	10	2	0	8
2013	70	27	9	34	2	0	0	2
2014	44	13	2	29	1	0	0	1
2015	68	37	5	26	0	0	0	0
2016	65	23	3	39	4	1	0	3

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
2012	24	19	3	2	2	2	0	0
2013	45	33	5	7	2	1	1	0
2014	30	20	3	7	2	0	1	1
2015	51	26	3	22	0	0	0	0
2016	45	27	3	15	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
2012	109	39	18	52	4	1	2	1
2013	95	34	16	45	1	0	0	1
2014	58	32	8	18	1	0	0	1
2015	86	24	17	45	1	0	0	1
2016	106	33	21	52	1	0	0	1

West Bridgewater**Population: 6,916**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	39	9	10	20	4	1	1	2
2013	41	7	9	25	6	2	0	4
2014	45	12	8	25	2	1	0	1
2015	43	9	13	21	4	0	1	3
2016	27	10	5	12	1	0	0	1

Whitman**Population: 14,489**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	47	11	4	32	2	0	0	2
2013	7	2	1	4	0	0	0	0
2014	7	1	0	6	0	0	0	0
2015	32	9	10	13	2	0	1	1
2016	18	7	0	11	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	3,437	71	0	2,385	165	252	191	359	1	13
23042	Bridgewater	2,862	130	1	1,547	183	214	229	528	2	28
23044	Brockton	26,376	638	7	20,209	485	1,579	941	2,500	6	11
23052	Carver	2	2	0	0	0	0	0	0	0	0
23082	Duxbury	2,417	55	6	1,473	202	200	92	377	8	4
23083	East Bridgewater	2,489	49	2	1,937	139	81	98	177	1	5
23118	Halifax	1,581	25		1,067	101	205	51	128	1	3
23122	Hanover	2,843	63	6	1,712	282	326	198	250	4	2
23123	Hanson	1,631	42	3	1,086	133	185	43	131	2	6
23131	Hingham	4,370	89	11	2,674	299	340	342	555	58	2
23142	Hull	2,382	27	1	1,594	195	227	96	235	4	3
23145	Kingston	2,418	59	7	1,668	153	154	78	289	1	9
23146	Lakeville	1,130	32	1	814	39	62	73	105	1	3
23169	Marion	1,307	20	2	873	49	88	75	178	0	22
23171	Marshfield	2,988	84	0	2,056	172	296	73	295	2	10
23173	Mattapoisett	549	18	1	23	142	115	14	229	5	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
23219	Norwell	2,180	58	5	1,131	309	230	155	281	10	1
23182	Middleborough	4,138	95	6	2,194	160	331	912	418	1	21
23993	Onset	1,593	63	1	1,021	86	155	128	132	5	2
23231	Pembroke	19	17	0	0	1	0	0	1	0	0
23239	Plymouth	7,308	257	7	4,427	298	531	709	1,072	1	6
23240	Plympton	585	7	4	370	55	68	26	44	1	10
23250	Rochester	1	1	0	0	0	0	0	0	0	0
23251	Rockland	3,042	90	4	2,252	186	146	48	312	0	4
23264	Scituate	2,397	69	4	1,493	228	168	131	292	2	10
23992	Wareham	2,112	110	1	1,142	139	186	246	275	2	11
23322	West Bridgewater	2,184	34	0	1,387	79	488	28	140	2	26
23338	Whitman	1,790	20	1	1,132	98	271	111	154	0	3
Total	Plymouth County	86,131	2,225	81	57,667	4,378	6,898	5,088	9,457	120	217

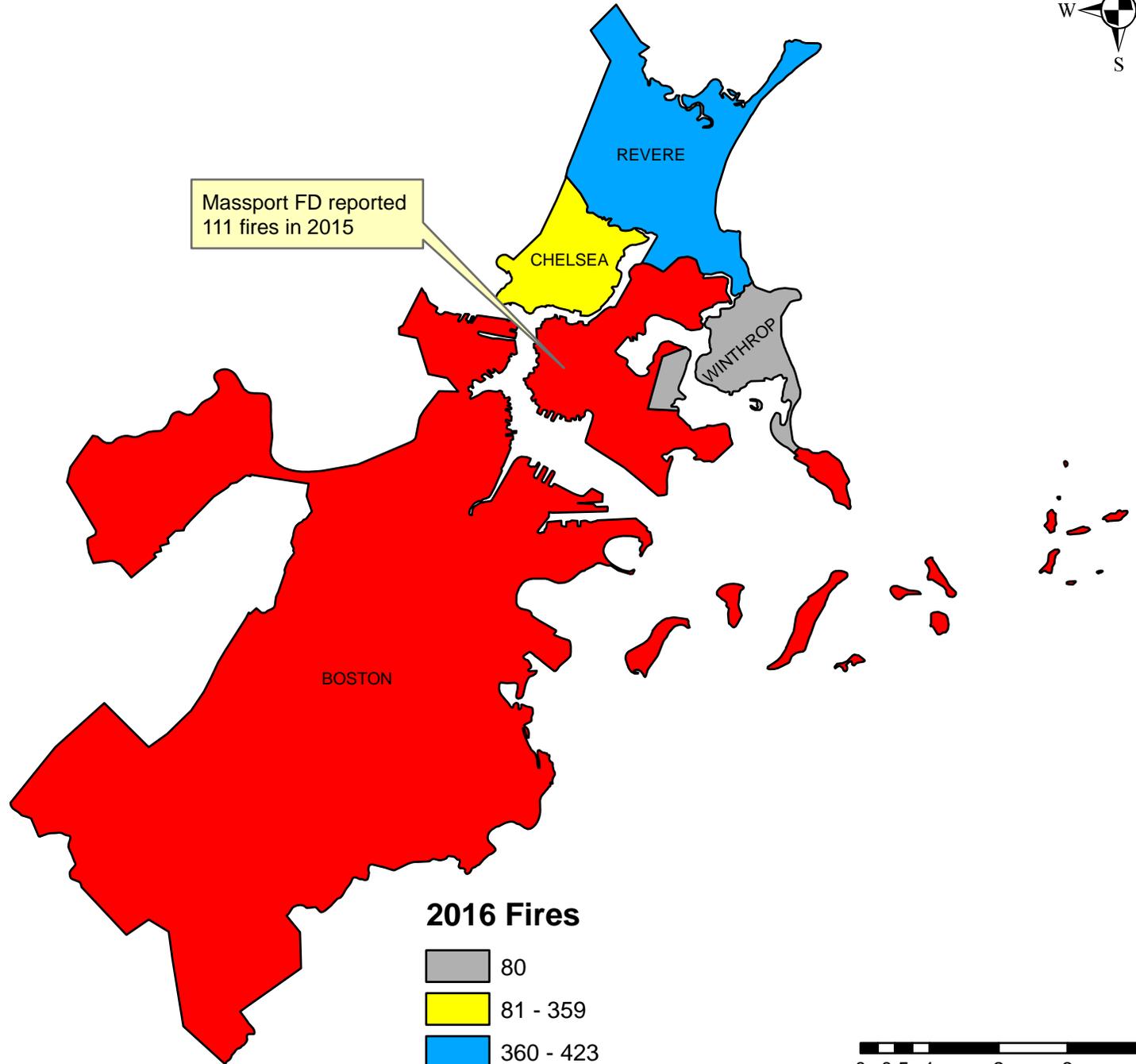
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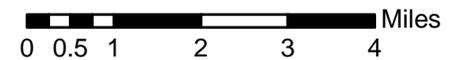
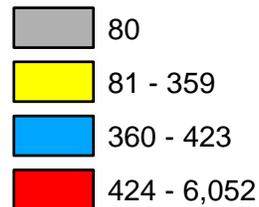
Suffolk County

2016 Fire Data Analysis

Suffolk County Fires 2016



2016 Fires



Suffolk County Fires in 2016

6,914 Total Fires — 4,627 Structures, 304 Vehicles & 1,983 Other Fires

Suffolk County ranked first out of the fourteen Massachusetts counties in total reported fires. Suffolk County fire departments reported 6,914 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 4,627 structure fires, 304 motor vehicle fires, 970 brush fires, 755 outside rubbish fires, 99 special outside fires, six cultivated vegetation or crop fires, and 153 unclassified fires caused five civilian deaths, 12 civilian injuries, 44 fire service injuries and an estimated dollar loss of \$54.9 million. Suffolk County's fires accounted for 22% of the 31,889 Massachusetts fires reported in 2016.

All five fire departments in Suffolk County reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS).

Structure & MV Fires Down

Total fires decreased by four, or less than 1%, from 6,918 incidents in 2015. Reported structure fires decreased by 83, or 2%, from the 4,710 reported during the previous year. Motor vehicle fires decreased by 55, or 15%, from the 359 reported in 2015. Outside and other fires increased by 134, or 7%, from 1,849 the year before.

SUFFOLK COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	6,678	4,827	349	1,526	169	33	22	114
2013	6,885	4,991	349	1,545	151	31	8	112
2014	6,627	4,901	349	1,377	159	33	8	118
2015	6,918	4,710	359	1,849	120	25	10	85
2016	6,914	4,627	304	1,983	123	20	11	92

Fire and Fire Death Rates

Suffolk County had 9.6 fires per 1,000 population. That figure ranks Suffolk County first in the state and above the state rate of 4.9 fires per 1,000 population. Suffolk County also had 0.07 fire deaths per 10,000 population ranking it sixth among Massachusetts counties and below the state rate of 0.09 fire deaths per 10,000 population.

5 Residents Died in 5 Suffolk County Fires

Suffolk County had five of its residents die in five fires in 2016.

