



County Profiles

2021 Fire Data Analysis

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

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2021 Fires by County

County	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Civilian Deaths	Civilian Injuries	Fire Service Deaths	Fire Service Injuries	Dollar Loss
Barnstable	902	418	105	379	1	24	0	9	\$12,239,689
Berkshire	405	236	44	125	3	8	0	16	\$2,809,548
Bristol	1,591	671	217	695	5	41	0	8	\$23,810,944
Dukes	97	73	5	19	0	0	0	0	\$256,801
Essex	2,209	1,153	246	810	2	11	0	60	\$30,825,413
Franklin	239	115	19	105	1	6	0	5	\$1,910,175
Hampden	1,504	787	236	481	5	22	0	45	\$42,751,498
Hampshire	376	170	42	164	1	3	0	3	\$2,036,270
Middlesex	5,402	3,531	380	1,491	11	31	0	154	\$63,372,642
Nantucket	42	20	7	15	0	1	0	0	\$710,248
Norfolk	2,614	1,601	219	794	3	13	0	31	\$20,738,353
Plymouth	1,752	836	209	707	1	25	0	46	\$23,999,492
Suffolk	4,424	3,202	227	955	1	6	0	19	\$50,670,498
Worcester	3,811	2,252	328	1,231	12	36	0	66	\$32,508,981
Total	25,368	15,073	2,284	8,011	46	227	0	462	\$308,640,552

2021 Arsons by County

County	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons	Civilian Deaths	Civilian Injuries	Fire Service Deaths	Fire Service Injuries	Dollar Loss
Barnstable	27	3	0	24	0	1	0	0	\$359,200
Berkshire	22	8	0	14	0	0	0	5	\$26,100
Bristol	48	12	4	32	1	0	0	0	\$285,400
Dukes	1	1	0	0	0	0	0	0	\$0
Essex	53	9	7	37	0	0	0	1	\$174,685
Franklin	10	2	0	8	0	0	0	0	\$2
Hampden	99	28	19	52	0	1	0	0	\$440,750
Hampshire	39	10	1	28	0	0	0	0	\$1,025
Middlesex	68	21	3	44	2	0	0	1	\$615,070
Nantucket	0	0	0	0	0	0	0	0	\$0
Norfolk	47	12	2	33	1	0	0	1	\$480,202
Plymouth	40	11	5	24	0	1	0	0	\$166,700
Suffolk	82	19	5	58	0	0	0	0	\$338,742
Worcester	71	23	4	44	0	2	0	1	\$451,705
Total	607	159	50	398	4	5	0	9	\$3,339,581

2021 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	228,996	902	3.9	1	1.1	0.04	27	0.1
Berkshire	129,029	405	3.1	3	7.4	0.23	22	0.2
Bristol	579,200	1,591	2.7	5	3.1	0.09	48	0.1
Dukes	20,600	97	4.7	0	0.0	0.00	1	0.05
Essex	809,829	2,209	2.7	2	0.9	0.02	53	0.1
Franklin	71,029	239	3.4	1	4.2	0.14	10	0.1
Hampden	465,825	1,504	3.2	5	3.3	0.11	99	0.2
Hampshire	162,308	376	2.3	1	2.7	0.06	39	0.2
Middlesex	1,632,002	5,402	3.3	11	2.0	0.07	68	0.04
Nantucket	14,255	42	2.9	0	0.0	0.00	0	0.0
Norfolk	725,981	2,614	3.6	3	1.1	0.04	47	0.1
Plymouth	530,819	1,752	3.3	1	0.6	0.02	40	0.1
Suffolk	797,936	4,424	5.5	1	0.2	0.01	82	0.1
Worcester	862,111	3,811	4.4	12	3.1	0.14	71	0.1
Massachusetts	7,029,917	25,368	3.6	46	1.8	0.07	607	0.1

*Population statistics based on 2020 U.S. Census Bureau data.

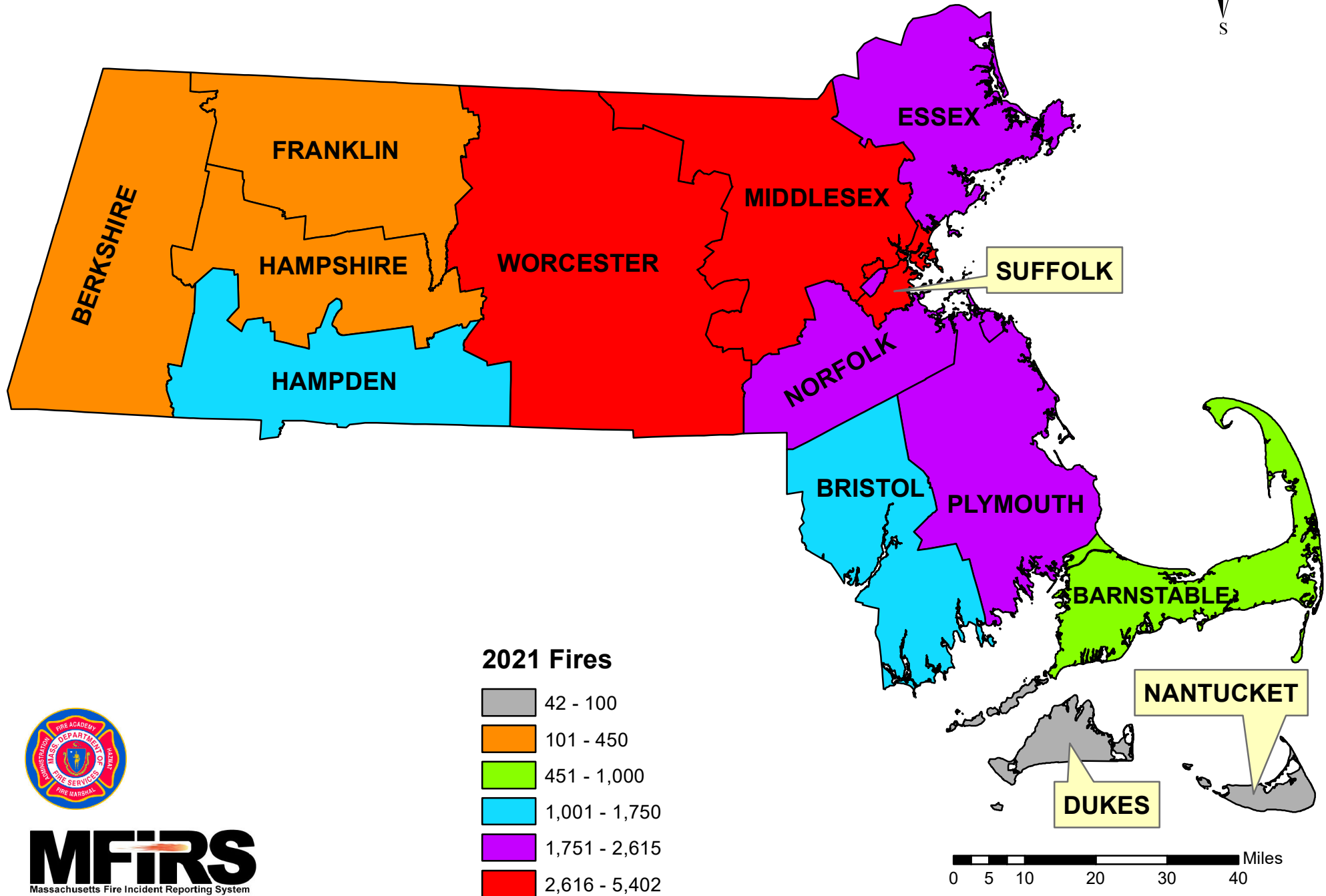
2021 Non-Fire Responses by County and by Incident Type¹

County	Total Non-Fire Responses	Overpressure Rupt. & Explos. (No-fire)	Rescue EMS Incidents	Hazardous Conditions (No-fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX ² & Natural Disaster	Special Incident Type
Barnstable	68,920	25	49	2,585	5,019	3,050	8,117	191	245
Berkshire	15,446	23	8,643	946	1,892	706	3,006	83	147
Bristol	65,013	74	41,508	4,952	3,531	3,600	10,915	92	341
Dukes	1,486	9	122	120	67	460	697	1	10
Essex	107,477	96	63,918	4,913	11,799	7,511	18,846	117	277
Franklin	9,906	17	5,906	729	1,170	606	1,071	79	328
Hampden	53,959	85	34,193	2,027	4,141	4,499	8,777	76	161
Hampshire	22,124	29	16,111	863	831	1,118	3,012	91	69
Middlesex	220,509	138	136,088	9,340	24,278	12,694	34,467	223	3,281
Nantucket	2,840	6	1,225	114	72	184	1,233	1	5
Norfolk	112,567	85	73,595	5,184	9,967	7,466	15,876	160	234
Plymouth	101,950	73	68,955	5,260	9,300	6,336	11,380	432	214
Suffolk	101,158	48	48,655	3,021	18,621	9,040	20,716	55	1,002
Worcester	122,717	114	85,769	4,205	10,303	7,123	14,821	112	270
Massachusetts	1,006,072	822	634,376	44,259	100,991	64,393	152,934	1,713	6,584

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

² WX is the abbreviation for Weather.

2021 Fires in Massachusetts Counties



MFIRS
Massachusetts Fire Incident Reporting System

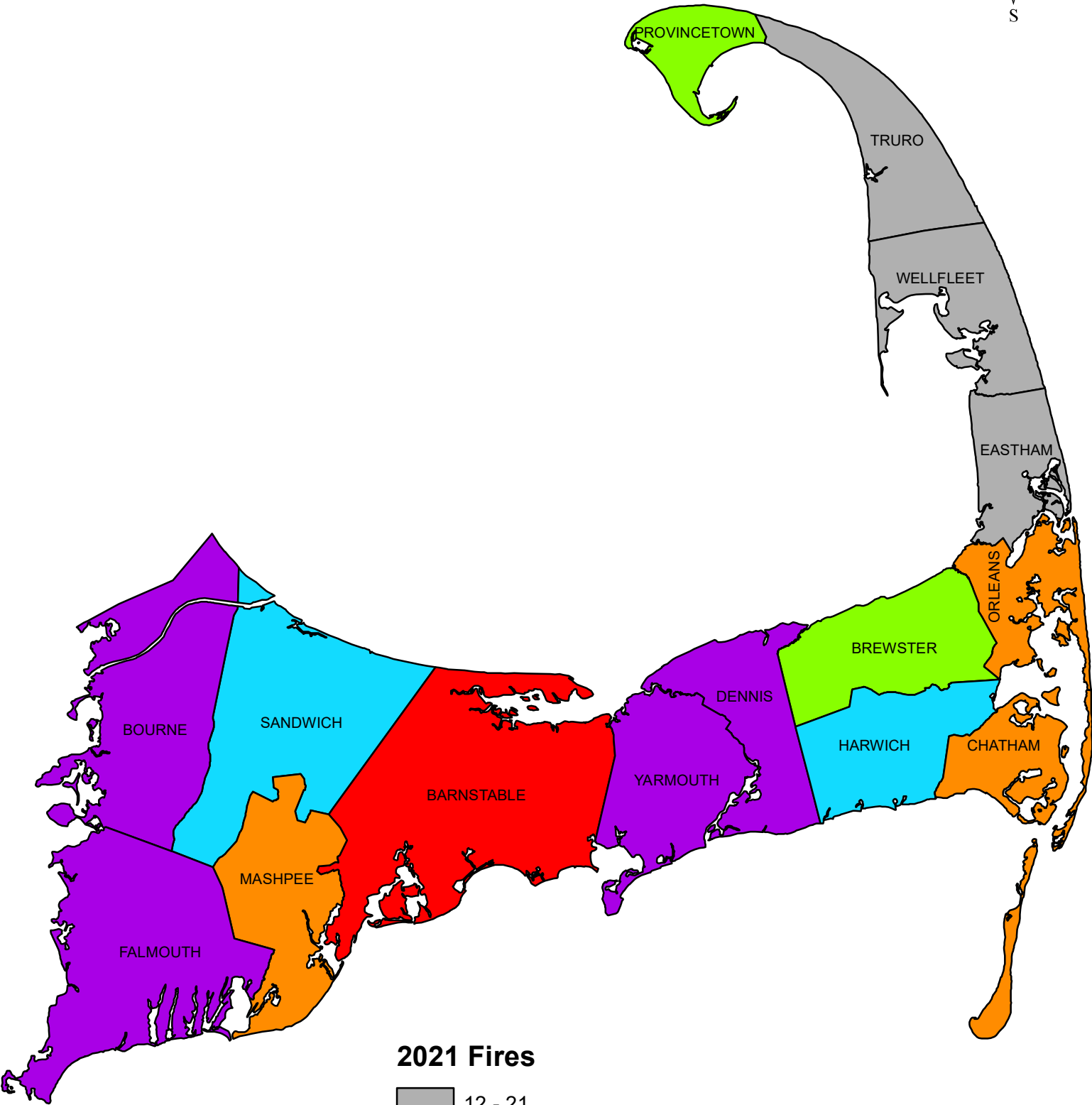
0 5 10 20 30 40 Miles
Massachusetts Fire Incident Reporting System 2021



Barnstable County

2021 Fire Data Analysis

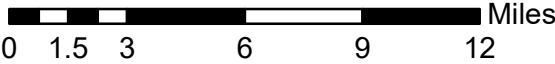
Barnstable County Fires 2021



2021 Fires



*Non-reporting Department



Massachusetts Fire Incident Reporting System 2021



Barnstable County Fires in 2021

902 Total Fires — 418 Structures, 105 Vehicles & 379 Other Fires

Barnstable County ranked ninth out of the 14 Massachusetts counties in total reported fires. Barnstable County fire departments reported 902 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 418 structure fires, 105 motor vehicle fires, 216 brush, tree, or lawn fires, 87 outside rubbish fires, 46 specials outside fires, three cultivated crop or vegetation fires, and 27 unclassified fires caused one civilian death, 24 civilian injuries, nine fire service injuries and an estimated dollar loss of \$12.2 million. Barnstable County's fires accounted for 4% of the 25,368 Massachusetts fires reported in 2021.

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 2021.

Structure & MV Fires Up

The total number of reported fire incidents decreased by 19 from the 921 reported in 2020. Reported structure fires increased by 69 from the 349 reported during the previous year. Motor vehicle fires increased by 32 from 73 in 2020. Outside and other fires decreased by 120 from the 499 reported the year before.¹

BARNSTABLE COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	770	303	88	379	35	6	2	27
2018	727	310	89	328	31	3	2	26
2019	723	324	82	317	25	4	3	18
2020	921	349	73	499	38	7	0	31
2021	902	418	105	379	27	3	0	24

Fire and Fire Death Rates

Barnstable County had 3.9 fires per 1,000 population. That figure ranks Barnstable County fourth in the state and above the state rate of 3.6 fires per 1,000 population. Barnstable County also had 0.04 fire deaths per 10,000 population, ranking it tied for eighth and below the state rate of 0.07 fire deaths per 10,000 population.

1 Fatal Fire in Barnstable County

In 2021, Barnstable County had one fatal fire that killed one person.

- On August 8, 2021, at 7:43 a.m., the Centerville-Osterville-Marston Mills Fire Department in Barnstable was called to a fatal electrical fire in a single-family home. The fire started by arcing in an unclassified function room. The older adult victim was asleep in a bedroom at the time of the fire. No one else was injured at this fire. It

¹ 2021 was another down year for brush fires statewide.

was undetermined if alarms were present. The home did not have any sprinklers. The fire caused an estimated \$200,000 worth of damage.

Hyannis Had Barnstable County's Largest Loss Fire

In 2021, Barnstable County had one large loss fire over \$1 million in estimated damages. This fire's losses were estimated to be \$2 million, or 16% of Barnstable County's total reported dollar loss in 2021.

- On April 25, 2021, at 2:26 p.m., the Hyannis Fire Department was dispatched to an electrical fire at the Hyannis Harbor Hotel on Ocean St. No one was injured at this fire. Alarms were present and alerted the occupants. The building had a partial sprinkler system, but it was not reported if it operated. Damages from this fire were estimated to be \$2 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 418 structure fires caused the civilian death, 21 civilian injuries, seven fire service injuries and an estimated dollar loss of \$10.9 million. These incidents represented 46% of Barnstable County's reported fires in 2021. The total number of reported structure fires increased by 69, or 20%, from the 349 reported in 2020. The average estimated dollar loss per structure fire was \$26,044. Barnstable County was one of the few counties where structure fires actually increased in 2021.

Arson Caused 1% of Structure Fires

There were three structure arsons in 2021. Arson was indicated as the cause of 1% of the structure fires and 3% of Barnstable County's structure fire dollar loss. The three structure arsons accounted for 11% of the Barnstable County arson fires reported in 2021. The total number of reported structure arsons decreased by four from the seven reported in 2020.

2 of 3 Structure Arsons Occurred in Residences

Two (2), or 67%, of the three Barnstable County structure arsons occurred in residential occupancies. One (1), or 3%, occurred in an institutional facility, a jail.

BUILDING FIRES

There were 411 building fires of different types in Barnstable County in 2021. These 411 building fires accounted for 98.3% of all building fires in Barnstable County.

88% of Barnstable County Building Fires Occurred in People's Homes

Three hundred and sixty-one (361), or 88%, of Barnstable County's 411 building fires occurred in residential occupancies. Mercantile and business properties had 14 fires. Thirteen (13) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced six fires. Six (6) fires took place in storage properties. Another six happened at special properties. Four (4) fires took place in educational facilities. One (1) fire occurred at an industrial facility.

RESIDENTIAL FIRES

Residential Building Fires Were Up

There were 361 reported residential building fires in Barnstable County in 2021. These 361 fires are an increase of 74, or 26%, from the 287 residential building fires reported in 2020.

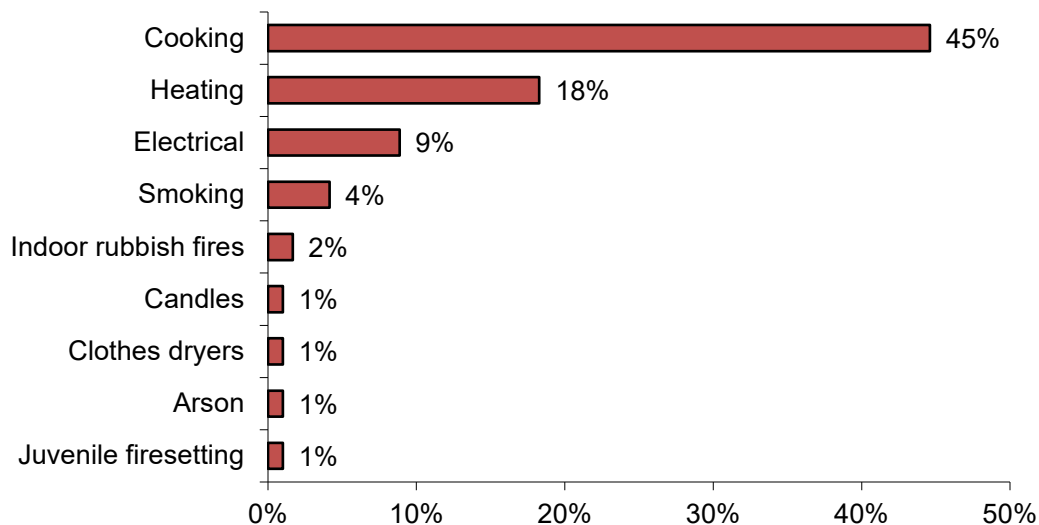
1- & 2-Family Homes Accounted for 73% of Residential Building Fires

The peak fixed property use for residential building fires were one- or two-family homes, accounting for 73% of the building fires in Barnstable County; 19% occurred in apartments; 2% happened in dormitories or barracks; another 2% occurred in rooming houses; 1% happened in hotels or motels; and less than 1% occurred in residential board and care facilities. Six (6), 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 45% of the fires. Heating fires accounted for 18% of the fires in people's homes in 2021; 65% involved a chimney or flue and 33% involved a fuel burner or boiler. Electrical problems caused 9% of fires in residential buildings. Smoking caused 4% of these fires. Indoor rubbish fires caused 2% of these fires. Candles, clothes dryers, arsons, and juvenile-set fires were each responsible for 1% of these fires.

2021 Leading Causes of Fires in Barnstable County Homes



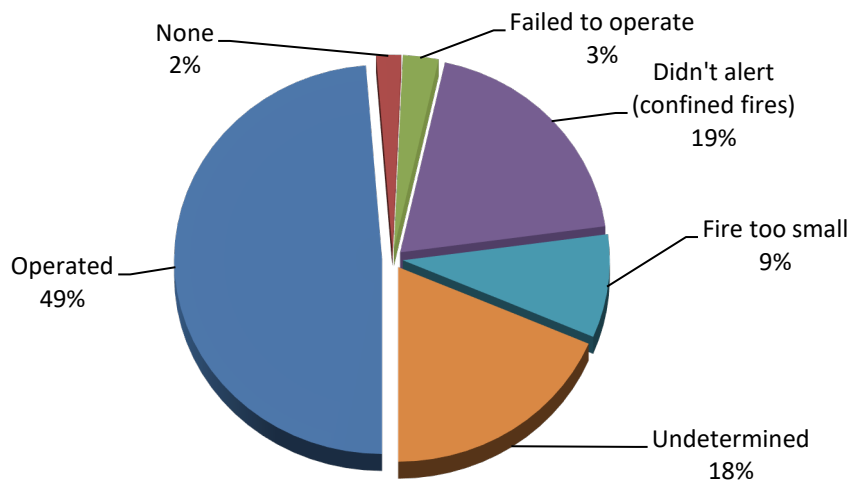
59% of Residential Building Fires Are Confined to Non-Combustible Containers²

Two hundred and fourteen (214), or 59%, of all residential building fires were reported as confined to non-combustible containers in Barnstable County in 2021. One hundred and forty-six (146), or 40%, of all residential building fires reported in 2021 were cooking fires contained to a non-combustible container. Forty-one (41) of the reported fires were confined to a chimney, accounting for 11% of residential building fires. Twenty-one (21), or 6%, were fires confined to a fuel burner or boiler malfunction. Six (6), or 2%, of these fires were rubbish fires contained to a non-combustible container.

Alarms Alerted Occupants in Only 49% of Fires

Smoke or heat alarms operated and alerted the occupants in 176, or 49%, of the residential building fires. In 18% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 3% of these incidents. In 2% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 9% of the residential fires. Smoke alarm performance was undetermined in 67 incidents, or 18%, of Barnstable County's residential building fires.

Detector Status in Barnstable County's Residential Structure Fires 2021



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.

10 Alarms failed

There were 10 fires where smoke alarms were present but failed to operate. A power failure, shut off or disconnect was the cause of three, or 30%, of the failed alarms. Two (2), or 20%, failed because of dead batteries; and one, or 10%, had missing or disconnected batteries. It was undetermined in the other four cases, or 40%, why the alarm failed.

VACANT BUILDINGS**4% of Building Fires Occurred in Vacant Buildings**

Barnstable County reported 18 fires that occurred in buildings that were vacant, under construction or demolition. This represented 4% of the 411 building fires reported to MFIRS in 2021. Thirteen (13) residential buildings, one public assembly facility, one educational facility, one institutional facility, one mercantile or business property, and one storage facility were reported as vacant building fire incidents.

One (1), or 11%, of the vacant building fires in Barnstable County in 2021 were determined to be intentionally-set. This fire happened in a 1- or 2-family home.

JUVENILE-SET FIRES**4 Juvenile-set Fires**

There were four reported juvenile-set fire in Barnstable County in 2021. The three structure fires and one brush fire caused \$60,000 in estimated damages.

ARSONS**27 Total Arsons — 3 Structures, 0 Vehicle & 24 Other Arsons**

Twenty-seven (27), or 3%, of Barnstable County's 902 fires were considered intentionally-set, or, for purposes of this analysis, arson. The three structure arsons and 24 outside and other arsons caused one civilian injury and an estimated dollar loss of \$359,200.

All Arson Down

The total number of reported arson fires decreased by 11, or 29%, from the 38 reported in 2020. Reported structure arsons decreased by four from the seven reported in 2020. Motor vehicle arsons remained the same with none in 2020 and 2021. Reported outside and other arsons decreased by seven from the 31 reported in 2020.

ALL INCIDENTS**Rescue & EMS Calls Are 71% of All Reported Incidents**

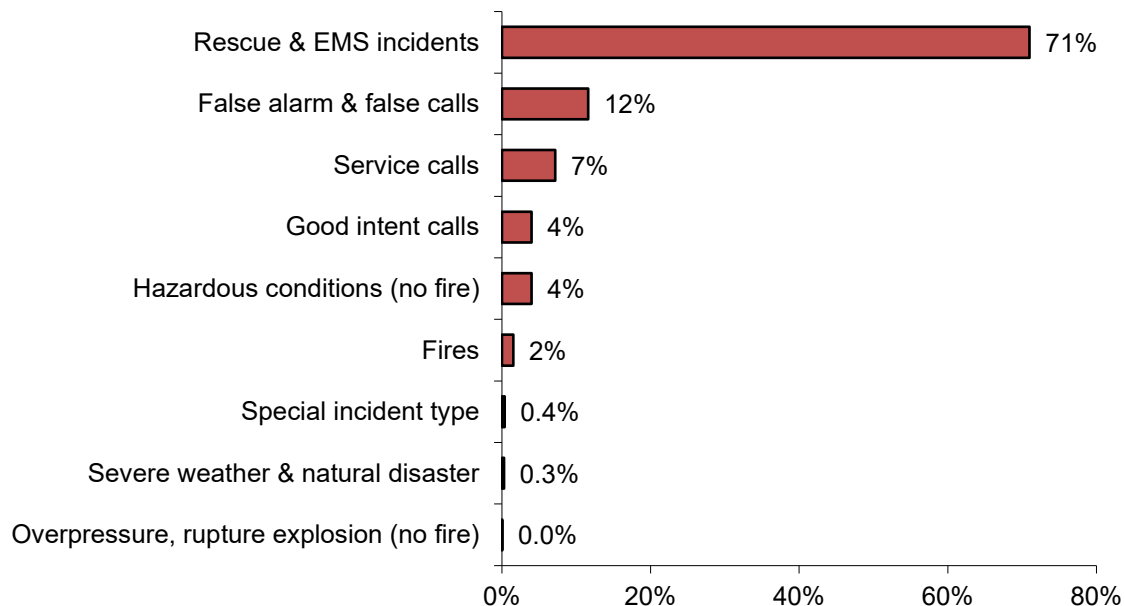
In 2021, Barnstable County fire departments reported 69,983 responses⁴ to MFIRS. Of these 69,983 incidents, 68,920 non-fire calls were voluntarily reported.

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

Of these 68,920 non-fire calls, 49,688, or 71%, of all of the responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 78,117, or 12%, were reported false alarm or false calls; 5,019, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,050, or 4%, reported good intent calls; 2,585, or 4%, were reported hazardous condition calls with no fire; 245, or 0.4%, were special incident type calls such as citizen complaints; 191, or 0.3%, were severe weather responses; and 25, or 0.04%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand sixty-three (1,063), or 2%, of the total responses submitted by Barnstable County fire departments were fires.

2021 Responses by Incident Type



Barnstable County Departments Gave Aid 1,888 Times

In 2021, Barnstable County fire departments reported coming to the aid of other fire departments 1,888 times. Of these 1,888 responses, 1,056, or 56%, were for rescue or EMS incidents; 327, or 17%, were for good intent calls; 243, or 13%, were for service calls such as cover assignments; 156, or 8%, were for fires; 51, or 3%, were for hazardous conditions calls with no fire; 32, or 2%, were for false alarms or false calls; 18, or 1%, were special incident types; four, or 0.2%, were severe weather or natural disaster calls; and one, or 0.1%, was for an overpressure, rupture, explosion or overheat call with no fire.

Barnstable County Received Mutual Aid in 1,190 Incidents

In 2021, Barnstable County fire departments received aid from surrounding departments in 1,190 incidents. Of these 1,190 incidents, 934, or 78%, were rescue and emergency medical services calls; 112, or 9%, were for fires; 41, or 3%, were good intent calls; another 41, or 3%, were false alarms or false calls; 29, or 2%, were service calls; 28, or 2%, were hazardous conditions calls with no fire; four, or 0.3%, were severe weather or natural disaster calls; and one or 0.1%, was a severe weather call.

Barnstable County**Population: 228,996⁵****3.9 Fires/1,000 Population****Total Fires: 902 \$12,239,689**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	418	46%	\$10,886,581
Vehicle Fires	105	12%	1,304,272
Other Fires	379	42%	48,836

1 Fatal Fire 1.11 Civilian Deaths/1,000 Fires
 1 Civilian Death 0.04 Civilian Deaths/10,000 Population
 24 Civilian Injuries 9 Fire Service Injuries

Building Fires: 411**Residential Structure Fires: 361****Residential Structure Fires Confined to Non-Combustible Containers: 214****Unconfined Residential Structure Fires: 147**

1 Civilian Death 21 Civilian Injuries 7 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	265	73%	Operated	176	49%
Apartments	69	19%	Didn't operate	10	3%
Dormitories	8	2%	None	7	2%
Rooming houses	7	2%	Fire too small	31	9%
Hotels or motels	5	1%	Didn't Alert (confined)	70	19%
Residential board & care	1	0.3%	Undetermined	67	18%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	50%	Radiated heat/oper. eq.	5%	13%
Chimney or flue	11%	Arcing	5%	13%
Heating room or area	6%	Heat from operating eq.	5%	12%
Bedroom	5%	Cigarettes	2%	5%
Wall surface, exterior	3%	Spark/ember/flame op. eq.	2%	5%
Living room	2%	Hot or smold. object, other	2%	4%

⁵ We used the 2020 US Census figures.

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

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

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	42%	Too close to combustibles	6%	16%
Film, residue (creosote)	11%	Abandoned materials	5%	12%
Flammable or comb. liquid	6%	Electrical failure, malfunc.	4%	10%
Exterior sidewall covering	4%	Mechanical failure, malfunc.	2%	6%
Electrical wire, cable insulation	3%			

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	42%	Unintentional	19%	48%
None	31%	Failure of eq. or heat source	10%	24%
Chimney or flue	11%	Intentional	1%	1%
Boiler, furnace, cent. heat. unit	6%	Act of nature	1%	1%
Clothes dryer	1%	Undetermined	6%	14%
		Cause Under Investigation	4%	11%

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

Alerted Occupants	49%
Didn't Alert Occupants	33%
Undetermined	19%

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	54	28	8	18
February	47	30	5	12
March	112	45	9	58
April	106	40	9	57
May	113	39	11	63
June	84	34	10	39
July	86	33	17	36
August	76	27	8	41
September	64	35	6	23
October	48	31	8	9
November	64	41	9	14
December	48	34	5	9

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	135	73	10	52
Monday	135	58	23	53
Tuesday	117	60	14	43
Wednesday	114	45	16	53
Thursday	121	51	15	55
Friday	127	58	14	55
Saturday	154	73	13	68

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	55	28	12	15
04:01 - 08:00	53	26	7	20
08:01 - 12:00	174	70	35	69
12:01 - 16:00	246	91	26	129
16:01 - 20:00	279	149	18	112
20:01 - 24:00	95	54	7	34

Motor Vehicle Fires

Total: 105

Automobiles: 75 (71%)

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

Arson Fires

Total Arsons: 27

Dollar loss: \$228,996

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	3	1%	11%	\$355,200
Vehicle Arsons	0	0%	0%	0
Other Arsons	24	6%	89%	4,000

0.01 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.10 Other arsons/1,000 population

1 Civilian Injury

Peak Times of Day for:

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

Other Arsons	#	%
12:01 - 16:00	10	42%
16:01 - 20:00	9	38%
08:01 - 12:00	3	13%

Peak Fixed Property Uses for Structure Arsons	#	%
1-or 2-Family	2	67%
Jail, prison (not juvenile)	1	33%

Town of Barnstable Fire Districts**Population: 48,916¹²*****Barnstable******Est Pop. Protected: 3,164***

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
2017	22	7	4	11	1	0	0	1
2018	24	9	1	14	2	0	0	2
2019	23	9	4	10	7	1	0	6
2020	21	5	7	14	2	1	0	1
2021	26	10	1	15	4	0	0	4

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
2017	49	16	6	27	2	0	0	2
2018	44	22	5	17	0	0	0	0
2019	43	21	6	16	3	1	0	2
2020	42	19	5	18	0	0	0	0
2021	59	30	8	21	0	0	0	0

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	5	2	0	3	0	0	0	0
2018	10	7	1	2	0	0	0	0
2019	5	3	0	2	1	0	0	1
2020	8	1	0	7	3	0	0	3
2021	13	8	1	4	0	0	0	0

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	108	39	8	61	5	2	0	3
2018	116	29	9	78	2	0	1	1
2019	97	29	11	57	1	0	0	1
2020	171	57	5	109	4	3	0	1
2021	126	45	18	63	2	0	0	2

¹² The town populations are from the 2020 US Census. However the district populations are still based on 2010 US Census because we have yet to hear from the town manager's office for the breakdown between the districts.

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	22	8	5	45	7	1	0	6
2018	16	6	3	7	2	1	0	1
2019	13	2	3	8	2	0	0	2
2020	15	7	1	7	0	0	0	0
2021	15	3	5	7	0	0	0	0

Bourne**Population: 20,452**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	46	17	7	22	0	0	0	0
2018	29	10	7	12	4	0	0	4
2019	58	31	6	21	1	0	0	1
2020	66	25	13	28	0	0	0	0
2021	77	39	16	22	1	1	0	0

Brewster**Population: 10,318**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	18	11	1	6	1	1	0	0
2018	37	19	5	13	1	0	0	1
2019	31	8	3	20	2	0	1	1
2020	23	10	3	10	0	0	0	0
2021	38	19	3	16	0	0	0	0

Chatham**Population: 6,594**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	6	1	1	4	1	0	1	0
2018	8	4	1	3	0	0	0	0
2019	12	4	1	7	0	0	0	0
2020	28	7	3	18	0	0	0	0
2021	32	16	3	13	0	0	0	0

Dennis **Population: 14,674**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	54	25	7	22	1	0	0	1
2018	68	32	5	31	5	0	0	5
2019	52	23	3	26	1	1	0	0
2020	70	23	1	46	14	1	0	13
2021	73	29	6	38	10	0	0	10

Eastham **Population: 5,752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	25	8	2	15	0	0	0	0
2018	18	9	3	6	0	0	0	0
2019	23	10	1	12	0	0	0	0
2020	27	14	2	11	1	0	0	1
2021	21	9	2	10	1	0	0	1

Falmouth **Population: 32,517**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	91	30	16	45	1	0	1	0
2018	81	37	11	33	2	1	0	1
2019	69	33	7	29	2	1	0	1
2020	142	56	13	73	3	1	0	2
2021	108	49	15	44	1	0	0	1

Harwich **Population: 13,440**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	40	15	8	17	1	0	0	1
2018	32	14	6	12	2	0	0	2
2019	46	27	5	14	1	0	0	1
2020	55	25	5	25	1	0	0	1
2021	49	22	5	22	1	1	0	0

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
2017	6	1	0	5	0	0	0	0
2018	5	0	0	5	0	0	0	0
2019	17	0	2	15	0	0	0	0
2020	8	1	0	7	0	0	0	0
2021	5	0	0	5	1	0	0	1

Mashpee Population: 15,060

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	48	17	5	26	8	0	0	8
2018	38	17	3	18	6	1	0	5
2019	24	15	3	6	0	0	0	0
2020	42	23	2	17	0	0	0	0
2021	32	16	2	14	2	0	0	2

Orleans Population: 6,307

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	33	12	1	20	2	0	0	2
2018	36	11	5	20	2	0	0	2
2019	25	14	3	8	3	0	1	2
2020	20	6	3	11	0	0	0	0
2021	28	13	5	10	0	0	0	0

Provincetown Population: 3,664

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	24	16	0	8	0	0	0	0
2018	23	20	0	3	0	0	0	0
2019	33	28	2	3	0	0	0	0
2020	Non-reporting Department							
2021	42	35	0	7	0	0	0	0

Sandwich **Population: 20,259**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	57	37	6	14	2	1	0	1
2018	62	34	9	19	2	0	1	1
2019	54	25	11	18	1	0	1	0
2020	59	20	6	33	0	0	0	0
2021	53	29	4	20	0	0	0	0

Truro **Population: 2,454**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	3	2	14	1	0	0	1
2018	8	3	1	4	0	0	0	0
2019	3	1	0	2	0	0	0	0
2020	15	3	0	12	0	0	0	0
2021	17	7	2	8	1	0	0	1

Wellfleet **Population: 3,566**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	10	3	6	0	0	0	0
2018	9	4	1	4	0	0	0	0
2019	25	15	5	5	0	0	0	0
2020	19	11	2	6	0	0	0	0
2021	12	8	2	2	0	0	0	0

Yarmouth **Population: 25,023**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	78	28	5	45	7	1	0	6
2018	59	20	12	27	2	1	0	1
2019	70	26	6	38	0	0	0	0
2020	86	33	5	48	9	1	0	8
2021	76	31	7	38	3	1	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
01919	Barnstable	1,506	30	2	882	38	117	63	359	9	6
01036	Bourne	4,853	88	4	3,779	140	167	188	466	3	18
01041	Brewster	2,681	41	0	1,922	118	166	74	349	3	8
01055	Chatham	3,084	36	1	1,862	72	423	195	451	6	38
01921	Cotuit	892	18	0	580	41	85	50	112	5	1
01920	C.O.M.M.	5,045	66	4	3,352	184	265	203	948	9	14
01075	Dennis	5,458	90	0	3,528	275	694	262	580	24	5
01086	Eastham	2,375	32	0	1,584	149	165	141	281	21	2
01096	Falmouth	8,445	124	1	6,387	250	217	546	899	8	13
01126	Harwich	4,865	79	4	3,637	229	268	159	448	1	40
01922	Hyannis	7,486	131	2	5,882	170	363	217	679	38	4
01936	Joint Base Cape Cod	838	5	0	63	126	404	7	233	0	0
01172	Mashpee	4,179	38	0	2,943	179	314	135	566	1	3
01224	Orleans	2,704	41	2	2,063	120	111	53	301	1	12
01242	Provincetown	188	48	0	20	34	10	13	63	0	0
01261	Sandwich	4,754	60	0	3,389	153	517	143	425	35	32

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
01300	Truro	1,025	19	0	578	15	205	93	99	0	16
01318	Wellfleet	1,402	18	0	868	65	127	101	192	3	28
01923	West Barnstable	636	30	1	412	27	50	37	59	20	0
01351	Yarmouth	7,583	85	4	5,957	200	351	370	607	4	5
Total	Barnstable County	69,999	1,079	25	49,688	2,585	5,019	3,050	8,117	191	245

* Certified no reportable fires.

**Non reporting department.

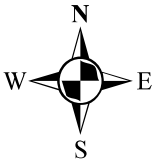
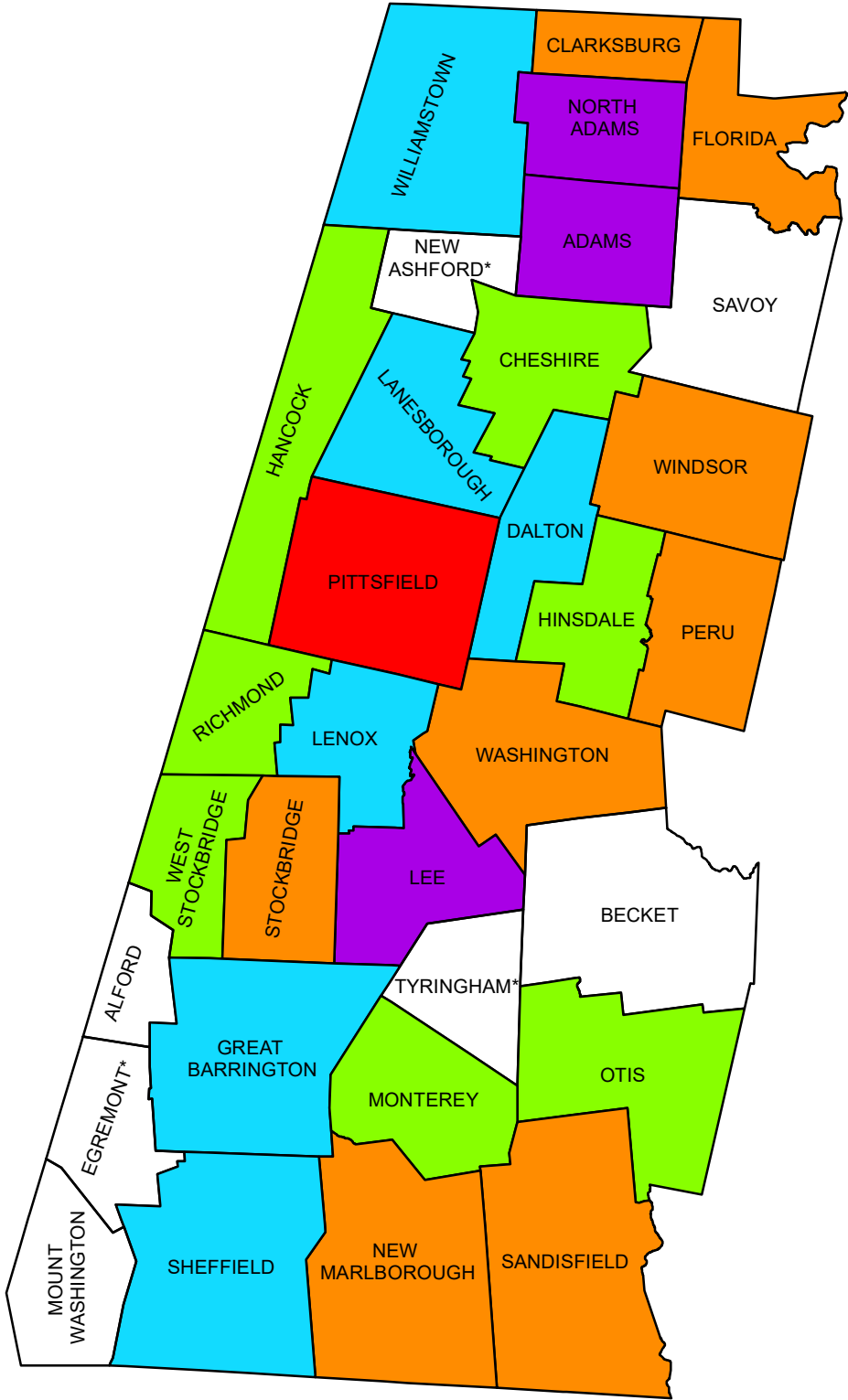
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



Berkshire County

2021 Fire Data Analysis

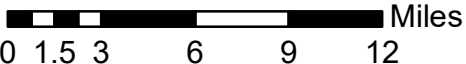
Berkshire County Fires 2021



2021 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Berkshire County Fires in 2021

405 Total Fires — 236 Structures, 44 Vehicles & 125 Outside and Other Fires

Berkshire County ranked tenth out of the fourteen Massachusetts counties in total reported fires. Berkshire County fire departments reported 405 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 236 structure fires, 44 motor vehicle fires, 57 brush, tree or lawn fires, 33 outside rubbish fires, 12 special outside fires; one cultivated crop or vegetation fire; and 22 other fires caused three civilian deaths, eight civilian injuries, 16 fire service injuries and an estimated dollar loss of \$2.8 million. Berkshire County's fires accounted for 2% of the 25,368 Massachusetts fires reported in 2021.

Twenty-nine (29), or 93.5%, 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 2021.

Structure Fires Up Slightly

The total number of reported fire incidents decreased by six from the 411 reported in 2021. Reported structure fires increased by six from the 230 reported during the previous year. Motor vehicle fires decreased by five from the 49 reported in 2021. Outside and other fires decreased by seven from the 132 reported in 2021.¹

BERKSHIRE COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	444	259	52	133	11	1	0	10
2018	387	230	43	114	15	2	1	12
2019	359	191	34	134	28	11	1	16
2020	411	230	49	132	34	8	3	23
2021	405	236	44	125	22	8	0	4

Fire and Fire Death Rates

Berkshire County had 3.1 fires per 1,000 population. That figure ranks Berkshire County tenth in the state and below the state rate of 3.6 fires per 1,000 population. Berkshire County also had 0.23 fire deaths per 10,000 populations ranking it first among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

3 People Killed in 2 Berkshire County Fires

Three (3) people died in two fires in Berkshire County in 2021.

- On January 13, 2021, at 5:50 a.m., the Sheffield Fire Department was called to a fatal chimney fire in a single-family home. There were two older adult victims. No one

¹ 2021 was another down year for brush fires statewide. But Berkshire County was the only county where brush fires increased albeit by only 7 fires.

else was injured at this fire. The home did not have alarms or sprinklers. Damages from this fire were not estimated.

- On May 13, 2021, at 5:00 a.m., the Pittsfield Fire Department was called to a fatal smoking fire in a single-family home. The fire was caused by a cigarette while someone in the home was using oxygen. There was one adult victim who was transported to a local hospital and later succumbed to their injuries. No one else was injured at this fire. It was undetermined if alarms were present; and there were no sprinklers. Damages from this fire were not estimated.

North Adams Had Berkshire County's Largest Loss Fire

Berkshire County did not have any fires that reported a dollar loss over \$1 million. There were five fires with a dollar loss greater than \$100,000. North Adams reported the incident that had the greatest dollar loss in Berkshire County in 2021. These five fires accounted for \$1.8 million and were responsible for 65% of the total county fire loss in 2021.

- On January 29, 2021, at 5:08 p.m., the North Adams Fire Department was called to a cooking fire in a six-unit apartment building. No one was injured at this fire. Alarms were present but failed because of missing batteries. The building was not sprinklered. Damages from this fire were estimated to be \$600,000.

STRUCTURE FIRES

Reported Structure Fires Up

The 236 structure fires caused all three civilian deaths, eight civilian injuries, 16 fire service injuries and an estimated dollar loss of \$2.7 million. These incidents represented 58% of Berkshire County's reported fires in 2021. The average estimated dollar loss per structure fire was \$11,253. The total number of reported structure fires increased by six, or 3%, from the 230 reported in 2020.

Arson Caused 8 Structure Fires

The eight structure arsons caused five fire service injuries and an estimated dollar loss of \$5,000. Arson was indicated as the cause of 3% of the structure fires and less than 1% of Berkshire County's structure fire dollar loss. The eight structure arsons accounted for 36% of the Berkshire County arson fires reported in 2021. The total number of reported structure arsons remained the same as in 2020.

63% of Structure Arsons Occurred in Residences

Five (5), or 63%, of Berkshire County structure arsons occurred in residential properties in 2021. The other three, or 13% each, occurred in a public assembly property, a mercantile or business property and a special property.

BUILDING FIRES

There were 234 building fires of different types in Berkshire County in 2021. These 234 building fires accounted for 99.2% of structure fires in Berkshire County.

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

One hundred and ninety-seven (197), or 84%, of Berkshire County's 234 building fires occurred in residential occupancies. Mercantile and business properties had 12 fires. Nine (9) fires took place in public assembly properties, including restaurants and churches. Storage facilities had six fires. Special properties, such as outbuildings or sheds had four fires. Industrial facilities had 3 fires. Institutional facilities, manufacturing or processing facilities and unclassified properties each experienced one fire in Berkshire County in 2021.

RESIDENTIAL FIRES**Residential Building Fires Down Slightly**

There were 197 reported residential building fires in Berkshire County in 2021. These 197 fires are a decrease of three, or 2%, from the 200 residential building fires reported in 2020.

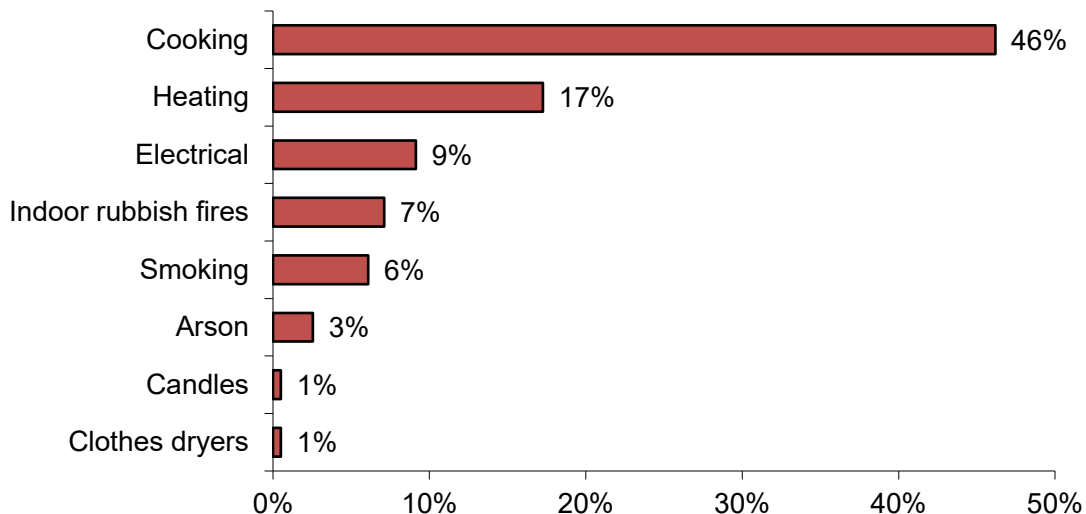
1- & 2-Family Homes Accounted for 55% of Residential Building Fires

The peak fixed property uses for residential building fires were one- or two-family homes, accounting for 55% of the building fires in Berkshire County; 32% occurred in apartments; 2% happened in dormitories; 2% happened in rooming houses; 2% occurred in hotels or motels; and 2% occurred in residential board and care facilities. Ten (10), or 4%, of the building fires in Berkshire County occurred in unclassified residential buildings.

Unattended Cooking Caused 46% of Residential Fires

The leading cause of residential building fires in Berkshire County was unattended cooking and other unsafe cooking practices, accounting for 46% of the fires. Heating caused 17% of the residential building fires, of which 21, or 62%, were caused by chimney, fireplace or flue fires. Electrical problems caused 9% of these fires. Indoor rubbish fires caused 7% of the fires; and smoking caused 6%. Arsons caused 3% of these fires. Clothes dryers and candles each caused 1% of Berkshire County's residential building fires in 2021.

2021 Leading Causes of Fires in Berkshire County Homes



62% of Residential Building Fires Are Confined to Non-Combustible Containers²

One hundred and twenty-two (122), or 62%, of these fires were confined to a non-combustible container. Seventy-nine (79) or 40% of all residential building fires reported in 2021 were cooking fires contained to a non-combustible container. Nineteen (19) of the reported fires were confined to a chimney, accounting for 10% of residential building fires. Fourteen (14), or 7%, of these fires were confined indoor rubbish fires. Fires confined to a fuel burner or boiler malfunction accounted for 10, or 5% of these fires.

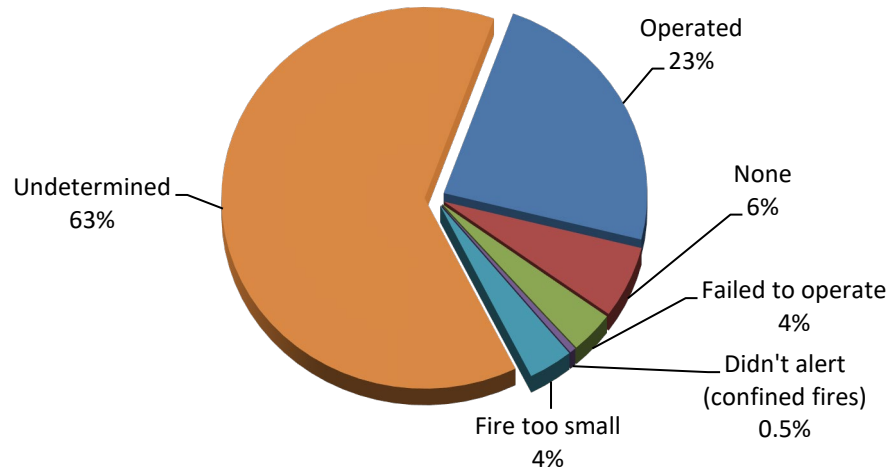
Alarms Undetermined in 63% of Fires

Smoke or heat alarms operated and alerted the occupants in 46, or 23%, of the residential building fires. In 0.5% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 4% of these incidents. In 6% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 4% of the residential fires. Smoke alarm performance was undetermined in 124 incidents, or 63%, of Berkshire County's residential building fires.

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

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

Detector Status in Berkshire County's Residential Structure Fires 2021



7 Alarms Failed

Of the seven fires where smoke alarms were present but failed to operate, two, or 29%, failed because the battery was either missing or disconnected; and it was undetermined in the other five, or 71%, why it failed.

VACANT BUILDINGS

6% of Building Fires Occurred in Vacant Buildings

Berkshire County reported 14 fires that occurred in buildings that were vacant, under construction or demolition. This represented 6% of the total 236 building fires reported to MFIRS in 2021. Ten (10) of these occurred in residential buildings. Two (2) happened in storage facilities and one each in a mercantile or business facility and an unclassified property.

Three (3) of the vacant building fires in Berkshire County in 2021 were determined to be intentionally-set.

JUVENILE-SET FIRES

1 Juvenile-set Fires

There was one reported juvenile-set fire in Berkshire County in 2021; it was a brush fire.

ARSONS

22 Total Arsons — 8 Structure, 0 Vehicle & 14 Other Arsons

Thirty-three (3), or 5%, of Berkshire County's 236 fires were intentionally-set, or, for purposes of this analysis, arson. The eight structure arsons and 14 outside and other arsons caused five fire service injuries and an estimated dollar loss of \$26,100.

All Arsons Down

The total number of reported arson fires decreased by 12 from the 34 reported in 2020. Reported structure arsons remained the same. Motor vehicle arsons decreased by three from the three reported in 2020. Reported outside and other arsons decreased by nine from the 23 reported in 2020.

ALL INCIDENTS

Rescue & EMS Calls Are 54% of All Reported Responses

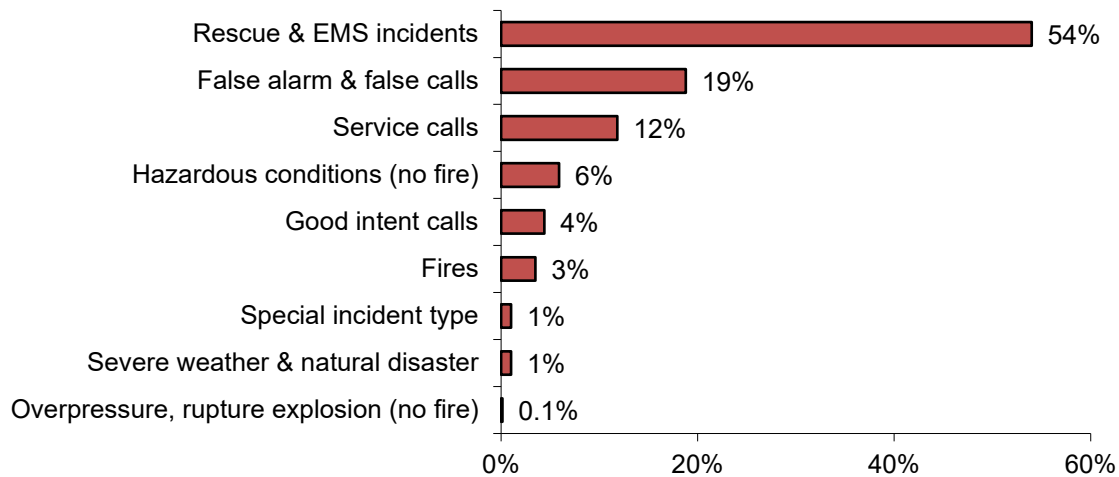
In 2021, Berkshire County fire departments reported 16,006 responses⁴ to MFIRS. Of these 16,006 incidents, 15,446 non-fire incidents were voluntarily reported.

Of these 15,446 non-fire responses, 8,643, or 54%, of all the responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 3,006, or 19%, were reported false alarm or false calls; 1,892, or 12%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 946, or 6%, were reported hazardous condition calls with no fire; 706, or 4%, were reported good intent calls; 147, or 1%, were special incident type calls such as citizen complaints; 83, or 1%, were severe weather responses; and 23, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Five hundred and sixty (560), or 3%, of the total responses submitted by Berkshire County fire departments were fires.

