

County Profiles

2011 Fire Data Analysis

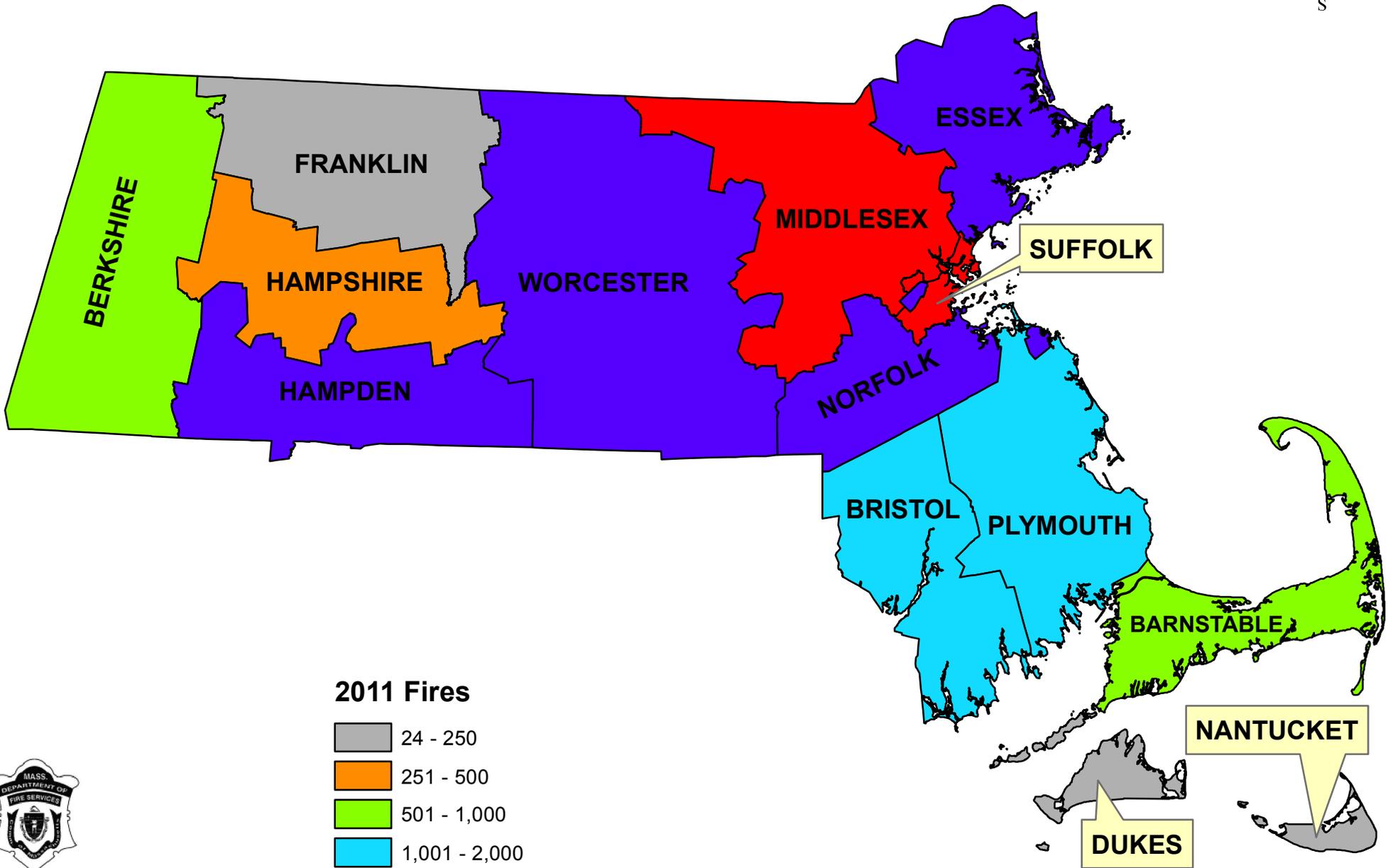


Statistics compiled by the
Massachusetts Fire Incident Reporting System (MFIRS)

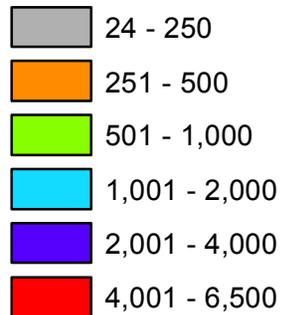


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2011 Fires in Massachusetts Counties



2011 Fires



MFIRS
Massachusetts Fire Incident Reporting System



Massachusetts Fire Incident Reporting System 2011

2011 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	900	405	109	386	2	36	0	13	\$9,203,072
Berkshire	609	340	47	164	2	8	0	19	5,486,403
Bristol	1,878	827	316	735	6	29	0	24	18,712,131
Dukes ¹	2	1	0	1	0	0	0	0	0
Essex	2,992	1,879	286	827	10	31	1	62	32,041,000
Franklin	235	140	29	66	0	4	0	4	2,380,126
Hampden	2,093	1,214	293	586	9	45	0	43	15,702,326
Hampshire	452	218	40	194	0	6	0	3	1,863,724
Middlesex	4,856	3,239	510	1,107	10	49	0	90	36,367,667
Nantucket	48	37	2	9	0	0	0	0	95,000
Norfolk	3,047	1,982	287	778	3	11	0	43	26,844,035
Plymouth	1,796	805	271	720	4	54	0	31	10,542,566
Suffolk	6,453	4,906	369	1,178	3	10	0	42	32,135,631
Worcester	3,807	2,185	438	1,184	5	40	1	48	25,629,253
Total	29,110	18,178	2,997	7,935	54	323	2	422	\$217,002,934

2011 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	57	7	1	49	0	0	0	3	\$372,200
Berkshire	42	8	4	30	0	1	0	1	75,605
Bristol	99	29	14	56	0	2	0	1	716,150
Dukes ²	0	0	0	0	0	0	0	0	0
Essex	106	23	18	65	1	2	0	6	700,700
Franklin	13	4	2	7	0	0	0	0	92,600
Hampden	56	10	13	33	1	0	0	2	281,625
Hampshire	28	0	0	28	0	0	0	0	51
Middlesex	119	34	22	63	0	1	0	4	939,625
Nantucket	2	0	0	2	0	0	0	0	0
Norfolk	65	7	3	55	1	0	0	0	2,425,618
Plymouth	98	19	11	68	1	8	0	2	493,860
Suffolk	156	42	16	98	0	0	0	1	5,217,955
Worcester	154	37	22	95	2	5	0	0	479,750
Total	979	223	125	631	7	20	0	20	\$12,378,234

¹ Dukes County fire departments reported another 18 fires after the 2011 database was closed for analysis: 12 structure fires, 1 motor vehicle fire and 7 outside & other fires.

² Dukes County fire departments reported 1 structure arson after the 2011 database was closed for analysis.
Massachusetts Fire Incident Reporting System 2011

2011 Fires, Arsons and Deaths By County and By Population*

County	Population	Total Fires	Fires per 1,000 Pop.	Fire Deaths	Deaths per 1,000 Fires	Deaths per 10,000 Pop.	Total Arsons	Arsons per 1,000 Pop.
Barnstable	215,888	900	4.2	2	2.2	0.09	57	0.3
Berkshire	131,219	551	4.2	2	3.6	0.15	26	0.2
Bristol	548,285	1,878	3.4	6	3.2	0.11	99	0.2
Dukes ³	16,535	31	0.1	0	0.0	0.00	1	0.0
Essex	743,159	2,992	4.0	10	3.3	0.13	106	0.1
Franklin	71,372	235	3.3	0	0.0	0.00	13	0.2
Hampden	463,490	2,093	4.5	9	4.3	0.19	56	0.1
Hampshire	158,080	452	2.9	0	0.0	0.00	28	0.2
Middlesex	1,503,085	4,856	3.2	10	2.1	0.07	119	0.1
Nantucket	10,172	48	4.7	0	0.0	0.00	2	0.2
Norfolk	670,850	3,047	4.5	3	1.0	0.04	65	0.1
Plymouth	494,919	1,796	3.6	4	2.2	0.08	98	0.2
Suffolk	722,023	6,453	8.9	3	0.5	0.04	156	0.2
Worcester	798,552	3,807	4.8	5	1.3	0.06	154	0.2
<i>Massachusetts</i>	<i>6,547,629</i>	<i>29,110</i>	<i>4.4</i>	<i>54</i>	<i>1.9</i>	<i>0.08</i>	<i>979</i>	<i>0.1</i>

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

³ Dukes County reported 18 more fires after the 2011 database was closed for analysis.

2011 Non-Fire Responses By County and By Incident Type

County	Total Non-Fire Responses	Overpressure Rupt. & Explos. (No-fire)	Rescue EMS Incidents	Hazardous Conditions (No-fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX ⁴ & Natural Disaster	Special Incident Type
Barnstable	39,192	63	26,904	2,455	2,891	1,464	4,904	353	158
Berkshire	12,078	14	6,455	1,035	1,748	592	1,991	190	53
Bristol	48,646	65	29,867	2,998	3,465	3,284	8,553	125	289
Dukes ⁵	191	1	10	18	8	7	146	0	1
Essex	82,804	105	46,128	4,660	11,113	4,905	14,974	215	704
Franklin	6,513	18	3,191	660	1,094	469	820	125	136
Hampden	43,966	107	24,375	2,694	3,705	4,673	7,980	244	188
Hampshire	13,540	40	8,117	959	932	583	2,682	90	137
Middlesex	153,174	156	84,475	13,465	15,256	8,678	26,290	431	4,451
Nantucket	2,385	0	1,126	233	162	68	788	6	2
Norfolk	81,981	154	47,429	7,862	8,034	4,263	12,159	343	1,737
Plymouth	69,840	118	43,581	6,060	6,072	4,485	8,808	411	305
Suffolk	87,048	68	46,861	6,046	11,125	7,786	14,748	74	310
Worcester	79,743	137	50,504	5,695	6,348	4,037	11,619	385	1,028
Massachusetts	721,081	1,045	419,025	54,837	71,953	45,291	116,439	2,992	9,499

⁴ WX is the abbreviation for Weather.

⁵ Tisbury is the only department to send us non-fire calls.

Barnstable County

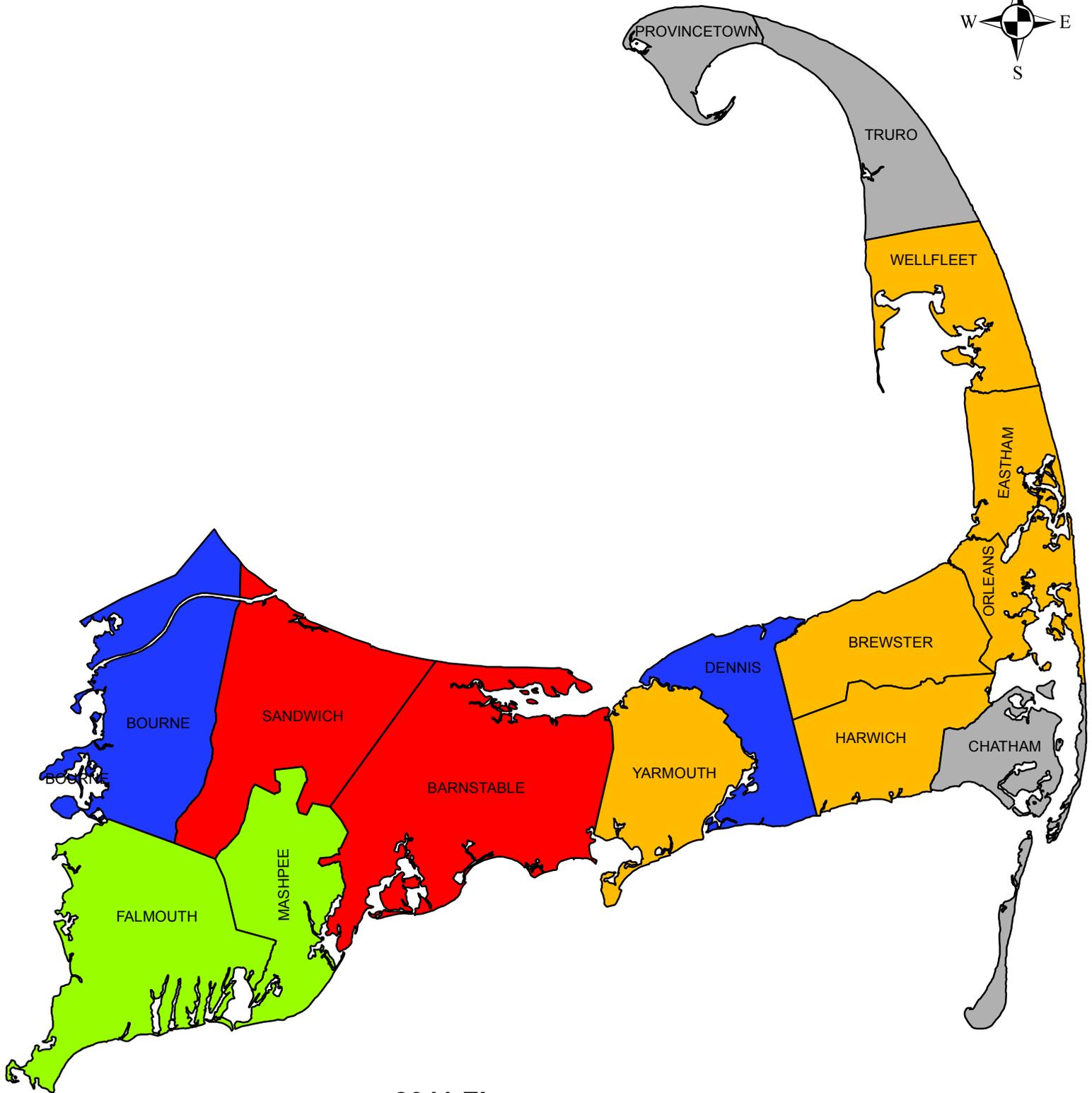
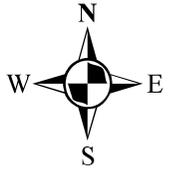
2011 Fire Data Analysis



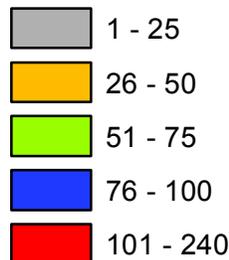
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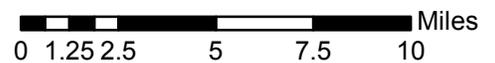
Barnstable County Fires 2011



2011 Fires



MFIRS
Massachusetts Fire Incident Reporting System



Barnstable County Fires in 2011

900 Total Fires — 405 Structures, 109 Vehicles & 386 Other Fires

Barnstable County ranked ninth out of the 14 Massachusetts counties in total reported fires. Barnstable County fire departments reported 900 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 405 structure fires, 109 motor vehicle fires, 218 brush, tree, or lawn fires, 81 outside rubbish fires, 41 special outside fires and 46 unclassified fires caused two civilian deaths, 36 civilian injuries, 13 fire service injuries and an estimated dollar loss of \$9.2 million. Barnstable County's fires accounted for 3% of the 29,110 Massachusetts fires reported in 2011.

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 2011.

Structure & Outside Fires Down

The total number of reported fire incidents decreased by 60 from the 960 reported in 2010. Reported structure fires decreased by 17 from the 422 reported during the previous year. Motor vehicle fires increased by six from the 103 reported during 2010. Outside and other fires decreased by 49 from the 435 reported the year before.

BARNSTABLE COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1,060	460	119	481	83	16	7	60
2008	1,082	480	124	478	93	12	7	74
2009	888	459	140	289	66	16	3	47
2010	960	422	103	435	63	7	6	50
2011	900	405	109	386	57	7	1	49

Fire and Fire Death Rates

Barnstable County had 4.2 fires per 1,000 population. That figure ranks Barnstable County seventh in the state and just below the state rate of 4.4 fires per 1,000 population. Barnstable County also had 0.09 fire deaths per 10,000 population, tying it for fifth with one other Massachusetts county and just above the state rate of 0.08 fire deaths per 10,000 population.

2 Residents Died in 2 Barnstable County Fires

- On January 25, 2011, at 5:22 p.m., the Yarmouth Fire Department was called to a fatal fire in a single-family home. The victim, a 67-year old woman, was cooking when her clothes ignited. She ran out of the home and onto the front lawn where a passerby attempted to extinguish the flames with her own coat. The Good Samaritan and the victim's brother were also injured by this fire. Smoke detectors were present and operated. The building was not sprinklered. Damages from this fire were estimated to be \$70,000.

- On October 31, 2011, at 11:18 p.m., the Hyannis Fire Department was dispatched to a fire in a 110-unit apartment building of undetermined cause. The fire began on the victim's third story balcony. There were multiple potential heat sources in the area of origin as well as many holiday decorations. The victim was the 84-year old female occupant of the apartment. She was transported to a local hospital where she succumbed to her injuries. There were five other civilian injuries associated with this fire. It was undetermined if detectors were present, and sprinklers were not. Damages from this fire were estimated to be \$800,000.

Falmouth Has Barnstable County's Largest Loss Fire

- On February 4, 2011, at 3:03 a.m., the Falmouth Fire Department responded to a fire in a single-family home. The fire originated in the first floor interior stairway. It is believed that an air compressor automatically turned on and ignited the fumes left over from refinishing the floors in the home. No one was injured at this fire. It was undetermined if detectors were present. The building was not equipped with sprinklers. Damages were estimated to be \$875,000.

STRUCTURE FIRES

Reported Structure Fires Down

The 405 structure fires caused two civilian deaths, 34 civilian injuries, 10 fire service injuries and an estimated dollar loss of \$8.3 million. These incidents represented 45% of Barnstable County's reported fires in 2011. The average estimated dollar loss per structure fire was \$20,582. The total number of reported structure fires decreased by 17, or 4%, from the 422 reported in 2010.

Arson Caused 2% of Structure Fires

The seven structure arsons caused three civilian injuries and an estimated dollar loss of \$370,750. Arson was indicated as the cause of 2% of the structure fires and 4% of Barnstable County's structure fire dollar loss. The seven structure arsons accounted for 12% of the Barnstable County arson fires reported in 2011. The total number of reported structure arsons remained the same with seven in both 2010 and 2011.

43% of Structure Arsons Occurred in Residences

Forty-three percent (43%) of Barnstable County's seven structure arsons occurred in residential occupancies; 29% happened in special properties; and 14% each occurred in a mercantile or business property and an educational facility.

BUILDING FIRES

There were 400 building fires of different types in Barnstable County in 2011. These 400 building fires accounted for 98.8% of all building fires in Barnstable County.

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

Three hundred and twenty-two (322), or 81%, of Barnstable County's 400 building fires occurred in residential occupancies. Mercantile and business properties had 22 fires. Twenty-one (21) fires took place in public assembly properties, including restaurants and

churches. Educational facilities experienced 10 fires. Hospitals, prisons, and other institutional buildings experienced eight fires. Seven (7) fires took place in storage properties. Four (4) fires occurred in industrial, utility, defense, agricultural or mining facilities. Special properties had four fires. One (1) fire took place in a manufacturing or processing facility; and another fire took place in an unclassified property in Barnstable County in 2011.

RESIDENTIAL FIRES

Residential Building Fires Are Down

There were 322 reported residential building fires in Barnstable County in 2011. These 322 fires are a decrease of 20, or 6%, from the 342 residential building fires reported in 2010.

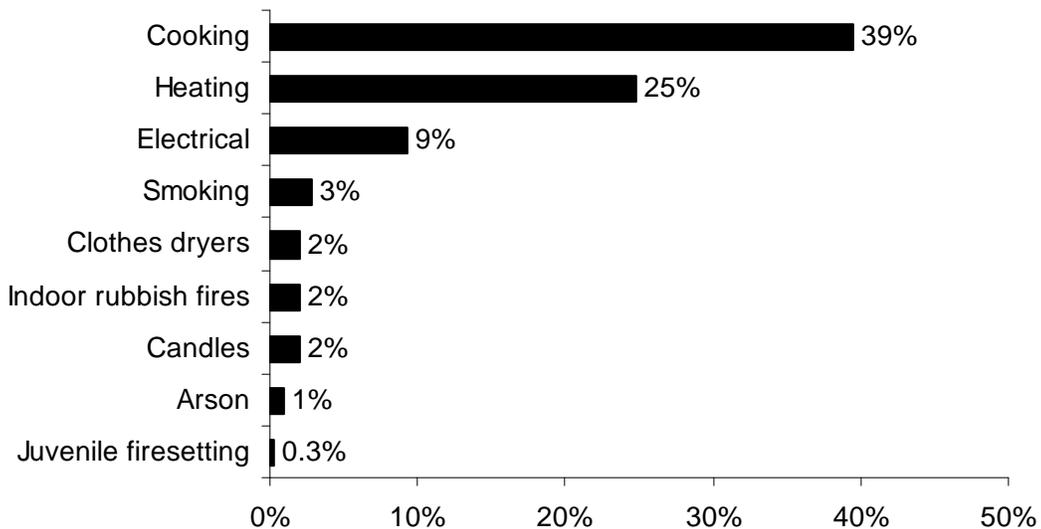
1- & 2-Family Homes Accounted for 79% of Residential Building Fires

The peak fixed property use for residential building fires were one- or two-family homes, accounting for 79% of the building fires in Barnstable County; 12% occurred in apartments; 3% happened in hotels or motels; 2% happened in dormitories; another 2% occurred in rooming houses. Three (3), 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 39% of the fires. Heating fires accounted for 25% of the fires in people’s homes in 2011; 50% involved a fuel burner or boiler, and 50% involved a chimney or flue. Electrical problems caused 9% of fires in residential buildings. Smoking caused 3% of these fires. Clothes dryers, indoor

2011 Leading Causes of Fires in Barnstable County Homes



rubbish fires and candles each accounted for 2%. Arson caused 1% of these fires. Juvenile-set fires caused 0.3% of the fires in residential occupancies in Barnstable County in 2011.

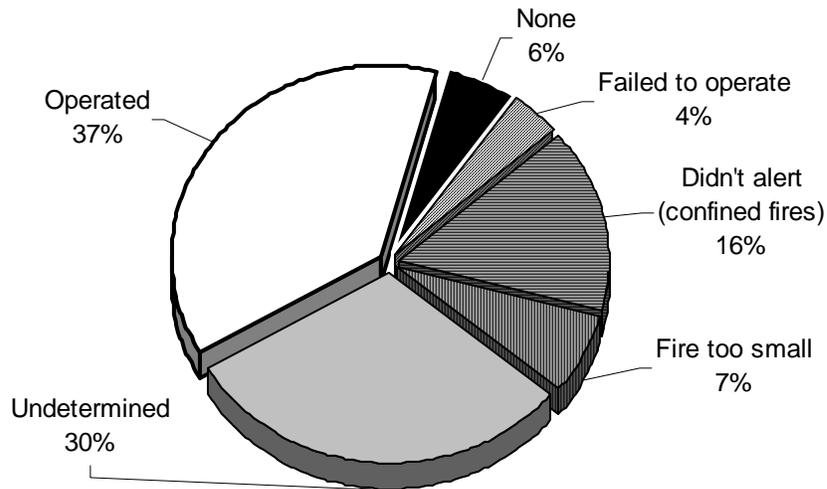
60% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One hundred and ninety-three (193), or 60%, of all residential building fires were reported as confined to non-combustible containers in 2011. One hundred and thirteen (113), or 35%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Forty-one (41) of the reported fires were confined to a chimney, accounting for 13% of residential building fires. Thirty-four (34), or 11%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 2%, of these fires were rubbish fires contained to a non-combustible container in Barnstable County in 2011.

Detectors Alerted Occupants in Only 37% of Fires

Smoke or heat detectors operated and alerted the occupants in 121, or 37%, of the residential building fires. In 16% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 4% of these incidents. In 6% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 7% of the residential fires. Smoke detector performance was undetermined in 98 incidents, or 30%, of Barnstable County’s residential building fires.

Detector Status in Barnstable County's Residential Structure Fires 2011



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

1/2 of Detectors Failed From Missing or Disconnected Batteries

Of the 12 fires where smoke detectors were present but failed to operate, six, or half failed from missing or disconnected batteries. Two, or 17%, failed because the power was shut-off or disconnected. One (1), or 8%, failed because of improper installation or placement. It was undetermined in three cases, or 25%, why the detector failed.

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

Barnstable County reported 19 fires that occurred in buildings that were vacant, under construction or demolition. This represented 5% of the total 400 building fires reported to MFIRS in 2011. Twelve (12) one- or two-family homes, two hotels or motels, two outbuildings or sheds, a museum, a doctor's office and a protective shelter were reported as vacant building fire incidents.

Two (2), or 11%, of the vacant building fires in Barnstable County in 2011 were determined to be intentionally set. One of these fires occurred in a one- or two-family home, and the other was in a protective shelter.

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

There were four reported juvenile-set fires in Barnstable County in 2011. There were two structure fires and two brush fires.

ARSONS**57 Total Arsons — 7 Structures, 1 Vehicle & 49 Other Arsons**

Fifty-seven (57), or 6%, of Barnstable County's 900 fires were considered intentionally set, or, for purposes of this analysis, arson. The seven structure arsons, one motor vehicle arson and 49 outside and other arsons caused three civilian injuries and an estimated dollar loss of \$372,200.

All Arson Down in 2011

The total number of reported arson fires decreased by six, or 10%, from the 63 reported in 2010. Reported structure arsons remained the same with seven reported in both 2010 and 2011. Motor vehicle arsons decreased by five from the six reported in 2010. Reported outside and other arsons decreased by one from the 50 reported in 2010.