- On January 11, 2016, at 4:05 p.m., the Boston Fire Department responded to a fatal fire in a mixed use property. The building was a single-family home with a dentist office inside of it. The fire was started by an unattended bunsen burner inside the dentist office. The victim, a 55-year old man, was injured attempting to extinguish the fire. He was transported to a local hospital where he succumbed to his injuries days later. The victim's 83-year old father and a firefighter were also injured at this fire. It

was undetermined if alarms were present, and the building did not have any sprinklers. The estimated dollar loss was \$500,000.

- On March 5, 2016, at 3:47 a.m., the Boston Fire Department was called to a fatal smoking fire in a 58-unit apartment building. The fire was caused by smoking materials on the living room sofa in a second floor apartment. The victim, a 67-year old woman, was in the area of origin. No one else was injured at this fire. Alarms were present and operated. There was a partial sprinkler system present but it was not reported if it operated. Damages from this fire were estimated to be \$250,000.
- On March 12, 2016, at 6:15 a.m., the Boston Fire Department was called to a fatal smoking fire in a 20-unit apartment building. The fire was started by smoking materials in the bathroom. The victim, a 61-year old woman, was in the area of origin and discovered by firefighters while they were extinguishing the fire. There were two other civilians injured at this fire. Alarms were present and alerted the residents. The building did have a partial sprinkler system present but it was not reported if it operated. Damages from this fire were estimated to be \$100,000.
- On October 4, 2016, at 4:17 a.m., the Chelsea Fire Department was called to a fatal smoking fire in a 3-unit apartment building. The fire was started by the victim smoking while using home oxygen. The victim, an 86-year old man, was the only thing that burned. EMS crews transported him to a local hospital where he later succumbed to his injuries. There was no other injuries at this fire. Alarms were present but did not operate because the fire was too small. The home did not have sprinklers. Damages from this fire were not estimated.
- On November 5, 2016, at 8:39 a.m., the Boston Fire Department was called to a fatal arson fire in a vacant and unsecured single-family home. The victim, a 29-year old woman, was trapped inside the building and discovered by firefighters. No one else was injured at this fire. It was undetermined if alarms were present. The home was not sprinklered. Damages from this fire were estimated to be \$350,000. The fire spread to four other nearby buildings causing another \$40,000 in estimated damages.

Boston Has Suffolk County's Largest Loss Fire in 2016

In 2016, Suffolk County fire departments reported 10 fires with a reported dollar loss of \$1 million or greater. Six (6) of these fires occurred in Boston, and the other four in Chelsea. The total dollar loss of these 10 fires totaled \$18.1 million, or 33%, of the county's total dollar loss.

- On Christmas Day, December 25, 2016, at 4:17 a.m., the Boston Fire Department was called to a fire of undetermined cause at 52 Hull St., a 4-unit apartment building. No one was injured at this fire. It was undetermined if alarms were present. Sprinklers were not present. Damages from this fire were estimated to be \$4.1 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 4,627 structure fires caused all five civilian deaths, 11 civilian injuries, 36 fire service injuries and an estimated dollar loss of \$50.8 million. These incidents represented 67% of Suffolk County's reported fires in 2016. The average estimated dollar loss per structure fire was \$10,974. The total number of reported structure fires decreased by 83, or 2%, from the 4,710 reported in 2015.

Arson Caused Less Than 1% of Structure Fires

The 20 structure arsons caused one civilian death and an estimated dollar loss of \$942,000. Arson was indicated as the cause of 0.4% of the structure fires and 2% of Suffolk County's structure fire dollar loss. The 20 structure arsons accounted for 16% of the Suffolk County arson fires reported in 2016. The total number of reported structure arsons decreased by five, or 20%, from the 25 reported in 2015.

70% of Structure Arsons Occurred in Residences

Seventy percent (70%) of Suffolk County's 20 structure arsons occurred in residential occupancies; 10% each happened in educational facilities and public assembly properties; and 5% each occurred in mercantile and business properties and special properties.

BUILDING FIRES

There were 4,610 building fires of different types in Suffolk County in 2016. These 4,610 building fires accounted for 99.6% of all structure fires in Suffolk County.

86% of Suffolk Building Fires Occurred in People's Homes

Three thousand nine hundred forty-five (3,945), or 86%, of Suffolk County's 4,610 building fires occurred in residential occupancies. One hundred and ninety (190) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 182 fires. Hospitals, prisons, and other institutional buildings experienced 146 fires. Sixty-two (62) building fires took place in educational properties. Thirty-nine (39) building fires in Suffolk County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Twenty (20) fires took place in storage properties. Four (4) fires occurred in industrial, utility, defense, agricultural or mining facilities. Three (3) fires took place in manufacturing and processing facilities. There were 14 fires whose property use were codes as *Other* and five other fires whose property use was unclassified.

RESIDENTIAL FIRES

Residential Building Fires Were Down

There were 3,945 reported residential building fires in Suffolk County in 2016. These 3,945 fires are a decrease of 93, or 2%, from the 4,038 residential building fires reported in 2015.

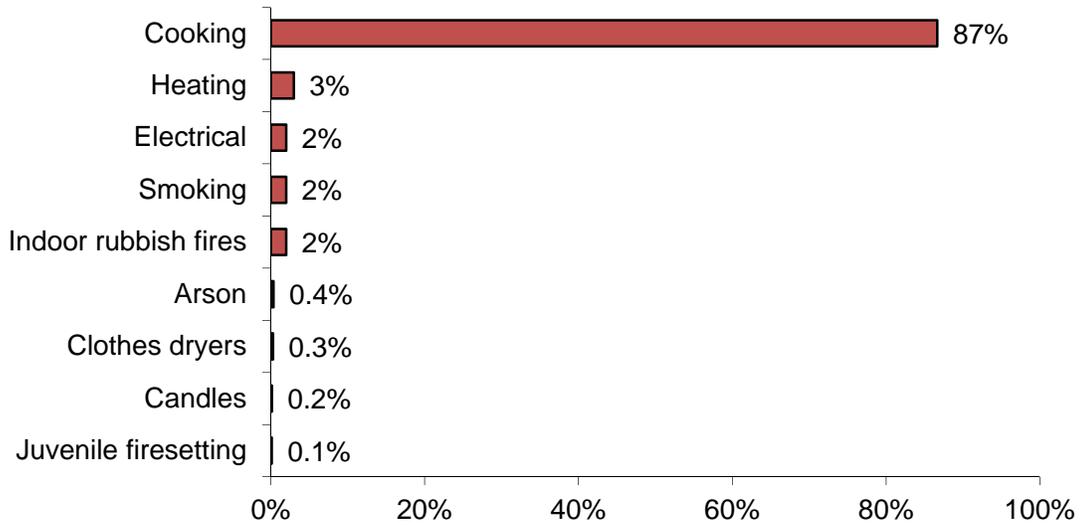
Apartments Accounted for 64% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 64% of the residential building fires in Suffolk County; 13% occurred in one- or two-family homes; 5% occurred in dormitories; 4% happened in rooming houses; 1% occurred in residential board and care facilities; 1% happened in hotels or motels. Four hundred and sixty (460), or 10%, of the residential building fires in Suffolk County occurred in unclassified residential buildings.

Unattended Cooking Caused 87% of Residential Fires

The leading cause of residential building fires in Suffolk County was unattended cooking and other unsafe cooking practices, accounting for 87% of these fires. Heating caused 3% of these fires. Indoor rubbish fires, electrical problems and smoking each caused 2% of fires in people’s homes. Candles, arson, clothes dryers and juvenile-set fires each caused less than 1% of these fires in 2016.

2016 Leading Causes of Fires in Suffolk County Homes



88% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Three thousand four hundred and eighty-five (3,485), or 88%, of all residential building fires were reported as confined to non-combustible containers in 2016. Three thousand three hundred and twenty-nine (3,329) of the reported fires were cooking fires contained to a non-combustible container, accounting for 84% of residential building fires. Seventy-

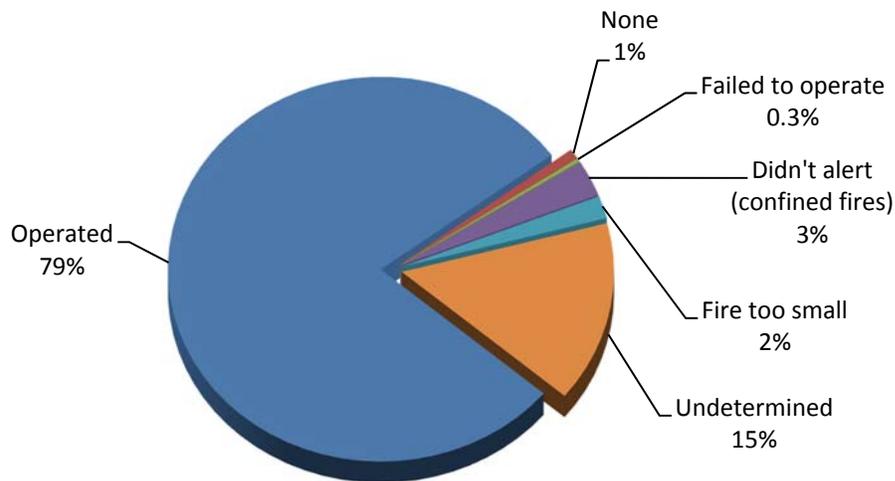
¹ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved In Ignition. These incidents are not included in the analysis of these fields.

eight (78), or 2%, were fires confined to a fuel burner or boiler malfunction. Fifty-eight (58), or 2%, of the residential building fires in Suffolk County in 2016 were contained rubbish fires. Twenty (20), or 1%, of all residential building fires reported in 2016 were confined to a chimney.

Alarms Alerted Occupants in 79% of Fires

Smoke or heat alarms operated and alerted the occupants in 3,107, or 79%, of the residential building fires. In 3% of these fires², the alarms did not alert the occupants. Alarms were present but did not operate in less than 1% of these incidents. In 1% 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 599 incidents, or 15%, of Suffolk County’s residential building fires.