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

2021 Responses by Incident Type



Berkshire County Departments Reported Giving Mutual Aid 853 Times

In 2021, Berkshire County fire departments reported coming to the aid of other fire departments 853 times. Of these 853 responses, 448, or 53%, were for rescue or EMS calls; 155, or 18%, were for fires; 73, or 9%, were for false alarms; 72, or 8%, were good intent calls; 50 or 6%, were for service calls such as cover assignments; 48, or 6%, were for hazardous condition calls with no ensuing fire; five, or 1%, were for severe weather calls; one, or 0.1%, was for an overpressure, rupture call with no fire; and one, or 0.1%, was for a special incident type.

Berkshire County Received Mutual Aid in 878 Incidents

In 2021, Berkshire County fire departments reported receiving aid from surrounding departments in 878 incidents. Of these 878 incidents, 746, or 85%, were rescue and emergency medical services calls; 50, or 6%, were for fires; 35, or 4%, were hazardous conditions calls with no fire; 21, or 2%, were false alarms or false calls; 15, or 2%, were good intent calls; eight, or 1%, were service calls; and three, or 0.3%, were severe weather calls.

Berkshire County**Population: 129,026⁵****3.1 Fires/1,000 Population****Total Fires: 405 \$2,809,548**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	236	58%	\$2,655,732
Vehicle Fires	44	11%	52,700
Other Fires	125	31%	101,116

2 Fatal Fires 7.41 Civilian Deaths/1,000 Fires
 3 Civilian Deaths 0.23 Civilian Deaths/10,000 Population
 8 Civilian Injuries 16 Fire Service Injuries

Building Fires: 234**Residential Structure Fires: 197****Residential Structure Fires Confined to Non-Combustible Containers: 122****Unconfined Residential Structure Fires: 75**

3 Civilian Deaths 8 Civilian Injuries 15 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	109	55%	Operated	46	23%
Apartments	63	32%	Didn't operate	7	4%
Dormitories	4	2%	None	12	6%
Residential board & care	4	2%	Fire too small	7	4%
Hotels or motels	4	2%	Didn't alert (confined)	1	0.5%
Rooming houses	3	2%	Undetermined	124	63%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	50%	Radiated heat from op. eq.	6%	16%
Chimney or flue	10%	Arcing	5%	13%
Heating equipment room	5%	Heat from operating equip.	4%	9%
Bedroom	3%	Hot ember or ash	3%	8%
Ext. balcony/unencl. porch	3%	Cigarette	2%	5%
Wall assembly, con.wall spaced	3%	Hot or smoldering object	2%	5%

⁵ We used the figures from the 2020 US Census.

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

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

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	42%	Failure to clean	8%	21%
Film, residue (creosote)	10%	Too close to combustibles	7%	19%
Rubbish, trash, waste	8%	Equipment unattended	7%	19%
Flammable, combustible liquid	5%	Misuse of material, other	6%	16%
Structural member, framing	4%	Abandoned materials	5%	13%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	47%	Unintentional	21%	56%
None	22%	Failure of eq. or heat source	6%	16%
Chimney or flue	10%	Intentional	1%	3%
Boiler, furnace, cent. heat unit	5%	Act of Nature	0%	0%
		Undetermined	6%	15%
		Cause under investigation	4%	11%

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

Alerted occupants	11%
Didn't alert occupants	1%
Undetermined	88%

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	33	24	1	8
February	24	17	4	3
March	45	23	0	22
April	60	26	7	27
May	53	23	8	22
June	29	16	6	7
July	33	18	7	8
August	31	20	2	9
September	29	21	3	5
October	24	19	2	3
November	17	11	0	6
December	27	18	4	5

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	66	44	6	16
Monday	45	23	6	16
Tuesday	54	27	10	17
Wednesday	49	28	2	19
Thursday	54	34	4	16
Friday	61	36	8	17
Saturday	76	44	8	24

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	24	20	1	3
04:01 - 08:00	27	22	3	2
08:01 - 12:00	85	46	12	27
12:01 - 16:00	85	33	12	40
16:01 - 20:00	125	79	8	38
20:01 - 00:00	59	36	8	15

Motor Vehicle Fires

Total: 44

Automobiles: 24 (55%)

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

Arson Fires

Total Arsons: 22

Dollar loss: \$26,100

0.17 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	\$ Loss
Structure Arsons	8	3%	36%	5,000
Vehicle Arsons	0	0%	0%	0
Other Arsons	14	11%	64%	21,100

0.06 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.11 Other arsons/1,000 population

5 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 16:00	3	38%			
20:01 - 00:00	3	38%			

Other Arsons	#	%
12:01 - 16:00	5	36%
16:01 - 20:00	5	36%
08:01 - 12:00	3	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	3	38%
Multifamily dwellings	2	25%

Adams **Population: 8,166**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	40	27	6	7	2	0	0	2
2018	35	26	1	8	2	0	0	2
2019	27	18	5	4	2	2	0	0
2020	31	22	5	4	0	0	0	0
2021	36	30	2	4	0	0	0	0

Alford **Population: 486**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	0	1	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							

Becket **Population: 1,931**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	1	0	1	0	0	0	0
2018	5	4	0	1	1	1	0	0
2019	3	1	2	0	0	0	0	0
2020	2	1	1	0	0	0	0	0
2021 ¹³	Fire Department in Good Standing, Certified No Reportable Fires							

Cheshire **Population: 3,258**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	10	6	1	3	1	0	0	1
2018	13	5	4	4	1	0	0	1
2019	5	1	2	2	0	0	0	0
2020	8	5	2	1	2	0	1	1
2021	10	4	3	3	0	0	0	0

¹² In 2021, Alford reported 1 non-fire incident to MFIRS.¹³ In 2021, Becket reported 1 automatic aid given fire incident to Washington to MFIRS.

Clarksburg **Population: 1,657**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	1	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020 ¹⁴	Fire Department in Good Standing, Certified No Reportable Fires							
2021	2	2	0	0	0	0	0	0

Dalton **Population: 6,330**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	14	0	5	0	0	0	0
2018	17	7	5	5	0	0	0	0
2019	10	4	2	4	0	0	0	0
2020	16	5	2	9	1	0	0	1
2021	13	8	0	5	1	0	0	1

Egremont **Population: 1,372**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	3	0	1	0	0	0	0
2018	3	2	0	1	1	0	0	1
2019	Non-Reporting Community							
2020	Non-Reporting Community							
2021	Non-Reporting Community							

Florida **Population: 694**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	1	3	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	2	0	1	1	0	0	0	0
2020	2	0	0	2	0	0	0	0
2021	3	1	0	2	0	0	0	0

¹⁴ Clarksburg reported 3 mutual aid given fire calls to MFIRS in 2020.

Great Barrington**Population: 7,172**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	26	15	7	4	0	0	0	0
2018	20	14	4	2	0	0	0	0
2019	32	22	4	6	3	2	0	1
2020	24	14	4	6	2	1	0	1
2021	14	6	3	5	1	1	0	0

Hancock**Population: 757**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	1	0	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Non-Reporting Community							
2020	3	2	1	0	0	0	0	0
2021	8	3	2	3	0	0	0	0

Hinsdale**Population: 1,919**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	1	0	0	0	0	0	0
2018	Non-Reporting Community							
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	7	4	0	3	0	0	0	0

Lanesborough**Population: 3,038**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	9	3	3	3	0	0	0	0
2018	4	2	1	1	0	0	0	0
2019	3	2	1	0	0	0	0	0
2020	8	4	4	0	0	0	0	0
2021	14	6	7	1	0	0	0	0

Lee **Population: 5,788**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	0	1	0	0	0	0	0
2018	2	2	0	0	0	0	0	0
2019	1	0	0	1	1	0	0	1
2020	5	5	0	0	1	1	0	0
2021	29	10	7	12	4	2	0	2

Lenox **Population: 5,095**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	34	25	0	9	1	0	0	1
2018	16	10	4	2	1	0	0	1
2019	20	7	2	11	7	2	0	5
2020	24	13	1	10	8	1	0	7
2021	15	8	2	5	0	0	0	0

Monterey **Population: 1,095**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	2	2	0	0	0	0	0	0
2019	7	7	0	0	0	0	0	0
2020	15	12	1	2	0	0	0	0
2021	9	8	0	1	0	0	0	0

New Ashford **Population: 250**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	0	0	1	0	0	0	0
2018 ¹⁵	Fire Department in Good Standing, Certified No Reportable Fires							
2019	3	1	0	2	0	0	0	0
2020	Non-Reporting Community							
2021	Non-Reporting Community							

¹⁵ In 2018 New Ashford reported 21 non-fire incidents to MFIRS.

New Marlborough**Population: 1,528**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5	2	1	2	0	0	0	0
2018	2	0	0	2	0	0	0	0
2019	5	5	0	0	0	0	0	0
2020	4	2	0	2	0	0	0	0
2021	3	2	0	1	0	0	0	0

North Adams**Population: 12,961**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	36	20	7	9	1	1	0	0
2018	38	21	4	13	0	0	0	0
2019	43	20	8	15	3	1	1	1
2020	28	11	9	8	3	2	0	1
2021	35	19	4	12	2	1	0	1

Otis**Population: 1,634**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	1	1	0	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	1	1	0	0	0	0	0	0
2021	10	3	1	6	3	0	0	3

Peru**Population: 814**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	2	0	0	0	0	0	0
2018	3	1	1	1	1	0	0	1
2019	2	2	0	0	0	0	0	0
2020	1	0	0	1	1	0	0	1
2021	4	2	0	2	1	0	0	1

Population: 43,927

Richmond **Population: 1,407**

Population: 1,407

Sandisfield **Population: 989**

Population: 989

Savoy **Population: 645**

Population: 645

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	4	0	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	Fire Department in Good Standing, Certified No Reportable Fires							

Sheffield **Population: 3,327**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	1	1	0	0	1	1	0	0
2020	13	4	1	8	3	0	0	3
2021	14	6	0	8	3	0	0	3

Stockbridge **Population: 2,018**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	10	5	2	3	0	0	0	0
2018	10	6	2	2	0	0	0	0
2019	4	1	0	3	0	0	0	0
2020	12	6	1	5	0	0	0	0
2021	3	2	0	1	0	0	0	0

Tyringham **Population: 427**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Non-Reporting Community							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	Non-Reporting Community							

Washington¹⁶ **Population: 494**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	2	2	0	0	0	0	0	0

¹⁶ The Town of Washington has no fire department only a fire chief. Neighboring towns have automatic aid agreements for fire suppression. They did have 1 structure fire in town in 2014.

West Stockbridge **Population: 1,343**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	4	0	3	0	0	0	0
2018	3	1	1	1	0	0	0	0
2019	5	2	1	2	0	0	0	0
2020	1	1	0	0	0	0	0	0
2021	8	2	2	4	0	0	0	0

Williamstown **Population: 7,513**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	11	6	2	3	1	0	0	1
2018	17	12	2	3	0	0	0	0
2019	14	10	0	4	0	0	0	0
2020	14	10	3	1	0	0	0	0
2021	12	8	2	2	0	0	0	0

Windsor **Population: 831**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	4	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020 ¹⁷	Fire Department in Good Standing, Certified No Reportable Fires							
2021	1	1	0	0	0	0	0	0

¹⁷ Windsor reported 29 calls to MFIRS in 2020, none of them were fires.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
03004	Adams	373	38	1	116	45	24	30	119	0	0
03006	Alford	1	0	0	0	1	0	0	0	0	0
03022	Becket	1	1	0	0	0	0	0	0	0	0
03058	Cheshire	356	13	1	270	9	32	11	15	1	4
03063	Clarksburg	4	4	0	0	0	0	0	0	0	0
03070	Dalton	1,211	21	2	820	33	107	63	91	4	70
03090	Egremont**	0	0	0	0	0	0	0	0	0	0
03098	Florida	84	8	0	59	2	7	4	4	0	0
03113	Great Barrington	1,131	28	7	622	50	38	47	327	4	8
03121	Hancock	159	13	0	71	3	5	0	66	0	1
03132	Hinsdale	55	7	0	12	7	6	0	23	0	0
03148	Lanesborough	474	19	2	363	20	16	20	32	1	1
03150	Lee	266	35		68	23	13	27	96	1	3
03152	Lenox	1,875	31	1	1,252	48	79	53	368	42	1
03193	Monterey	170	29	2	68	9	10	5	45	2	0
03200	New Ashford**	0	0	0	0	0	0	0	0	0	0

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
03203	New Marlborough	147	9	0	58	7	3	25	44	1	0
03209	North Adams	1,373	43	1	349	149	375	123	328	0	5
03225	Otis	19	15	0	4	0	0	0	0	0	0
03233	Peru	56	7	0	37	6	2	1	3	0	0
03236	Pittsfield	6,557	145	5	3,779	376	1,097	195	903	9	48
03249	Richmond	234	20	0	48	53	22	13	70	8	0
03260	Sandisfield	160	6	0	103	12	4	9	25	1	0
03263	Savoy*	0	0	0	0	0	0	0	0	0	0
03267	Sheffield	172	23	0	51	6	7	1	83	1	0
03283	Stockbridge	520	15	1	261	25	18	7	188	1	4
03302	Tyringham**	0	0	0	0	0	0	0	0	0	0
03313	Washington	2	2	0	0	0	0	0	0	0	0
03326	West Stockbridge	314	13	0	175	33	13	29	43	7	1
03341	Williamstown	241	18	0	19	23	14	37	130	0	0
03345	Windsor	58	4	0	38	6	0	6	3	0	1
Total	Berkshire County	16,013	567	23	8,643	946	1,892	706	3,006	83	147

* Certified no reportable fires.

**Non reporting department.

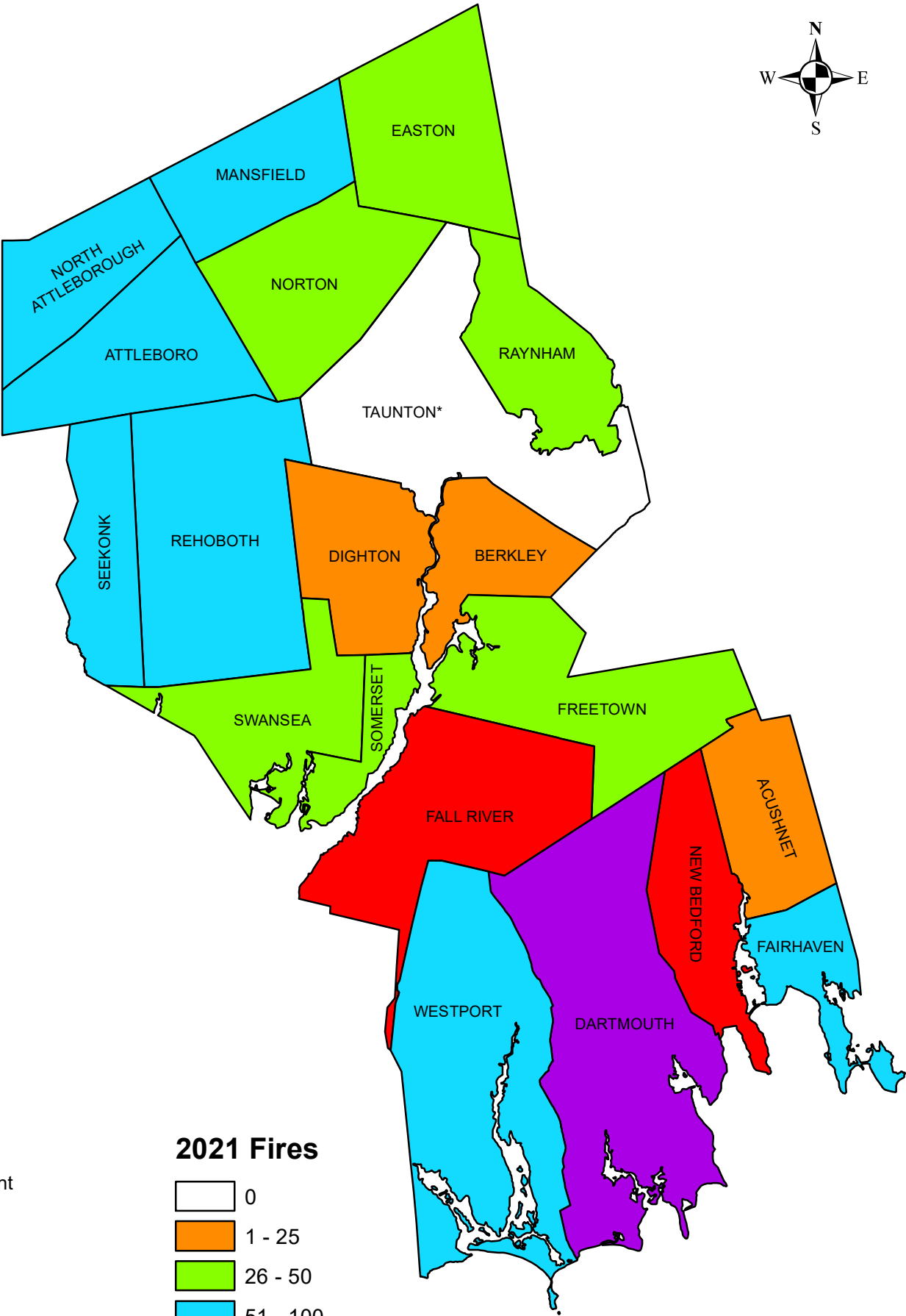
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.



Bristol County

2021 Fire Data Analysis

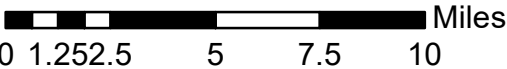
Bristol County Fires 2021



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System



Bristol County Fires in 2021

1,592 Total Fires — 680 Structures, 217 Vehicles & 695 Other Fires

Bristol County ranked seventh out of the fourteen Massachusetts counties in total reported fires. The county reported 1,592 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 680 structure fires, 217 motor vehicle fires, 385 brush, tree or lawn fires, 178 outside rubbish fires, 55 special outside fires, one cultivated vegetation or crop fire, and 76 other fires caused five civilian deaths, 41 civilian injuries, eight fire service injuries and an estimated dollar loss of \$24.4 million. Bristol County's fires accounted for 6% of the 25,368 Massachusetts fires reported in 2021.

Twenty-one (21) of the 22, or 95%, of the fire departments in Bristol County reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS).

All Fires Down

The total number of reported fire incidents decreased by 397 from the 1,983 reported in 2020. Reported structure fires decreased by 184 from the 864 reported during the previous year. The total number of reported motor vehicle fires decreased by 29 from the 246 incidents reported during 2020. Reported outside and other fires decreased by 178 from the 873 reported the year before¹.

BRISTOL COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1,877	846	280	751	96	36	16	44
2018	1,685	796	292	597	53	12	22	19
2019	1,509	727	243	539	40	9	7	24
2020	1,983	864	246	873	76	23	12	41
2021	1,592	680	217	695	48	12	4	32

Fire and Fire Death Rates

Bristol County had 2.7 fires per 1,000 population. That figure ranks Bristol County tied for twelfth in the state and below the state rate of 3.6 fires per 1,000 population. Bristol County also had 0.09 fire deaths per 10,000 populations ranking it fifth among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

4 Fires Kill 5 People in Bristol County

In 2021, four fires in Bristol County killed five people.

- On April 19, 2021, at 12:14 a.m., the New Bedford Fire Department was called to a fatal smoking fire in a six-unit apartment building. The building fire was actually an exposure fire. The original fire was started by a cigarette lighter in the area between two buildings. The two victims were trying to escape from their bedrooms when they were overcome. One (1) firefighter was injured at this fire. It was undetermined if

¹ 2021 was another down year for brush fires.

alarms were present. There were no sprinklers. Damages from this fire were estimated to be \$575,000.

- On June 25, 2021, at 9:44 a.m., the Seekonk Fire Departments was dispatched to an outside fire. The older adult victim poured gasoline over themselves and ignited their clothing in an attempt at suicide. No one else was injured at this fire. Damages from this fire were not estimated.
- On November 11, 2021, at 2:46 p.m., the Attleboro Fire Department responded to a fatal fire in a manufacturing plant. The fire was caused by a chemical explosion. There was one victim. One (1) firefighter was injured at this fire. There were no alarms present. Sprinklers operated and suppressed the fire. Damages from this fire were estimated to be \$25,000.
- On December 6, 2021, at 4:50 a.m., the New Bedford Fire Department was called to a fatal fire in a five-unit apartment building of undetermined cause. The most probable cause was careless disposal of smoking materials. The older adult victim was overcome while escaping. They were transported to a local hospital where they succumbed to their injuries. One (1) other civilian was injured at this fire. Alarms were present and alerted the occupants. The building was not sprinklered. Damages from the blaze were estimated to be \$250,000.

New Bedford Has Bristol County's Largest Loss Fire

In 2021, Bristol County had three incidents with an estimated dollar loss over \$1 million. These incidents caused \$10.3 million, or 42%, of the county's estimated dollar loss.

- On August 30, 2021, at 5:18 p.m., the New Bedford Fire Department was dispatched to a fire of undetermined cause on an 82 foot yacht. No one was injured at this fire. Damages from this fire were estimated to be \$5.3 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 680 structure fires caused four civilian deaths, 37 civilian injuries, eight fire service injuries and an estimated dollar loss of \$11.8 million. These incidents represented 43% of Bristol County's reported fires in 2021. The average estimated dollar loss per structure fire was \$17,323. The total number of reported structure fires decreased by 184, or 21%, from the 864 reported in 2020.

Structure Arsons Down

The 12 structure arsons caused an estimated dollar loss of \$236,900. Arson was indicated as the cause of 2% of the structure fires and 2% of Bristol County's structure fire dollar loss. The 12 structure arsons accounted for 25% of the Bristol County arson fires reported in 2021. The total number of reported structure arsons decreased by 11 from the 23 reported in 2020.

67% of Structure Arsons Occurred in Residences

Sixty-seven percent (67%) of Bristol County's nine structure arsons occurred in residential occupancies. Educational facilities, mercantile and business properties, storage facilities, and manufacturing and processing facilities each had 8% of these arsons.

BUILDING FIRES

There were 671 building fires of different types in Bristol County in 2021. These 671 building fires accounted for 98.7% of all structure fires in Bristol County.

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

Five hundred and sixty-four (564), or 84%, of Bristol County's 671 building fires occurred in residential occupancies. Mercantile and business properties had 35 fires. Eighteen (18) fires took place in storage properties. Another 18 fires took place in public assembly properties, including restaurants and churches. Educational facilities had 14 fires. Manufacturing and processing facilities and other institutional buildings each had eight fires. Special properties and industrial facilities each had three fires.

RESIDENTIAL FIRES**Residential Building Fires Down**

There were 564 reported residential building fires in Bristol County in 2021. These 564 fires are a decrease of 141, or 20%, from the 705 residential building fires reported in 2020.

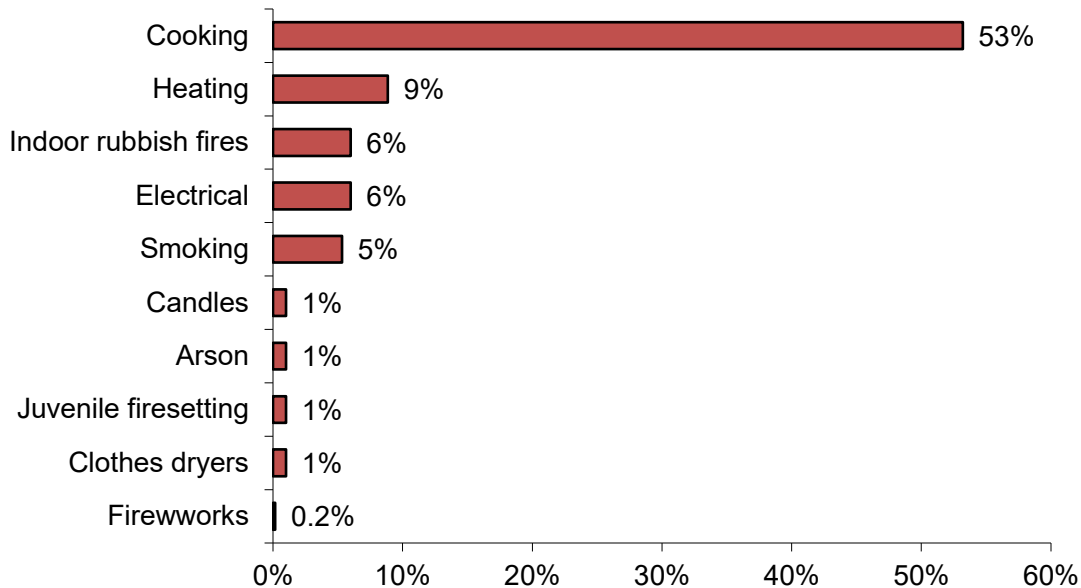
Apartments Accounted for 53% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 53% of the building fires in Bristol County; 42% occurred in 1- & 2-family homes; 2% each happened in rooming houses and in residential board and care facilities; 1% occurred in dormitories; and less than 1% happened in hotels or motels. Eight (8), or 1%, of the residential building fires in Bristol County occurred in unclassified residential buildings.

Unsafe Cooking Leading Cause Over 1/2 of Residential Fires

The leading cause of residential building fires in Bristol County was unattended cooking and other unsafe cooking practices, accounting for 53% of these fires. The second leading cause of residential building fires was heating equipment, accounting for 9%. Indoor rubbish fires and electrical problems each caused 6% of the fires in people's homes. Smoking caused 5% of these fires. Candles, arson, juvenile-set fires and clothes dryers each accounted for 1%. Fireworks accounted for less than 1% of Bristol County's residential building fires in 2021.

2021 Leading Causes to Fires in Bristol County Homes



62% of Residential Building Fires Are Confined to Non-Combustible Containers²

Three hundred and fifty (350), or 62%, of all residential building fires were reported as confined to non-combustible containers in 2021. Two hundred and seventy-eight (278), or 49%, of all residential building fires reported in 2021 were cooking fires contained to a non-combustible container. Twenty-eight (28), or 5%, of these fires were rubbish fires. Twenty-six (26) of the reported fires were confined to a chimney, accounting for 5% of residential building fires. Seventeen (17), or 3%, were fires confined to a fuel burner or boiler malfunction; and one, or 0.3%, was an incinerator overload or malfunction.

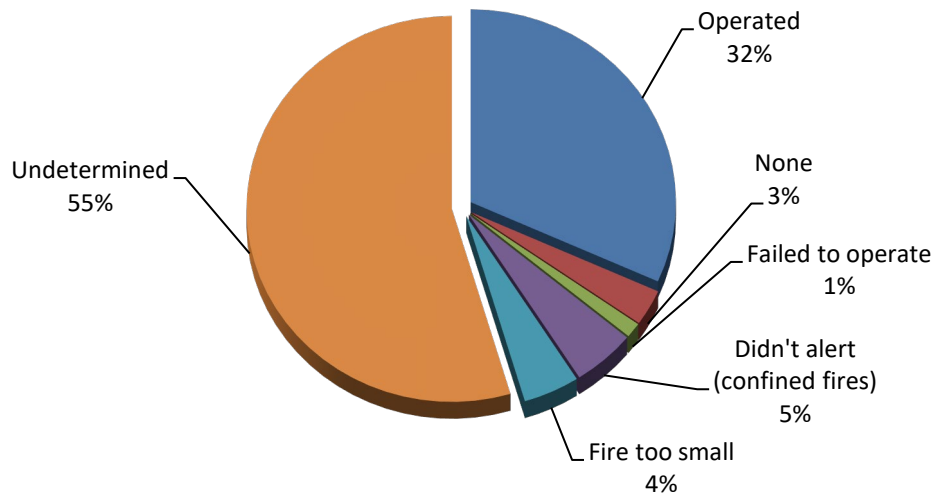
Detectors Alerted Occupants in Only 32% of Fires

Smoke or heat detectors operated and alerted the occupants in 179, or 32%, of the residential building fires. In 5% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 1% 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 308 incidents, or 55%, of Bristol County's residential building fires.

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

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

Detector Status in Bristol County's Residential Structure Fires 2021



2 of Detectors Failed from Missing Batteries

Of the seven fires where smoke detectors were present but failed to operate, two, or 29%, failed from missing or disconnected batteries. Two (2), or 29%, failed because of improper installation or maintenance. It was undetermined or unclassified in three cases, or 43%, why the detectors failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Bristol County reported 20 fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the 671 building fires reported to MFIRS in 2021. Nine (9) fires occurred in vacant residential properties. Five (5) vacant building fires occurred in storage facilities. A public assembly property, an educational property, an institutional facility, a mercantile or business facility, a manufacturing or processing facility, and a special property each had one of these fire incidents in Bristol County in 2021.

Three (3), or 15%, of the vacant building fires in Bristol County in 2021 were determined to be intentionally-set. An apartment, a manufacturing or processing facility and an unclassified storage facility each had a vacant arson fire in 2021.

JUVENILE-SET FIRES

9 Juvenile-set Fires

There were nine reported juvenile-set fires in Bristol County in 2021. The eight structure fires and one brush fire caused two civilian injuries and \$345,780 in estimated damages.

ARSONS

48 Total Arsons — 12 Structures, 4 Vehicles & 32 Other Arsons

Bristol County fire departments reported that 48, or 3%, of Bristol County's 1,592 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 12 structure arsons, four motor vehicle arsons and 32 outside and other arsons caused one civilian death and an estimated dollar loss of \$285,400.

All Arsons Down

The total number of reported arson fires decreased by 28 from the 76 reported in 2020. Structure arsons decreased by 11 from 23 in 2020. Motor vehicle arsons decreased by eight from the 12 reported last year. Outside and other arsons decreased by nine from the 41 reported in 2020.

ALL INCIDENTS

Rescue & EMS Calls Are 62% of All Reported Responses

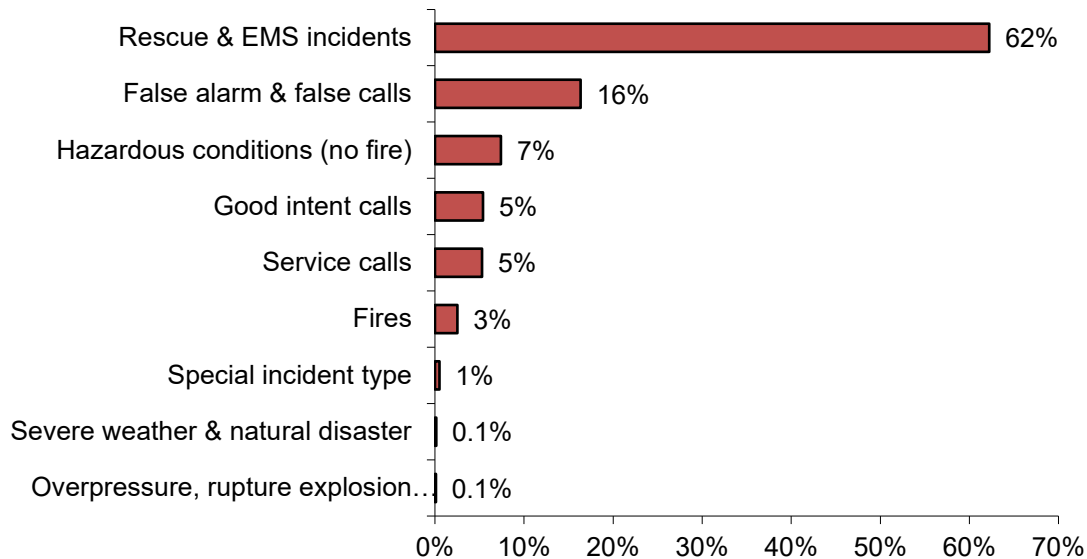
In 2021, fire departments in Bristol County reported 66,704 responses⁴ to MFIRS. Of these 66,704 incidents, 65,031 non-fire calls were voluntarily reported.

Of these 65,013 non-fire calls, 41,508, or 62%, of all the reported responses were reported rescue and emergency medical services (EMS) calls; 10,915, or 16% were reported false alarm or false calls; 4,952, or 7%, were reported hazardous condition calls with no fire; 3,600, or 5%, were reported good intent calls; 3,531, or 5%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 341, or 1%, were special incident type calls such as citizen complaints; 92, or 0.1%, were severe weather responses; and 74, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand six hundred and ninety-one (1,691), or 3%, of the total responses submitted by Bristol County fire departments were fires.

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

2021 Responses by Incident Type



Bristol County Fire Departments Gave Mutual Aid 2,246 Times

In 2021, Bristol County fire departments reported coming to the aid of other fire departments 2,241 times. Of these 2,246 responses, 1,407, or 63%, were for rescue or EMS calls; 424, or 19%, were for good intent calls; 224, or 10%, were for service calls such as cover assignments; 100, or 4%, were for fires; 62, or 3%, were for hazardous conditions calls with no fire; 20, or 1%, were for false alarms or false calls; five, or less than 1%, were special incident types; three, or less than 1% were severe weather or natural disaster call; and one, or less than 1%, was an overpressure, rupture explosion call with no after fire.

Bristol County Received Mutual Aid in 1,286 Incidents

In 2021, Bristol County fire departments reported receiving aid from surrounding departments in 1,286 incidents. Of these 1,286 incidents, 1,048, or 81%, were rescue and emergency medical services calls; 86, or 7%, were for fires; 72, or 6%, were false alarms or false calls; 31, or 2%, were good intent calls; 29, or 2%, were hazardous conditions calls with no fire; 15, or 1%, of the mutual aid received calls, were service calls; two, or less than 1%, were overpressure, rupture explosion calls with no after fire; two, or less than 1%, were special incident types; and one, or less than 1% was a severe weather call.

Bristol County**Population: 579,200⁵****2.7 Fires/1,000 Population****Total Fires: 1,592 \$24,385,944**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	680	43%	\$11,779,721
Vehicle Fires	217	14%	10,936,250
Other Fires	695	44%	1,669,973

4 Fatal Fires 3.14 Civilian Deaths/1,000 Fires
 5 Civilian Deaths 0.09 Civilian Deaths/10,000 Population
 41 Civilian Injuries 8 Fire Service Injuries

Building Fires: 671**Residential Structure Fires: 564****Residential Structure Fires Confined to Non-Combustible Containers: 350****Unconfined Residential Structure Fires: 214**

4 Civilian Deaths 35 Civilian Injuries 7 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	297	53%	Operated	179	32%
1- & 2-Family homes	237	42%	Didn't operate	7	1%
Rooming houses	9	2%	None	17	3%
Residential board & care	9	2%	Fire too small	25	4%
Dormitories	3	1%	Didn't alert (confined)	28	5%
Hotels or motels	1	0.1%	Undetermined	308	55%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	56%	Heat from operating eq.	5%	13%
Chimney or flue	5%	Arcing	4%	12%
Exterior balcony, unencl. porch	4%	Cigarettes	4%	10%
Heating room or area	3%	Rad., cond. heat from op eq.	2%	6%
Living room	3%	Candles	1%	4%

⁵ We used the figures from the 2020 US Census.

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

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

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	52%	Abandoned materials	2%	5%
Rubbish, trash, waste	6%	Too close to combustibles	2%	5%
Film or residue (creosote)	5%	Misuse of materials, prod.	2%	4%
Flammable or combust. liquid	3%	Mechanical failure, malfunc.	1%	3%
Electrical wire, cable insulation	3%	Electrical failure, malfunc.	1%	2%
Exterior sidewall covering	2%	Arc, spark from oper. Equip.	1%	2%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	51%	Unintentional	21%	57%
None	27%	Failure of eq. or heat source	3%	8%
Chimney or flue	5%	Intentional	1%	2%
Boiler, furnace, cent. eat unit	3%	Cause under investigation	3%	7%
Electrical wiring, other	2%	Undetermined	8%	21%
		Act of Nature	1%	1%

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

Alerted Occupants	21%
Didn't Alert Occupants	8%
Undetermined	71%

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	107	58	14	35
February	80	51	16	13
March	244	86	23	135
April	204	56	18	130
May	199	56	17	126
June	123	42	23	58
July	103	48	16	39
August	116	56	20	40
September	80	41	17	22
October	104	52	22	30
November	115	65	13	37
December	117	69	18	30

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	230	100	27	103
Monday	210	86	47	77
Tuesday	227	95	33	99
Wednesday	252	111	30	111
Thursday	193	90	28	75
Friday	228	103	22	103
Saturday	252	95	30	127

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	111	59	18	34
04:01 – 08:00	88	41	12	35
08:01 – 12:00	279	121	49	109
12:01 – 16:00	469	157	49	263
16:01 – 20:00	424	192	62	170
20:01 – 24:00	221	110	27	84

Motor Vehicle Fires

Total: 217

Automobiles: 161 (74%)

2, or 1%, of the automobile fires were considered intentionally-set.

Arson Fires

Total Arsons: 48

Dollar loss: \$285,400

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	12	2%	25%	\$236,900
Vehicle Arsons	4	2%	8%	43,500
Other Arsons	32	5%	67%	5,000

0.02 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.06 Other arsons/1,000 population

1 Civilian Death

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 – 16:00	4	33%	00:01 – 04:00	2	50%
16:01 – 20:00	4	33%	04:01 – 08:00	1	25%
20:01 – 00:00	2	17%	20:01 – 00:00	1	25%

Other Arsons	#	%
16:01 – 20:00	11	34%
12:01 – 16:00	10	31%
08:01 – 12:00	5	16%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	4	33%
1- and 2-Family homes	4	33%

Acushnet					Population: 10,559			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	12	8	1	3	0	0	0	0
2018	20	10	3	7	0	0	0	0
2019	8	5	0	3	0	0	0	0
2020	15	6	5	4	0	0	0	0
2021	11	2	0	9	0	0	0	0

Attleboro					Population: 46,461			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	122	41	24	57	0	0	0	0
2017	110	37	23	50	3	1	1	1
2019	98	37	20	41	1	0	1	0
2020	126	50	18	58	3	0	1	2
2021	92	24	18	50	6	0	0	6

Berkley					Population: 6,764			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	16	5	6	5	0	0	0	0
2018	14	6	6	2	0	0	0	0
2019	19	9	4	6	0	0	0	0
2020	26	8	5	13	0	0	0	0
2021	23	7	0	16	0	0	0	0

Dartmouth Fire Districts¹²					Population: 33,783			
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
2017	21	14	2	5	0	0	0	0
2018	19	0	1	8	1	0	1	0
2019	18	6	5	7	0	0	0	0
2020	11	6	0	5	0	0	0	0
2021	28	6	5	17	1	0	1	0

¹² As of the writing of this report, we used the 2020 US Census population figures. However, we did not have the breakdown of communities into their various fire districts. So the estimated population protected statistics were determined by multiplying the 2010 census figure by the percentage of the 2010 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
2017	7	3	0	4	0	0	0	0
2018	5	2	1	2	0	0	0	0
2019	3	0	0	3	0	0	0	0
2020	7	1	2	4	0	0	0	0
2021	4	1	0	3	0	0	0	0

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	67	16	14	37	2	0	0	2
2018	66	24	11	31	0	0	0	0
2019	47	20	9	18	1	0	0	1
2020	84	16	15	53	1	0	0	1
2021	85	28	15	42	1	0	0	1

Dighton**Population: 8,101**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	16	6	5	5	0	0	0	0
2018	9	2	1	6	0	0	0	0
2019	16	7	6	3	0	0	0	0
2020	20	8	3	9	0	0	0	0
2021	7	1	1	5	0	0	0	0

Easton**Population: 25,058**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	45	18	5	22	3	0	0	3
2018	45	14	6	25	0	0	0	0
2019	34	15	4	15	3	0	1	2
2020	43	16	7	20	0	0	0	0
2021	42	9	4	29	1	0	0	1

Fairhaven **Population: 15,924**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	30	11	7	12	0	0	0	0
2018	52	18	4	30	0	0	0	0
2019	41	12	7	22	0	0	0	0
2020	71	18	7	46	2	0	0	2
2021	72	27	13	32	0	0	0	0

Fall River **Population: 94,000**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	431	263	41	127	25	10	8	7
2018	447	270	59	118	15	3	10	2
2019	408	251	43	114	12	4	2	6
2020	513	288	4	181	25	9	6	10
2021	351	223	34	94	8	5	0	3

Freetown **Population: 9,206**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	44	14	16	14	0	0	0	0
2018	41	15	11	15	0	0	0	0
2019	41	18	12	11	1	1	0	0
2020	57	20	9	28	1	0	0	1
2021	39	16	7	16	0	0	0	0

Mansfield **Population: 23,860**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	59	13	17	29	1	0	0	1
2018	46	16	12	18	1	0	0	1
2019	48	20	5	23	0	0	0	0
2020	58	9	14	35	1	0	1	0
2021	56	14	8	34	4	0	0	4

New Bedford **Population: 101,079**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	453	229	53	171	30	18	9	3
2018	399	215	61	123	15	3	10	2
2019	390	203	50	137	3	1	2	0
2020	437	230	44	163	10	8	2	0
2021	379	208	42	129	8	3	3	2

North Attleboro **Population: 30,834**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	40	13	6	21	2	0	0	2
2018	48	28	10	10	1	0	0	1
2019	56	22	12	22	4	1	0	3
2020	54	16	6	32	2	0	1	1
2021	62	19	12	31	1	0	0	1

Norton **Population: 19,202**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	25	6	4	15	3	2	0	1
2018	34	9	8	17	2	2	0	0
2019	29	5	9	15	3	1	0	2
2020	44	7	6	31	1	1	0	0
2021	36	10	5	21	1	0	0	1

Raynham **Population: 15,142**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	64	18	11	35	0	0	0	0
2018	68	13	28	27	1	0	0	1
2019	29	9	6	14	0	0	0	0
2020	62	11	14	37	1	1	0	0
2021	49	7	11	31	0	0	0	0

Rehoboth **Population: 12,502**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	45	15	8	22	9	1	0	8
2018	41	14	5	22	10	2	0	8
2019	35	11	12	12	2	0	0	2
2020	75	25	5	45	17	2	0	15
2021	61	19	7	35	15	4	0	11

Seekonk **Population: 15,531**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	53	18	7	28	2	1	0	1
2018	49	10	6	33	1	0	0	1
2019	36	10	7	19	1	0	1	0
2020	89	19	13	57	7	1	0	6
2021	63	17	8	38	1	0	0	1

Somerset **Population: 18,303**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	39	16	8	15	0	0	0	0
2018	29	9	10	10	1	1	0	0
2019	31	9	10	12	0	0	0	0
2020	22	12	1	9	1	1	0	0
2021	32	7	6	19	0	0	0	0

Swansea **Population: 17,144**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	60	30	15	15	1	0	0	1
2018	44	19	16	9	0	0	0	0
2019	56	27	13	16	0	0	0	0
2020	66	31	12	23	0	0	0	0
2021	40	17	8	15	0	0	0	0

Taunton					Population: 59,408			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	156	70	15	71	13	3	0	10
2018 ¹³	47	25	5	17	0	0	0	0
2019 ¹⁴	4	3	1	0	0	0	0	0
2020	45	35	3	7	1	0	0	1
2021	Non-reporting Fire Department							

Westport					Population: 16,339			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	72	19	15	38	6	1	0	5
2018	45	16	5	24	2	0	0	2
2019	62	28	8	26	9	1	0	8
2020	49	21	9	19	1	0	0	1
2021	59	17	13	29	1	0	0	1

¹³ Taunton only reported January through April in 2018.

¹⁴ Taunton only reported 'reportable fires' in 2019.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
05003	Acushnet	1,009	13	0	833	37	64	6	55	1	0
05016	Attleboro	8,660	101	4	4,124	2,562	429	436	962	6	36
05027	Berkley	1,010	28	1	739	31	50	85	73	1	2
05972	Dartmouth #1	428	29	1	15	74	55	31	223	0	0
05973	Dartmouth #2	130	10	0	18	31	30	6	33	2	0
05974	Dartmouth #3	1,032	98	1	279	78	172	123	276	1	4
05076	Dighton	122	8	0	32	9	11	8	54	0	0
05088	Easton	4,077	45	4	2,801	194	361	165	476	11	20
05094	Fairhaven	3,766	76	2	3,010	143	155	79	289	3	9
05095	Fall River	7,034	372	11	3,003	503	325	326	2,465	6	23
05102	Freetown	1,672	43	25	1,050	52	161	216	121	0	4
05167	Mansfield	3,566	67	4	2,385	210	202	272	414	3	9
05201	New Bedford	10,943	387	8	6,579	328	327	782	2,493	4	35
05211	North Attleboro	4,756	71	0	3,496	141	253	148	507	1	139
05218	Norton	3,431	43	5	2,206	163	174	182	626	17	15

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
05245	Raynham	3,560	55	0	2,498	66	247	118	551	17	8
05247	Rehoboth	820	63	1	438	64	59	42	146	6	1
05265	Seekonk	3,655	64	0	2,595	72	183	245	483	2	11
05273	Somerset	3,491	32	1	3,007	50	106	96	179	0	20
05292	Swansea	532	57	3	63	71	44	61	224	6	3
05293	Taunton**	0	0	0	0	0	0	0	0	0	0
05334	Westport	3,051	70	3	2,337	73	123	173	265	5	2
Bristol County		66,745	1,732	74	41,508	4,952	3,531	3,600	10,915	92	341

* Certified no reportable fires.

**Non reporting department.

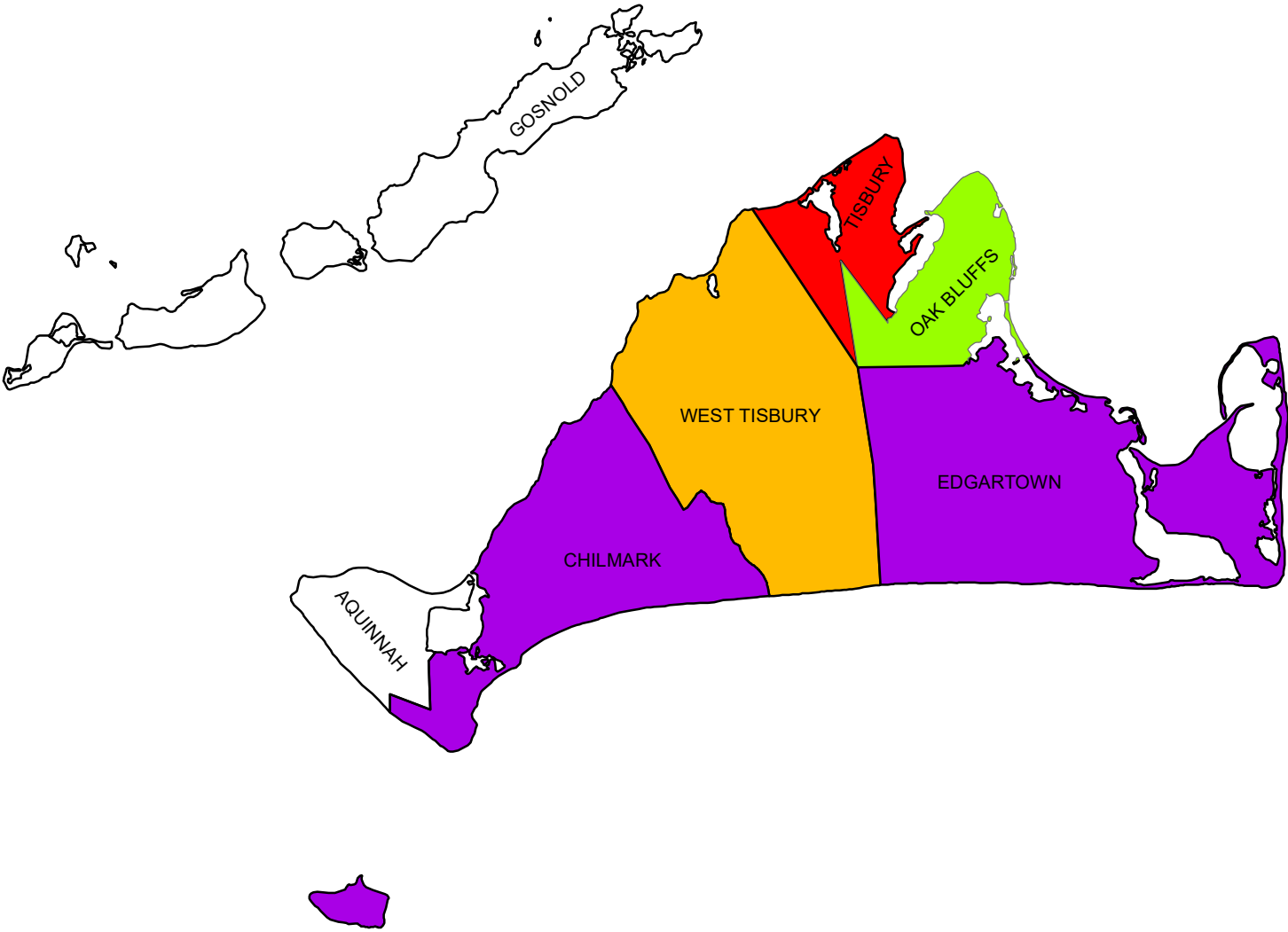
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



Dukes County

2021 Fire Data Analysis

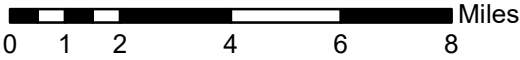
Dukes County Fires 2021



2021 Fires



*Non-reporting Department



Dukes County Fires in 2021

97 Total Fires — 73 Structures, 4 Vehicles Fires & 23 Outside & Other Fires

Dukes County ranked thirteenth out of the fourteen Massachusetts counties in total fires. Dukes County fire departments reported 97 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The reported 73 structure fires, five motor vehicle fires, eight brush fires, seven outside rubbish fires, three special outside fires, and one unclassified fire caused an estimated dollar loss of \$256,801. Dukes County's fires accounted for 0.4% of the 25,368 Massachusetts fires reported in 2021.

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 2021.

Structure Fires Up

The total number of reported fire incidents increased by eight from the 89 reported in 2020. Reported structure fires increased by 49 from the 24 reported in 2020. Motor vehicle fires decreased by one from the six reported the previous year. Outside and other fires decreased by 40 from the 59 reported in 2020¹.

DUKES COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	26	15	6	5	0	0	0	0
2018	30	17	5	8	0	0	0	0
2019	50	23	4	23	4	0	0	4
2020	89	24	6	59	41	1	0	40
2021	97	73	5	19	1	1	0	0

Fire and Fire Death Rates

Dukes County had 4.7 fires per 1,000 population. That figure ranks Dukes County second in the state and above the state rate of 3.6 fires per 1,000 population. Dukes County also had 0 fire deaths per 10,000 population ranking it tied for last among Massachusetts counties and well below the state rate of 0.07 fire deaths per 10,000 population.

No Fire Deaths in Dukes County in 2021

In 2021, there were no fatal fires and fire deaths in Dukes County.

Oak Bluffs Had Dukes County Largest Loss Fire

Dukes County had no large loss fires over \$1 million in 2021. There was one fire that had estimated damages over \$100,000. This fire occurred in Oak Bluffs and accounted for 41% of Dukes County total dollar loss.

¹ 2021 was another down year statewide for brush fires.

- On May 5, 2021, at 2:07 a.m., the Oak Bluffs Fire Department responded to a fire of undetermined cause in a single-family home. No one was injured at this fire. Alarms were present and alerted the occupants. The building did not have sprinklers. Damages were estimated at \$105,000. There was also an exposure fire to a neighboring property causing \$30,000 in estimated damages.

STRUCTURE FIRES

Reported Structure Fires 75% of All Reported Fires

There were 73 reported structure fires in Dukes County in 2021. These incidents represented 75% of Dukes County's reported fires in 2021 and 44.4% of the county's reported dollar loss. The total number of reported structure fires increased by 49 from the 24 reported in 2020.

1 Reported Structure Arson in 2021

There was one reported structure arson in Dukes County in 2021.

BUILDING FIRES

There were 71 building fires of different types in Dukes County in 2021. These 71 building fires accounted for 97.3% of the structure fires in Dukes County.

90% of Dukes Building Fires Occurred in People's Homes

Sixty-four (64), or 90%, of Dukes County's 71 building fires occurred in residential occupancies. Four (4) occurred in mercantile or business properties, two fires occurred in institutional facilities, and one occurred in an industrial facility.

RESIDENTIAL FIRES

64 Residential Building Fires

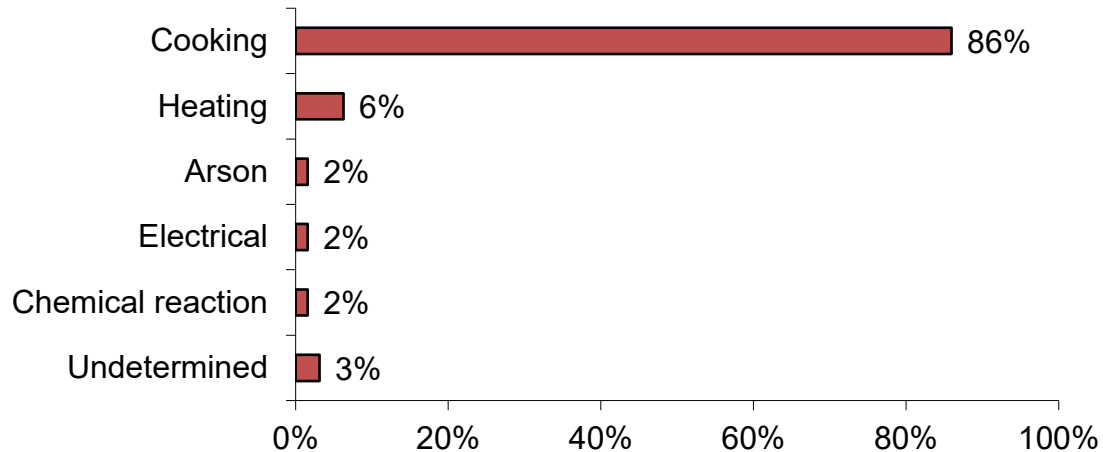
There were 64 reported residential building fires in Dukes County in 2021. These 64 fires are an increase of 45, or 237%, from the 19 reported in 2020. Twenty-nine (29), or 46% occurred in residential board & care facilities; 23 happened in one or two-family homes and 12 happened in apartments. They caused \$114,000 in estimated damages.

Cooking Was the Leading Cause of Residential Fires

Unattended and other unsafe cooking was the leading cause of residential fires in Dukes County in 2021. Cooking caused 55 fires², accounting for 86% of residential building fires in Dukes County in 2021. Heating equipment caused four, or 6% of these fires. Arson, a chemical reaction and an electrical problem each caused one, or 2%, of these fires. The cause of the other two fires, or 3%, were undetermined.

² All 55 of these cooking fires were confined to non-combustible containers.

2021 Leading Causes of Fires in Dukes County Homes



60 Residential Building Fires Were Confined to Non-Combustible Containers³

Sixty (60), or 94%, of the reported fires in Dukes County were confined to a non-combustible container. Fifty-five (55), or 88%, of these fires were confined cooking fires; two, or 3%, were confined to a chimney or flue; and two more, or 3% were fires confined to a fuel burner or boiler malfunction.

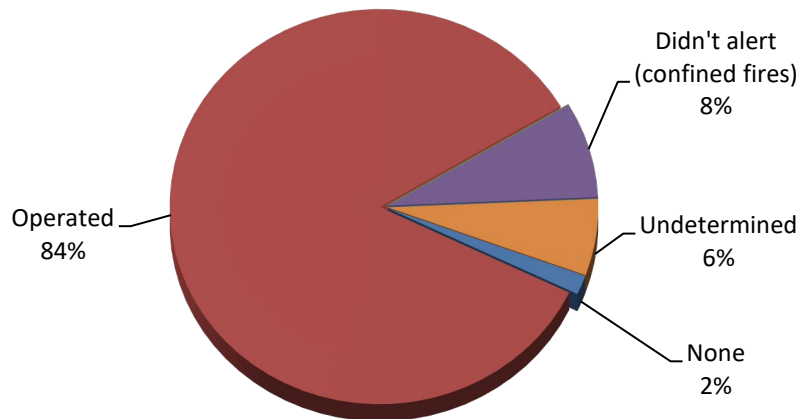
Detectors Operated in Almost 84% of Fires

Smoke or heat detectors operated and alerted the occupants in 54, or 84%, of the residential building fires. There were no reported fires where detectors failed to operate. In 8% of these fires⁴, the detectors did not alert the occupants. In 2% of these fires, no detectors were present at all. There were no reported fires where the fire was too small to trigger the detector. Smoke detector performance was undetermined in four incidents, or 6%, of Dukes County's residential building fires.

³ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

⁴ These represent confined fires where it was reported that the detector did not alert the occupants.

Detector Status in Dukes County's Residential Fires 2021



VACANT BUILDINGS

0 Vacant Building Fire

There was no reported fires in a vacant building in Dukes County in 2021.

JUVENILE-SET FIRES

No Juvenile-set Fires

There were no reported juvenile-set fires in Dukes County in 2021.