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

ALL INCIDENTS

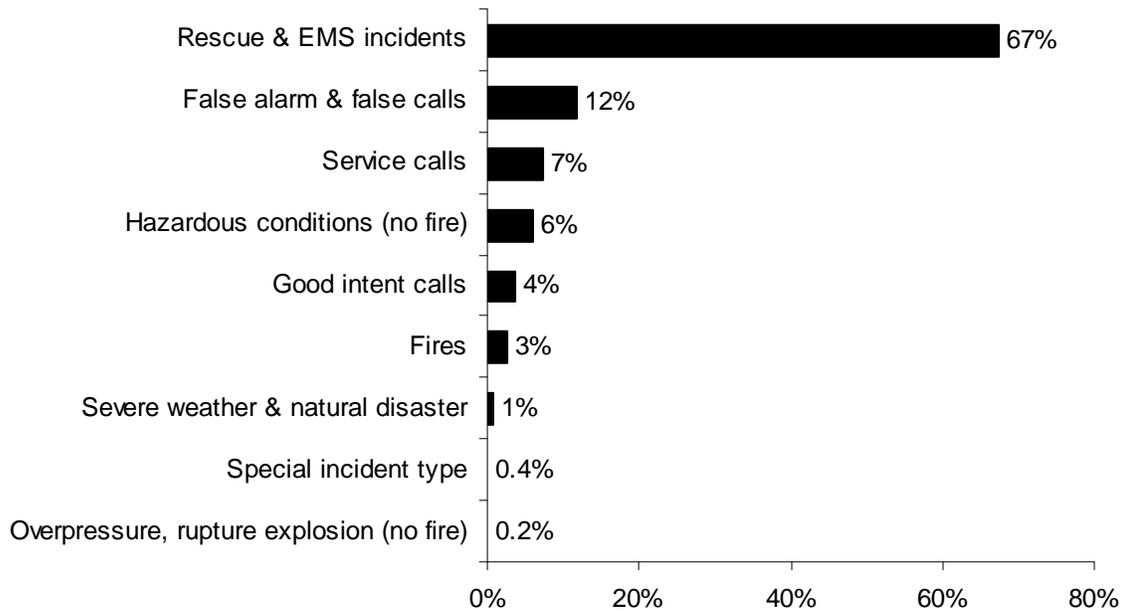
Rescue & EMS Calls Are 2/3 of All Reported Incidents³

In 2011, Barnstable County fire departments reported 43,013 responses⁴ to MFIRS. Of these 43,013 incidents, 41,934 non-fire calls were voluntarily reported.

Of these 41,934 non-fire calls, 29,026, or 67% of all of the responses reported in 2011, were reported rescue and emergency medical services (EMS) calls; 5,032, or 12%, were reported false alarm or false calls; 3,122, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 2,539, or 6%, were reported hazardous condition calls with no fire; 1,627, or 4%, reported good intent calls; 357, or 1%, were severe weather responses; 166, or 0.4%, were special incident type calls such as citizen complaints; and 65, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand and seventy-nine (1,079), or 3%, of the total responses submitted by Barnstable County fire departments were fires.

2011 Responses by Incident Type



³ The reason for the large decrease from the 39,254 responses reported in 2009, is because of computer problems the Yarmouth Fire Department was only able to report 347 incidents. In 2009 Yarmouth reported 6,205 total incidents.

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

Barnstable County Departments Gave Aid 1,420 Times

In 2011, Barnstable County fire departments reported coming to the aid of other fire departments 1,420 times. Of these 1,420 responses, 869, or 61%, were for rescue or EMS incidents; 188, or 13%, were for service calls such as cover assignments; 166, or 12%, were for fires; 133, or 9%, were for good intent calls; 32, or 2%, were for hazardous conditions calls with no fire; 23, or 2%, were for false alarms or false calls; four, or 0.3%, were severe weather calls, three, or 0.2%, were special incident types; and two, or 0.1%, were overpressure, rupture explosions with no ensuing.

Barnstable County Received Mutual Aid in 897 Incidents

In 2011, Barnstable County fire departments received aid from surrounding departments in 897 incidents. Of these 897 incidents, 673, or 75%, were rescue and emergency medical services calls; 118, or 13%, were for fires; 26, or 3%, were service calls; 25, or 3%, were good intent calls; 25, or 3%, were hazardous conditions calls with no fire; 23, or 3%, were false alarms or false calls; four, or 0.4%, were severe weather or natural disaster calls; two, or 0.2%, was an overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.1%, was a special incident type.

Barnstable County**Population: 215,888****4.2 Fires/1,000 Population****Total Fires: 900 \$9,203,072**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	405	45%	\$8,335,810
Vehicle Fires	109	12%	666,977
Other Fires	386	43%	200,285

2 Fatal Fires 2.22 Civilian Deaths/1,000 Fires
 2 Civilian Deaths 0.09 Civilian Deaths/10,000 Population
 36 Civilian Injuries 13 Fire Service Injuries

Building Fires: 400**Residential Structure Fires: 322****Residential Structure Fires Confined to Non-Combustible Containers: 193****Unconfined Residential Structure Fires: 129**

2 Civilian Deaths 22 Civilian Injuries 11 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	254	79%	Operated	121	37%
Apartments	40	12%	Didn't operate	12	4%
Hotels, motels	13	4%	None	18	6%
Dormitories	6	2%	Fire too small	23	7%
Rooming houses	6	2%	Didn't Alert (confined)	50	16%
			Undetermined	98	30%

Area of Origin⁵	%	Heat Source	%	%Unconfined⁶
Kitchen	43%	Heat from operating eq.	7%	18%
Chimney or flue	13%	Arcing	5%	12%
Heating room or area	11%	Radiated heat/oper. eq.	4%	11%
Bedroom	4%	Hot or smoldering object	3%	8%
Wall assembly, concealed space	3%	Hot ember or ash	3%	4%
		Cigarette	3%	4%

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	37%	Too close to combustibles	4%	9%
Film, residue (creosote)	13%	Electrical failure, malfunct.	4%	9%
Flammable or comb. liquid	11%	Mechanical failure, malfunct.	2%	6%
Electrical wire, cable insulation	4%	Failure to clean	2%	6%
Structural member, framing	2%	Abandoned materials	2%	5%
Appliance housing or casing	2%	Misuse of mater. or product	2%	5%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Cooking equipment	39%	Unintentional	20%	50%
None	28%	Failure of eq. or heat source	10%	26%
Chimney or flue	13%	Intentional	1%	2%
Boiler, furnace, cent. heat unit	11%	Act of nature	3%	7%
Clothes dryer	2%	Undetermined	2%	4%
		Cause Under Investigation	4%	10%

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

Alerted Occupants	36%
Didn't Alert Occupants	26%
Undetermined	38%

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	65	49	12	4
February	66	39	7	20
March	85	43	11	31
April	114	43	10	61
May	68	24	9	35
June	109	43	16	50
July	89	29	12	48
August	92	26	12	54
September	65	27	6	32
October	52	31	5	16
November	57	26	7	24
December	38	25	2	11

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	135	55	12	68
Monday	125	55	16	54
Tuesday	115	53	16	46
Wednesday	105	54	16	35
Thursday	133	58	14	61
Friday	133	67	21	45
Saturday	154	63	14	77

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	43	22	8	13
04:01 - 08:00	60	30	9	21
08:01 - 12:00	179	78	27	74
12:01 - 16:00	257	86	32	139
16:01 - 20:00	234	126	19	89
20:01 - 24:00	127	63	14	50

Motor Vehicle Fires

Total: 109

Automobiles: 81 (74%)

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

Arson Fires

Total Arsons: 57

Dollar loss: \$372,200

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	7	2%	12%	\$370,750
Vehicle Arsons	1	1%	2%	0
Other Arsons	49	13%	86%	1,450

0.03 Structure arsons/1,000 population

0.005 Vehicle arsons/1,000 population

0.23 Other arsons/1,000 population

3 Civilian Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 04:00	3	43%	20:01 - 00:00	1	100%
16:01 - 20:00	2	29%			

Other Arsons	#	%
12:01 - 16:00	15	31%
16:01 - 20:00	11	22%
08:01 - 12:00	10	20%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	2	29%
Outbuilding, protective, shelter	2	29%

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
2007	23	8	4	11	0	0	0	0
2008	16	7	3	6	1	0	0	1
2009	19	3	9	7	0	0	0	0
2010	35	12	4	19	8	2	0	6
2011	26	10	5	11	0	0	0	0

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
2007	88	42	9	37	4	0	0	4
2008	80	30	12	38	7	0	0	7
2009	69	39	10	20	3	0	0	3
2010	85	49	12	24	9	2	1	5
2011	59	29	4	26	2	0	1	1

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	3	2	0	1	0	0	0	0
2008	3	1	2	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	Non-reporting department							
2011	3	3	0	0	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
2007	134	47	13	74	20	2	2	16
2008	158	57	18	83	8	2	1	5
2009	118	55	14	49	19	6	1	12
2010	125	42	14	69	1	0	0	1
2011	128	54	19	55	7	1	0	6

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	10	3	3	4	1	0	0	1
2008	18	8	2	8	1	0	0	1
2009	12	8	3	1	0	0	0	0
2010	14	10	0	4	1	0	0	1
2011	19	9	0	10	1	0	0	1

Bourne**Population: 19,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	94	38	14	42	6	1	1	4
2008	88	40	14	34	5	0	1	4
2009	104	43	21	40	17	2	0	15
2010	104	33	16	55	14	0	0	14
2011	68	29	9	30	4	0	0	4

Brewster**Population: 9,820**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	63	33	1	29	2	0	0	2
2008	51	32	7	12	0	0	0	0
2009	53	32	2	19	5	0	1	4
2010	60	23	6	31	4	0	0	4
2011	43	21	2	20	1	0	0	1

Chatham**Population: 6,125**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	23	9	1	13	0	0	0	0
2008	31	13	8	10	1	0	1	0
2009	22	11	4	7	1	0	0	1
2010	23	12	2	12	0	0	0	0
2011	23	12	3	8	1	0	0	1

Dennis **Population: 14,207**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	66	28	2	36	2	1	0	1
2009	56	24	7	25	1	0	0	1
2010	62	19	5	38	1	0	0	1
2011	79	17	14	48	5	0	0	5

Eastham **Population: 4,956**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	24	16	2	6	0	0	0	0
2008	23	13	0	10	0	0	0	0
2009	21	14	0	7	0	0	0	0
2010	25	11	1	13	0	0	0	0
2011	26	13	3	10	4	0	0	4

Falmouth **Population: 31,531**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	86	41	14	31	9	3	1	5
2008	162	44	15	103	48	8	1	39
2009	52	20	14	18	2	2	0	0
2010	69	38	8	23	7	0	1	6
2011	74	29	17	28	10	2	0	8

Harwich **Population: 12,243**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	63	26	7	30	0	0	0	0
2008	42	25	3	14	4	0	0	4
2009	44	25	5	14	1	1	0	0
2010	58	26	7	25	1	1	0	0
2011	45	19	7	19	3	1	0	2

MA Military Reservation **Population: 0**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Federal Fire Department - Did Not Report to the State.							
2008 ¹¹	0	0	0	0	0	0	0	0
2009	7	1	2	4	2	0	0	2
2010	12	3	1	8	4	0	0	4
2011	9	4	0	5	1	0	0	1

Mashpee **Population: 14,006**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	60	27	7	26	3	1	1	1
2008	64	27	7	30	3	0	1	2
2009	42	23	7	12	0	0	0	0
2010	68	25	9	34	5	0	2	3
2011	60	24	6	30	3	0	0	3

Orleans **Population: 5,890**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	40	8	2	30	3	0	0	3
2008	32	15	4	13	2	0	0	2
2009	29	14	5	10	1	0	0	1
2010	48	16	1	31	0	0	0	0
2011	35	8	2	25	5	0	0	5

Provincetown **Population: 2,942**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	47	23	5	19	13	8	1	4
2008	26	16	0	10	0	0	0	0
2009	28	21	3	4	0	0	0	0
2010	39	25	2	12	0	0	0	0
2011	21	15	1	5	0	0	0	0

¹¹ The MA Military Reservation (MMR) Fire Department became a state fire department in October of 2008. Prior to that it was the Otis Air Force Base Fire Department – a federal fire department and reported all its incidents to the Department of Defense. In 2008, MMR reported 179 total incidents (0 fires) to MFIRS from October through December.

Sandwich **Population: 20,675**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	126	84	14	28	3	0	0	3
2008	104	71	10	23	1	0	1	0
2009	110	81	17	12	4	3	0	1
2010	100	59	11	30	5	2	2	1
2011	102	76	11	15	2	1	0	1

Truro **Population: 2,003**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	2	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	4	2	1	1	0	0	0	0
2010	3	2	1	0	0	0	0	0
2011	1	1	0	0	0	0	0	0

Wellfleet **Population: 2,750**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	20	6	3	11	0	0	0	0
2008	27	16	2	9	0	0	0	0
2009	11	5	1	5	0	0	0	0
2010	20	11	2	7	0	0	0	0
2011	30	15	2	13	1	0	0	1

Yarmouth **Population: 23,793**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	150	40	20	90	19	1	1	17
2008	89	37	15	37	10	1	1	8
2009	81	32	15	34	10	2	1	7
2010	3	2	1	0	1	0	1	0
2011	62	22	4	36	9	3	0	6

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	1,038	29	2	615	48	106	36	182	17	3
01036	Bourne	3,411	82	23	2,506	159	177	101	337	8	18
01041	Brewster	2,881	70	3	2,133	131	104	115	281	40	4
01920	C.O.M.M.	3,926	74	2	2,778	116	248	111	522	64	11
01055	Chatham	2,498	29	2	1,538	179	274	160	310	2	4
01921	Cotuit	3	3	0	0	0	0	0	0	0	0
01075	Dennis	4,711	100	7	3,103	316	398	157	508	90	32
01086	Eastham	1,694	38	1	1,246	78	119	51	147	9	5
01096	Falmouth	164	75	0	0	28	9	0	49	3	0
01126	Harwich	4,067	63	6	2,714	308	427	182	367	0	0
01922	Hyannis	1,260	128	13	56	225	167	81	534	6	50
01936	Ma Military Res.	880	21	0	107	296	212	7	237	0	0
01172	Mashpee	2,872	69	0	1,872	105	261	149	380	32	4
01224	Orleans	2,349	44	2	1,826	95	56	65	213	42	6
01242	Provincetown	153	22	0	11	29	7	20	64	0	0
01261	Sandwich	3,698	105	1	2,578	174	280	182	339	20	19
01300	Truro	1	1	0	0	0	0	0	0	0	0
01318	Wellfleet	1,146	33	0	817	66	68	61	95	6	0
01923	West Barnstable	608	27	0	369	40	66	25	76	0	5
01351	Yarmouth	5,653	66	3	4,757	146	143	124	391	18	5
Total	Barnstable County	43,013	1,079	65	29,026	2,539	3,122	1,627	5,032	357	166

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

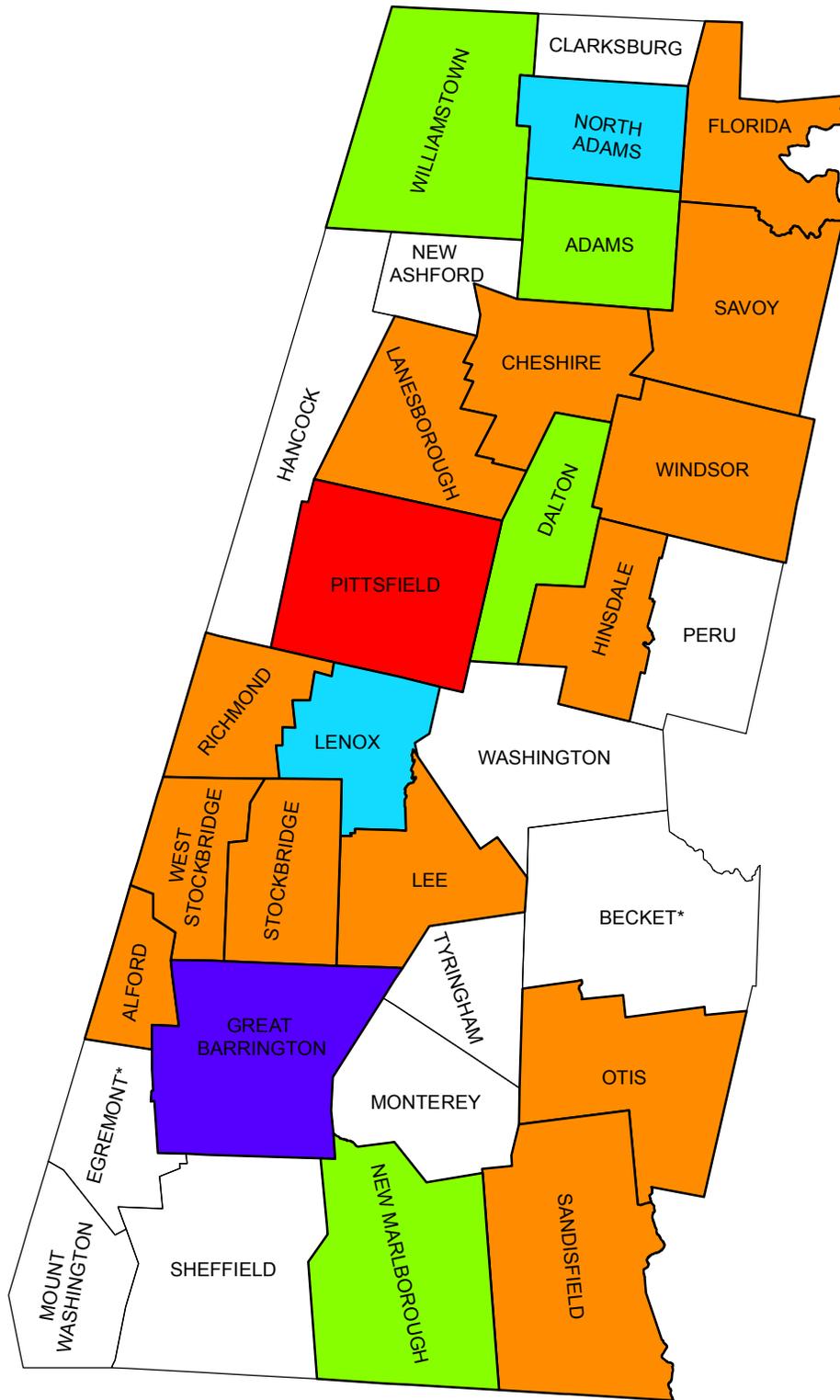
2011 Fire Data Analysis



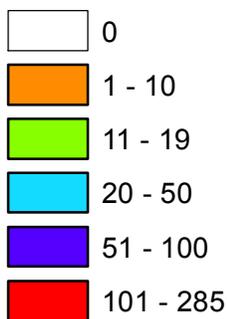
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

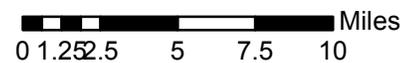
Berkshire County Fires 2011



2011 Fires



*Non-reporting department



MFIRS
Massachusetts Fire Incident Reporting System

Berkshire County Fires in 2011

551 Total Fires — 340 Structures, 47 Vehicles & 164 Outside and Other Fires

Berkshire County ranked tenth out of the fourteen Massachusetts counties in total reported fires. Berkshire County fire departments reported 551 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 340 structure fires, 47 motor vehicle fires, 66 brush, tree or lawn fires, 50 outside rubbish fires, 25 special outside fires, and 23 other fires caused two civilian deaths, eight civilian injuries, 19 fire service injuries and an estimated dollar loss of \$5.5 million. Berkshire County's fires accounted for 2% of the 29,110 Massachusetts fires reported in 2011.

Twenty-nine (29) 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 2011.

Structure & Outside & Other Fires Down

The total number of reported fire incidents decreased by 58 from the 609 reported in 2010. Reported structure fires decreased by 15 from the 355 reported during the previous year. Motor vehicle fires remained the same with 47 reported in both 2010 and 2011. Outside and other fires decreased by 43 from the 207 reported in 2010. This decrease in outside fires was a statewide trend in 2011.

BERKSHIRE COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	673	375	62	236	30	12	1	17
2008	714	431	46	237	42	8	1	33
2009	668	412	60	196	44	18	6	20
2010	609	355	47	207	42	8	4	30
2011	551	340	47	164	26	11	3	12

Fire and Fire Death Rates

Berkshire County had 4.2 fires per 1,000 population. That figure ranks Berkshire County sixth in the state and below the state rate of 4.4 fires per 1,000 population. Berkshire County also had 0.15 fire deaths per 10,000 populations ranking it second among Massachusetts counties and almost twice as high as the state rate of 0.08 fire deaths per 10,000 population.

2 Berkshire County Residents Die in 2 Motor Vehicle Fires

There were two fatal fires in Berkshire County in 2011, both were motor vehicle fires. A single person was killed in each fire. No one died in a structure fire in Berkshire County in 2011.

- On May 12, 2011 at 11:42 a.m., the Lanesborough Fire Department was called for a well being check. Upon arrival with the local police, the ambulance crew found a

fatal motor vehicle fire. The lone occupant of the car, a 71-year old man, had driven approximately a half mile down a dirt trail, parked the car and ignited the gasoline that he had poured around the inside of the vehicle.

- On December 30, 2011, at 12:36 a.m., the Lee Fire Department was dispatched to a fatal motor vehicle crash with ensuing fire. The victim, the 17-year old female occupant, was trapped in the vehicle as the car became fully involved. She was the only person under the age of 18 to die in a fire in Massachusetts in 2011. The 18-year old male driver was also injured in this fire.

Pittsfield Had Berkshire County's Largest Loss Fire

- On May 14, 2011, at 12:26 p.m., the Pittsfield Fire Department was called to an electrical fire at a 22-unit apartment building. The fire started inside a first floor wall assembly. No one was injured at this fire. Detectors were present and alerted the occupants. The building was not sprinklered. Damages from this fire were estimated to be \$1.4 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 340 structure fires caused four civilian injuries, 16 fire service injuries and an estimated dollar loss of \$4.9 million. These incidents represented 62% of Berkshire County's reported fires in 2011. The average estimated dollar loss per structure fire was \$14,317. The total number of reported structure fires decreased by 15, or 4%, from the 355 reported in 2010.

Arson Caused 3% of Structure Fires

The 11 structure arsons caused one civilian injury, one fire service injury and an estimated dollar loss of \$571,100. Arson was indicated as the cause of 3% of the structure fires and 12% of Berkshire County's structure fire dollar loss. The 11 structure arsons accounted for 42% of the Berkshire County arson fires reported in 2011. The total number of reported structure arsons increased by three from eight in 2010.

45% of Structure Arsons Occurred in Residences

Five (5), or 45%, of Berkshire County's eight structure arsons occurred in residential occupancies. Businesses had three structure arsons; two arsons occurred in educational facilities, and one structure arson happened in a special property in 2011.

BUILDING FIRES

There were 335 building fires of different types in Berkshire County in 2011. These 335 building fires accounted for 98.5% of all structure fires in Berkshire County.

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

Two hundred and sixty-nine (269), or 80%, of Berkshire County's 335 building fires occurred in residential occupancies. Mercantile and business properties had 21 fires.

Thirteen (13) fires took place in public assembly properties, including restaurants and churches. Another 13 fires occurred at educational facilities. Storage facilities had eight fires. Hospitals, prisons, and other institutional buildings experienced six fires. Two (2) fires occurred at manufacturing facilities in Berkshire County in 2011. Special properties, such as outbuildings or sheds, had one fire. There were also two fires at unclassified buildings in Berkshire County in 2011.

RESIDENTIAL FIRES

Residential Building Fires Up

There were 269 reported residential building fires in Berkshire County in 2011. These 269 fires are an increase of 13, or 5%, from the 256 residential building fires reported in 2010.

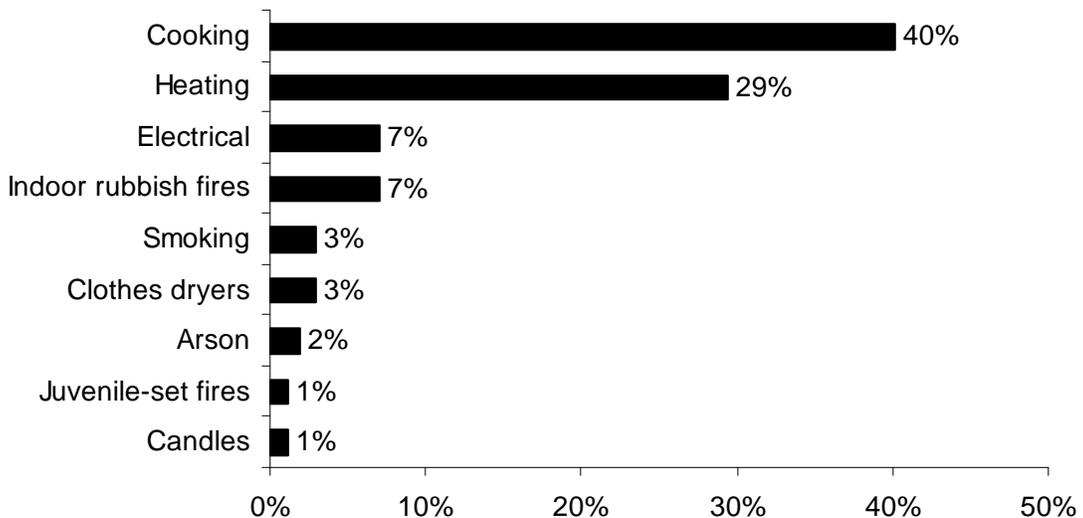
1- & 2-Family Homes Accounted for 63% of Residential Building Fires

The peak fixed property uses for residential building fires were one- or two-family homes, accounting for 63% of the building fires in Berkshire County; 30% occurred in apartments; 3% happened in hotels or motels; 2% occurred in rooming houses; and 1% each occurred in residential board and care facilities and dormitories. One (1), or less than 1%, of the building fires in Berkshire County occurred in an unclassified residential building.