Detector Status in Suffolk County's Residential Structure Fires 2016



25% of 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. Another one, or 8%, failed because the batteries were dead. One (1), or 8%, failed because it was defective. It was undetermined or unclassified in eight cases, or 67%, why the alarms failed to operate.

² These represent confined fires where it was reported that the alarm did not alert the occupants.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Suffolk County reported 40 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 4,610 building fires reported to MFIRS in 2016. Twenty-five (25) fires occurred in vacant residential properties. Five (5) of these fires occurred in special properties. Four (4) vacant building fires occurred in storage facilities. Three (3) of these fires occurred in mercantile or business properties. A public assembly property and institutional facilities each accounted for one of these fires in Suffolk County in 2016.

One (1), or 3%, of the vacant building fires in Suffolk County in 2016 were determined to be intentionally set. A single-family home accounted for the one reported vacant structure arson in 2016.

JUVENILE-SET FIRES

10 Juvenile-set Fires

There were 10 reported juvenile-set fires in Suffolk County in 2016. The five structure fires, three brush fires, one outside rubbish fire and one special outside fire caused \$12,700 in estimated damages.

ARSONS

123 Total Arsons³ — 20 Structures, 11 Vehicles & 92 Other Arsons

One hundred and twenty-three (123), or 2%, of Suffolk County's 6,914 fires were considered intentionally set, or, for purposes of this analysis, arson. The 20 structure arsons, 11 motor vehicle arsons and 92 outside and other arsons caused one civilian death, one civilian injury and an estimated dollar loss of \$1 million. Suffolk County's arson fires accounted for 17% of the state's total arson fires and 9% of the state's total dollar loss from arson.

All Arson Up Slightly

The total number of arsons increased by three from 120 in 2015. Reported structure arsons decreased by five from the 25 reported in 2015. Motor vehicle arsons increased by one from the 11 reported in 2015. Outside and other arsons increased by seven from the 85 reported last year.

³ 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 INCIDENTS

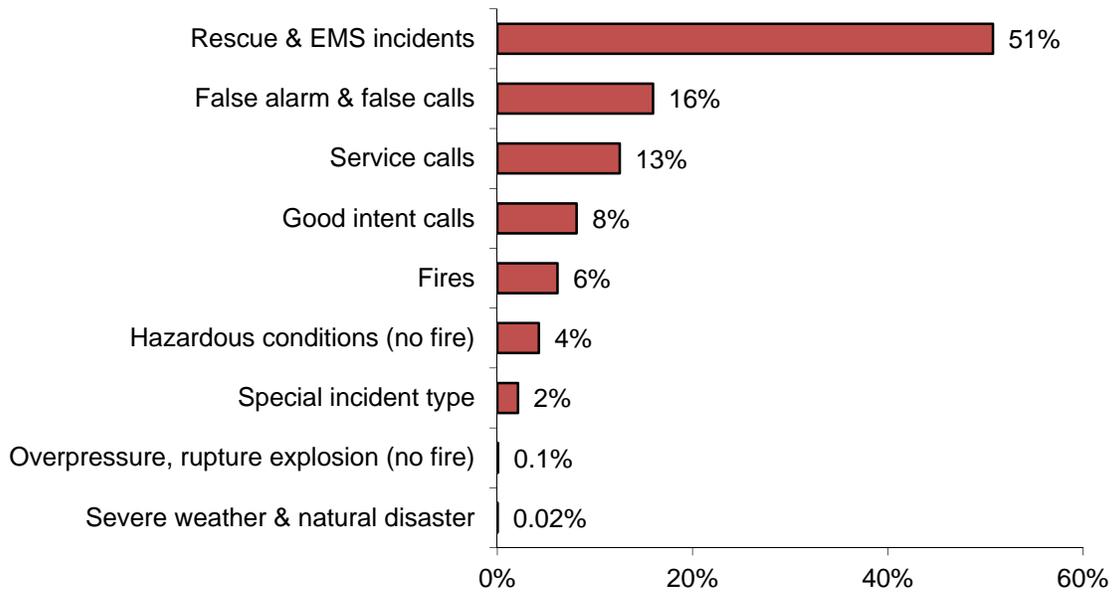
Rescue & EMS Calls Are Over 1/2 of All Reported Responses

In 2016, fire departments in Suffolk County reported 112,259 responses⁴ to MFIRS. This is an increase of 3,077 runs, or 3%, over the 109,182 reported in 2015. Of these 112,259 responses, 105,334 non-fire calls were voluntarily reported.

Of these 105,334 non-fire calls, 56,983, or 51%, of all the responses reported in 2016, were reported rescue and emergency medical services (EMS) calls; 17,898, or 16%, were reported false alarm or false calls; 14,075, or 13%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 9,126, or 8%, were reported good intent calls; 4,775, or 4%, reported hazardous condition calls with no fire; 2,375, or 2%, were special incident type calls such as citizen complaints; 81, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 21, or 0.02%, were severe weather calls.

Six thousand nine hundred and twenty-five (6,925), or 6%, of the total responses submitted by Suffolk County fire departments were fires.

2016 Responses by Incident Type



Suffolk County Fire Departments Reported Giving Mutual Aid 223 Times

In 2016, Suffolk County fire departments reported coming to the aid of other fire departments 223 times. Of these 223 responses, 123, or 55%, were for service calls such

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

as cover assignments; 31, or 14%, were for hazardous conditions calls with no fire; 25, or 11%, were for rescue or EMS incidents; 22, or 10%, were for good intent calls; 11, or 5%, were for fires; eight, or 4%, were for false alarms or false calls; two, or 1%, were special incident types; and one, or less than 1%, was for an overpressure, rupture explosion call with no fire.

Suffolk County Fire Departments Received Mutual Aid in 81 Incidents

In 2016, Suffolk County fire departments reported receiving aid from surrounding departments in 81 incidents. Of these 81 incidents, 35, or 43%, were hazardous conditions calls with no fire; 20 or 25% were rescue and emergency medical services calls; 13, or 16%, were for fires; seven, or 9%, were false alarms or false calls; three, or 4%, were service calls; two, or 2%, were good intent calls; and one, or 1%, was a special incident type.

Suffolk County**Population: 722,023****9.6 Fires/1,000 Population****Total Fires: 6,914 \$54,875,212**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	4,627	67%	\$50,775,821
Vehicle Fires	304	4%	2,537,312
Other Fires	1,983	29%	1,562,079

5 Fatal Fires 0.72 Civilian Deaths/1,000 Fires
 5 Civilian Deaths 0.07 Civilian Deaths/10,000 Population
 12 Civilian Injuries 44 Fire Service Injuries

Building Fires: 4,610**Residential Structure Fires: 3,945****Residential Structure Fires Confined to Non-Combustible Containers: 3,485****Unconfined Residential Structure Fires: 460**

4 Civilian Deaths 10 Civilian Injuries 26 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	2,520	64%	Operated	3,107	79%
1- & 2-Family homes	512	13%	Didn't operate	12	0.3%
Dormitories	197	5%	None	33	1%
Rooming houses	148	4%	Fire too small	75	2%
Residential board & care	57	1%	Didn't Alert (confined)	119	3%
Hotels or motels	51	1%	Undetermined	599	15%

Area of Origin⁵	%	Heat Source	%	%Unconfined⁶
Kitchen	87%	Radiated heat from oper. eq.	2%	18%
Heating room or area	2%	Arcing	1%	12%
Bedroom	1%	Hot or smoldering object	1%	12%
Exterior balcony/unencl. porch	1%	Heat from operating eq.	1%	10%
Chimney or flue	1%	Cigarette	1%	6%

⁵ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁶ 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 Ignited⁷	%	Factor Contrib. to Ignit.	%	%Unconfined⁸
Food, cooking materials	86%	Abandoned materials	2%	16%
Rubbish, trash, waste	2%	Misuse of materials/products	1%	8%
Flammable, combustible liquid	2%	Elec. fail., malfunc., other	1%	7%
Electrical wire, cable insulation	1%	Equipment unattended	1%	7%
Structural member, framing	1%	Too close to combustibles	1%	7%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Cooking equipment	86%	Unintentional	8%	65%
None	6%	Failure of eq. or heat source	2%	13%
Boiler, furnace, cent. heat. unit	2%	Intentional	0.4%	3%
Electrical wiring, other	1%	Act of Nature	0.03%	0.2%
Chimney or flue	1%	Cause under investigation	1%	11%
Clothes dryer	0.3%	Undetermined	1%	5%

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

Alerted Occupants	83%
Didn't Alert Occupants	3%
Undetermined	14%

⁷ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁸ 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.