ARSONS

1 Arsons

There was one reported arson in Dukes County in 2021. It was a residential structure arson. This was a decrease of 40 over the 41 arsons in Dukes County in 2020.

ALL INCIDENTS

False Alarms Are 44% of All Reported Responses

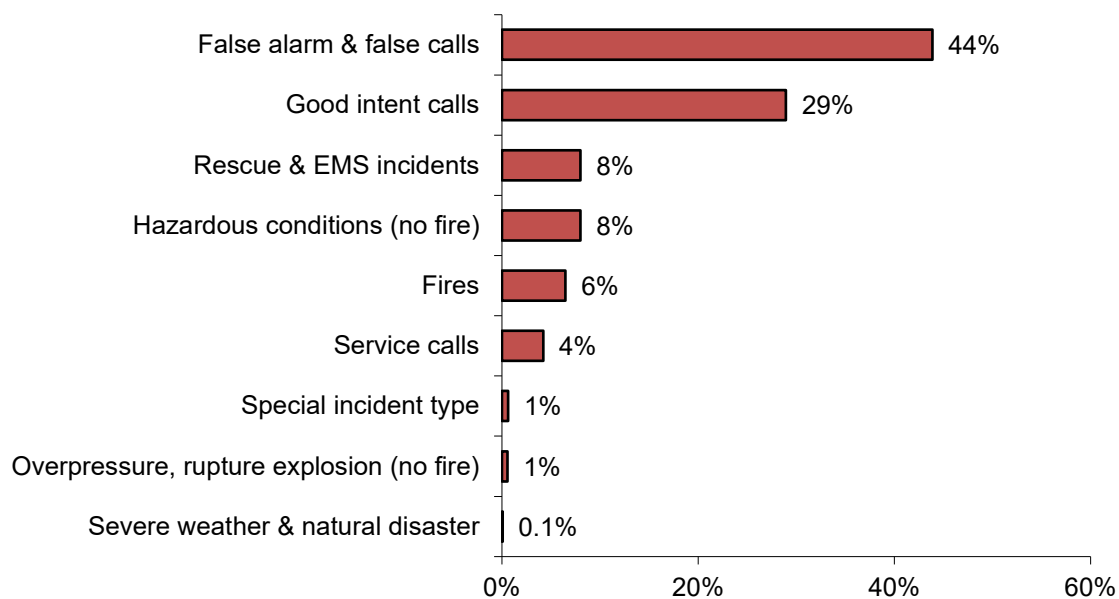
In 2021, Dukes County fire departments reported 1,509 responses⁵ to MFIRS. Of these 1,509 incidents, 1,486 non-fire calls were voluntarily reported. Only Gosnold/Cuttyhunk certified no reportable fires and did not report any incidents.

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

Of these 1,486 non-fire calls, 697, or 44%, were reported false alarm or false calls; 460, or 29%, were reported good intent calls; 122, or 8%, of all of the responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 120, or 8%, were reported hazardous condition calls with no fire; 67, or 4%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 10, or 1%, were special incident types; nine, or 1%, were overpressure, rupture explosions with no ensuing fire calls; and one, or less than 1%, was a severe weather or natural disaster call.

One hundred and three (103), or 6%, of the total incidents submitted by Dukes County fire departments were fires.

2021 Incidents by Incident Type



Dukes County Fire Departments Gave Mutual Aid 26 Times

In 2021, Dukes County fire departments reported coming to the aid of other fire departments 26 times. Of these responses, nine, or 35%, were rescue or EMS calls; six, or 23%, were for fires; four, or 15%, were for good intent calls; four, or 15%, were special incident type calls, two, or 8%, were service calls; and one, or 4%, was a hazardous condition call with no fire.

Dukes County Fire Departments Received Mutual Aid in 20 Incidents

In 2021, Dukes County fire departments reported receiving aid from surrounding departments in 20 incidents. Eleven (11), or 55%, were for rescue or EMS calls; five, or 25%, were for fires; three, or 15%, were overpressure, rupture explosions with no ensuing fire calls; and one, or 5%, of these incidents was for a hazardous condition call with no fire.

Dukes County**Population: 20,600⁶****4.7 Fires/1,000 Population****Total Fires: 97 \$256,801**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	73	75%	\$114,000
Vehicle Fires	5	5%	128,700
Other Fires	19	20%	14,101

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: 71**Residential Structure Fires: 64****Residential Structure Fires Confined to Non-Combustible Containers: 60****Unconfined Residential Structure Fires: 4**

No Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Residential board & care	29	45%	Operated	54	84%
1- & 2-Family homes	23	32%	Didn't operate	0	0%
Apartments	12	19%	None	1	2%
			Fire too small	0	0%
			Didn't alert (confined)	5	8%
			Undetermined	4	6%

Area of Origin⁷	%	Heat Source	%	%Unconfined⁸
Kitchen	89%	Hot embers or ashes	2%	25%
Heating room or area	3%	Chemical reaction	2%	25%
Chimney or flue	3%			

⁶ We used the figures from the 2020 US Census.

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

⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	%Unconfined¹⁰
Cooking materials	88%	Too close to combustibles	2%	25%
Flammable or combust. liquid	3%	Abandoned materials	2%	25%
Film, residue (creosote)	3%	Elec. fail./malfunc., other	2%	25%

Equipment¹¹	%	Cause of Ignition	%	%Unconfined¹²
Kitchen & cooking equipment	88%	Unintentional	2%	25%
None	3%	Failure of eq. or heat source	0%	0%
Boiler, furnace, cent. heat unit	3%	Undetermined	2%	25%
Chimney or flue	3%	Cause under investigation	2%	25%
		Act of nature	0%	0%
		Intentional	0%	0%

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

Alerted occupants	88%
Didn't alert occupants	8%
Undetermined	3%

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

¹⁰ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined Fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	17	16	1	0
February	7	7	0	0
March	9	6	0	3
April	10	3	0	7
May	8	5	1	2
June	7	5	1	1
July	8	6	0	2
August	8	6	1	1
September	9	7	0	2
October	4	4	0	0
November	4	3	0	1
December	6	5	1	0

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	12	7	2	3
Monday	22	14	1	7
Tuesday	13	12	0	1
Wednesday	10	7	2	1
Thursday	18	16	0	2
Friday	7	7	0	0
Saturday	15	10	0	5

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	3	2	0	1
04:01 - 08:00	2	2	0	0
08:01 - 12:00	20	15	1	3
12:01 - 16:00	28	14	2	12
16:01 - 20:00	32	30	0	2
20:01 - 00:00	12	10	1	1

Motor Vehicle Fires

Total: 5

Automobiles: 3 (60%)

0 (0%) of the automobile fires were intentionally-set in 2021.

Arson Fires**Total Arsons: 1****Dollar loss: \$0****0.05 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	1	1%	100%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	0	0%	0%	0

0.05 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.00 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
08:00 – 12:00	1	100%			

Other Arsons # %

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	1	100%

Aquinnah**Population: 311**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires ¹³							
2018	Fire Department in Good Standing, Certified No Reportable Fires ¹⁴							
2019	2	1	0	1	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires ¹⁵							
2021	0	0	0	0	0	0	0	0 ¹⁶

Chilmark**Population: 866**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Non-Reporting Community							
2018	1	1	0	0	0	0	0	0
2019	10	3	0	7	3	0	0	3
2020	47	4	0	43	42	1	0	41
2021	7	0	1	6	0	0	0	0

Edgartown**Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	8	7	1	0	0	0	0	0
2018	13	7	2	4	0	0	0	0
2019	12	5	2	5	0	0	0	0
2020	16	9	2	5	0	0	0	0
2021	8	2	1	5	0	0	0	0

Gosnold (Cuttyhunk)**Population: 75**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	Fire Department in Good Standing, Certified No Reportable Fires							

¹³ Aquinnah did report 59 total runs to MFIRS in 2017.¹⁴ Aquinnah did report 62 total runs to MFIRS in 2018.¹⁵ Aquinnah did report 47 total runs to MFIRS in 2019.¹⁶ Aquinnah did report 3 total runs to MFIRS in 2021.

Oak Bluffs**Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	3	2	1	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires ¹⁷							
2019	5	3	0	2	0	0	0	0
2020	6	2	2	2	0	0	0	0
2021	5	3	1	1	0	0	0	0

Tisbury**Population: 3,959**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	12	5	4	3	0	0	0	0
2018	15	8	3	4	0	0	0	0
2019	14	10	1	3	0	0	0	0
2020	17	9	2	6	0	0	0	0
2021	74	68	1	5	1	1	0	0

West Tisbury**Population: 2,740**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	3	1	0	2	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	7	1	1	5	1	0	0	1
2020	3	0	0	3	0	0	0	0
2021	3	0	1	2	0	0	0	0

¹⁷ Oak Bluffs did report 83 total runs to MFIRS in 2018.

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
07104	Aquinnah	3	0	0	0	0	0	2	1	0	0
07062	Chilmark	278	7	0	6	13	0	135	116	0	1
07089	Edgartown	330	9	5	14	21	19	109	153	0	0
07109	Gosnold*	0	0	0	0	0	0	0	0	0	0
07221	Oak Bluffs	266	6	0	52	12	14	34	148	0	0
07296	Tisbury	349	76	4	33	38	22	37	137	1	1
07327	West Tisbury	364	6	0	17	36	12	143	142	0	8
Total	Dukes County	1,590	104	9	122	120	67	460	697	1	10

* Certified no reportable fires.

**Non reporting department.

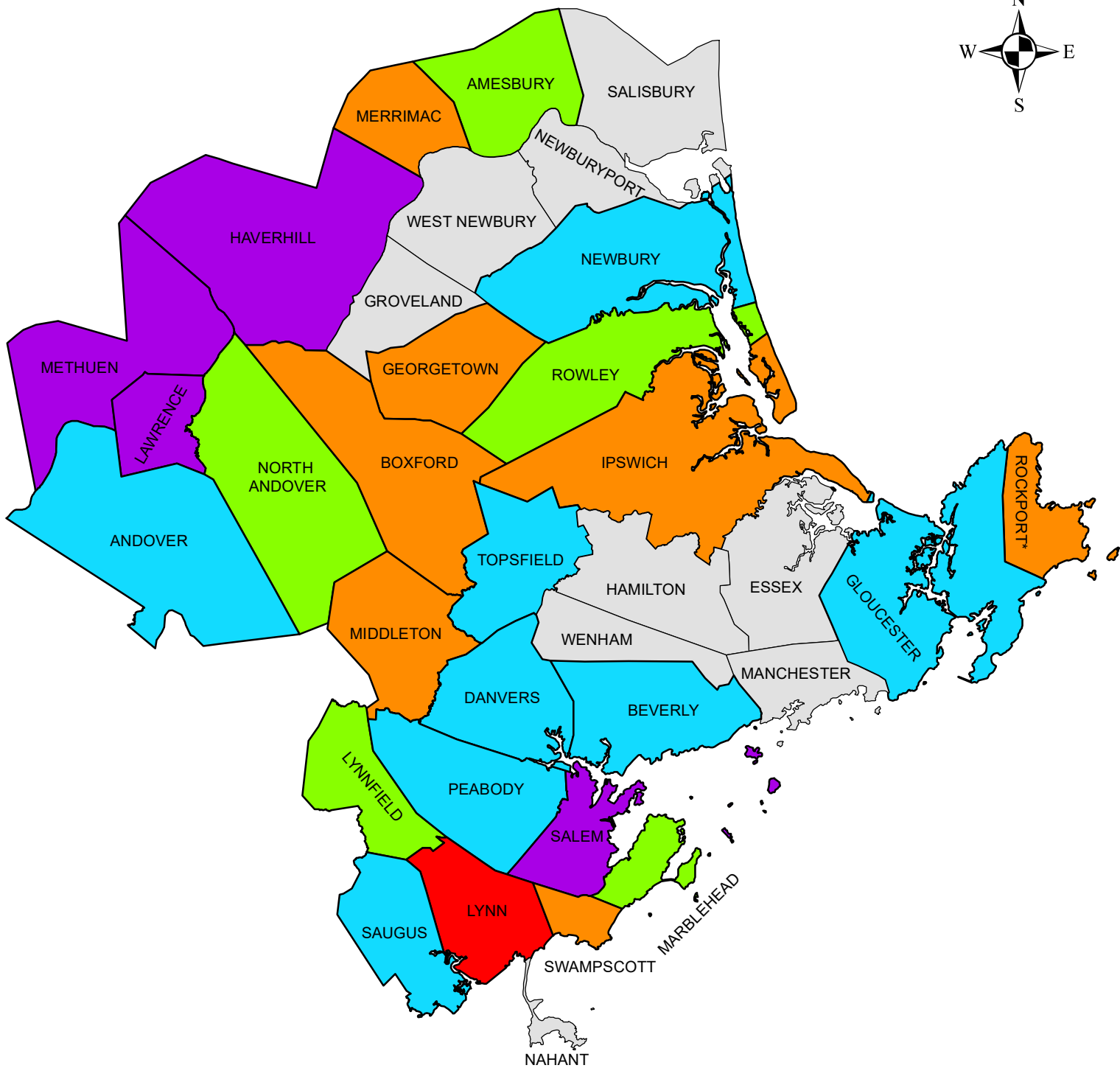
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



Essex County

2021 Fire Data Analysis

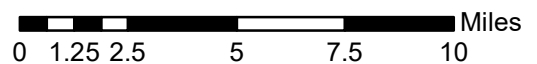
Essex County Fires 2021



2021 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2021

Essex County Fires in 2021

2,209 Total Fires — 1,153 Structures, 246 Vehicles & 810 Other Fires

Essex County ranked fifth out of the fourteen Massachusetts counties in total reported fires. The county reported 2,209 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2020. The 1,153 structure fires, 246 motor vehicle fires, 399 brush, tree or lawn fires, 222 outside rubbish fires, 93 special outside fires, 11 cultivated crop or vegetation fires, and 84 other fires caused two civilian fire deaths, 12 civilian injuries, 60 fire service injuries and an estimated dollar loss of \$30.8 million. Essex County's fires accounted for 9% of the 25,368 Massachusetts fires reported in 2021.

All 34 of the 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 2021.

All Fires Down

The total number of reported fire incidents decreased by 574 incidents from the 2,783 that were reported in 2020. Reported structure fires decreased by 188 from the 1,341 reported during the previous year. The total number of motor vehicle fires decreased by nine from the 255 incidents reported during 2020. Reported outside and other fires decreased by 377 from the 1,187 reported the year before¹.

ESSEX COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2,492	1,305	257	930	68	15	6	47
2018	2,162	1,195	246	721	40	12	4	24
2019	2,168	1,234	246	688	63	12	1	50
2020	2,783	1,341	255	1,187	85	11	6	68
2021	2,209	1,153	246	810	53	9	7	37

Fire and Fire Death Rates

Essex County had 2.7 fires per 1,000 population. That figure ranks Essex County tied for twelfth in the state and below the state rate of 3.6 fires per 1,000 population. Essex County had 0.02 fire deaths per 10,000 population making it tied for tenth among Massachusetts counties and below the state rate of 0.07 deaths per 10,000 population.

2 Fire Deaths in Essex County

In 2021, there were two reported fire deaths in one fatal fire in Essex County.

- On July 10, 2021, at 5:36 a.m., the Saugus Fire Department was called to a fatal electrical fire in a single-family home. The fire started by arcing in an entranceway. There were two older adult victims. No one else was injured at this fire. There were

¹ 2021 was another down year for brush fires.

no smoke alarms or sprinklers. The fire caused an estimated \$450,000 worth of damage.

Lawrence Had Largest Loss Fire in 2021

In 2021, Essex County had four fires that were considered large loss, or greater than \$1 million in estimated damages. These fires combined for \$9 million in estimated damages and 29% of Essex County's total dollar loss in 2021².

- On June 10, 2021, at 7:46 p.m., the Lawrence Fire Department was dispatched to a fire in an 11-unit apartment building of undetermined cause. One (1) firefighter was injured at this fire. Alarms were present and alerted the occupants. The building did not have sprinklers. Damages from this fire were estimated to be \$3.3 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 1,153 structure fires caused two civilian deaths, 10 civilian injuries, 41 fire service injuries and an estimated dollar loss of \$28 million. These incidents represented 52% of Essex County's reported fires in 2021. The average estimated dollar loss per structure fire was \$24,216. The total number of reported structure fires decreased by 188, or 14%, from the 1,341 reported in 2020.

Arson Caused 1% of Structure Fires

The nine structure arsons caused an estimated dollar loss of \$133,500. Arson was indicated as the cause of 1% of the structure fires and 0.5% of Essex County's structure fire dollar loss. The nine structure arsons accounted for 17% of the Essex County arson fires reported in 2021. The number of reported structure arsons decreased by two from the 11 reported in 2020.

67% of Structure Arsons Occurred in Residences

Sixty-seven percent (67%) of Essex County's nine structure arsons occurred in residential occupancies. Educational facilities accounted for 22% of structure arsons. Nine percent (9%) happened in storage facilities.

BUILDING FIRES

There were 1,151 building fires of different types in Essex County in 2021. These 1,151 building fires accounted for 99.8% of all structure fires in Essex County.

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

Nine hundred and seventy-five (975), or 85%, of Essex County's 1,151 building fires occurred in residential occupancies. Mercantile and business properties and public assembly facilities, including restaurants and churches each had 51 fires. Hospitals, prisons, and other institutional buildings experienced 21 fires. Fourteen (14) building fires took place each in educational properties and manufacturing and processing

² 3 of the 4 large loss fires were in Lawrence.

facilities. Thirteen (13) fires took place in storage properties. Five (5) building fires in Essex County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Four (4) fires happened in industrial facilities; and three fires occurred in unclassified properties in Essex County in 2021.

RESIDENTIAL FIRES

Residential Building Fires Down in 2021

There were 975 reported residential building fires in Essex County in 2021. These 975 fires are a decrease of 195, or 17%, from the 1,170 residential building fires reported in 2020.

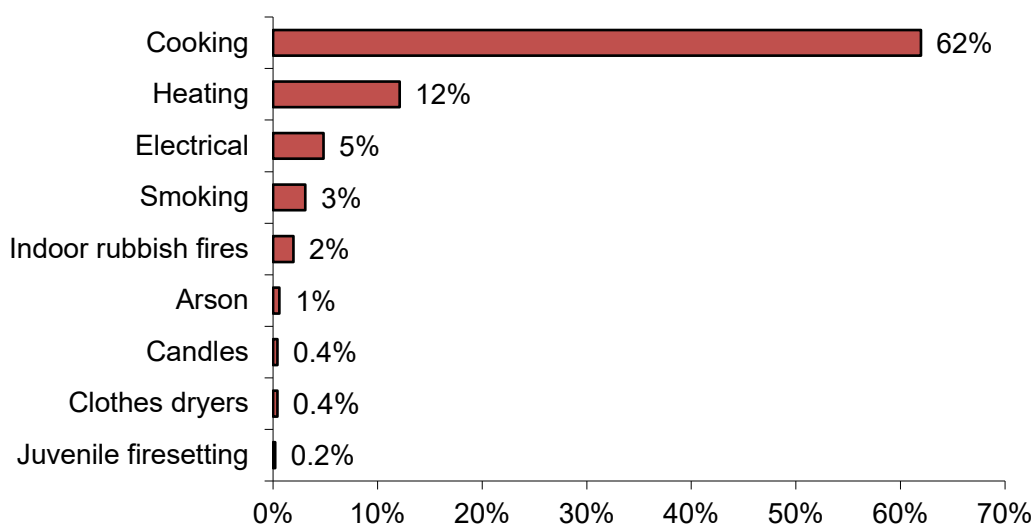
Apartments Accounted for 45% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments accounting for 45% of all residential fires; 1- or 2-family homes had 44%; 2% happened in rooming houses; 2% occurred in dormitories; 2% took place in residential board and care facilities; and 1% happened in hotels or motels. Twenty-eight (28), 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 3% and indoor rubbish fires caused 2%. Arsons caused 1% of these fires. Candles, clothes dryers and juvenile-set fires each caused less than 1% of the fires in people's homes in Essex County in 2021.

2021 Leading Causes of Fires in Essex County Homes



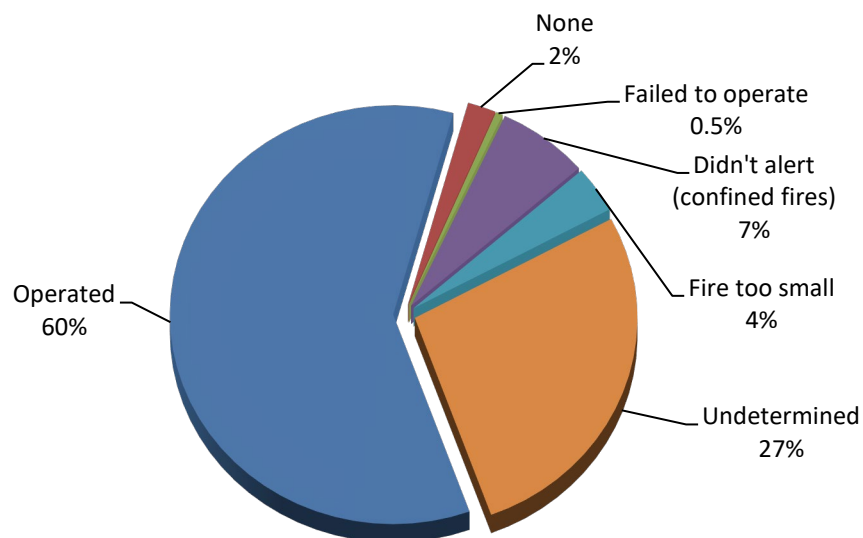
73% of Residential Building Fires Are Confined to Non-Combustible Containers³

Seven hundred and seven (707), or 73%, of all residential building fires were reported as confined to non-combustible containers in 2021. Five hundred and eighty-one (581), or 60%, of all residential building fires reported in 2021 were cooking fires contained to a non-combustible container. Fifty-five (55) of the reported fires were confined to a chimney, accounting for 4% of residential building fires. Fifty-three (53), or 5%, were fires confined to a fuel burner or boiler malfunction. Eighteen (18), or 3%, of these fires were rubbish fires contained to a non-combustible container in Essex County in 2021.

Alarms Operated in 60% of Fires

Smoke or heat alarms operated and alerted the occupants in 584, or 60%, of the residential building fires. In 7% of these fires⁴, the alarms did not alert the occupants. Alarms were present but did not operate in less than 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 4% of the residential fires. Smoke alarm performance was undetermined in 266 incidents, or 27%, of Essex County's residential building fires.

Detector Status in Essex County's Residential Structure Fires 2021



³ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

⁴ These represent confined fires where it was reported that the detector did not alert the occupants.

5 Failed Alarms

Of the five fires where smoke alarms were present but failed to operate, one, or 20%, failed because of a lack of maintenance. It was undetermined or unclassified in the other four cases, or 80%, why the alarms failed to operate.

VACANT BUILDINGS**2% of Building Fires Occurred in Vacant Buildings**

Essex County reported 21 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 1,151 building fires reported to MFIRS in 2021. Fourteen (14) fires occurred in vacant residential properties. Special properties and manufacturing or processing facilities each accounted for two vacant building fires. Mercantile and business properties, educational facilities and industrial properties each had one of these fires.

One (1) of the vacant building fires in Essex County in 2021 was determined to be intentionally-set. This fire was in a single-family home.

JUVENILE-SET FIRES**9 Juvenile-set Fires**

There were nine reported juvenile-set fires in Essex County in 2021. The three structure fires, two outside rubbish fires, three special outside fires and one unclassified fire caused one fire service injury and \$10,701 in estimated damages.

ARSONS**53 Total Arsons — 9 Structures, 7 Vehicles & 37 Other Arsons**

Fifty-three (53), or 2%, of Essex County's 2,209 fires were considered intentionally-set, or, for purposes of this analysis, arson. The nine structure arsons, seven motor vehicle arsons and 37 outside and other arsons caused one fire service injury and an estimated dollar loss of \$174,685.

All Arsons Up

The total number of reported arson fires decreased by 32 from the 85 reported in 2020. Reported structure arsons decreased by two from the 11 reported in 2020. Motor vehicle arsons increased by one from the six reported in 2020. Outside and other arsons decreased by 31 from the 68 reported the year before.

ALL INCIDENTS

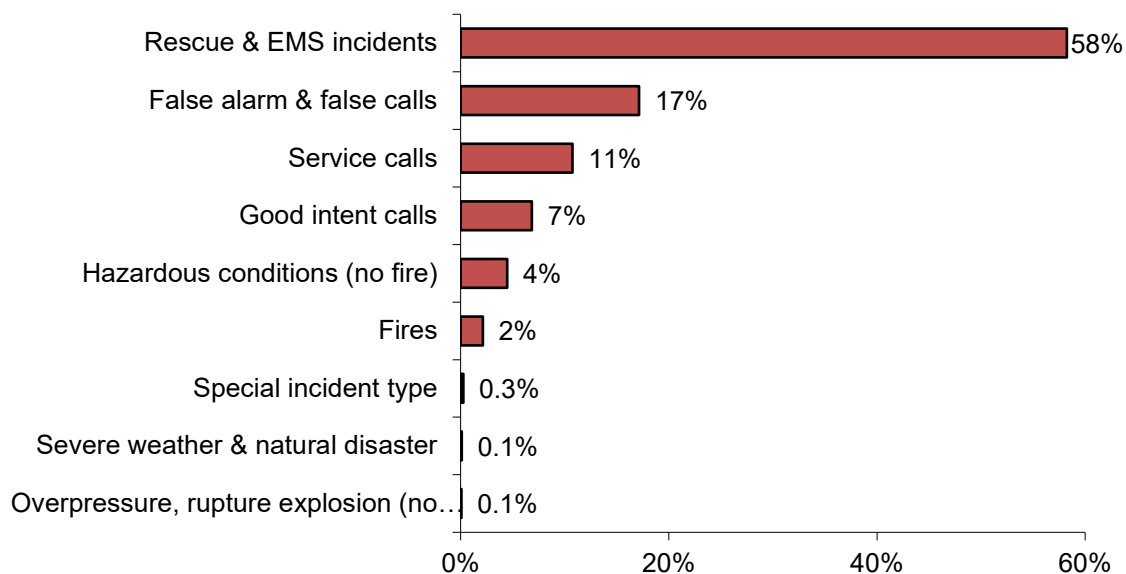
Rescue & EMS Calls Were 58% of All Reported Responses

In 2021, fire departments in Essex County reported 110,307 responses⁵ to MFIRS. Of these 110,307 incidents, 107,957 non-fire calls were voluntarily reported.

Of these 107,957 non-fire calls, 64,251, or 58%, of all the reported responses in 2021 were reported rescue and emergency medical services (EMS) calls; 18,892, or 17%, were reported false alarm or false calls; 11,840, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 7,551, or 7%, were reported good intent calls; 4,933, or 4%, were reported hazardous condition calls with no fire; 277, or 0.3%, were special incident type calls such as citizen complaints; 117, or 0.1%, were severe weather responses; and 96, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand three hundred and fifty (2,350), or 2%, of the total incidents submitted by Essex County fire departments were fires.

2021 Responses by Incident Type



Essex County Fire Departments Reported Giving Mutual Aid 2,434 Times

In 2021, Essex County fire departments reported coming to the aid of other fire departments 2,434 times. Of these 2,434 responses, 987, or 41%, were for rescue or EMS calls; 602, or 25%, were for service calls such as cover assignments; 427, or 18%, were

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

for good intent calls; 246, or 10%, were for false alarms or false calls; 131, or 5%, were for fires; 36, or 1%, were for hazardous conditions calls with no fire; four, or 0.2%, were for special incidents; and one, or 0.04% were for overpressure, rupture explosions with no ensuing fire.

Essex County Received Mutual Aid in 1,274 Incidents

In 2021, Essex County fire departments reported receiving aid from surrounding departments in 1,274 incidents. Of these 1,274 incidents, 883, or 69%, were rescue and emergency medical services calls; 155, or 12%, were for fires; 123, or 10%, were false alarms or false calls; 50, or 4%, were good intent calls; 33, or 3%, were hazardous conditions calls with no fire; 25, or 2%, were service calls; two, or 0.2%, were for severe weather calls; two, or 0.2 %, were overpressure, rupture explosions with no fire; and one, or 0.1%, was for a special incident.

Essex County**Population: 809,829⁶****2.7 Fires/1,000 Population****Total Fires: 2,209 \$30,825,413**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,153	52%	\$27,920,661
Vehicle Fires	246	11%	1,993,519
Other Fires	810	37%	911,233

1 Fatal Fire 0.91 Civilian Deaths/1,000 Fires
 2 Civilian Death 0.02 Civilian Deaths/10,000 Population
 11 Civilian Injuries 60 Fire Service Injuries

Building Fires: 1,151**Residential Structure Fires: 975****Residential Structure Fires Confined to Non-Combustible Containers: 707****Unconfined Residential Structure Fires: 268**

2 Civilian Deaths 7 Civilian Injuries 22 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	440	45%	Operated	584	60%
1- & 2-Family homes	433	44%	Didn't operate	5	0.5%
Rooming houses	23	2%	None	20	2%
Dormitories	23	2%	Fire too small	35	4%
Residential board & care	22	2%	Didn't alert (confined)	65	7%
Hotels/motels	6	1%	Undetermined	266	27%

Area of Origin⁷	%	Heat Source	%	%Unconfined⁸
Kitchen	65%	Arcing	3%	13%
Heating equipment room	6%	Heat from operating equip.	2%	8%
Chimney or flue	6%	Cigarette	2%	8%
Bedroom	2%	Rad., cont. heat fr. op. eq.	2%	6%
Wall surface, exterior	2%	Hot or smoldering obj., other	1%	5%

⁶ We used the 2020 US Census figures.

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

⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	% Unconfined¹⁰
Food, cooking materials	61%	Too close to combustibles	2%	8%
Film, residue (creosote)	6%	Abandoned materials	1%	4%
Flammable/comb. liquid	5%	Electrical failure, malfunc.	1%	4%
Exterior sidewall covering	3%	Mechanical failure, malfunc.	1%	4%
Rubbish, trash, waste	3%	Failure to clean	1%	3%

Equipment¹¹		Cause of Ignition	%	% Unconfined¹²
Kitchen & cooking equipment	61%	Unintentional	16%	58%
None	21%	Failure of eq. or heat source	3%	10%
Chimney, flue	6%	Intentional	1%	2%
Boiler, furnace, cent. heat. unit	6%	Undetermined	3%	11%
Electrical wiring, other	1%	Cause under investigation	4%	15%
Clothes dryer	0.4%	Act of Nature	0.3%	1%

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

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

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

¹⁰ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	168	112	21	35
February	135	99	16	20
March	319	122	23	174
April	253	104	21	128
May	281	123	27	131
June	223	86	27	110
July	131	72	20	39
August	103	59	10	34
September	110	64	23	23
October	127	77	17	33
November	173	110	19	44
December	186	125	22	39

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	336	191	34	111
Monday	329	170	32	127
Tuesday	307	150	37	120
Wednesday	295	148	32	115
Thursday	286	166	39	81
Friday	320	158	35	127
Saturday	336	170	37	129

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	117	67	10	40
04:01 - 08:00	140	80	22	38
08:01 - 12:00	396	209	53	134
12:01 - 16:00	623	267	72	284
16:01 - 20:00	651	371	59	221
20:01 - 00:00	282	159	30	93

Motor Vehicle Fires

Total: 246

Automobiles: 192 (78%)

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

Arson Fires

Total Arsons: 53

Dollar loss: \$174,685

0.07 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	9	1%	17%	\$133,500
Vehicle Arsons	7	3%	13%	37,000
Other Arsons	37	5%	70%	4,185

0.01 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.05 Other arsons/1,000 population

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 04:00	2	22%	20:01 - 00:00	3	43%
08:01 - 12:00	2	22%	00:01 - 04:00	2	29%
16:01 - 20:00	2	22%			

Other Arsons	#	%
12:01 - 16:00	12	32%
08:01 - 12:00	10	27%
16:01 - 20:00	7	19%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family dwelling	4	44%

Amesbury					Population: 16,283			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	38	15	4	19	0	0	0	0
2018	36	13	5	18	1	0	0	1
2019	40	13	7	20	1	0	0	1
2020	50	19	5	26	1	0	0	1
2021	49	27	3	19	3	1	0	2

Andover					Population: 33,201			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	98	51	16	31	1	0	0	1
2018	117	80	18	19	2	1	0	1
2019	96	61	15	20	2	0	0	2
2020	94	50	21	23	3	0	0	3
2021	90	57	22	11	2	0	0	2

Beverly					Population: 39,502			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	81	41	6	34	2	1	0	1
2018	85	53	7	25	3	1	0	2
2019	81	37	8	36	10	2	0	8
2020	92	51	4	37	6	1	0	5
2021	91	39	8	44	4	1	0	3

Boxford					Population: 7,965			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	29	10	7	12	0	0	0	0
2018	16	2	7	7	0	0	0	0
2019	16	4	4	8	1	0	0	1
2020	30	6	4	20	4	0	0	4
2021	24	6	3	15	2	0	0	2

Danvers**Population: 26,493**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	82	17	11	54	2	0	0	2
2018	86	30	16	40	0	0	0	0
2019	67	25	15	27	2	1	0	1
2020	94	25	8	61	7	1	0	6
2021	68	22	14	32	5	0	1	4

Essex**Population: 3,504**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	17	8	1	8	1	0	1	0
2018	19	12	2	5	0	0	0	0
2019	8	3	1	4	1	0	0	1
2020	22	12	1	9	1	0	0	1
2021	11	3	1	7	1	0	1	0

Georgetown**Population: 8,183**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	29	17	5	7	1	0	0	1
2018	24	14	5	5	1	1	0	0
2019	25	14	6	5	0	0	0	0
2020	32	16	3	13	0	0	0	0
2021	23	14	1	8	0	0	0	0

Gloucester**Population: 28,789**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	87	42	10	35	1	0	1	0
2018	74	45	2	27	3	1	0	2
2019	84	48	8	28	1	1	0	0
2020	98	42	7	49	3	0	0	3
2021	88	36	11	41	2	0	2	0

Groveland**Population: 6,459**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	14	3	0	11	3	0	0	3
2018	10	4	0	6	2	0	0	2
2019	19	5	3	11	5	0	0	5
2020	17	5	1	11	2	0	0	2
2021	14	6	3	5	0	0	0	0

Hamilton**Population: 7,764**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	12	6	0	6	3	1	0	2
2018	15	7	0	8	0	0	0	0
2019	9	7	0	2	0	0	0	0
2020	8	5	0	3	0	0	0	0
2021	13	9	2	2	0	0	0	0

Haverhill**Population: 60,879**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	169	94	23	52	4	3	0	1
2018	161	97	21	43	0	0	0	0
2019	129	72	16	41	1	0	0	1
2020	242	106	24	112	6	1	1	4
2021	219	136	18	65	2	1	0	1

Ipswich**Population: 13,175**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	21	8	2	11	1	1	0	0
2018	16	8	2	6	1	0	1	0
2019	36	20	5	11	0	0	0	0
2020	33	15	5	13	1	0	0	1
2021	20	5	4	11	2	0	0	2

Lawrence**Population: 76,377**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	215	74	43	98	16	2	6	8
2018	148	45	40	63	11	4	2	5
2019	147	60	28	59	8	1	0	7
2020	195	48	39	108	5	1	0	4
2021	146	53	27	66	5	2	0	3

Lynn**Population: 90,329**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	442	309	29	104	8	1	1	6
2018	323	209	26	88	6	3	0	3
2019	367	248	19	100	9	3	1	5
2020	438	275	23	140	15	4	2	9
2021	404	244	29	131	9	2	3	4

Lynnfield**Population: 11,596**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	100	72	4	24	6	0	0	6
2018	76	56	7	13	0	0	0	0
2019	85	65	6	14	3	0	0	3
2020	101	64	4	33	6	1	0	5
2021	58	42	4	12	0	0	0	0

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	16	5	2	9	1	0	0	1
2018	5	2	3	0	0	0	0	0
2019	10	4	1	5	0	0	0	0
2020	11	3	3	5	1	0	0	1
2021	10	4	0	6	0	0	0	0

Marblehead**Population: 19,808**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	39	20	0	19	0	0	0	0
2018	40	26	2	12	1	0	0	1
2019	34	22	0	12	0	0	0	0
2020	36	19	2	15	1	0	1	0
2021	33	20	2	11	2	0	0	2

Merrimac**Population: 6,338**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	54	34	4	16	4	0	0	4
2018	28	10	5	13	2	0	0	2
2019	27	14	4	9	3	0	0	3
2020	52	31	3	18	13	1	1	11
2021	24	7	5	12	3	0	0	3

Methuen**Population: 47,255**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	112	38	17	57	6	1	0	5
2018	116	31	18	67	0	0	0	0
2019	91	22	25	44	3	0	0	3
2020	124	36	33	55	3	0	0	3
2021	122	35	24	63	2	0	0	2

Middleton**Population: 8,987**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	29	14	3	12	0	0	0	0
2018	21	10	2	9	0	0	0	0
2019	32	9	3	20	1	0	0	1
2020	48	12	4	32	2	0	0	2
2021	27	11	4	12	0	0	0	0

Nahant**Population: 3,410**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	10	7	0	3	1	1	0	0
2018	14	10	0	4	0	0	0	0
2019	4	4	0	0	0	0	0	0
2020	7	2	0	5	0	0	0	0
2021	12	10	1	1	0	0	0	0

Newbury**Population: 6,666**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	57	43	4	10	0	0	0	0
2018	18	14	2	2	0	0	0	0
2019	Non-Reporting Community							
2020	91	71	5	15	1	0	0	1
2021	72	54	5	13	0	0	0	0

Newburyport**Population: 17,416**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	13	9	2	2	0	0	0	0
2018	7	3	2	2	0	0	0	0
2019	17	11	3	3	0	0	0	0
2020	9	9	0	0	0	0	0	0
2021	7	4	3	0	0	0	0	0

North Andover**Population: 28,352**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	82	53	9	20	3	0	0	3
2018	110	81	12	17	2	0	1	1
2019	89	49	8	32	2	1	0	1
2020	88	47	5	36	1	0	0	1
2021	60	25	9	26	1	1	0	0

Peabody					Population: 51,251			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	153	73	16	64	2	2	0	0
2018	156	87	18	51	0	0	0	0
2019	124	82	13	29	1	0	0	1
2020	186	105	13	68	1	0	0	1
2021	100	53	12	35	1	0	0	1

Rockport					Population: 6,952			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	20	11	1	8	1	1	0	0
2018	4	3	0	1	0	0	0	0
2019	Non-Reporting Community							
2020	Non-Reporting Community							
2021	22	10	1	11	0	0	0	0

Rowley					Population: 5,856			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	37	31	4	2	0	0	0	0
2018	39	32	0	7	0	0	0	0
2019	50	34	7	9	0	0	0	0
2020	53	37	1	15	0	0	0	0
2021	46	41	1	4	0	0	0	0

Salem					Population: 41,340			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	165	61	15	89	1	1	0	0
2018	136	61	7	68	0	0	0	0
2019	117	54	9	54	4	3	0	1
2020	168	57	7	104	2	1	0	1
2021	114	41	8	65	1	1	0	0

Salisbury					Population: 8,283			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	39	9	5	25	1	0	0	1
2018	28	10	3	15	0	0	0	0
2019	23	9	0	14	0	0	0	0
2020	40	6	5	29	1	0	0	1
2021	15	3	2	10	0	0	0	0

Saugus					Population: 26,628			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	118	45	12	61	0	0	0	0
2018	92	41	6	45	2	0	0	2
2019	109	57	13	39	1	0	0	1
2020	145	53	15	77	1	0	0	1
2021	89	37	10	42	1	0	0	1

Swampscott					Population: 13,787			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	27	10	1	16	1	0	0	1
2018	36	9	2	25	2	0	0	2
2019	12	6	1	5	1	0	0	1
2020	38	11	1	26	3	0	0	3
2021	23	10	1	12	2	0	0	2

Topsfield					Population: 6,085			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	70	64	0	6	0	0	0	0
2018	93	82	5	6	0	0	0	0
2019	104	91	6	7	0	0	0	0
2020	99	86	5	8	0	0	0	0
2021	94	82	2	10	0	0	0	0

Wenham **Population: 4,875**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	3	0	4	1	0	0	1
2018	3	0	0	3	0	0	0	0
2019	8	4	1	3	0	0	0	0
2020	7	1	0	6	0	0	0	0
2021	7	2	1	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
2017	10	8	1	1	0	0	0	0
2018	8	6	1	1	0	0	0	0
2019	8	3	3	2	0	0	0	0
2020	18	7	3	8	1	0	1	0
2021	14	5	5	4	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	3,606	63	6	2,362	134	305	310	394	0	32
09009	Andover	3,233	95	5	1,364	430	348	106	884	0	1
09030	Beverly	5,731	91	3	3,507	257	314	301	1,247	3	8
09038	Boxford	864	28	0	454	48	80	57	195	2	0
09071	Danvers	6,569	68	9	3,314	134	1,716	334	919	5	70
09092	Essex	577	18	0	369	46	28	37	79	0	0
09105	Georgetown	1,090	31	1	631	41	141	98	143	4	0
09107	Gloucester	5,511	90	3	3,681	161	366	469	722	6	13
09116	Groveland	855	27	13	581	16	58	53	103	2	2
09119	Hamilton	939	13	0	535	29	102	45	214	1	0
09128	Haverhill	8,363	225	9	4,949	289	766	771	1,351	0	3
09144	Ipswich	2,152	21	0	1,042	63	229	425	368	2	2
09149	Lawrence	6,924	150	6	3,134	613	476	399	2,132	6	8
09163	Lynn	15,329	418	13	9,178	281	1,664	1,185	2,577	2	11
09164	Lynnfield	1,723	63	0	1,034	43	221	131	226	3	2
09166	Manchester	1,001	11	1	528	53	146	64	194	2	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
09168	Marblehead	2,931	33	2	1,326	118	730	191	510	6	15
09180	Merrimac	1,179	33	0	688	59	147	121	124	6	1
09181	Methuen	8,591	130	3	6,258	456	502	314	900	5	23
09184	Middleton	2,223	32	0	1,194	55	212	229	499	1	1
09196	Nahant	555	12	1	328	15	102	18	71	4	4
09205	Newbury	1,127	72	0	652	25	91	136	143	4	4
09206	Newburyport	8	8	0	0	0	0	0	0	0	0
09210	North Andover	4,762	62	0	3,063	327	398	136	768	2	6
09229	Peabody	5,261	100	8	3,169	324	492	239	915	5	9
09252	Rockport	256	23	1	28	37	20	11	118	16	2
09254	Rowley	867	53	2	435	20	46	188	122	1	0
09258	Salem	6,270	114	4	3,338	341	710	293	1,451	10	9
09259	Salisbury	2,112	17	1	1,278	110	287	191	222	3	3
09262	Saugus	4,445	92	0	3,029	150	261	309	581	6	17
09291	Swampscott	2,278	36	4	1,247	95	325	198	354	2	17
09298	Topsfield	1,662	95	1	923	103	279	108	141	0	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
09320	Wenham	816	7	0	389	40	195	42	142	1	0
09324	West Newbury	499	21	0	243	20	83	42	83	7	0
	Essex County	110,309	2,352	96	64,251	4,933	11,840	7,551	18,892	117	277

* Certified no reportable fires.

**Non reporting department.

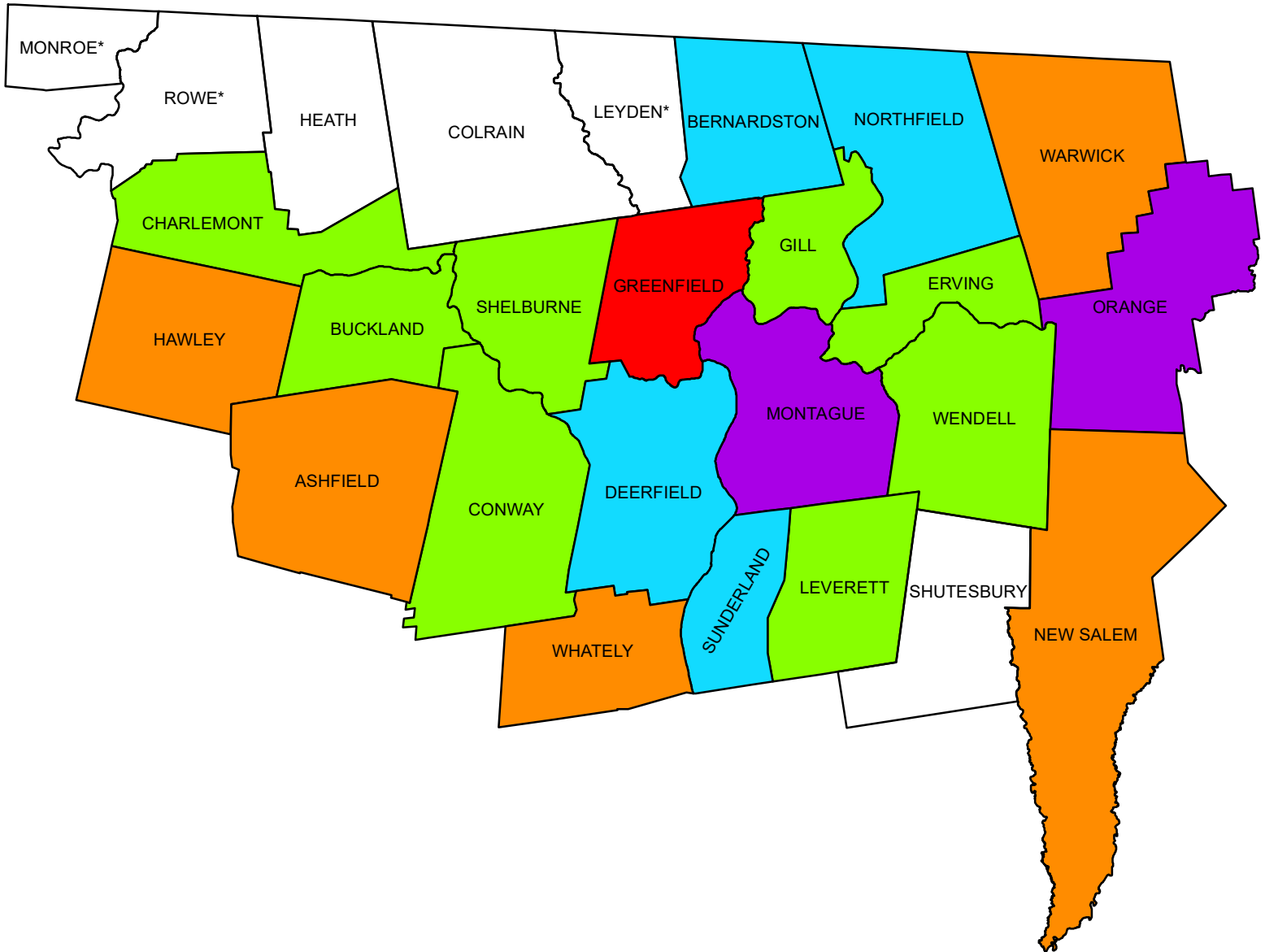
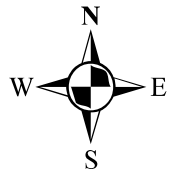
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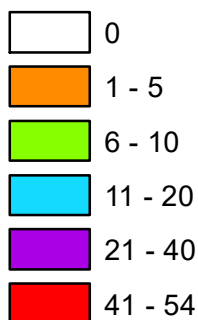
Franklin County

2021 Fire Data Analysis

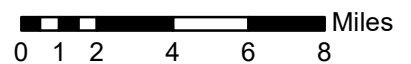
Franklin County Fires 2021



2021 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2021

Franklin County Fires in 2021

239 Total Fires — 115 Structures, 19 Motor Vehicles & 105 Outside or Other Fires

Franklin County ranked twelfth out of the fourteen Massachusetts counties in total fires. Franklin County fire departments reported 239 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 115 structure fires, 19 motor vehicle fires, 73 brush, tree or lawn fires, 19 outside rubbish fires, nine special outside fires, and eight unclassified fires caused one civilian death, six civilian injuries, five fire service injuries and an estimated dollar loss of \$1.9 million. Franklin County's fires accounted for 1% of the 25,368 Massachusetts fires reported in 2021.

Twenty-six (26) of the 29, or 89.7%, 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 2020.

Structure Fires Up

The total number of reported fire incidents decreased by 25, or 9%, from the 264 reported in 2020. Reported structure fires increased by 11, or 11%, from the 104 reported in 2021 as well as 2020. Motor vehicle fires decreased by 11, or 37%, from the 30 reported in 2020. Outside and other fires decreased by 25, or 19%, from the 130 reported the year before.¹

FRANKLIN COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	253	118	22	113	18	4	0	14
2018	296	147	39	110	11	2	0	9
2019	225	103	29	93	13	1	1	11
2020	264	104	30	130	15	3	0	12
2021	239	115	19	105	10	2	0	8

Fire and Fire Death Rates

Franklin County had 3.4 fires per 1,000 population. That figure ranks Franklin County sixth in the state and below the state rate of 3.6 fires per 1,000 population. Franklin County had 0.14 fire deaths per 10,000 population ranking it tied for second among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

1 Civilian Fire Deaths in Franklin County

There was one fatal fire reported in Franklin County in 2021. This fatal fire caused one death.

- On November 21, 2021, at 3:05 p.m., the Bernardston Fire Department was dispatched for an EMS call outside of a single-family home. There was one older

¹ 2021 was another down year for brush fires statewide.

adult victim due to a lawn mower fire. No one else was injured at this fire. Damages from this fire were estimated to be \$1,000.

Orange Has Franklin County's Largest Loss Fire

Franklin County did not report any fires with an estimated loss greater than \$1 million. However, they did report seven fires with a dollar loss between \$100,000 and \$999,999, accounting for \$1.3 million in losses and 69% of the county's total fire loss. Erving had the county's largest loss fire.

- On December 7, 2021, at 4:11 p.m., the Orange Fire Department was called to a fire of undetermined cause in a single-family home. One (1) civilian was injured at this fire. It was undetermined if alarms were present. Sprinklers were not present. Damages from this fire were estimated to be \$329,800.

STRUCTURE FIRES

Reported Structure Fires Up

The 115 structure fires caused five civilian injuries, all five fire service injuries, and an estimated dollar loss of \$1.8 million. These incidents represented 48% of Franklin County's reported fires in 2021. The average estimated dollar loss per structure fire was \$15,724. The total number of reported structure fires increased by 11, or 11%, from the 104 reported in 2020.

Arson Caused 2% of Structure Fires

There were two reported structure arsons in Franklin County in 2021. Arson was indicated as the cause of 2% of the structure fires and none of Franklin County's structure fire dollar loss. The two structure arsons accounted for 20% of the Franklin County arson fires reported in 2021. The total number of reported structure arsons decreased by one from the three reported in 2020.

1 of 2 Structure Arsons Occurred in a Residence

One (1) of the three Franklin County's structure arson in 2021 occurred in residential properties. The other structure arson occurred in a special property.

BUILDING FIRES

There were 114 building fires of different types in Franklin County in 2021. These 114 building fires accounted for 99.1% of the structure fires in Franklin County.

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

Ninety-three (93), or 82%, of Franklin County's 114 building fires occurred in residential occupancies. Public assembly properties and manufacturing and processing facilities each had five fires. Storage facilities had three fires. Mercantile or business properties, educational facilities, industrial facilities, and special properties each had two fires.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

There were 93 reported residential building fires in Franklin County in 2021. These 93 fires are an increase of four, or 4%, from the 89 residential building fires reported in 2020.

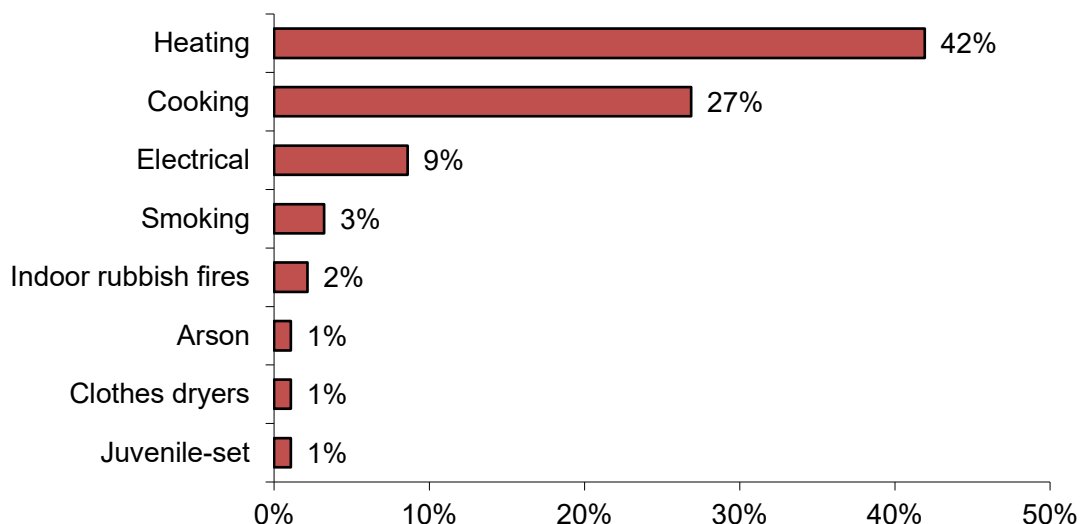
1- & 2-Family Homes Accounted for 81% of Residential Building Fires

The peak fixed property uses for residential building fires were one- & two-family homes, accounting for 81% of the building fires in Franklin County; and 15% occurred in apartments. Two percent (2%) happened in dormitories; and 1% occurred in hotels or motels. One (1) fire, or 1%, occurred in unclassified residential policies.

Heating Was Leading Cause of Residential Fires

Heating was the leading cause of residential fires in Franklin County in 2021. Forty-two percent (42%) of the residential fires were caused by heating equipment. This is a return to when Franklin County was the only county where cooking was not the leading cause of residential fires. Unattended cooking and other unsafe cooking practices accounted for 27% of the fires in people's homes. Electrical problems caused 9%; and smoking caused 3% of these fires. Indoor rubbish fires caused 2%. Arson, clothes dryers and juvenile-set fires each caused 1% of the fires in people's homes in Franklin County in 2021.

2021 Leading Causes of Fires in Franklin County Homes



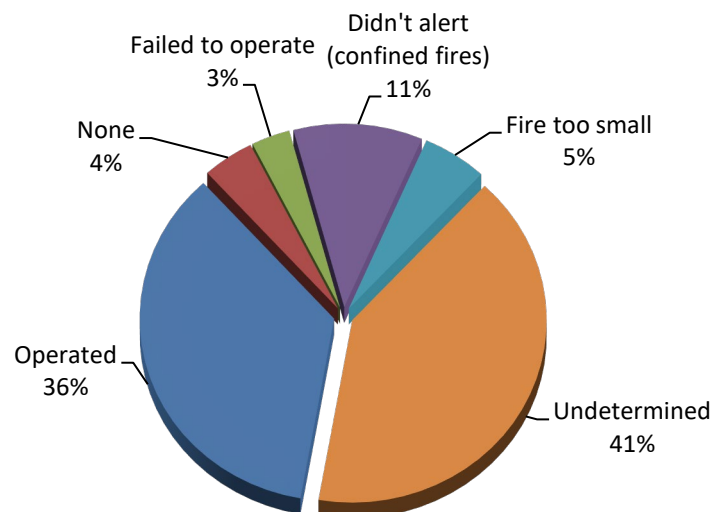
67% of Residential Building Fires Are Confined to Non-Combustible Containers²

Sixty-two (62), or 67%, of these fires were confined to a non-combustible container. Thirty-two (32), or 34%, of all residential building fires reported in 2021 were fires confined to a chimney or flue. Twenty-three (23) of the reported fires were cooking fires contained to a non-combustible container, accounting for 25% of residential building fires. Five (5), or 5%, were fires confined to a fuel burner or boiler malfunction. Two (2), or 2%, of these fires were indoor rubbish fires contained to a non-combustible container in Franklin County in 2021.

Alarms Operated in Only 36% of Fires

Smoke or heat alarms operated and alerted the occupants in 33, or 36%, of the residential building fires. In 11% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 3% of these fires. Alarms were not present in 4% of these fires. The fire was too small to trigger the alarm in 5% of these fires. Smoke alarm performance was undetermined in 38 incidents, or 41%, of Franklin County's residential building fires.

Detector Status in Franklin County's Residential Structure Fires 2021



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.