Unattended Cooking Causes 40% of Residential Fires

The leading cause of residential building fires in Berkshire County was unattended cooking and other unsafe cooking practices, accounting for 40% of the fires. Heating caused 29% of the residential building fires; of which 40, or 51%, were caused by chimney, fireplace or flue fires. Electrical problems and indoor rubbish fires each caused 7%. Smoking and clothes dryers each caused 3% of the fires. Arsons caused 2%; and

2011 Leading Causes of Fires in Berkshire County Homes



juvenile-set fires and candles were each responsible for 1% of Berkshire County’s residential building fires in 2011.

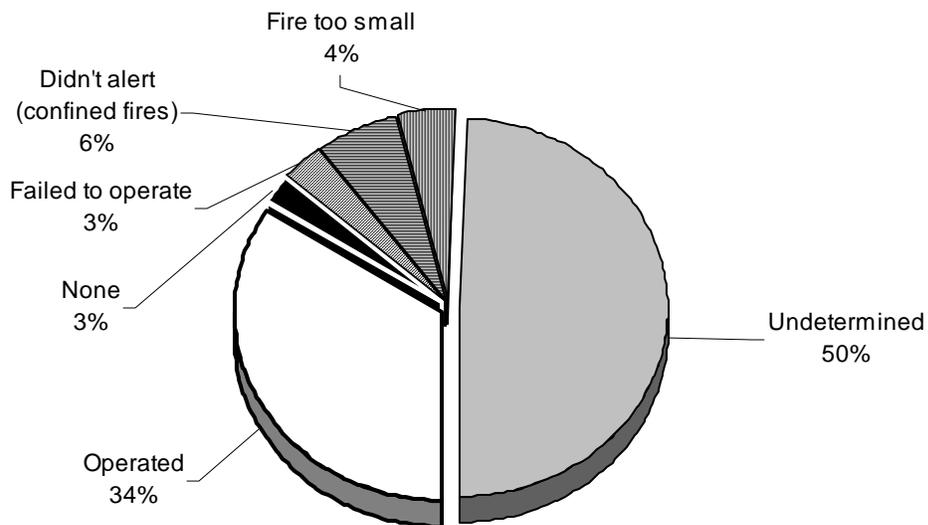
72% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One hundred and ninety-five (195), or 72%, of these fires were confined to a non-combustible container. One hundred and one (101), or 38%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Thirty-nine (39) of the reported fires were confined to a chimney accounting for 14% of residential building fires. Fires confined to a fuel burner or boiler malfunction accounted for 36, or 13%. Nineteen (19), or 7%, of these fires in Berkshire County in 2011 were indoor rubbish fires.

Detectors Undetermined in 1/2 of Fires

Smoke or heat detectors operated and alerted the occupants in 91, or 34%, of the residential building fires. In 6% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 3% 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 133 incidents, or 50%, of Berkshire County’s residential building fires.

Detector Status in Berkshire County's Residential Structure Fires 2011



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

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

Over 1/2 Failed Detector Had Missing or Disconnected Batteries

Of the nine fires where smoke detectors were present but failed to operate, five, or 55%, failed because the battery was either missing or disconnected. One (1) detector failed because of a power failure, shutoff or disconnect, causing 11% of the failed detectors in Berkshire County in 2011. Another detector, or 11%, failed because it was defective. It was undetermined why the other two detectors, or 22%, failed to operate.

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

Berkshire County reported eight fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 335 building fires reported to MFIRS in 2011. Two (2) unclassified businesses, one apartment building, one manufacturing facility, one household goods store, one detached residential garage, one unclassified storage facility, and one unclassified special property were reported as vacant building fire incidents.

One (1), or 13%, of the vacant building fires in Berkshire County in 2011 were determined to be intentionally set. One (1) of these fires was in an unclassified special property.

JUVENILE-SET FIRES**5 Juvenile-set Fires**

There were five reported juvenile-set fires in Berkshire County in 2011. The three structure fires, one brush fire and one outside mailbox fire caused \$56,000 in estimated damages.

ARSONS**26 Total Arsons — 11 Structure, 3 Vehicle & 12 Other Arsons**

Twenty-six (26), or 5%, of Berkshire County's 551 fires were intentionally set, or, for purposes of this analysis, arson. The 11 structure arsons, three motor vehicle arsons and 12 outside and other arsons caused one civilian death, two civilian injuries, one fire service injury and an estimated dollar loss of \$658,100.

Outside & Other Arsons Down

The total number of reported arson fires decreased by 16 from the 42 reported in 2010. Reported structure arsons increased by three from eight in 2010. Motor vehicle arsons decreased by one from the four reported the previous year. Reported outside and other arsons decreased by 18 from the 30 reported in 2010.

ALL INCIDENTS

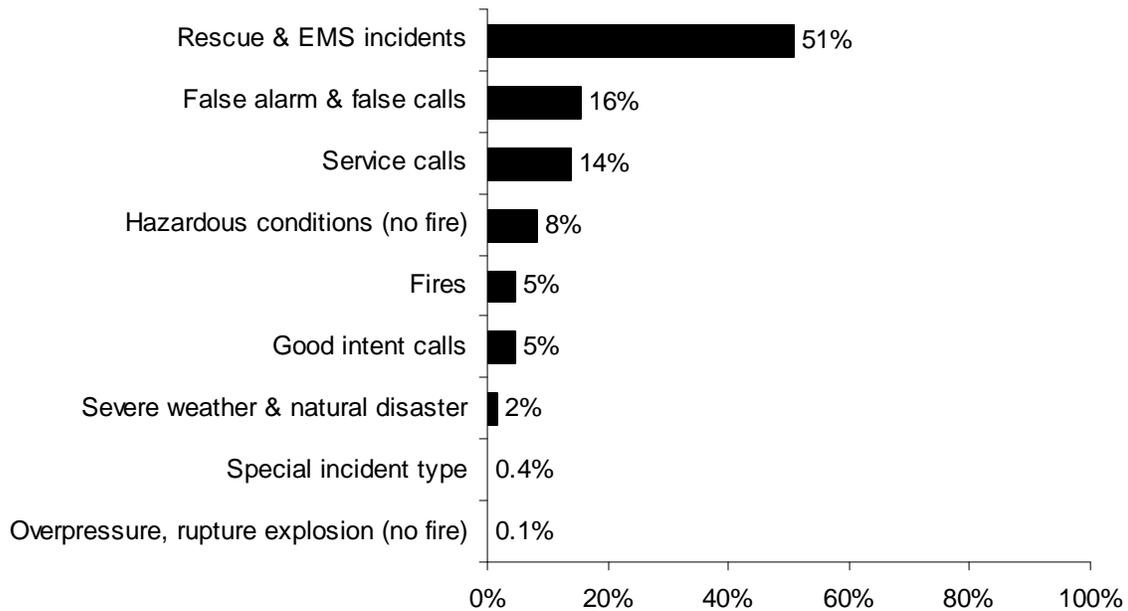
Rescue & EMS Calls Are Over 1/2 of All Reported Responses

In 2011, Berkshire County fire departments reported 12,817 responses³ to MFIRS. Of these 12,817 incidents, 12,208 non-fire incidents were voluntarily reported.

Of these 12,208 non-fire responses, 6,516, or 51% of all the responses reported in 2011, were reported rescue and emergency medical services (EMS) calls; 1,993, or 16%, were reported false alarm or false calls; 1,791, or 14%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,046, or 8%, were reported hazardous condition calls with no fire; 598, or 5%, were reported good intent calls; 195, or 2%, were severe weather responses; 55, or 0.4%, were special incident type calls such as citizen complaints; and 14, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Six hundred and nine (609), or 5%, of the total responses submitted by Berkshire County fire departments were fires.

2011 Responses by Incident Type



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

Berkshire County Departments Reported Giving Mutual Aid 185 Times

In 2011, Berkshire County fire departments reported coming to the aid of other fire departments 185 times. Of these 185 responses, 60, or 32%, were for rescue or EMS calls; 58, or 31%, were for fires; 41 or 22%, were for service calls such as cover assignments; 11, or 6%, were for hazardous condition calls with no ensuing fire; six, or 3%, were good intent calls; five, or 3%, were for severe weather calls; two, or 1%, were for false alarms; and another two, or 1%, were special incident types.

Berkshire County Received Mutual Aid in 460 Incidents

In 2011, Berkshire County fire departments reported receiving aid from surrounding departments in 460 incidents. Of these 460 incidents, 383, or 83%, were rescue and emergency medical services calls; 31, or 7%, were for fires; 16, or 3%, were hazardous conditions calls with no fire; 14, or 3%, were false alarms or false calls; nine, or 2%, were service calls; six, or 1%, were good intent calls; and one call, or less than 1%, was an overpressure, rupture explosion with no after fire call.

Berkshire County**Population: 131,219****4.2 Fires/1,000 Population****Total Fires: 551 \$5,486,403**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	340	62%	\$4,8647,840
Vehicle Fires	47	9%	470,823
Other Fires	164	30%	147,740

2 Fatal Fires 3.63 Civilian Deaths/1,000 Fires
 2 Civilian Deaths 0.15 Civilian Deaths/10,000 Population
 8 Civilian Injuries 19 Fire Service Injuries

Building Fires: 335**Residential Structure Fires: 269****Residential Structure Fires Confined to Non-Combustible Containers: 195****Unconfined Residential Structure Fires: 74**

3 Civilian Injuries 11 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	170	63%	Operated	91	34%
Apartments	80	30%	Didn't operate	9	3%
Hotels or motels	7	2%	None	7	3%
Rooming houses	5	2%	Fire too small	12	4%
Residential board & care	4	1%	Didn't alert (confined)	17	6%
Dormitories	2	1%	Undetermined	133	50%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	43%	Radiated heat from op. eq.	5%	19%
Chimney or flue	14%	Arcing	5%	18%
Heating equipment room	14%	Heat from operating equip.	4%	15%
Laundry room	3%	Cigarette	3%	9%

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	39%	Unspec. Short-circuit arc	2%	7%
Film, residue (creosote)	14%	Failure to clean	2%	7%
Flammable, combustible liquid	13%	Electrical failure/malfunc.	1%	5%
Rubbish, trash, waste	7%	Abandoned materials	1%	4%
Electrical wire, cable insulation	4%	Too close to combustibles	1%	4%
		Playing with heat source	1%	4%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	39%	Unintentional	14%	50%
None	20%	Failure of eq. or heat source	6%	22%
Chimney or flue	14%	Intentional	2%	7%
Boiler, furnace, cent. heat unit	13%	Act of Nature	1%	3%
Clothes dryer	3%	Undetermined	3%	11%
		Cause under investigation	2%	7%

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

Alerted occupants	31%
Didn't alert occupants	9%
Undetermined	61%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	41	33	3	5
February	45	40	5	0
March	61	47	6	8
April	85	29	3	53
May	56	31	4	21
June	38	28	1	9
July	44	20	7	17
August	41	20	8	13
September	26	17	2	7
October	34	27	4	3
November	44	23	3	18
December	36	25	1	10

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	81	48	4	29
Monday	93	62	7	24
Tuesday	70	47	7	16
Wednesday	60	41	3	16
Thursday	72	40	7	25
Friday	78	45	6	27
Saturday	97	57	13	27

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	43	28	4	11
04:01 - 08:00	34	24	3	7
08:01 - 12:00	74	44	8	22
12:01 - 16:00	133	67	11	55
16:01 - 20:00	143	103	9	31
20:01 - 00:00	124	74	12	38

Motor Vehicle Fires

Total: 47

Automobiles: 36 (77%)

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

Arson Fires

Total Arsons: 26

Dollar loss: \$658,100

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	\$ Loss
Structure Arsons	11	3%	42%	\$571,100
Vehicle Arsons	3	6%	12%	86,000
Other Arsons	12	7%	46%	1,000

0.08 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.08 Other arsons/1,000 population

1 Civilian Death

2 Civilian Injuries

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 04:00	4	36%	04:01 - 08:00	1	33%
12:01 - 16:00	3	27%	08:01 - 12:00	1	33%
			20:01 - 00:00	1	33%

Other Arsons	#	%
08:01 - 12:00	3	25%
12:01 - 16:00	3	25%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	3	27%
Apartments	2	18%
Mercantile, business, other	2	18%

Adams					Population: 8,405			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	30	18	4	8	3	0	0	3
2008	40	31	3	6	3	0	0	3
2009	44	35	1	8	4	2	0	2
2010	36	22	6	8	3	0	1	2
2011	19	16	1	2	0	0	0	0

Alford					Population: 494			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	1	1	0	0	0	0	0	0
2010	1	1	0	0	0	0	0	0
2011	1	0	0	1	0	0	0	0

Becket					Population: 1,779			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	2	1	1	0	1	0	1	0
2010	Non-Reporting Community							
2011	Non-Reporting Community							

Cheshire					Population: 3,235			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	8	3	2	3	0	0	0	0
2009	3	0	1	2	1	0	0	1
2010	12	5	2	5	0	0	0	0
2011	10	6	0	4	0	0	0	0

Clarksburg **Population: 1,702**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	4	0	0	4	0	0	0	0
2008	3	1	1	1	0	0	0	0
2009	5	4	1	0	0	0	0	0
2010	4	4	0	0	0	0	0	0
2011 ¹⁰	Fire Department in Good Standing, Certified No Reportable Fires							

Dalton **Population: 6,756**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	19	14	1	4	0	0	0	0
2008	26	19	1	6	1	1	0	0
2009	25	23	2	0	0	0	0	0
2010	20	17	0	3	1	0	0	1
2011	16	15	1	0	1	1	0	0

Egremont **Population: 1,225**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	10	8	2	0	0	0	0	0
2008	Non-Reporting Community							
2009	1	1	0	0	0	0	0	0
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	Non-Reporting Community							

Florida **Population: 752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	1	2	2	1	0	0	1
2008	2	2	0	0	0	0	0	0
2009	10	5	1	4	0	0	0	0
2010	3	1	1	1	0	0	0	0
2011	2	2	0	0	0	0	0	0

¹⁰ In 2011 Clarksburg reported 5 fire calls, all these were mutual aid calls to other fire departments.

Great Barrington **Population: 7,104**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	97	79	2	16	0	0	0	0
2008	92	73	3	16	1	1	0	0
2009	87	74	3	10	2	1	1	0
2010	80	62	3	15	0	0	0	0
2011	71	56	0	15	3	3	0	0

Hancock **Population: 717**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0
2009	3	2	1	0	0	0	0	0
2010	2	2	0	0	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

Hinsdale **Population: 2,032**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	4	4	0	0	0	0	0	0
2009	2	2	0	0	0	0	0	0
2010	3	2	1	0	0	0	0	0
2011	2	2	0	0	0	0	0	0

Lanesborough **Population: 3,091**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	10	2	0	8	0	0	0	0
2008	14	5	0	9	3	0	0	3
2009	9	3	1	5	0	0	0	0
2010	9	4	0	5	0	0	0	0
2011	6	2	2	2	1	0	1	0

Lee					Population: 5,943			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	12	9	3	0	1	1	0	0
2008	8	5	3	0	0	0	0	0
2009	6	2	4	0	0	0	0	0
2010	5	4	1	0	0	0	0	0
2011	2	1	1	0	0	0	0	0

Lenox					Population: 5,025			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	49	37	2	10	0	0	0	0
2008	49	38	0	11	0	0	0	0
2009	55	33	2	20	1	0	0	1
2010	44	27	1	16	1	1	0	0
2011	43	27	4	12	1	0	0	1

Monterey					Population: 961			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	2	0	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	2	1	1	0	0	0	0	0
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	Fire Department in Good Standing, Certified No Reportable Fires							

New Ashford					Population: 228			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	2	2	0	0	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

New Marlborough **Population: 1,509**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	3	0	2	0	0	0	0
2008	6	3	2	1	0	0	0	0
2009	16	5	3	8	0	0	0	0
2010	6	2	0	4	0	0	0	0
2011	14	9	0	5	0	0	0	0

North Adams **Population: 13,708**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	82	30	10	42	5	0	0	5
2008	84	47	8	29	6	1	0	5
2009	52	20	9	23	6	0	2	4
2010	48	18	12	18	8	2	1	5
2011	39	22	7	10	3	0	0	3

Otis **Population: 1,612**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	2	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	9	8	0	1	0	0	0	0
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	1	1	0	0	0	0	0	0

Peru **Population: 847**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	3	2	0	1	0	0	0	0
2008	6	2	1	3	1	0	0	1
2009	2	0	0	2	1	0	0	1
2010	4	2	0	2	1	0	0	1
2011 ¹¹	Fire Department in Good Standing, Certified No Reportable Fires							

¹¹ In 2011, Peru reported 45 total calls. Four (4) of these calls were mutual aid fire calls.

Pittsfield					Population: 44,737			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	318	162	31	125	16	8	1	7
2008	312	166	19	127	26	5	1	20
2009	275	157	23	95	25	14	2	9
2010	307	170	19	118	25	5	2	18
2011	285	164	20	101	16	6	2	8

Richmond					Population: 1,475			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	0	1	1	0	0	0	0
2008	17	7	0	10	1	0	0	1
2009	16	8	0	8	0	0	0	0
2010	8	4	0	4	2	0	0	2
2011	7	3	1	3	0	0	0	0

Sandisfield					Population: 915			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	13	6	1	6	0	0	0	0
2009	15	10	1	4	0	0	0	0
2010	9	3	1	5	1	0	0	1
2011	5	4	0	1	0	0	0	0

Savoy					Population: 692			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0
2009	2	2	0	0	0	0	0	0
2010	2	2	0	0	0	0	0	0
2011	3	2	1	0	0	0	0	0

Sheffield					Population: 3,257			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	4	2	0	2	0	0	0	0
2008	3	1	0	2	0	0	0	0
2009	2	1	0	1	1	1	0	0
2010	2	0	0	2	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

Stockbridge					Population: 1,947			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	1	1	0	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	1	0	1	0	0	0	0	0

Tyringham					Population: 327			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	1	1	0	0	0	0	0	0
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	Fire Department in Good Standing, Certified No Reportable Fires							

West Stockbridge					Population: 1,306			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	5	0	1	4	0	0	0	0
2008	5	1	0	4	0	0	0	0
2009	4	2	0	2	1	0	0	1
2010	1	1	0	0	0	0	0	0
2011	5	1	3	1	0	0	0	0

¹² In 2007 Tyringham reported 1 EMS call to MFIRS.

Williamstown					Population: 7,754			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	8	5	2	1	2	1	1	0
2008	16	11	2	3	0	0	0	0
2009	16	10	5	1	1	0	0	1
2010	Non-Reporting Community							
2011	15	7	4	4	1	1	0	0

Windsor					Population: 899			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	2	1	1	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	2	0	0	2	0	0	0	0
2010	1	1	0	0	0	0	0	0
2011	4	0	1	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
03004	Adams	405	28	2	56	49	163	22	80	4	1
03006	Alford	1	1	0	0	0	0	0	0	0	0
03022	Becket	0	0	0	0	0	0	0	0	0	0
03058	Cheshire	298	11	0	226	12	24	3	19	2	1
03063	Clarksburg	5	5	0	0	0	0	0	0	0	0
03070	Dalton	785	18	0	536	37	63	24	93	9	5
03090	Egremont	0	0	0	0	0	0	0	0	0	0
03098	Florida	42	6	0	28	1	3	2		1	1
03113	Great Barrington	522	77	1	170	42	31	4	185	10	2
03121	Hancock	0	0	0	0	0	0	0	0	0	0
03132	Hinsdale	2	2	0	0	0	0	0	0	0	0
03148	Lanesborough	316	7	1	213	8	24	15	47	0	1
03150	Lee	2	2	0	0	0	0	0	0	0	0
03152	Lenox	682	45	0	184	68	142	18	206	19	0
03193	Monterey	0	0	0	0	0	0	0	0	0	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	223	17	0	100	19	6	3	44	34	0
03209	North Adams	1,306	40	2	235	223	305	115	305	71	10
03225	Otis	1	1	0	0	0	0	0	0	0	0
03233	Peru	45	4	0	28	4	4	1	3	1	0
03236	Pittsfield	7,584	285	7	4,580	498	953	347	839	41	34
03249	Richmond	114	13	1	9	29	36	5	20	1	0
03260	Sandisfield	135	11	0	83	11	10	3	16	1	0
03263	Savoy	3	3	0	0	0	0	0	0	0	0
03267	Sheffield	0	0	0	0	0	0	0	0	0	0
03283	Stockbridge	1	1	0	0	0	0	0	0	0	0
03302	Tyringham	0	0	0	0	0	0	0	0	0	0
03326	West Stockbridge	103	10	0	60	4	5	0	24	0	0
03341	Williamstown	238	18	0	8	41	22	36	112	1	0
03345	Windsor	4	4	0	0	0	0	0	0	0	0
Total	Berkshire County	12,817	609	14	6,516	1,046	1,791	598	1,993	195	55

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.

Pittsfield Fires in 2011

285 Total Fires — 164 Structures, 20 Vehicles & 101 Other Fires

The Pittsfield Fire Department reported 285 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 164 structure fires, 20 motor vehicle fires, 37 brush fires, 36 outside rubbish fires, 18 special outside fires; and 10 unclassified fires caused two civilian injuries, eight firefighter injuries and an estimated dollar loss of \$3 million. There were no fatal fires in Pittsfield in 2011.

All Fires Down Slightly

Total fires decreased by 22 from the 307 incidents reported in 2010. Reported structure fires decreased by five from the 169 reported during the previous year. Motor vehicle fires increased by one from 19 the year before. Outside and other fires decreased by 18 from the 119 reported in 2010.

PITTSFIELD FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	317	155	31	131	16	8	1	7
2008	312	166	19	127	26	5	1	20
2009	275	157	23	95	25	14	2	9
2010	307	169	19	119	25	5	2	18
2011	285	164	20	101	16	6	2	8

BUILDING FIRES

There were 160 building fires of different types in Pittsfield in 2011. These 160 building fires accounted for 97.6% of all structure fires in Pittsfield.

86% of Building Fires in Homes

The 167 building fires that occurred in Pittsfield in 2011 can be broken down by fixed property use as follows: 138, or 86% of all building fires, were in residential properties; eight happened in mercantile or business properties; four fires occurred in public assembly properties; three fires happened in storage facilities; another three fires occurred in educational facilities; two fires occurred in institutional facilities; one fire happened at a manufacturing or processing facility; and one fire occurred in a special property.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

There were 138 reported residential building fires in Pittsfield in 2011. These 138 fires are an increase of 15 from the 123 reported residential building fires reported in 2010.

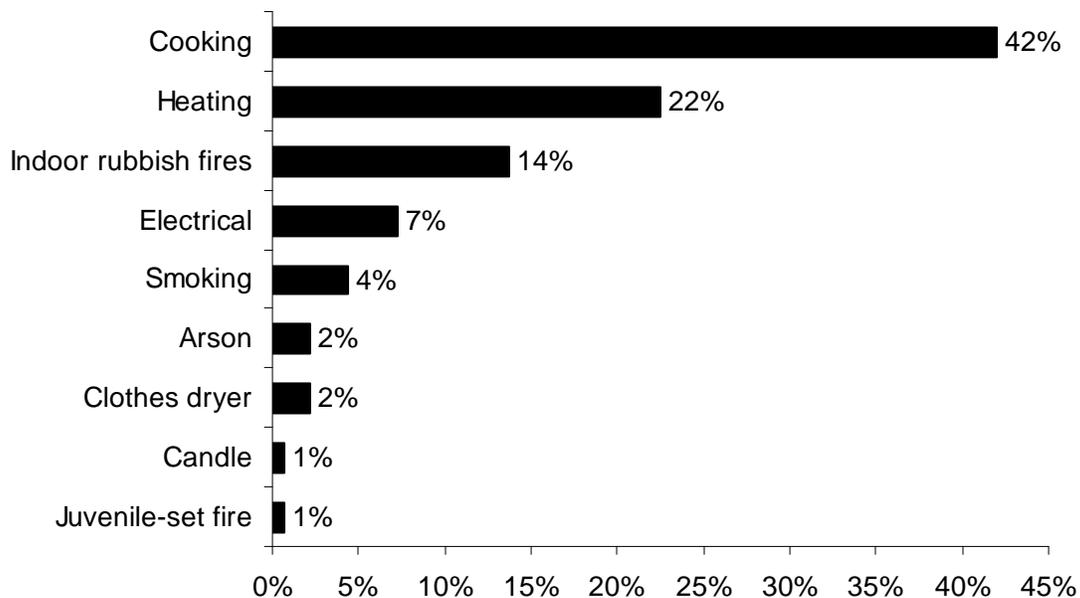
1- or 2-Family Homes Accounted for 59% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 59% of the building fires in Pittsfield; 37% occurred in apartments; 3% happened in rooming houses; and 1% occurred in hotels or motels.

Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Pittsfield was unattended cooking and other unsafe cooking practices, accounting for 42% of these fires. Heating fires caused 22% of these fires. Indoor rubbish fires were the cause of 14% of the fires. Electrical problems caused 7% and smoking caused 4% of these fires. Arsons and clothes dryers each caused 2%. Candles and juvenile-set fires each caused 1% of the fires in Pittsfield's residential occupancies in 2011.