⁹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹⁰ 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	544	445	31	68
February	531	441	26	64
March	486	371	30	85
April	590	401	25	164
May	702	387	27	288
June	757	382	25	350
July	729	323	29	377
August	511	261	26	224
September	514	350	21	143
October	508	417	19	72
November	519	418	19	82
December	523	431	26	66

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	1,122	745	43	334
Monday	1,040	633	34	373
Tuesday	905	627	47	231
Wednesday	927	630	35	262
Thursday	921	635	40	246
Friday	899	586	51	262
Saturday	1,100	771	54	275

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	491	303	38	150
04:01 – 08:00	477	288	29	160
08:01 – 12:00	1,115	777	46	292
12:01 – 16:00	1,684	1,079	60	545
16:01 – 20:00	1,955	1,361	61	533
20:01 – 00:00	1,192	819	70	303

Motor Vehicle Fires

Total: 304

Automobiles: 250 (82%)

10, or (4%), of the automobile fires considered incendiary or suspicious

Boston					Population: 617,594			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	5,693	4,192	280	1,221	150	27	18	105
2013	5,831	4,303	295	1,233	136	22	6	108
2014	5,682	4,243	298	1,141	152	31	8	113
2015	5,969	4,123	309	1,537	112	21	10	81
2016	5,979	4,096	252	1,631	117	19	8	90

Chelsea					Population: 35,177			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	425	307	20	98	12	4	4	4
2013	435	277	18	140	10	7	1	2
2014	352	267	19	66	6	1	0	5
2015	400	287	23	90	5	4	0	1
2016	359	248	17	94	5	1	3	1

Massport					Population: 0			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	121	5	7	109	1	0	0	1
2013	69	8	10	51	1	0	0	1
2014	55	4	16	35	0	0	0	0
2015	111	7	9	95	3	0	0	3
2016	73	2	18	53	0	0	0	0

Revere					Population: 51,755			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	398	300	16	82	4	2	0	2
2013	469	345	23	101	3	2	0	1
2014	470	339	16	115	1	1	0	0
2015	375	259	17	99	0	0	0	0
2016	423	233	17	173	1	0	0	1

Winthrop					Population: 17,497			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	41	22	2	17	2	0	0	2
2013	82	59	3	20	1	0	1	0
2014	68	48	0	20	0	0	0	0
2015	63	34	1	20	0	0	0	0
2016	80	48	0	32	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	84,962	5,980	60	38,046	3,905	11,716	7,679	15,283	19	2,274
25057	Chelsea	9,464	359	5	7,016	235	484	456	886	1	22
25935	Massport	3,902	83	9	2,646	405	246	183	317	0	13
25248	Revere	10,740	423	5	7,186	154	1,210	563	1,137	1	61
25346	Winthrop	3,191	80	2	2,089	76	419	245	275	0	5
Total	Suffolk County	112,259	6,925	81	56,983	4,775	14,075	9,126	17,898	21	2,375

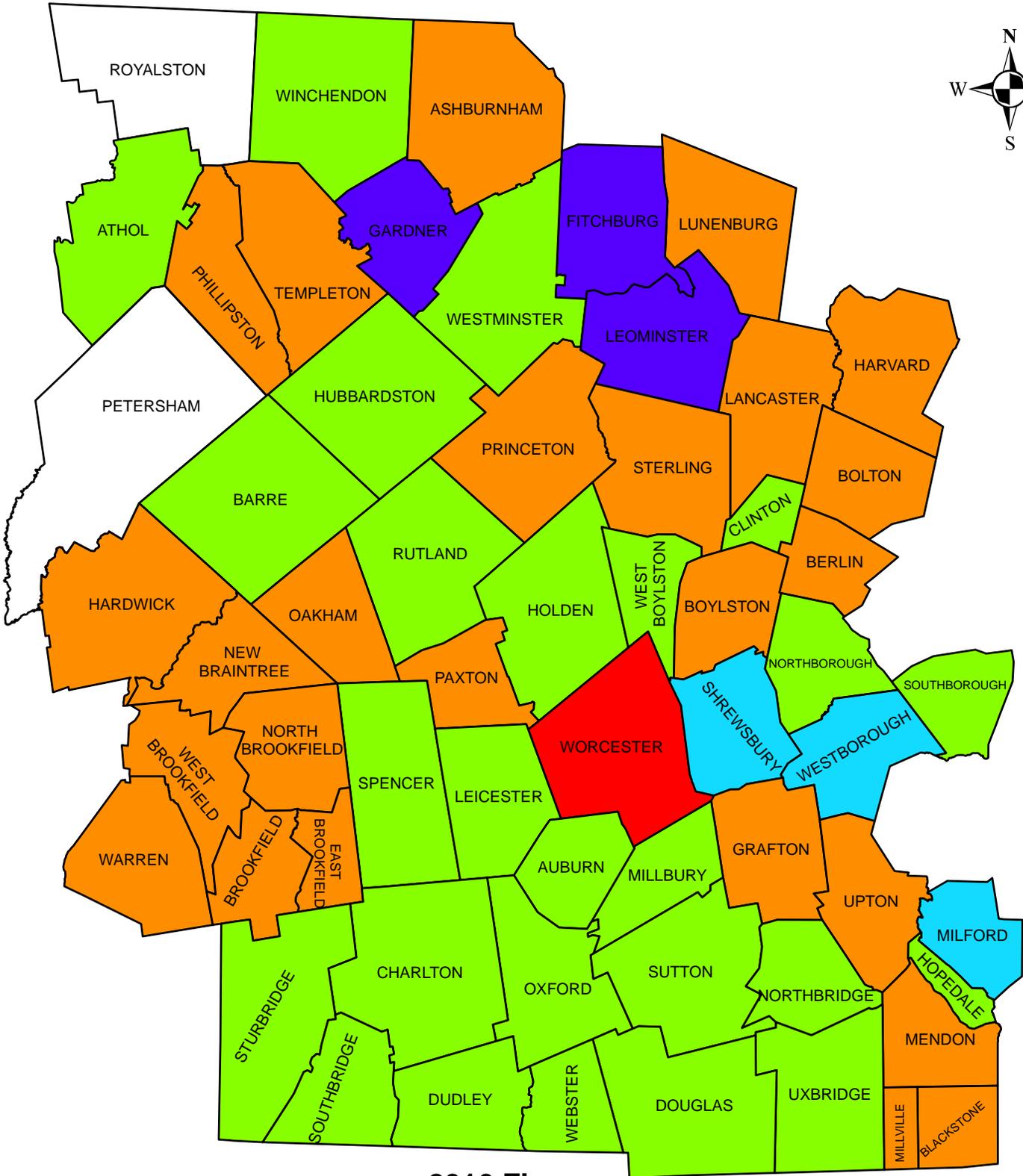
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Division of Fire Safety strongly encourages any department that wants to send in all of their responses to do so.



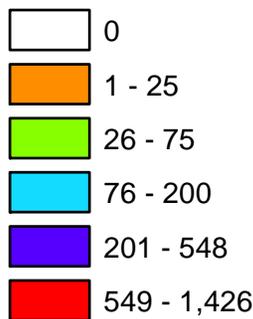
Worcester County

2016 Fire Data Analysis

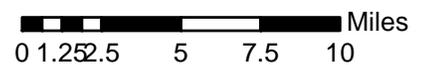
Worcester County Fires 2016



2016 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Worcester County Fires in 2016

4,389 Total Fires — 2,348 Structures, 346 Vehicles & 1,695 Other Fires

Worcester County ranked third out of the fourteen Massachusetts counties in total reported fires. Worcester County fire departments reported 4,389 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2016. The 2,348 structure fires, 346 motor vehicle fires, 1,082 brush fires, 451 outside rubbish fires, 98 special outside fires, four cultivated vegetation or crop fires, and 60 unclassified fires caused 11 civilian deaths, 41 civilian injuries, 56 fire service injuries and an estimated dollar loss of \$34.9 million. Worcester County's fires accounted for 14% of the 31,889 Massachusetts fires reported in 2016.

All 60 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 2016.

Structure Fires Up

Total fires increased by 53, or 1%, from 4,336 incidents in 2015. Reported structure fires increased by 91 from the 2,257 reported during the previous year. Motor vehicle fires decreased by 39 from the 385 reported in both 2015. Outside and other fires increased by one from 1,694 the year before.

WORCESTER COUNTY FIRES FROM 2012 TO 2016

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	4,321	2,202	367	1,752	202	52	20	130
2013	3,955	2,124	357	1,474	139	29	11	99
2014	3,721	2,223	374	1,124	79	28	9	42
2015	4,336	2,257	385	1,694	112	40	14	58
2016	4,389	2,348	346	1,695	84	16	16	52

Fire and Fire Death Rates

Worcester County had 5.5 fires per 1,000 population. That figure ranks Worcester County second in the state and above the state rate of 4.9 fires per 1,000 population. Worcester County also had 0.14 fire deaths per 10,000 population ranking it third among Massachusetts counties and above the state rate of 0.09 fire deaths per 10,000 population.

11 Residents Died in 191 Worcester County Fires

Worcester County had 11 of its residents die in nine fires in 2016. All but one of the deaths occurred in building fires. The other death occurred in a motor vehicle crash with ensuing fire.

- On February 10, 2016, at 12:12 a.m., the Fitchburg Fire Department was called to a fatal fire in a two-family home of undetermined cause. The fire started in a second floor bedroom. It is believed that the victims, sisters aged 62 and 58-year old, were sleeping at the time of the fire. Their 60-year brother was injured attempting to rescue

them. Alarms were not present and the building was not sprinklered. Damages from the blaze were estimated to be \$15,000.