VACANT BUILDINGS

4% of Building Fires Occurred in Vacant Buildings

Franklin County reported five fires that occurred in a building that were vacant, under construction or demolition. This represented 4% of the total 114 building fires reported to MFIRS in 2021. Two (2) fires occurred in residential properties, and one each in a public assembly property, a storage facility and a special property.

One (1), or 20%, of the vacant building fires in Franklin County in 2021 was determined to be intentionally-set. The fire occurred in a special property.

JUVENILE-SET FIRES

1 Juvenile-set Fires

There were one reported juvenile-set fire in Franklin County in 2021. It was a residential building fire and caused two fire service injuries.

ARSONS

10 Total Arsons — 2 Structure, 0 MV & 8 Other Arsons

Ten (10), or 4%, of Franklin County's 239 fires were intentionally-set, or, for purposes of this analysis, arson. The two structure arsons and eight outside and other arsons caused \$2 in estimated damages.

All Arson Down Slightly

The number of arsons decreased by five, or 33%, from the 15 reported in 2020. Structure arsons decreased by one from three in 2020. Motor vehicle arsons remained the same with none reported in both 2020 and 2021. Outside and other arsons decreased by four from the 12 reported in 2020.

ALL INCIDENTS

Rescue & EMS Calls Are 57% of All Reported Responses

In 2021, Franklin County fire departments reported 10,423 responses⁴ to MFIRS. Of these 10,423 incidents, 10,006 non-fire calls were voluntarily reported.

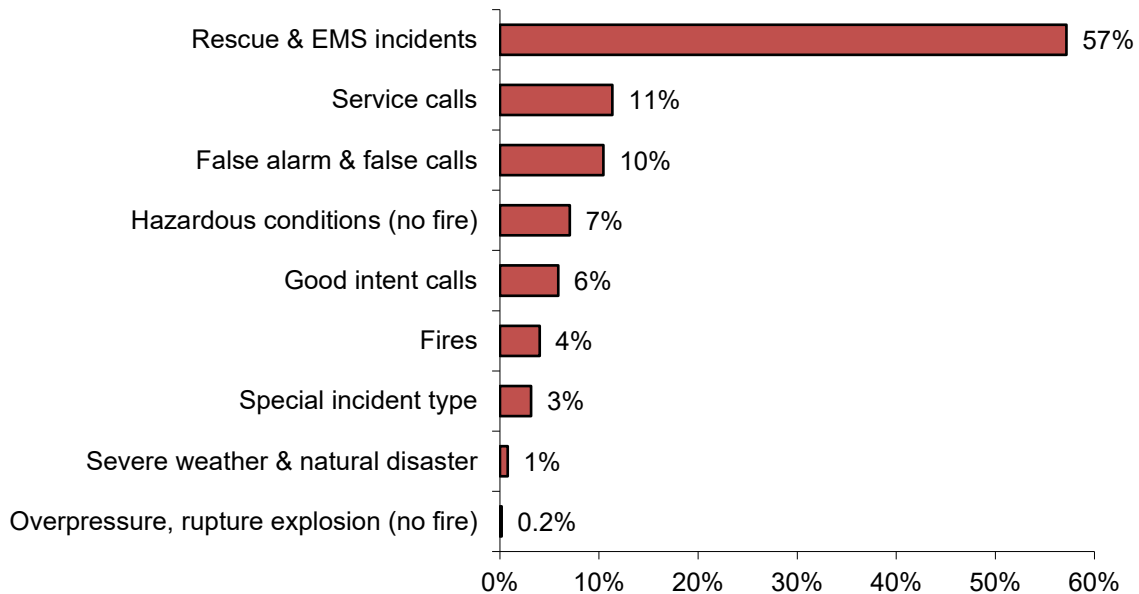
Of these 10,006 non-fire calls, 5,959 , or 57%, of all of the responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 1,184, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,087 , or 10%, were reported false alarm or false calls; 736, or 7%, were reported hazardous condition calls with no fire; 615, or 6%, were reported good intent calls; 328, or 3%, were special incident type calls such as citizen complaints;

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

80, or 1%, were severe weather responses; and 17, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four hundred and seventeen (417), or 4%, of the total incidents submitted by Franklin County fire departments were fires.

2021 Responses by Incident Type



Franklin County Fire Departments Gave Mutual Aid 787 Times

In 2021, Franklin County fire departments reported coming to the aid of other fire departments 787 times. Of these 787 responses, 422, or 54%, were for rescue or EMS calls; 175, or 27%, were for fires; 108, or 14%, were for service calls such as cover assignments; 49, or 6%, were for good intent calls; 22, or 3%, were for hazardous conditions calls with no fire; nine, or 1%, were for false alarms or false calls; one, or 0.1%, were for a special incident type call; and one, or 0.1% was for an overpressure, rupture explosion with no fire.

Franklin County Received Mutual Aid in 662 Incidents

In 2021, Franklin County fire departments reported receiving aid from surrounding departments in 662 incidents. Of these 662 incidents, 559, or 84%, were rescue and emergency medical services calls; 54, or 8%, were for fires; 17, or 3%, were service calls; 10, or 2%, were good intent calls; nine, or 1%, were false alarm or false calls; eight, or 1%, were hazardous conditions calls with no fire; two, or 0.3%, were severe weather calls; two, or 0.3% were for overpressure, rupture explosions with no fire; and one, or 0.2%, was for a special incident type call.

Franklin County**Population: 71,029⁵****3.4 Fires/1,000 Population****Total Fires: 239 \$1,910,175**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	115	48%	\$1,808,248
Vehicle Fires	19	8%	80,550
Other Fires	105	44%	21,377

1 Fatal Fires 4.18 Civilian Deaths/1,000 Fires
 1 Civilian Deaths 0.14 Civilian Deaths/10,000 Population
 6 Civilian Injuries 5 Fire Service Injuries

Building Fires: 114**Residential Structure Fires: 93****Residential Structure Fires Confined to Non-Combustible Containers: 62****Unconfined Residential Structure Fires: 31**

3 Civilian Injuries 5 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	75	81%	Operated	33	35%
Apartments	14	15%	didn't operate	3	3%
Dormitories	2	2%	None	4	4%
Hotels or motels	1	1%	Fire too small	5	5%
			Didn't Alert (confined)	10	11%
			Undetermined	38	41%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Chimney or flue	34%	Arcing	6%	19%
Kitchen	28%	Radiated heat from oper. eq.	3%	10%
Heating room or area	6%	Heat from oper. equipment	3%	10%
Subst. area or space, crawl space	4%	Heat from direct flame	2%	6%
Exterior balcony, unencl. porch	3%	Lighter	2%	6%
		Hot ember or ash	2%	6%

⁵ We used the figure from the 2020 US Census.

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

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

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Film, residue (creosote)	34%	Failure to clean	6%	19%
Cooking materials	25%	Misuse of material or prod.	3%	10%
Flamm. or combustible liquid	5%	Electrical failure, malfunc.	3%	10%
Structural member, framing	5%	Too close to combustibles	2%	6%
Electrical wire, cable insulation	3%	Accident. turned on, not off	2%	6%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Chimney or flue	34%	Unintentional	17%	52%
Cooking equipment	27%	Failure of eq. or heat source	4%	13%
None	27%	Intentional	0%	0%
Boiler, furnace, cent. heat. unit	6%	Act of nature	3%	10%
		Cause under investigation	4%	13%
		Undetermined	4%	13%

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

Alerted occupants	35%
Didn't alert occupants	16%
Undetermined	48%

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	23	19	2	2
February	19	14	4	1
March	42	16	2	24
April	39	11	0	28
May	20	5	2	13
June	16	6	0	10
July	13	9	1	3
August	18	9	2	7
September	18	7	3	8
October	10	7	1	2
November	10	4	2	4
December	11	8	0	3

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	26	13	2	11
Monday	40	20	3	17
Tuesday	31	14	3	14
Wednesday	37	18	4	15
Thursday	32	19	2	11
Friday	37	21	1	15
Saturday	36	10	4	22

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	12	8	1	3
04:01 - 08:00	12	8	0	4
08:01 - 12:00	40	16	6	18
12:01 - 16:00	80	35	8	37
16:01 - 20:00	67	36	3	28
20:01 - 00:00	28	12	1	15

Motor Vehicle Fires

Total: 19

Automobiles: 14 (74%)

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

Arson Fires

Total Arsons: 10

Dollar loss: \$2

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	2	2%	20%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	8	8%	80%	2

0.03 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.11 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	2	100%			

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

Peak Fixed Property Uses for Structure Arsons	#	%
1 or 2-Family home	1	50%

Ashfield**Population: 1,737**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	2	0	5	0	0	0	0
2018	8	5	0	3	0	0	0	0
2019	4	2	0	2	0	0	0	0
2020	11	3	1	7	0	0	0	0
2021	2	2	0	0	0	0	0	0

Bernardston**Population: 2,129**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	0	1	3	0	0	0	0
2018	6	2	2	2	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	9	3	0	6	2	0	0	2
2021	11	4	1	6	0	0	0	0

Buckland**Population: 1,902¹²*****Buckland Fire District******Est. Pop. Protected: 951***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5	1	0	4	0	0	0	0
2018	8	3	0	5	2	0	0	2
2019	2	0	1	1	0	0	0	0
2020	11	4	1	6	4	0	0	4
2021	7	2	0	5	0	0	0	0

Charlemont**Population: 1,266**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5	2	1	2	0	0	0	0
2018	Non-Reporting Community							
2019 ¹³	Fire Department in Good Standing, Certified No Reportable Fires							
2020	1	0	0	1	0	0	0	0
2021	8	5	1	2	0	0	0	0

¹² For the individual towns we are using the figures from the 2020 US Census. For local fire districts we are still using figures from the 2010 US Census until we receive certified figures from the town(s) themselves.

¹³ In 2019 Charlemont reported 27 total incidents.

Colrain							Population: 1,671	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	8	4	1	3	0	0	0	0
2018	14	5	2	7	0	0	0	0
2019	11	4	2	5	0	0	0	0
2020	14	5	1	8	1	0	0	1
2021 ¹⁴	0	0	0	0	0	0	0	0

Conway							Population: 1,897	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	9	7	0	2	0	0	0	0
2018	3	1	1	1	0	0	0	0
2019	8	8	0	0	0	0	0	0
2020	4	4	0	0	0	0	0	0
2021	10	6	0	4	0	0	0	0

DEERFIELD FIRE DISTRICTS							Population: 5,125¹⁵	
Deerfield							Est. Pop. Protected: 2,819	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	1	0	3	0	0	0	0
2018	11	0	6	5	1	0	0	1
2019	4	0	2	2	0	0	0	0
2020	5	1	0	4	1	0	0	1
2021	2	0	0	2	0	0	0	0

South Deerfield							Est. Pop. Protected: 2,306	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	13	4	2	7	3	0	0	3
2018	9	4	1	4	0	0	0	0
2019	19	3	0	16	0	0	0	0
2020	18	3	5	10	0	0	0	0
2021	9	3	1	5	0	0	0	0

¹⁴ In 2021 Colrain reported 71 total incidents.

¹⁵ For the individual towns we are using the figures from the 2020 US Census. For local fire districts we are still using figures from the 2010 US Census until we receive certified figures from the town(s) themselves.

Erving						Population: 1,800		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	6	2	2	2	0	0	0	0
2018	5	3	0	2	0	0	0	0
2019	8	4	1	3	1	0	0	1
2020	8	4	1	3	0	0	0	0
2021	8	5	0	3	0	0	0	0

Gill						Population: 1,500		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	3	0	4	2	0	0	2
2018	8	4	2	2	0	0	0	0
2019	6	2	1	3	0	0	0	0
2020	7	2	3	2	0	0	0	0
2021	9	4	3	2	0	0	0	0

Greenfield						Population: 18,745		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	58	30	6	22	7	2	0	5
2018	57	29	6	22	2	1	0	1
2019	39	22	6	11	2	0	0	2
2020	56	28	6	22	1	1	0	0
2021	54	24	3	27	1	0	0	1

Hawley						Population: 337		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	3	2	0	1	0	0	0	0
2018 ¹⁶	0	0	0	0	0	0	0	0
2019 ¹⁷	Fire Department in Good Standing, Certified No Reportable Fires							
2020	2	1	0	1	0	0	0	0
2021	1	1	0	0	0	0	0	0

¹⁶ In 2018 Hawley did report 23 total incidents.

¹⁷ In 2019 Hawley did report 19 total incidents.

Heath **Population: 706**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	3	2	1	0	0	0	0	0
2018 ¹⁸	0	0	0	0	0	0	0	0
2019	3	3	0	0	0	0	0	0
2020 ¹⁹	Fire Department in Good Standing, Certified No Reportable Fires							
2021 ²⁰	0	0	0	0	0	0	0	0

Leverett **Population: 1,851**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	4	1	2	2	1	0	1
2018	12	4	2	6	2	0	0	2
2019	5	2	0	3	0	0	0	0
2020	3	1	1	1	0	0	0	0
2021	9	3	0	6	3	0	0	3

Leyden **Population: 711**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	4	3	1	0	0	0	0	0
2019	4	2	1	1	0	0	0	0
2020	2	1	0	1	0	0	0	0
2021	Non-Reporting Community							

Monroe **Population: 121**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Non-Reporting Community							
2021	Non-Reporting Community							

¹⁸ In 2018 Heath reported 20 total incidents.¹⁹ In 2020 Heath reported 61 total incidents including 3 mutual aid given fires.²⁰ In 2021 Heath reported 9 total incidents.

MONTAGUE FIRE DISTRICTS**Population: 8,437²¹****Montague Center****Est. Pop. Protected: 2,109**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	14	6	1	7	0	0	0	0
2018	8	4	0	4	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	12	3	1	8	1	0	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
2017	23	15	2	6	1	0	0	1
2018	20	11	1	8	0	0	0	0
2019	18	6	2	10	5	1	0	4
2020	19	7	2	10	3	1	0	2
2021	19	11	2	6	4	2	0	2

New Salem**Population: 990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	6	1	0	5	0	0	0	0
2018	7	3	1	3	0	0	0	0
2019	2	0	1	1	0	0	0	0
2020	6	2	1	3	1	1	0	0
2021	4	2	2	0	0	0	0	0

Northfield**Population: 3,032**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	8	2	1	5	0	0	0	0
2018	10	6	0	4	0	0	0	0
2019	13	6	2	5	0	0	0	0
2020	6	4	2	0	0	0	0	0
2021	12	10	1	1	0	0	0	0

²¹ For the individual towns we are using the figures from the 2020 US Census. For local fire districts we are still using figures from the 2010 US Census until we receive certified figures from the town(s) themselves.

Orange					Population: 7,839			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	22	4	1	17	1	0	0	1
2018	46	24	8	14	0	0	0	0
2019	32	13	6	13	2	0	1	1
2020	36	13	0	23	2	0	0	2
2021	30	13	3	14	1	0	0	1

Rowe					Population: 393			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	Non-Reporting Community							

SHELBURNE FIRE DISTRICTS					Population: 1,893²²			
Shelburne Center					Est. Pop. Protected: 965			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	8	4	2	2	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	7	4	1	2	0	0	0	0
2021	4	1	0	3	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
2017	2	0	0	2	0	0	0	0
2018	3	2	0	1	0	0	0	0
2019	7	1	0	6	1	0	0	1
2020	6	2	1	3	0	0	0	0
2021	3	1	0	3	0	0	0	0

²² For the individual towns we are using the figures from the 2020 US Census. For local fire districts we are still using figures from the 2010 US Census until we receive certified figures from the town(s) themselves.

Shutesbury						Population: 1,771		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	1	0	1	0	0	0	0
2018	4	3	0	1	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	6	3	0	3	0	0	0	0
2021 ²³	0	0	0	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
2017	29	22	0	7	2	1	0	1
2018	32	20	2	10	1	0	0	1
2019	28	18	2	8	1	0	0	1
2020	11	6	2	3	0	0	0	0
2021	11	7	0	4	0	0	0	0

Warwick						Population: 780		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	2	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	4	0	0	4	0	0	0	0
2021	3	3	0	0	0	0	0	0

Wendell						Population: 848		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	3	1	2	0	0	0	0	0
2018	7	5	1	1	1	0	0	1
2019	7	4	0	3	1	0	0	1
2020	6	2	0	4	0	0	0	0
2021	8	5	1	2	0	0	0	0

²³ In 2021 Shutesbury reported 121 total calls.

Whately					Population: 1,496			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	3	0	0	3	0	0	0	0
2018	4	0	1	3	1	0	0	1
2019	1	0	1	0	0	0	0	0
2020	1	0	1	0	0	0	0	0
2021	3	0	0	3	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11013	Ashfield	284	6	0	161	45	44	5	21	2	0
11029	Bernardston	155	31	0	82	17	13	7	3	1	1
11047	Buckland	92	7	0	46	30	2	3	2	2	0
11053	Charlemont	98	10	0	23	34	8	9	13	1	0
11066	Colrain	71	3	0	43	13	7	2	2	0	1
11068	Conway	59	14	0	8	25	4		8	0	0
11975	Deerfield	125	10	0	14	11	19	8	63	0	0
11091	Erving	375	29	0	206	17	85	11	19	6	2
11106	Gill	155	15	0	30	26	37	2	29	16	0
11114	Greenfield	3,094	68	4	1,987	234	218	234	339	4	6
11129	Hawley	42	2	0	25	5	0	1	8	1	0
11130	Heath	9	0	1	6	0	0	1	1	0	0
11154	Leverett	166	11	0	108	14	8	17	7	1	0
11156	Leyden**	0	0	0	0	0	0	0	0	0	0
11190	Monroe**	0	0	0	0	0	0	0	0	0	0
11192	Montague Center	240	13	1	143	21	47	3	12	0	0

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11204	New Salem	133	18	0	76	10	17	8	4	0	0
11217	Northfield	208	12	1	21	34	55	11	64	10	0
11223	Orange	2,565	46	3	1,503	40	431	84	144	16	298
11253	Rowe**	0	0	0	0	0	0	0	0	0	0
11990	Shelburne Center	180	7	0	100	11	20	15	26	1	0
11989	Shelburne Falls	100	4	0	16	22	17	6	33	1	1
11272	Shutesbury	121	10	0	84	4	5	11	6	1	0
11976	South Deerfield	213	24	2	22	33	14	41	76	1	0
11289	Sunderland	140	15	1	21	16	11	8	66	2	0
11984	Turners Falls	1,531	38	1	1,088	42	94	120	122	8	18
11312	Warwick	110	7	0	69	9	17		3	5	0
11319	Wendell	106	9	0	63	13	6	3	12	0	0
11337	Whately	51	8	3	14	10	5	5	4	1	1
Total	Franklin County	10,423	417	17	5,959	736	1,184	615	1,087	80	328

* Certified no reportable fires.

**Non reporting department.

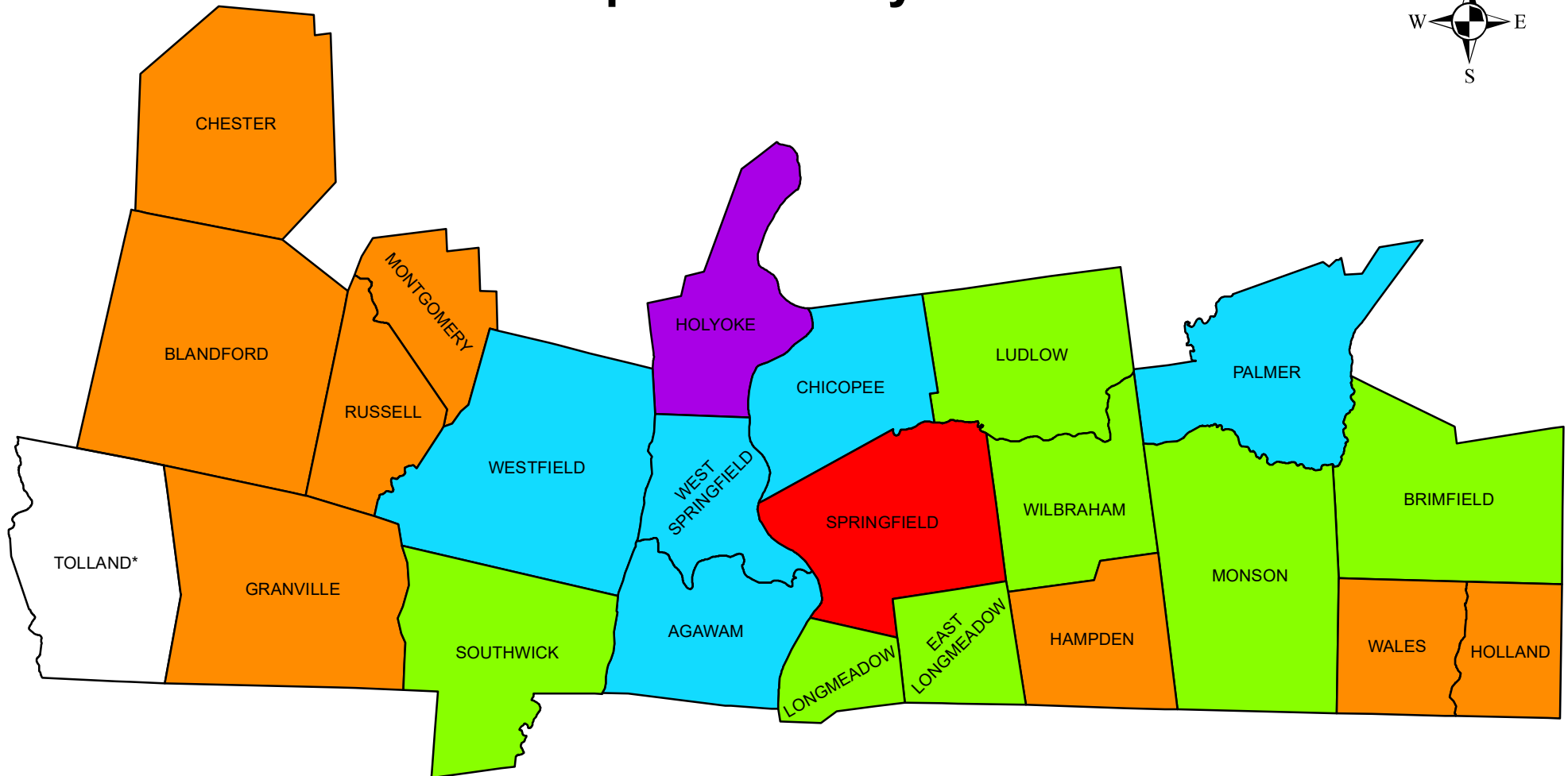
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that want to send all of their responses to do so.



Hampden County

2021 Fire Data Analysis

Hampden County Fires 2021

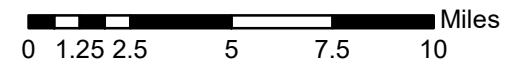


2021 Fires



MFIRS
Massachusetts Fire Incident Reporting System

*Non-reporting Department



Massachusetts Fire Incident Reporting System 2021

Hampden County Fires in 2021

1,504 Total Fires — 787 Structures, 236 Vehicles & 481 Other Fires

Hampden County ranked eighth out of the fourteen Massachusetts counties in total reported fires. Hampden County fire departments reported 1,504 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 787 structure fires, 236 motor vehicle fires, 264 brush, tree or lawn fires, 93 outside rubbish fires, 32 special outside fires, and 92 other fires caused five civilian fire deaths, 22 civilian injuries, 45 fire service injuries and an estimated dollar loss of \$42.8 million¹. Hampden County's 1,504 fires accounted for 6% of the 25,368 fire incidents reported to MFIRS in 2021.

Twenty-four (24), or 96%, of the 25 of the fire departments in Hampden County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2021.

All Fires Down

The total number of reported fire incidents decreased by 414 from the 1,918 reported in 2020. Reported structure fires decreased by 106 from the 893 reported during the previous year. Motor vehicle fires increased by 40 from the 196 reported during 2020. Outside and other fires decreased by 348 from the 829 reported the year before.²

HAMPDEN COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1,652	947	224	481	60	18	11	31
2018	1,548	915	217	416	78	28	13	37
2019	1,624	901	255	468	71	27	21	31
2020	1,918	893	196	829	150	45	14	91
2021	1,504	787	236	481	99	28	19	52

Fire and Fire Death Rates

Hampden County had 3.2 fires per 1,000 population. That figure ranks Hampden County ninth in the state and below the state rate of 3.6 fires per 1,000 population. Hampden County also had 0.11 fire deaths per 10,000 population ranking it fourth among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

5 People Died in 5 Hampden County Fires

In 2021, Hampden County had five fatal fires that killed five people.

- On January 18, 2021, at 4:31 a.m., the Agawam Fire Department was called to a fatal smoking fire in a single-family home. The fire was caused by the victim smoking a cigarette in bed while on home oxygen. No one else was injured at this fire. There

¹ \$30 million, or 70% of county's total dollar loss, was from the county's largest loss fire in Longmeadow.

² 2021 was another down year for brush fires throughout the state.

were no alarms present. The home did not have sprinklers. Damages from this fire were estimated to be \$30,000.

- On February 28, 2021, at 10:11 p.m., the Holyoke Fire Department was called to a fatal motor vehicle crash with ensuing fire. There was one adult victim. No one else was injured at this fire. Damages from this fire were not estimated.
- On May 23, 2021, at 12:28 a.m., the Springfield Fire Department was dispatched to a fire in a single-family home of undetermined cause. There was one adult fatality. They were asleep and trapped above the fire. No one else was injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from this fire were estimated to be \$70,000.
- On May 24, 2021, at 5:44 a.m., the Bondsville Fire Department was called to a fatal smoking fire in a two-family home. The fire was caused by improper disposal of a cigarette into light vegetation. The victim was trapped above the fire. No one else was injured at this fire. Alarms were present and operated. Sprinklers were not present. Damages from this fire were estimated to be \$235,000.
- On September 9, 2021, at 12:03 a.m., the Chicopee Fire Department was called to a fatal smoking fire in a single-family home (trailer). A cigarette ignited an upholstered piece of furniture. One (1) firefighter was injured at this fire. The home did not have any alarms. Sprinklers were not present in the home. Damages were estimated to be \$45,000.

1 Person Died in 1 Hampden County Explosion

In 2021, Hampden County had one fatal explosion that killed one person.

- On June 22, 2021 at 10:44 p.m., the adult victim was walking along Foster St. and banging an oxygen cylinder on the ground near his car until it exploded. No one else was injured at this explosion. Damages from this explosion were not estimated.

Longmeadow Had Largest Loss Fire in Hampden County

There was one reported large loss fire in Hampden County in 2021 with a dollar greater than \$1 million. This fire accounted for a dollar loss of \$30 million and 70% of the county's total dollar loss for 2021.

- On November 23, 2021, at 6:16 a.m., the Longmeadow Fire Department was dispatched to a fire at a strip mall that housed six businesses at 909 Shaker Rd. The fire was believed to have started somewhere in the attic. One (1) firefighter was injured at this fire. The building did not have alarms or sprinklers. Damages from this fire were estimated to be \$30 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 787 structure fires caused four civilian deaths, 19 civilian injuries, 37 fire service injuries and an estimated dollar loss of \$40.8 million. These incidents represented 52% of

Hampden County's reported fires in 2021. The average estimated dollar loss per structure fire was \$51,782. The total number of reported structure fires decreased by 106, or 12%, from the 893 reported in 2020.

Arson Caused 4% of Structure Fires

The 28 structure arsons caused one civilian injury and an estimated dollar loss of \$276,750. Arson was indicated as the cause of 4% of the structure fires and 1% of Hampden County's structure fire dollar loss. The 28 structure arsons accounted for 28% of the Hampden County arson fires reported in 2021. The total number of reported structure arsons decreased by 17, or 38%, from the 45 reported in 2020.

50% of Structure Arsons Occurred in Residences

Fifty percent (50%) of Hampden County's 28 structure arsons occurred in residential occupancies. Fourteen percent (14%) occurred each in educational facilities and special properties. Eleven percent (11%) occurred in mercantile or business properties. Four percent (4%) each occurred in public assembly properties, storage facilities and manufacturing or processing facilities.

BUILDING FIRES

There were 784 building fires of different types in Hampden County in 2021. These 784 building fires accounted for 99.6% of all structure fires in Hampden County.

81% of Hampden Building Fires Occurred in People's Homes

Six hundred and thirty-three (633), or 81%, of Hampden County's 784 building fires occurred in residential occupancies. Mercantile and business properties experienced 40 fires. Special properties had 28 fires. Twenty-five (25) fires took place in public assembly properties, including restaurants and churches. Twenty (20) fires took place in storage properties. Hospitals, prisons, and other institutional buildings experienced 14 fires. Twelve (12) fires took place in manufacturing and processing facilities. Ten (10) building fires took place in educational properties. and two fires happened at an industrial facility.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 633 reported residential building fires in Hampden County in 2021. These 633 fires are a decrease of 70, or 10%, from the 703 residential building fires reported in 2020.

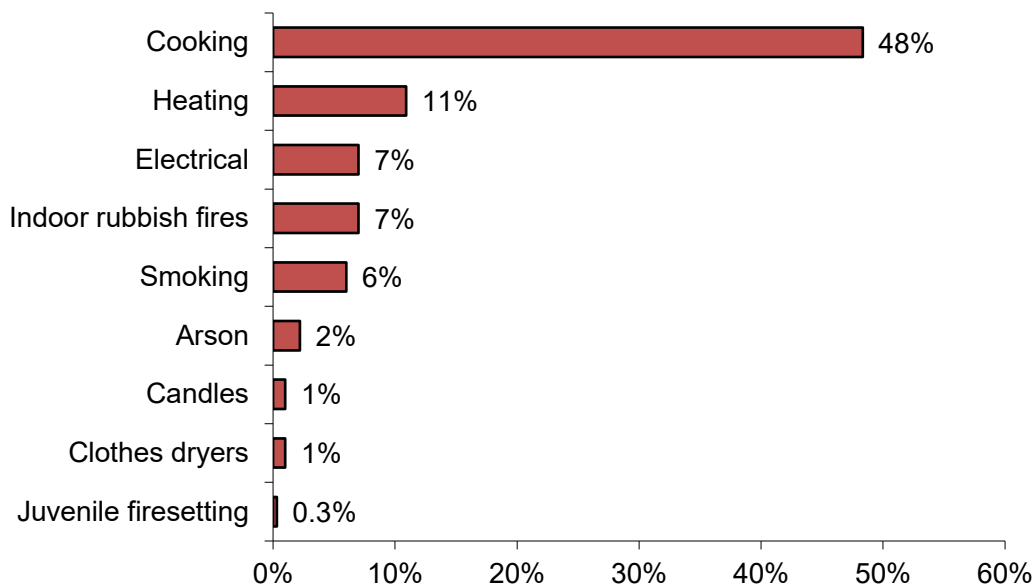
1 & 2-Family Homes Accounted for 52% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 52%, of the building fires in Hampden County; 39% occurred in apartments; 2% happened in dormitories; 1% occurred in rooming houses; 1% happened in residential board and care facilities; and 1% happened in hotels or motels;. Twenty-seven (27), or 4%, of the residential building fires in Hampden County occurred in unclassified residential buildings.

Cooking Causes 48% of Residential Fires

The leading cause of residential building fires in Hampden County was unattended cooking and other unsafe cooking practices, accounting for 48% of these fires. Heating was the second leading cause of fires in people's homes, accounting for 11% of these fires. Electrical problems and indoor rubbish fires each caused 6%. Smoking started 5% of these fires. Arson caused 2%. Candles and clothes dryers each caused 1%; and juvenile-set fires caused less than 1% of residential fires in Hampden County in 2021.

2021 Leading Causes of Fires in Hampden County Homes



59% of Residential Building Fires Are Confined to Non-Combustible Containers³

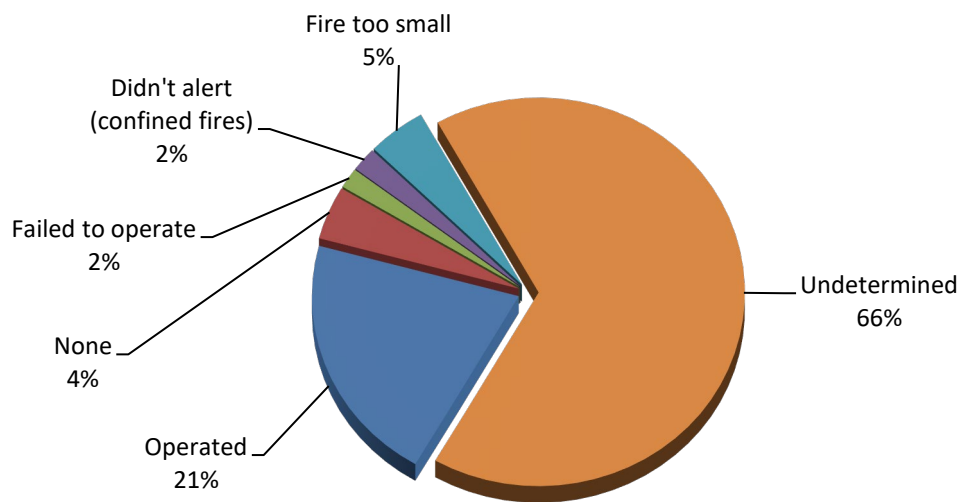
Three hundred and seventy-four (374), or 59% of all residential building fires, were reported as confined to non-combustible containers in 2021. Two hundred and seventy-one (271) of the reported fires were cooking fires contained to a non-combustible container, accounting for 43% of residential building fires. Forty-three (43), or 7%, of these fires were contained rubbish fires. Thirty-five (35), or 6%, of all residential building fires reported in 2021 were fires confined to a chimney. Twenty-five (25), or 4%, were fires confined to a fuel burner or boiler malfunction.

³ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore, the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing to Ignition, Cause of Ignition, and Equipment Involved in Ignition. These incidents are not included in the analysis of these fields.

Detector Operation Undetermined in 66% of Fires

Smoke or heat detectors operated and alerted the occupants in 136, or 21%, of the residential building fires. In 2% of these fires⁴, the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 5% of the residential fires. Smoke detector performance was undetermined in 434 incidents, or 66%, of Hampden County's residential building fires.

Detector Status in Hampden County's Residential Structure Fires 2021



45% of Failed Detectors Had Dead or Missing Batteries

Of the 11 fires where smoke detectors were present but failed to operate, three, or 27%, failed because of dead batteries; and two, or 18%, failed because of missing batteries, and. Six (6), or 55%, of the detectors failed for unclassified or undetermined reasons.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Hampden County reported 18 fires that occurred in buildings that were vacant, under construction or demolition. This represents 2% of the total 784 building fires reported to MFIRS in 2021. Twelve (12) fires occurred in vacant residential properties. Storage facilities and educational properties each accounted for two vacant building fires. Manufacturing or processing facilities and special properties each had one vacant fire.

⁴ These represent confined fires where it was reported that the detector did not alert the occupants.

Two (2), or 11%, of the vacant building fires in Hampden County in 2021 were determined to be intentionally-set. Both of these occurred in educational properties.

JUVENILE-SET FIRES

7 Juvenile-set Fires

There were seven reported juvenile-set fires in Hampden County in 2021. The four structure fires, one brush fire and two unclassified fires caused an estimated dollar loss of \$3,000.

ARSONS

99 Total Arsons — 28 Structures, 19 Vehicles & 52 Other Arsons

Ninety-nine (99), or 7%, of Hampden County's 1,504 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 28 structure arsons, 19 motor vehicle arsons and 52 outside and other arsons caused one civilian injury and an estimated dollar loss of \$440,750.

All Arson Down

The total number of reported arson fires decreased by 51 from the 150 reported in 2020. Structure arsons decreased by 17 from the 45 reported in 2020. Motor vehicle arsons increased by five from the 14 reported in 2020. Outside and other fires decreased by 39 from the 91 reported in 2020.

ALL INCIDENTS

Rescue & EMS Calls Are 61% of All Reported Responses

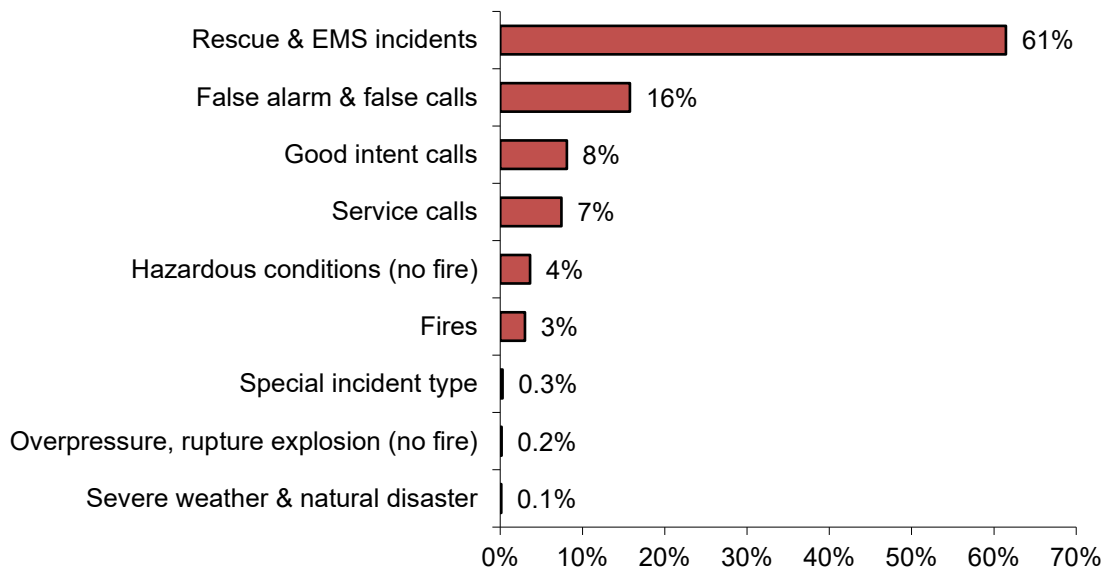
In 2021, fire departments in Hampden County reported 55,625 responses⁵ to MFIRS. Of these 55,625 incidents, 53,959 non-fire calls were voluntarily reported.

Of these 53,959 non-fire calls, 34,193, or 61% of all reported responses in 2021 were reported rescue and emergency medical services (EMS) calls; 8,777, or 16%, were reported false alarm or false calls; 4,499, or 8%, were reported good intent calls; 4,141, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 2,027, or 4%, were reported hazardous condition calls with no fire; 161, or 0.3%, were special incident type calls such as citizen complaints; 85, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 76, or 0.1%, were severe weather responses.

One thousand six hundred and sixty-six (1,666), or 3%, of the total responses submitted by Hampden County fire departments were fires.

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

2021 Responses by Incident Type



Hampden County Fire Departments Gave Mutual Aid 918 Times

In 2021, Hampden County fire departments reported coming to the aid of other fire departments 918 times. Of these 918 responses, 506, or 55%, were for rescue or EMS calls; 161, or 18%, were for fires; 112 or 12%, were for service calls such as cover assignments; 108, or 12%, were for good intent calls; 19, or 2%, were for false alarms or false calls; eight, or 1%, were for hazardous conditions calls with no fire; three, or 0.3%, were special incident types; and one, or 0.1%, was an overpressure, rupture explosion with no fire call.

Hampden County Received Mutual Aid in 1,083 Incidents

In 2021, Hampden County fire departments reported receiving aid from surrounding departments in 1,083 incidents. Of these 1,083 incidents, 929, or 86%, were rescue and emergency medical services calls; 90, or 8%, were for fires; 19, or 2%, were good intent calls; 15, or 1%, were hazardous conditions calls with no fire; 13, or 1%, were false alarms or false calls; 12, or 1%, were service calls; two, or 0.2%, were overpressure, rupture explosion with no fire calls; two, or 0.2%, were special incident types; and one, or 0.1%, was for a severe weather call.

Hampden County**Population: 486,825⁶****3.3 Fires/1,000 Population**

Total Fires: 1,504 \$40,752,086

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	787	52%	\$40,752,086
Vehicle Fires	236	16%	1,293,522
Other Fires	481	32%	705,890

5 Fatal Fires 3.32 Civilian Deaths/1,000 Fires
 5 Civilian Deaths 0.11 Civilian Deaths/10,000 Population
 22 Civilian Injuries 45 Fire Service Injuries

Building Fires: 784

Residential Structure Fires: 633

Residential Structure Fires Confined to Non-Combustible Containers: 374

Unconfined Residential Structure Fires: 259

4 Civilian Deaths 17 Civilian Injuries 31 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	329	52%	Operated	136	21%
Apartments	247	39%	Didn't operate	11	2%
Dormitories	10	1%	None	29	4%
Rooming houses	8	1%	Fire too small	30	5%
Hotels or motels	6	1%	Didn't alert (confined)	13	4%
Residential board & care	6	1%	Undetermined	434	66%

Area of Origin⁷	%	Heat Source	%	% Unconfined⁸
Kitchen	51%	Rad., cond. heat/oper. eq.	5%	13%
Chimney, flue	6%	Arcing	5%	11%
Bedroom	5%	Cigarette	3%	7%
Heating room or area	4%	Heat from operating equip.	3%	7%
Exterior balcony, unencl. porch	3%			

⁶ We used the 2020 US Census figures because the 2020 Census figures.

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

⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	%Unconfined¹⁰
Food, cooking materials	47%	Equipment unattended	14%	34%
Rubbish, trash, waste	8%	Abandoned materials	5%	13%
Film, residue (creosote)	6%	Misuse of mat./prod. other	5%	11%
Flammable or combust. liquid	4%	Too close to combustibles	4%	10%
Structural component, finish	3%	Failure to clean	4%	10%

Equipment¹¹	%	Cause of Ignition	%	%Unconfined¹²
Cooking equipment	48%	Unintentional	15%	58%
None	26%	Failure of eq./heat source	3%	11%
Chimney or flue	6%	Intentional	1%	3%
Boiler, furnace, cent. heat unit	4%	Act of Nature	0.3%	1%
Electrical wiring, other	1%	Undetermined	3%	10%
		Cause under investigation	4%	16%

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

Alerted occupants	8%
Didn't alert occupants	3%
Undetermined	89%

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

¹⁰ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	93	56	11	26
February	87	56	20	11
March	166	69	11	86
April	184	74	28	82
May	160	63	22	75
June	124	53	21	50
July	117	77	19	21
August	112	55	25	32
September	91	50	22	19
October	107	62	20	25
November	149	92	20	37
December	114	80	17	17

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	240	121	33	86
Monday	189	101	27	61
Tuesday	188	91	39	58
Wednesday	267	120	28	119
Thursday	200	104	34	62
Friday	202	119	32	51
Saturday	232	124	31	77

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	134	87	23	24
04:01 – 08:00	112	59	20	33
08:01 – 12:00	257	151	32	74
12:01 – 16:00	387	172	61	154
16:01 – 20:00	395	201	59	135
20:01 – 00:00	219	117	41	61

Motor Vehicle Fires

Total: 1

Automobiles: 198 (84%)

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

Arson Fires

Total Arsons: 99

Dollar loss: \$440,750

0.21 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	28	4%	28%	\$276,750
Vehicle Arsons	19	8%	19%	163,000
Other Arsons	52	11%	53%	1,000

0.06 Structure arsons/1,000 population

0.04 Vehicle arsons/1,000 population

0.11 Other arsons/1,000 population

1 Civilian Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	8	29%	00:01 - 04:00	8	42%
20:01 - 00:00	6	21%	20:01 - 00:00	4	21%
08:01 - 12:00	5	18%	16:01 - 20:00	3	16%
12:01 - 15:00	5	18%	04:01 - 08:00	2	11%

Other Arsons	#	%
16:00 - 20:00	18	35%
08:01 - 12:00	11	21%
20:01 - 00:00	9	17%
12:01 - 16:00	7	13%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	7	25%
Apartment buildings	5	18%
Outside or special property, other	3	11%

Agawam **Population: 28,692**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	83	30	11	42	1	0	0	1
2018	66	33	12	21	0	0	0	0
2019	56	30	8	18	0	0	0	0
2020	93	35	7	51	5	0	0	5
2021	66	27	9	30	5	0	1	4

Blandford **Population: 1,215**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	2	0	0	0	0	0	0
2018	12	6	4	2	1	0	0	1
2019	10	3	4	3	1	0	0	1
2020	5	2	0	3	0	0	0	0
2021	14	8	3	3	2	1	0	1

Brimfield **Population: 3,694**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	2	1	1	0	0	0	0
2018	12	6	3	3	0	0	0	0
2019	10	5	3	2	1	1	0	0
2020	19	10	1	8	0	0	0	0
2021	16	10	4	2	0	0	0	0

Chester **Population: 1,228**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	2	0	0	0	0	0	0
2018	5	4	1	0	0	0	0	0
2019	6	4	1	1	0	0	0	0
2020	2	0	0	2	0	0	0	0
2021	11	8	1	2	0	0	0	0

Chicopee **Population: 55,560**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	183	93	22	68	2	1	1	0
2018	160	80	25	55	3	1	2	0
2019	168	84	28	56	2	0	2	0
2020	168	81	19	68	15	4	0	11
2021	124	63	25	36	7	2	1	4

East Longmeadow **Population: 16,430**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	43	22	5	16	1	0	0	1
2018	28	19	1	8	1	0	0	1
2019	26	11	5	10	2	0	1	1
2020	22	12	0	10	1	0	0	1
2021	30	18	3	9	0	0	0	0

Granville **Population: 1,538**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5	3	0	2	0	0	0	0
2018	10	8	2	0	0	0	0	0
2019	9	3	4	2	1	0	1	0
2020	1	0	1	0	0	0	0	0
2021	12	4	0	8	0	0	0	0

Hampden **Population: 4,966**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	50	32	1	17	0	0	0	0
2018	40	28	0	12	0	0	0	0
2019	38	18	1	19	0	0	0	0
2020	44	15	0	29	5	0	0	5
2021	12	2	2	8	1	0	0	1

Holland**Population: 2,603**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	10	5	1	4	0	0	0	0
2018	11	9	2	0	0	0	0	0
2019	5	2	1	2	0	0	0	0
2020	9	0	1	8	1	0	0	1
2021	8	4	0	4	0	0	0	0

Holyoke**Population: 38,238**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	335	227	27	81	16	5	1	10
2018	301	211	25	65	15	5	3	7
2019	336	246	32	58	8	2	2	4
2020	331	214	27	90	20	5	2	13
2021	268	189	30	49	9	2	2	5

Longmeadow**Population: 15,853**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	24	12	9	3	1	0	0	1
2018	32	12	8	12	1	0	0	1
2019	26	19	2	5	0	0	0	0
2020	38	17	4	17	1	0	0	1
2021	24	13	2	9	0	0	0	0

Ludlow**Population: 21,002**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	58	33	8	17	0	0	0	0
2018	57	29	12	16	0	0	0	0
2019	48	30	8	10	1	0	0	1
2020	53	26	7	20	1	0	0	1
2021	42	21	6	15	1	0	0	1

Monson							Population: 8,150	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	25	13	5	7	5	0	1	4
2018	26	14	3	9	2	0	0	2
2019	1	0	0	1	0	0	0	0
2020	24	8	4	12	7	0	0	7
2021	27	11	2	14	1	0	0	1

Montgomery							Population: 819	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	1	0	0	0	0	0	0
2018	2	2	0	0	0	0	0	0
2019	3	3	0	0	0	0	0	0
2020	6	1	0	5	1	0	0	1
2021	6	2	2	2	0	0	0	0

Town of Palmer Fire Districts							Population: 12,448¹³	
Bondsville							Est. Pop. Protected: 2,792	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	1	0	3	1	0	0	1
2018	4	3	0	1	0	0	0	0
2019	7	3	1	3	1	0	0	1
2020	7	3	0	4	0	0	0	0
2021	8	4	1	3	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
2017	28	10	11	7	1	0	0	1
2018	35	16	8	11	0	0	0	0
2019	32	8	15	9	2	1	1	0
2020	34	19	3	12	0	0	0	0
2021	37	13	9	15	0	0	0	0

¹³ The population for the Town of Palmer is from the 2020 US Census. However the populations for the fire districts are still from the 2010 US Census because the new values were not available at the time this report was written.

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	6	4	0	2	1	1	0	0
2018	11	5	4	2	0	0	0	0
2019	7	6	0	1	0	0	0	0
2020	12	5	2	5	0	0	0	0
2021	13	5	1	7	2	0	0	2

Russell**Population: 1,643**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	11	5	1	5	0	0	0	0
2018	6	2	1	3	0	0	0	0
2019	2	1	0	1	1	0	0	1
2020	8	2	0	6	2	0	0	2
2021	10	5	1	4	0	0	0	0

Southwick**Population: 9,232**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	27	14	5	8	3	1	0	2
2018	31	18	2	11	3	1	0	2
2019	33	12	3	18	1	0	0	1
2020	67	20	1	46	17	3	0	14
2021	48	21	3	24	8	2	0	6

Springfield**Population: 155,929**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	503	314	76	113	20	8	7	5
2018	483	296	72	115	42	20	5	17
2019	499	267	91	141	47	17	14	16
2020	640	283	80	277	63	31	11	21
2021	473	239	86	148	49	19	13	17

Tolland**Population: 471**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	Non-Reporting Community							
2020	Non-Reporting Community							
2021	Non-Reporting Community							

Wales**Population: 1,832**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	9	6	0	3	0	0	0	0
2018	3	2	0	1	0	0	0	0
2019	4	2	1	1	0	0	0	0
2020	6	3	2	1	0	0	0	0
2021	5	3	0	2	0	0	0	0

West Springfield**Population: 28,835**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	90	44	19	27	7	2	0	5
2018	93	44	14	35	7	1	3	3
2019	113	57	23	33	0	0	0	0
2020	167	68	20	79	8	1	1	6
2021	119	53	24	42	10	1	1	8

Westfield**Population: 40,834**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	103	47	17	39	1	0	0	1
2018	72	39	10	23	3	0	0	3
2019	110	50	18	42	3	1	0	2
2020	108	40	16	52	1	1	0	0
2021	93	38	21	34	3	1	1	1

Wilbraham							Population: 14,613	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	37	19	3	15	1	0	1	0
2018	47	27	8	12	0	0	0	0
2019	35	21	1	13	1	1	0	0
2020	51	28	1	22	2	0	0	2
2021	39	27	1	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
13005	Agawam	2,728	72	4	1,612	67	506	115	330	4	18
13033	Blandford	125	18	0	72	14	6	5	9	1	0
13987	Bondsville	140	26	0	34	6	13	21	39	0	1
13043	Brimfield	337	35	0	197	13	18	29	41	4	0
13059	Chester	139	19	0	92	9	4	6	7	1	1
13061	Chicopee	5,956	126	7	3,137	170	862	530	1,087	17	20
13085	East Longmeadow	3,826	33	0	3,043	52	222	190	283	3	0
13112	Granville	139	12	0	88	7	12	9	10	1	0
13120	Hampden	569	19	0	412	27	27	15	63	2	4
13135	Holland	206	16	1	123	14	19	19	14	0	0
13137	Holyoke	4,188	271	5	1,300	131	285	1,098	1,093	0	5
13159	Longmeadow	2,599	30	3	1,828	84	174	121	344	14	1
13161	Ludlow	4,105	48	2	3,531	73	96	116	236	1	2
13191	Monson	142	31	0	14	24	16	13	44	0	0
13194	Montgomery	74	9	0	60	2	1	0	0	0	2
13986	Palmer	677	58	7	282	48	77	68	134	3	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	77	19	1	35	9	2	2	9	0	0
13279	Southwick	345	50	0	58	31	77	27	80	8	14
13281	Springfield	13,889	486	45	6,988	896	871	1,221	3,321	7	54
13988	Three Rivers	236	27	1	83	18	31	47	28	1	0
13297	Tolland**	0	0	0	0	0	0	0	0	0	0
13306	Wales	151	10	0	99	5	9	10	18	0	0
13325	West Springfield	8,526	123	4	7,242	137	207	216	569	4	24
13329	Westfield	3,097	95	3	1,486	119	343	359	679	2	11
13339	Wilbraham	3,374	53	2	2,377	71	263	262	339	3	4
Hampden County		55,645	1,686	85	34,193	2,027	4,141	4,499	8,777	76	161

* Certified no reportable fires.

**Non reporting department.

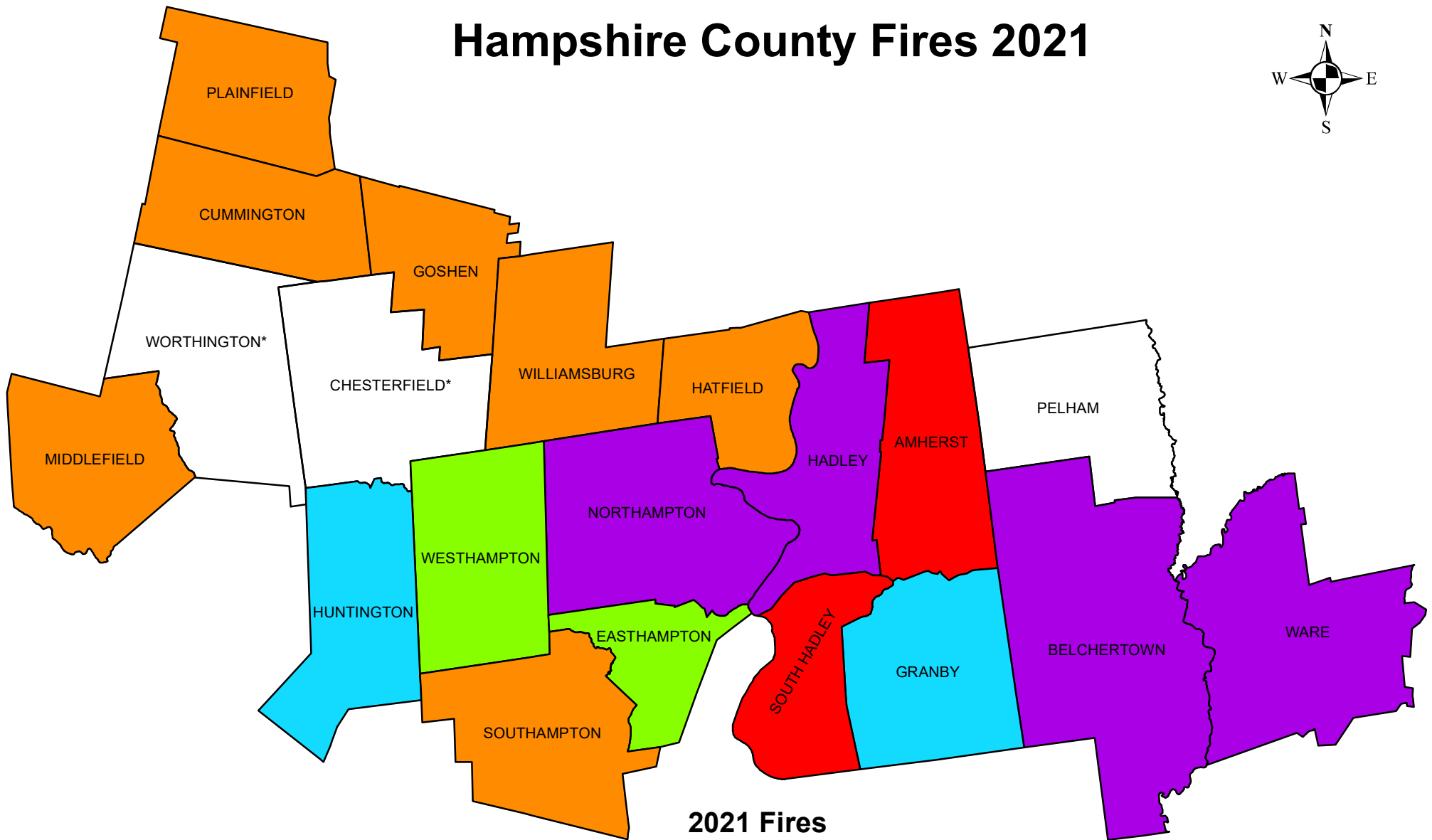
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



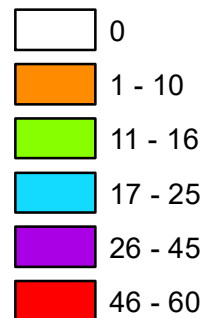
Hampshire County

2021 Fire Data Analysis

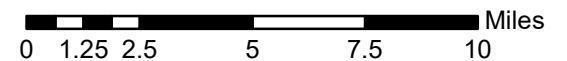
Hampshire County Fires 2021



2021 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2021

Hampshire County Fires in 2021

376 Total Fires — 170 Structures, 42 Vehicles & 164 Other Fires

Hampshire County ranked eleventh out of the fourteen Massachusetts counties in total reported fires. Hampshire County fire departments reported 376 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 170 structure fires, 42 motor vehicle fires, 87 brush, tree or lawn fires, 27 outside rubbish fires, 14 special outside fires, two cultivated vegetation or crop fires, and 34 other fires caused one civilian death, three civilian injuries, three fire service injuries and an estimated dollar loss of \$2 million. Hampshire County's 376 total reported fires accounted for 1% of the 25,368 fires reported to MFIRS in 2021.