2011 Leading Causes of Fires in Pittsfield's Homes



3/4 of Residential Building Fires Are Confined to Non-Combustible Containers¹

One hundred and three (103), or 75% of all residential building fires were confined to non-combustible containers in 2011. Fifty-five (55), or 40%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Twenty-three (23), or 17%, were fires confined to a fuel burner or boiler malfunction.

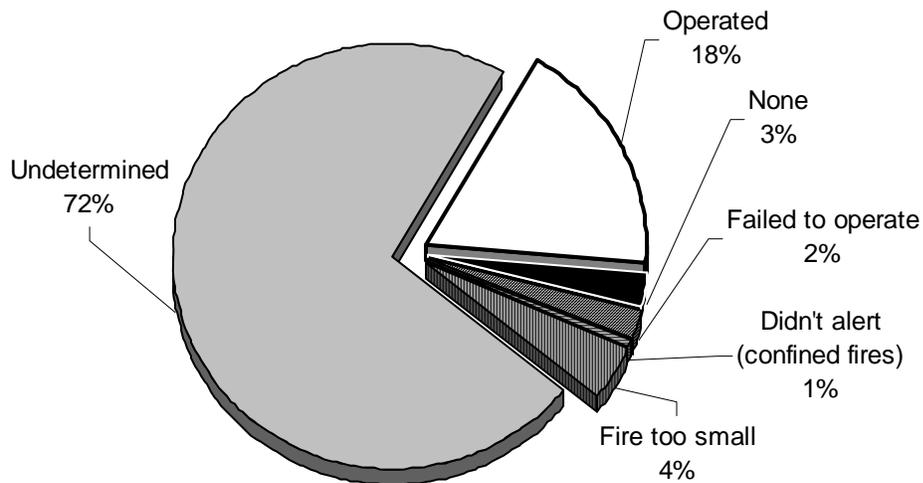
¹ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing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

Nineteen (19), or 14%, of these fires, were indoor rubbish fires contained to a non-combustible container. Six (6) fires, or 4%, were reported to have been contained to a chimney or flue.

Detectors Worked in Only 18% of Fires

Smoke or heat detectors operated and alerted the occupants in 26, or 18%, of the residential building fires. In 1% of these fires², the detectors did not alert the occupants. There were no detectors in 3% of these fires. Detectors were present but did not operate in 2% of these incidents. The fire was too small to trigger the detector in 4% of these fires. Smoke detector performance was undetermined in 105 incidents, or 72% of Pittsfield's residential building fires.

Detector Status in Pittsfield's Residential Fires 2011



The lack of data on smoke detector performance in confined fires does not present a true picture of functioning smoke alarms in Pittsfield. Improved collection of data on whether or not the smoke alarms alerted the occupants to the fire would provide a better understanding of this issue.

2 of 3 Detectors Failed Detectors From a Missing Battery

Of the three fires where smoke detectors were present but failed to operate, two, or 67%, failed because of missing batteries. Another detector, or 33%, failed from a power shut-off or disconnect.

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

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Pittsfield reported four fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the total 160 building fires reported to MFIRS in 2011. One (1) apartment building, a manufacturing or processing facility, a household goods, sales or repair store, and an unclassified special property were reported as vacant building fire incidents.

JUVENILE-SET FIRES

2 Juvenile-set Fires

There were two reported juvenile-set fires in Pittsfield in 2011. One was a building fire and the other was a brush fire.

ARSONS

16 Arsons - 6 Structure, 2 Motor Vehicle and 8 Outside & Other

Sixteen (16), or 6%, of Pittsfield's 285 fires were considered intentionally set, or, for purposes of this analysis, arson. There were six structure arsons, two motor vehicle arsons and eight outside and other arsons.

All Arsons Down

The total number of arsons decreased by nine from the 18 reported in 2010. Reported structure arsons increased by one from the five reported in 2010. Reported motor vehicle arsons remained the same with two reported in both 2011 and 2010. Outside and other arsons decreased by 10 from the 18 reported the year before.

77 Fires Reported as Undetermined or Still Under Investigation

In 2011, Pittsfield reported 77 fires under investigation or cause undetermined after investigation. Seventy-three (73), or 95%, of these fires were reported to be undetermined after investigation. The other four, or 5%, were still under investigation.

Twenty-nine (29), or 38%, of these 77 fires were structure fires. Six (6), or 8% were motor vehicle fires; and 42, or 55%, were outside or other fires. Because so many fires or under investigation or undetermined after investigation, the true arson number might be actually higher in Pittsfield in 2011.

Rescue & EMS Calls Are 60% of All Reported Incidents

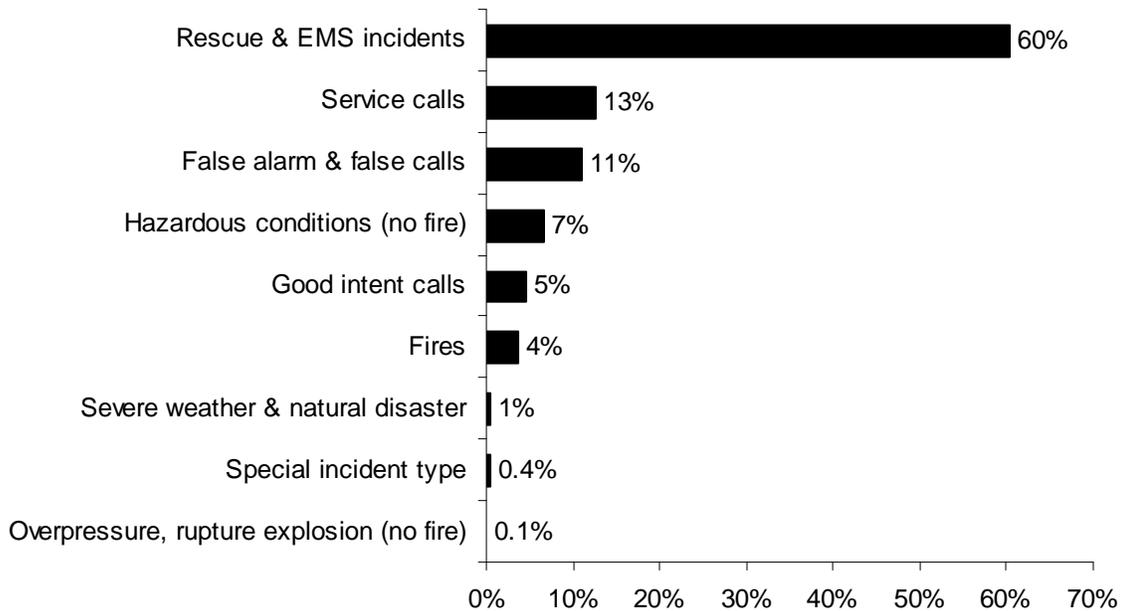
In 2011, Pittsfield voluntarily reported 7,584 incidents to MFIRS. Of these 7,584 incidents, 7,299, or 96%, were non-fire incidents.

Of these 7,299 non-fire incidents 4,580, or 60% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 953, or 13%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 839, or 11%, were reported false alarm or false calls; 498, or 7%, were

reported hazardous condition calls with no fire; 347, or 5%, were reported good intent calls; 41, or 1%, were severe weather calls; 34, or 0.4%, were special type incidents; and seven, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2011, Pittsfield reported 285 fires, accounting for 4% of all reported incidents.

2011 Incidents by Incident Type



Pittsfield Gave Mutual Aid in 2 Incidents

In 2011, Pittsfield reported giving mutual aid to other surrounding fire departments in two incidents. One (1) was a service call and the other was a response for severe weather or a natural disaster.

Pittsfield Received Mutual Aid in 2 Incidents

In 2011, surrounding fire departments gave aid to Pittsfield at twice. Both incidents were fires.

Pittsfield

Population: 44,737

6.4 Fires/1,000 Population

Total Fires:	285		\$3,025,190
Situation	Fires	% of Fires	Dollar Loss
Structure Fires	164	58%	\$2,711,370
Vehicle Fires	20	7%	179,500
Other Fires	101	35%	134,320

2 Civilian Injuries 8 Fire Service Injuries

Building Fires: 160

Residential Structure Fires: 138

Residential Structure Fires Confined to Non-Combustible Containers: 103

Unconfined Residential Structure Fires: 35

1 Civilian Injury 6 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	82	59%	Operated	26	18%
Apartments	51	37%	Didn't operate	3	2%
Boarding houses	4	3%	None	4	3%
Hotel/motel	1	1%	Fire too small	6	4%
			Didn't Alert (confined)	1	1%
			Undetermined	105	72%

Area of Origin³	%	Heat Source	%	%Unconfined⁴
Kitchen	46%	Arcing	6%	23%
Heating room or area	17%	Radiated heat from op. eq.	5%	20%
Chimney or flue	2%	Heat from operating equip.	4%	17%
Exterior balcony/unencl. porch	2%	Cigarette	3%	11%
Laundry room	2%			

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

⁴ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited ⁵	%	Factor Contrib. to Ignition	%	%Unconfined ⁶
Cooking materials	41%	Failure to clean	1%	6%
Flammable or combustible liq.	17%	Abandoned materials	1%	3%
Rubbish, trash, waste	14%	Elec. failure/malfunction	1%	3%
Electrical wire, cable insulation	5%	Accident. turned on/not off	1%	3%
		Leak or break	1%	3%

Equipment ⁷	%	Cause of Ignition	%	%Unconfined ⁸
Cooking equipment	41%	Unintentional	9%	37%
None	19%	Intentional	1%	6%
Boiler, furnace, cent. heat. unit	17%	Failure of eq./heat source	7%	26%
Chimney or flue	4%	Cause Under Investigation	2%	9%
Clothes dryer	2%	Undetermined	5%	20%
		Act of Nature	1%	3%

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

Alerted Occupants	7%
Didn't Alert Occupants	1%
Undetermined	92%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	4,580	60%
Service calls	953	13%
False alarms & false calls	839	11%
Hazardous conditions (no fire)	498	7%
Good intent calls	347	5%
Fires ⁹	285	4%
Severe weather & natural disaster	41	1%
Special Incident Types	34	0.4%
Overpressure rupture, explosion or overheat calls (no fire)	7	0.1%

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

⁶ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

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

⁹ This includes the fires that Pittsfield responded to outside of their jurisdiction as mutual aid given.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	21	15	1	5
February	19	18	1	0
March	39	27	6	6
April	45	16	2	27
May	32	16	1	15
June	12	9	0	3
July	28	15	0	13
August	30	14	6	10
September	14	8	0	6
October	11	8	2	1
November	19	7	1	11
December	15	11	0	4

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	49	29	0	20
Monday	53	37	3	13
Tuesday	31	14	5	12
Wednesday	31	19	1	11
Thursday	34	16	4	14
Friday	39	20	0	19
Saturday	48	29	7	12

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	25	13	1	11
04:01 - 08:00	17	11	2	4
08:01 - 12:00	38	25	2	11
12:01 - 16:00	72	36	5	31
16:01 - 20:00	70	47	3	20
20:01 - 24:00	63	32	7	24

Motor Vehicle Fires

Total: 20

Automobiles: 14 (70%)

1 (7%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 16

Dollar loss: \$173,050

0.4 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	6	4%	38%	\$86,050
Vehicle Arsons	2	10%	13%	86,000
Other Arsons	8	8%	50%	1,000

0.13 Structure arsons/1,000 population

0.04 Vehicle arsons/1,000 population

0.18 Other arsons/1,000 population

Peak Times of Day for:

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

Other Arsons	#	%
12:01 - 16:00	5	28%
16:01 - 20:00	5	28%
00:01 - 04:00	4	22%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	2	33%
Apartments	1	17%
Elementary school, including kindergarten	1	17%
High/junior high/middle school	1	17%
Outside or special property, other	1	17%

Bristol County

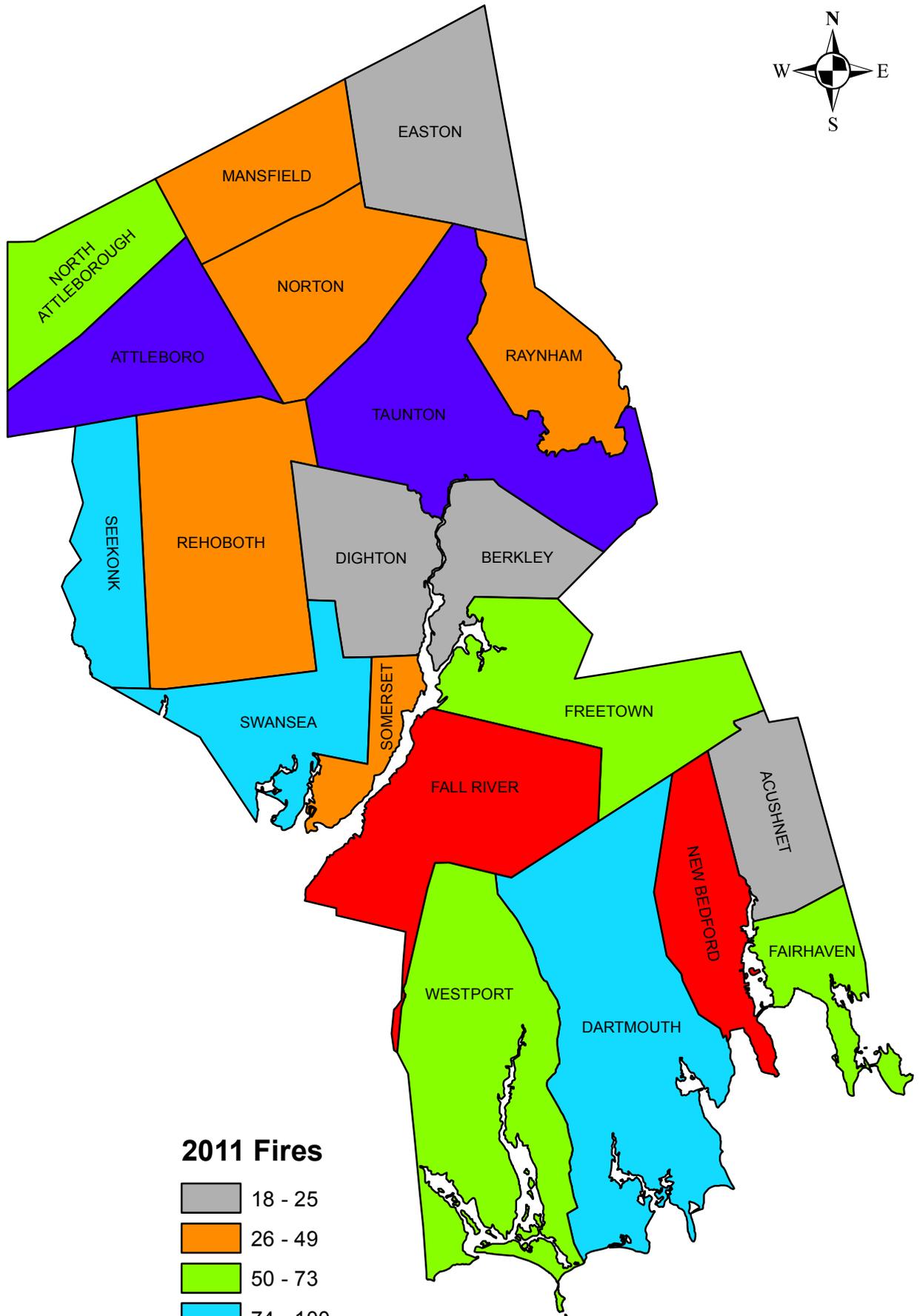
2011 Fire Data Analysis



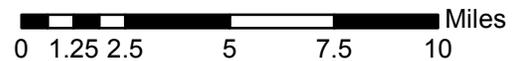
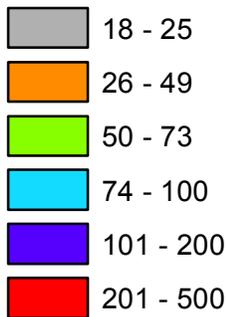
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Bristol County Fires 2011



2011 Fires



MFIRS
Massachusetts Fire Incident Reporting System

Bristol County Fires in 2011

1,878 Total Fires — 827 Structures, 316 Vehicles & 735 Other Fires

Bristol County ranked seventh out of the fourteen Massachusetts counties in total reported fires. The county reported 1,878 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 827 structure fires, 316 motor vehicle fires, 332 brush, tree or lawn fires, 265 outside rubbish fires, 50 special outside fires, two cultivated vegetation or crop fires, and 86 other fires caused six civilian deaths, 29 civilian injuries, 24 fire service injuries and an estimated dollar loss of \$18.7 million. Bristol County's fires accounted for 6% of the 29,110 Massachusetts fires reported in 2011.

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

Structure & Outside Fires Down

The total number of reported fire incidents increased by 147 from the 2,025 reported in 2010. Reported structure fires decreased by 17 from the 844 reported during the previous year. The total number of reported motor vehicle fires increased by 14 from the 302 incidents reported during 2010. Reported outside and other fires decreased by 144 from the 879 reported the year before.

Outside Fires Drop

Bristol County had a large decrease in brush fires in 2011. Brush fires decreased by 93, or 22%, from the 425 reported in 2010. This was a statewide trend.

BRISTOL COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2,517	789	353	1,375	139	32	28	79
2008	2,311	822	311	1,178	129	31	22	76
2009	1,794	789	309	696	140	55	19	66
2010	2,025	844	302	879	114	42	13	59
2011	1,878	827	316	735	99	29	14	56

Fire and Fire Death Rates

Bristol County had 3.4 fires per 1,000 population. That figure ranks Bristol County tied for tenth in the state and below the state rate of 4.4 fires per 1,000 population. Bristol County also had 0.11 fire deaths per 10,000 populations ranking it fourth among Massachusetts counties and above the state rate of 0.08 fire deaths per 10,000 population.

6 Fires Kill 4 Bristol County Residents

- On January 14, 2011, at 9:42 a.m., the Taunton Fire Department was called to a fatal electrical fire at a two-family home. It is believed that multiple extension cords

covered by household clutter overheated and started the fire. The victim, a 55-year old man was overcome by smoke inhalation as he attempted to escape the fire. No one else was injured at this fire. Detectors were present but failed to operate because of a missing battery. Sprinklers were not present. Damages were not estimated.

- On January 17, 2011, at 2:35 a.m., the New Bedford Fire Department was dispatched to a smoking fire in a seven-unit apartment building. The victim, a 58-year old woman, was able to call 911 and tell them that her home oxygen equipment had caught fire. She was overcome by the heat and smoke as she attempted to escape. There were no other injuries associated with this fire. Detectors were present and alerted the other occupants of the building. The building was not sprinklered. Damages from this fire were estimated at \$15,000.
- On February 22, 2011, at 10:36 p.m., the Fall River Fire Department was dispatched to a fire in a six-unit apartment building of undetermined cause. The victim, a 54-year old woman, who lived in the apartment above the area of origin and was possibly impaired by alcohol, was overcome by the heat and smoke as she attempted to escape. There was one other injury associated with this fire. Detectors were present and alerted the other occupants of the building. The building was not sprinklered. Damages from this fire were estimated to be \$320,000.
- On June 18, 2011, at 8:56 p.m., the Taunton Fire Department was dispatched to a fatal smoking fire in a three-unit apartment building. The victim, a 64-year old woman, was smoking while using home oxygen and may have been impaired by alcohol. There was minimal fire damage to room other than the victim. She was transported to a local hospital where she later succumbed to her injuries. There were no other injuries associated with this fire. Detectors were present and they alerted the other occupants of the building. The building was not sprinklered. No estimation of damages was made for this incident.
- On August 31, 2011, at 1:20 a.m., the New Bedford Fire Department was called to a fatal electrical fire at a three-unit apartment building. The fire began from arcing in an extension cord in a third-floor bedroom. The victim, a 32-year old man, was possibly impaired by drugs. No one else was injured at this fire. There were no detectors present and the building was not sprinklered. Damages were estimated to be \$20,000.
- On October 19, 2011, at 5:49 a.m., the Attleboro Fire Department was called to a motor vehicle crash with ensuing fire on Interstate 95 North. The victim, a 20-year old male driver, was trapped inside the vehicle and had to be extricated. No one else was injured at this fire.

Easton Has Bristol County's Largest Loss Fire

- On March 25, 2011, at 8:21 a.m., the Easton Fire Department responded to a fire at a warehouse that was being demolished. The building had been slated for demolition since its roof was damaged earlier in the year from heavy snow loads. While

undergoing demolition, a spark from a cutting torch ignited some storage supplies starting the fire. Three (3) firefighters were injured by this fire. Detectors were not present. Sprinklers were present but the system did not operate because of damaged components. Damages were estimated to be \$5.9 million.

STRUCTURE FIRES

Reported Structure Fires Down Slightly

The 827 structure fires caused five civilian deaths, 20 civilian injuries, 24 fire service injuries and an estimated dollar loss of \$16.6 million. These incidents represented 44% of Bristol County's reported fires in 2011. The average estimated dollar loss per structure fire was \$20,079. The total number of reported structure fires decreased by 17, or 2%, from the 844 reported in 2010.

Structure Arsons Down

The 29 structure arsons caused one civilian injury, one fire service injury and an estimated dollar loss of \$626,700. Arson was indicated as the cause of 4% of the structure fires and 4% of Bristol County's structure fire dollar loss. The 29 structure arsons accounted for 29% of the Bristol County arson fires reported in 2011. The total number of reported structure arsons decreased by 13, or 31%, from 42 in 2010.

Over 1/2 of Structure Arsons Occurred in Residences

Fifty-two percent (52%) of Bristol County's 29 structure arsons occurred in residential occupancies. Storage facilities accounted for 14%; educational properties and mercantile or business properties each had 10% of these fires. Public assembly facilities, institutional properties, manufacturing or processing facilities and special properties each had 3% of these fires.

BUILDING FIRES

There were 821 building fires of different types in Bristol County in 2011. These 821 building fires accounted for 99.3% of all building fires in Bristol County.

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

Six hundred and seventy-three (673), or 82%, of Bristol County's 821 building fires occurred in residential occupancies. Mercantile and business properties had 34 fires. Hospitals, prisons, and other institutional buildings experienced 28 fires. Twenty-three (23) fires took place in storage properties. Twenty-two (22) fires took place in public assembly properties, including restaurants and churches. Educational facilities had 19 fires. Fourteen (14) fires took place in manufacturing and processing facilities. Special properties had seven fires. One (1) fire occurred in industrial, utility, defense, agricultural or mining facility in Bristol County in 2011.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

There were 673 reported residential building fires in Bristol County in 2011. These 673 fires are an increase of 18, or 3%, from the 655 residential building fires reported in 2010.

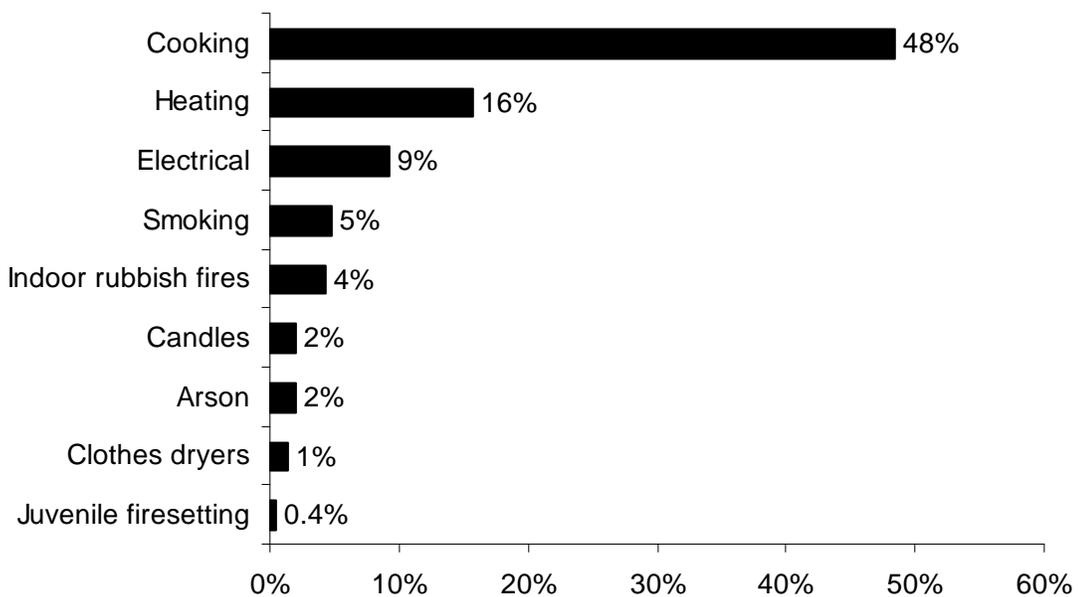
1- & 2-Family Homes Accounted for Almost 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 47% of the building fires in Bristol County; 44% occurred in apartments; 3% happened in rooming houses; 2% occurred in residential board and care facilities; 1% happened in hotels or motels; and less than 1% occurred in dormitories. Seventeen (17), or 3% of the residential building fires in Bristol County occurred in unclassified residential buildings.

Unsafe Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Bristol County was unattended cooking and other unsafe cooking practices, accounting for 48% of these fires. The second leading cause of residential building fires was heating equipment, accounting for 16%. Electrical problems caused 9%; and smoking caused 5% of the fires in people’s homes. Indoor rubbish fires accounted for 4% of fires in residences. Candles and arson were each responsible for 2% of these fires. Clothes dryers accounted for 1% and juvenile-set fires accounted for less than 1% of Bristol County’s residential building fires in 2011.