- On March 1, 2016, at 8:20 a.m., the Leominster Fire Department was called to a fatal electrical fire in a single-family home. Electrical wiring in the living was the cause of the fire. There was also a significant fuel load in the home because of hoarding. The victim, a 90-year old woman, was asleep at the time of the fire. She was transported to a local hospital where she succumbed to her injuries. Three (3) firefighters were also injured at this fire. Alarms were present and they did not operate because of dead batteries. There were no sprinklers in the home. Damages were not estimated.
- On March 13, 2016, at 1:42 p.m., the Oxford Fire Department was called to a fatal smoking fire in a (trailer) single-family home. The fire was started by a cigarette igniting the victim's clothes while he was asleep. The victim was a 55-year old man was intimately involved with the ignition. The fire was out upon firefighters' arrival. It was undetermined if there were any alarms. Damages from this fire were estimated to be \$200.
- On April 14, 2016, at 11:39 a.m., the Upton Fire Department was dispatched to a fire in a 5-unit apartment building of undetermined cause. The victim was a 57-year old man. There were no other injuries associated with this fire. It was undetermined if alarms were present; and the building was not sprinklered. Damages from this fire were estimated to be \$250,000.
- On April 24, 2016, at 6:53 a.m., the Dudley Fire Department was called to a fatal fire in a mobile home (trailer) of undetermined cause. There were multiple causes that could not be ruled out. It is believed that the victim, a 61-year old man, was somehow involved in the ignition of the fire. No one else was injured at this fire. It was undetermined if alarms were present. The building was not sprinklered. Damages from the blaze were estimated to be \$125,000. The fire also spread to a nearby building causing another \$135,000 in estimated damages.
- On May 14, 2016, at 3:15 a.m., the Northbridge Fire Department was called to a fatal smoking fire in a two-family home. The fire was started by a cigarette in a first floor function room. The victims, a 21-year old woman and a 22-year old woman, were sleeping at the start of the fire. They were overcome by the heat and smoke as they attempted to escape. There were no other injuries at this fire. Alarms were not present and the building did not have sprinklers. The fire spread to a neighboring building. Damages from both fires were estimated to be \$460,000.
- On September 26, 2016, at 7:53 a.m., the Fitchburg Fire Department responded to a fatal heating fire at a single-family home. Wood pellets fell over onto the water heater starting the fire. The victim, a 53-year old woman was sleeping. Firefighters found the victim and transported her to a local hospital where she succumbed to her injuries. No one else was injured at this fire. There were no fire alarms and the building did not have any sprinklers. Damages from this fire were estimated to be \$35,000.

- On October 26, 2016, at 11:31 p.m., the Worcester Fire Department was called to a fatal motor vehicle crash with ensuing fire. The driver of the car, and only occupant, a 28-year old man, was trapped inside the car and could not escape or be rescued. Damages were not estimated.
- On November 23, 2016, at 12:47 p.m., the Charlton Fire Department responded to a fatal heating fire in a shed with a woodstove inside. The victim was a 91-year old man whose clothing ignited as he was too close to the woodstove. First arriving firefighters discovered the victim's body outside of the burning shed. No one else was injured at this fire. The shed did not have alarms. Damages from this fire were estimated to be \$5,000.

Worcester Has Largest Loss Fire in 2016

In 2016, Worcester County fire departments reported three fires with a reported dollar loss of \$1 million or greater. The dollar loss of these four fires totaled \$9.8 million, or 28%, of the county's total dollar loss.

- On July 25, 2016, at 7:28 p.m., the Worcester Fire Department was called to a fire of unknown cause at Dario Diesel Truck Center, a motor vehicle sales and service facility. The fire began in the vehicle storage area. Three (3) firefighters were injured at this fire. It was undetermined if alarms or sprinklers were present. Damages from this fire were estimated to be \$4.4 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 2,348 structure fires caused 10 civilian deaths, 38 civilian injuries, 52 fire service injuries and an estimated dollar loss of \$31.5 million. These incidents represented 53% of Worcester County's reported fires in 2016. The average estimated dollar loss per structure fire was \$13,406. The total number of reported structure fires increased by 91, or 4%, from the 2,257 reported in 2015.

Arson Caused 1% of Structure Fires

The 16 structure arsons caused one fire service injury and an estimated dollar loss of \$5.3 million. Arson was indicated as the cause of 1% of the structure fires and 17% of Worcester County's structure fire dollar loss. The 16 structure arsons accounted for 19% of the Worcester County arson fires reported in 2016. The total number of reported structure arsons decreased by 24, or 60%, from the 40 reported in 2015.

38% of Structure Arsons Occurred in Residences

Thirty-eight percent (38%) of Worcester County's 16 structure arsons occurred in residential occupancies; 19% happened each in educational facilities and institutional facilities; and 6% each occurred in mercantile and business properties, storage properties, manufacturing facilities and special properties.

BUILDING FIRES

There were 2,337 building fires of different types in Worcester County in 2016. These 2,337 building fires accounted for 99.5% of all structure fires in Worcester County.

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

One thousand nine hundred and ninety-six (1,996), or 85%, of Worcester County's 2,337 building fires occurred in residential occupancies. Hospitals, prisons, and other institutional buildings experienced 82 fires. Mercantile and business properties had 80 fires. Seventy-six (76) fires took place in public assembly properties, including restaurants and churches. Thirty (30) building fires took place in educational properties. Twenty-seven (27) fires took place in storage properties. Twenty-five (25) fires took place in manufacturing and processing facilities. Twelve (12) building fires in Worcester County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Nine (9) fires occurred in industrial, utility, defense, agricultural or mining facilities in Worcester County in 2016.

RESIDENTIAL FIRES

Residential Building Fires Were Up

There were 1,996 reported residential building fires in Worcester County in 2016. These 1,996 fires were an increase of 62, or 3%, from the 1,934 residential building fires reported in 2015.

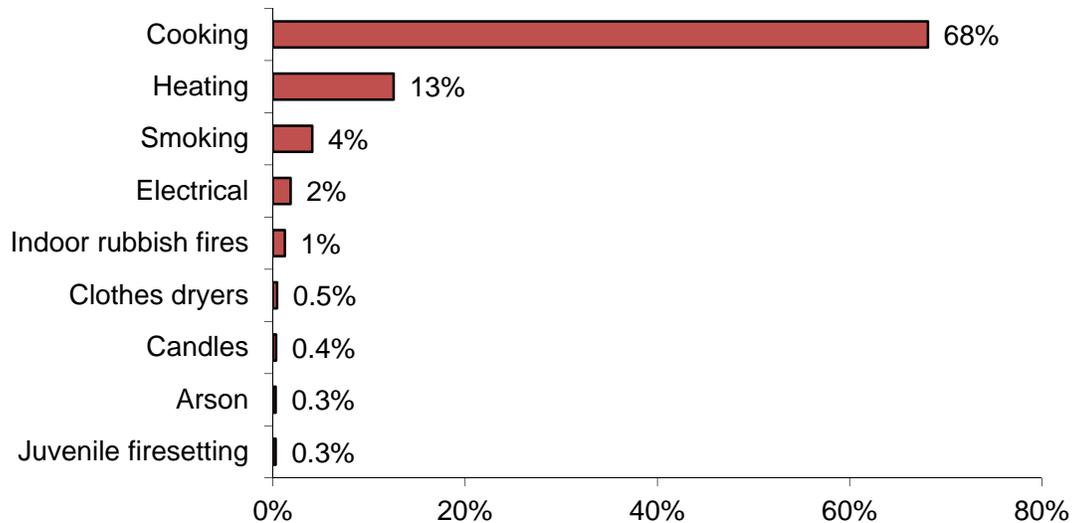
Apartments Accounted for 47% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 47% of the residential building fires in Worcester County; 36% occurred in one- or two-family homes; 7% happened in rooming houses; 5% occurred in dormitories; 3% happened in hotels or motels; and 2% occurred in residential board and care facilities. Seventeen (17), or 1%, of the residential building fires in Worcester County occurred in unclassified residential buildings.

Unattended Cooking Caused 68% of Residential Fires

The leading cause of residential building fires in Worcester County was unattended cooking and other unsafe cooking practices, accounting for 68% of these fires. Heating caused 13% of fires in people's homes. Smoking accounted for 4% and electrical problems caused 3% of these fires. Indoor rubbish fires caused 1%. Clothes dryers, candles, arson and juvenile-set fires each caused less than 1% of the fires in people's homes in Worcester County in 2016.

2016 Leading Causes of Fires in Worcester County Homes



78% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One thousand five hundred and fifty-one (1,551), or 78%, of all residential building fires were reported as confined to non-combustible containers in 2016. One thousand three hundred and seven (1,307) of the reported fires were cooking fires contained to a non-combustible container, accounting for 65% of residential building fires. One hundred and twenty-one (121), or 6%, were fires confined to a fuel burner or boiler malfunction. Ninety-seven (97), or 5%, of all residential building fires reported in 2016 were confined to a chimney. Twenty-four (24), or 1%, of the residential building fires in Worcester County in 2016 were contained rubbish fires; and two fires, or less than 1%, were incinerator overloads or malfunctions.

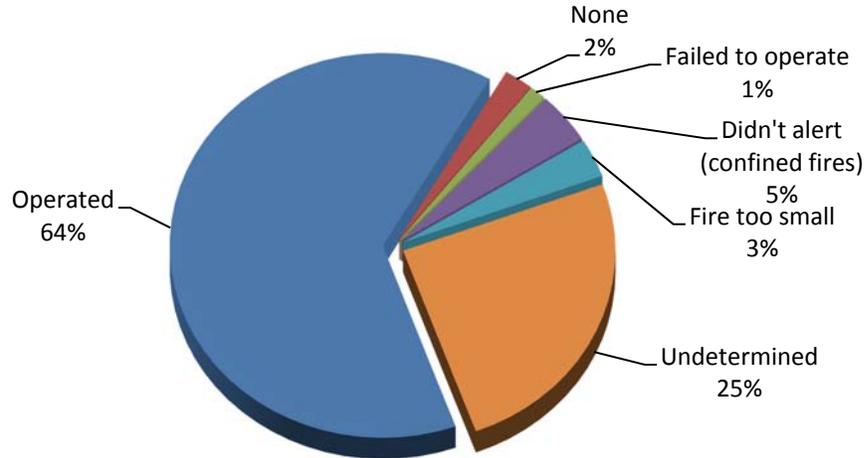
Alarms Alerted Occupants in 64% of Fires

Smoke or heat alarms operated and alerted the occupants in 1,276, or 64%, of the residential building fires. In 5% of these fires², 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 500 incidents, or 25%, of Worcester County's residential building fires.

¹ 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.

² These represent confined fires where it was reported that the alarm did not alert the occupants.