Nineteen (19) of the 21 fire departments in Hampshire County, or 90%, either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2021.

Structure Fires Up

The total number of reported fire incidents decreased by 36 from the 412 reported in 2020. Reported structure fires increased by 32 from the 138 reported during the previous year. Motor vehicle fires decreased by 17 from 59 the year before. The number of outside and other fires decreased by 51 from 215 in 2020.¹

HAMPSHIRE COUNTY FIRES FROM 2017 TO 2021

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
Year	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	400	204	41	155	26	6	1	19
2018	358	182	54	122	23	2	1	20
2019	400	194	53	153	18	4	2	12
2020	412	138	59	215	38	6	3	29
2021	376	170	42	164	39	10	1	28

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 3.6 fires per 1,000 population. Hampshire County also had 0.06 fire deaths per 10,000 population, ranking it seventh among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

Hampshire County Had 1 Fire Death in 2021

There was one fatal fire reported in Hampshire County in 2021. This fatal fire caused one death.

- On March 19, 2021, at 7:20 p.m., the Ware Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire originated in a substructure area. The most likely causes were either the careless disposal of smoking material or

¹ 2021 was another down year statewide for all brush fires.

a candle. There was one adult fatality. 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 blaze were not estimated.

Northampton Has County's Largest Loss Fire

There was no reported fires in Hampshire County with a dollar loss greater than \$1 million in 2021. There were seven fires with a dollar loss between \$100,000 and \$999,999. These seven fires accounted for \$1.6 million in estimated damages, or 79%, of Hampshire County's total dollar loss. The largest loss fire was reported by Northampton.

- On June 7, 2021, at 5:23 p.m., the Northampton Fire Department was dispatched to a fire of undetermined cause at a day spa. The fire originated on an exterior balcony. One (1) firefighter was injured at this fire. Alarms were present and operated. The building did have a sprinkler system. Damages from this fire were estimated to be \$500,000.

STRUCTURE FIRES

Reported Structure Fires Up

The 170 structure fires caused one civilian death, three civilian injuries, three fire service injuries and an estimated dollar loss of \$2 million. These incidents represent 45% of Hampshire County's reported fires in 2021. The average estimated dollar loss per structure fire was \$11,646. The total number of reported structure fires increased by 32, or 23%, from the 138 reported in 2020.

10 Structure Arsons

There were 10 structure arsons reported in 2021. Arson was indicated as the cause of 6% of the structure fires and 0.1% of Hampshire County's structure fire dollar loss. The 10 structure arsons accounted for 26% of the Hampshire County arson fires reported in 2021. The total number of reported structure arsons increased by four, or 67%, from the six reported in 2020.

BUILDING FIRES

There were 168 building fires of different types in Hampshire County in 2021. These 168 building fires accounted for 98.8% of the structure fires in Hampshire County.

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

One hundred and forty (140), or 83%, of Hampshire County's 168 building fires occurred in residential occupancies. Mercantile and business properties had eight fires. Special properties had six fires. Four (4) fires took place in public assembly properties, including restaurants and churches. Institutional facilities and industrial facilities each had three fires. Storage facilities and educational facilities each experienced two fires in Hampshire County in 2021.

RESIDENTIAL FIRES

Residential Building Up

There were 140 reported residential building fires in Hampshire County in 2021. This is an increase of 23, or 20%, from the 117 reported in 2020.

1- & 2-Family Homes Accounted for 67% of Residential Building Fires

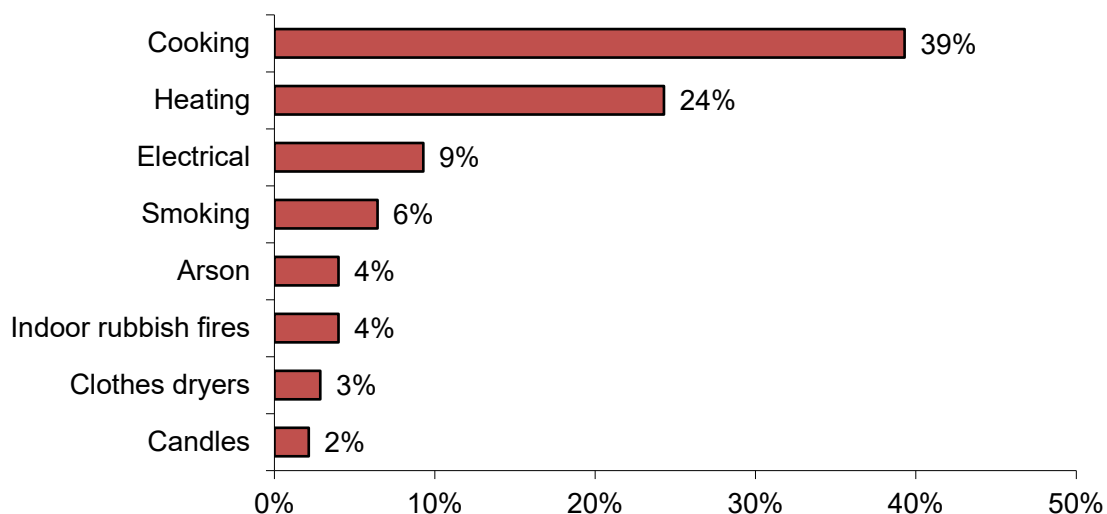
The peak fixed property use for residential building fires were 1- & 2-family homes, accounting for 67% of the residential building fires in Hampshire County; 24% occurred in apartments; and 5% occurred in dormitories. One percent (1%) each occurred in rooming houses and hotels or motels; and 3% happened in unclassified residences in Hampshire County.

Although much of Hampshire County is rural, the county is home to several colleges and the main campus of the University of Massachusetts. Seven (7), or 5%, of Hampshire County's residential fires occurred in dormitories. Dormitory fires make up smaller percentages of the other counties' fires.

Cooking Causes 39% of Residential Fires

Unattended cooking and other unsafe cooking practices was the leading cause of the 140 residential building fires in Hampshire County, accounting for 39% of these fires. Heating equipment fires accounted for 24% of home fires. Electrical problems caused 9% of the residential fires. Smoking fires were responsible for 6% of these fires. Arson and indoor rubbish fires each accounted for 4%. Clothes dryers accounted for 3%, and candles caused 2% of the residential fires in Hampshire County in 2021.

2021 Leading Causes of Fires in Hampshire County Homes



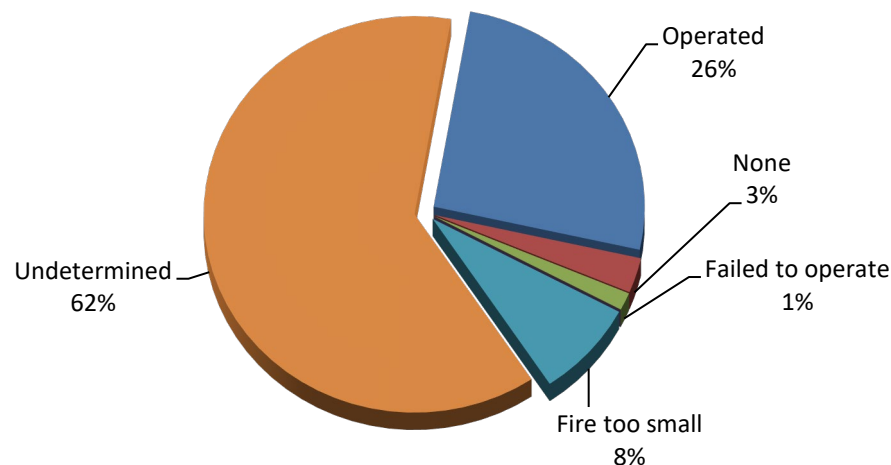
59% of Residential Building Fires Are Confined to Non-Combustible Containers²

Eighty-three (83), or 59%, of all residential building fires were reported as confined to non-combustible containers in 2021. Forty-eight (48) of the reported fires were cooking fires contained to a non-combustible container, accounting for 34% of residential building fires. Twenty (20), or 14%, of all residential building fires reported in 2021 were fires confined to a chimney. Nine (9), or 6%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 4%, of these fires were indoor rubbish fires contained to a non-combustible container; and one, or 1%, was a confined incinerator fire in Hampshire County in 2021.

Alarms Operated in Only 26% of Fires

Smoke or heat alarms operated and alerted the occupants in 36, or 26%, of the residential building fires. There were no reported fires³, where the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 8% of the residential fires. Smoke detector performance was undetermined in 87 incidents, or 62%, of Hampshire County's residential building fires.

Detector Status in Hampshire County's Residential Structure Fires 2021



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

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

2 Detectors Failed

Two (2) detectors failed in Hampshire County in 2021. One failed because of a power failure shutoff or disconnect; and the reason the other one failed was undetermined.

VACANT BUILDINGS**5 Building Fires Occurred in Vacant Buildings**

Hampshire County reported five fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the 168 building fires reported to MFIRS in 2021. Four (4) residential properties and a special property had a reported fire in a vacant building.

None of the vacant building fires in Hampshire County in 2021 were determined to be intentionally-set.

JUVENILE-SET FIRES**4 Juvenile-set Fires**

There were four reported juvenile-set fires in Hampshire County in 2021. Two were outside rubbish fires, and two were unclassified fires.

ARSONS**39 Total Arsons — 10 Structure, 1 Motor Vehicle & 28 Other Arsons**

Thirty-nine (39), or 10%, of Hampshire County's 376 fires were intentionally-set, or, for purposes of this analysis, arson. The 10 structure arsons, one motor vehicle arson, nine brush arsons, eight outside rubbish arsons, three special outside arsons, one cultivated vegetation or crop arson, and seven unclassified arsons caused an estimated dollar loss of \$1,025.

Structure Arsons Up Slightly

The total number of reported arson fires increased by one from the 38 reported in 2020. Structure arsons increased by four from six reported the previous year. Motor vehicle arsons decreased by two from three in 2020. Reported outside and other arsons decreased by one from the 29 reported in 2020.

ALL INCIDENTS**Rescue & EMS Calls Are 71% of All Reported Responses**

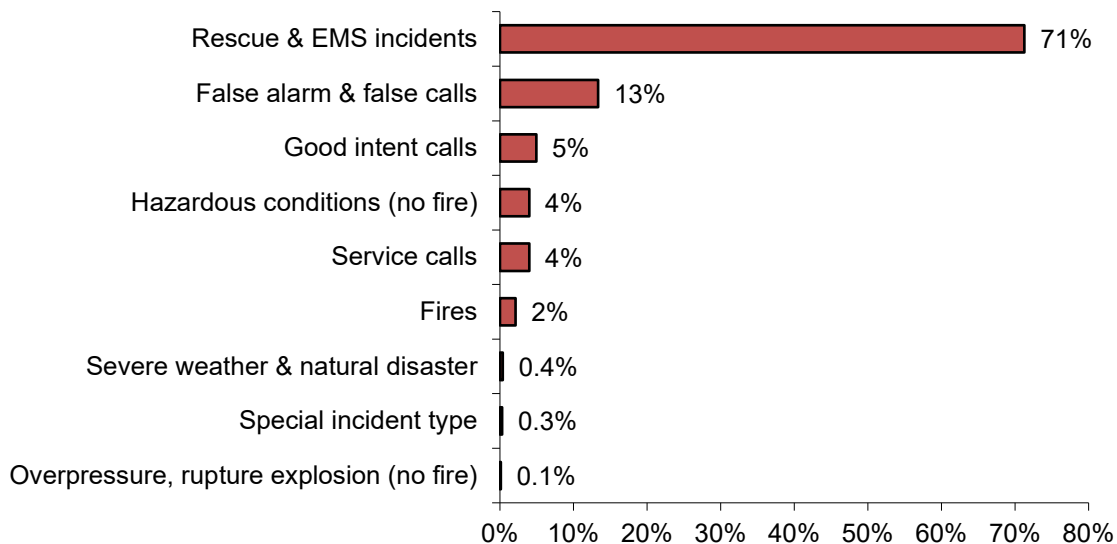
In 2021, Hampshire County fire departments reported 22,601 responses⁴ to MFIRS. Of these 22,601 incidents, 22,124 non-fire calls were voluntarily reported.

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

Of these 22,124 non-fire calls, 16,111, or 71%, of all the responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 3,012, or 13%, were reported false alarm or false calls; 1,118, or 5%, were reported good intent calls; 863, or 4%, were reported hazardous condition calls with no fire; 831, or 4%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 91, or 0.4%, were severe weather responses; 69, or 0.3%, were special incident type calls such as citizen complaints; and 29, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four hundred and seventy-seven (477), or 2%, of the total responses submitted by Hampshire County fire departments were fires.

2021 Responses by Incident Type



Hampshire County Fire Departments Gave Mutual Aid 968 Times

In 2021, Hampshire County fire departments reported coming to the aid of other fire departments 968 times. Of these 968 responses, 705, or 73%, were for rescue or EMS calls; 101, or 10%, were for fires; 101, or 10%, were for good intent calls; 38, or 4%, were for service calls such as cover assignments; 16, or 1%, were for false alarms or false calls; six, or 1%, were hazardous condition calls with no fire; and another call, or 0.1%, was for a special incident type.

Hampshire County Received Mutual Aid in 396 Incidents

In 2021, Hampshire County fire departments received aid from surrounding departments in 396 incidents. Of these 396 incidents, 328, or 83%, were rescue and emergency medical services calls; 42, or 11%, were for fires; nine were good intent calls accounting for 2%; eight, or 2%, were false alarm or false calls; three, or 1%, was a hazardous conditions calls with no fire; three, or 1%, were service calls; two, or 1%, were severe weather calls; and one, or 0.3%, was a overpressure, rupture explosion with no fire type in Hampshire County in 2021.

Hampshire County**Population: 162,308⁵****2.3 Fires/1,000 Population****Total Fires: 376 \$2,036,270**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	170	45%	\$1,979,800
Vehicle Fires	42	11%	48,000
Other Fires	164	44%	8,470

1 Fatal Fire 2.66 Civilian Deaths/1,000 Fires
 1 Civilian Death 0.06 Civilian Deaths/10,000 Population
 3 Civilian Injuries 3 Fire Service Injuries

Building Fires: 168**Residential Structure Fires: 140****Residential Structure Fires Confined to Non-Combustible Containers: 83****Unconfined Residential Structure Fires: 57**

1 Civilian Death` 1 Civilian Injury 2 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	94	25%	Operated	36	26%
Apartments	33	9%	Didn't operate	2	1%
Dormitories	7	2%	None	4	3%
Rooming house	1	1%	Fire too small	11	8%
Hotel or motel	1	1%	Didn't alert (confined)	0	0%
			Undetermined	87	62%

Area of Origin⁶	%	Heat Source	%	% Unconfined⁷
Kitchen	44%	Arcing	4%	11%
Chimney or flue	14%	Radiated, con. heat op. eq.	4%	11%
Heating room or area	6%	Heat from operating equip.	4%	9%
Bedroom	5%	Cigarettes	3%	7%
Bathroom	3%	Hot ember or ash	3%	7%
Laundry room	2%	Candle	2%	5%

⁵ We used the figures from the 2020 US Census.

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

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

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	% Unconfined⁹
Food, cooking materials	35%	Failure to clean	9%	23%
Film, residue (creosote)	14%	Electrical failure, malfunc.	6%	16%
Flamm. or combustible liquid	6%	Abandoned materials	6%	14%
Rubbish, trash, waste	6%	Too close to combustibles	6%	14%
		Mechanical failure, malfunc.	6%	14%

Equipment¹⁰	%	Cause of Ignition	%	% Unconfined¹¹
Cooking equipment	39%	Unintentional	23%	56%
None	25%	Failure of eq. or heat source	8%	19%
Chimney or flue	15%	Intentional	1%	2%
Boiler, furnace, cent. heat unit	6%	Cause under investigation	4%	11%
Clothes dryer	3%	Undetermined	4%	11%
Stove, heating	1%	Act of nature	0%	0%

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

Alerted occupants	10%
Didn't alert occupants	0%
Undetermined	90%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	33	21	3	9
February	22	17	1	4
March	64	27	6	31
April	45	11	3	31
May	40	11	5	24
June	29	6	9	14
July	19	10	2	7
August	26	11	2	13
September	23	11	5	7
October	23	14	3	6
November	26	15	0	6
December	26	16	3	7

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	54	20	8	26
Monday	61	32	5	24
Tuesday	58	28	6	24
Wednesday	45	22	10	13
Thursday	48	22	5	21
Friday	57	22	4	31
Saturday	53	24	4	25

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	26	11	6	9
04:01 - 08:00	24	16	1	7
08:01 - 12:00	57	30	7	20
12:01 - 16:00	110	42	13	55
16:01 - 20:00	102	42	6	54
20:01 - 00:00	57	29	9	19

Motor Vehicle Fires

Total: 42

Automobiles: 27 (68%)

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

Arson Fires**Total Arsons: 39****Dollar loss: \$1,025****0.2 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	10	6%	26%	\$1,025
Vehicle Arsons	1	2%	3%	0
Other Arsons	28	17%	72%	0

0.06 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.17 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	3	30%	00:01 – 04:00	1	100%
16:01 - 20:00	3	30%			
20:01 - 00:00	3	30%			

Other Arsons	#	%
12:01 - 16:00	9	32%
16:01 - 20:00	9	32%
20:01 - 00:00	6	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family home	5	50%

Amherst **Population: 39,263**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	76	34	11	31	4	1	1	2
2018	67	39	7	21	1	0	0	1
2019	74	37	8	29	1	1	0	0
2020	60	21	5	34	2	0	0	2
2021	60	24	4	22	3	2	0	1

Belchertown **Population: 15,350**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	27	19	0	8	0	0	0	0
2018	18	9	1	8	1	0	0	1
2019	27	9	8	10	1	0	0	1
2020	29	6	5	18	1	0	0	1
2021	38	17	3	18	4	0	0	4

Chesterfield **Population: 1,186**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Non-reporting Department							
2018	Non-reporting Department							
2019	Non-reporting Department							
2020	Non-reporting Department							
2021	Non-reporting Department							

Cummington **Population: 829**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	0	0	1	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	2	2	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	1	1	0	0	0	0	0	0

Easthampton					Population: 16,211			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	41	25	2	14	2	1	0	1
2018	31	17	4	10	0	0	0	0
2019	24	11	5	8	0	0	0	0
2020	30	8	5	17	2	0	0	2
2021	16	6	1	9	0	0	0	0

Goshen					Population: 960			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	0	1	1	0	0	0	0
2018	4	1	2	1	0	0	0	0
2019	4	3	0	1	0	0	0	0
2020	4	1	1	2	0	0	0	0
2021	5	0	1	4	1	0	0	1

Granby					Population: 6,110			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	21	9	4	8	4	0	0	4
2018	22	9	8	5	3	0	1	2
2019	27	8	7	2	1	0	0	1
2020	25	5	3	17	2	0	0	2
2021	25	9	6	10	5	1	0	4

Hadley					Population: 5,325			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	2	2	3	1	0	0	1
2018	16	6	5	5	1	0	0	1
2019	25	8	3	14	0	0	0	0
2020	23	5	1	17	4	0	0	4
2021	35	6	7	22	2	0	1	1

Hatfield **Population: 3,352**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	9	0	1	8	2	0	0	2
2018	13	1	2	10	2	0	0	2
2019	12	3	3	6	0	0	0	0
2020	11	3	3	5	0	0	0	0
2021	7	1	2	4	1	0	0	1

Huntington **Population: 2,094**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	10	2	2	6	0	0	0	0
2018	7	3	1	3	1	0	0	1
2019	5	2	2	1	0	0	0	0
2020	17	3	1	13	2	0	0	2
2021	21	8	1	12	4	0	0	4

Middlefield **Population: 385**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	1	0	0	1	0	0	0	0

Northampton **Population: 29,571**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	57	30	9	18	3	2	0	1
2018	52	29	9	14	0	0	0	0
2019	78	34	7	37	4	0	1	3
2020	67	28	15	24	8	2	2	4
2021	45	22	9	14	2	0	0	2

Pelham **Population: 1,280**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	2	1	1	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	1	1	0	0	0	0	0	0
2021	Fire Department in Good Standing, Certified No Reportable Fires							

Plainfield **Population: 633**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	1	0	0	0	0	0	0
2018	Non-reporting Department							
2019	3	3	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	2	1	1	0	0	0	0	0

SOUTH HADLEY FIRE DISTRICTS **Population: 18,150¹²*****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
2017	32	15	2	15	7	2	0	5
2018	28	14	2	12	2	0	0	2
2019	39	24	3	12	4	0	1	3
2020	41	21	5	15	3	1	1	1
2021	31	21	2	8	5	3	0	2

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
2017	51	43	1	7	0	0	0	0
2018	23	19	1	3	1	0	0	1
2019	15	13	1	1	0	0	0	0
2020	21	9	3	9	3	0	0	3
2021	19	12	2	5	1	1	0	0

¹² While we have updated the individual town population figures with the 2020 US Census, we are still using the figures from the 2010 US Census for local fire districts until the individual towns send us their new breakdown.

Southampton					Population: 6,224			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	6	0	13	0	0	0	0
2018	18	9	3	6	0	0	0	0
2019	10	4	1	5	0	0	0	0
2020	17	6	1	10	1	1	0	0
2021	10	4	0	6	0	0	0	0

Ware					Population: 10,066			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	23	10	4	9	3	0	0	3
2018	41	19	3	19	10	2	0	8
2019	40	26	3	11	7	3	0	4
2020	46	15	5	26	6	0	0	6
2021	39	20	3	16	6	2	0	4

Westhampton					Population: 1,622			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	2	1	4	0	0	0	0
2018	3	0	2	1	1	0	0	1
2019	4	0	2	2	0	0	0	0
2020	9	2	3	4	2	1	0	1
2021	13	2	0	11	5	1	0	4

Williamsburg					Population: 2,504			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	16	6	1	9	0	0	0	0
2018	11	5	2	4	0	0	0	0
2019	10	6	0	4	0	0	0	0
2020	11	3	3	5	1	0	0	1
2021	8	6	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
15008	Amherst	2,190	68	3	1,097	74	66	121	753	3	5
15024	Belchertown	1,344	44	0	959	59	61	57	157	5	2
15060	Chesterfield**	0	0	0	0	0	0	0	0	0	0
15069	Cummington	1	1	0	0	0	0	0	0	0	0
15087	Easthampton	3,248	25	5	2,592	60	77	204	266	1	18
15108	Goshen	111	7	0	76	10	5	3	10	0	0
15111	Granby	983	28	3	775	43	40	13	81	0	0
15117	Hadley	1,388	41	3	914	55	51	42	263	18	1
15127	Hatfield	157	7	1	28	39	12	11	55	4	0
15143	Huntington	229	32	1	153	15	5	7	15	0	1
15183	Middlefield	1	1	0	0	0	0	0	0	0	0
15214	Northampton	7,644	50	10	5,700	311	276	415	852	16	14
15230	Pelham*	0	0	0	0	0	0	0	0	0	0
15237	Plainfield	2	2	0	0	0	0	0	0	0	0
15978	South Hadley #1	520	37	0	22	57	74	88	232	5	5
15979	South Hadley #2	798	42	1	561	34	36	26	95	2	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	789	10	1	602	21	34	38	76	4	3
15309	Ware	2,594	49	1	2,261	49	40	85	101	1	7
15331	Westhampton	184	18	0	131	11	6	1	11	0	6
15340	Williamsburg	419	16	0	240	25	48	7	45	32	6
15349	Worthington**	0	0	0	0	0	0	0	0	0	0
Total	Hampshire County	22,602	478	29	16,111	863	831	1,118	3,012	91	69

* Certified no reportable fires.

**Non reporting department.

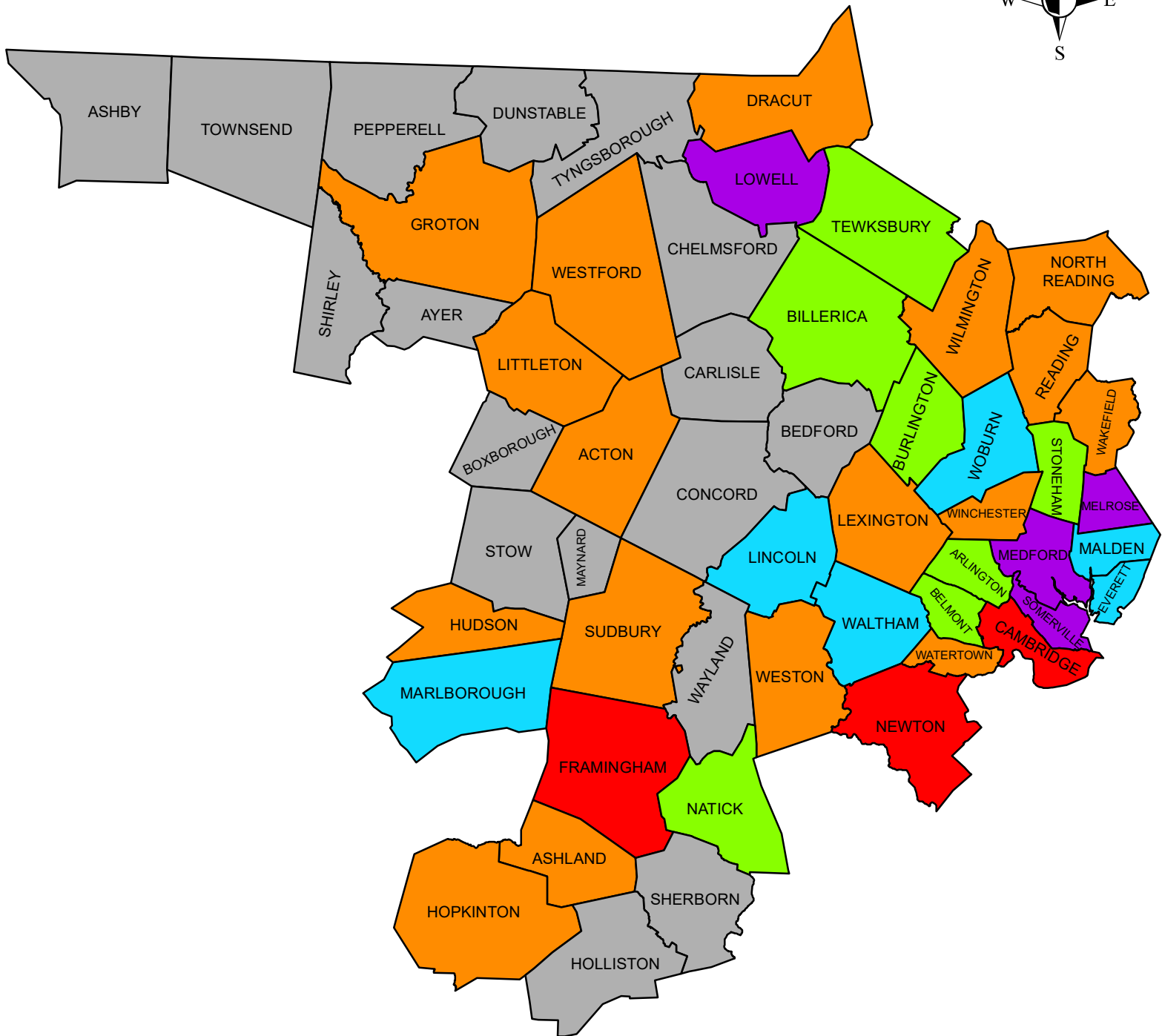
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



Middlesex County

2021 Fire Data Analysis

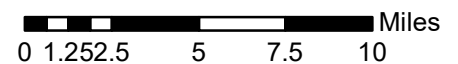
Middlesex County Fires 2021



2021 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2021

Middlesex County Fires in 2021

5,402 Total Fires — 3,531 Structures, 380 Vehicles & 1,491 Other Fires

Middlesex County ranked first out of the fourteen Massachusetts counties in total reported fires. Middlesex County fire departments reported 5,402 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 3,531 structure fires, 380 motor vehicle fires, 811 brush fires, 405 outside rubbish fires, 143 special outside fires, 12 cultivated vegetation or crop fires, and 120 unclassified fires caused 11 civilian deaths, 31 civilian injuries, 154 fire service injuries and an estimated dollar loss of \$63.4 million. Middlesex County's fires accounted for 21% of the 25,366 Massachusetts fires reported in 2021.

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 2021.

Structure Fires & Outside & Other Fires Down

The total number of reported fire incidents decreased by 762 from the 6,164 reported in 2020. Reported structure fires decreased by 176 from 3,707 in the previous year. Motor vehicle fires increased by 10 from the 370 reported during 2020. Reported outside and other fires decreased by 596 from 2,087 the year before.¹

MIDDLESEX COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5,295	3,503	379	1,413	43	11	4	28
2018	5,440	3,680	398	1,362	49	18	5	26
2019	5,410	3,778	386	1,246	69	15	8	46
2020	6,164	3,707	370	2,087	82	14	9	59
2021	5,402	3,531	380	1,491	68	21	3	44

Fire and Fire Death Rates

Middlesex County had 3.3 fires per 1,000 population. That figure ranks Middlesex County tied for seventh in the state and below the state rate of 3.6 fires per 1,000 population. Middlesex County also had 0.07 fire deaths per 10,000 population ranking it sixth among Massachusetts counties and also tied with the state rate of 0.07 fire deaths per 10,000 population.

11 Fatal Fires Killed 11 Middlesex County Residents

In 2021, 11 fatal fires killed 11 people in Middlesex County.

- On January 18, 2021, at 11:38 p.m., the Holliston Fire Department was called to a fatal portable space heater fire in a single-family home. The one older adult victim

¹ 2021 was a down year for brush fires across the state.

was transported to a local hospital and later succumbed to their injuries. One (1) civilian was also injured at this fire. The home did not have alarms or sprinklers. Damages from this fire were estimated to be \$350,000.

- On January 22, 2021, at 5:54 a.m., the Dracut Fire Department was dispatched to a fire in a single-family home of undetermined cause. There was one older adult victim. One (1) civilian was injured at this fire. Alarms were present and failed to operate. The building was not sprinklered. Damages from this fire were estimated to be \$300,000.
- On January 26, 2021, at 1:55 a.m., the Natick Fire Department was called to a fatal fire in a single-family home of undetermined cause. There was one fatality to an older adult. One (1) firefighter was also injured at this fire. Alarms were present and operated. The building was not sprinklered. Damages from the blaze were estimated to be \$1.2 million.
- On February 10, 2021, at 2:31 a.m., the Lowell Fire Department responded to a fatal arson in a three-unit apartment building. Someone intentionally ignited the building on fire. There was one fatality to an older adult. In addition, five civilians were also injured at this fire. Alarms were present and operated. The building did not have any sprinklers. Damages from this fire were estimated to be \$400,000. Two (2) other nearby buildings were also damaged with combined damages of \$210,000.
- On March 6, 2021, at 11:06 p.m., the Lowell Fire Department was called to a fatal smoking fire in a single-family home. A cigarette ignited a piece of upholstered furniture in the living room. There was one victim. 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 \$160,000.
- On March 31, 2021, at 10:41 p.m., the Lowell Fire Department responded to a fatal arson in a two-family home. In a domestic violence incident, one occupant doused their spouse with gasoline inside the bathroom and lit them on fire. The adult victim was transported to a local hospital where they succumbed to their injuries. No one else 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 \$1,000.
- On April 15, 2021, at 3:19 p.m., the Lowell Fire Department responded to a fatal fire in an industrial yard. There was one adult victim. Another person had poured alcohol on to a cooking fire. No one else was injured at this fire. Damages from this fire were estimated to be \$7,000.
- On May 22, 2021, at 9:56 a.m., the Malden Fire Department was called to a fatal smoking fire in a residential board and care facility. The fire when the victim was lighting their pipe in a bedroom. No one else was injured at this fire. Smoke alarms

were present but it was undetermined if they operated. There were no sprinklers. Damages from this fire were estimated to be \$500.

- On September 2, 2021, at 4:14 p.m., the Maynard Fire Department responded to a fatal natural gas explosion and ensuing fire in a single-family home. Before the explosion, someone in the home called 9-1-1 and said that there was a strange smell in the home, possibly gas. There was one senior adult victim. Two (2) civilians and one firefighter were also injured at this fire. It was undetermined if alarms were present; and the building did not have any sprinklers. Damages from this fire were not estimated.
- On December 18, 2021, at 3:59 a.m., the Natick Fire Department was called to a fatal fire in a 24-unit apartment building of undetermined cause. The most probable cause was an unspecified electrical event in a first floor kitchen. The older adult victim was asleep at the time of the fire. They were transported to a local hospital and later succumbed to their injuries. One (1) other civilian was injured at this fire. Alarms were present and alerted the occupants. The building was not sprinklered. Damages from the blaze were estimated to be \$350,000.
- On December 29, 2021, at 7:23 a.m., the Cambridge Fire Department was called to a fatal fire in a three-unit apartment building of undetermined cause. There was one older adult victim. Seventeen (17) firefighters were also injured at this fire with all 17 either reporting an exposure or needing only first aid on scene. Alarms were present but did not operate. The building was not sprinklered. Damages from the blaze were estimated to be \$600,000.

Largest Loss Fire in 2021

In 2021, Middlesex County fire departments reported 11 fires with a reported dollar loss of \$1 million or greater. The combined dollar loss of these 11 fires totaled \$27 million, or 43%, of the county's total dollar loss.

- On April 21, 2021, at 11:00 a.m., the Devens Fire Department was called to a fire at a sheet metal manufacturing plant. The fire started on the roof. No one was injured at this fire. Alarms were present and alerted the occupants. The building had sprinklers and suppressed the fire inside of the building. Damages from this fire were estimated to be \$9 million.

STRUCTURE FIRES

Reported Structure Fires Decreased

The 3,531 structure fires caused all 11 civilian deaths, 29 civilian injuries, 146 fire service injuries and an estimated dollar loss of \$58.5 million. These incidents represented 65% of Middlesex County's reported fires in 2021. The average estimated dollar loss per structure fire was \$16,569. The total number of reported structure fires decreased by 176, or 5%, from the 3,707 reported in 2020.

Arson Caused 1% of Structure Fires

The 21 structure arsons caused two civilian deaths and an estimated dollar loss of \$611,850. Arson was indicated as the cause of 1% of the structure fires and 1% of Middlesex County's structure fire dollar loss. The 21 structure arsons accounted for 31% of the Middlesex County arson fires reported in 2021. The total number of reported structure arsons increased by seven, or 31%, from 14 in 2020.

76% of Structure Arsons Occurred in Residences

Seventy-six percent (76%) of Middlesex County's 21 structure arsons occurred in residential occupancies. Public assembly properties and educational facilities each accounted for 10%; and institutional facilities accounted for 5% of the structure arsons in Middlesex County in 2021.

BUILDING FIRES

There were 3,518 building fires of different types in Middlesex County in 2021. These 3,518 building fires accounted for 99.6% of all structure fires in Middlesex County.

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

Two thousand nine hundred and ten (2,910), or 83%, of Middlesex County's 3,518 building fires occurred in residential occupancies. Two hundred and three (203) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 135 fires. Hospitals, prisons, and other institutional buildings experienced 78 fires. Sixty-six (66) building fires took place in educational facilities. Fifty-four (54) building fires in Middlesex County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Thirty-seven (37) fires took place in storage properties. Twenty-one (21) fires occurred in manufacturing and processing facilities. Thirteen (13) fires in Middlesex County in 2021 took place in industrial, utility, defense, agricultural or mining facilities. The *Property Use* field was coded as 'Other' or was not reported for one fire.

RESIDENTIAL FIRES**Residential Building Fires Decreased**

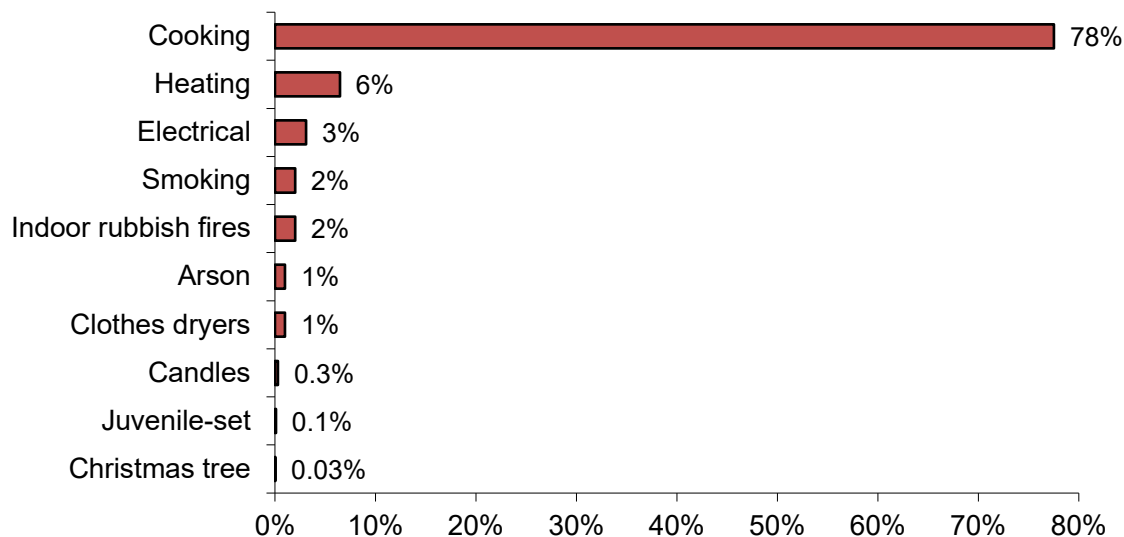
There were 2,910 reported residential building fires in Middlesex County in 2021. These 2,910 fires are a decrease of 189, or 6%, from the 3,099 residential building fires reported in 2020.

Unsafe Cooking Caused 78% of All Residential Fires

The leading cause of residential building fires in Middlesex County was unattended cooking and other unsafe cooking practices, accounting for 78% of these fires. Heating caused 6% of fires in people's homes. Electrical problems caused 3%. Smoking and indoor rubbish fires each accounted for 2% of these fires. Arson and clothes dryers each

caused 1%. Candles, juvenile-set fires and Christmas tree fires each caused less than 1% of the residential fires in Middlesex County in 2021.

2021 Leading Causes of Fires in Middlesex County Homes



83% of Residential Building Fires Were Confined to Non-Combustible Containers²

Two thousand four hundred and twelve (2,412), or 83%, of all residential building fires were reported as confined to non-combustible containers in 2021. Two thousand one hundred and ninety-four (2,194) of the reported fires were cooking fires contained to a non-combustible container, accounting for 75% of residential building fires. Eighty-three (83), or 3%, were fires confined to a fuel burner or boiler malfunction. Seventy-two (72), or 2%, of all residential building fires reported in 2021 were fires confined to a chimney. Fifty-nine (59), or 2%, of these fires were rubbish fires contained to a non-combustible container. Three (3) commercial compactor fires and one incinerator overload or malfunction each accounted for less than 1% of the residential fires in Middlesex County in 2021.

Alarms Alerted Occupants in Over 3/4 of Fires

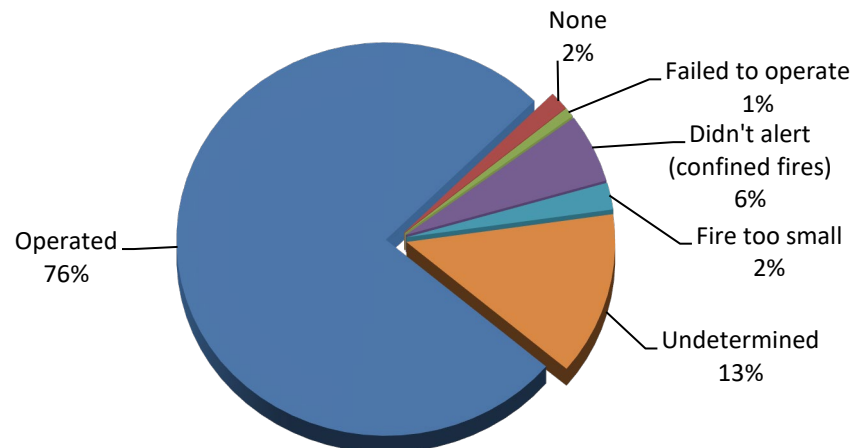
Smoke or heat alarms operated and alerted the occupants in 2,225, or 76%, of the residential building fires. In 6% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 1% of these incidents. In 2% of these fires, no

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.

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 389 incidents, or 13%, of Middlesex County's residential building fires.

Detector Status in Middlesex County's Residential Structure Fires 2021



22% of Failed Alarms Had Missing or Dead Batteries

Of the 23 fires where smoke alarms were present but failed to operate, four, or 17%, failed because the batteries were either missing or disconnected. In one, or 4%, of these cases the battery was dead. Three (3), or 13%, failed from a lack of maintenance. Another three, or 13%, didn't work because of improper installation or placement; One (1), or 4%, failed from a power failure, shutoff or disconnect. It was undetermined or unclassified in 11 cases, or 48%, why the alarms failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Middlesex County reported 40 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 3,518 building fires reported to MFIRS in 2021. Twenty-two (22) fires occurred in vacant residential properties. Six (6) happened in public assembly properties. Storage facilities had another six of these fires. Mercantile or business properties had three fires and special properties had two fires. There was one fire in a vacant manufacturing or processing facility in Middlesex County in 2021.

One (1), or 3%, of the vacant building fires in Middlesex County in 2021 were determined to be intentionally-set. This fire was set in a vacant church.

JUVENILE-SET FIRES

14 Juvenile-set Fires

There were 14 reported juvenile-set fires in Middlesex County in 2021. There were six structure fires, six brush fires and one outside rubbish fire. These 14 fires caused an estimated dollar loss of \$201,420.

ARSONS

68 Total Arsons — 21 Structures, 3 Vehicles & 44 Other Arsons

Sixty-eight (68), or 1%, of Middlesex County's 5,402 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 21 structure arsons, three motor vehicle arsons and 44 outside and other arsons caused two civilian deaths, one fire service injury and an estimated dollar loss of \$615,070.

Structure Arson Up Slightly

The total number of reported arson fires decreased by 14 from the 82 reported in 2020. Reported structure arsons increased by seven from the 14 reported in the previous year. Motor vehicle arsons decreased by six from the nine reported in 2020. Reported outside and other arsons decreased by 15 from 59 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 60% of All Reported Responses

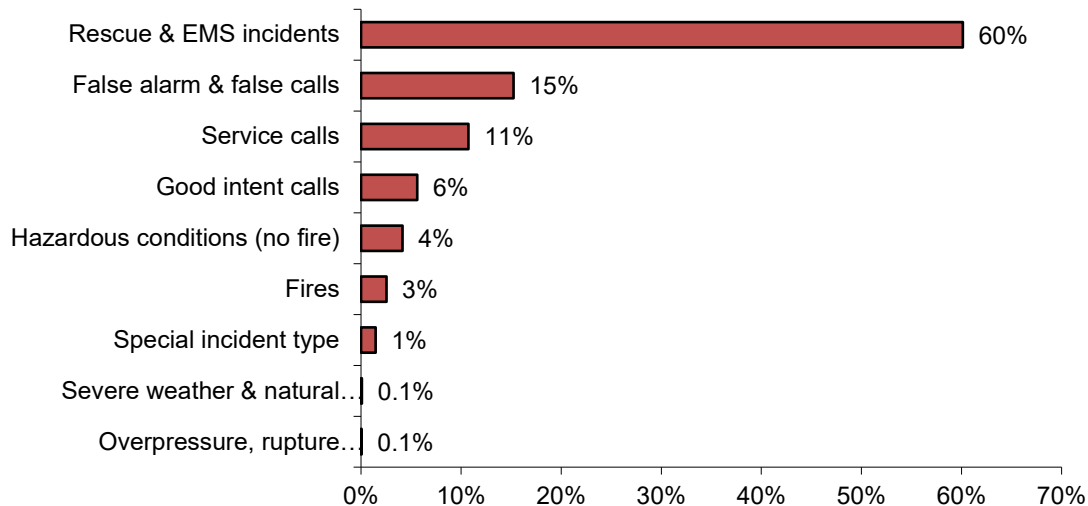
In 2021, fire departments in Middlesex County reported 226,379 responses⁴ to MFIRS. This is a 12% increase from the 202,564 responses reported in 2020. Of these 226,379 incidents, 220,641 non-fire calls were voluntarily reported.

Of these 220,641 non-fire calls, 136,096, or 60%, of all the responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 34,486, or 15%, were reported false alarm or false calls; 24,307, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 12,698, or 6%, were reported good intent calls; 9,405, or 4%, were reported hazardous condition calls with no fire; 3,287, or 1%, were special incident type calls such as citizen complaints; 223, or 0.1%, were severe weather responses; and 139, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Five thousand seven hundred and thirty-eight (5,738), or 3%, of the total responses submitted by Middlesex County fire departments were fires.

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

2021 Responses by Incident Type



Middlesex County Fire Departments Gave Mutual Aid 5,059 Times

In 2021, Middlesex County fire departments reported coming to the aid of other fire departments 5,059 times. Of these 5,059 responses, 2,546 , or 50%, were for rescue or EMS calls; 1,011, or 20%, were for good intent calls; 886, or 18%, were for service calls such as cover assignments; 334, or 7%, were for fires; 171, or 3%, were for false alarms or false calls; 72, or 1%, were for hazardous conditions calls with no fire; 35, or 1%, were special incident types; three, or 0.1%, was for a reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.02%, was a severe weather or natural disaster call.

Middlesex County Received Mutual Aid in 3,332 Incidents

In 2021, Middlesex County fire departments reported receiving aid from surrounding departments in 3,332 incidents. Of these 3,332 incidents, 2,538, or 76%, were rescue and emergency medical services calls; 274, or 8%, were false alarms or false calls; 272, or 8%, were for fires; 103, or 3%, were good intent calls; 73, or 2%, were hazardous conditions calls with no fire; 67, or 2%, were service calls; three, or 0.0%, were for reported overpressure, rupture, explosion or overheat calls with no fire; and two, or 0.1%, were for severe weather or natural disaster calls.

Middlesex County**Population: 1,632,002⁵****3.3 Fires/1,000 Population****Total Fires: 5,402 \$63,372,642**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	3,531	65%	\$58,505,776
Vehicle Fires	380	7%	3,924,818
Other Fires	1,491	28%	942,048

11 Fatal Fires 2.04 Civilian Deaths/1,000 Fires
 11 Civilian Deaths 0.07 Civilian Deaths/10,000 Population
 31 Civilian Injuries 154 Fire Service Injuries

Building Fires: 3,518**Residential Building Fires: 2,910****Residential Building Fires Confined to Non-Combustible Containers: 2,412****Unconfined Residential Building Fires: 498**

10 Civilian Deaths 27 Civilian Injuries 106 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	1,441	50%	Operated	2,225	76%
1- & 2-Family homes	907	31%	Didn't operate	23	1%
Dormitories	170	6%	None	44	2%
Rooming houses	91	3%	Fire too small	64	1%
Residential board & care	58	2%	Didn't alert (confined)	165	6%
Hotels or motels	23	1%	Undetermined	389	13%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	79%	Heat from operating eq.	3%	15%
Heating equipment room	3%	Arcing	2%	10%
Chimney or flue	2%	Cigarette	2%	9%
Bedroom	2%	Radiated heat/oper. eq.	1%	7%
Ext. balcony, unencl. porch	2%	Hot or smoldering obj.	1%	6%

⁵ Based on the 2020 US Census figures.⁶ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.⁷ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Food, cooking materials	77%	Abandoned materials	1%	9%
Flammable, combustible liquid	3%	Too close to combustibles	1%	8%
Rubbish, trash, waste	3%	Electrical failure or malf.	1%	8%
Film, residue (creosote)	2%	Misuse of mater. or prod.	1%	7%
Electrical wire, cable insulation	1%	Equipment unattended	1%	4%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
Cooking equipment	77%	Unintentional	10%	56%
None	11%	Failure of eq. or heat source	3%	15%
Boiler, furnace, cent. heat unit	3%	Intentional	0.4%	3%
Chimney or flue	2%	Act of nature	0.2%	1%
Stove, heating	1%	Undetermined	2%	9%
Clothes dryer	0.5%	Cause under investigation	2%	13%

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

Alerted occupants	82%
Didn't alert occupants	7%
Undetermined	11%

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	358	268	29	61
February	350	300	26	24
March	602	334	27	241
April	617	309	25	283
May	610	295	29	286
June	473	243	38	192
July	328	240	37	51
August	378	253	41	84
September	376	284	26	66
October	392	295	38	59
November	453	348	29	76
December	465	362	35	68

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	829	568	39	222
Monday	740	458	48	234
Tuesday	787	497	58	232
Wednesday	786	494	69	223
Thursday	710	483	61	166
Friday	750	501	54	195
Saturday	800	530	51	219

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	276	19	25	61
04:01 - 08:00	320	203	41	76
08:01 - 12:00	898	614	77	207
12:01 - 16:00	1,478	810	100	568
16:01 - 20:00	1,645	1,141	92	412
20:01 - 00:00	785	573	45	167

Motor Vehicle Fires

Total: 380

Automobiles: 295 (78%)

3, or (1%), of the automobile fires considered intentionally-set.

Arson Fires

Total Arsons: 68

Dollar loss: \$615,070

0.04 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	21	1%	31%	\$611,850
Vehicle Arsons	3	1%	4%	2,200
Other Arsons	44	3%	65%	1,020

0.01 Structure arsons/1,000 population

0.002 Vehicle arsons/1,000 population

0.03 Other arsons/1,000 population

2 Civilian Deaths

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	5	24%	00:01 - 04:00	1	33%
16:01 - 20:00	5	24%	04:01 - 08:00	1	33%
			12:01 - 16:00	1	33%

Other Arsons	#	%
12:01 - 16:00	19	43%
16:01 - 20:00	11	25%
20:01 - 00:00	5	11%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartment buildings	8	38%
1- & 2-Family homes	7	33%

Acton					Population: 24,021			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	38	17	3	18	0	0	0	0
2018	43	22	4	17	3	0	0	3
2019	36	21	5	10	1	0	0	1
2020	55	23	4	28	5	0	0	5
2021	45	22	6	17	3	0	0	3

Arlington					Population: 46,308			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	76	43	4	29	3	0	0	3
2018	111	68	10	33	1	0	0	1
2019	103	63	9	31	7	0	1	6
2020	77	54	4	19	1	0	0	1
2021	72	44	4	24	1	0	0	1

Ashby					Population: 3,193			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Fire Department in Good Standing, Certified No Reportable Fires							
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	2	2	0	0	0	0	0	0
2020	10	3	1	6	0	0	0	0
2021	21	7	0	14	1	0	0	1

Ashland					Population: 18,832			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	46	15	1	30	1	1	0	0
2018	38	15	4	19	0	0	0	0
2019	32	14	2	16	1	0	0	1
2020	49	17	3	29	1	0	0	1
2021	41	18	1	22	1	0	0	1

					Population: 8,479			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	18	8	2	8	0	0	0	0
2018	27	17	4	6	0	0	0	0
2019	18	8	2	8	1	0	0	1
2020	16	5	2	9	0	0	0	0
2021	17	8	2	7	1	0	0	1

					Population: 14,383			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	13	6	2	5	1	0	0	1
2018	22	13	1	8	1	0	0	1
2019	25	11	6	8	1	0	1	0
2020	23	10	1	12	2	0	0	2
2021	27	11	1	15	1	1	0	0

					Population: 27,295			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	72	54	2	16	1	0	0	1
2018	102	76	5	21	0	0	0	0
2019	99	75	2	22	0	0	0	0
2020	91	59	6	26	2	1	0	1
2021	79	53	5	21	0	0	0	0

					Population: 42,119			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	94	46	15	33	0	0	0	0
2018	95	30	24	41	3	0	0	3
2019	81	33	15	33	2	0	1	1
2020	107	37	15	55	2	2	0	0
2021	80	41	12	27	2	1	0	1

Boxborough					Population: 5,506			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	22	4	4	14	0	0	0	0
2018	14	3	3	8	0	0	0	0
2019	21	0	7	14	0	0	0	0
2020	28	5	5	18	0	0	0	0
2021	27	6	8	13	0	0	0	0

Burlington					Population: 26,377			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	70	22	12	36	0	0	0	0
2018	72	27	14	31	1	0	0	1
2019	59	28	9	22	0	0	0	0
2020	103	24	5	74	0	0	0	0
2021	82	16	15	51	1	0	0	1

Cambridge					Population: 118,403			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1,103	974	11	118	0	0	0	0
2018	1,074	948	15	111	1	1	0	0
2019	1,008	925	13	70	0	0	0	0
2020	974	821	16	137	2	1	1	0
2021	860	771	9	80	1	0	0	1

Carlisle					Population: 5,237			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	2	0	0	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							
2021	2	2	0	0	0	0	0	0

¹² Carlisle did report one mutual aid given call for a building fire.