2011 Leading Causes to Fires in Bristol County Homes



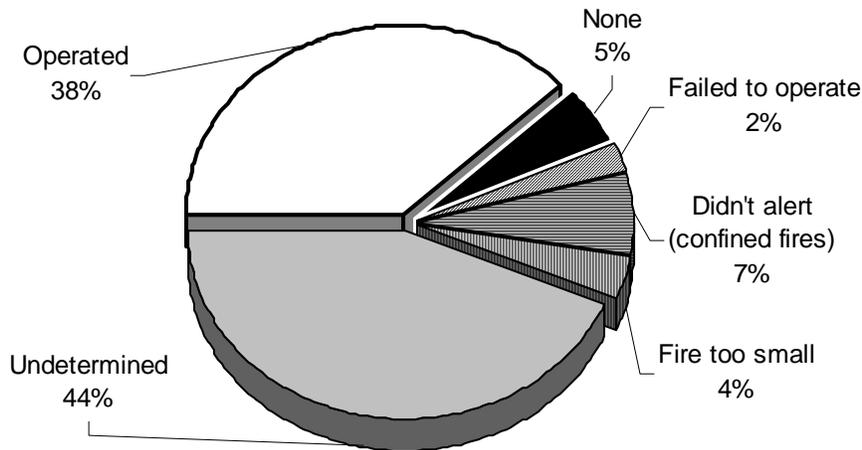
61% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Four hundred and twelve (412), or 62%, of all residential building fires were reported as confined to non-combustible containers in 2011. Two hundred and ninety-one (291), or 43%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Forty-seven (47), or 7%, were fires confined to a fuel burner or boiler malfunction. Forty-five (45) of the reported fires were confined to a chimney, accounting for 7% of residential building fires. Twenty-eight (28), or 4%, of these fires were rubbish fires; and one, or less than 1%, was a fire contained to an incinerator in Bristol County in 2011.

Detectors Alerted Occupants in Over 38% of Fires

Smoke or heat detectors operated and alerted the occupants in 256, or 38%, of the residential building fires. In 7% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 5% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 4% of the residential fires. Smoke detector performance was undetermined in 294 incidents, or 44%, of Bristol County’s residential building fires.

Detector Status in Bristol County's Residential Structure Fires 2011



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

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

31% of Failed Detectors Had Dead or Missing Batteries

Of the 16 fires where smoke detectors were present but failed to operate, three, or 19%, failed because the batteries were either missing or disconnected and two, or 13%, failed because of dead batteries. Another two, or 13%, failed from a lack of maintenance. One (1), or 6%, failed because of a power failure, shutoff or disconnect; and the improper installation or placement of another detector caused one, or 6%, of the detectors that failed to operate. It was undetermined or unclassified in seven cases, or 44%, why the detectors failed to operate.

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

Bristol County reported 30 fires that occurred in buildings that were vacant, under construction or demolition. This represented 4% of the total 821 building fires reported to MFIRS in 2011. Twenty-three (23) fires occurred in vacant residential properties. Three (3) vacant building fires occurred in storage facilities. Vacant manufacturing and processing facilities had two vacant building fire incidents in Bristol County in 2011. One (1) of these fires happened in a public assembly property. Mercantile and business properties also had one of these fires.

Eight (8), or 27%, of the vacant building fires in Bristol County in 2011 were determined to be intentionally set. Two (2) occurred in apartment buildings and another two occurred in one- or two-family homes. One (1) each occurred at an unclassified residence, a funeral parlor, a manufacturing or process facility, and an outbuilding or shed.

JUVENILE-SET FIRES**10 Juvenile-set Fires**

There were 10 reported juvenile-set fires in Bristol County in 2011. The five structure fires, one motor vehicle fire, three brush fires and one unclassified fire caused two civilian injuries and \$47,150 in estimated damages.

ARSONS**99 Total Arsons — 29 Structures, 14 Vehicles & 56 Other Arsons**

Bristol County fire departments reported that 99, or 5%, of Bristol County's 1,878 fires were considered intentionally set, or, for purposes of this analysis, arson. The 29 structure arsons, 14 motor vehicle arsons and 56 outside and other arsons caused two civilian injuries, one fire service injury and an estimated dollar loss of \$716,150.

All Arsons Down

The total number of reported arson fires decreased by 15 from the 114 reported in 2010. Structure arsons decreased by 13, or 31%, from the 42 reported in 2010. Motor vehicle

arsons increased by one from the 13 reported last year. Outside and other arsons dropped by three from the 59 reported in 2010.

ALL INCIDENTS

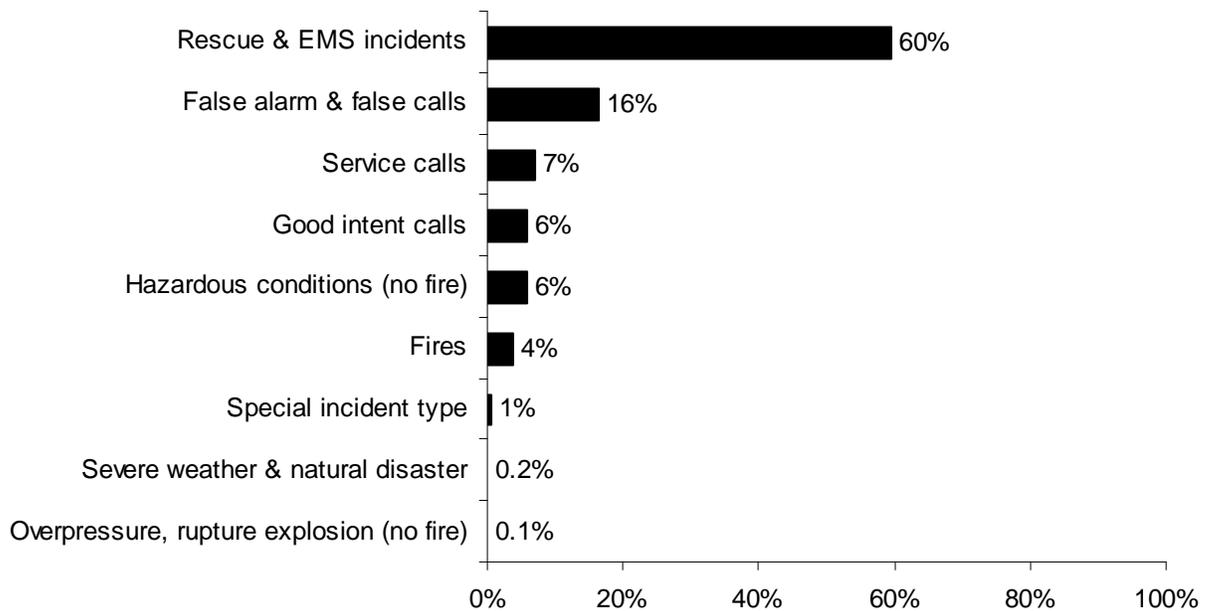
Rescue & EMS Calls Are 60% of All Reported Responses

In 2011, fire departments in Bristol County reported 52,006 responses³ to MFIRS. Of these 52,006 incidents, 50,062 non-fire calls were voluntarily reported.

Of these 50,062 non-fire calls, 31,035, or 60% of all the reported responses, were reported rescue and emergency medical services (EMS) calls; 8,574, or 16%, were reported false alarm or false calls; 3,586, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,373, or 6%, were reported good intent calls; 3,010, or 6%, were reported hazardous condition calls with no fire; 291, or 1%, were special incident type calls such as citizen complaints; 127, or 0.2%, were severe weather responses; and 66, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand nine hundred and forty-four (1,944), or 4%, of the total responses submitted by Bristol County fire departments were fires.

2011 Responses by Incident Type



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

Bristol County Fire Departments Gave Mutual Aid 1,472 Times

In 2011, Bristol County fire departments reported coming to the aid of other fire departments 1,472 times. Of these 1,472 responses, 1,162, or 79%, were for rescue or EMS calls; 119, or 8%, were for service calls such as cover assignments; 89, or 6%, were for good intent calls; 67, or 5%, were for fires; 21, or 1%, were for false alarms or false calls; 10, or 1%, were for hazardous conditions calls with no fire; two, or less than 1%, were for severe weather calls; one, or less than 1%, was an overpressure, rupture, explosion or overheat call; and one, or less than 1%, were special incident types.

Bristol County Received Mutual Aid in 964 Incidents

In 2011, Bristol County fire departments reported receiving aid from surrounding departments in 964 incidents. Of these 964 incidents, 810, or 84%, were rescue and emergency medical services calls; 71, or 7%, were for fires; 37, or 4%, were false alarms or false calls; 16, or 2%, were hazardous conditions calls with no fire; 15, or 2%, were good intent calls; 12, or 1%, were service calls; two, or 0.2%, were severe weather calls; and overpressure, rupture, explosion or overheat calls reported one, or 0.1%, of the mutual aid given calls.

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	47%	Too close to combustibles	3%	7%
Flammable or combust. liquid	7%	Abandoned materials	2%	6%
Film or residue (creosote)	7%	Electrical failure, malfunc.	2%	6%
Electrical wire, cable insulation	5%	Misuse of mater. or product	1%	3%
Rubbish, trash, waste	5%	Equipment unattended	1%	3%
Structural member, framing	3%	Failure to clean	1%	2%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	46%	Unintentional	23%	58%
None	26%	Failure of eq. or heat source	7%	18%
Boiler, furnace, cent. heat unit	7%	Intentional	2%	4%
Chimney or flue	7%	Cause under investigation	5%	12%
Clothes dryer	1%	Undetermined	2%	6%
		Act of Nature	0.4%	1%

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

Alerted Occupants	31%
Didn't Alert Occupants	11%
Undetermined	58%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	119	75	24	20
February	125	73	30	22
March	167	75	20	72
April	170	60	28	82
May	176	65	32	79
June	205	57	23	125
July	203	68	29	106
August	173	69	30	74
September	144	71	31	42
October	135	75	29	31
November	150	73	24	53
December	111	66	16	29

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	293	136	41	116
Monday	262	102	49	111
Tuesday	275	114	51	110
Wednesday	246	110	39	97
Thursday	263	124	48	91
Friday	241	109	38	94
Saturday	298	132	50	116

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	134	59	35	40
04:01 - 08:00	138	75	29	34
08:01 - 12:00	299	149	59	91
12:01 - 16:00	540	191	85	264
16:01 - 20:00	495	219	69	207
20:01 - 24:00	272	134	39	99

Motor Vehicle Fires

Total: 316

Automobiles: 270 (85%)

13, or 5%, of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 99

Dollar loss: \$716,150

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	29	4%	29%	\$626,700
Vehicle Arsons	14	4%	14%	81,300
Other Arsons	56	8%	57%	8,150

0.05 Structure arsons/1,000 population

0.03 Vehicle arsons/1,000 population

0.10 Other arsons/1,000 population

2 Civilian Injuries

1 Fire Service Injure

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	8	28%	00:01 - 04:00	5	36%
20:01 - 00:00	8	28%	20:01 - 20:00	4	29%
12:01 - 16:00	7	24%			

Other Arsons	#	%
20:01 - 00:00	16	29%
16:01 - 20:00	14	25%
12:01 - 16:00	11	20%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	8	28%
Apartments	4	14%
Outbuilding or shed	4	14%
High/junior high/middle school	2	7%

Acushnet					Population: 10,303			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	25	11	4	10	2	0	2	0
2008	37	17	5	15	2	1	0	1
2009	21	10	4	7	1	1	0	0
2010	28	17	5	6	0	0	0	0
2011	18	10	3	5	1	0	0	1

Attleboro					Population: 43,593			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	64	21	10	33	0	0	0	0
2008	168	66	26	76	12	3	0	11
2009	130	61	19	50	9	2	0	7
2010	134	56	27	51	6	3	0	3
2011	101	35	15	50	5	1	0	4

Berkley					Population: 6,411			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	17	5	6	6	2	1	0	1
2008	29	16	3	10	1	0	0	1
2009	27	17	1	9	0	0	0	0
2010	21	9	4	8	0	0	0	0
2011	19	7	4	8	0	0	0	0

Dartmouth Fire Districts¹⁰					Population: 34,032			
Dartmouth District # 1					Est Pop. Protected: 13,272			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	45	19	3	23	2	0	0	2
2008	37	11	3	23	0	0	0	0
2009	30	11	4	15	6	1	0	5
2010	21	13	0	8	2	0	0	2
2011	24	13	2	9	3	0	0	3

¹⁰ The estimated population protected statistics were determined by multiplying the 2010 census figure by the percentage of the 2000 census figure determined by the then Town Clerk.

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	3	0	1	2	0	0	0	0
2009	6	2	3	1	0	0	0	0
2010 ¹¹	Fire Department in Good Standing							
2011	4	3	1	0	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
2007	135	7	16	112	8	0	1	7
2008	118	7	13	98	8	0	0	8
2009	49	8	7	34	5	2	2	1
2010	104	22	10	72	13	5	0	8
2011	59	22	12	25	4	2	0	2

Dighton**Population: 7,086**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	31	13	3	15	1	0	0	1
2008	32	4	8	20	1	0	0	1
2009	21	14	3	4	1	1	0	0
2010	20	7	4	9	1	0	0	1
2011	18	6	3	9	1	0	0	1

Easton**Population: 23,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	13	9	3	1	0	0	0	0
2008	15	10	3	2	0	0	0	0
2009	19	11	4	4	1	1	0	0
2010	1	1	0	0	0	0	0	0
2011	20	14	4	2	0	0	0	0

¹¹ In 2010, Dartmouth District #2 reported 1 service call.

Fairhaven **Population: 15,873**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	87	25	15	47	0	0	0	0
2008	70	15	16	39	4	0	0	4
2009	48	24	11	13	7	2	2	3
2010	46	17	4	25	1	0	0	1
2011	62	30	13	19	3	3	0	0

Fall River **Population: 88,857**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	589	245	56	288	35	13	4	18
2008	472	232	65	175	20	7	3	10
2009	369	206	54	109	29	16	1	12
2010	508	273	59	176	35	17	2	16
2011	500	274	71	155	16	4	4	8

Freetown **Population: 8,870**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	60	25	14	21	5	1	2	2
2008	52	26	9	17	3	0	1	2
2009	64	37	14	13	13	5	2	6
2010	56	27	16	13	4	2	1	1
2011	57	27	12	18	7	3	1	3

Mansfield **Population: 23,184**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	62	12	13	37	1	0	0	1
2008	73	24	12	37	2	0	0	2
2009	56	20	11	25	2	0	0	2
2010	49	14	10	25	1	0	0	1
2011	47	22	8	17	2	1	1	0

New Bedford **Population: 95,072**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	426	141	76	209	29	11	14	4
2008	453	165	65	223	47	16	14	17
2009	343	172	65	106	32	14	9	9
2010	386	156	76	154	27	11	9	7
2011	327	136	64	127	20	7	6	7

North Attleboro **Population: 28,712**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	102	28	10	64	2	0	0	2
2008	70	28	7	35	1	0	0	1
2009	56	20	16	20	3	0	1	2
2010	56	16	12	28	1	0	0	1
2011	73	36	12	25	3	1	0	2

Norton **Population: 19,031**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	54	7	7	40	0	0	0	0
2008	73	20	10	43	1	0	1	0
2009	37	14	4	19	0	0	0	0
2010	53	16	13	24	1	0	0	1
2011	45	20	6	19	1	1	0	0

Raynham **Population: 13,383**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	100	23	20	57	0	0	0	0
2008	97	30	11	56	1	0	0	1
2009	70	23	15	32	1	0	0	1
2010	59	25	8	26	0	0	0	0
2011	49	15	9	25	0	0	0	0

Rehoboth **Population: 11,608**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	64	32	5	27	3	0	0	3
2008	73	36	8	29	2	0	1	1
2009	55	23	6	26	2	1	1	0
2010	50	37	2	11	0	0	0	0
2011	33	21	4	8	0	0	0	0

Seekonk **Population: 13,722**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	89	25	9	55	3	1	0	5
2008	80	25	6	49	4	0	0	4
2009	59	28	9	22	2	2	0	0
2010	71	27	12	32	5	3	0	2
2011	89	23	22	44	9	2	0	7

Somerset **Population: 18,165**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	47	10	10	27	3	1	1	1
2008	38	18	6	14	1	1	0	0
2009	32	14	2	16	3	1	0	2
2010	43	17	4	22	0	0	0	0
2011	38	11	12	15	1	0	0	1

Swansea **Population: 15,865**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	104	39	15	50	2	1	0	1
2008	85	35	5	45	4	2	0	2
2009	87	34	20	33	3	2	0	1
2010	86	32	11	43	3	1	0	2
2011	87	41	8	38	1	1	0	0

Taunton **Population: 55,874**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	246	31	37	178	31	2	4	25
2008	161	28	21	112	11	2	2	7
2009	143	32	25	86	11	2	0	9
2010	166	34	15	117	13	1	1	11
2011	151	39	19	93	16	3	2	11

Westport **Population: 15,532**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	88	24	9	55	7	1	0	6
2008	75	9	8	58	3	0	0	3
2009	52	15	9	28	5	0	0	5
2010	55	21	9	25	3	0	0	3
2011	57	21	12	24	2	0	0	2

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
05003	Acushnet	382	21	2	93	85	87	29	63	0	2
05016	Attleboro	6,399	101	4	4,363	195	399	462	836	32	7
05027	Berkley	555	24	0	397	16	46	28	43	1	0
05972	Dartmouth #1	338	25	0	18	42	39	44	166	3	1
05973	Dartmouth #2	83	4	0	6	11	14	14	26	7	1
05974	Dartmouth #3	721	64	0	29	142	87	76	314	6	3
05076	Dighton	1,083	19	1	613	19	329	9	91	2	0
05088	Easton	24	20	0	0	4	0	0	0	0	0
05094	Fairhaven	2,582	62	4	1,826	189	111	90	289	6	5
05095	Fall River	4,810	503	9	1,438	496	241	392	1,702	8	21
05102	Freetown	1,300	60	6	825	57	162	81	98	2	9
05167	Mansfield	2,840	48	0	1,882	125	210	107	415	24	29
05201	New Bedford	11,133	329	11	7,667	465	330	734	1,588	3	6
05211	North Attleboro	3,733	83	10	2,328	320	310	175	505	2	0
05218	Norton	2,708	50	2	1,605	196	344	20	407	1	83
05245	Raynham	834	56	8	169	87	50	88	361	6	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
05247	Rehoboth	329	33	0	9	102	52	45	88	0	0
05265	Seekonk	2,513	91	1	1,720	78	138	114	364	5	2
05273	Somerset	2,516	40	1	2,122	49	129	37	120	0	18
05292	Swansea	467	90	1	24	117	41	59	122	11	2
05293	Taunton	6,167	152	4	3,851	166	396	691	821	4	82
05334	Westport	489	69	2	50	49	71	78	155	4	11
	Bristol County	52,006	1,944	66	31,035	3,010	3,586	3,373	8,574	127	291

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.

Fall River Fires in 2011

500 Total Fires — 274 Structures, 71 Vehicles & 155 Other Fires

The Fall River Fire Department reported 500 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 274 structure fires, 71 motor vehicle fires, 70 outside trash fires, 63 brush fires, four special outside fires, one cultivated crop or orchard fire, and 17 unclassified fires caused one civilian death, eight civilian injuries, four fire service injuries and an estimated dollar loss of \$3.9 million.

1 Fall River Resident Killed in 1 Fatal Fire

- On February 22, 2011, at 10:36 p.m., the Fall River Fire Department was dispatched to a fire in a six-unit apartment building of undetermined cause. The victim, a 54-year old woman, who lived in the apartment above the area of origin and was possibly impaired by alcohol, was overcome by the heat and smoke as she attempted to escape. There was one other injury associated with this fire. Detectors were present and alerted the other occupants of the building. The building was not sprinklered. Damages from this fire were estimated to be \$320,000.

All Fires Down Slightly

Total fires decreased by eight, or 2%, from the 508 fires reported in 2010. Reported structure fires increased by one from the 273 reported during the previous year. Motor vehicle fires increased by 12 from 59 the year before. Outside and other fires decreased by 21 from 176 the year before.

FALL RIVER FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	589	245	56	288	35	13	4	18
2008	472	232	65	175	20	7	3	10
2009	389	199	57	133	33	18	2	13
2010	508	273	59	176	34	16	2	16
2011	500	274	71	155	20	4	4	12

BUILDING FIRES

There were 274 building fires of different types in Fall River in 2011. These 274 building fires accounted for all structure fires in Fall River.

85% of Building Fires in Homes

The 274 building fires that occurred in Fall River in 2011 can be broken down by fixed property use as follows: 233, or 85% of all structure fires, were in residential properties; 12 occurred in institutional facilities; nine occurred in mercantile or business properties; seven happened at public assembly properties; six fires happened in educational facilities; four fires occurred in manufacturing or processing facilities; two fires took place in a special properties; and one fire happened in a storage facility.

RESIDENTIAL FIRES

Residential Building Fires Are Up

There were 233 reported residential building fires in Fall River in 2011. These 233 residential building fires are an increase of 16, or 7%, from the 217 reported in 2010.

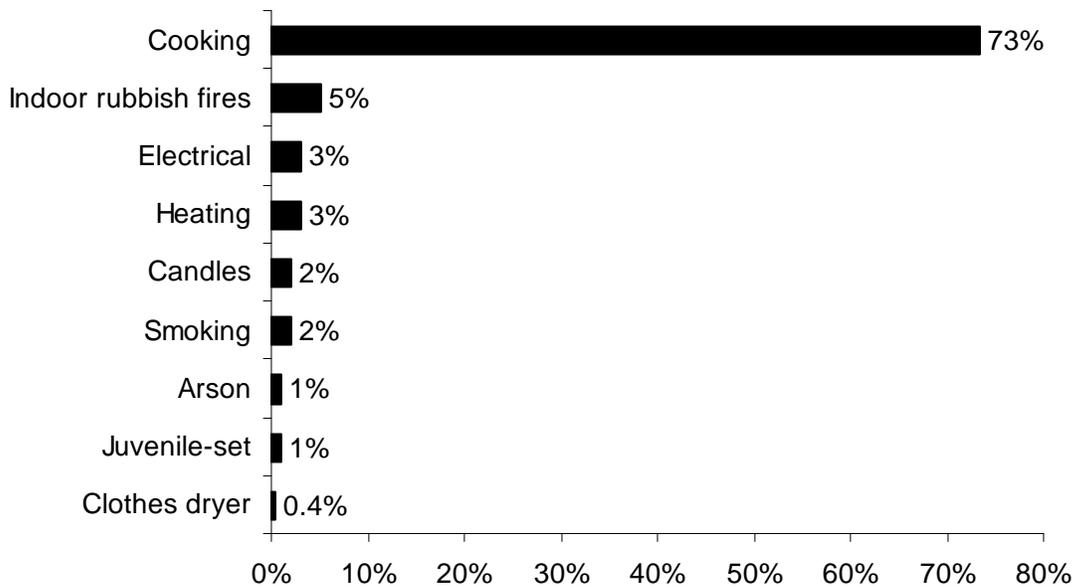
Apartments Accounted for Over 2/3 of Residential Building Fires

The peak fixed property uses for residential building fires in Fall River were apartments, accounting for 69% of the residential building fires. Twenty percent (20%) occurred in one- or two-family homes; 5% occurred in rooming houses; 4% happened in residential board and care facilities; and less than 1% occurred in hotels or motels. One percent (1%) of these fires also occurred in unclassified residential properties.

Unattended Cooking Caused Almost 3/4 of Residential Fires

The leading cause of residential building fires in Fall River was unattended cooking and other unsafe cooking practices, accounting for 73% of these fires. Indoor rubbish fires accounted for 5% of residential fires. Electrical problems and heating equipment fires each caused 3% of these fires. Candles and smoking each caused 2%; and arsons and juvenile-set fires each accounted for 1% of fires in residential occupancies. Clothes dryers accounted for less than 1% of the fires in people’s homes in Fall River in 2011.

2011 Leading Causes of Fires in Fall River Homes



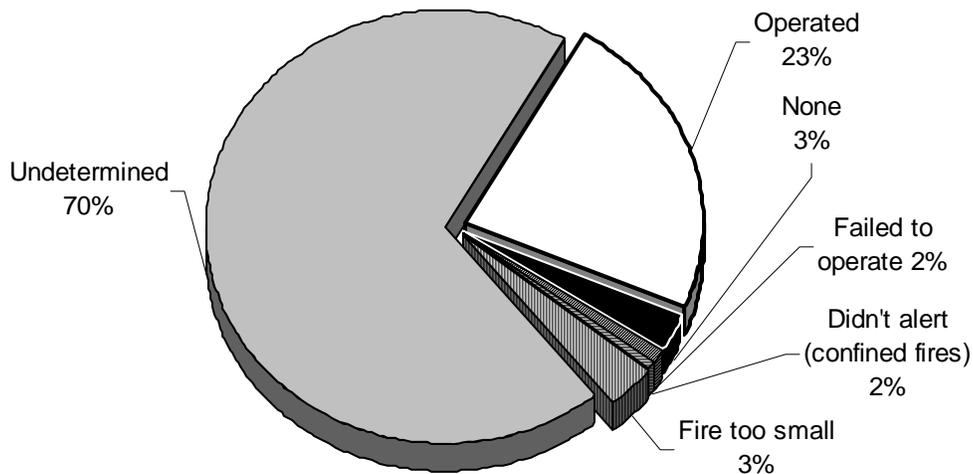
76% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One hundred and seventy-eight (178), or 76% of all residential building fires were confined to non-combustible containers in 2011. One hundred and sixty (160), or 69%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Twelve (12), or 5%, of these fires were rubbish fires contained to a non-combustible container. Six (6), or 3%, were fires confined to a fuel burner or boiler malfunction.

Detectors Operation Undetermined in Almost 3/4 of Fires

Smoke or heat detectors operated and alerted the occupants in 54, or 23%, of the residential building fires. In 2% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 161 incidents, or 70% of Fall River's residential building fires.