Detector Status in Worcester County's Residential Structure Fires 2016



Over 1/2 of Failed Alarms Had Missing or Dead Batteries

Of the 25 fires where smoke alarms were present but failed to operate, seven, or 28%, failed because the batteries were dead. Six (6), or 24%, failed because the batteries were either missing or disconnected. Three (3), or 12%, failed from a power failure, shutoff or disconnect. A lack of maintenance was the reason why two alarms, or 8% failed. Improper installation or placement caused another two, or 8%, of the alarms to fail. It was undetermined or unclassified in five cases, or 20%, why the alarms failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Worcester County reported 36 fires that occurred in buildings that were vacant, under construction or demolition. This represents 2% of the total 2,337 building fires reported to MFIRS in 2016. Twenty-eight (28) fires occurred in vacant residential properties. Six (6) of these fires occurred at storage facilities. One (1) vacant building fire occurred in an institutional facility, and another occurred in an educational facility in Worcester County in 2016.

One (1), or 3%, of the vacant building fires in Worcester County in 2016 was determined to be intentionally set. This vacant arson occurred in an unclassified educational facility in 2016.

JUVENILE-SET FIRES

50 Juvenile-set Fires

There were 50 reported juvenile-set fires in Worcester County in 2016. The eight structure fires, 41 brush fires, and one outside rubbish fire caused four civilian injuries, two fire service injuries and \$576,610 in estimated damages.

ARSONS

84 Total Arsons³ — 16 Structures, 16 Vehicles & 52 Other Arsons

Eighty-four (84), or 2%, of Worcester County's 4,389 fires were considered intentionally set, or, for purposes of this analysis, arson. The 16 structure arsons, 16 motor vehicle arsons and 52 outside and other arsons caused one fire service injury and an estimated dollar loss of \$5.5 million. Worcester County's arson fires accounted for 11% of the state's total arson fires and 49% of the state's total dollar losses from arson.

All Arson Down

The total number of arsons decreased by 28 from 112 in 2015. Reported structure arsons decreased by 24 from the 40 reported in 2015. Motor vehicle arsons increased by two from the 14 reported in 2015. Outside and other arsons decreased by six from the 58 reported last year.

ALL INCIDENTS

Rescue & EMS Calls Are 64% of All Reported Responses

In 2016, fire departments in Worcester County reported 103,548 responses⁴ to MFIRS. This is an increase of 4,194 runs, or 4%, over the 99,354 reported in 2015. Of these 103,548 responses, 98,574 non-fire calls were voluntarily reported.

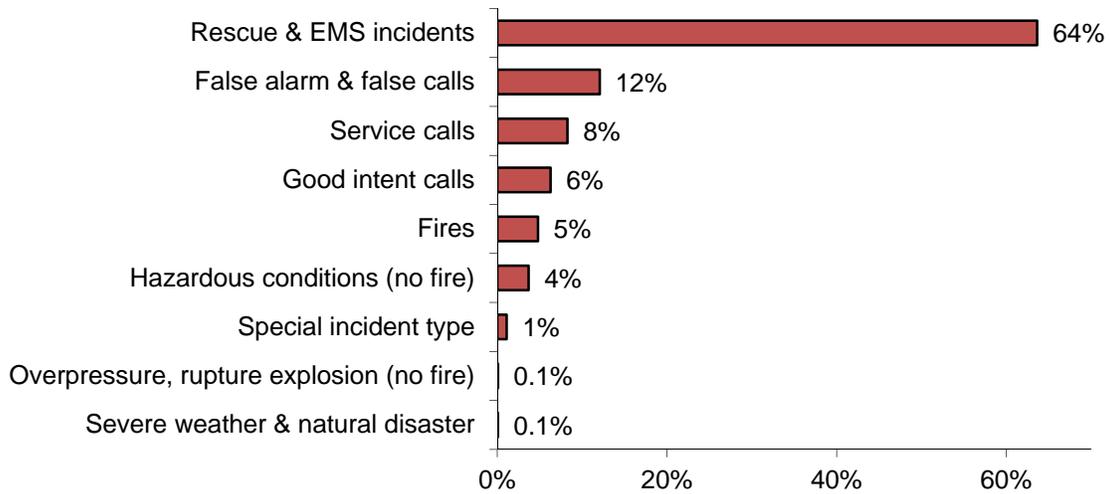
Of these 98,574 non-fire calls, 65,881, or 64%, of all the responses reported in 2016 were reported rescue and emergency medical services (EMS) calls; 12,503, or 12%, were reported false alarm or false calls; 8,557, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 6,506, or 6%, were reported good intent calls; 3,822, or 4%, reported hazardous condition calls with no fire; 1,146, or 1%, were special incident type calls such as citizen complaints; 91, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 68, or 0.1%, were severe weather calls.

Four thousand nine hundred and seventy-four (4,974), or 5%, of the total responses submitted by Worcester County fire departments were fires.

³ 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.

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

2016 Responses by Incident Type



Worcester County Fire Departments Reported Giving Mutual Aid 2,567 Times

In 2016, Worcester County fire departments reported coming to the aid of other fire departments 2,567 times. Of these 2,567 responses, 1,157, or 45%, were for rescue or EMS incidents; 552, or 22%, were for fires; 535, or 21%, were for service calls such as cover assignments; 238, or 9%, were for good intent calls; 39, or 2%, were for hazardous conditions calls with no fire; 39, or 2%, were for false alarms or false calls; three, or 0.1%, were special incident types; two, or 0.1%, were for severe weather or natural disasters; and two, or 0.1%, were for overpressure, rupture explosion calls with no fire.

Worcester County Fire Departments Received Mutual Aid in 1,414 Incidents

In 2016, Worcester County fire departments reported receiving aid from surrounding departments in 1,414 incidents. Of these 1,414 incidents, 902 or 64% were rescue and emergency medical services calls; 269, or 19%, were for fires; 78, or 6%, were service calls; 71, or 5%, were good intent calls; 61, or 4%, were false alarms or false calls; 28, or 2%, were hazardous conditions calls with no fire; three, or 0.2%, was an overpressure, rupture explosions without fire call; and two, or 0.1% were special incident types.

Item First Ignited⁷	%	Factor Contrib. to Ignit.	%	%Unconfined⁸
Food, cooking materials	67%	Abandoned materials	3%	13%
Flammable, combustible liquid	6%	Too close to combustibles	2%	9%
Film or residue (creosote)	5%	Elec. fail., malfunc., other	2%	7%
Structural member, framing	2%	Equipment unattended	1%	5%
Rubbish, trash, waste	2%	Misuse of materials	1%	5%
		Failure to clean	1%	4%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Cooking equipment	68%	Unintentional	14%	63%
None	13%	Failure of eq. or heat source	3%	12%
Boiler, furnace, cent. heat. unit	6%	Intentional	0.5%	2%
Chimney or flue	5%	Act of Nature	0.3%	1%
Electrical wiring, other	1%	Cause under investigation	1%	5%
Clothes dryer	0.5%	Undetermined	3%	14%

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

Alerted Occupants	69%
Didn't Alert Occupants	6%
Undetermined	26%

⁷ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

⁸ 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.

⁹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹⁰ 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	313	256	21	36
February	285	207	29	49
March	376	218	25	133
April	506	205	36	265
May	420	215	31	174
June	479	172	28	279
July	500	160	25	315
August	295	128	35	132
September	338	178	29	131
October	274	180	31	63
November	337	227	31	79
December	266	202	25	39

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	676	370	40	266
Monday	646	315	50	281
Tuesday	585	334	52	199
Wednesday	605	322	53	230
Thursday	619	309	56	254
Friday	619	344	50	225
Saturday	639	354	45	240

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	272	157	35	80
04:01 – 08:00	258	141	28	89
08:01 – 12:00	723	408	59	256
12:01 – 16:00	1,239	585	84	570
16:01 – 20:00	1,269	694	84	491
20:01 – 00:00	628	363	56	209

Motor Vehicle Fires

Total: 346

Automobiles: 284 (82%)

15, or (5%), of the automobile fires considered incendiary or suspicious

Arson Fires

Total Arsons: 84

Dollar loss: \$5,451,633

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	16	1%	19%	\$5,337,665
Vehicle Arsons	16	5%	19%	82,862
Other Arsons	52	3%	62%	31,106

0.02 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 – 20:00	7	44%	00:01 – 04:00	9	56%
00:01 – 04:00	3	19%	20:01 – 00:00	4	25%
04:01 – 08:00	2	13%	04:01 – 08:00	2	13%
20:01 – 00:00	2	13%	12:01 – 16:00	1	6%

Other Arsons	#	%
12:01 – 16:00	20	38%
16:01 – 20:00	16	23%
08:01 – 12:00	8	15%
20:01 – 00:00	7	13%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	3	19%
1- or 2-Family homes	1	6%
High/junior high/middle school	1	6%
Residential board & care	1	6%
Asylum, mental institution	1	6%

Ashburnham					Population: 6,081			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	9	4	2	3	0	0	0	0
2013	27	19	0	8	1	0	0	1
2014	23	8	1	14	0	0	0	0
2015	20	11	0	9	2	0	0	2
2016	14	3	0	11	0	0	0	0

Athol					Population: 11,584			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	62	22	6	34	6	0	0	6
2013	46	20	5	21	5	0	0	5
2014	42	19	4	19	4	0	0	4
2015	47	11	4	32	4	0	0	4
2016	60	27	5	28	2	1	0	1

Auburn					Population: 16,188			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	57	27	15	15	2	1	0	1
2013	50	21	14	15	1	0	0	1
2014	53	23	12	18	3	0	1	2
2015	71	21	16	34	0	0	0	0
2016	71	23	15	33	3	0	0	3

Barre					Population: 5,398			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	23	8	6	9	2	0	0	2
2013	25	15	4	6	2	1	0	1
2014	8	4	3	1	0	0	0	0
2015	25	9	4	12	3	3	0	0
2016	36	9	0	27	2	0	0	2