Chelmsford**Population: 36,392**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	37	15	17	5	0	0	0	0
2018	39	23	11	5	0	0	0	0
2019	29	14	13	2	1	0	0	1
2020	23	7	12	4	0	0	0	0
2021	9	1	6	2	0	0	0	0

Concord**Population: 18,491**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	36	12	3	21	0	0	0	0
2018	37	13	5	19	2	1	0	1
2019	42	22	2	18	4	1	0	3
2020	35	13	4	18	2	0	0	2
2021	28	11	5	12	2	0	0	2

Devens**Population: 2,007**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	13	2	4	7	0	0	0	0
2018	4	2	0	2	0	0	0	0
2019	15	5	2	8	1	0	0	1
2020	35	3	2	30	0	0	0	0
2021	49	4	1	44	0	0	0	0

Dracut**Population: 32,617**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	53	29	4	20	1	0	0	1
2018	51	24	9	18	1	1	0	0
2019	47	23	9	15	0	0	0	0
2020	65	32	7	26	0	0	0	0
2021	48	25	6	17	0	0	0	0

Dunstable					Population: 3,358			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	8	2	1	5	0	0	0	0
2018	16	12	0	4	2	2	0	0
2019	9	7	1	1	0	0	0	0
2020	19	9	1	9	2	0	0	2
2021	15	9	0	6	1	1	0	0

Everett					Population: 49,075			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	106	59	9	38	6	2	0	4
2018	101	58	8	35	3	0	1	2
2019	166	59	15	92	1	0	0	1
2020	118	44	12	62	3	0	1	2
2021	146	72	10	64	2	0	0	2

Framingham					Population: 72,362			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	574	466	20	88	0	0	0	0
2018	655	529	23	103	1	1	0	0
2019	582	507	20	55	2	1	0	1
2020	567	433	25	109	8	2	3	3
2021	512	431	14	67	0	0	0	0

Groton					Population: 11,315			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	25	11	3	11	2	0	1	1
2018	8	7	0	1	0	0	0	0
2019	13	6	3	4	0	0	0	0
2020	26	12	3	11	0	0	0	0
2021	40	6	2	22	2	1	0	1

Holliston**Population: 14,996**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	8	8	0	0	0	0	0	0
2018	5	5	0	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	Fire Department in Good Standing, Certified No Reportable Fires							
2021	3	3	0	0	0	0	0	0

Hopkinton**Population: 18,758**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	42	19	5	18	0	0	0	0
2018	58	20	16	22	0	0	0	0
2019	40	14	12	14	0	0	0	0
2020	49	18	9	22	0	0	0	0
2021	51	19	11	21	0	0	0	0

Hudson**Population: 20,092**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	57	17	7	33	3	1	0	2
2018	41	17	5	19	2	0	1	1
2019	50	24	3	23	4	0	0	4
2020	54	24	3	27	0	0	0	0
2021	52	24	3	25	0	0	0	0

Lexington**Population: 34,454**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	33	11	8	14	0	0	0	0
2018	46	23	8	15	1	1	0	0
2019	36	9	9	18	3	1	0	2
2020	51	23	5	23	1	0	0	1
2021	52	22	12	18	2	2	0	0

Lincoln **Population: 7,014**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	73	73	0	0	0	0	0	0
2018	96	94	0	2	1	0	0	1
2019	95	87	2	6	1	0	0	1
2020	124	102	4	18	4	0	0	4
2021	113	101	1	11	3	0	0	3

Littleton **Population: 10,141**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	5	6	8	0	0	0	0
2018	31	15	12	4	0	0	0	0
2019	25	5	13	7	1	1	0	0
2020	31	10	6	15	0	0	0	0
2021	31	7	7	17	0	0	0	0

Lowell **Population: 115,554**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	385	261	33	91	4	0	2	2
2018	383	247	29	107	7	4	1	2
2019	320	204	18	98	2	1	0	1
2020	354	190	35	129	10	2	2	6
2021	355	230	25	100	7	7	0	0

Malden **Population: 66,263**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	122	64	5	53	0	0	0	0
2018	143	61	11	71	0	0	0	0
2019	120	55	5	60	0	0	0	0
2020	171	75	8	88	0	0	0	0
2021	127	63	12	52	0	0	0	0

Marlborough **Population: 41,793**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	105	22	16	67	0	0	0	0
2018	122	37	14	71	0	0	0	0
2019	104	42	10	52	0	0	0	0
2020	136	40	9	87	1	0	0	1
2021	112	36	9	67	2	1	0	1

Maynard **Population: 10,746**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	27	19	1	7	0	0	0	0
2018	24	10	1	13	1	0	0	1
2019	27	19	2	6	3	0	0	3
2020	30	21	2	7	1	0	0	1
2021	20	13	0	7	1	1	0	0

Medford **Population: 59,659**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	239	169	9	61	0	0	0	0
2018	215	131	25	59	0	0	0	0
2019	205	149	15	41	1	0	0	1
2020	288	182	12	94	0	0	0	0
2021	222	142	18	62	0	0	0	0

Melrose **Population: 29,817**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	20	15	4	1	3	3	0	0
2018	16	13	1	2	0	0	0	0
2019	227	201	4	22	1	0	0	1
2020	282	246	2	34	0	0	0	0
2021	224	204	5	15	3	0	0	3

Natick**Population: 37,006**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	68	28	7	33	1	1	0	0
2018	67	19	6	42	0	0	0	0
2019	63	16	12	35	1	0	1	0
2020	69	21	7	41	2	0	0	2
2021	79	27	12	40	2	1	0	1

Newton**Population: 88,923**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	295	211	16	68	0	0	0	0
2018	280	222	8	50	1	1	0	0
2019	377	312	3	62	2	2	0	0
2020	492	396	13	83	0	0	0	0
2021	466	404	19	43	0	0	0	0

North Reading**Population: 15,554**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	34	23	3	8	1	1	0	0
2018	34	18	6	10	2	0	0	2
2019	26	17	2	7	3	0	0	3
2020	26	7	1	18	4	0	0	4
2021	36	11	3	22	7	0	0	7

Pepperell**Population: 11,604**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	26	14	1	11	0	0	0	0
2018	24	12	4	8	0	0	0	0
2019	27	22	1	4	0	0	0	0
2020	19	9	2	8	1	0	0	1
2021	24	4	3	17	0	0	0	0

Reading **Population: 25,518**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	58	28	10	20	5	0	0	5
2018	75	54	5	16	1	1	0	0
2019	71	45	6	20	11	2	0	9
2020	44	22	6	16	2	0	0	2
2021	48	17	7	24	4	1	0	3

Sherborn **Population: 4,401**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	15	4	1	10	0	0	0	0
2018	15	7	0	8	1	1	0	0
2019	7	2	1	4	1	0	0	1
2020	23	9	2	12	1	0	0	1
2021	20	8	1	11	0	0	0	0

Shirley **Population: 7,431**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	13	4	3	6	1	0	1	0
2018	14	9	2	3	0	0	0	0
2019	10	5	1	4	0	0	0	0
2020	13	6	1	6	0	0	0	0
2021	17	9	1	7	0	0	0	0

Somerville **Population: 81,045**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	433	334	16	83	1	0	0	1
2018	434	353	16	65	1	1	0	0
2019	373	308	12	53	3	1	1	1
2020	410	332	9	69	3	1	0	2
2021	363	288	11	64	5	2	1	2

Stoneham**Population: 23,244**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	96	63	8	25	0	0	0	0
2018	80	56	7	17	1	1	0	0
2019	80	54	8	18	1	1	0	0
2020	101	50	11	40	1	0	1	0
2021	87	52	8	27	0	0	0	0

Stow**Population: 7,174**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	11	5	1	5	0	0	0	0
2018	12	2	1	9	0	0	0	0
2019	13	8	1	4	1	1	0	0
2020	19	3	0	16	1	0	0	1
2021	10	2	3	5	0	0	0	0

Sudbury**Population: 18,934**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	8	6	0	2	0	0	0	0
2018	21	15	1	5	0	0	0	0
2019	16	7	2	7	0	0	0	0
2020	30	8	1	21	3	0	0	3
2021	33	10	5	18	1	0	0	1

Tewksbury**Population: 31,342**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	81	25	15	41	1	0	0	1
2018	87	30	6	51	1	0	1	0
2019	74	30	11	33	2	1	0	1
2020	88	21	6	61	0	0	0	0
2021	66	19	6	41	1	0	1	0

Townsend					Population: 9,127			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	23	14	1	8	3	0	0	3
2018	17	8	4	5	0	0	0	0
2019	26	11	2	13	0	0	0	0
2020	22	9	3	10	0	0	0	0
2021	16	3	2	11	0	0	0	0

Tyngsborough					Population: 12,380			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	25	11	7	7	1	0	0	1
2018	26	11	4	11	0	0	0	0
2019	35	17	8	10	0	0	0	0
2020	30	11	8	11	0	0	0	0
2021	22	8	6	8	0	0	0	0

Wakefield					Population: 27,090			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	60	48	8	4	0	0	0	0
2018	39	34	3	2	1	1	0	0
2019	39	25	11	3	0	0	0	0
2020	56	24	8	24	2	1	0	1
2021	44	26	3	15	3	0	0	3

Waltham					Population: 65,218			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	165	67	21	77	3	2	0	1
2018	142	62	14	66	1	1	0	0
2019	136	58	24	54	6	2	3	1
2020	196	59	18	119	5	2	1	2
2021	114	50	13	51	2	2	0	0

Watertown**Population: 35,239**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	40	17	4	19	0	0	0	0
2018	29	16	2	11	0	0	0	0
2019	41	14	5	22	0	0	0	0
2020	57	22	4	31	1	1	0	0
2021	42	15	5	22	2	0	0	2

Wayland**Population: 13,943**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	21	11	1	9	0	0	0	0
2018	25	9	1	15	1	0	0	1
2019	16	9	2	5	0	0	0	0
2020	38	18	2	18	2	1	0	1
2021	27	12	2	13	0	0	0	0

Westford**Population: 24,643**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	45	17	5	23	0	0	0	0
2018	43	21	2	20	1	0	0	1
2019	43	20	4	19	0	0	0	0
2020	69	12	5	52	2	0	0	2
2021	45	12	8	25	0	0	0	

Weston**Population: 11,851**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	30	13	9	8	0	0	0	0
2018	29	13	7	9	1	0	1	0
2019	25	14	6	5	0	0	0	0
2020	31	9	10	12	3	0	0	3
2021	33	5	14	14	1	0	0	1

Wilmington**Population: 23,349**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	22	5	9	8	0	0	0	0
2018	35	10	11	14	3	0	0	3
2019	40	2	9	29	0	0	0	0
2020	98	10	11	77	0	0	0	0
2021	54	8	15	31	0	0	0	0

Winchester**Population: 22,970**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	26	10	2	14	0	0	0	0
2018	20	8	2	10	0	0	0	0
2019	20	15	2	3	0	0	0	0
2020	38	14	3	21	2	0	0	2
2021	33	20	3	10	1	0	0	1

Woburn**Population: 40,876**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	164	75	20	69	1	0	0	1
2018	199	126	24	49	2	0	0	2
2019	215	134	25	56	0	0	0	0
2020	181	84	15	82	0	0	0	0
2021	161	89	20	52	2	0	1	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
17002	Acton	3,855	45	5	1,717	193	489	107	405	1	893
17010	Arlington	5,132	79	2	3,302	392	420	155	719	54	9
17012	Ashby	609	35	0	361	16	152	12	33	0	0
17014	Ashland	2,520	53	4	1,649	123	204	127	339	15	6
17019	Ayer	772	24	2	102	48	313	50	228	5	0
17023	Bedford	2,512	35	2	1,540	109	202	87	289	3	245
17026	Belmont	3,196	80	1	1,828	162	288	252	574	3	8
17031	Billerica	5,084	94	7	3,343	217	607	93	707	2	14
17037	Boxborough	902	30	0	405	28	219	46	140	2	32
17048	Burlington	4,564	83	2	2,804	88	845	150	579	8	5
17049	Cambridge	15,007	860	11	7,372	1,066	713	1,572	3,407	1	5
17051	Carlisle	2	2	0	0	0	0	0	0	0	0
17056	Chelmsford	10	9	1	0	0	0	0	0	0	0
17067	Concord	3,608	31	3	2,069	184	285	179	853	2	2
17919	Devens	790	62	3	292	33	176	19	200	2	3

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17079	Dracut	3,944	49	2	2,591	113	434	118	629	5	3
17081	Dunstable	377	15	0	193	7	112	14	36	0	0
17093	Everett	7,292	164	1	5,193	184	447	370	919	1	13
17100	Framingham	11,841	514	5	7,760	222	1,125	831	1,381	2	1
17115	Groton	1,381	45	2	865	49	100	59	252	2	7
17136	Holliston	3	3	0	0	0	0	0	0	0	0
17139	Hopkinton	2,420	74	4	1,515	129	206	169	319	3	1
17141	Hudson	3,267	62	6	2,168	109	298	88	495	1	40
17155	Lexington	55	52	0	0	3	0	0	0	0	0
17157	Lincoln	1,356	117	0	765	55	42	138	238	1	0
17158	Littleton	2,085	42	1	1,404	50	129	223	232	2	2
17160	Lowell	14,078	376	10	8,421	591	1,226	785	2,591	3	75
17165	Malden	9,717	127	2	6,784	214	920	569	1,095	1	5
17170	Marlborough	8,163	116	2	5,678	197	578	282	1,062	4	244
17174	Maynard	1,851	25	2	1,081	82	185	201	272	0	3

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17176	Medford	10,933	233	4	7,470	533	788	365	1,532	3	5
17178	Melrose	4,420	245	2	2,769	169	559	237	430	9	0
17198	Natick	5,345	79	1	3,216	194	519	460	860	1	15
17207	Newton	9,516	472	3	5,123	365	925	415	2,205	8	0
17213	North Reading	2,508	42	2	1,440	143	323	208	334	9	7
17232	Pepperell	1,401	24	0	996	52	83	77	159	0	10
17246	Reading	4,244	59	7	2,237	94	858	491	451	5	42
17269	Sherborn	589	22	0	343	57	63	32	68	4	0
17270	Shirley	985	28	0	701	39	65	31	121	0	0
17274	Somerville	14,712	411	15	6,822	912	2,942	668	2,515	1	426
17284	Stoneham	3,735	100	2	2,399	88	459	325	331	8	23
17286	Stow	929	17	1	575	38	90	45	134	23	6
17288	Sudbury	2,256	38	1	1,407	116	116	132	426	9	11
17295	Tewksbury	5,050	66	1	3,007	67	1,016	360	509	2	22
17299	Townsend	1,445	21	1	1,051	30	74	156	109	0	3

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Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17301	Tyngsborough	1,804	22	0	1,186	22	184	85	305	0	0
17305	Wakefield	3,999	59	3	2,758	129	386	144	512	6	2
17308	Waltham	8,300	116	4	4,981	516	695	444	1,518	1	25
17314	Watertown	6,363	42	4	3,338	187	1,597	239	898	2	56
17315	Wayland	2,991	29	0	1,082	270	287	87	280	4	952
17330	Westford	3,260	59	3	2,099	104	395	98	484	0	18
17333	Weston	2,304	40	3	1,223	200	167	86	583	0	2
17342	Wilmington	3,684	55	0	2,655	37	284	221	418	0	14
17344	Winchester	2,757	45	0	1,612	212	183	265	435	4	1
17347	Woburn	6,376	163	1	4,396	102	505	327	856	1	25
Middlesex County		226,299	5,790	138	136,088	9,340	24,278	12,694	34,467	223	3,281

* Certified no reportable fires.

**Non reporting department.

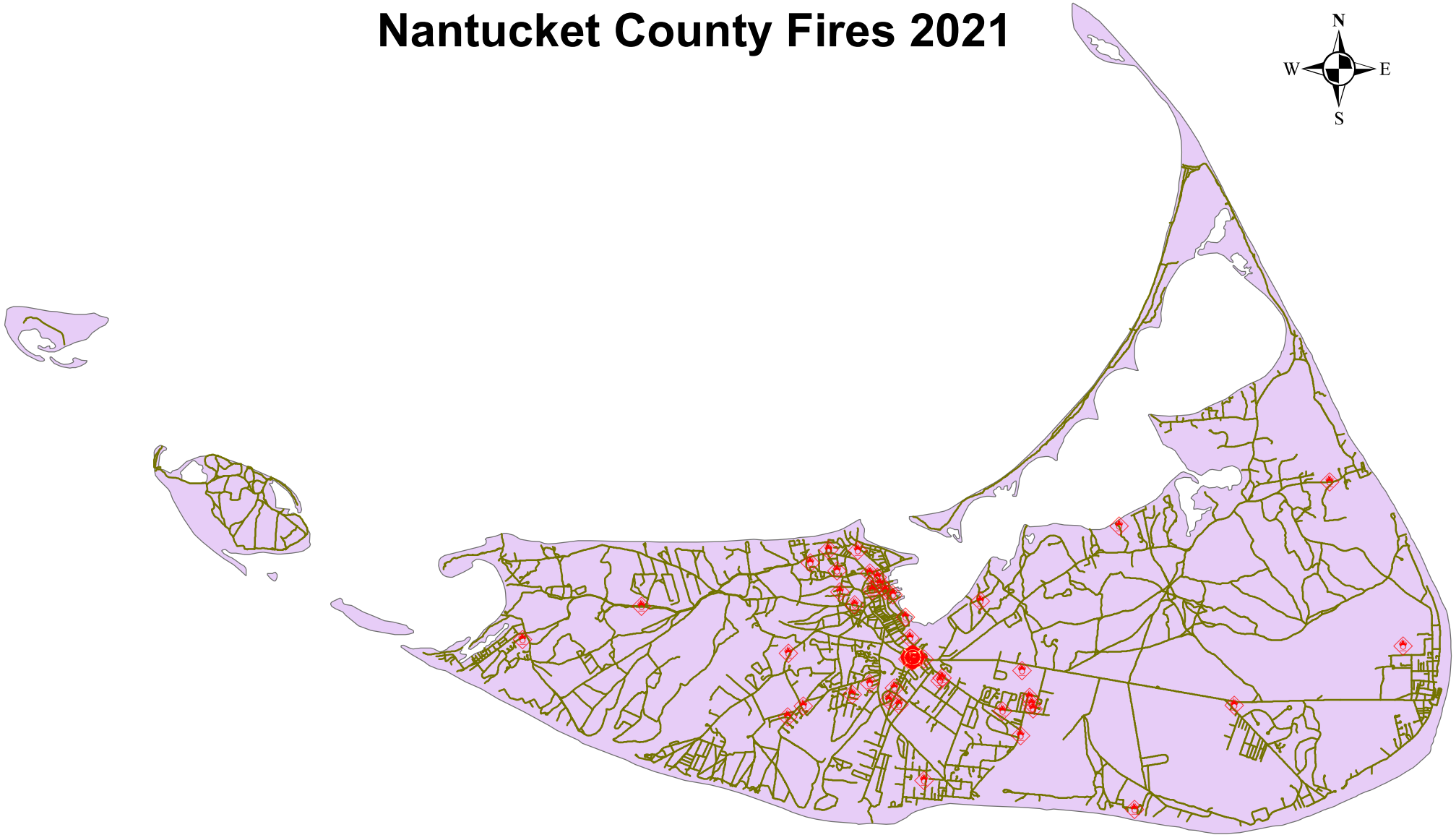
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.





Nantucket County

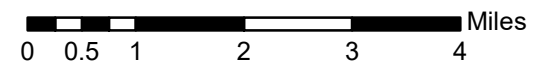
2021 Fire Data Analysis

Nantucket County Fires 2021



2021 Nantucket Fires

-  2021 Nantucket Fires
-  Fire Stations



Massachusetts Fire Incident Reporting System 2021

Nantucket County Fires in 2021

42 Total Fires — 20 Structures, 7 Vehicles & 15 Outside and Other Fires

Nantucket County ranked last out of the fourteen Massachusetts counties in total reported fires. The Nantucket Fire Department reported 42 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 20 structure fires, seven motor vehicle fires, four brush fires, five outside rubbish fires, two special outside fires, and four unclassified fires caused one civilian injury and an estimated dollar loss of \$710,248. Nantucket County's fires accounted for 0.2% of the 25,368 Massachusetts fires reported in 2021.

All Fires Up

The total number of reported fire incidents decreased by eight from the 50 fires reported in 2020. Structure fires decreased by three from the 23 reported in 2020. Motor vehicle fires increased by four from three reported the previous year. Reported outside and other fires decreased by nine from the 24 reported in 2020.¹

Nantucket is an island community with a small year round population. During the summer months, the population increases immensely. Reflecting this trend in population fluctuation, 36% of Nantucket's fires occurred between the months of May and September.

NANTUCKET FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	54	19	13	22	4	2	1	1
2018	49	37	5	7	0	0	0	0
2019	31	16	2	13	0	0	0	0
2020	50	23	3	24	1	0	0	1
2021	42	20	7	15	0	0	0	0

Fire and Fire Death Rates

Nantucket County had 2.9 fires per 1,000 population. That figure ranks Nantucket County eleventh in the state and below the state rate of 3.6 fires per 1,000 population. Nantucket County also had 0 fire deaths per 10,000 population, ranking it tied for last among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

0 Reported Fire Death in Nantucket County

There was no fatal fires in Nantucket County in 2021.

¹ 2021 was another down year across the state for brush fires.

Single-Family Home Largest Dollar Loss in 2021

In 2021, Nantucket had no fires with a dollar loss greater than \$1 million. It did however have two fires greater than \$100,000 total dollar loss. These fires were responsible for 75% of the total dollar loss for Nantucket in 2021.

- On May 28, 2021, at 11:44 a.m., the Nantucket Fire Department was called to a fire in a single-family home of undetermined cause. No one was injured at this fire. Alarms were present and operated. There were no sprinklers. Damages to the building were estimated to be \$275,000.

STRUCTURE FIRES**Reported Structure Fires Down**

There were 20 structure fires in Nantucket in 2021. These incidents represented 48% of Nantucket County's reported fires in 2021. These 20 fires caused one civilian injury and \$690,248 in estimated losses in 2021. The total number of reported structure fires decreased by three from the 23 reported in 2020.

No Reported Structure Arsons

There were no reported structure arsons in Nantucket in 2021. The total number of reported structure arsons remained the same with none reported as well in 2020.

BUILDING FIRES

There were 20 building fires of different types in Nantucket County in 2021. These 20 building fires accounted for all the structure fires in Nantucket County.

75% of Nantucket Building Fires Occurred in People's Homes

Fifteen (15), or 75%, of Nantucket County's 210 building fires occurred in residential occupancies. Two (2) fires occurred in public assembly properties. The other three fires happened in a manufacturing or processing facility, a mercantile or business property and a special property.

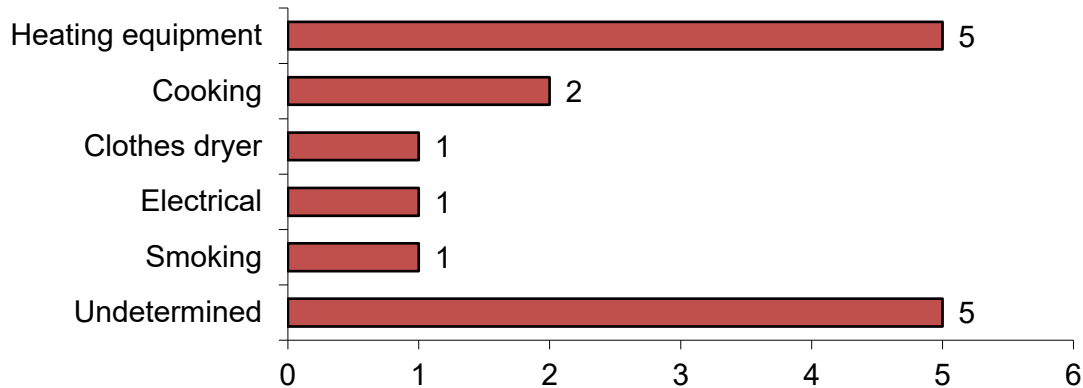
RESIDENTIAL FIRES**Residential Building Fires Down**

There were 15 reported residential building fires in Nantucket County in 2021. These 15 fires are a decrease of seven, or 32%, from the 22 reported in 2020. Thirteen (13), or 87%, occurred in one- or two-family homes. Apartments and dormitories each had one, or 7%, of Nantucket's residential fires.

Heating Fires Caused 33% of Residential Fires

The leading cause of residential building fires in Nantucket County was heating equipment, accounting for 5, or 33%, of these fires. Unattended cooking and other unsafe cooking practices caused two, or 13%. Electrical problems, smoking and a clothes dryer each caused one, or 7%, of these fires. The cause was not determined for five, or 33%, of the residential fires.

2021 Leading Causes of Fires in Nantucket Homes



7 Residential Building Fires Are Confined to Non-Combustible Containers²

Seven (7), or 47%, of all residential building fires were reported as confined to non-combustible containers in 2021. Three (3), or 20%, were fires confined to the chimney or flue. Two (2) of the reported fires were cooking fires contained to a non-combustible container accounting for 13% of the residential fires. Two (2), or 13%, of Nantucket's residential fires were fuel burner or boiler malfunctions.

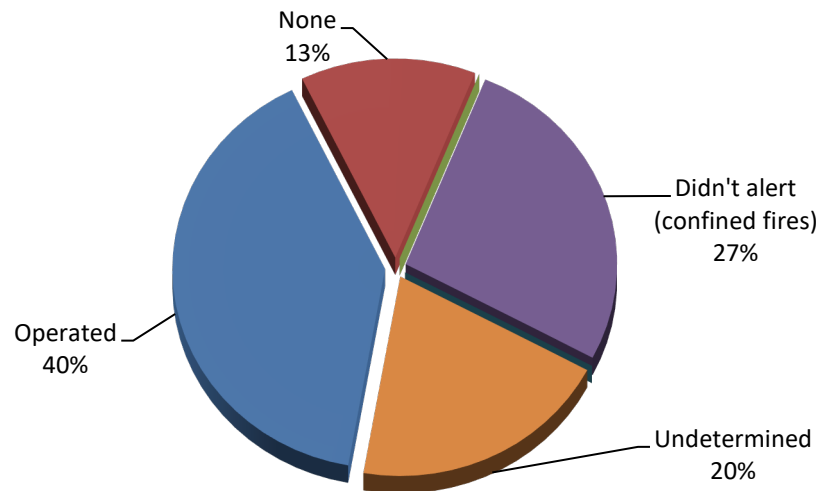
Alarms Operated Occupants in 40% of Fires

Smoke or heat alarms operated in six, or 40%, of the residential building fires. There were four reported fires³, where alarms did not alert the occupants, accounting for 27% of these fires. There were no fires where the alarm failed to operate. There were two reported fire where there were no alarms, accounting for 13% of these fires. There were no fires that were too small to activate the alarm. Alarm performance was undetermined in three, or 20%, 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 2021



VACANT BUILDING FIRES

1 Building Fires Occurred in Vacant Buildings

Nantucket County reported one fire that occurred in a building that was vacant, under construction or demolition. This fire occurred in a single-family home and accounted for 5% of all building fires.

None of the vacant building fires were reported as arson.

JUVENILE-SET FIRES

0 Juvenile-set Fire

Nantucket County did not report any juvenile-set fires in 2021.

ARSONS

0 Total Arson⁴ — 0 Structures, 0 Vehicles & 0 Other Arson

In 2021, Nantucket did not report any incidents that were considered an 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 Down 1

The total number of arsons decreased by one from the one arson reported 2020.

ALL INCIDENTS

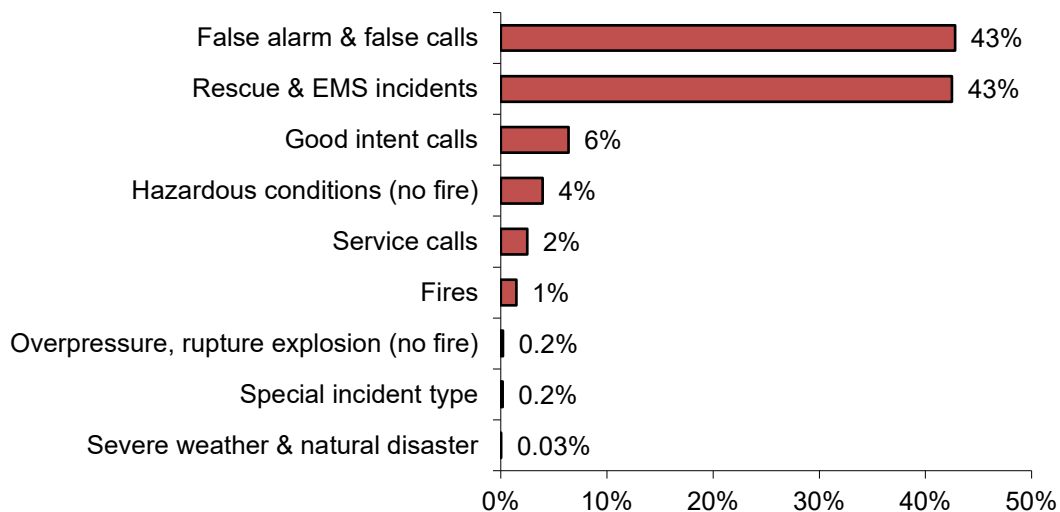
False Alarms Are 43% of All Reported Incidents

In 2021, Nantucket County reported 2,882 responses to MFIRS. Of these 2,882 incidents, 2,810 non-fire calls were voluntarily reported.

Of these 2,810 non-fire calls, 1,233, or 43%, of the total responses reported in 2021 were reported false alarm or false calls; 1,225, or 43%, were reported rescue and emergency medical services (EMS) calls; 184, or 6%, were reported good intent calls; 114, or 4%, were reported hazardous condition calls with no fire; 72, or 2%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; six, or 0.2%, were overpressure, rupture or explosion calls with no fire; five, or 0.2%, were special incident types; and one, or 0.03%, was a severe weather or natural disaster call.

Forty-two (42), or 1%, of the total responses submitted by the Nantucket Fire Department were fires.

2021 Incidents by Incident Type



Nantucket Reported Giving Aid in 0 Calls

In 2021, Nantucket did not report any calls where they gave mutual or automatic aid.

Nantucket Reported Receiving Aid in 6 Calls

In 2021, Nantucket reported receiving mutual aid for six calls. Three (3) of these calls were false alarm or false calls; two were for rescue or EMS calls; and one was for a service call.

Nantucket County**Population: 14,255⁵****2.9 Fires/1,000 Population****Total Fires: 42 \$710,248**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	20	48%	\$390,248
Vehicle Fires	7	17%	15,000
Other Fires	15	36%	5,000

0 Fatal Fire 0.00 Civilian Deaths/1,000 Fires
 0 Civilian Death 0.00 Civilian Deaths/10,000 Population
 1 Civilian Injury

Building Fires: 20**Residential Structure Fires: 15****Residential Structure Fires Confined to Non-Combustible Containers: 7****Unconfined Residential Structure Fires: 8**

1 Civilian Injury

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	13	87%	Operated	6	40%
Apartments	1	7%	Didn't operate	0	0%
Dormitory	1	7%	None	2	13%
			Fire too small	0	0%
			Didn't alert (confined)	4	27%
			Undetermined	3	20%

Area of Origin⁶	%	Heat Source	%	%Unconfined⁷
Kitchen	20%	Rad. or conduct. heat op. eq.	13%	25%
Chimney or flue	20%	Arcing	7%	13%
Heating room or area	13%	Cigarette	7%	13%
Laundry room	13%	Conducted heat fr. an. fire	7%	13%
Exterior stairway	13%			

⁵ We used the figures from the 2020 US Census.

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

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

Item First Ignited⁸	%	Factor Contrib. to Ignit.	%	%Unconfined⁹
Film, residue (creosote)	20%	Too close to combustibles	7%	13%
Exterior sidewall covering	13%	Abandoned materials	7%	13%
Cooking materials	13%	Worn out	7%	13%
Flammable or combust. liquid	13%	Electrical failure/malf.	7%	13%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
None	47%	Unintentional	33%	67%
Chimney or flue	20%	Act of nature	0%	0%
Cooking equipment	13%	Failure of eq. or heat source	0%	0%
Boiler, furnace, cent. heat. unit	13%	Cause under investigation	13%	25%
Clothes dryer	7%	Undetermined	7%	13%
		Intentional	0%	0%

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

Alerted Occupants	29%
Didn't Alert Occupants	57%
Undetermined	14%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	5	3	0	2
February	1	1	0	0
March	2	1	1	0
April	9	4	1	4
May	5	5	0	0
June	2	0	0	2
July	4	0	1	3
August	2	1	0	1
September	2	1	0	1
October	1	0	0	1
November	4	0	4	0
December	5	4	0	1

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	7	5	1	1
Monday	3	1	2	0
Tuesday	12	4	0	8
Wednesday	4	3	0	1
Thursday	5	3	1	1
Friday	3	1	1	1
Saturday	8	3	2	3

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	2	1	0	1
04:01 - 08:00	4	1	1	2
08:01 - 12:00	9	6	1	2
12:01 - 16:00	14	7	2	5
16:01 - 20:00	8	4	2	2
20:01 - 00:00	5	1	1	3

Motor Vehicle Fires

Total: 7

Automobiles: 5 (71%)

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

Arson Fires**Total Arsons: 0****Dollar loss: \$0****0.0 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	0	0%	0%	0

0.00 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.00 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
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Other Arsons	#	%
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Responses Reported to MFIRS by Month

Incident Type	# of Incidents	January	February	March	April	May	June	July	August	September	October	November	December
Fires	42	5	1	2	9	5	2	4	2	2	1	4	5
Overpressure, rupture explosion (no fire)	6	0	0	0	0	0	0	3	1	0	1	1	0
Rescue & EMS incidents	1,225	68	73	65	73	93	147	192	142	122	83	76	91
Hazardous conditions (no fire)	114	8	8	12	5	12	10	5	9	8	12	17	8
Service calls	72	9	2	7	3	4	6	11	7	6	6	7	4
Good intent calls	184	11	12	15	28	24	21	23	15	10	6	13	6
False alarm & false calls	1,233	73	67	82	84	114	127	186	129	122	118	74	57
Severe weather & natural disaster	1	0	0	0	0	0	0	1	0	0	0	0	0
Special incident type	5	0	0	0	0	1	1	2	0	1	0	0	0
Total	2,882	174	163	183	202	253	314	427	305	271	227	192	171

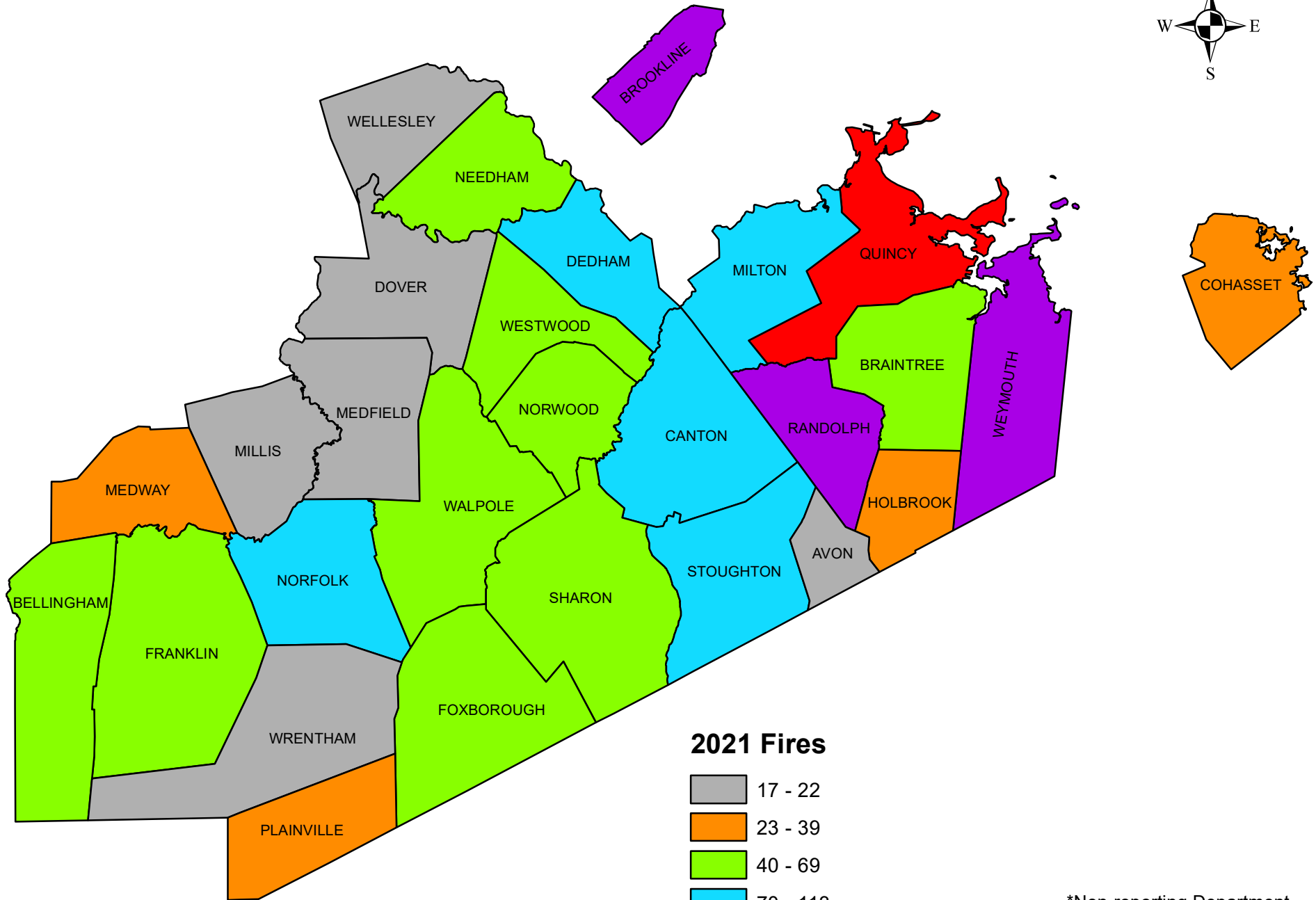
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Norfolk County

2021 Fire Data Analysis

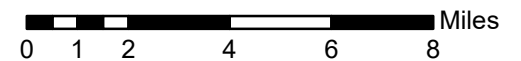
Norfolk County Fires 2021



2021 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2021

Norfolk County Fires in 2021

2,614 Total Fires — 1,601 Structures, 219 Vehicles & 794 Other Fires

Norfolk County ranked fourth out of the fourteen Massachusetts counties in total reported fires. Norfolk County fire departments reported 2,614 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 1,601 structure fires, 219 motor vehicle fires, 461 brush, tree or lawn fires, 152 outside rubbish fires, 82 special outside fires, 12 cultivated vegetation or crop fires, and 87 other fires caused three civilian deaths, 13 civilian injuries, 31 fire service injuries and an estimated dollar loss of \$20.7 million. Norfolk County's fires accounted for 10% of the 25,368 Massachusetts fires reported in 2021.

All 28 fire departments in Norfolk County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2021.

Structure Fires Up Slightly

The total number of reported fire incidents decreased by 259 from the 2,873 reported in 2020. Reported structure fires increased by 47 from the 1,554 reported during the previous year. Motor vehicle fires remained the same with 219 reported in both 2021 and 2020. Reported outside and other fires decreased by 306 from the 1,100 reported a year earlier.¹

NORFOLK COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2,990	1,811	220	959	68	16	1	51
2018	2,541	1,558	249	734	48	8	3	37
2019	2,553	1,704	210	639	42	6	1	35
2020	2,873	1,554	219	1,100	59	8	4	47
2021	2,614	1,601	219	794	47	12	2	33

Fire and Fire Death Rates

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

3 Norfolk Fires Deaths

In 2021, three fatal fires killed three people in Norfolk County.

- On May 22, 2021, at 3:33 a.m., the Stoughton Fire Department was called to a fatal smoking fire in a six-unit apartment building. The fire was started by a cigarette in one of the bedrooms. The victim was asleep at the time of the fire. One (1) firefighter

¹ 2021 was another down year for brush fires across the state.

was also injured. Alarms were present and alerted the occupants. There were no sprinklers. Damages from this fire were estimated to be \$600,000.

- On December 19, 2021, at 1:23 p.m., the Stoughton Fire Department was called to a fatal smoking fire in an apartment building. The fire was caused by a cigarette while someone in the unit was using oxygen and the fire was extinguished before firefighters arrived. One adult victim was transported to a local hospital and later succumbed to their injuries. No one else was injured at this fire. Alarms were present but the fire was too small to activate them. It was undetermined if there were sprinklers. Damages from this fire were not estimated.
- On December 23, 2021, at 4:57 p.m., the Wrentham Fire Department was dispatched to a motor vehicle fire in a parking lot. The adult victim started the fire in an attempt at suicide. No one else was injured in this fire. Damages from this fire were not estimated.

Milton Has Norfolk County's Largest Loss Fire in 2021

There were three reported fires in Norfolk County that caused over \$1 million in estimated damages. These three fires accounted for \$5.2 million in estimated damages and 25% of the total dollar loss for the county.

- The Milton Fire Department was dispatched to a fire of undetermined cause at the Milton Club at 1:29 a.m. on March 23, 2021. The building was undergoing a major renovation. No one was injured at this fire. Alarms were present and operated. The building did not have sprinklers. Damages from this fire were estimated to be \$2.4 million.

STRUCTURE FIRES

Reported Structure Fires Up Slightly

The 1,601 structure fires caused two civilian deaths, 13 civilian injuries, 27 fire service injuries and an estimated dollar loss of \$17.6 million. These incidents represented 61% of Norfolk County's reported fires in 2021. The average estimated dollar loss per structure fire was \$11,020. The total number of reported structure fires increased by 47, or 3%, from the 1,554 reported in 2020.

Arson Caused 1% of Structure Fires

The 12 structure arsons caused one fire service injury and an estimated dollar loss of \$480,200. Arson was indicated as the cause of 1% of the structure fires and 3% of Norfolk County's structure fire dollar loss. The 12 structure arsons accounted for 26% of the Norfolk County arson fires reported in 2021. The total number of reported structure arsons increased by four, or 50%, from eight in 2020.

75% of Structure Arsons Occurred in Residential Properties

Nine (9), or 75%, of Norfolk County's 12 structure arsons occurred in residential occupancies. One (1) fire, or 8%, each took place in an industrial facility, and institutional facility and a mercantile or business property.

BUILDING FIRES

There were 1,596 building fires of different types in Norfolk County in 2021. These 1,596 building fires accounted for 99.7% of all structure fires in Norfolk County.

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

One thousand three hundred and twenty-seven (1,327), or 84%, of Norfolk County's 1,596 building fires occurred in residential occupancies. Eighty-three (83) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 71 fires. Hospitals, prisons, and other institutional buildings experienced 39 fires. Twenty-six (26) building fires in Norfolk County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Nineteen (19) building fires took place in educational properties. Fifteen (15) fires took place in storage properties. Five (5) fires took place in manufacturing and processing facilities. Four (4) fires occurred in industrial buildings, and seven fires occurred in unclassified buildings in Norfolk County in 2021.

RESIDENTIAL FIRES

Apartments Accounted for 48% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 48% 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-six (56), or 4%, of the residential building fires in Norfolk County occurred in unclassified residential buildings.

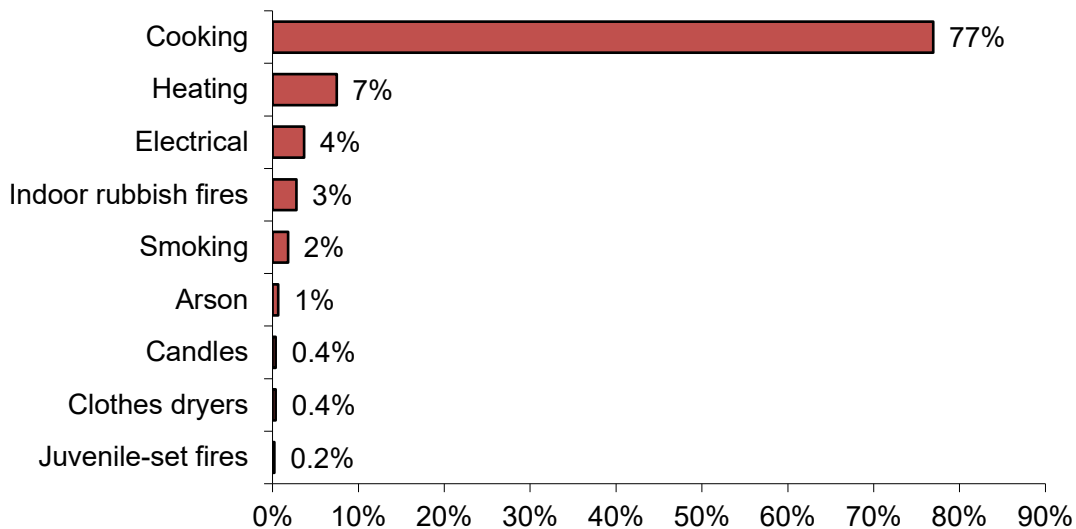
Residential Building Fires Down Slightly

There were 1,327 reported residential building fires in Norfolk County in 2021. These 1,327 fires are a decrease of one, or less than 1%, from the 1,328 residential building fires reported in 2020.

Cooking Caused 77% of Residential Fires

The leading cause of residential building fires in Norfolk County was unattended cooking and other unsafe cooking practices, accounting for 77% of the fires. Heating caused 7% of fires in people's homes. Heating equipment caused 4% and indoor rubbish fires caused 3%. Smoking caused 2% of these fires and arson caused 1%. Candles, clothes dryers and juvenile-set fires each caused less than 1% of the residential building fires in Norfolk County in 2021.

2021 Leading Causes of Fires in Norfolk County Homes

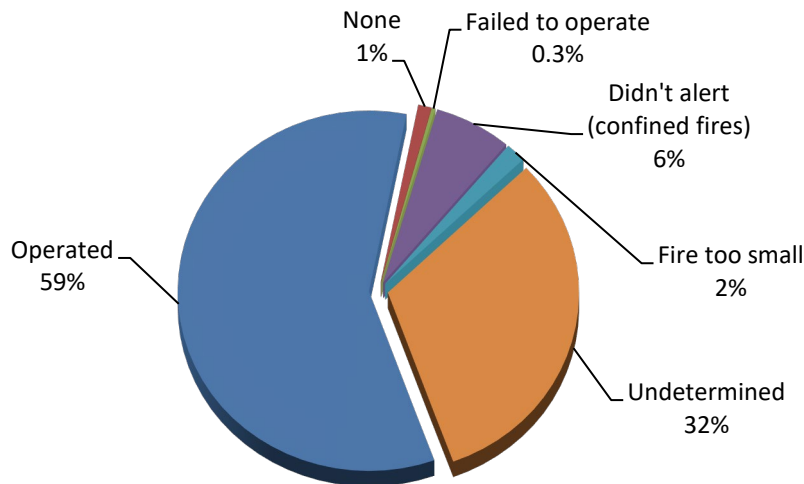


85% of Residential Building Fires Are Confined to Non-Combustible Containers²

One thousand one hundred and twenty-eight (1,128), or 85%, of all residential building fires were reported as confined to non-combustible containers in 2021. One thousand and five (1,005) of the reported fires were cooking fires contained to a non-combustible container, accounting for 76% of residential building fires. Fifty-two (52), or 4%, were fires confined to a fuel burner or boiler malfunction. Thirty-four (34), or 3%, of all residential building fires reported in 2021 were fires confined to a chimney. Thirty-six (36), or 3% of Norfolk County's residential fires in 2021 were contained rubbish fires; and one, or less than 1%, was a commercial compactor fire.

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.

Detector Status in Norfolk County's Residential Structure Fires 2021



1/4 Detectors Failed from Missing or Dead Batteries

Of the four fires where smoke detectors were present but failed to operate, one, or 25%, failed because of a dead battery. One (1) detector, or 25%, failed from a lack of maintenance, and another one failed because it was defective. It was undetermined or unclassified in one case, or 25%, why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Norfolk County reported 23 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 1,596 building fires reported to MFIRS in 2021. Thirteen (13) fires occurred in vacant residential properties. Three (3) occurred in public assembly properties; and another two in educational facilities. An institutional facility, manufacturing or processing facility and a storage facility each had one fire in a vacant building.

None, of the vacant building fires in Norfolk County in 2021 were determined to be intentionally-set.

JUVENILE-SET FIRES

4 Juvenile-set Fires

There were four reported juvenile-set fires in Norfolk County in 2021. The three structure fires and one special outside fire caused \$203,300 in estimated damages.

ARSONS

47 Total Arsons - 12 Structures, 2 Vehicle & 33 Other Arsons

Forty-seven (47), or 2%, of Norfolk County's 2,614 fires were intentionally-set, or, for purposes of this analysis, arson. The 12 structure arsons, two motor vehicle arsons and 33 outside and other arsons caused one civilian death, one fire service injury and an estimated loss of \$480,202.

All Arsons Down

The total number of reported arson fires decreased by 12 from the 59 reported in 2020. Reported structure arsons increased by four from the eight reported the previous year. Motor vehicle arsons decreased by two from the four reported in 2020. Reported outside and other arsons decreased by 14 from 47 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 64% of All Reported Incidents

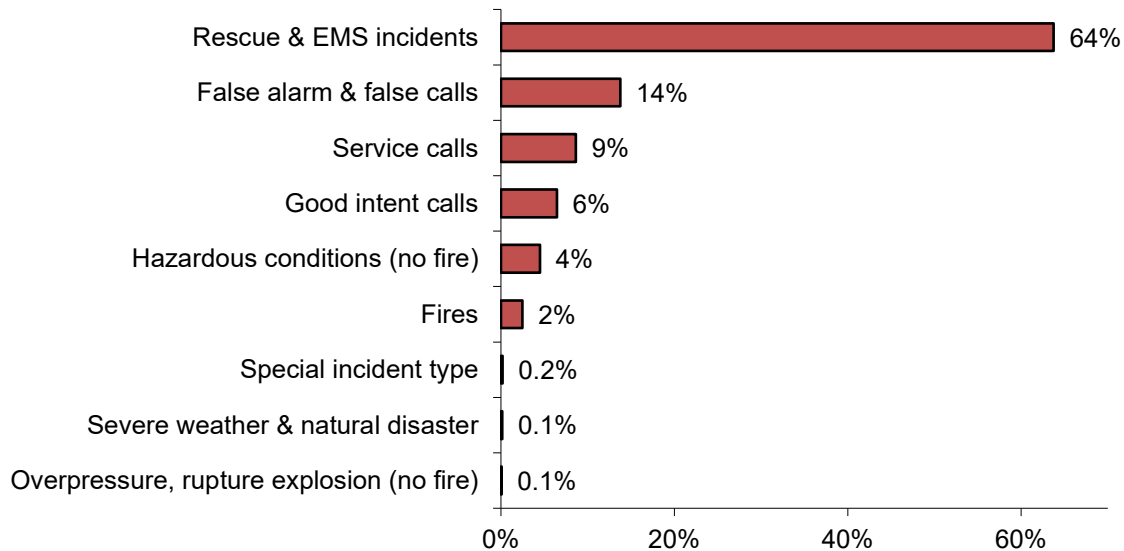
In 2021, fire departments in Norfolk County reported 115,432 responses³ to MFIRS. Of these 115,432 incidents, 112,567 non-fire calls were voluntarily reported.

Of these 112,567 non-fire incidents, 73,595, or 64%, of all the incidents reported in 2021 were reported rescue and emergency medical services (EMS) calls; 15,876, or 14%, were reported false alarm or false calls; 9,967, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 7,466, or 6%, were reported good intent calls; 5,184, or 4%, were reported hazardous condition calls with no fire; 234, or 0.2%, were special incident type calls such as citizen complaints; 160, or 0.1%, were severe weather responses; and 85, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand eight hundred and sixty-five (2,865), or 2%, 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.

2021 Responses by Incident Type



Norfolk County Fire Departments Gave Mutual Aid 4,154 Times

In 2021, Norfolk County fire departments reported coming to the aid of other fire departments 2,481 times. Of these 2,481 responses, 2,562, or 62%, were for rescue or EMS calls; 730 or 18%, were for good intent calls; 418, or 10%, were for service calls such as cover assignments; 244, or 6%, were for fires; 151, or 4%, were for false alarms or false calls; 37, or 1%, were for hazardous conditions calls with no fire; nine, or 0.2%, was a special incident type; two, or 0.05%, were severe weather or natural disaster calls; and one, or 0.02%, was for an overpressure, rupture explosions with no fire.

Norfolk County Received Mutual Aid in 2,481 Incidents

In 2021, Norfolk County fire departments reported receiving aid from surrounding departments in 2,481 incidents. Of these 2,481 incidents, 2,052, or 83%, were rescue and emergency medical services calls; 142, or 6%, were for fires; 119, or 5%, were false alarms or false calls; 75, or 3%, were good intent calls; 45, or 2%, were hazardous conditions calls with no fire; 44 or 2%, were service calls; three, or 0.1%, were severe weather or natural disaster calls; and one, or 0.04%, was an overpressure, rupture explosions with no fire.

Norfolk County**Population: 725,981⁴****3.6 Fires/1,000 Population****Total Fires: 2,614 \$20,738,353**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,601	61%	\$17,643,280
Vehicle Fires	219	8%	2,854,471
Other Fires	794	30%	240,602

3 Fatal Fires 1.15 Civilian Deaths/1,000 Fires
 3 Civilian Deaths 0.04 Civilian Deaths/10,000 Population
 13 Civilian Injuries 31 Fire Service Injuries

Building Fires: 1,596**Residential Structure Fires: 1,327****Residential Structure Fires Confined to Non-Combustible Containers: 1,128****Unconfined Residential Structure Fires: 199**

2 Civilian Deaths 12 Civilian Injuries 25 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	643	48%	Operated	779	59%
1- & 2-Family homes	513	39%	Didn't operate	4	0.3%
Rooming houses	49	4%	None	15	1%
Dormitories	35	3%	Fire too small	23	2%
Residential board & care	18	1%	Didn't alert (confined)	87	7%
Hotels or motels	13	1%	Undetermined	419	32%

Area of Origin⁵	%	Heat Source	%	%Unconfined⁶
Kitchen	77%	Arcing	2%	17%
Heating equipment room	4%	Heat from operating equip.	2%	13%
Chimney or flue	3%	Hot ember or ash	1%	8%
Bedroom	1%	Hot or smoldering obj., other	1%	8%
Exterior balcony, unencl. porch	1%	Radiated heat from oper. eq.	1%	7%

⁴ We are using the figures from the 2020 US Census.

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	76%	Equipment unattended	2%	12%
Flammable/comb. liquid	4%	Too close to combustibles	1%	9%
Film, residue (creosote)	3%	Misuse of mater. or prod.	1%	9%
Rubbish, trash, waste	3%	Abandoned materials	1%	7%
		Elec. fail., malfunc., other	1%	7%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Kitchen & cooking equipment	76%	Unintentional	8%	56%
None	10%	Failure of eq. or heat source	2%	13%
Boiler, furnace, cent. heat. unit	3%	Intentional	0.4%	3%
Chimney, flue	3%	Act of nature	0.4%	3%
Electrical wiring, other	0.5%	Cause under investigation	2%	13%
Stove, heating	0.4%	Undetermined	2%	12%
Clothes dryer	0.4%			

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

Alerted occupants	60%
Didn't alert occupants	8%
Undetermined	32%

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	198	138	25	35
February	153	125	16	12
March	313	138	14	161
April	273	128	18	127
May	297	129	19	149
June	256	126	23	108
July	174	113	26	35
August	157	103	20	34
September	161	124	5	32
October	205	156	18	31
November	226	177	16	33
December	201	144	20	37

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	416	264	34	118
Monday	353	219	26	108
Tuesday	376	219	31	126
Wednesday	376	218	33	125
Thursday	315	215	24	76
Friday	370	237	34	99
Saturday	408	229	37	142

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	133	79	25	29
04:01 - 08:00	151	87	17	47
08:01 - 12:00	450	297	40	113
12:01 - 16:00	732	391	50	291
16:01 - 20:00	766	490	52	224
20:01 - 00:00	382	257	35	90

Motor Vehicle Fires

Total: 219

Automobiles: 172 (80%)

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

Arson Fires

Total Arsons: 47

Dollar loss: \$480,202

0.07 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	12	1%	26%	\$480,200
Vehicle Arsons	2	1%	4%	0
Other Arsons	33	4%	70%	2

0.02 Structure arsons/1,000 population

0.003 Vehicle arsons/1,000 population

0.05 Other arsons/1,000 population

1 Civilian Death

1 Fire Service Injury

Peak Times of Day for

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 - 00:00	4	33%	08:01 - 12:00	1	50%
16:01 - 20:00	3	25%	16:01 - 20:00	1	50%
00:01 - 04:00	2	17%			
12:01 - 16:00	2	17%			

Other Arsons	#	%
16:01 - 20:00	16	45%
12:01 - 16:00	8	25%
08:01 - 12:00	4	12%
20:01 - 00:00	4	12%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	5	42%
Residential, other	2	17%

Avon					Population: 4,777			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	35	7	8	20	0	0	0	0
2018	24	7	9	8	2	0	0	2
2019	24	7	4	13	3	0	0	3
2020	21	2	7	12	1	0	1	0
2021	17	4	7	6	0	0	0	0

Bellingham					Population: 16,495			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	50	13	8	29	1	1	0	0
2018	36	16	9	11	2	1	0	1
2019	30	8	8	14	2	0	0	2
2020	49	19	8	22	0	0	0	0
2021	59	19	5	35	0	0	0	0

Braintree					Population: 39,143			
	Total Fires	Structure Fires	Vehicle Fires	Other Arsons	Total Arsons	Structure Arsons	Vehicle Arsons	Other Fires
2017	90	23	16	51	4	0	0	4
2018	70	15	20	35	1	0	0	1
2019	69	14	12	43	0	0	0	0
2020	90	19	16	55	0	0	0	0
2021	69	25	15	29	1	1	0	0

Brookline					Population: 63,191			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	402	340	11	51	1	0	0	1
2018	385	350	7	28	3	1	0	2
2019	493	454	8	31	0	0	0	0
2020	430	372	6	52	3	1	0	2
2021	370	322	7	41	1	0	0	1

Canton					Population: 24,370			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	58	27	15	16	0	0	0	0
2018	77	32	13	32	2	2	0	0
2019	66	34	14	18	1	1	0	0
2020	82	32	13	37	3	1	0	2
2021	75	33	13	29	0	0	0	0

Cohasset					Population: 8,381			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	79	61	4	14	4	0	0	4
2018	45	26	1	18	5	0	0	5
2019	28	16	3	9	0	0	0	0
2020	37	19	1	17	0	0	0	0
2021	37	1	1	17	1	0	0	1

Dedham					Population: 25,364			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	146	78	9	59	4	1	0	3
2018	144	80	11	53	3	0	0	3
2019	89	54	13	22	3	0	0	3
2020	115	45	7	63	7	1	0	6
2021	96	37	7	52	2	0	0	2

Dover					Population: 5,923			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	11	7	0	4	0	0	0	0
2018	19	8	1	10	0	0	0	0
2019	12	6	1	5	0	0	0	0
2020	17	3	1	13	2	0	0	2
2021	18	9	1	8	1	1	0	0

Foxborough **Population: 18,618**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	44	15	8	21	0	0	0	2
2018	60	19	21	20	2	0	1	1
2019	39	13	13	13	5	0	0	5
2020	62	16	16	30	2	0	0	2
2021	54	18	13	23	3	0	0	3

Franklin **Population: 33,261**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	50	19	5	26	3	0	0	3
2018	58	24	14	20	1	0	0	1
2019	46	20	7	19	0	0	0	0
2020	59	11	7	41	1	0	0	1
2021	52	18	13	21	1	1	0	0

Holbrook **Population: 11,405**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	42	32	5	5	2	2	0	0
2018	45	27	6	12	0	0	0	0
2019	38	23	3	12	0	0	0	0
2020	37	17	2	18	2	0	0	2
2021	34	17	8	9	2	2	0	0

Medfield **Population: 12,799**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	25	5	0	20	9	0	0	9
2018	17	9	1	7	3	0	0	3
2019	17	6	2	9	0	0	0	0
2020	26	10	0	16	2	1	0	1
2021	25	7	2	16	1	0	0	1

Medway**Population: 13,115**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	52	39	1	12	2	1	0	1
2018	33	23	2	8	0	0	0	0
2019	37	27	3	7	0	0	0	0
2020	46	31	2	13	0	0	0	0
2021	37	28	3	6	1	0	0	1

Millis**Population: 8,460**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	Non-Reporting Community							
2018	Non-Reporting Community							
2019	15	6	0	9	1	0	0	1
2020	17	4	3	10	3	0	0	3
2021	19	1	2	16	4	0	0	4

Milton**Population: 28,630**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	166	116	14	36	3	0	0	3
2018	69	48	8	13	0	0	0	0
2019	111	87	10	14	2	0	0	2
2020	108	71	17	0	0	0	0	0
2021	113	84	12	17	1	1	0	0

Needham**Population: 32,091**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	53	13	11	29	3	1	0	2
2018	35	7	2	26	0	0	0	0
2019	50	10	8	32	1	0	0	1
2020	57	12	7	38	1	0	0	1
2021	49	13	12	24	1	0	0	1

Norfolk					Population: 11,662			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	71	53	1	17	3	1	0	2
2018	52	39	3	10	0	0	0	0
2019	74	68	1	5	0	0	0	0
2020	89	68	1	20	0	0	0	0
2021	76	68	0	8	0	0	0	0

Norwood					Population: 31,611			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	89	34	9	46	0	0	0	0
2018	82	32	7	43	1	0	1	0
2019	63	30	6	27	1	0	1	0
2020	100	35	8	57	0	0	0	0
2021	66	22	8	36	0	0	0	0

Plainville					Population: 9,945			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	40	21	2	17	1	0	0	1
2018	16	6	2	8	0	0	0	0
2019	22	8	2	12	1	0	0	1
2020	25	7	5	13	0	0	0	0
2021	39	15	6	18	0	0	0	0

Quincy					Population: 101,636			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	641	406	19	216	9	0	0	9
2018 ¹¹	512	337	30	145	8	1	0	7
2019	588	414	23	151	9	2	0	7
2020	656	376	21	259	22	1	1	20
2021	635	444	17	174	19	5	1	13

¹¹ Quincy only reported the first 3 months of 2018 runs to MFIRS before the database was closed for analysis. QFD reported 106 total fires, 89 structure fires, 7 motor vehicle fires and 10 outside & other fires. They did not report any arsons during the first 3 months. The above numbers are their actual totals for 2018. Only the 106 fires were included in the analysis of this report.