Detector Status in Fall River's Residential Fires 2011



The lack of data on smoke detector performance in confined fires does not present a true picture of functioning smoke alarms in Fall River. Improved collection of data on whether or not the smoke alarms alerted the occupants to the fire would provide a better understanding of this issue.

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

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

3 Detectors Failed

One of the three detectors that were reported to have failed, didn't work because of a lack of maintenance. Another detector failed because of a power failure, shut-off or disconnect. It was undetermined why the other detector was reported to have failed.

VACANT BUILDING FIRES

1% of Building Fires Occurred in Vacant Buildings

Fall River reported four fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 274 building fires reported to MFIRS in 2011. One (1) single-family home, one apartment building, one business office, and one funeral parlor were reported as vacant building fire incidents.

JUVENILE-SET FIRES

There were two reported juvenile-set fires in Fall River in 2011. Both fires were building fires.

ARSONS

20 Total Arsons — 4 Structures, 4 Motor Vehicle, & 12 Other

Twenty (20), or 3%, of Fall River's 500 fires were considered intentionally set, or, for purposes of this analysis, arson. The four structure arsons, four motor vehicle arsons and 12 outside and other arsons caused one fire service injury and an estimated dollar loss of \$279,250.

All Arsons Down

The total number of arsons decreased by 14 from 34 in 2010. Reported structure arsons decreased by 12 from the 16 reported the year before. Motor vehicle arsons increased by two from the two reported in 2010. Outside and other arsons decreased by four from the 16 reported in 2010.

ALL INCIDENTS

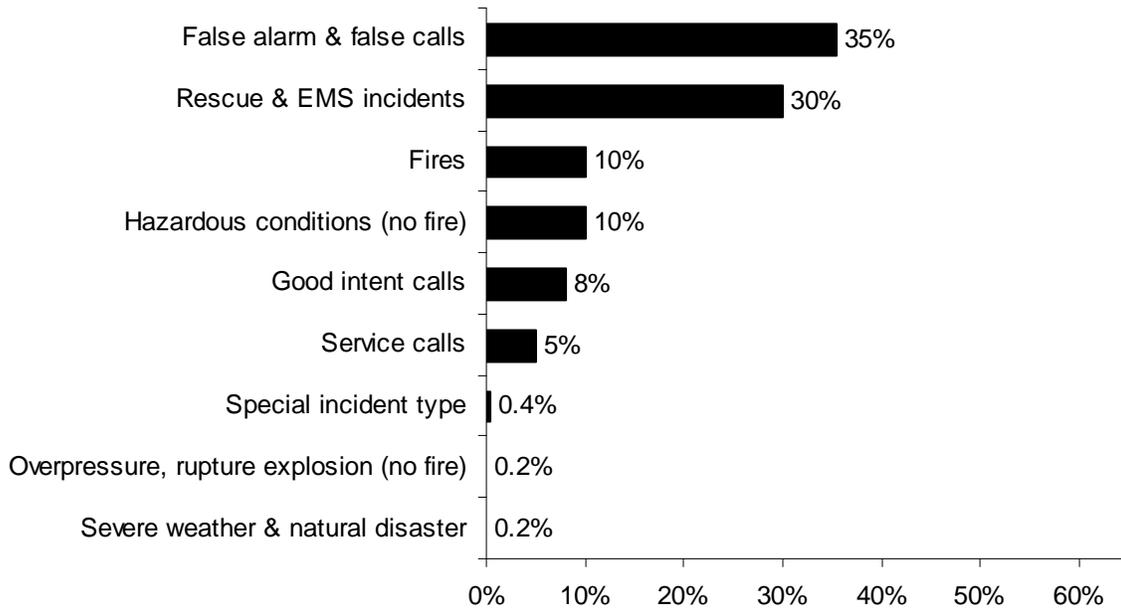
False Alarm & False Calls Are 35% of All Reported Incidents

In 2011, Fall River voluntarily reported 4,810 incidents to MFIRS. Of these 4,810 incidents, 4,307, or 90%, were non-fire incidents.

Of these 4,307 non-fire incidents 1,702, or 35% of all reported incidents in 2011, were reported false alarm or false calls; 1,438, or 30%, were reported rescue and emergency medical services (EMS) calls; 496, or 10%, were reported good intent calls; 392, or 8%, were reported hazardous condition calls with no fire; 241, or 5%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 21, or 0.4%, were special incident type calls; nine, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and eight, or 0.2% were severe weather or natural disaster calls.

In 2011, Fall River reported 503 fires³, accounting for 10% of all reported incidents.

2011 Incidents by Incident Type



Fall River Gave Mutual Aid in 15 Reported Incidents

In 2011, Fall River reported coming to the aid of other fire departments 15 times. Twelve (12) were for cover assignments; and three were for fires.

Fall River Received Mutual Aid 10 Times

In 2011, Fall River reported receiving mutual aid from surrounding fire departments 10 times. Six (6) were for medical assists. Two (2) were for fires; and two were for service calls.

³ This figure includes the fires that Fall River responded to outside of their jurisdiction.

Item First Ignited⁶	%	Factor Contrib. to Ignition	%	%Unconfined⁷
Cooking materials	73%	Misuse of materials	2%	3%
Rubbish, trash, waste	6%	Too close to combustibles	1%	2%
Electrical wire, cable insulation	3%	Electrical failure, malfunc.	1%	1%
Flammable or combustible liq.	3%	Short circuit arc def. insul.	1%	1%
Structural comp./finish, other	2%	Equipment unattended	1%	1%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking Equipment	70%	Unintentional	16%	67%
None	20%	Intentional	1%	5%
Boiler, furnace, cent. heat unit	3%	Failure of eq. or heat source	2%	9%
		Undetermined	2%	7%
		Cause under investigation	3%	11%

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

Alerted Occupants	12%
Didn't Alert Occupants	1%
Undetermined	87%

All Reported Incidents	# of Incidents	% of Incidents
False alarms & false calls	1,702	35%
Rescue & EMS incidents	1,438	30%
Fires ¹⁰	503	10%
Hazardous conditions (no fire)	496	10%
Good intent calls	392	8%
Service calls	241	5%
Special incident type	21	0.4%
Overpressure rupture, explosion or overheat calls (no fire)	9	0.2%
Severe weather & natural disaster	8	0.2%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This figure includes the 4 fires that Fall River responded to outside of their jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	32	21	8	3
February	32	22	7	3
March	35	23	4	8
April	51	25	9	17
May	54	26	7	21
June	49	22	2	25
July	58	18	8	32
August	53	25	9	19
September	37	20	7	10
October	30	24	3	3
November	42	30	4	8
December	27	18	3	6

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	79	46	9	24
Monday	74	36	12	26
Tuesday	80	44	12	24
Wednesday	66	37	9	20
Thursday	73	37	14	22
Friday	57	34	5	18
Saturday	71	40	10	21

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	29	15	8	6
04:01 - 08:00	34	23	5	6
08:01 - 12:00	77	49	13	15
12:01 - 16:00	127	60	16	51
16:01 - 20:00	141	76	18	47
20:01 - 24:00	92	51	11	30

Motor Vehicle Fires

Total: 71

Automobiles: 65 (92%)

4 (6%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 20

Dollar loss: \$279,250

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	4	2%	20%	\$251,000
Vehicle Arsons	4	4%	20%	26,700
Other Arsons	12	5%	60%	1,550

0.05 Structure arsons/1,000 population

0.05 Vehicle arsons/1,000 population

0.14 Other arsons/1,000 population

Peak Times of Day for:

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

Other Arsons	#	%
16:01 - 20:00	4	33%
00:01 - 04:00	2	17%
08:01 - 12:00	2	17%
12:01 - 16:00	2	17%
20:01 - 00:00	2	17%

Peak Fixed Property Uses for Structure Arsons	#	%
Multi-family dwellings	2	50%
1 & 2 - Family homes	1	25%
Funeral parlor	1	25%

New Bedford Fires in 2011

327 Total Fires —136 Structures, 64 Vehicles & 127 Other Fires

The New Bedford Fire Department reported 327 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 136 structure fires, 64 motor vehicle fires, 83 outside trash fires, 19 brush fires, seven special outside fires, and 18 unclassified fires caused two civilian deaths, seven civilian injuries, 10 fire service injuries, and an estimated dollar loss of \$2.5 million.

2 New Bedford Residents Killed in 2 Fires

- On January 17, 2011, at 2:35 a.m., the New Bedford Fire Department was dispatched to a smoking fire in a seven-unit apartment building. The victim, a 58-year old woman, was able to call 911 and tell them that her home oxygen equipment had caught fire. She was overcome by the heat and smoke as she attempted to escape. There were no other injuries associated with this fire. Detectors were present and alerted the other occupants of the building. The building was not sprinklered. Damages from this fire were estimated at \$15,000.
- On August 31, 2011, at 1:20 a.m., the New Bedford Fire Department was called to a fatal electrical fire at a three-unit apartment building. The fire began from arcing in an extension cord in a third-floor bedroom. The victim, a 32-year old man, was possibly impaired by drugs. No one else was injured at this fire. There were no detectors present and the building was not sprinklered. Damages were estimated to be \$20,000.

All Fires Down

Total fires decreased by 59 from the 386 reported in 2010. Reported structure fires decreased by 20 from the 156 reported during the previous year. Motor vehicle fires decreased by 12 from the 76 fires reported in 2010. Outside and other fires decreased by 27 from 154 the previous year.

NEW BEDFORD FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	426	141	76	209	29	11	14	4
2008	453	165	65	223	47	16	14	17
2009	343	172	65	106	32	14	9	9
2010	386	156	76	154	27	11	9	7
2011	327	136	64	127	20	7	6	7

BUILDING FIRES

There were 135 building fires of different types in New Bedford in 2011. These 135 building fires accounted for 99.3% of all structure fires in New Bedford.

87% of Building Fires in Homes

The 135 building fires that occurred in New Bedford in 2011 can be broken down by fixed property use as follows: 117, or 87% of all building fires, were in residential properties; seven fires took place in mercantile or business properties; three fires happened in educational facilities in 2011; another three fires happened in manufacturing and processing facilities; three more fires occurred in storage facilities; and two fires occurred in public assembly properties.

RESIDENTIAL FIRES

Apartments Accounted for 68% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 68% of the building fires in New Bedford; 22% occurred in 1- or 2-family homes; 4% happened in rooming houses; and 3% occurred in unclassified residential properties.

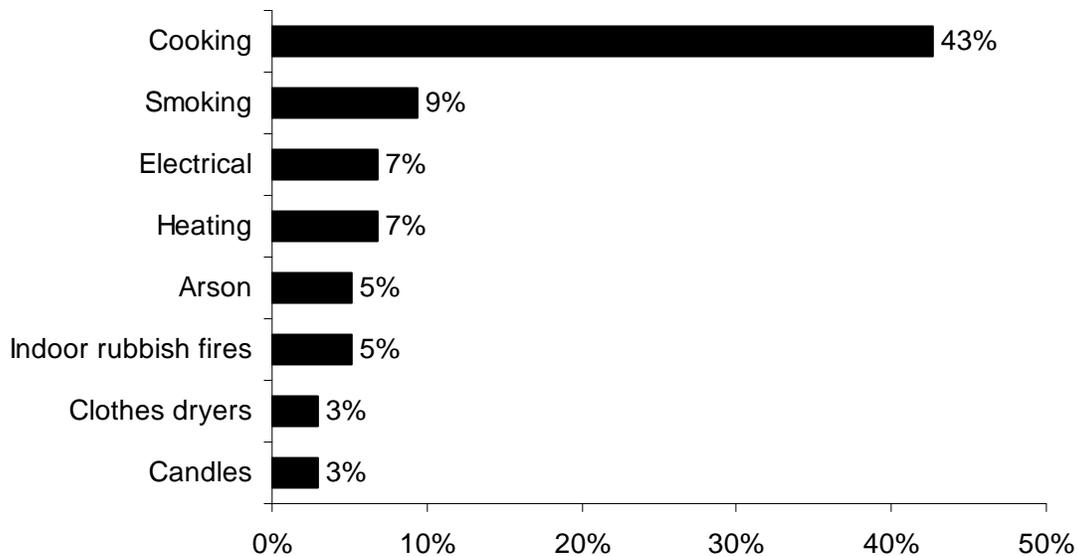
Residential Building Fires Are Down Slightly

There were 117 reported residential building fires in New Bedford in 2011. These 113 fires are a decrease of 13, or 10%, from the 130 residential building fires reported in 2010.

Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in New Bedford was unattended cooking and other unsafe cooking practices, accounting for 43% of these fires. Smoking caused 9% of these fires. Electrical problems and heating equipment each accounted for 7% of residential fires. Arson and indoor rubbish fires each caused 5% of the fires in New Bedford homes. Clothes dryers and candles each caused 3% of the residential building fires in New Bedford in 2011.

**2011 Leading Causes of Fires
in New Bedford Homes**



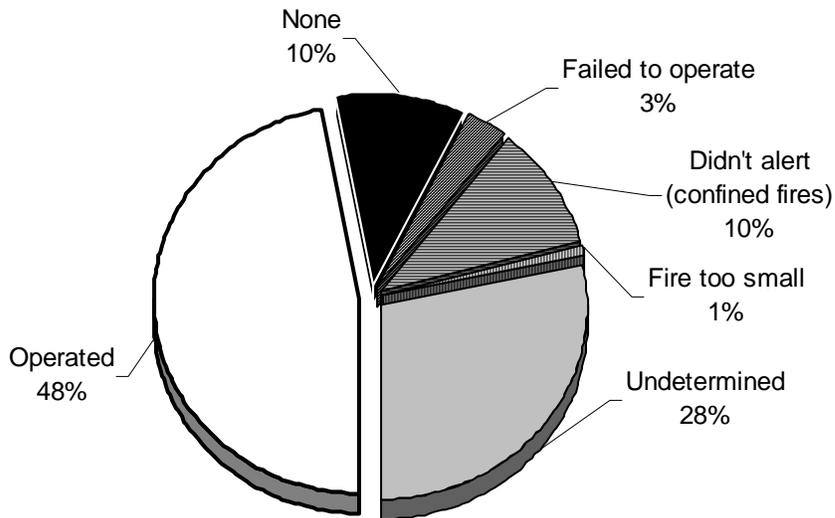
43% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Fifty (50), or 43% of all residential building fires were confined to non-combustible containers in 2011. Thirty-nine (39), or 33%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Six (6), or 5%, of these fires were rubbish fires contained to a non-combustible container. Four (4) of the reported fires were fuel burner or boiler malfunctions, accounting for 3% of residential building fires in New Bedford in 2011. One (1) of the reported fires were confined to a chimney or flue, accounting for 1% of residential building fires in New Bedford in 2011.

Detectors Alerted Occupants in Almost 1/2 of Fires

Smoke or heat detectors operated and alerted the occupants in 55, or 48%, of the residential building fires. In 10% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 10% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 1% of the residential fires. Smoke detector performance was undetermined in 33 incidents, or 28% of New Bedford’s residential building fires.

Detector Status in New Bedford's Residential Fires 2011



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

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

4 Detectors Failed

Of the four fires where smoke detectors were present but failed to operate, one, or 25%, of these detectors failed because of a dead battery. A lack of maintenance caused another detector, or 25%, to fail. It was undetermined in the two cases, or 50%, why the detectors failed to operate.

VACANT BUILDINGS

6% of Building Fires Occurred in Vacant Buildings

New Bedford reported eight fires that occurred in buildings that were vacant, under construction or demolition. This represented 6% of the total 135 building fires reported to MFIRS in 2011. Three (3) fires in one- or two-family homes; another three fires in apartment buildings; and one fire each in a parking garage and a manufacturing and processing facility were reported as vacant building fire incidents.

JUVENILE-SET FIRES

0 Juvenile-set Fires

There were no reported juvenile-set fires in New Bedford in 2011.

ARSONS

20 Total Arsons — 7 Structures, 6 Motor Vehicles & 7 Other

Twenty (20), or 6%, of New Bedford's 327 fires were intentional, or for purposes of this analysis, arson. The seven structure arsons, six motor vehicle arsons and seven outside and other arsons caused one civilian injury and an estimated dollar loss of \$283,200.

All Arsons Down

The total number of arsons decreased by seven from the 27 reported in 2010. Reported structure arsons decreased by four from 11 the year before. Motor vehicle arsons decreased by three from the nine reported in 2010. Outside and other arsons remained the same with seven reported in both 2011 as well as 2010.

ALL INCIDENTS

Rescue & EMS Calls Were Over 2/3 of All Reported Incidents

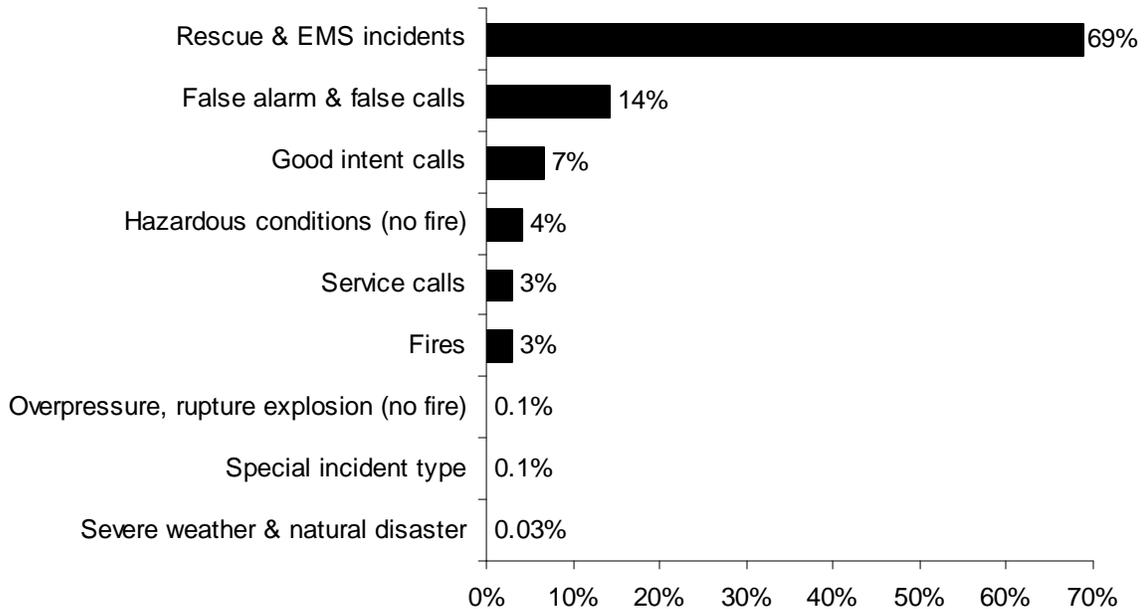
In 2011, New Bedford voluntarily reported 11,133 incidents to MFIRS. Of these 11,133 incidents, 10,804, or 97%, were non-fire incidents.

Of these 10,804 non-fire incidents 7,667, or 69% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 1,588, or 14%, were reported false alarm or false calls; 734, or 7%, were reported good intent calls; 465, or 4%, were reported hazardous condition calls with no fire; 330, or 3%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 11, or 0.1%, were reported overpressure, rupture, explosion or

overheat calls with no fire; six, or 0.1%, were special incident type calls such as citizen complaints; and three, or 0.03%, were severe weather calls.

In 2011, New Bedford reported 329 fires³, accounting for 3% of all reported incidents.

2011 Incidents by Incident Type



New Bedford Gave Mutual Aid in 3 Reported Incidents

In 2011, New Bedford reported coming to the aid of other fire departments three times. Two (2), or 67%, were for fires. One (1), or 33%, was for a station coverage call.

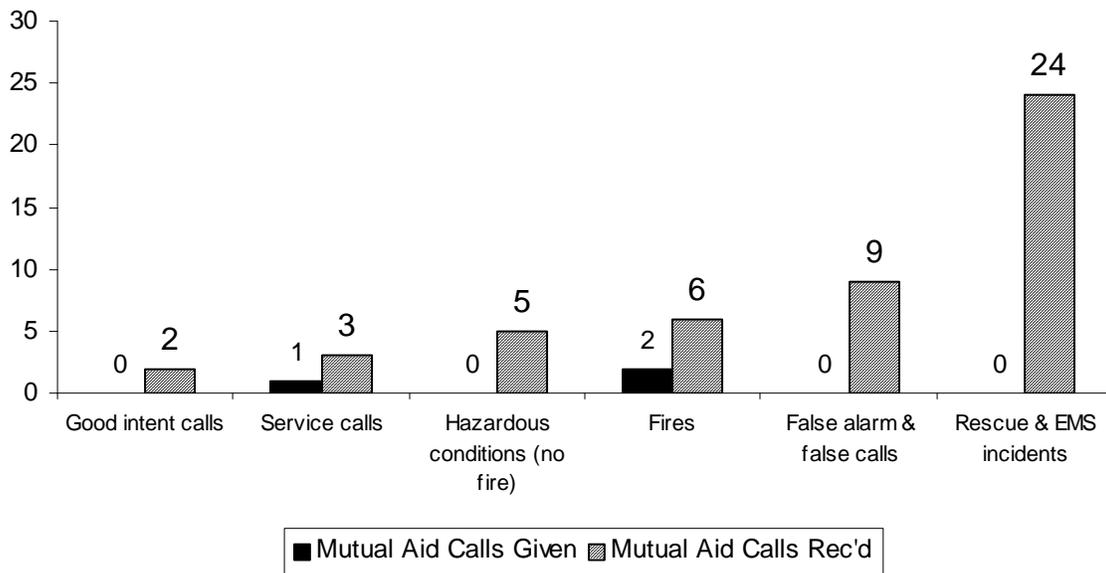
New Bedford Received Mutual Aid in 49 Incidents

In 2011, New Bedford reported receiving aid from surrounding fire departments in 49 incidents. Twenty-four (24), or 49%, of these incidents were rescue or EMS calls; nine, or 18%, were false alarm or false calls; six, or 12%, were for fires; five, or 10%, were for hazardous condition calls with no fire; three, or 6%, were service calls; and two, or 4%, were good intent calls.

³ This figure includes mutual aid fires that New Bedford responded to outside of their jurisdiction.

The following chart compares the number of calls that the New Bedford Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted New Bedford. In 2011 New Bedford received aid from other fire departments over 16 times as much as they were given it.

New Bedford's Mutual Aid Calls in 2011



Item First Ignited⁶	%	Factor Contrib. to Ignition	%	%Unconfined⁷
Cooking materials	38%	Abandoned materials	4%	7%
Rubbish, trash, waste	6%	Too close to combustibles	3%	4%
Structural member, framing	6%	Equipment overloaded	2%	3%
Electrical wire, cable insulation	4%	Misuse of material/products	2%	3%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	41%	Unintentional	33%	58%
None	38%	Intentional	3%	6%
Boiler, furnace, cent. heat unit	3%	Failure of eq. or heat source	8%	13%
Clothes dryer	3%	Act of nature	1%	1%
		Undetermined	3%	6%
		Cause under investigation	9%	15%

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

Alerted Occupants	50%
Didn't Alert Occupants	24%
Undetermined	26%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	7,667	69%
False alarms & false calls	1,588	14%
Good intent calls	734	7%
Hazardous conditions (no fire)	465	4%
Service calls	330	3%
Fires ¹⁰	329	3%
Overpressure rupture, explosion or overheat calls (no fire)	11	0.1%
Special incident type	6	0.1%
Severe weather & natural disaster	3	0.03%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This figure includes the 5 mutual aid fires that New Bedford responded to outside of their jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	23	14	3	6
February	16	5	6	5
March	21	6	4	11
April	20	10	2	8
May	30	13	6	11
June	35	6	7	22
July	32	15	5	12
August	37	10	6	21
September	31	17	2	12
October	37	20	11	6
November	23	8	8	7
December	22	12	4	6

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	36	16	5	15
Monday	50	14	9	27
Tuesday	41	12	10	19
Wednesday	49	22	7	20
Thursday	49	23	10	16
Friday	45	19	13	13
Saturday	57	30	10	17

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	35	13	7	15
04:01 - 08:00	25	12	8	5
08:01 - 12:00	52	27	16	9
12:01 - 16:00	82	28	17	37
16:01 - 20:00	79	34	8	37
20:01 - 24:00	54	22	8	24

Motor Vehicle Fires

Total: 64

Automobiles: 48 (75%)

5 (10%) of the automobile fires considered intentional.