Berlin					Population: 2,886			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	7	2	4	0	0	0	0
2013	32	12	10	10	2	0	1	1
2014	21	10	5	6	0	0	0	0
2015	27	3	7	17	2	0	0	2
2016	21	0	4	17	2	0	1	1

Blackstone					Population: 9,026			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	38	11	3	24	6	0	0	6
2013	31	13	2	16	0	0	0	0
2014	17	7	1	9	1	0	0	1
2015	23	9	2	12	2	1	0	1
2016	20	4	1	15	0	0	0	0

Bolton					Population: 4,897			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	22	7	2	13	1	0	0	1
2013	15	4	3	8	0	0	0	0
2014	20	7	8	5	1	0	0	1
2015	22	5	3	14	0	0	0	0
2016	22	6	5	11	1	0	1	0

Boylston					Population: 4,355			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	12	2	2	8	0	0	0	0
2013	12	2	1	9	0	0	0	0
2014	17	10	2	5	0	0	0	0
2015	18	10	2	6	1	0	0	1
2016	11	3	1	7	2	0	0	2

Brookfield					Population: 3,390			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3	2	0	1	0	0	0	0
2013	6	6	0	0	0	0	0	0
2014	1	1	0	0	0	0	0	0
2015	7	3	1	3	1	0	0	1
2016	17	7	1	9	4	2	0	2

Charlton					Population: 12,981			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	53	36	7	10	1	1	0	0
2013	66	35	11	20	3	1	0	2
2014	57	26	12	19	3	0	0	3
2015	58	32	13	13	0	0	0	0
2016	51	25	12	14	2	0	0	2

Clinton					Population: 13,606			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	94	52	4	38	8	0	0	8
2013	78	51	3	24	1	0	0	1
2014	33	25	2	6	0	0	0	0
2015	67	29	2	36	5	0	0	5
2016	66	34	2	30	1	0	0	1

Douglas					Population: 8,471			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	35	12	2	21	5	2	0	3
2013	22	5	0	17	10	1	0	9
2014	30	18	1	11	0	0	0	0
2015	31	10	4	17	1	0	0	1
2016	33	11	1	21	1	0	0	1

Dudley					Population: 11,390			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	37	20	10	7	1	0	1	0
2013	40	25	6	9	0	0	0	0
2014	33	24	3	6	0	0	0	0
2015	51	24	3	24	1	1	0	0
2016	32	18	2	12	0	0	0	0

East Brookfield					Population: 2,183			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	24	4	0	20	0	0	0	0
2013	12	1	1	10	0	0	0	0
2014	12	2	1	9	0	0	0	0
2015	14	2	1	11	0	0	0	0
2016	11	4	1	6	0	0	0	0

Fitchburg					Population: 40,318			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	453	321	25	107	10	3	2	5
2013	387	302	23	62	1	1	0	0
2014	436	331	31	74	5	3	0	2
2015	505	380	33	92	10	7	2	1
2016	548	364	21	163	4	2	2	0

Gardner					Population: 20,228			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	72	41	6	25	2	1	0	1
2013	106	72	12	22	2	2	0	0
2014	153	121	12	20	2	1	0	1
2015	201	139	10	52	3	1	0	2
2016	232	189	7	36	1	0	1	0

Grafton					Population: 17,765			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	29	20	6	3	3	2	1	0
2013	41	26	2	13	0	0	0	0
2014 ¹¹	0	0	0	0	0	0	0	0
2015	30	18	1	11	1	0	1	0
2016	8	5	2	1	0	0	0	0

Hardwick					Population: 2,990			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Non-Reporting Community							
2013	1	1	0	0	0	0	0	0
2014	Non-Reporting Community							
2015	5	5	0	0	0	0	0	0
2016	15	10	1	4	0	0	0	0

Harvard					Population: 6,520			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	18	7	1	10	3	0	0	3
2013	28	13	3	12	9	0	1	8
2014	38	16	5	17	2	0	0	2
2015	40	19	2	19	3	3	0	0
2016	19	6	2	11	0	0	0	0

Holden					Population: 17,346			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	23	9	1	13	3	0	0	3
2013	46	21	6	19	0	0	0	0
2014	49	26	3	20	3	3	0	0
2015	36	18	2	16	2	0	1	1
2016	36	20	3	13	0	0	0	0

¹¹ Grafton reported only 14 incidents in 2014. Non of them were fires.

Hopedale					Population: 5,911			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	4	4	0	0	0	0	0	0
2013	20	11	0	9	3	0	0	3
2014	19	7	3	9	3	0	0	3
2015	14	7	0	7	2	0	0	2
2016	35	19	0	16	4	0	0	4

Hubbardston					Population: 4,382			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	23	8	5	10	0	0	0	0
2013	18	11	2	5	0	0	0	0
2014	15	9	3	3	0	0	0	0
2015	23	9	2	12	3	0	0	3
2016	33	13	3	17	2	0	0	2

Lancaster					Population: 8,055			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	6	3	4	3	1	1	1
2013	24	10	3	11	1	0	0	1
2014	13	3	3	7	1	0	0	1
2015	18	7	4	7	0	0	0	0
2016	21	4	3	14	0	0	0	0

Leicester					Population: 10,970			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	43	18	5	20	0	0	0	0
2013	34	8	5	21	3	0	0	3
2014	31	12	5	14	2	1	0	1
2015	18	8	1	9	1	0	0	1
2016	31	7	7	17	4	0	0	4

Leominster					Population: 40,759			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	238	116	18	104	9	3	1	5
2013	140	85	11	44	4	1	1	2
2014	153	91	20	42	2	0	0	2
2015	205	80	16	109	7	3	0	4
2016	257	142	8	107	2	0	0	2

Lunenburg					Population: 10,086			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	58	39	4	15	1	0	1	0
2013	43	20	6	17	2	1	1	0
2014	45	29	5	11	1	0	1	0
2015	41	19	2	20	2	1	0	1
2016	17	4	0	13	0	0	0	0

Mendon					Population: 5,839			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	5	2	6	0	0	0	0
2013	15	4	1	10	1	0	0	1
2014	13	6	1	6	0	0	0	0
2015	22	7	1	14	2	1	0	1
2016	4	1	1	2	0	0	0	0

Milford					Population: 27,999			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	112	49	13	50	3	2	0	1
2013	147	48	12	87	2	1	0	1
2014	104	50	11	43	1	1	0	0
2015	99	36	11	52	1	1	0	0
2016	118	41	14	63	1	0	0	1

Millbury					Population: 13,261			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	62	27	7	28	4	1	0	3
2013	48	28	9	11	0	0	0	0
2014	47	23	10	14	3	2	1	0
2015	53	26	7	20	2	1	1	0
2016	56	29	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
2012	9	6	2	1	0	0	0	0
2013	12	9	0	3	0	0	0	0
2014	7	4	0	3	0	0	0	0
2015	10	3	2	5	0	0	0	0
2016	10	8	1	1	0	0	0	0

New Braintree					Population: 999			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	9	1	0	8	0	0	0	0
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	1	1	0	0	0	0	0	0
2016	1	1	0	0	0	0	0	0

North Brookfield					Population: 4,680			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	25	6	1	18	2	0	0	2
2013	16	6	2	8	0	0	0	0
2014	10	8	0	2	0	0	0	0
2015	16	7	0	9	2	0	0	2
2016	1	0	1	0	0	0	0	0

Northborough					Population: 14,155			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	48	9	2	37	3	0	0	3
2013	42	12	7	23	5	1	0	4
2014	37	10	7	20	1	1	0	0
2015	37	11	2	24	1	0	0	1
2016	45	9	7	29	2	0	0	2

Northbridge					Population: 15,707			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	53	26	4	23	2	0	0	2
2013	64	34	7	23	2	0	1	1
2014	41	24	3	14	0	0	0	0
2015	56	27	3	26	0	0	0	0
2016	54	23	2	29	2	0	0	2

Oakham					Population: 1,902			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	8	6	0	2	0	0	0	0
2013	6	3	1	2	0	0	0	0
2014	8	7	0	1	0	0	0	0
2015	15	8	3	4	0	0	0	0
2016	9	3	0	6	0	0	0	0

Oxford					Population: 13,709			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	49	25	6	18	6	2	2	2
2013	36	18	7	11	0	0	0	0
2014	43	21	6	16	1	1	0	0
2015	61	25	11	25	4	0	0	4
2016	66	22	9	35	0	0	0	0

Paxton					Population: 4,806			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	19	11	3	5	0	0	0	0
2013	16	13	0	3	0	0	0	0
2014	20	11	5	4	0	0	0	0
2015	16	14	1	1	0	0	0	0
2016	19	9	1	9	0	0	0	0

Petersham					Population: 1,234			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	Fire Department in Good Standing, Certified No Reportable Fires							
2013	Fire Department in Good Standing, Certified No Reportable Fires							
2014	Fire Department in Good Standing, Certified No Reportable Fires							
2015	Fire Department in Good Standing, Certified No Reportable Fires							
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Phillipston					Population: 1,682			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3	2	0	1	0	0	0	0
2013	1	0	0	1	0	0	0	0
2014	1	1	0	0	0	0	0	0
2015	5	1	0	4	0	0	0	0
2016	10	3	1	6	0	0	0	0

Princeton					Population: 3,413			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	14	6	2	6	1	1	0	0
2013	12	3	1	8	0	0	0	0
2014	17	12	2	3	0	0	0	0
2015	11	5	1	5	0	0	0	0
2016	7	3	1	3	0	0	0	0

Royalston					Population: 1,258			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	3	3	0	0	0	0	0	0
2013	2	1	1	0	0	0	0	0
2014	9	5	2	2	0	0	0	0
2015	1	1	0	0	0	0	0	0
2016	Fire Department in Good Standing, Certified No Reportable Fires							