Randolph**Population: 34,984**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	196	127	17	52	8	4	0	4
2018	192	133	18	41	9	1	0	8
2019	133	90	10	33	11	2	0	9
2020	150	81	19	50	4	1	1	2
2021	178	119	18	41	8	1	0	7

Sharon**Population: 18,575**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	41	25	4	12	0	0	0	0
2018	40	23	9	8	1	0	0	1
2019	35	21	6	8	0	0	0	0
2020	46	32	4	10	1	0	1	0
2021	49	27	6	16	0	0	0	0

Stoughton**Population: 29,281**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	108	76	9	23	1	1	0	0
2018	83	37	8	38	2	1	1	0
2019	95	48	15	32	1	1	0	0
2020	85	41	16	28	1	1	0	0
2021	89	43	9	37	0	0	0	0

Walpole**Population: 26,383**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	79	43	4	32	1	0	0	1
2018	70	43	5	22	0	0	0	0
2019	46	24	7	15	1	0	0	1
2020	52	20	4	28	0	0	0	0
2021	48	17	11	20	0	0	0	0

Wellesley **Population: 29,550**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	53	25	7	21	1	1	0	0
2018	32	14	7	11	0	0	0	0
2019	41	23	5	13	0	0	0	0
2020	28	12	4	12	1	0	0	1
2021	20	11	3	6	0	0	0	0

Westwood **Population: 16,266**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	105	63	10	32	1	0	1	0
2018	114	73	6	35	0	0	0	0
2019	56	34	5	17	0	0	0	0
2020	85	49	6	30	1	0	0	1
2021	57	42	4	11	0	0	0	0

Weymouth **Population: 57,437**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	252	136	21	95	4	3	0	1
2018	219	126	23	70	3	1	0	2
2019	223	156	17	50	0	0	0	0
2020	287	143	14	130	2	1	0	1
2021	219	132	12	75	0	0	0	0

Wrentham **Population: 12,178**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	12	7	2	3	1	0	0	1
2018	11	4	5	2	0	0	0	0
2019	14	3	4	7	0	0	0	0
2020	17	7	4	6	0	0	0	0
2021	17	7	4	6	1	0	1	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
21018	Avon	1,420	33	1	945	54	138	113	131	2	3
21025	Bellingham	3,004	62	0	2,108	53	275	218	280	1	7
21040	Braintree	7,081	69	27	4,891	164	715	379	818	12	6
21046	Brookline	8,575	379	8	4,759	480	773	595	1,568	5	8
21050	Canton	4,743	83	3	2,995	105	573	299	673	2	10
21065	Cohasset	1,944	37	2	971	229	241	143	265	27	29
21073	Dedham	5,091	103	3	3,295	344	465	181	692	0	8
21078	Dover	249	21	0	42	20	16	16	131	3	0
21099	Foxborough	3,943	85	2	2,706	191	289	245	416	4	5
21101	Franklin	4,876	67	4	3,313	107	321	404	645	14	1
21133	Holbrook	3,200	34	1	1,951	135	526	199	347	5	2
21175	Medfield	1,303	25	0	743	106	131	64	220	3	11
21177	Medway	2,178	38	5	1,376	136	119	134	350	17	3
21187	Millis	900	30	0	578	29	116	31	87	12	17
21189	Milton	3,788	117	5	2,399	144	221	209	680	2	11
21199	Needham	4,073	49	1	2,231	164	601	289	729	0	9

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	1,941	126	0	1,180	185	82	11	357	0	0
21220	Norwood	5,857	74	0	4,441	242	231	185	672	0	12
21238	Plainville	2,659	80	1	1,656	72	173	280	388	1	8
21243	Quincy	12,362	635	8	8,136	583	689	698	1,589	21	3
21244	Randolph	6,618	178	1	4,613	259	660	298	602	4	3
21266	Sharon	2,721	66	0	1,706	123	232	275	310	2	7
21285	Stoughton	5,891	99	4	3,962	123	393	379	914	4	13
21307	Walpole	4,296	48	0	2,772	184	514	325	450	1	2
21317	Wellesley	3,844	20	1	2,008	210	333	278	985	1	8
21335	Westwood	3,653	67	2	1,986	221	537	380	453	5	2
21336	Weymouth	6,795	222	1	4,229	393	423	663	848	10	6
21350	Wrentham	2,433	24	5	1,603	128	180	175	276	2	40
Norfolk County		115,438	2,871	85	73,595	5,184	9,967	7,466	15,876	160	234

* Certified no reportable fires.

**Non reporting department.

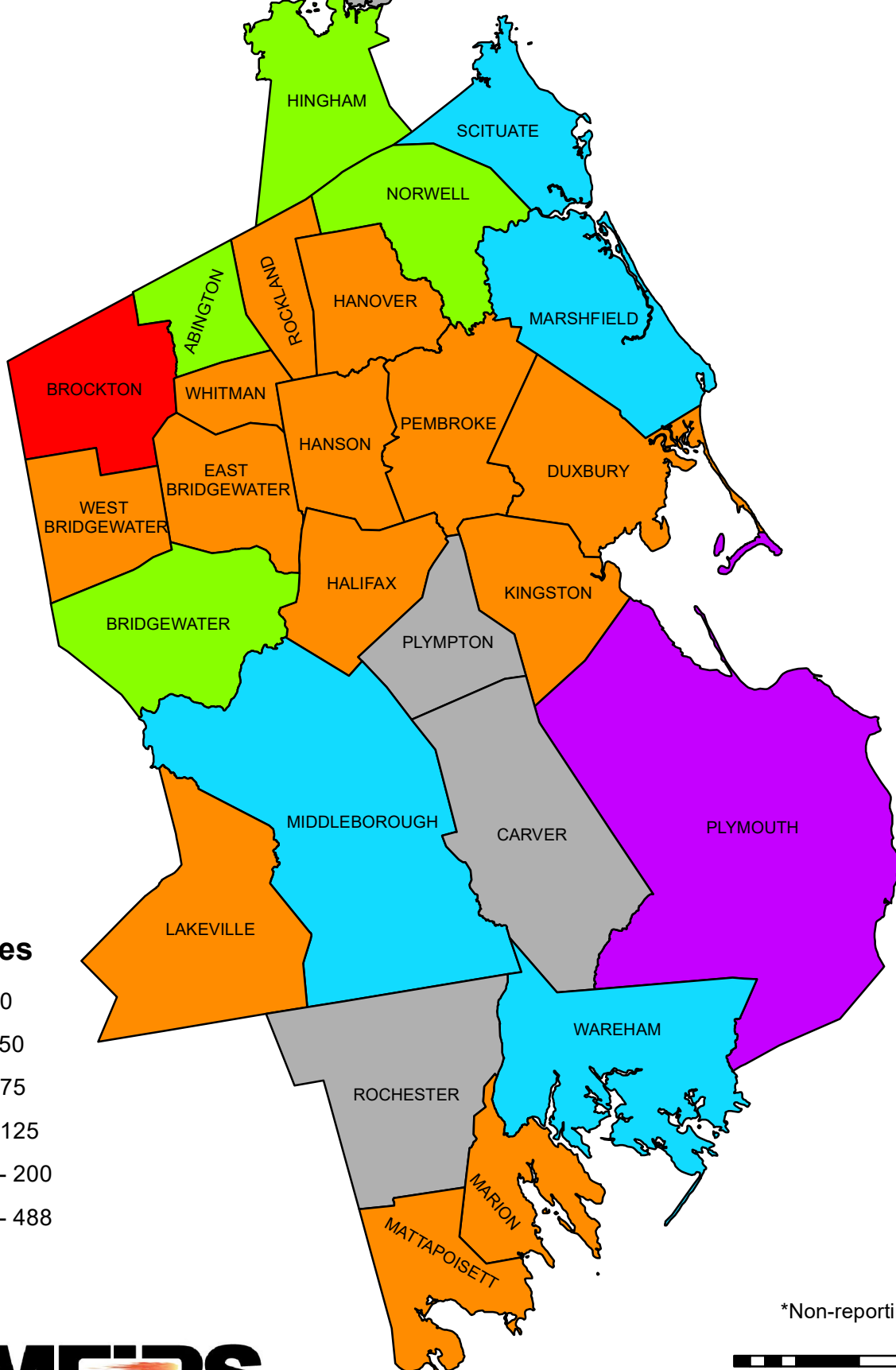
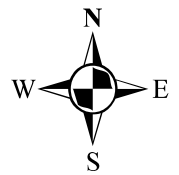
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



Plymouth County

2021 Fire Data Analysis

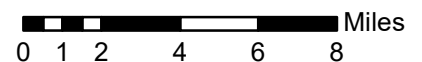
Plymouth County Fires 2021



2021 Fires



*Non-reporting Department



MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2021

Plymouth County Fires in 2021

1,752 Total Fires — 836 Structures, 209 Vehicles & 707 Other Fires

Plymouth County ranked sixth out of the fourteen Massachusetts counties in total reported fires. Plymouth County fire departments reported 1,752 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 836 structure fires, 209 motor vehicle fires, 446 brush, tree or lawn fires, 130 outside rubbish fires, 92 special outside fires, four cultivated vegetation or crop fires and 35 other fires caused one civilian death, 25 civilian injuries, 46 fire service injuries and an estimated dollar loss of \$24 million. Plymouth County's fires accounted for 7% of the 25,368 Massachusetts fires reported in 2021.

All 28 fire departments, or 100%, in Plymouth County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2021.

All Fires Down

The total number of reported fire incidents decreased by 292, or 14%, from the 2,044 reported in 2021. Reported structure fires decreased by five from 841 the year before. Motor vehicle fires increased by 14 from 195 the previous year. Reported outside and other fires decreased by 301 from 1,008 in 2020.¹

PLYMOUTH COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1,757	828	199	730	39	12	4	23
2018	1,646	834	219	593	39	11	4	24
2019	1,565	808	198	559	33	14	5	14
2020	2,044	841	195	1,008	58	20	7	31
2021	1,752	836	209	707	40	11	5	24

Fire and Fire Death Rates

Plymouth County had 3.3 fires per 1,000 population. That figure ranks Plymouth County tied for seventh in the state and below the state rate of 3.6 fires per 1,000 population. Plymouth County also had 0.02 fire deaths per 10,000 population ranking it tied for tenth among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

1 Plymouth County Fatal Fire Killed 1 Civilian in 2021

One (1) person died in one fatal fire in Plymouth County in 2021.

- On December 8, 2021, at 10:55 p.m., the Plymouth Fire Department was called to a fatal electrical fire in a single-family home. The fire was caused by an electrical malfunction in a power strip in the living room. There was one older adult victim. One (1) civilian and one firefighter were also injured at this fire. Alarms were present and

¹ 2021 was another down year statewide for brush fires.

operated. Sprinklers were not present in the home. Damages were estimated to be \$225,000.

Brockton Has Plymouth County's Largest Loss Fire in 2021

In 2021, there were four large loss fires in Plymouth County with a dollar loss greater than \$1 million. These four fires caused \$5.3 million, or 22%, of Plymouth County's total dollar loss.

- On October 27, 2021, at 5:07 a.m., the Brockton Fire Department responded to an electrical fire at a 20-unit apartment building. Six (6) firefighters were injured at this fire. Alarms were present and alerted the occupants. The building did not have any sprinklers. Total damages were estimated to be \$1.7 million.

STRUCTURE FIRES

Reported Structure Fires Down Slightly

The 836 structure fires caused one civilian death, 24 civilian injuries, 42 fire service injuries and an estimated dollar loss of \$20.7 million. These incidents represented 48% of Plymouth County's reported fires in 2021. The average estimated dollar loss per structure fire was \$24,722. The total number of reported structure fires decreased by five, or 1%, from the 841 reported in 2020.

Structure Arsons Down Slightly

The 11 structure arsons caused one civilian injury and an estimated dollar loss of \$124,000. Arson was indicated as the cause of 1% of the structure fires and 1% of Plymouth County's structure fire dollar loss. The 11 structure arsons accounted for 28% of the Plymouth County arson fires reported in 2021. The total number of reported structure arsons decreased by nine, or 45%, from 20 in 2020.

82% of Structure Arsons Occurred in Residences

Nine (9), or 82%, of Plymouth County's 11 structure arsons occurred in residential occupancies. Nine (9%) occurred in institutional facilities and another 9% happened in educational properties.

BUILDING FIRES

There were 829 building fires of different types in Plymouth County in 2021. These 829 building fires accounted for 99.2% of all structure fires in Plymouth County.

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

Six hundred and ninety-three (693), or 84%, of Plymouth County's 829 building fires occurred in residential occupancies. Mercantile and business properties had 52 fires. Twenty-five (25) fires took place in public assembly properties, including restaurants and churches. Eighteen (18) fires took place in storage facilities. Hospitals, prisons, and other institutional buildings experienced 17 fires. Special properties had eight fires. Seven (7) building fires took place in educational facilities. 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 2021. There were two fires where the property use was either unknown or not reported.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 693 reported residential building fires in Plymouth County in 2021. These 693 fires are a decrease of 13, or 2%, from the 706 residential building fires reported in 2020.

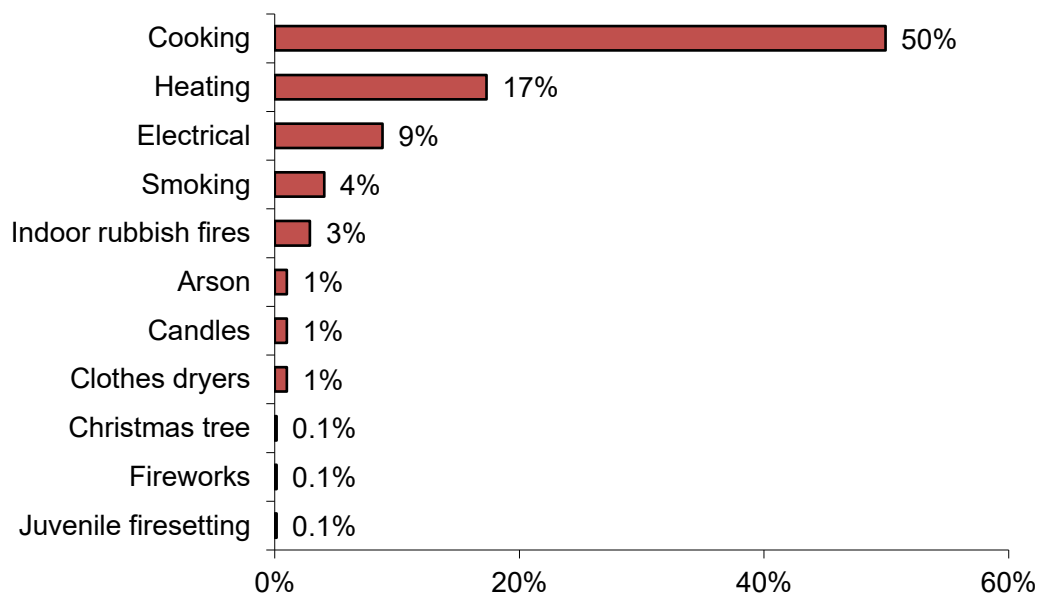
1- & 2-Family Homes Accounted for 59% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 59% of the residential building fires in Plymouth County; 35% occurred in apartments. Rooming houses had 2% of these fires. Dormitories and residential board and care facilities each had 1% of these fires. Hotels or motels had less than 1% of these fires. Twelve (12), or 2%, of the residential building fires in Plymouth County occurred in unclassified residential buildings.

Cooking Was the Leading Causes of Residential Fires

The leading cause of the 693 residential building fires in Plymouth County was unattended cooking and other unsafe cooking practices, accounting for 50% of these fires. Heating problems caused 17% of the fires in people's homes. Electrical problems caused 9%, smoking caused 4% and indoor rubbish fire caused 3% of these fires. Arson, candles and clothes dryers each caused 1% of these fires. Juvenile-set fires, fireworks and a Christmas tree fire each caused less than 1% of residential fires in Plymouth County in 2021.

2021 Leading Causes of Fires in Plymouth County Homes



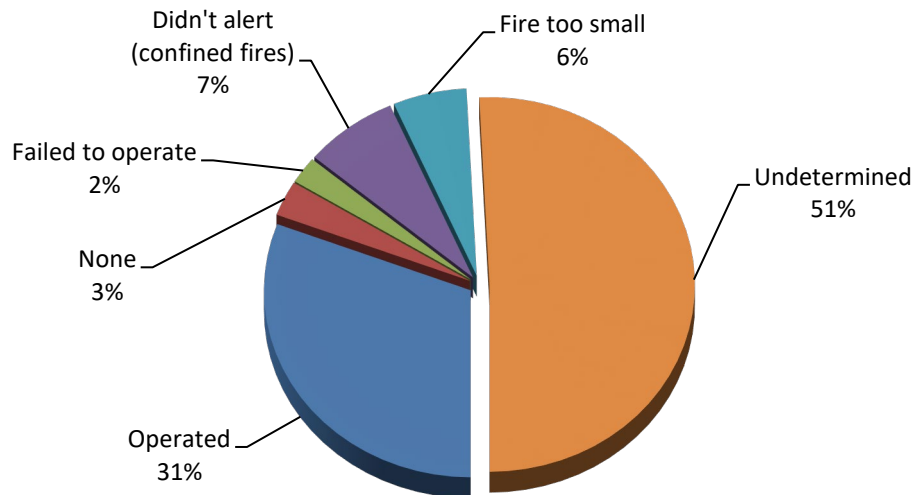
63% of Residential Building Fires Were Confined to Non-Combustible Containers²

Four hundred and thirty-nine (439), or 63%, of all residential building fires were reported as confined to non-combustible containers in 2021. Three hundred and twenty-one (321) of the reported fires were cooking fires contained to a non-combustible container, accounting for 46% of residential building fires. Fifty (50), or 7%, of all residential building fires reported in 2021 were fires confined to a chimney. Forty-eight (48), or 7%, were fires confined to a fuel burner or boiler malfunction. Twenty (20), or 3%, of these fires were contained rubbish fires.

Detectors Alerted Occupants in Only 31% of Fires

Smoke or heat detectors operated and alerted the occupants in 213, or 31%, of the residential building fires. In 7% of these fires³, the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 6% of the residential fires. Smoke detector performance was undetermined in 352 incidents, or 51%, of Plymouth County's residential building fires.

Detector Status in Plymouth County's Residential Structure Fires 2021



4 of Alarms Failed Because of a Power Failure Shutoff or Disconnect

Of the 16 fires where smoke alarms were present but failed to operate, four, or 25%, failed from a power shutoff or disconnect. Two (2), or 13%, failed because the batteries were either missing or disconnected. One (1), or 6%, failed from improper installation or

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.

placement. It was undetermined or unclassified in nine cases, or 56%, why the alarms failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Plymouth County reported 20 fires that occurred in buildings that were vacant, under construction or demolition⁴. This represented 2% of the total 829 building fires reported to MFIRS in 2021. Fourteen (14) fires occurred in vacant residential properties. Three (3) fires occurred in storage facilities. One (1) each happened in an institutional facility, a mercantile or business property and an industrial facility in Plymouth County.

One (1), or 5%, of the vacant building fires in Plymouth County in 2021 were determined to be intentionally-set. This occurred in a single-family home.

JUVENILE-SET FIRES

2 Juvenile-set Fires

There were two reported juvenile-set fires in Plymouth County in 2021. There was one reported structure fire and one brush fire.

ARSONS

40 Total Arsons — 11 Structures, 5 Vehicles & 24 Other Arsons

Forty (40), or 2%, of Plymouth County's 1,752 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 11 structure arsons, five motor vehicle arsons and 24 outside and other arsons caused one civilian injury and an estimated dollar loss of \$166,700.

All Arsons Down

The total number of reported arson fires decreased by 18 from the 58 reported in 2020. Reported structure arsons decreased by nine from the 20 reported in 2020. Motor vehicle arsons decreased by two from the seven reported in 2020. Reported outside and other arsons decreased by seven from the 31 reported in 2020.

ALL INCIDENTS

Rescue & EMS Calls Are 66% of All Reported Responses

In 2021, Plymouth County fire departments reported 103,820 responses⁵ to MFIRS. Of these 103,820 incidents, 101,950 non-fire calls were voluntarily reported.

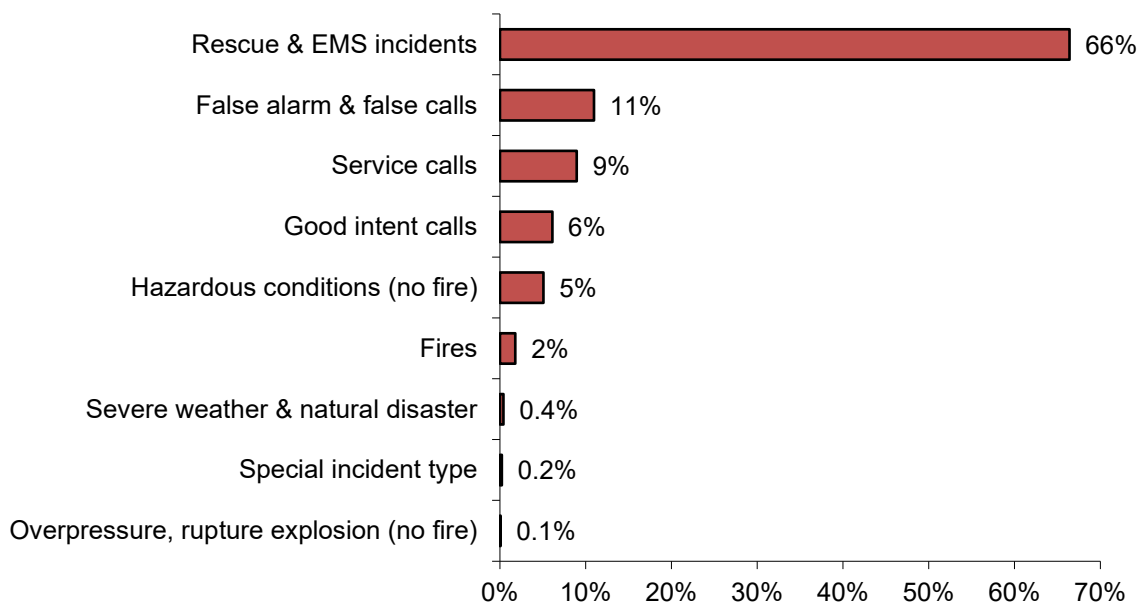
⁴ In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However, in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1- Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

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

Of these 101,950 non-fire calls, 68,955, or 66%, of the total responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 11,380 or 11%, were reported false alarm or false calls; 9,300, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 6,336, or 6%, were reported good intent calls; 5,260, or 5%, were reported hazardous condition calls with no fire; 432, or 0.4%, were severe weather responses; 214, or 0.2%, were special incident type calls such as citizen complaints; and 73, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand eight hundred and seventy (1,870), or 2%, of the total responses submitted by Plymouth County fire departments were fires.

2021 Responses by Incident Type



Plymouth County Fire Departments Gave Mutual Aid 2,414 Times

In 2021, Plymouth County fire departments reported coming to the aid of other fire departments 2,414 times. Of these 2,414 responses, 1,563, or 65%, were for rescue or EMS calls; 458, or 19%, were for good intent calls; 222, or 9%, were for service calls such as cover assignments; 118, or 5%, were for fires; 26, or 1%, were for false alarms or false calls; 20, or 1%, were for hazardous conditions calls with no fire; four, or 0.2%, were special incident type calls; and three, or 0.1%, was a reported overpressure, rupture, explosion or overheat calls with no fire.

Plymouth County Received Mutual Aid in 1,782 Incidents

In 2021, Plymouth County fire departments received aid from surrounding departments in 1,782 incidents. Of these 1,782 incidents, 1,512, or 85%, were rescue and emergency medical services calls; 128, or 7%, were for fires; 42, or 2%, were good intent calls; 41, or

2%, were false alarms or false calls; 31, or 2%, were hazardous conditions calls with no fire; 25, or 1%, were service calls; one, or 0.1% was a severe weather call; one, or 0.1%, was a reported overpressure, rupture, explosion or overheat call with no fire; and one, or 0.1%, was a special incident type call.

Plymouth County**Population: 530,819⁶****3.3 Fires/1,000 Population****Total Fires: 1,752 \$23,999,492**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	836	48%	\$20,667,991
Vehicle Fires	209	12%	2,834,811
Other Fires	707	40%	496,690

1 Fatal Fire 0.57 Civilian Deaths/1,000 Fires
 1 Civilian Death 0.02 Civilian Deaths/10,000 Population
 25 Civilian Injuries 46 Fire Service Injuries

Building Fires: 829**Residential Building Fires: 693****Residential Building Fires Confined to Non-Combustible Containers: 439****Unconfined Residential Building Fires: 254**

1 Civilian Death 23 Civilian Injuries 36 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	412	59%	Operated	231	31%
Apartments	240	35%	Didn't operate	16	2%
Rooming houses	14	2%	None	21	3%
Dormitories	7	1%	Fire too small	40	6%
Residential board & care	6	1%	Didn't Alert (confined)	51	7%
Hotels or motels	2	0.3%	Undetermined	352	51%

Area of Origin⁷	%	Heat Source	%	%Unconfined⁸
Kitchen	52%	Arcing	6%	18%
Heating room or area	8%	Heat from operating eq.	3%	9%
Chimney or flue	7%	Radiated, cond./heat op. eq.	3%	7%
Bedroom	3%	Hot or smoldering object	2%	6%
Living room	3%	Heat open flame/smok. mat.	2%	6%
		Hot ember or ash	2%	6%

⁶ We used the 2020 US Census figures.

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

⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	% Unconfined¹⁰
Food, cooking materials	48%	Abandoned materials	2%	7%
Flammable or combust. liquid	7%	Too close to combustibles	2%	7%
Film, residue (creosote)	7%	Electrical failure, malfunc.	2%	6%
Electrical wire, cable insulation	4%	Mechanical failure, malfunc.	2%	6%
Rubbish, trash, waste	3%	Misuse of mat./prod. other	1%	3%
Structural member, framing	2%			

Equipment¹¹	%	Cause of Ignition	%	% Unconfined¹²
Cooking equipment	49%	Unintentional	20%	54%
None	22%	Failure of eq. or heat source	6%	16%
Boiler, furnace, cent. heat. unit	7%	Intentional	1%	2%
Chimney or flue	7%	Act of Nature	1%	2%
Electric branch circuit	1%	Cause under investigation	3%	7%
		Undetermined	6%	17%

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

Alerted Occupants	24%
Didn't Alert Occupants	12%
Undetermined	64%

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

¹⁰ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	121	78	17	26
February	86	60	13	13
March	288	99	18	171
April	212	62	17	133
May	230	87	18	125
June	134	59	18	57
July	109	60	16	33
August	92	48	18	26
September	90	50	16	24
October	148	95	19	34
November	119	67	21	31
December	123	71	18	34

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	263	136	24	103
Monday	218	105	32	81
Tuesday	245	108	38	99
Wednesday	257	131	29	97
Thursday	215	112	21	82
Friday	250	124	36	90
Saturday	304	120	29	155

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	83	42	13	28
04:01 - 08:00	114	63	22	29
08:01 - 12:00	315	149	51	115
12:01 - 16:00	521	214	55	252
16:01 - 20:00	476	239	36	201
20:01 - 00:00	243	129	32	82

Motor Vehicle Fires

Total: 209

Automobiles: 169 (81%)

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

Arson Fires

Total Arsons: 4

Dollar loss: \$166,700

0.08 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	11	1%	28%	\$124,000
Vehicle Arsons	5	2%	13%	42,700
Other Arsons	24	3%	60%	0

0.02 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.05 Other arsons/1,000 population

1 Civilian Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 – 20:00	5	45%	08:01 – 12:00	2	40%
12:01 – 16:00	3	27%			

Other Arsons	#	%
08:01 – 12:00	11	46%
16:01 – 20:00	6	25%
12:01 – 16:00	5	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-family homes	7	64%
Apartments	2	18%

Abington					Population: 17,062			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	39	13	3	23	1	0	0	1
2018	41	18	10	13	0	0	0	0
2019	36	17	6	13	0	0	0	0
2020	42	17	7	18	2	1	1	0
2021	54	19	7	28	4	1	0	3

Bridgewater					Population: 28,633			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	77	46	4	27	0	0	0	0
2018	79	45	9	25	1	1	0	0
2019	87	55	11	21	0	0	0	0
2020	81	48	7	26	1	0	0	1
2021	69	36	12	21	0	0	0	0

Brockton					Population: 105,643			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	561	313	43	205	10	4	1	5
2018	487	310	50	127	6	3	1	2
2019	533	339	53	141	6	2	1	3
2020	624	321	44	259	6	3	0	3
2021	488	303	52	133	5	2	3	0

Carver					Population: 11,645			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	6	1	0	0	0	0	0
2018	3	2	1	0	0	0	0	0
2019	5	4	1	0	0	0	0	0
2020	9	6	3	0	0	0	0	0
2021	6	4	2	0	0	0	0	0

Duxbury					Population: 16,090			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	40	12	3	25	1	0	0	1
2018	27	5	9	13	0	0	0	0
2019	32	18	2	12	1	1	0	0
2020	51	20	8	23	0	0	0	0
2021	46	15	5	2	1	0	1	0

East Bridgewater					Population: 14,440			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	34	14	3	17	1	0	1	0
2018	25	10	4	11	1	1	0	0
2019	29	20	4	5	2	1	0	1
2020	39	20	4	15	1	0	0	1
2021	41	14	1	26	0	0	0	0

Halifax					Population: 7,749			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	23	10	1	12	2	1	0	1
2018	29	13	1	15	0	0	0	0
2019	17	7	1	9	1	1	0	0
2020	22	12	1	9	0	0	0	0
2021	19	9	2	8	2	0	0	2

Hanover					Population: 14,833			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	47	20	6	21	1	1	0	0
2018	53	29	7	17	2	1	0	1
2019	51	27	6	18	1	0	0	1
2020	61	31	4	26	1	0	0	1
2021	42	22	3	17	0	0	0	0

Hanson					Population: 10,639			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	22	8	1	13	0	0	0	0
2018	26	10	2	14	4	0	1	3
2019	23	12	0	11	0	0	0	0
2020	32	9	1	22	4	0	0	4
2021	26	16	3	7	0	0	0	0

Hingham					Population: 24,284			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	66	34	4	28	1	1	0	0
2018	65	26	7	32	0	0	0	0
2019	45	14	7	24	0	0	0	0
2020	67	20	6	41	1	0	0	1
2021	62	29	4	29	0	0	0	0

Hull					Population: 10,072			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	24	11	2	11	0	0	0	0
2018	19	10	3	6	0	0	0	0
2019	26	12	4	10	0	0	0	0
2020	20	9	1	10	1	1	0	0
2021	10	6	0	4	0	0	0	0

Kingston					Population: 13,708			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	32	8	4	20	0	0	0	0
2018	36	15	6	15	1	0	0	1
2019	31	8	4	19	2	1	0	1
2020	48	9	7	32	0	0	0	0
2021	35	11	7	17	2	0	0	2

Lakeville**Population: 11,523**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	8	4	2	2	0	0	0	0
2018	35	9	5	21	2	0	0	2
2019	35	7	7	21	0	0	0	0
2020	47	11	8	28	2	0	1	1
2021	48	9	11	28	4	1	0	3

Marion**Population: 5,347**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	26	7	8	11	2	0	0	2
2018	19	6	3	10	5	1	0	4
2019	26	15	5	6	2	1	0	1
2020	18	11	0	7	3	0	0	3
2021	23	12	3	8	3	0	0	3

Marshfield**Population: 25,825**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	100	41	6	53	2	0	0	2
2018	78	34	7	37	1	0	0	1
2019	73	40	2	31	0	0	0	0
2020	100	40	4	56	4	2	0	2
2021	91	48	5	38	3	2	0	1

Mattapoisett**Population: 6,508**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	17	7	1	9	0	0	0	0
2018	18	10	2	6	0	0	0	0
2019	19	9	5	5	0	0	0	0
2020	19	8	2	9	0	0	0	0
2021	20	15	3	2	0	0	0	0

Middleborough**Population: 24,245**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	78	37	18	23	3	1	1	1
2018	67	21	16	30	1	0	0	1
2019	30	12	7	11	1	1	0	0
2020	117	24	22	71	3	1	0	2
2021	76	24	19	33	0	0	0	0

Norwell**Population: 11,351**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	54	20	9	25	3	0	0	3
2018	8	7	1	0	0	0	0	0
2019	6	3	1	2	0	0	0	0
2020	44	12	5	27	2	0	0	2
2021	55	11	3	41	0	0	0	0

Pembroke**Population: 18,361**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	2	0	2	0	0	0	0
2018	5	4	0	1	0	0	0	0
2019	Non-reporting Department							
2020	34	10	2	22	1	0	0	1
2021	34	11	6	17	0	0	0	0

Plymouth**Population: 61,217**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	176	81	30	65	1	1	0	0
2018	191	79	32	80	1	1	0	0
2019	147	51	28	68	4	2	1	1
2020	259	67	27	165	5	3	1	1
2021	183	61	26	96	3	2	0	1

Plympton					Population: 2,930			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	2	0	0	2	1	0	0	1
2018	9	5	2	2	1	1	0	0
2019	10	2	1	7	1	0	0	1
2020	11	6	0	5	0	0	0	0
2021	10	7	0	3	1	1	0	0

Rochester					Population: 5,717			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	4	0	0	1	1	0	0
2018	4	4	0	0	0	0	0	0
2019	3	3	0	0	0	0	0	0
2020	1	1	0	0	0	0	0	0
2021	5	5	0	0	0	0	0	0

Rockland					Population: 17,803			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	58	24	4	30	2	1	0	1
2018	69	35	5	29	1	1	0	0
2019	48	23	10	15	4	2	1	1
2020	56	25	6	25	3	2	0	1
2021	35	13	6	16	1	0	1	0

Scituate					Population: 19,063			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	65	30	3	32	4	0	1	3
2018	53	31	4	18	6	0	1	5
2019	80	46	6	28	3	0	0	3
2020	23	11	2	10	1	0	0	1
2021	82	50	2	30	4	1	0	3

WAREHAM FIRE DISTRICTS**Population: 23,303¹³****Onset****Est. Pop. Protected: 4,801**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	33	28	2	3	0	0	0	0
2018	47	33	4	10	0	0	0	0
2019	31	20	1	10	0	0	0	0
2020	49	32	6	11	1	0	0	1
2021	47	31	5	11	1	0	0	1

Wareham District**Est. Pop. Protected: 17,021**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	75	22	26	27	1	0	0	1
2018	76	30	15	31	1	0	0	1
2019	68	21	12	35	1	1	0	0
2020	95	34	12	49	2	1	0	1
2021	74	22	11	41	1	1	0	0

West Bridgewater**Population: 7,707**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	44	11	11	22	1	0	0	1
2018	31	6	9	16	2	0	0	2
2019	45	10	11	24	1	0	1	0
2020	37	3	4	20	4	1	0	3
2021	43	17	9	17	5	0	0	5

Whitman**Population: 15,121**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	32	11	4	17	1	1	0	0
2018	26	13	5	8	2	1	1	0
2019	29	13	3	13	3	1	1	1
2020	34	12	2	20	0	0	0	0
2021	28	16	2	10	0	0	0	0

¹³ The Town of Wareham population is from the 2020 US Census. However at the time of writing this report we do not have the breakdown of the new population by fire districts.

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	3,219	55	2	2,320	130	162	185	350	1	14
23042	Bridgewater	4,615	74	4	3,052	149	488	206	620	13	9
23044	Brockton	26,024	495	7	20,052	524	1,515	895	2,514	15	7
23052	Carver	6	6	0	0	0	0	0	0	0	0
23082	Duxbury	3,188	51	6	1,802	345	310	161	453	57	3
23083	East Bridgewater	2,656	47	1	2,017	115	99	86	221	63	7
23118	Halifax	1,618	23	0	1,131	90	174	44	106	41	9
23122	Hanover	3,654	49	6	1,861	292	947	147	334	14	4
23123	Hanson	1,971	30	2	1,304	180	199	60	172	7	17
23131	Hingham	4,993	68	1	3,236	282	373	391	528	97	17
23142	Hull	2,525	10	0	1,686	208	309	76	218	13	5
23145	Kingston	2,675	37	2	1,923	116	166	92	330	8	1
23146	Lakeville	2,029	53	1	1,365	58	218	95	230	7	2
23169	Marion	1,423	29	1	931	85	91	86	198	2	0
23171	Marshfield	4,433	93	1	3,104	249	370	52	546	8	10
23173	Mattapoisett	644	21	0	75	122	120	59	236	5	6

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
23182	Middleborough	5,262	79	8	2,384	132	562	1,560	522	3	12
23219	Norwell	2,385	60	4	1,466	231	155	169	293	0	7
23993	Onset	1,687	64	3	1,040	134	143	155	130	16	2
23231	Pembroke	3,465	40	0	2,453	229	287	89	360	0	7
23239	Plymouth	10,074	194	13	6,268	405	908	872	1,385	28	1
23240	Plympton	750	11	0	454	84	57	47	89	0	8
23250	Rochester	5	5	0	0	0	0	0	0	0	0
23251	Rockland	3,447	40	0	2,534	119	204	159	367	11	13
23264	Scituate	3,361	88	2	1,919	430	235	233	446	2	6
23992	Wareham	2,871	76	7	1,568	325	335	231	292	2	35
23322	West Bridgewater	2,278	53	0	1,301	90	558	65	191	18	2
23338	Whitman	2,571	28	2	1,709	136	315	121	249	1	10
Total	Plymouth County	103,829	1,879	73	68,955	5,260	9,300	6,336	11,380	432	21

* Certified no reportable fires.

**Non reporting department.

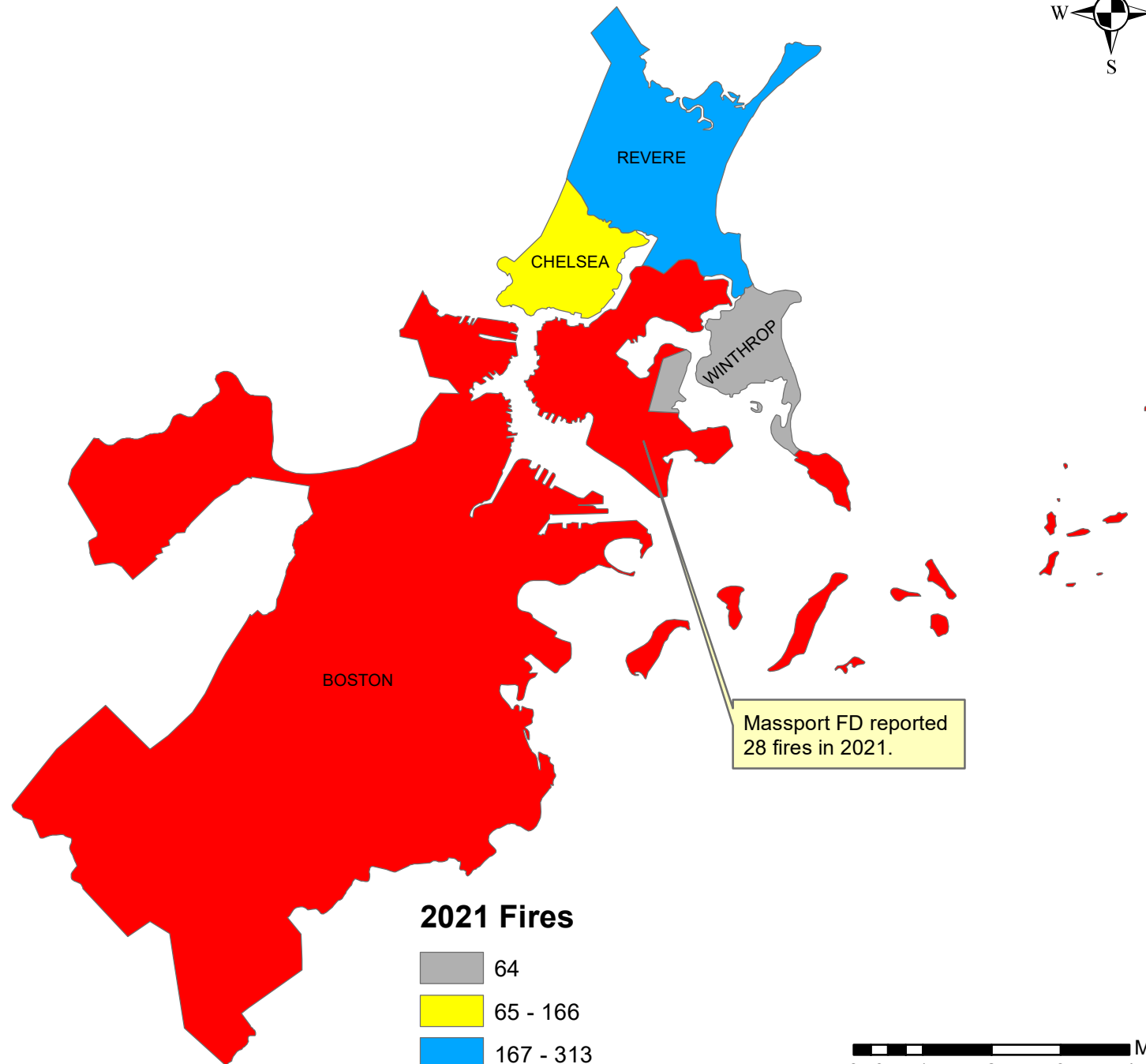
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.



Suffolk County

2021 Fire Data Analysis

Suffolk County Fires 2021



Suffolk County Fires in 2021

4,424 Total Fires — 3,202 Structures, 227 Vehicles & 995 Other Fires

Suffolk County ranked second out of the fourteen Massachusetts counties in total reported fires. Suffolk County fire departments reported 4,424 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 3,202 structure fires, 227 motor vehicle fires, 328 brush fires, 550 outside rubbish fires, 79 special outside fires, and 38 unclassified fires caused one civilian death, six civilian injuries, 19 fire service injuries and an estimated dollar loss of \$50.7 million. Suffolk County's fires accounted for 17% of the 25,368 Massachusetts fires reported in 2021.

All five fire departments in Suffolk County reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS).

Structure & Outside & Other Fires Down

Total fires decreased by 723, or 14%, from 5,147 incidents in 2020. Reported structure fires decreased by 307, or 9%, from the 3,509 reported during the previous year. Motor vehicle fires increased by 23, or 11%, from the 204 reported in 2020. Outside and other fires decreased by 439, or 31%, from 1,434 the year before¹.

SUFFOLK COUNTY FIRES FROM 2017 TO 2021

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	6,196	4,555	256	1,385	129	33	12	84
2018	5,431	4,139	277	1,015	88	8	10	70
2019	4,986	3,843	239	904	74	21	5	48
2020	5,147	3,509	204	1,434	104	22	5	77
2021	4,424	3,202	227	995	82	19	5	58

Fire and Fire Death Rates

Suffolk County had 5.5 fires per 1,000 population. That figure ranks Suffolk County first in the state and above the state rate of 3.6 fires per 1,000 population. Suffolk County also had 0.01 fire deaths per 10,000 population ranking it twelfth among Massachusetts counties and below the state rate of 0.07 fire deaths per 10,000 population.

1 Resident Died in 1 Suffolk County Fire

Suffolk County had one resident die in one fire in 2021.

- On September 6, 2021, at 12:31 a.m., the Boston Fire Department was called to a fatal fire in a two-family home of undetermined cause. The adult victim was escaping when they were overcome. No one else was injured at this fire. Smoke alarms were present and alerted the occupants. The building was not sprinklered. Damages from the blaze were estimated to be \$600,000.

¹ 2021 was another down year for brush fires across the state.

Boston Has Suffolk County's Largest Loss Fire in 2020

In 2021, Suffolk County fire departments reported eight fires with a reported dollar loss of \$1 million or greater. Five (5) of these fires occurred in Boston and the other three happened in Revere. The total dollar loss of these eight fires was \$14.2 million, or 28%, of the county's total dollar loss.

- On December 17, 2021, at 4:30 a.m., the Boston Fire Department was called to a fire of undetermined caused at 185 Corey Rd., a mixed used building. No one was injured at this fire. It was undetermined if alarms were present; and the building did not have sprinklers. Damages from this fire were estimated to be \$3.5 million. The fire spread to multiple nearby buildings.

STRUCTURE FIRES**Reported Structure Fires Down**

The 3,202 structure fires caused the single civilian death, three civilian injuries, 18 fire service injuries and an estimated dollar loss of \$47.3 million. These incidents represented 72% of Suffolk County's reported fires in 2021. The average estimated dollar loss per structure fire was \$14,776. The total number of reported structure fires decreased by 307, or 9%, from the 3,509 reported in 2020.

Arson Caused 1% of Structure Fires

The 19 structure arsons caused an estimated dollar loss of \$299,500. Arson was indicated as the cause of 1% of the structure fires and 1% of Suffolk County's structure fire dollar loss. The 19 structure arsons accounted for 23% of the Suffolk County arson fires reported in 2021. The total number of reported structure arsons decreased by three, or 14%, from the 22 reported in 2020.

63% of Structure Arsons Occurred in Residences

Twelve (12) of Suffolk County's 19 structure arsons occurred in residential occupancies. Three (3) happened in mercantile or business facilities and two occurred in storage facilities. One (1) occurred in a public assembly property; and another occurred in an unclassified property.

BUILDING FIRES

There were 3,187 building fires of different types in Suffolk County in 2021. These 3,187 building fires accounted for 99.5% of all structure fires in Suffolk County.

86% of Suffolk Building Fires Occurred in People's Homes

Two thousand seven hundred and fifty-four (2,754), or 86%, of Suffolk County's 3,187 building fires occurred in residential occupancies. Mercantile and business properties had 140 fires. One hundred and twenty-three (123) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 76 fires. Thirty-four (34) building fires took place in educational properties. Twenty-five (25) fires took place in storage properties. Ten (10) fires occurred

in industrial, utility, defense, agricultural or mining facilities. Two (2) building fires in Suffolk County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. . One (1) fire took place in a manufacturing and processing facility. There were 21 fires where the property use was coded as *Other* and one other fire whose property use was unclassified.

RESIDENTIAL FIRES

Residential Building Fires Were Down

There were 2,754 reported residential building fires in Suffolk County in 2021. These 2,754 fires are a decrease of 360, or 12%, from the 3,114 residential building fires reported in 2020.

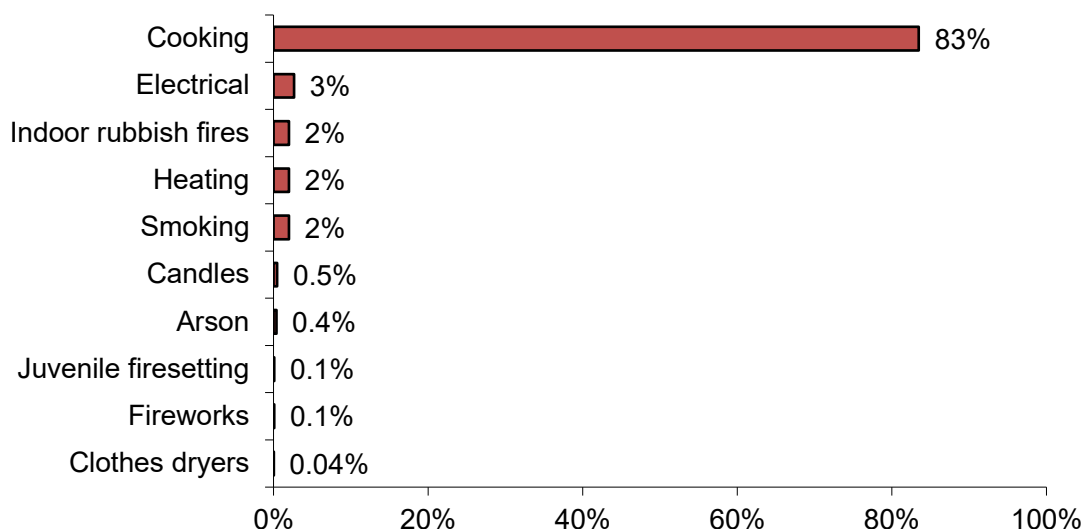
Apartments Accounted for 58% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 58% of the residential building fires in Suffolk County; 12% occurred in one- or two-family homes; 5% happened in rooming houses; 5% occurred in dormitories; 1% occurred in residential board and care facilities; 1% happened in hotels or motels. Four hundred and eighty-five (485), or 15%, of the residential building fires in Suffolk County occurred in unclassified residential buildings.

Unattended Cooking Caused 83% of Residential Fires

The leading cause of residential building fires in Suffolk County was unattended cooking and other unsafe cooking practices, accounting for 83% of these fires. Electrical problems caused 3%. Indoor rubbish fires, smoking, and heating equipment each caused 2% of these fires. Candle, arson, clothes dryers, fireworks and juvenile-set fires each caused less than 1% of these fires in 2021.

2021 Leading Causes of Fires in Suffolk County Homes



87% of Residential Building Fires Are Confined to Non-Combustible Containers²

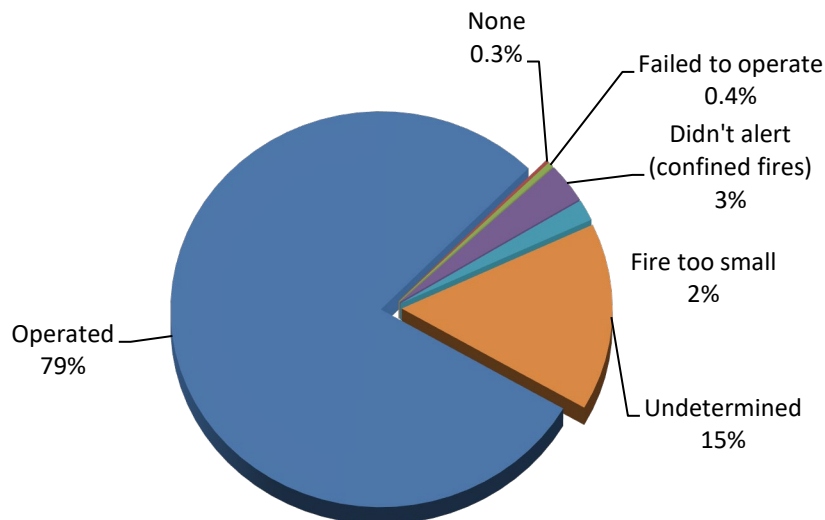
Two thousand three hundred and eighty-four (2,384), or 87%, of all residential building fires were reported as confined to non-combustible containers in 2021. Two thousand two hundred and seventy-three (2,273) of the reported fires were cooking fires contained to a non-combustible container, accounting for 83% of residential building fires.

Sixty-three (63), or 3%, of the residential building fires in Suffolk County in 2021 were contained rubbish fires. Thirty-two (32), or 1%, were fires confined to a fuel burner or boiler malfunction. Fourteen (14), or 1%, of all residential building fires reported in 2021 were confined to a chimney. Two, or less than 1%, were incinerator overload or malfunctions.

Alarms Alerted Occupants in 79% of Fires

Smoke or heat alarms operated and alerted the occupants in 2,177, or 79%, of the residential building fires. In 3% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 0.4% of these incidents. In 0.3% 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 421 incidents, or 15%, of Suffolk County's residential building fires.

Detector Status in Suffolk County's Residential Structure Fires 2021



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 alarm did not alert the occupants.

12 Alarms Failed

Of the 12 fires where smoke alarms were present but failed to operate, one, or 8%, failed because of a dead battery. Another one, or 8%, failed because it was missing a battery. A lack of maintenance and a power shutoff or disconnect each caused one alarm, or 8%, to fail. It was undetermined or unclassified in eight cases, or 67%, why the alarms failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Suffolk County reported 28 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 3,187 building fires reported to MFIRS in 2021. Fourteen (14) fires occurred in vacant residential properties. Six (6) of these fires occurred in mercantile or business properties. Another six occurred in storage facilities. One (1) happened at an institutional facility. Another one occurred at an unclassified property.

Three (3), or 11%, of the vacant building fires in Suffolk County in 2021 was determined to be intentionally-set. Two (2) of these fires occurred in sheds and the other happened at an unclassified business.

JUVENILE-SET FIRES

11 Juvenile-set Fires

There were 11 reported juvenile-set fires in Suffolk County in 2021. The four structure fires, two outdoor rubbish fires, two special outside fires, one brush fire and one unclassified fire caused \$91,100 in estimated damages.

ARSONS

82 Total Arsons⁴ — 19 Structures, 5 Vehicles & 58 Other Arsons

Eighty-two (82), or 2%, of Suffolk County's 4,424 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 19 structure arsons, five motor vehicle arsons and 58 outside and other arsons caused an estimated dollar loss of \$338,742. Suffolk County's arson fires accounted for 2% of the state's total arson fires and 1% of the state's total dollar loss from arson.

All Arson Down

The total number of arsons decreased by 22 from 104 in 2020. Reported structure arsons decreased by three from the 22 reported in 2020. Motor vehicle remained the same with

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.

five reported in 2021 and 2020. Outside and other arsons decreased by 19 from the 77 reported last year.