Arson Fires

Total Arsons: 20

Dollar loss: \$283,200

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	7	5%	35%	\$241,100
Vehicle Arsons	6	9%	30%	36,600
Other Arsons	7	6%	35%	5,500

0.07 Structure arsons/1,000 population

0.06 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	2	29%	00:01 - 04:00	3	50%
16:01 - 20:00	2	29%	20:01 - 00:00	1	33%
20:01 - 00:00	2	29%	20:01 - 00:00	1	17%

Other Arsons	#	%
20:01 - 00:00	3	43%
00:01 - 04:00	2	29%
16:01 - 20:00	2	29%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	4	57%
Apartments	2	29%
High/junior high/middle school	1	14%

Dukes County

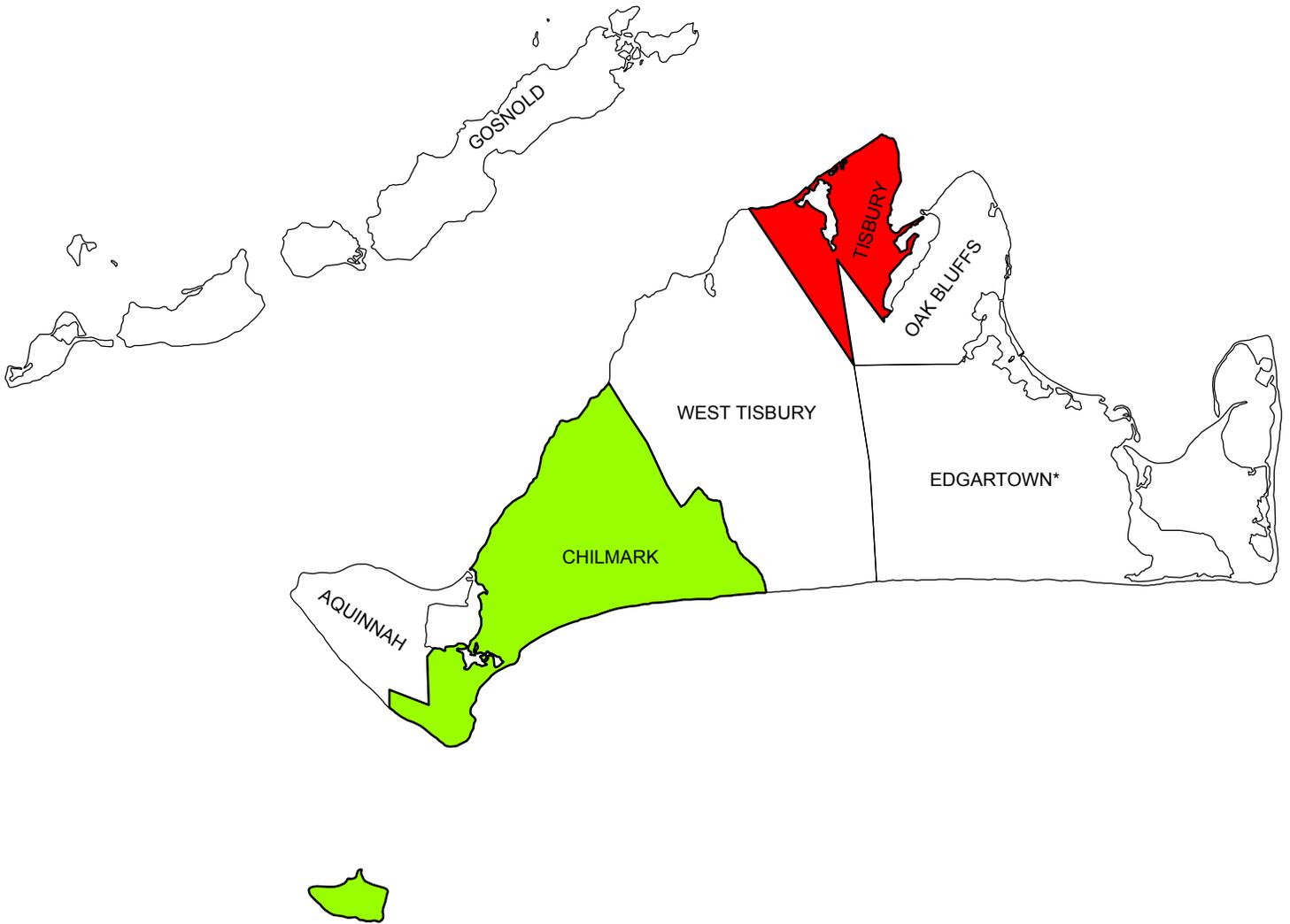
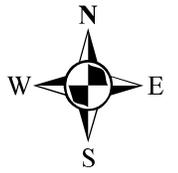
2011 Fire Data Analysis



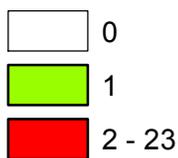
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

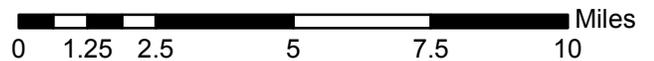
Dukes County Fires 2011



2011 Fires



*Non-reporting department



MFIRS
Massachusetts Fire Incident Reporting System

Dukes County Fires in 2010

24 Total Fires — 16 Structures, 1 Vehicles Fires & 7 Outside & Other Fires

Dukes County ranked last out of the fourteen Massachusetts counties in total fires. Dukes County fire departments reported 24 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The reported 16 structure fires, one motor vehicle fire, one brush fire, two outside rubbish fires, three special outside fires and one unclassified fire caused an estimated dollar loss of \$50,000. Dukes County's fires accounted for 0.1% of the 29,110 Massachusetts fires reported in 2011¹.

Two (2) out of the seven of the fire departments in Dukes County reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS). Three (3) departments certified that they had no reportable fires in 2011; and two departments did not report any incidents or certify that they didn't have any incidents.

All Fires Down

The total number of reported fire incidents decreased by six from the 30 reported in 2010. Reported structure fires decreased by one from the 17 reported in 2010. Motor vehicle fires decreased by four from the five reported the previous year. Outside and other fires decreased by one from the eight reported in 2010. Decreasing outside fires was a statewide trend in 2011.

DUKES COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	35	22	3	10	0	0	0	0
2008	19	12	3	4	0	0	0	0
2009	19	8	5	6	0	0	0	0
2010	30	17	5	8	1	0	1	0
2011	24	16	1	7	1	1	0	0

Fire and Fire Death Rates

Dukes County had 1.5 fires per 1,000 population. That figure ranks Dukes County last in the state and below the state rate of 4.4 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 below the state rate of 0.08 fire deaths per 10,000 population.

Tisbury Had Dukes County Largest Loss Fire

- On November 2, 2011, at 7:21 a.m., the Tisbury Fire Department responded to a structure fire at a single-family home. The fire was started when a heat source was placed too close to curtains in a first floor bedroom. No one was injured at this fire.

¹ 22 of Dukes County's 24 fires were reported after the 2011 analysis database was closed. Only 2 of the 24 fires are included in the state's 29,110 total fires. This county analysis is on the complete 24 fires.

Detectors were present but it was undetermined if they operated. The building did not have sprinklers. Damages were estimated at \$50,000 for this fire.

STRUCTURE FIRES

Reported Structure Fires 2/3 of All Reported Fires

There were 16 reported structure fires in Dukes County in 2011. These incidents represented 67% of Dukes County's reported fires in 2011 and all of the county's reported dollar loss. The total number of reported structure fires decreased by one, or 6%, from the 17 reported in 2010.

1 Reported Structure Arson in 2011

There was one reported structure arson in Dukes County in 2011. It accounted for 6% of all structure fires in the county. The last reported structure arson in Dukes County occurred in 2003.

BUILDING FIRES

There were 16 building fires of different types in Dukes County in 2011. These 16 building fires accounted for all of the structure fires in Dukes County.

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

Twelve (12), or 75%, of Dukes County's 16 building fires occurred in residential occupancies. Two (2) fires occurred in businesses, one happened in a public assembly property and another fire occurred in a special property.

RESIDENTIAL FIRES

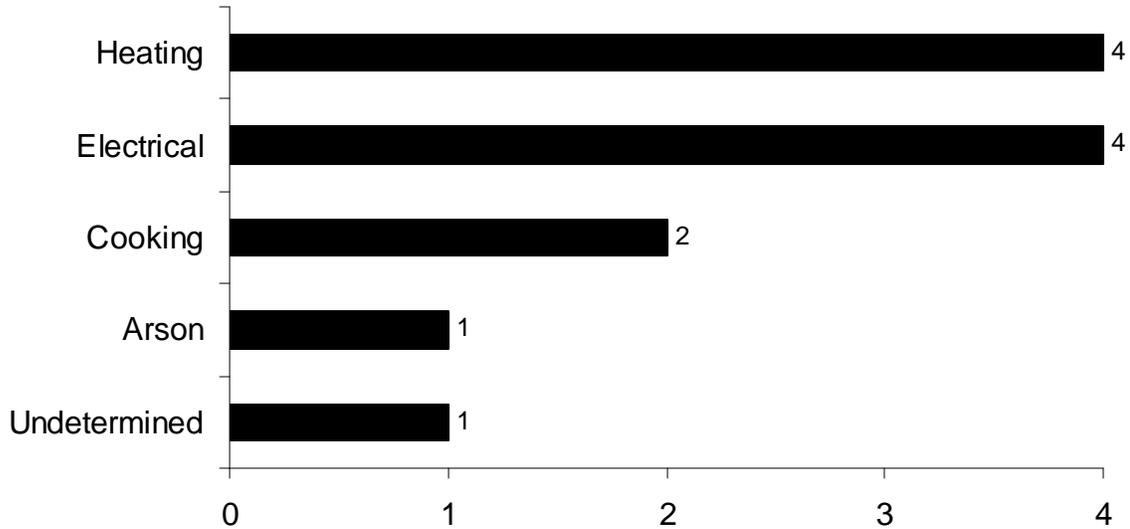
12 Residential Building Fires

There were 12 reported residential building fires in Dukes County in 2011. These 12 fires are a decrease of one, or 8%, from the 13 residential building fires reported in 2010. They caused \$50,000 in estimated damages.

Heating & Electrical Were the Leading Cause of Residential Fires

Heating and electrical problems were the leading cause of residential building fires in Dukes County; each accounting for four or, or 33%, of these fires. Cooking caused two of the residential building fires in Dukes County in 2011, accounting for 17% of the fires; and an arson was the cause for one, or 8%, of these fires. The cause was undetermined for one, or 8%, of the fires in Dukes County in 2011.

2011 Leading Causes of Fires in Dukes County Homes



6 Residential Building Fires Are Confined to Non-Combustible Containers²

Six (6), or half, of the reported fires in Dukes County were confined to a non-combustible container. Three, or 25%, of these fires were confined to a chimney or flue. Two (2), or 17%, were confined cooking fires and one, or 8%, were fuel burner or boiler malfunctions.

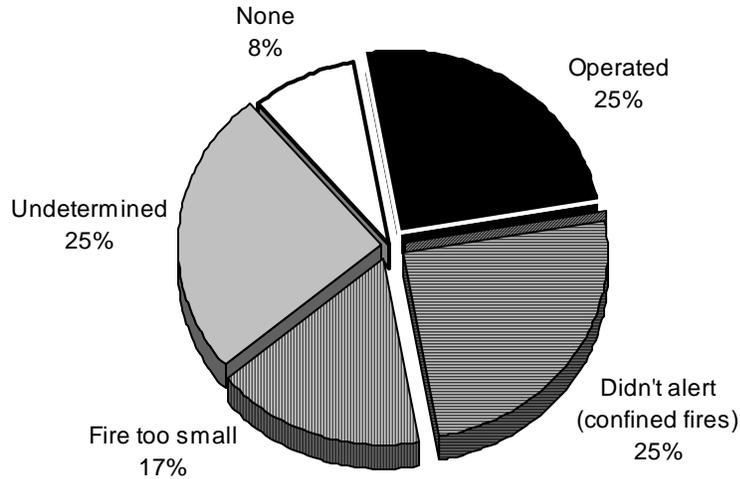
Detectors Status Undetermined in Over 1/4 of Fires

Smoke or heat detectors operated and alerted the occupants in three, or 25%, of the residential building fires. In three, or 25%, of these fires³, the detectors did not alert the occupants. In another fire, or 8%, there were no smoke detectors present. The fire was too small to activate the detector in two, or 17%, of these incidents. Smoke detector performance was undetermined in three incidents, or 25%, of Dukes County's residential building fires.

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

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

Detector Status in Dukes County's Residential Fires 2011



VACANT BUILDINGS

0 Vacant Building Fires

There were no reported fires in a building that was vacant in Dukes County in 2011.

JUVENILE-SET FIRES

No Juvenile-set Fires

There were no reported juvenile-set fires in Dukes County in 2011.

ARSONS

1 Arson

There was one reported arson in Dukes County in 2011. This is the same as one arson was also reported in 2010. The one structure arson is an increase over none the previous year. Motor vehicle arsons decreased by one from one; and there were no reported outside arsons in 2011 or 2010.

ALL INCIDENTS

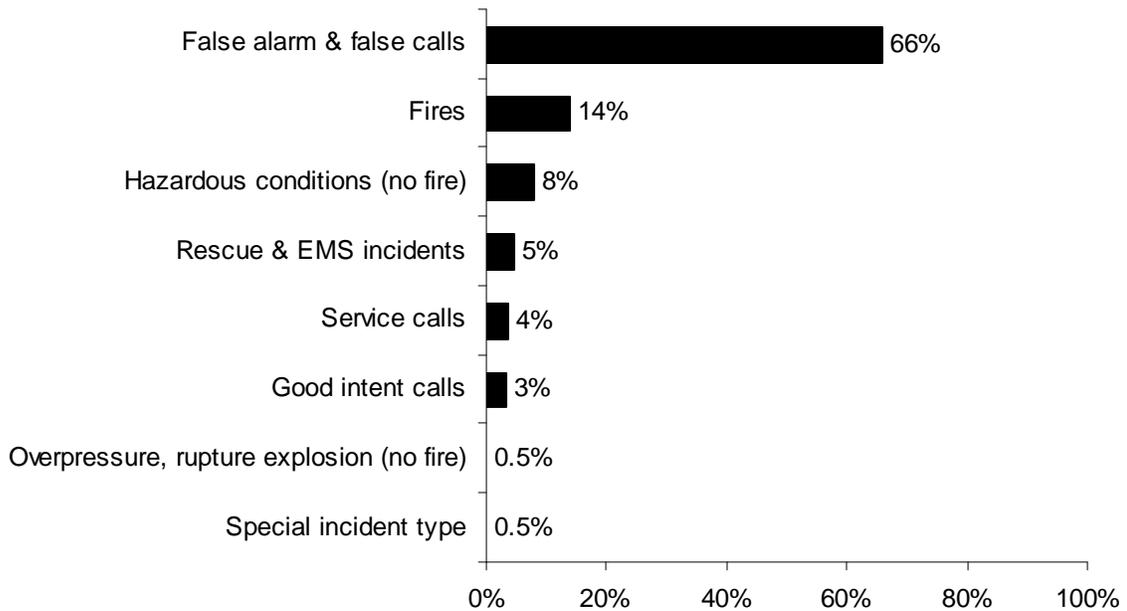
False Alarms 2/3 of All Reported Responses

In 2011, Dukes County fire departments reported 222 responses⁴ to MFIRS. Of these 222 incidents, 191 non-fire calls⁵ were voluntarily reported.

Of these 191 non-fire calls, 146, or 66%, were reported false alarm or false calls; 18, or 8%, were reported hazardous condition calls with no fire; 10, or 5% of all of the responses reported in 2011, were reported rescue and emergency medical services (EMS) calls; eight, or 4%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; seven, or 3%, was a reported good intent call one, or 0.5%, was a reported overpressure, rupture, explosion or overheat call with no fire; and another call was a special incident type accounting for 0.5%.

Thirty-one (31), or 14%, of the total incidents submitted by Dukes County fire departments were fires.

2011 Incidents by Incident Type



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

⁵ Tisbury is the only department in Dukes County that reports non-fire calls.

Dukes County Fire Departments Gave Mutual Aid 12 Times

In 2011, Dukes County fire departments reported coming to the aid of other fire departments 12 times. Of these 12 responses, seven, or 58%, were for false alarms or false calls; four, or 33%, were for fires; and one, or 8%, was for a rescue or EMS call.

Dukes County Fire Departments Received Mutual Aid in 4 Incidents

In 2011, Dukes County fire departments reported receiving aid from surrounding departments in four incidents. Two (2), or half, of these incidents were for fires; and the other two were for false alarms.

Dukes County

Population: 16,535

1.5 Fires/1,000 Population

Total Fires: 24 \$50,000

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	16	67%	\$50,000
Vehicle Fires	1	4%	0
Other Fires	7	29%	0

No Injuries

Building Fires: 16

Residential Structure Fires: 12

Residential Structure Fires Confined to Non-Combustible Containers: 6

Unconfined Residential Structure Fires: 6

No Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	10	83%	Operated	3	25%
Apartments	2	17%	Didn't operate	0	0%
			None	1	8%
			Fire too small	2	17%
			Didn't alert (confined)	3	25%
			Undetermined	3	25%

Area of Origin ⁶	%	Heat Source	%	%Unconfined ⁷
Chimney or flue	25%	Arcing	33%	67%
Bedroom	17%	Other open flame/smok. mat.	8%	17%
Kitchen	17%	Rad./conduct. heat fr op. eq.	8%	17%

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)	25%	Short-circuit arc/mech. dam.	8%	17%
Electrical wire, cable insulation	25%	Arc fr faulty contact	8%	17%
Cooking materials	17%	Operational deficiency	8%	17%

Equipment¹⁰	%	Cause of Ignition	%	%Unconfined¹¹
None	50%	Unintentional	33%	67%
Chimney or flue	25%	Failure of eq. or heat source	17%	33%
Cooking equipment	8%	Undetermined	0%	0%
Furnace, cent. heat. unit	8%	Act of nature	0%	0%

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

Alerted occupants	33%
Didn't alert occupants	50%
Undetermined	17%

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	2	1	0	1
February	3	2	0	1
March	3	2	0	1
April	1	1	0	0
May	1	1	0	0
June	2	0	0	2
July	2	1	0	1
August	3	2	0	1
September	1	0	1	0
October	2	2	0	0
November	4	4	0	0
December	0	0	0	0

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

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	1	0	0	1
04:01 - 08:00	5	4	0	1
08:01 - 12:00	2	2	0	0
12:01 - 16:00	5	4	0	1
16:01 - 20:00	6	3	1	2
20:01 - 00:00	5	3	0	2

Motor Vehicle Fires

Total: 1

Automobiles: 0 (0%)

0 (0%) of the automobile fires were incendiary in 2011.

Aquinnah **Population: 311**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	Fire Department in Good Standing, Certified No Reportable Fires							

Chilmark **Population: 866**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	3	3	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0
2009	3	2	0	1	0	0	0	0
2010	2	0	0	0	0	0	0	0
2011	1	0	0	1	0	0	0	0

Edgartown **Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	3	1	0	2	0	0	0	0
2008	4	3	0	1	0	0	0	0
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	2	2	0	0	0	0	0	0
2011	Non-Reporting Community							

Gosnold (Cuttyhunk) **Population: 75**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	1	1	0	0	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

Oak Bluffs					Population: 4,067			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	1	1	0	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	1	0	1	0	0	0	0	0
2011	Non-Reporting Community							

Tisbury					Population: 3,959			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	26	15	3	8	0	0	0	0
2008	12	6	3	3	0	0	0	0
2009	14	4	5	5	0	0	0	0
2010	19	8	3	8	1	0	1	0
2011	19	12	1	6	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
2007	2	2	0	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	1	1	0	0	0	0	0	0
2010	3	3	0	0	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable 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
07062	Chilmark	1	1	0	0	0	0	0	0	0	0
07089	Edgartown	0	0	0	0	0	0	0	0	0	0
07109	Gosnold	0	0	0	0	0	0	0	0	0	0
07221	Oak Bluffs	0	0	0	0	0	0	0	0	0	0
07296	Tisbury	221	30	1	10	18	8	7	146	0	1
07327	West Tisbury	0	0	0	0	0	0	0	0	0	0
Total	Dukes County	222	31	1	10	18	2	7	146	0	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.

Essex County

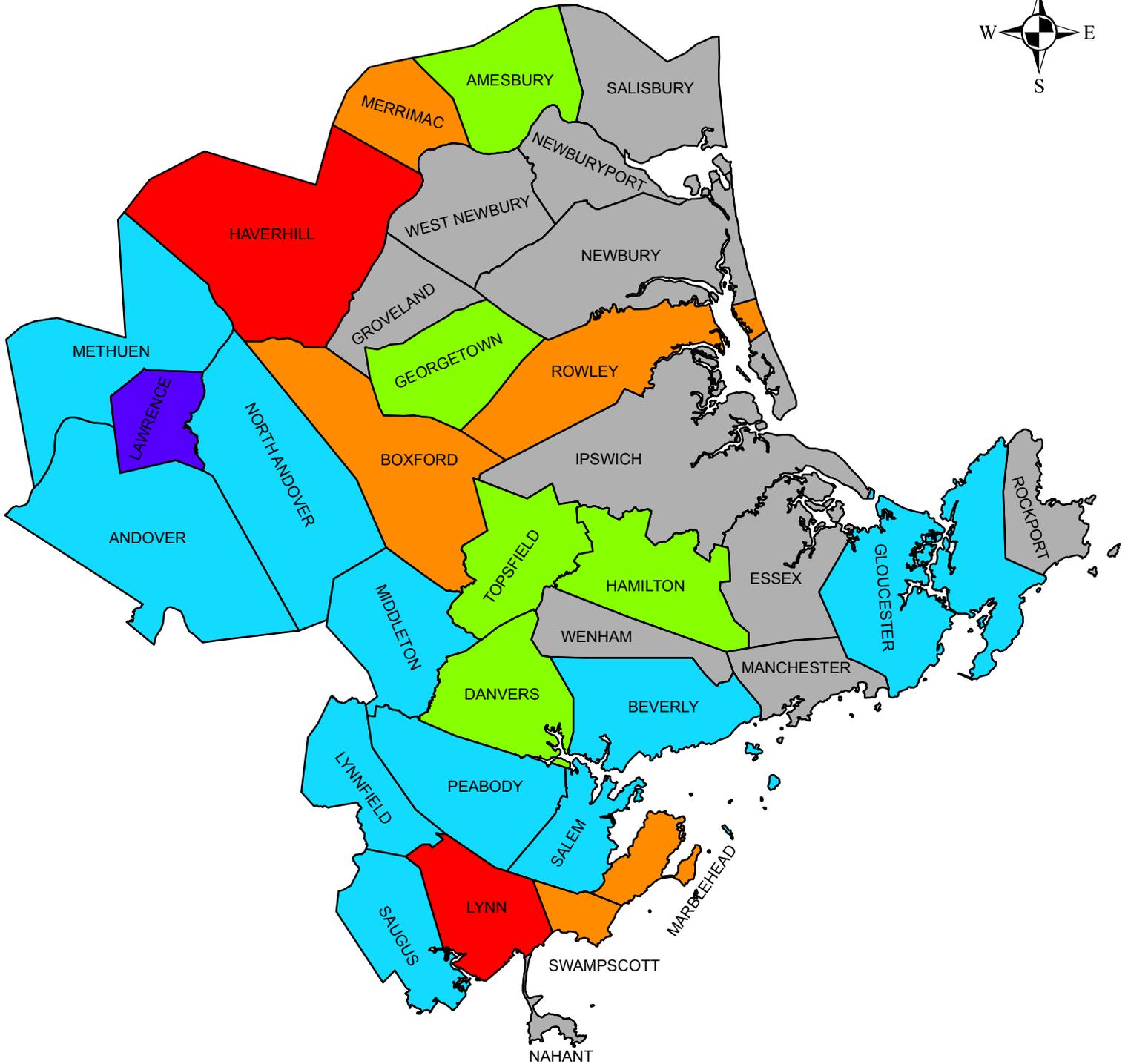
2011 Fire Data Analysis



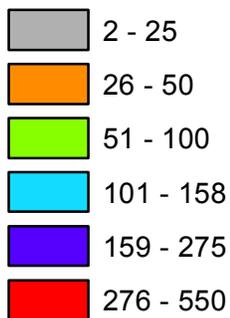
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

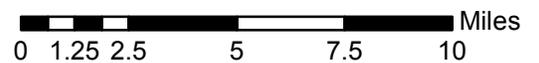
Essex County Fires 2011



2011 Fires



MFIRS
Massachusetts Fire Incident Reporting System



Essex County Fires in 2011

2,992 Total Fires — 1,879 Structures, 286 Vehicles & 827 Other Fires

Essex County ranked fifth out of the fourteen Massachusetts counties in total reported fires. The county reported 2,992 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 1,879 structure fires, 286 motor vehicle fires, 415 brush, tree or lawn fires, 246 outside rubbish fires, 66 special outside fires, one cultivated crop or vegetation fire, and 99 other fires caused 10 civilian deaths, one fire service death, 321 civilian injuries, 62 fire service injuries and an estimated dollar loss of \$32 million. Essex County's fires accounted for 10% of the 29,110 Massachusetts fires reported in 2011.

All 34 fire departments in Essex County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2011.

All Fires Down

The total number of reported fire incidents decreased by 584 incidents from the 3,576 that were reported in 2010. Reported structure fires decreased by 100 from the 1,979 reported during the previous year. The total number of motor vehicle fires decreased by nine from the 295 incidents reported during 2010. Reported outside and other fires decreased by 475 from the 1,305 reported the year before. The significant drop in outside fires was a statewide trend in 2011.

Brush Fires Down by Half

After a large increase in brush fires in 2010, they decreased by 418, or 50%, in 2011. This is a major decrease and the main reason for the drop in all Essex County fires. This was a statewide trend in 2011.

ESSEX COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	3,636	1,694	340	1,602	178	32	12	134
2008	2,886	1,629	326	931	132	19	17	96
2009	2,780	1,642	333	805	186	32	19	134
2010	3,576	1,979	295	1,302	154	24	19	111
2011	2,992	1,879	286	827	106	23	18	65

Fire and Fire Death Rates

Essex County had 4.2 fires per 1,000 population. That figure ranks Essex County eighth in the state and below the state rate of 4.4 fires per 1,000 population. Essex County had 0.13 fire deaths per 10,000 population making it third among Massachusetts counties and above the state rate of 0.08 deaths per 10,000 population.