Rutland					Population: 7,973			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	19	9	0	10	1	1	0	0
2013	24	13	3	8	1	1	0	0
2014	21	13	2	6	0	0	0	0
2015	19	10	1	8	0	0	0	0
2016	26	6	7	13	2	0	0	2

Shrewsbury					Population: 35,608			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	152	75	8	69	12	2	1	9
2013	118	55	12	51	5	1	1	3
2014	119	64	14	41	5	2	0	3
2015	141	74	16	51	1	0	1	0
2016	150	77	17	56	1	0	0	1

Southborough					Population: 9,767			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	24	8	5	11	3	0	0	3
2013	27	9	6	12	0	0	0	0
2014	16	7	1	8	0	0	0	0
2015	34	6	6	22	1	0	0	1
2016	36	10	4	22	1	0	0	1

Southbridge					Population: 16,719			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	54	29	5	20	1	0	0	1
2013	61	26	8	27	1	1	0	0
2014	41	18	8	15	2	1	0	1
2015	69	40	14	15	3	1	1	1
2016	49	30	6	13	0	0	0	0

Spencer					Population: 11,688			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	104	70	8	26	3	2	0	1
2013	89	59	5	25	0	0	0	0
2014	71	52	7	12	2	1	0	1
2015	67	41	3	23	1	0	0	1
2016	62	44	5	13	0	0	0	0

Sterling					Population: 7,808			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	44	22	6	16	0	0	0	0
2013	38	14	5	19	0	0	0	0
2014	22	7	6	9	0	0	0	0
2015	28	4	8	16	0	0	0	0
2016	24	7	3	14	1	0	1	0

Sturbridge					Population: 9,268			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	46	11	14	21	5	0	0	5
2013	43	23	10	10	3	0	0	3
2014	42	22	10	10	1	0	0	1
2015	52	15	9	28	2	0	0	2
2016	44	14	5	25	5	1	0	4

Sutton					Population: 8,963			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	13	3	7	3	0	0	0	0
2013	41	20	5	16	0	0	0	0
2014	37	16	5	16	1	0	0	1
2015	47	14	5	28	2	0	0	2
2016	41	16	7	18	1	1	0	0

Templeton					Population: 8,013			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	4	4	0	0	0	0	0	0
2013	Non-Reporting Community							
2014	Non-Reporting Community							
2015	8	5	2	1	0	0	0	0
2016	8	6	1	1	0	0	0	0

Upton					Population: 7,542			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	36	20	0	16	8	0	0	8
2013	28	10	2	16	3	0	0	3
2014	9	2	2	5	0	0	0	0
2015	12	3	4	5	1	0	0	1
2016	21	10	2	9	2	0	0	2

Uxbridge					Population: 13,457			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	60	24	3	33	6	1	1	4
2013	56	23	9	24	4	2	0	2
2014	69	23	9	37	5	0	0	5
2015	33	12	7	14	0	0	0	0
2016	53	23	8	22	2	1	1	0

Warren					Population: 5,135			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	29	12	5	12	1	0	0	1
2013	24	11	4	9	1	1	0	0
2014	18	8	8	2	0	0	0	0
2015	23	9	5	9	1	1	0	0
2016	23	4	3	16	1	0	0	1

Webster					Population: 16,767			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	60	14	5	41	5	0	0	5
2013	47	25	3	19	0	0	0	0
2014	57	31	6	20	3	1	0	2
2015	67	32	8	27	9	3	1	5
2016	62	31	10	21	6	0	1	5

West Boylston					Population: 7,669			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	33	3	6	24	1	0	0	1
2013	24	6	3	15	4	0	0	4
2014	19	6	6	7	2	0	0	2
2015	23	6	8	9	0	0	0	0
2016	38	17	4	17	0	0	0	0

West Brookfield					Population: 3,701			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	2	2	0	0	0	0	0	0
2013	3	3	0	0	0	0	0	0
2014	2	2	0	0	0	0	0	0
2015	2	2	0	0	0	0	0	0
2016	1	0	1	0	0	0	0	0

Westborough					Population: 18,272			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	57	32	7	18	4	2	0	2
2013	52	29	6	17	0	0	0	0
2014	110	82	9	19	0	0	0	0
2015	120	62	12	42	3	0	0	3
2016	135	81	12	42	2	0	0	2

Westminster					Population: 7,277			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	32	14	7	11	1	0	0	1
2013	26	11	8	7	2	0	1	1
2014	34	15	5	14	0	0	0	0
2015	31	13	5	13	1	0	0	1
2016	43	18	10	15	1	0	0	1

Winchendon					Population: 10,300			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	56	28	4	24	2	0	1	1
2013	34	26	5	3	1	1	0	0
2014	38	24	1	13	1	0	0	1
2015	29	23	0	6	0	0	0	0
2016	37	23	3	11	1	0	1	0

Worcester					Population: 181,045			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2012	1,587	813	99	675	63	25	8	30
2013	1,454	774	82	598	54	12	4	38
2014	1,273	791	76	406	21	10	6	5
2015	1,510	826	91	593	19	12	6	1
2016	1,426	827	88	511	16	8	7	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
27011	Ashburnham	230	14	0	68	8	36	20	83	0	1
27015	Athol	2,663	66	4	1,923	84	252	178	147	0	9
27017	Auburn	3,236	88	2	2,266	168	260	163	277	0	12
27021	Barre	379	50	1	182	34	38	26	46	1	1
27028	Berlin	519	29	1	208	20	31	31	85	0	114
27032	Blackstone	343	24	0	103	32	27	64	92	0	1
27034	Bolton	275	22	1	59	33	37	52	71	0	0
27039	Boylston	449	21	1	330	9	19	16	51	0	2
27045	Brookfield	84	30	0	20	4	5	12	13	0	0
27054	Charlton	2,116	63	4	1,538	129	155	99	125	1	2
27064	Clinton	2,076	78	2	1,318	52	171	55	391	0	9
27077	Douglas	186	47	0	44	12	22	4	50	1	6
27080	Dudley	529	61	0	122	47	46	94	148	1	10
27084	East Brookfield	101	22	0	19	29	10	11	10	0	0
27097	Fitchburg	4,982	560	4	2,174	156	560	552	969	0	7

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27103	Gardner	6,289	251	1	3,844	131	703	220	410	0	729
27110	Grafton	97	11	3	5	12	17	6	43	0	0
27124	Hardwick	56	22	1	8	2	5	5	11	0	2
27125	Harvard	162	19	0	43	7	26	15	52	0	0
27134	Holden	2,223	43	0	1,644	39	137	136	222	0	2
27138	Hopedale	1,016	46	0	650	65	125	37	90	2	1
27140	Hubbardston	721	33	1	467	23	67	58	72	0	0
27147	Lancaster	696	25	0	486	22	46	32	70	0	15
27151	Leicester	232	44	2	17	20	46	17	83	0	3
27153	Leominster	7,676	265	3	5,318	221	636	455	719	7	52
27162	Lunenburg	489	46	0	84	59	83	40	157	2	18
27179	Mendon	739	4	0	529	9	51	70	66	0	10
27185	Milford	5,095	141	2	3,279	143	800	203	505	1	21
27186	Millbury	319	70	0	11	29	35	33	141	0	0
27188	Millville	324	24	1	195	8	23	56	15	2	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
27202	New Braintree	25	3	0	0	14	3	0	5	0	0
27212	North Brookfield	19	3	0	7	3	0	0	6	0	0
27215	Northborough	2,080	61	0	1,328	55	260	103	273	0	0
27216	Northbridge	1,024	71	0	326	82	82	159	302	2	0
27222	Oakham	202	18	0	131	7	5	21	20	0	0
27226	Oxford	608	68	0	175	30	73	108	148	1	5
27228	Paxton	627	36	0	480	4	30	21	54	0	2
27234	Petersham*	0	0	0	0	0	0	0	0	0	0
27235	Phillipston	71	22	0	13	8	12	12	3	0	1
27241	Princeton	330	7	1	200	14	38	22	47	1	0
27255	Royalston*	0	0	0	0	0	0	0	0	0	0
27257	Rutland	1,163	29	0	804	24	122	95	88	0	1
27271	Shrewsbury	3,815	151	4	2,576	203	210	122	521	6	22
27277	Southborough	1,388	41	0	771	60	163	97	238	12	6
27278	Southbridge	766	67	0	245	74	100	76	176	1	27

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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
27280	Spencer	406	84	1	14	84	39	40	141	1	2
27282	Sterling	886	42	1	545	11	115	77	94	0	1
27287	Sturbridge	1,907	52	6	1,239	46	271	92	198	1	2
27290	Sutton	414	61	0	197	19	20	25	89	1	2
27294	Templeton	9	8	0	0	1	0	0	0	0	0
27303	Upton	243	24	1	18	50	58	13	75	3	1
27304	Uxbridge	745	68	1	122	70	162	132	187	1	2
27311	Warren	179	38	1	31	22	25	26	35	0	1
27316	Webster	831	81	1	135	89	91	107	318	1	8
27321	West Boylston	1,134	50	0	786	39	84	48	119	5	3
27323	West Brookfield	1	1	0	0	0	0	0	0	0	0
27328	Westborough	3,530	161	7	2,262	166	267	152	502	9	4
27332	Westminster	1,307	43	1	708	65	199	87	197	1	6
27343	Winchendon	2,052	39	2	1,407	41	237	152	166	1	7
27348	Worcester	33,484	1,426	30	24,407	934	1,422	1,959	3,287	3	16
Total	Worcester County	103,548	4,974	91	65,881	3,822	8,557	6,506	12,503	68	1,146

* Certified no reportable fires.

**Non reporting department.

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