ALL INCIDENTS

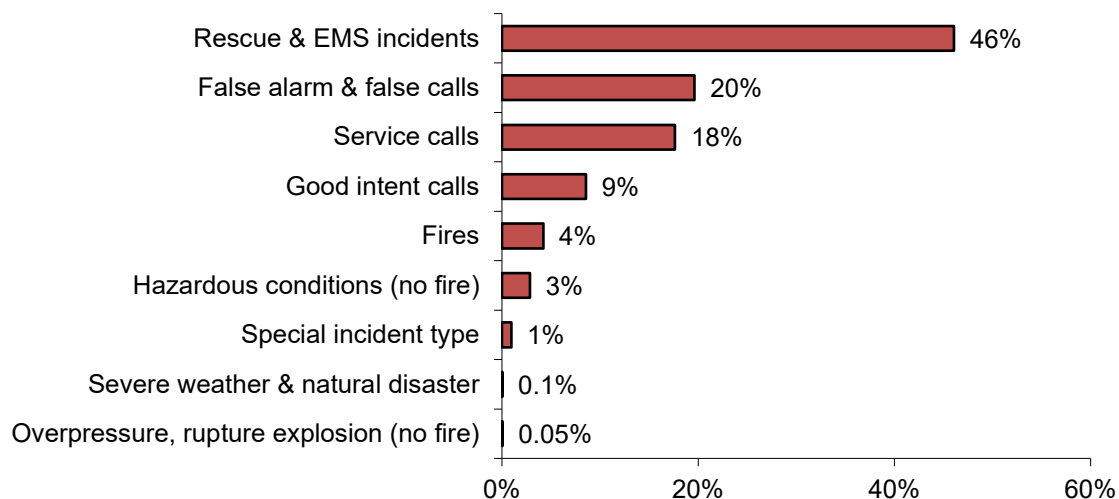
Rescue & EMS Calls Are 46% of All Reported Responses

In 2021, fire departments in Suffolk County reported 105,608 responses⁵ to MFIRS. This is an increase of 9,736 runs, or 10%, over the 95,872 reported in 2020. Of these 105,608 responses, 101,158 non-fire calls were voluntarily reported.

Of these 101,158 non-fire calls, 48,655, or 46%, of all the responses reported in 2021, were reported rescue and emergency medical services (EMS) calls; 20,716, or 20%, were reported false alarm or false calls; 18,621, or 18%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 9,040, or 9%, were reported good intent calls; 3,021, or 3%, reported hazardous condition calls with no fire; 1,002, or 1%, were special incident type calls such as citizen complaints; 55, or 0.1%, were severe weather calls; and 48, or 0.05%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four thousand four hundred and fifty (4,450), or 4%, of the total responses submitted by Suffolk County fire departments were fires.

2021 Responses by Incident Type



Suffolk County Fire Departments Reported Giving Mutual Aid 304 Times

In 2021, Suffolk County fire departments reported coming to the aid of other fire departments 304 times. Of these 304 responses, 189, or 62%, were for service calls such

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

as cover assignments; 31, or 10%, were for good intent calls; 29, or 10%, were for rescue or EMS incidents; 26, or 9%, were for fires; 14, or 5%, were for false alarm or false calls; seven, or 2%, were for hazardous conditions calls with no fire; four, or 1%, were overpressure, rupture, explosion or overheat calls with no fire; three, or 1%, were special incident types; and one, or less than 1%, was a severe weather or natural disaster call.

Suffolk County Fire Departments Received Mutual Aid in 132 Incidents

In 2021, Suffolk County fire departments reported receiving aid from surrounding departments in 132 incidents. Of these 132 incidents, 96 or 73% were rescue and emergency medical services calls; 14, or 11%, were hazardous conditions calls with no fire; 10, or 8%, were for fires; nine, or 7%, were false alarms or false calls; two, or 2%, were for service calls; and one, or 1%, was a good intent call.

Suffolk County**Population: 797,936⁶****5.5 Fires/1,000 Population****Total Fires: 4,424 \$50,670,498**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	3,202	72%	\$47,314,333
Vehicle Fires	227	5%	3,117,864
Other Fires	995	22%	238,301

1 Fatal Fires 0.23 Civilian Deaths/1,000 Fires
 1 Civilian Deaths 0.01 Civilian Deaths/10,000 Population
 6 Civilian Injuries 19 Fire Service Injuries

Building Fires: 3,187**Residential Structure Fires: 2,754****Residential Structure Fires Confined to Non-Combustible Containers: 2,384****Unconfined Residential Structure Fires: 370**

1 Civilian Death 3 Civilian Injuries 16 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	1,603	58%	Operated	2,177	79%
1- & 2-Family homes	335	12%	Didn't operate	12	0.4%
Rooming houses	142	5%	None	7	0.3%
Dormitories	129	5%	Fire too small	48	2%
Residential board & care	32	1%	Didn't Alert (confined)	89	3%
Hotels or motels	28	1%	Undetermined	421	15%

Area of Origin⁷	%	Heat Source	%	%Unconfined⁸
Kitchen	85%	Arcing	2%	13%
Bedroom	2%	Radiated heat from oper. eq.	2%	12%
Exterior balcony/unencl. porch	1%	Heat from operating eq.	2%	11%
Heating room or area	1%	Hot or smoldering object	1%	8%
Bathroom	1%	Cigarette	1%	6%

⁶ We used the population from the 2020 US Census.

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

⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	% Unconfined¹⁰
Food, cooking materials	83%	Too close to combustibles	2%	11%
Rubbish, trash, waste	3%	Abandoned materials	1%	10%
Flammable, combustible liquid	1%	Elec. fail., malfunc., other	1%	9%
Electrical wire/cable insulation	1%	Misuse of mater. or prod.	1%	6%
Structural member, framing	1%	Mech. Fail., malfunc., othe	1%	4%

Equipment¹¹	%	Cause of Ignition	%	% Unconfined¹²
Cooking equipment	83%	Unintentional	8%	56%
None	10%	Failure of eq. or heat source	2%	13%
Boiler, furnace, cent. heat. unit	1%	Intentional	0.3%	2%
Electrical wiring, other	1%	Act of Nature	0.1%	0.5%
Chimney or flue	0.5%	Cause under investigation	2%	15%
Fan	0.2%	Undetermined	1%	9%

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

Alerted Occupants	84%
Didn't Alert Occupants	4%
Undetermined	12%

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

¹⁰ Some fields in version 5 allow for multiple entries. Therefore, the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	382	310	21	51
February	327	290	12	25
March	441	311	23	107
April	392	266	17	109
May	452	240	23	189
June	357	205	20	132
July	275	218	7	50
August	278	187	30	61
September	322	243	19	60
October	359	289	15	55
November	426	334	19	73
December	413	309	21	83

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	711	498	40	173
Monday	627	449	36	142
Tuesday	605	432	23	147
Wednesday	583	412	25	146
Thursday	595	464	33	98
Friday	642	465	36	141
Saturday	661	482	31	148

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	311	212	29	70
04:01 – 08:00	282	168	27	87
08:01 – 12:00	694	532	38	124
12:01 – 16:00	1,099	787	45	267
16:01 – 20:00	1,242	940	54	248
20:01 – 00:00	796	563	34	199

Motor Vehicle Fires

Total: 227

Automobiles: 195 (86%)

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

Arson Fires

Total Arsons: 82

Dollar loss: \$338,742

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	19	1%	23%	\$299,500
Vehicle Arsons	5	2%	6%	37,200
Other Arsons	58	6%	71%	2,042

0.02 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 – 04:00	6	32%	04:01 – 08:00	1	20%
16:01 – 20:00	4	21%	08:01 – 12:00	1	20%
20:01 – 00:00	4	21%	12:01 – 16:00	1	20%
			16:01 – 20:00	1	20%
			20:01 – 00:00	1	20%

Other Arsons	#	%
20:01 – 00:00	20	34%
16:01 – 20:00	17	29%
08:01 – 12:00	7	12%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	6	32%
Residential, other	3	16%
Outbuilding or shed	2	11%

Boston					Population: 675,647			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5,469	4,077	219	1,173	126	32	11	83
2018	4,783	3,709	236	838	84	5	9	70
2019	4,434	3,477	193	764	69	18	4	47
2020	4,598	3,209	178	1,211	93	17	5	71
2021	3,853	2,864	177	812	75	18	4	53

Chelsea					Population: 40,787			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	271	199	9	63	1	1	0	0
2018	236	166	9	61	2	2	0	0
2019	200	138	18	44	4	2	1	1
2020	181	110	7	64	4	1	0	3
2021	166	107	17	42	5	0	0	5

Massport					Population: 0			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	39	5	8	26	0	0	0	0
2018	58	5	11	42	0	0	0	0
2019	34	3	11	20	0	0	0	0
2020	18	3	5	10	0	0	0	0
2021	28	4	13	11	1	1	0	0

Revere					Population: 62,186			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	347	223	18	106	2	0	1	1
2018	301	228	18	55	1	0	1	0
2019	263	191	15	57	1	1	0	0
2020	293	154	14	125	7	4	0	3
2021	313	186	15	112	1	0	1	0

Winthrop					Population: 19,316			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	70	51	2	17	0	0	0	0
2018	53	31	3	19	1	1	0	0
2019	55	34	2	19	0	0	0	0
2020	57	33	0	24	0	0	0	0
2021	64	41	5	18	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	79,862	3,872	39	31,064	2,293	16,242	7,615	17,751	29	957
25057	Chelsea	7,905	180	5	5,300	236	567	601	996	10	10
25935	Massport	2,872	39	1	2,149	205	116	116	233	1	12
25248	Revere	11,788	321	2	8,010	222	1,243	520	1,440	10	20
25346	Winthrop	3,207	64	1	2,132	65	453	188	296	5	3
Total	Suffolk County	105,634	4,476	48	48,655	3,021	18,621	9,040	20,716	55	1,002

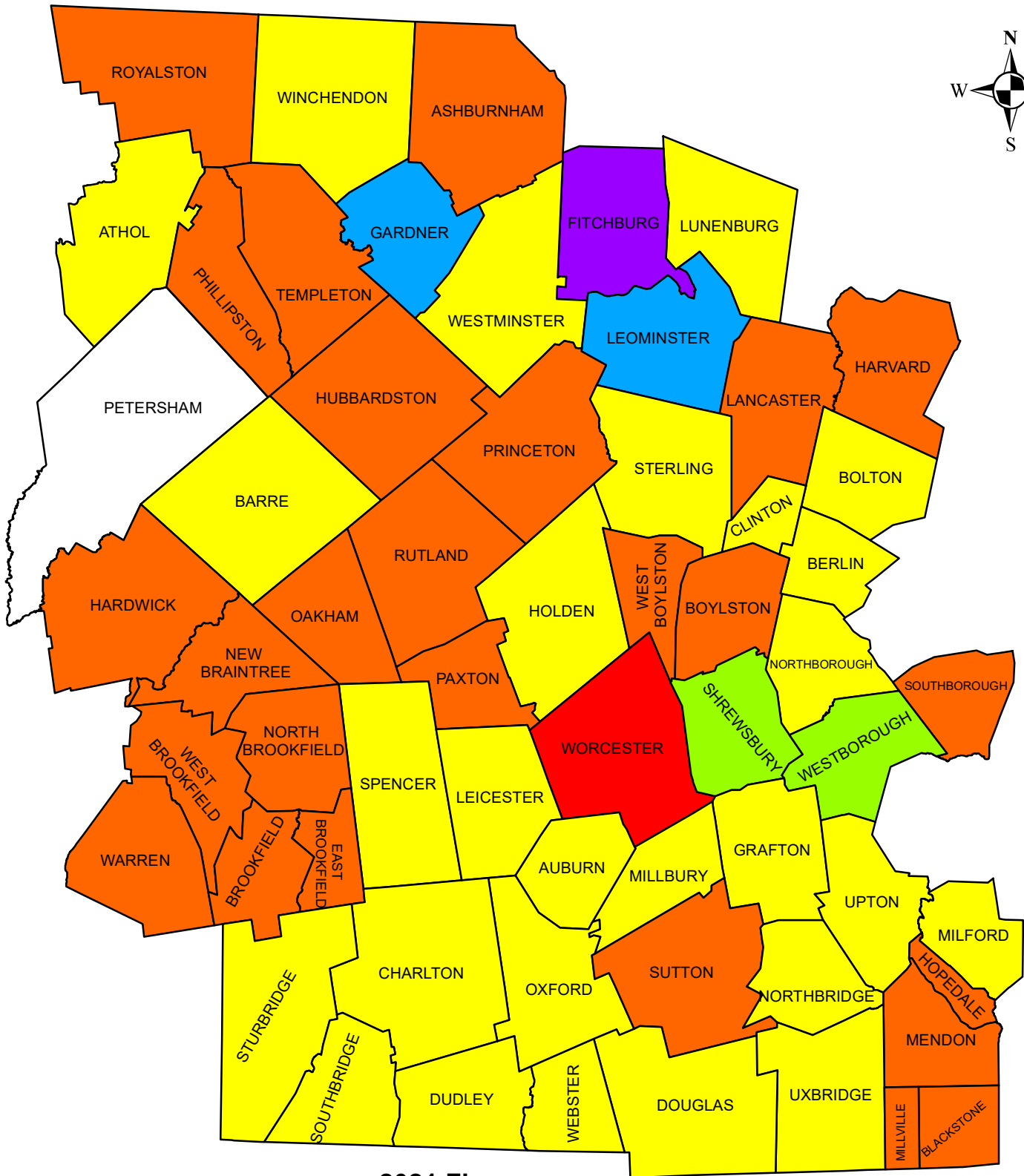
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Division of Fire Safety strongly encourages any department that wants to send in all of their responses to do so.



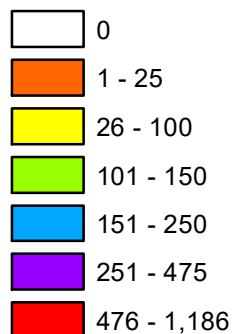
Worcester County

2021 Fire Data Analysis

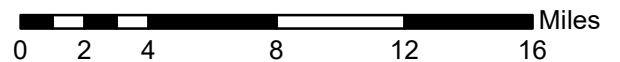
Worcester County Fires 2021



2021 Fires



*Non-reporting Department



Massachusetts Fire Incident Reporting System 2021



MFIRS
Massachusetts Fire Incident Reporting System

Worcester County Fires in 2021

3,811 Total Fires — 2,252 Structures, 328 Vehicles & 1,231 Other Fires

Worcester County ranked third out of the fourteen Massachusetts counties in total reported fires. Worcester County fire departments reported 3,811 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2021. The 2,252 structure fires, 328 motor vehicle fires, 620 brush fires, 448 outside rubbish fires, 86 special outside fires, two cultivated vegetation or crop fires; and 75 unclassified fires caused 12 civilian deaths, 36 civilian injuries, 66 fire service injuries and an estimated dollar loss of \$32.5 million. Worcester County's fires accounted for 15% of the 25,368 Massachusetts fires reported in 2021.

All 60 of the fire departments in Worcester County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2021.

Structure & Outside & Other Fires Down

Total fires decreased by 664, or 15%, from 4,475 incidents in 2020. Reported structure fires decreased by 83 from the 2,335 reported during the previous year. Motor vehicle fires increased by 14 from the 314 reported in both 2020. Outside and other fires decreased by 595 from 1,826 the year before¹.

WORCESTER COUNTY FIRES FROM 2017 TO 2021

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
Year	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2017	3,853	2,484	348	1,021	80	31	10	39
2018	3,738	2,483	378	877	84	31	13	40
2019	3,744	2,412	394	938	93	24	9	60
2020	4,475	2,335	314	1,826	81	19	6	56
2021	3,811	2,252	328	1,231	71	23	4	44

Fire and Fire Death Rates

Worcester County had 4.4 fires per 1,000 population. That figure ranks Worcester County third in the state and above the state rate of 3.6 fires per 1,000 population. Worcester County had 0.14 fire deaths per 10,000 population ranking it tied for second among Massachusetts counties and above the state rate of 0.07 fire deaths per 10,000 population.

12 Residents Died in 9 Worcester County Fires

Worcester County had 12 residents die in nine fires in 2021. Seven (7) of the 12 deaths occurred in building fires. Four (4) happened in motor vehicle fires; and the other death occurred outside.

¹ 2021 was another down year for brush fires across the state.

- On January 30, 2021, at 2:23 a.m., the Blackstone Fire Department was called to a fatal electrical fire in a two-family home. An overloaded power strip started the fire. There was one adult victim. No one else was injured at this fire. Alarms were present but the failed to operate. There were no sprinklers. Damages from this fire were estimated to be \$255,600.
- On February 12, 2021, at 7:27 p.m., the Worcester Fire Department was called to a fatal electrical fire in a three-unit apartment building. The fire was caused by an electrical failure or malfunction in the ceiling and floor assembly. There was one adult victim and two older adult victims. Three (3) firefighters were also injured at this fire. Alarms were present by it was undetermined if they operated. The home did not have any sprinklers. Damages were estimated to be \$487,000.
- On March 16, 2021, at 2:59 p.m., the Grafton Fire Department was called to a fatal brush fire. There older adult victim was burning brush in the backyard when the fire got out of control. They were transported to a local hospital and later succumbed to their injuries. No one else was injured at this fire. Damages from this fire were not estimated.
- On April 17, 2021, at 6:09 p.m., the Sturbridge Fire Department was called to a fatal motor vehicle crash with ensuing fire. There were two adult victims. No one else was injured at this fire. Damages from this fire were estimated to be \$21,000.
- On April 19, 2021, at 4:45 p.m., the Worcester Fire Department was called to a fatal motor vehicle crash with ensuing fire. There was one adult victim. One (1) firefighter was injured at this fire. Damages from this fire were estimated to be \$20,000.
- On May 19, 2021, at 9:39 p.m., the Webster Fire Department was dispatched to a fire in a three-unit apartment building of undetermined cause. The fire started on the first-floor exterior balcony. The most likely cause was the improper disposal of smoking materials. There was one adult victim. One (1) civilian was also injured at this fire. Smoke alarms were present and alerted the occupants. The building was not sprinklered. Damages from this fire were estimated to be \$204,100.
- On July 17, 2021, at 3:42 a.m., the Worcester Fire Department was called to a fatal electrical fire in a three-unit apartment building. The fire was caused by an unclassified electrical failure in the kitchen. The adult victim was asleep in a bedroom. One (1) firefighter was injured at this fire. It was undetermined if alarms were present. Sprinklers were not present in the home. Damages were estimated to be \$315,000.
- On September 10, 2021, at 4:14 a.m., the Northborough Fire Department was dispatched to a fire in a five-unit apartment building of undetermined cause. The most likely cause was either careless disposal of smoking material or an undetermined electrical event. The adult victim was sleeping at the time of the fire. One (1) firefighter was injured at this fire. Alarms and sprinklers were not present. Damages from this fire were estimated to be \$439,400.

- On December 4, 2021, at 9:46 p.m., the Uxbridge Fire Department was called to a fatal motor vehicle crash with ensuing fire. There was one adult victim. No one else was injured at this fire. Damages from this fire were not estimated.

Leominster Had Largest Loss Fire in 2021

In 2021, Worcester County fire departments reported two fires with a reported dollar loss of \$1 million or greater, one of these fires occurred in Leominster the other in Sterling. The dollar loss of these fires totaled \$2.6 million, or 8%, of the county's total dollar loss.

- On March 3, 2021, at 4:54 p.m., the Leominster Fire Department was called to a fire a cooking fire in a 41-unit apartment building. No one was injured at this fire. Alarms were present and alerted the occupants. Sprinklers were present and suppressed the fire. Damages from this fire were estimated to be \$1.6 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 2,252 structure fires caused seven civilian deaths, 31 civilian injuries, 56 fire service injuries and an estimated dollar loss of \$29.6 million. These incidents represented 59% of Worcester County's reported fires in 2021. The average estimated dollar loss per structure fire was \$13,138. The total number of reported structure fires decreased by 83, or 4%, from the 2,335 reported in 2020.

Arson Caused 1% of Structure Fires

The 23 structure arsons caused two civilian injuries, one fire service injury and an estimated dollar loss of \$342,001. Arson was indicated as the cause of 1% of the structure fires and 1% of Worcester County's structure fire dollar loss. The 23 structure arsons accounted for 32% of the Worcester County arson fires reported in 2021. The total number of reported structure arsons increased by four, or 21%, from the 19 reported in 2020.

87% of Structure Arsons Occurred in Residences

Eighty-seven percent (87%) of Worcester County's 24 structure arsons occurred in residential occupancies; and 4% each happened in public assembly properties, educational facilities and mercantile or business properties.

BUILDING FIRES

There were 2,243 building fires of different types in Worcester County in 2021. These 2,243 building fires accounted for 99.6% of all structure fires in Worcester County.

86% of Worcester Building Fires Occurred in People's Homes

One thousand seventeen (1,917), or 86%, of Worcester County's 2,243 building fires occurred in residential occupancies. One hundred and three (103) fires took place in

public assembly properties, including restaurants and churches. Mercantile and business properties had 86 fires. Hospitals, prisons, and other institutional buildings experienced 43 fires. Thirty (30) fires took place in storage properties. Twenty-six (26) fires took place in manufacturing and processing facilities. Twenty-three (23) building fires took place in educational properties. Eight (8) building fires in Worcester County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Six (6) fires occurred in industrial, utility, defense, agricultural or mining facilities. One (1) fire was reported to have *None* as its property use.

RESIDENTIAL FIRES

Residential Building Fires Were Down Slightly

There were 1,917 reported residential building fires in Worcester County in 2021. These 1,917 fires were a decrease of 98, or 5%, from the 2,015 residential building fires reported in 2020.

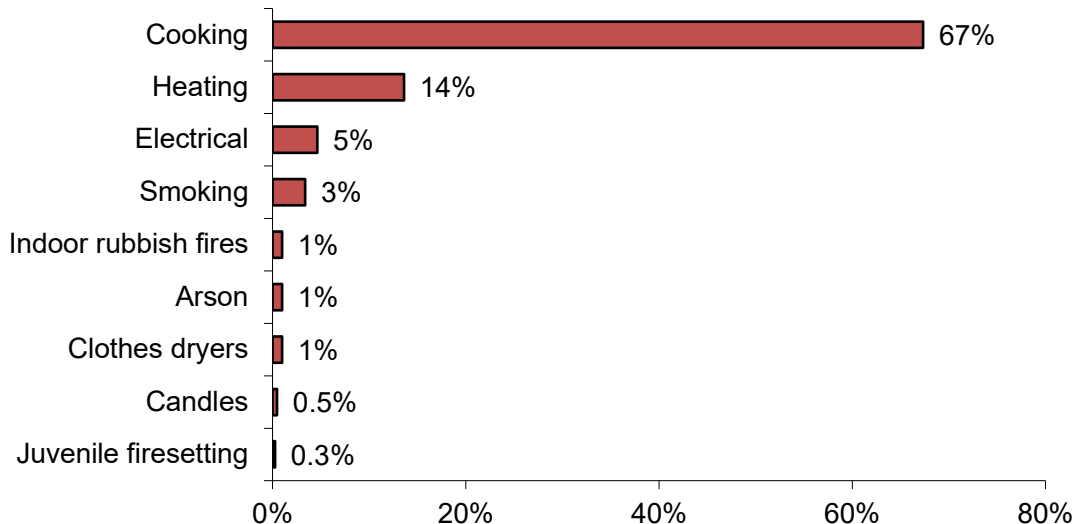
Apartments Accounted for 46% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 46% of the residential building fires in Worcester County; 39% occurred in one- or two-family homes; 6% happened in rooming houses; 4% occurred in dormitories; 2% happened in hotels or motels; and 2% occurred in residential board and care facilities. Nine (9), or less than 1%, of the residential building fires in Worcester County occurred in unclassified residential buildings.

Unattended Cooking Caused 67% of Residential Fires

The leading cause of residential building fires in Worcester County was unattended cooking and other unsafe cooking practices, accounting for 67% of these fires. Heating caused 14% of fires in people's homes. Electrical problems caused 5% and smoking accounted for 3% of these fires. Indoor rubbish fires, arsons and clothes dryers each caused 1%. Candles and juvenile-set fires each caused less than 1% of the fires in people's homes in Worcester County in 2021.

2021 Leading Causes of Fires in Worcester County Homes



78% of Residential Building Fires Are Confined to Non-Combustible Containers²

One thousand four hundred and eighty-eight (1,488), or 78%, of all residential building fires were reported as confined to non-combustible containers in 2021. One thousand two hundred and twenty-nine (1,229) of the reported fires were cooking fires contained to a non-combustible container, accounting for 64% of residential building fires. One hundred and twenty-seven (127), or 7%, were fires confined to a fuel burner or boiler malfunction. One hundred and nine (109), or 6%, of all residential building fires reported in 2021 were confined to a chimney. Twenty-three (23), or 1%, of the residential building fires in Worcester County in 2021 were contained rubbish fires.

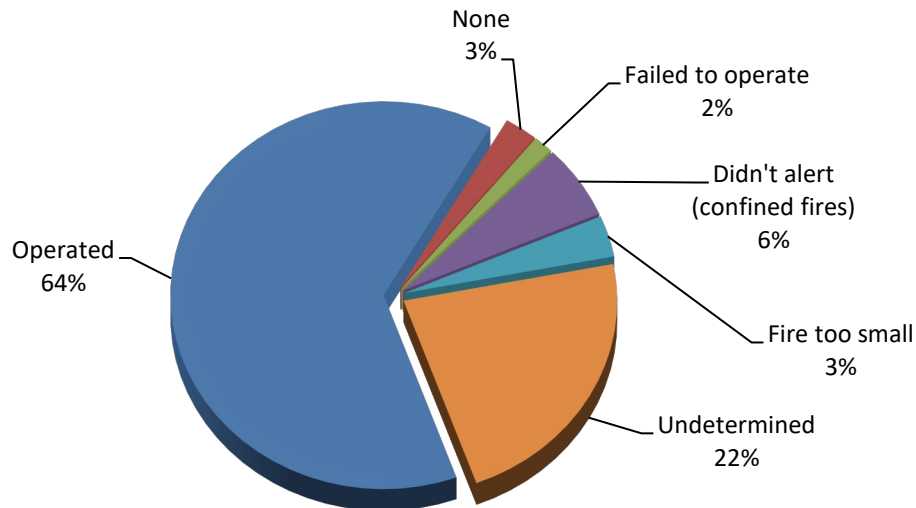
Alarms Alerted Occupants in 64% of Fires

Smoke or heat alarms operated and alerted the occupants in 1,225, or 64%, of the residential building fires. In 6% of these fires³, the alarms did not alert the occupants. Alarms were present but did not operate in 2% of these incidents. In 3% of these fires, no alarms were present at all. The fire was too small to trigger the alarm in 3% of the residential fires. Smoke alarm performance was undetermined in 431 incidents, or 22%, of Worcester County's residential building fires.

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

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

Detector Status in Worcester County's Residential Structure Fires 2021



34% of Failed Alarms Had Missing or Dead Batteries

Of the 29 fires where smoke alarms were present but failed to operate, seven, or 24%, failed because the batteries were either missing or disconnected; and three, or 10%, failed from dead batteries. Five (5), or 17%, failed from a power failure, shutoff or disconnect. A defective detector caused three, or 10%, of the alarms to fail. A lack of maintenance caused two, or 7%, alarms to fail. It was undetermined or unclassified in nine cases, or 31%, 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 2,243 building fires reported to MFIRS in 2021. Twenty-six (26) fires occurred in vacant residential properties. Seven (9) of these fires occurred at storage facilities. One (1) vacant building fire in Worcester County in 2021 occurred in each in a public assembly property, an educational facility and a special property.

One (1), or 3%, of the vacant building fires in Worcester County in 2021 were determined to be intentionally-set. This one occurred in an apartment building.

JUVENILE-SET FIRES

9 Juvenile-set Fires

There were nine reported juvenile-set fires in Worcester County in 2021. The five structure fires, two brush fires, and two unclassified fires caused \$27,755 in estimated damages.

ARSONS

71 Total Arsons⁴ — 23 Structures, 4 Vehicles & 44 Other Arsons

Seventy-one (81), or 2%, of Worcester County's 3,811 fires were considered intentionally-set, or, for purposes of this analysis, arson. The 23 structure arsons, four motor vehicle arsons and 44 outside and other arsons caused two civilian injuries, one fire service injury and an estimated dollar loss of \$451,705. Worcester County's arson fires accounted for 2% of the state's total arson fires and 1% of the state's total dollar losses from arson.

All Arsons Down Slightly

The total number of arsons decreased by 10 from 81 in 2020. Reported structure arsons decreased by four from the 19 reported in 2020. Motor vehicle arsons decreased by two from the six reported in 2020. Outside and other arsons decreased by 12 from the 56 reported last year.

ALL INCIDENTS

Rescue & EMS Calls Are 67% of All Reported Responses

In 2021, fire departments in Worcester County reported 127,183 responses⁵ to MFIRS. This is an increase of 13,814 runs, or 12%, over the 113,369 reported in 2020. Of these 127,183 responses, 122,734 non-fire calls were voluntarily reported.

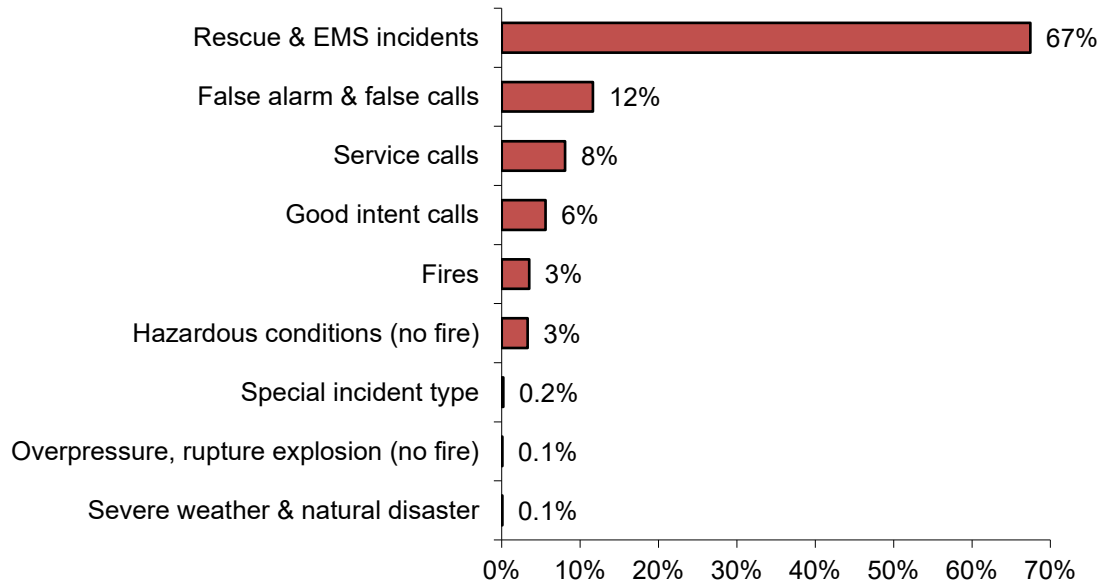
Of these 122,734 non-fire calls, 85,772, or 67%, of all the responses reported in 2021 were reported rescue and emergency medical services (EMS) calls; 14,821, or 12%, were reported false alarm or false calls; 10,304, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 7,124, or 6%, were reported good intent calls; 4,216, or 3%, reported hazardous condition calls with no fire; 271, or 0.2%, were special incident type calls such as citizen complaints; 114, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 112, or 0.1%, were severe weather calls.

⁴ In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

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

Four thousand four hundred and forty-nine (4,449), or 3%, of the total responses submitted by Worcester County fire departments were fires.

2021 Responses by Incident Type



Worcester County Fire Departments Reported Giving Mutual Aid 5,754 Times

In 2021, Worcester County fire departments reported coming to the aid of other fire departments 5,754 times. Of these 5,754 responses, 3,338, or 58%, were for rescue or EMS incidents; 942, or 16%, were for good intent calls; 736, or 13%, were for service calls such as cover assignments; 492, or 11%, were for fires; 55, or 1%, were for false alarms or false calls; 39, or 1%, were for hazardous conditions calls with no fire; seven, or 0.1%, were special incident types; two, or 0.03%, were for overpressure, rupture explosion calls with no fire; and two, or 0.03%, were for severe weather or natural disasters.

Worcester County Fire Departments Received Mutual Aid in 2,733 Incidents

In 2021, Worcester County fire departments reported receiving aid from surrounding departments in 2,733 incidents. Of these 2,733 incidents, 2,282 or 82% were rescue and emergency medical services calls; 251, or 9%, were for fires; 82, or 3%, were good intent calls; 79, or 3%, were false alarms or false calls; 38, or 1%, were service calls; 35, or 1%, were hazardous conditions calls with no fire; four, or 0.1%, were for special incident types; and two, or 0.1%, were for overpressure, rupture explosion calls with no fire.

Worcester County**Population: 862,111⁶****4.4 Fires/1,000 Population****Total Fires: 3,811 \$32,508,981**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	2,252	59%	\$29,586,772
Vehicle Fires	328	9%	2,626,029
Other Fires	1,231	32%	296,180

9 Fatal Fires 3.15 Civilian Deaths/1,000 Fires
 12 Civilian Deaths 0.14 Civilian Deaths/10,000 Population
 36 Civilian Injuries 66 Fire Service Injuries

Building Fires: 2,243**Residential Structure Fires: 1,917****Residential Structure Fires Confined to Non-Combustible Containers: 1,488****Unconfined Residential Structure Fires: 429**

7 Civilian Deaths 27 Civilian Injuries 43 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	880	46%	Operated	1,225	64%
1- & 2-Family homes	757	39%	Didn't operate	29	2%
Rooming houses	108	5%	None	48	3%
Dormitories	75	3%	Fire too small	66	3%
Residential board & care	47	2%	Didn't Alert (confined)	118	6%
Hotels or motels	41	2%	Undetermined	431	22%

Area of Origin⁷	%	Heat Source	%	%Unconfined⁸
Kitchen	69%	Heat from operating eq.	3%	14%
Heating room or area	7%	Arcing	3%	11%
Chimney or flue	6%	Radiated heat from oper. eq.	2%	10%
Bedroom	2%	Hot or smoldering object	2%	8%
Exterior Balcony, unencl. porch	1%	Cigarette	2%	7%
Laundry room	1%	Hot ember or ash	1%	4%

⁶ We are using the US Census 2020 figures.⁷ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.⁸ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited⁹	%	Factor Contrib. to Ignit.	%	% Unconfined¹⁰
Food, cooking materials	66%	Too close to combustibles	3%	12%
Flammable, combustible liquid	7%	Abandoned materials	2%	10%
Film or residue (creosote)	6%	Elec. fail., malfunc., other	2%	9%
Electrical wiring, cable insulation	2%	Equipment unattended	1%	5%
Rubbish, trash, waste	2%	Failure to clean	1%	4%
Structural member, framing	2%	Mech. fail., malfunc., other	1%	4%

Equipment¹¹	%	Cause of Ignition	%	% Unconfined¹²
Cooking equipment	66%	Unintentional	14%	60%
None	14%	Failure of eq. or heat source	3%	12%
Boiler, furnace, cent. heat. unit	7%	Intentional	1%	4%
Chimney or flue	6%	Act of Nature	0.3%	1%
Clothes dryer	1%	Cause under investigation	1%	5%
		Undetermined	4%	16%

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

Alerted Occupants	67%
Didn't Alert Occupants	8%
Undetermined	25%

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

¹⁰ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹¹ This field does not need to be completed for confined fires. Certain codes are inferred from the Incident Type.

¹² These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	259	197	20	42
February	256	219	20	17
March	512	237	37	238
April	427	165	32	230
May	438	191	30	217
June	311	149	29	133
July	238	144	30	64
August	262	169	29	64
September	240	151	30	59
October	251	176	22	53
November	301	207	22	72
December	316	247	27	42

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	576	340	43	193
Monday	549	335	34	180
Tuesday	580	349	46	185
Wednesday	483	283	53	147
Thursday	471	297	51	123
Friday	525	310	53	162
Saturday	627	338	48	241

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	195	115	25	55
04:01 – 08:00	224	137	30	57
08:01 – 12:00	635	399	52	184
12:01 – 16:00	1,016	505	87	424
16:01 – 20:00	1,149	703	93	353
20:01 – 00:00	592	393	41	158

Motor Vehicle Fires

Total: 328

Automobiles: 248 (76%)

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

Arson Fires

Total Arsons: 71

Dollar loss: \$451,705

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	23	1%	32%	\$342,001
Vehicle Arsons	4	1%	6%	107,100
Other Arsons	44	4%	62%	2,604

0.03 Structure arsons/1,000 population

0.005 Vehicle arsons/1,000 population

0.05 Other arsons/1,000 population

2 Civilian Injuries

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 – 00:00	6	26%	00:01 – 04:00	2	50%
08:01 – 12:00	5	22%	12:01 – 16:00	1	25%
00:01 – 04:00	4	17%	20:01 – 00:00	1	25%

Other Arsons	#	%
12:01 – 16:00	15	34%
16:01 – 20:00	15	34%
20:01 – 00:00	7	16%
08:01 – 12:00	5	11%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	10	43%
1- or 2-Family homes	8	35%

Ashburnham					Population: 6,315			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	20	8	2	10	1	0	0	1
2018	18	10	3	5	0	0	0	0
2019	12	6	3	3	0	0	0	0
2020	22	4	4	14	1	0	0	1
2021	10	3	0	7	1	1	0	0

Athol					Population: 11,945			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	45	22	7	16	2	1	0	1
2018	42	19	5	18	1	1	0	0
2019	45	23	0	22	2	2	0	0
2020	94	37	1	56	10	1	0	9
2021	83	24	6	53	4	1	0	3

Auburn					Population: 16,889			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	52	25	11	16	6	1	1	4
2018	63	25	14	21	4	1	0	6
2019	56	24	18	14	4	3	0	1
2020	49	16	8	25	3	0	0	3
2021	60	20	14	26	3	0	0	3

Barre					Population: 5,530			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	34	18	2	14	0	0	0	0
2018	32	19	4	9	4	2	2	0
2019	30	14	1	15	0	0	0	0
2020	23	11	1	11	0	0	0	0
2021	34	15	0	19	2	1	0	1

Berlin					Population: 3,158			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	18	5	4	9	0	0	0	0
2018	23	5	7	11	2	1	0	1
2019	19	4	5	10	0	0	0	0
2020	31	6	9	16	0	0	0	0
2021	31	13	6	12	2	0	0	2

Blackstone					Population: 9,208			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	17	8	1	8	1	0	0	1
2018	11	5	0	6	1	1	0	0
2019	9	5	2	2	0	0	0	0
2020	15	4	1	10	0	0	0	0
2021	23	4	2	17	0	0	0	0

Bolton					Population: 5,665			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	13	3	5	5	0	0	0	0
2018	21	9	7	5	0	0	0	0
2019	19	10	7	2	0	0	0	0
2020	17	4	6	7	0	0	0	0
2021	33	8	10	15	1	1	0	0

Boylston					Population: 4,849			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	14	4	1	9	0	0	0	0
2018	15	9	1	5	3	1	0	2
2019	19	12	4	3	1	0	0	1
2020	13	7	2	4	0	0	0	0
2021	16	5	1	10	0	0	0	0

Brookfield					Population: 3,439			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	13	5	2	6	1	0	0	1
2018	6	3	0	3	3	1	0	2
2019	10	5	2	3	1	0	0	1
2020	16	6	0	10	4	1	0	3
2021	16	6	0	10	5	0	0	5

Charlton					Population: 13,315			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	60	32	16	12	2	0	1	1
2018	47	25	13	9	1	0	0	1
2019	51	24	19	8	0	0	0	0
2020	55	20	6	29	2	1	0	1
2021	34	16	8	10	2	1	0	1

Clinton					Population: 15,428			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	49	31	6	12	2	2	0	0
2018	42	27	2	13	0	0	0	0
2019	32	20	1	11	0	0	0	0
2020	50	28	2	20	5	0	0	5
2021	48	19	2	27	2	0	0	2

Douglas					Population: 8,983			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	18	7	3	8	1	0	0	1
2018	15	6	3	6	1	0	0	1
2019	24	9	5	10	1	1	0	0
2020	31	8	2	21	0	0	0	0
2021	39	14	0	25	2	0	0	2

Dudley							Population: 11,921	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	41	19	4	18	2	1	0	1
2018	30	21	3	6	2	1	1	0
2019	29	10	7	12	1	0	0	1
2020	33	18	2	13	1	0	0	1
2021	45	19	5	21	0	0	0	0

East Brookfield							Population: 2,224	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5	2	0	3	0	0	0	0
2018	14	1	2	11	0	0	0	0
2019	9	2	1	6	3	0	0	3
2020	4	2	0	2	2	0	0	2
2021	6	3	1	2	0	0	0	0

Fitchburg							Population: 41,946	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	458	406	15	37	6	4	2	0
2018	428	359	19	50	4	2	2	0
2019	489	399	21	69	4	4	0	0
2020	498	321	21	156	2	1	0	1
2021	463	364	12	87	4	4	0	0

Gardner							Population: 21,287	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	183	150	9	24	3	2	1	0
2018	147	119	11	17	2	1	1	0
2019	153	124	13	16	5	3	0	2
2020	162	131	8	23	1	0	0	1
2021	189	159	12	18	1	1	0	0

Grafton **Population: 19,664**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	21	15	1	5	0	0	0	0
2018	14	12	2	0	0	0	0	0
2019	1	1	0	0	0	0	0	0
2020	24	12	4	8	0	0	0	0
2021	51	27	7	17	1	0	0	1

Hardwick **Population: 2,667**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	10	6	0	4	0	0	0	0
2018	5	3	0	2	0	0	0	0
2019	11	5	2	4	0	0	0	0
2020	17	8	0	9	0	0	0	0
2021	12	6	2	4	0	0	0	0

Harvard **Population: 6,851**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	10	7	2	0	0	0	0
2018	22	9	4	9	0	0	0	0
2019	35	19	6	10	0	0	0	0
2020	32	22	0	10	0	0	0	0
2021	22	13	2	7	0	0	0	0

Holden **Population: 19,905**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	37	21	3	13	2	0	0	2
2018	21	15	1	5	1	0	0	1
2019	35	19	3	13	1	0	0	1
2020	37	20	3	14	1	0	0	1
2021	28	14	1	13	0	0	0	0

Hopedale					Population: 6,017			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	8	3	8	4	0	0	4
2018	28	14	1	13	4	0	0	4
2019	25	19	1	5	2	0	0	2
2020	29	17	1	11	3	0	0	3
2021	22	13	0	9	3	0	0	3

Hubbardston					Population: 4,328			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	14	6	1	7	0	0	0	0
2018	14	8	3	3	0	0	0	0
2019	9	7	1	1	0	0	0	0
2020	22	10	3	9	0	0	0	0
2021	15	9	2	4	0	0	0	0

Lancaster					Population: 8,441			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	22	9	5	8	0	0	0	0
2018	14	7	3	4	0	0	0	0
2019	19	8	1	10	0	0	0	0
2020	33	12	5	16	1	1	0	0
2021	25	14	3	8	0	0	0	0

Leicester					Population: 11,087			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	33	30	2	1	0	0	0	0
2018	27	18	3	6	1	0	0	1
2019	47	27	6	14	5	0	0	5
2020	42	16	5	21	0	0	0	0
2021	34	16	2	16	3	0	0	3

Leominster							Population: 43,782	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	245	176	15	54	5	4	0	1
2018	219	154	20	45	2	1	0	1
2019	221	153	14	54	0	0	0	0
2020	250	142	19	89	1	0	1	0
2021	212	153	12	47	3	1	0	2

Lunenburg							Population: 11,782	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	45	21	5	19	1	0	0	1
2018	28	21	1	6	0	0	0	0
2019	22	14	1	7	0	0	0	0
2020	37	19	3	15	1	0	1	0
2021	40	22	5	13	0	0	0	0

Mendon							Population: 6,228	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	6	1	2	3	0	0	0	0
2018	4	0	2	2	0	0	0	0
2019	21	10	1	10	0	0	0	0
2020	30	8	1	21	0	0	0	0
2021	17	5	4	8	0	0	0	0

Milford							Population: 30,379	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	104	50	13	41	2	1	0	1
2018	72	45	8	19	0	0	0	0
2019	73	39	15	19	3	1	1	1
2020	87	36	8	43	2	0	0	2
2021	81	36	8	37	0	0	0	0

Millbury **Population: 13,831**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	55	30	5	20	0	0	0	0
2018	54	33	12	9	0	0	0	0
2019	52	36	9	7	1	1	0	0
2020	40	13	6	21	0	0	0	0
2021	33	13	7	13	1	0	0	1

Millville **Population: 3,174**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	2	1	1	0	0	0	0
2018	7	4	0	3	1	1	0	0
2019	10	8	1	1	0	0	0	0
2020	15	7	2	6	0	0	0	0
2021	9	6	1	2	0	0	0	0

New Braintree **Population: 996**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	6	2	1	3	0	0	0	0
2018	1	1	0	0	0	0	0	0
2019	Non-reporting Department							
2020	Non-reporting Department							
2021	8	1	2	5	3	0	0	3

North Brookfield **Population: 4,735**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	20	8	0	12	1	0	0	1
2018	23	14	0	9	0	0	0	0
2019	9	4	3	2	0	0	0	0
2020	17	7	1	9	0	0	0	0
2021	12	3	2	7	0	0	0	0

Northborough							Population: 15,741	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	32	11	5	16	0	0	0	0
2018	38	15	4	19	0	0	0	0
2019	38	16	8	14	0	0	0	0
2020	45	15	7	23	0	0	0	0
2021	45	16	7	22	1	1	0	0

Northbridge							Population: 16,335	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	42	18	5	19	0	0	0	0
2018	29	19	5	5	1	0	0	1
2019	35	18	9	8	1	0	0	1
2020	46	20	6	20	0	0	0	0
2021	40	17	7	16	0	0	0	0

Oakham							Population: 1,851	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	4	0	2	2	0	0	0	0
2018	8	6	0	2	2	1	0	1
2019	3	3	0	0	0	0	0	0
2020	5	2	0	3	0	0	0	0
2021	3	3	0	0	0	0	0	0

Oxford							Population: 13,347	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	61	32	6	23	1	0	1	0
2018	54	32	7	15	1	1	0	0
2019	47	24	6	17	1	1	0	0
2020	48	17	4	27	0	0	0	0
2021	38	14	7	17	0	0	0	0

Paxton					Population: 5,004			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	12	9	0	3	0	0	0	0
2018	14	10	2	2	0	0	0	0
2019	9	9	0	0	0	0	0	0
2020	24	18	4	2	0	0	0	0
2021	13	6	3	4	0	0	0	0

Petersham					Population: 1,194			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1	0	1	0	0	0	0	0
2018	Fire Department in Good Standing, Certified No Reportable Fires							
2019	Fire Department in Good Standing, Certified No Reportable Fires							
2020	10	4	2	4	0	0	0	0
2021	Fire Department in Good Standing, Certified No Reportable Fires							

Phillipston					Population: 1,726			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	5	2	0	3	0	0	0	0
2018	5	1	3	1	0	0	0	0
2019	4	2	2	0	0	0	0	0
2020	7	0	2	5	2	0	0	2
2021	8	3	1	4	0	0	0	0

Princeton					Population: 3,495			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	14	13	0	1	1	0	0	1
2018	8	5	1	2	0	0	0	0
2019	14	8	1	5	0	0	0	0
2020	15	9	1	5	0	0	0	0
2021	6	4	0	2	0	0	0	0

Royalston **Population: 1,250**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	7	3	0	4	0	0	0	0
2018	10	3	0	7	3	0	0	3
2019	4	2	0	2	1	0	0	1
2020	13	2	0	11	1	0	0	1
2021	7	2	0	5	0	0	0	0

Rutland **Population: 9,049**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	22	13	0	9	0	0	0	0
2018	22	8	1	13	0	0	0	0
2019	17	9	2	6	0	0	0	0
2020	18	9	0	9	1	0	0	1
2021	16	6	2	8	1	0	0	1

Shrewsbury **Population: 38,325**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	99	54	14	31	2	1	0	1
2018	116	63	17	36	2	0	0	2
2019	90	56	12	22	6	0	1	5
2020	125	55	19	51	1	0	0	1
2021	103	58	16	29	2	1	1	0

Southborough **Population: 10,450**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	25	8	7	10	0	0	0	0
2018	30	18	7	5	0	0	0	0
2019	21	8	6	7	4	0	1	3
2020	39	11	4	24	3	0	0	3
2021	21	9	4	8	0	0	0	0

Southbridge							Population: 17,740	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	36	21	12	3	0	0	0	0
2018	45	28	6	11	0	0	0	0
2019	51	28	12	11	0	0	0	0
2020	57	36	4	17	0	0	0	0
2021	55	29	5	21	1	0	0	1

Spencer							Population: 11,992	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	56	39	3	14	1	0	0	1
2018	28	17	5	6	1	0	0	1
2019	48	25	4	19	1	1	0	0
2020	52	27	2	23	2	1	0	1
2021	29	17	3	9	1	0	0	1

Sterling							Population: 7,985	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	21	8	6	7	3	1	0	2
2018	13	5	5	3	0	0	0	0
2019	17	7	2	8	0	0	0	0
2020	31	10	2	19	0	0	0	0
2021	30	7	3	20	0	0	0	0

Sturbridge							Population: 9,867	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	44	16	8	20	0	0	0	0
2018	32	13	10	9	0	0	0	0
2019	47	20	8	19	4	0	0	4
2020	62	19	13	30	0	0	0	0
2021	53	21	12	20	0	0	0	0

Sutton					Population: 9,357			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	26	8	6	12	0	0	0	0
2018	24	16	2	6	0	0	0	0
2019	31	19	6	6	0	0	0	0
2020	35	10	8	17	0	0	0	0
2021	23	14	3	6	0	0	0	0

Templeton					Population: 8,149			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	11	9	0	2	0	0	0	0
2018	6	2	3	1	0	0	0	0
2019	Non-reporting Department							
2020	13	8	0	5	1	0	0	1
2021	22	10	2	10	0	0	0	0

Upton					Population: 8,000			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	14	10	0	4	2	0	0	2
2018	24	15	4	5	0	0	0	0
2019	14	8	1	5	1	0	0	1
2020	40	23	3	14	0	0	0	0
2021	28	20	4	4	0	0	0	0

Uxbridge					Population: 14,162			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	36	11	6	19	50	0	0	5
2018	22	12	6	4	1	0	0	1
2019	32	11	9	12	2	0	0	2
2020	39	17	4	18	0	0	0	0
2021	32	10	5	17	1	0	0	1

Warren					Population: 4,975			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	14	5	3	6	0	0	0	0
2018	12	8	2	2	0	0	0	0
2019	29	11	8	10	3	0	0	3
2020	27	17	4	6	1	0	0	1
2021	22	8	7	7	1	0	0	1

Webster					Population: 17,776			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	57	36	10	11	5	2	1	2
2018	53	32	11	10	0	0	0	0
2019	41	25	5	11	1	0	0	1
2020	55	29	3	23	1	0	0	1
2021	54	30	8	16	1	1	0	0

West Boylston					Population: 7,877			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	17	7	4	6	0	0	0	0
2018	17	9	2	6	1	0	0	1
2019	19	7	6	6	0	0	0	0
2020	21	8	2	11	3	1	0	2
2021	20	13	1	6	0	0	0	0

West Brookfield					Population: 3,833			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	10	6	3	1	1	0	0	1
2018	13	5	2	6	4	0	0	4
2019	2	2	0	0	0	0	0	0
2020	3	2	0	1	0	0	0	0
2021	3	2	1	0	0	0	0	0

Westborough							Population: 21,567	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	138	109	9	20	5	3	0	2
2018	96	72	4	20	2	1	0	1
2019	150	114	23	13	1	0	1	0
2020	161	121	9	31	2	1	0	1
2021	137	90	9	38	1	0	0	1

Westminster							Population: 8,213	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	27	10	11	6	0	0	0	0
2018	25	12	5	8	1	1	0	0
2019	31	11	9	11	1	0	0	1
2020	42	13	9	20	0	0	0	0
2021	32	18	5	9	3	1	0	2

Winchendon							Population: 10,364	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	19	10	3	6	1	0	0	1
2018	41	19	10	12	3	1	2	0
2019	23	14	2	7	0	0	0	0
2020	33	15	1	17	1	0	0	1
2021	34	22	4	8	1	1	0	0

Worcester							Population: 206,518	
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2017	1,270	852	70	348	11	8	3	0
2018	1,384	963	87	334	24	11	5	8
2019	1,300	878	74	348	32	7	5	20
2020	1,576	845	66	665	22	11	4	7
2021	1,186	760	70	356	14	7	3	4

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	824	14	0	525	15	115	40	112	0	3
27015	Athol	2,944	98	15	2,265	68	125	192	175	5	1
27017	Auburn	4,525	81	0	3,263	127	386	335	311	5	17
27021	Barre	1,327	55	1	973	58	109	39	88	4	0
27028	Berlin	816	36	2	468	22	125	39	124	0	0
27032	Blackstone	435	29	0	181	24	27	56	117	1	0
27034	Bolton	926	34	0	444	26	249	74	98	0	1
27039	Boylston	603	26	1	475	14	16	5	66	0	0
27045	Brookfield	146	28	1	49	18	1	17	29	2	1
27054	Charlton	2,426	49	5	1,759	149	201	109	140	3	11
27064	Clinton	1,943	64	3	1,231	51	193	36	362	1	2
27077	Douglas	1,091	45	1	811	37	61	42	90	1	3
27080	Dudley	644	64	1	215	55	59	67	174	5	4
27084	East Brookfield	109	7	0	35	23	14	9	21	0	0
27097	Fitchburg	4,923	493	4	2,367	203	557	187	1,108	0	4
27103	Gardner	5,253	212	9	3,690	118	461	194	562	4	3

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Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27110	Grafton	558	57	3	73	66	50	73	232	2	2
27124	Hardwick	104	14	0	12	10	16	7	44	0	1
27125	Harvard	386	37	0	119	19	37	61	108	3	2
27134	Holden	2,573	35	4	2,032	41	98	124	236	1	2
27138	Hopedale	1,534	29	0	802	64	380	105	126	22	6
27140	Hubbardston	683	15	1	371	23	131	82	60	0	0
27147	Lancaster	1,209	34	0	906	17	29	58	150	0	15
27151	Leicester	342	37	1	77	63	32	14	112	2	4
27153	Leominster	8,730	224	5	6,289	238	879	281	796	3	15
27162	Lunenburg	390	57	0	59	53	42	38	137	0	4
27179	Mendon	857	29	2	621	25	28	54	94	3	1
27185	Milford	5,643	92	1	4,072	140	554	270	509	0	5
27186	Millbury	350	33	0	6	7	86	4	214	0	0
27188	Millville	392	27	0	233	10	19	66	36	1	0
27202	New Braintree	35	17	0	4	5	2	5	2	0	0

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Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27212	North Brookfield	219	30	0	59	26	14	3	84	3	0
27215	Northborough	2,369	58	4	1,592	74	169	155	315	1	1
27216	Northbridge	3,232	52	1	2,449	61	151	125	390	3	0
27222	Oakham	84	3	0	25	12	23	8	11	0	2
27226	Oxford	514	39	0	98	52	69	89	163	3	1
27228	Paxton	1,426	18	1	851	13	325	118	99	1	0
27234	Petersham*	0	0	0	0	0	0	0	0	0	0
27235	Phillipston	264	22	0	171	4	15	27	12	2	11
27241	Princeton	364	12	2	219	9	38	28	55	1	0
27255	Royalston	240	23	0	120	13	48	14	17	5	0
27257	Rutland	1,536	17	1	1,127	18	178	91	103	0	1
27271	Shrewsbury	4,419	108	4	3,172	201	280	160	482	2	10
27277	Southborough	1,409	37	0	844	51	105	138	225	5	4
27278	Southbridge	3,454	70	0	2,758	105	111	99	299	1	11
27280	Spencer	1,475	47	2	1,076	59	66	72	150	0	3

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Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27282	Sterling	1,953	47	0	1,276	23	144	300	159	4	0
27287	Sturbridge	2,520	59	7	1,650	64	285	119	251	0	85
27290	Sutton	558	66	1	294	25	37	15	120	0	0
27294	Templeton	1,256	35	0	959	30	48	55	129	0	0
27303	Upton	327	28	1	20	77	55	29	114	2	1
27304	Uxbridge	2,503	48	3	1,837	63	155	136	260	1	0
27311	Warren	881	44	0	680	22	28	57	49	1	0
27316	Webster	840	71	1	140	97	131	76	318	3	3
27321	West Boylston	1,633	23	0	1,198	28	102	126	154	1	1
27323	West Brookfield	3	3	0	0	0	0	0	0	0	0
27328	Westborough	4,571	157	2	3,089	190	269	332	524	3	5
27332	Westminster	1,777	51	0	1,111	39	214	108	245	2	7
27343	Winchendon	2,136	44	1	1,566	54	199	93	179	0	0
27348	Worcester	32,504	1,187	23	22,961	1,006	1,962	1,867	3,481	0	17
Total	Worcester County	127,188	4,471	114	85,769	4,205	10,303	7,123	14,821	112	270

* Certified no reportable fires.

**Non reporting department.

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