10 Residents Died in 10 Essex County Fires

- On January 16, 2011, at 5:39 a.m., the Saugus Fire Department was called to a fatal electrical fire in a 4-unit apartment building. The fire was caused by an unspecified electrical malfunction in the space between the first and second floors. The victim, a 55-year old man was unable to escape as he was overcome by the heat and smoke. No other civilians were injured at this fire, but two firefighters were injured fighting it. Detectors were present and alerted the other occupants to the fire. There were no sprinklers. The fire caused an estimated \$105,000 worth of damage.
- On February 13, 2011, at 1:04 p.m., the Peabody Fire Department responded to an EMS call at a single-family home. The victim, an 86-year old man, was found unresponsive in his home by his daughter. The fire never left the oil burner but filled the home with smoke overcoming the victim. The daughter and six police officers, who also responded, were also treated for smoke inhalation. Detectors were present but it was undetermined if they operated and the home was not sprinklered. Damages from this fire were estimated at \$50,000.
- On February 25, 2011, at 10:12 a.m., the Ipswich Fire Department was called to a fatal smoking fire in an apartment building. The victim, a 53-year old woman, was sleeping in the living room at the time of the fire. The cigarette she was smoking ignited the sofa she was sleeping on. Detectors were present and operated. Sprinklers were present and suppressed the fire until the fire department arrived. No one else was injured in this fire. Damages were estimated to be \$250,000.
- On March 20, 2011, at 7:51 a.m., the Haverhill Fire Department was called to a fatal electrical fire in an apartment building. The fire started in a third floor kitchen. The victim, an 89-year old woman was sleeping at the time of the fire. She was overcome by the heat and smoke. One (1) other civilian was also injured at this fire. Detectors were present and operate but the occupants failed to respond. Sprinklers were present but it was undetermined if they operated. The fire caused an estimated \$52,500 worth of damage.
- On March 31, 2011, at 4:56 p.m., the Beverly Fire Department responded to an outside fire in a residential backyard. The victim, an 83-year old man, was burning brush in his chiminea. There was a crack in the chimney portion and the escaping heat ignited his clothes. A 19-year old neighbor attempted to extinguish the flames with his jacket. The victim was transported to a local hospital where he succumbed to his injuries.
- On July 23, 2011, at 2:11 a.m., the Saugus Fire Department was dispatched to a gasoline tanker crash and ensuing fire on Route 1. The crash and release of flaming gasoline caused 14 exposure fires, nine motor vehicle fires, four building fires and one brush fire. The victim, the 59-year old male driver of the tanker, was trapped inside the vehicle and unable to extricate himself. A driver of one of the exposure vehicles was also injured in this fire. Total estimated damages were \$2.94 million.

- On August 16, 2011, at 2:40 p.m., the Boxford Fire Department was called to a fatal electrical fire in a single-family home. The fire started in a ceiling light fixture. The victim, a 77-year old man was overcome by the heat and smoke in the basement of the home. One (1) firefighter was injured at this fire. Detectors were present but it was undetermined if they operated. There were no sprinklers. There was no estimate of damage.
- On October 7, 2011, at 10:23 a.m., the Lawrence Fire Department was called to a fatal arson fire at a 90-unit apartment building. The deceased, a 55-year old woman, was the victim of a domestic violence homicide. The 79-year old arsonist's clothing had also ignited while he escaped and he received burns to multiple parts of his body. No one else was injured at this fire. Detectors were present and alerted the other occupants of the building. The building was not sprinklered. Damages were estimated to be \$85,000.
- On October 15, 2011, at 11:55 p.m., the Lynn Fire Department was called to a fatal motor vehicle crash. The crash between the two vehicles started an ensuing fire. Upon arrival, firefighters were able to extricate the victim and extinguish the fire. The victim, a 58-year old man was transported to a local hospital with burn injuries. He later succumbed to those injuries. No one else was injured at this fire.
- On December 4, 2011, at 1:57 a.m., the Methuen Fire Department was called to a fatal electrical fire in a single-family home. Wiring in the first floor ceiling started the fire. The victim, a 78-year old woman was overcome as she tried to escape. No one else was injured at this fire. Detectors were present but it was undetermined if they operated. There were no sprinklers. The fire caused an estimated \$340,000 worth of damage.

Peabody FF James Rice Killed in an Electrical Fire

- On December 23, 2011, at 1:24 p.m., the Peabody Fire Department was dispatched to an electrical fire in an 8-unit apartment building. Firefighter James Rice entered the building while 'stretching a line' to the second floor. His crew was met with heavy fire conditions. FF Rice was extricated from the building after collapsing in the rear of a second floor apartment. He was taken to a local hospital where he died. No one else was injured at this fire. It was undetermined if detectors were present and the building did not have sprinklers. Damages from this fire were estimated to be \$240,000.

Largest Loss Fire in 2011

- On March 13, 2011, at 7:39 p.m., the Middleton Fire Department was dispatched to an explosion and ensuing fire at the Bostik adhesives manufacturing plant in town. Flammable gases from the chemicals used to make the adhesives were ignited by one of the plant many pieces of equipment. There were four civilian injuries at this fire. Detectors were present but it was undetermined if they operated. The building was sprinklered but because of the explosion it was undetermined if they operated. Damages from this fire were estimated to be \$12 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 1,879 structure fires caused seven civilian deaths, one fire service death, 28 civilian injuries, 58 fire service injuries and an estimated dollar loss of \$29.6 million. These incidents represented 63% of Essex County's reported fires in 2011. The average estimated dollar loss per structure fire was \$15,758. The total number of reported structure fires decreased by 100, or 5%, from the 1,979 reported in 2010.

Arson Caused 1% of Structure Fires

The 23 structure arsons caused one civilian fire death, two civilian injuries, six fire service injuries and an estimated dollar loss of \$640,500. Arson was indicated as the cause of 1% of the structure fires and 2% of Essex County's structure fire dollar loss. The 23 structure arsons accounted for 22% of the Essex County arson fires reported in 2011. The total number of reported structure arsons decreased by one, or 4%, from 24 in 2010.

Almost 3/4 of Structure Arsons Occurred in Residences

Seventy-four percent (74%) of Essex County's 23 structure arsons occurred in residential occupancies. Educational facilities, mercantile or business facilities and special properties were each responsible for 9% of Essex County's structure arsons in 2011.

BUILDING FIRES

There were 1,868 building fires of different types in Essex County in 2011. These 1,868 building fires accounted for 99.4% of all structure fires in Essex County.

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

One thousand five hundred and seventy-five (1,575), or 84%, of Essex County's 1,868 building fires occurred in residential occupancies. Mercantile and business properties had 74 fires. Sixty-nine (69) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 46 fires. Thirty-nine (39) building fires in Essex County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Thirty (30) building fires took place on educational properties. Fifteen (15) fires took place in manufacturing and processing facilities. Fourteen (14) fires took place in storage properties. Five (5) fires happened in industrial facilities, and one fire occurred in an unclassified property in Essex County in 2011.

RESIDENTIAL FIRES

Residential Building Fires Down in 2011

There were 1,575 reported residential building fires in Essex County in 2011. These 1,575 fires are a decrease of 82, or 5%, from the 1,657 residential building fires reported in 2010.

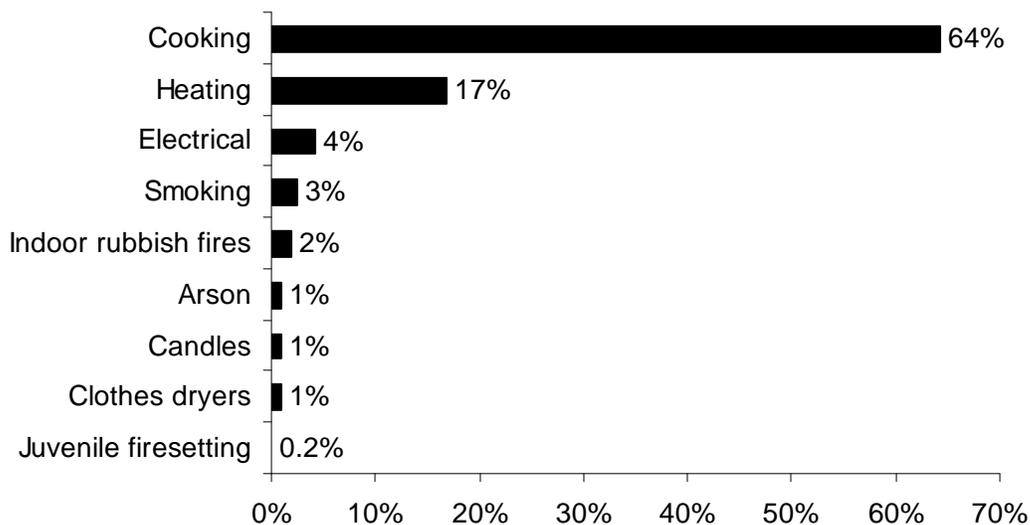
1- & 2-Family Homes Accounted for 45% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- and 2-family homes, accounting for almost half, or 45%, of the building fires in Essex County; another 45% occurred in apartments; 3% happened in rooming houses; and 2% each took place in dormitories, residential board and care facilities, and 1% in hotels or motels. Fifty-eight (58), or 4% of the residential building fires in Essex County occurred in unclassified residential buildings.

Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Essex County was unattended cooking and other unsafe cooking practices, accounting for 64% of these fires. Heating was the second leading cause, accounting for 17% of these fires. Electrical problems caused 4%, smoking caused 3%, and indoor rubbish fires caused 2% of these fires. Arson, candles and clothes dryers each caused 1% of these fires; and clothes dryers and juvenile-set fires each caused less than 1% of the fires in people's homes in Essex County in 2011.

2011 Leading Causes of Fires in Essex County Homes



80% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One thousand two hundred and fifty-six (1,256), or 80%, of all residential building fires were reported as confined to non-combustible containers in 2011. Nine hundred and seventy-six (976), or 62%, of all residential building fires reported in 2011 were cooking

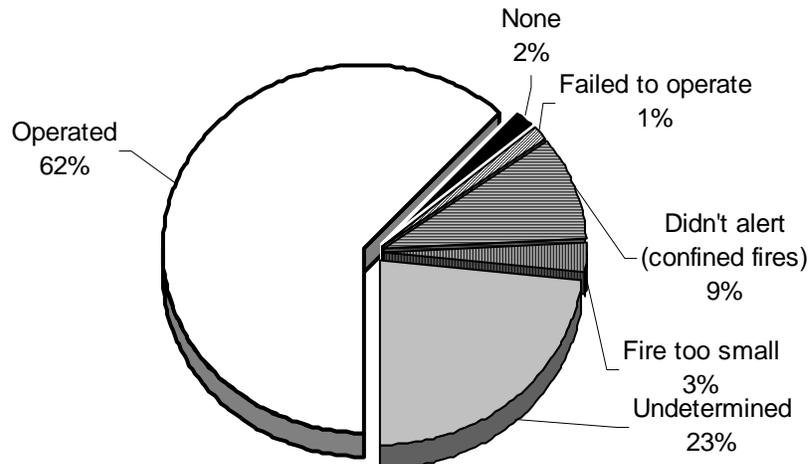
¹ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing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

fires contained to a non-combustible container. One hundred and sixty-eight (168), or 11%, were fires confined to a fuel burner or boiler malfunction. Eighty-four (84) of the reported fires were confined to a chimney accounting for 5% of residential building fires. Twenty-five (25), or 2%, of these fires were rubbish fires contained to a non-combustible container. There were three reported incinerator overload or malfunctions representing less than 1% of the residential fires in Essex County in 2011.

Detectors Operated in 62% of Fires

Smoke or heat detectors operated and alerted the occupants in 969, or 62%, of the residential building fires. In 9% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 365 incidents, or 23%, of Essex County's residential building fires.

Detector Status in Essex County's Residential Structure Fires 2011



43% of Failed Detectors Had Missing or Dead Batteries

Of the 21 fires where smoke detectors were present but failed to operate, five, or 24%, failed because the batteries were either missing or disconnected. Four (4), or 19%, did not operate because of dead batteries. Two (2) detectors, or 10%, failed because of improper installation or placement. One (1), or 4%, failed because of a power failure, shutoff or disconnect. It was undetermined or unclassified in nine cases, or 43%, why the detectors failed to operate.

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

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Essex County reported 40 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 1,868 building fires reported to MFIRS in 2011. Thirty-one (31) fires occurred in vacant residential properties. Mercantile or business facilities accounted for four vacant building fire incidents. Manufacturing or processing facilities accounted for two of these fires. Educational facilities, institutional facilities and special properties each accounted for one vacant building fire in Essex County in 2011.

Five (5) of the vacant building fires in Essex County in 2011 were determined to be intentionally set. Three (3) single-family homes, one apartment, and one unclassified business were vacant building arsons.

JUVENILE-SET FIRES

8 Juvenile-set Fires

There were eight reported juvenile-set fires in Essex County in 2011. The five structure fires, one brush fire, one outside rubbish fire, and one unclassified fire caused one fire service injury and \$61,500 in estimated damages.

ARSONS

106 Total Arsons — 23 Structures, 18 Vehicles & 65 Other Arsons

One hundred and six (106), or 4%, of Essex County's 2,992 fires were considered intentionally set, or, for purposes of this analysis, arson. The 23 structure arsons, 18 motor vehicle arsons and 65 outside and other arsons caused two civilian deaths, two civilian injuries, six fire service injuries and an estimated dollar loss of \$700,700.

All Arsons Down

The total number of reported arson fires decreased by 48 from the 154 reported in 2010. Reported structure arsons decreased by one from the 24 reported the previous year. Motor vehicle arsons also decreased by one from the 19 reported in 2010. Outside and other arsons decreased by 46 from 111 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Are Over 1/2 of All Reported Responses

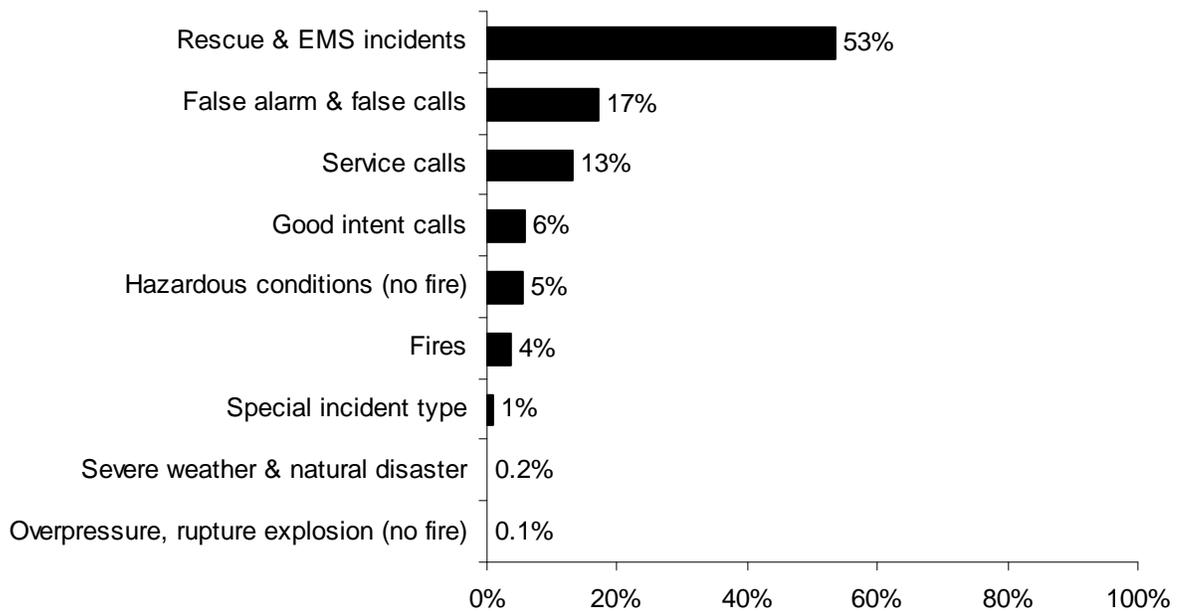
In 2011, fire departments in Essex County reported 87,091 responses³ to MFIRS. Of these 87,091 incidents, 83,974 non-fire calls were voluntarily reported.

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

Of these 83,974 non-fire calls, 46,582, or 53%, of all the reported responses in 2011, were reported rescue and emergency medical services (EMS) calls; 15,040, or 17%, were reported false alarm or false calls; 11,521, or 13%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,111, or 6%, were reported good intent calls; 4,689, or 5%, were reported hazardous condition calls with no fire; 708, or 1%, were special incident type calls such as citizen complaints; 216, or 0.2%, were severe weather responses; and 107, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Three thousand one hundred and seventeen (3,117), or 4%, of the total incidents submitted by Essex County fire departments were fires.

2011 Responses by Incident Type



Essex County Fire Departments Reported Giving Mutual Aid 1,266 Times

In 2011, Essex County fire departments reported coming to the aid of other fire departments 1,266 times. Of these 1,266 responses, 436, or 34%, were for rescue or EMS calls; 405, or 32%, were for service calls such as cover assignments; 203, or 16%, were for good intent calls; 125, or 10%, were for fires; 64, or 5%, were for false alarms or false calls; 26, or 2%, were for hazardous conditions calls with no fire; four, or 0.3%, were special incident types; two, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one or 0.1%, was for a severe weather call.

Essex County Received Mutual Aid in 1,401 Incidents

In 2011, Essex County fire departments reported receiving aid from surrounding departments in 1,401 incidents. Of these 1,401 incidents, 898, or 64%, were rescue and emergency medical services calls; 174, or 12%, were for fires; 151, or 11%, were false alarms or false calls; 63, or 4%, were service calls; 56, or 4%, were good intent calls; 49, or 3%, were hazardous conditions calls with no fire; five, or 0.4%, were reported overpressure, rupture, explosion or overheat calls with no fire; and another five, or 0.4%, were for severe weather or natural disaster calls.

Essex County

Population: 743,159

4.0 Fires/1,000 Population

Total Fires: 2,992 \$32,041,000

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,879	63%	\$29,608,520
Vehicle Fires	286	10%	2,285,305
Other Fires	827	28%	147,175

10 Fatal Fires 3.34 Civilian Deaths/1,000 Fires
 10 Civilian Deaths 0.13 Civilian Deaths/10,000 Population
 1 Fire Service Death 21 Civilian Injuries 46 Fire Service Injuries

Building Fires: 1,868

Residential Structure Fires: 1,575

Residential Structure Fires Confined to Non-Combustible Containers: 1,256

Unconfined Residential Structure Fires: 319

7 Civilian Deaths 1 Fire Service Death 23 Civilian Injuries 43 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	710	45%	Operated	969	62%
Apartments	705	45%	Didn't operate	21	1%
Rooming houses	43	3%	None	33	2%
Residential board & care	27	2%	Fire too small	41	3%
Dormitories	24	2%	Didn't alert (confined)	143	9%
Hotels/motels	8	1%	Undetermined	365	23%

Area of Origin ⁴	%	Heat Source	%	%Unconfined ⁵
Kitchen	66%	Heat from operating equip.	3%	13%
Heating equipment room	11%	Arcing	2%	12%
Chimney or flue	5%	Radiated heat from oper. eq.	2%	8%
Bedroom	2%	Hot or smoldering obj., other	1%	7%
Wall assembly, concealed space	1%	Cigarettes	1%	6%
Laundry room	1%	Hot ember or ash	1%	6%

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	63%	Too close to combustibles	2%	8%
Flammable/comb. liquid	11%	Electrical failure, malfunc.	2%	8%
Film, residue (creosote)	5%	Abandoned materials	1%	7%
Rubbish, trash, waste	2%	Equipment unattended	1%	6%
Structural member, framing	2%	Misuse of materials	1%	3%

Equipment⁸		Cause of Ignition	%	%Unconfined⁹
Kitchen & cooking equipment	63%	Unintentional	11%	55%
None	17%	Failure of eq. or heat source	3%	13%
Boiler, furnace, cent. heat. unit	11%	Intentional	1%	4%
Chimney, flue	5%	Undetermined	1%	6%
Clothes dryer	1%	Cause under investigation	4%	19%
		Act of Nature	0.2%	1%

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

Alerted occupants	65%
Didn't alert occupants	11%
Undetermined	24%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	214	162	23	29
February	211	168	23	20
March	266	165	26	75
April	286	153	18	115
May	267	164	13	90
June	269	136	32	101
July	275	128	28	119
August	238	153	21	64
September	218	142	22	54
October	238	148	38	52
November	253	171	20	62
December	257	189	22	46

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	459	281	25	153
Monday	412	245	47	120
Tuesday	416	258	56	102
Wednesday	390	254	36	100
Thursday	390	257	40	93
Friday	450	282	40	128
Saturday	475	302	42	131

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	215	128	36	51
04:01 - 08:00	193	117	35	41
08:01 - 12:00	513	354	52	107
12:01 - 16:00	747	440	67	240
16:01 - 20:00	874	570	64	241
20:01 - 00:00	449	270	32	147

Motor Vehicle Fires

Total: 286

Automobiles: 250 (87%)

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

Arson Fires

Total Arsons: 106

Dollar loss: \$700,700

0.14 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	23	1%	22%	\$640,500
Vehicle Arsons	18	6%	17%	59,600
Other Arsons	65	8%	61%	600

0.03 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.09 Other arsons/1,000 population

2 Civilian Deaths

2 Civilian Injuries

6 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	7	30%	00:01 - 04:00	9	50%
20:01 - 00:00	5	22%	04:01 - 08:00	4	22%

Other Arsons	#	%
16:01 - 20:00	22	34%
20:01 - 00:00	21	32%
12:01 - 16:00	14	22%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	9	39%
Apartment buildings	8	35%
Schools, non-adult	2	9%

Amesbury					Population: 16,283			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	53	31	4	18	0	0	0	0
2008	64	33	12	19	1	1	0	0
2009	52	35	8	9	1	0	0	1
2010	51	26	4	21	0	0	0	0
2011	55	26	12	17	1	0	0	1

Andover					Population: 33,201			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	184	57	19	108	3	2	0	1
2008	146	78	32	36	0	0	0	0
2009	127	75	22	30	4	1	1	2
2010	130	59	24	47	1	1	0	0
2011	109	54	17	38	4	0	0	4

Beverly					Population: 39,502			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	156	71	14	71	5	2	0	3
2008	159	100	18	41	5	3	1	1
2009	128	66	17	45	5	0	2	3
2010	118	51	13	54	2	1	0	1
2011	105	64	8	33	7	2	2	3

Boxford					Population: 7,965			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	46	29	6	11	2	1	0	1
2008	34	20	0	14	2	0	0	2
2009	25	12	5	8	1	0	0	1
2010	30	9	9	12	0	0	0	0
2011	30	19	6	5	0	0	0	0

Danvers					Population: 26,493			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	186	55	13	118	0	0	0	0
2008	118	44	10	64	3	1	1	1
2009	90	31	13	46	1	0	1	0
2010	188	52	13	123	9	1	0	8
2011	93	43	15	35	2	0	0	2

Essex					Population: 3,504			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	7	4	3	0	0	0	0	0
2009	27	11	5	11	1	0	0	1
2010	15	7	2	6	0	0	0	0
2011	17	11	1	5	0	0	0	0

Georgetown					Population: 8,183			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	50	36	3	11	0	0	0	0
2008	55	49	1	5	1	0	0	1
2009	70	59	5	6	0	0	0	0
2010	71	58	2	11	0	0	0	0
2011	55	50	4	1	0	0	0	0

Gloucester					Population: 28,789			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	217	95	11	111	8	1	0	7
2008	164	100	17	47	7	0	1	6
2009	124	65	20	39	7	1	1	5
2010	164	91	9	64	7	1	1	5
2011	111	56	10	45	2	0	0	2

Groveland					Population: 6,459			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	3	3	0	0	0	0	0	0
2008	2	1	1	0	0	0	0	0
2009	6	4	2	0	0	0	0	0
2010	3	2	1	0	0	0	0	0
2011	2	1	1	0	0	0	0	0

Hamilton					Population: 7,764			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	52	27	5	20	4	0	0	4
2008	31	17	4	10	1	0	0	1
2009	21	16	2	3	0	0	0	0
2010	56	36	2	18	0	0	0	0
2011	51	41	0	10	0	0	0	0

Haverhill					Population: 60,879			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	374	225	25	124	63	4	0	59
2008	311	209	8	94	52	2	0	50
2009	305	182	21	102	69	1	1	65
2010	227	158	10	59	36	2	0	34
2011	279	169	16	94	32	1	0	31

Ipswich					Population: 13,175			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	39	20	1	18	0	0	0	0
2008	41	19	7	15	1	0	0	1
2009	24	13	7	4	2	0	0	2
2010	30	9	2	19	3	0	0	3
2011	18	4	3	11	1	0	0	1

Lawrence **Population: 76,377**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	282	134	67	81	43	12	9	22
2008	260	136	40	84	11	5	5	1
2009	219	114	45	62	43	17	6	20
2010	412	208	45	159	25	6	9	10
2011	251	127	53	71	31	15	13	3

Lynn **Population: 90,329**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	128	87	38	3	3	3	0	0
2008	126	83	42	1	8	2	6	0
2009	257	199	19	39	4	3	1	0
2010	482	378	20	84	5	2	2	1
2011	540	428	14	98	6	0	0	6

Lynnfield **Population: 11,596**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	80	45	2	33	1	1	0	0
2008	57	31	4	22	1	0	0	1
2009	83	54	10	19	1	0	0	1
2010	94	50	7	37	2	1	0	1
2011	105	83	7	15	1	0	0	1

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	36	17	4	15	1	0	0	1
2008	27	18	1	8	0	0	0	0
2009	27	16	5	6	0	0	0	0
2010	29	14	5	10	1	0	0	1
2011	25	14	2	9	1	0	1	0

Marblehead					Population: 19,808			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	67	33	3	31	0	0	0	0
2008	52	25	7	20	5	1	0	4
2009	39	25	3	11	2	0	0	2
2010	43	20	2	21	1	1	0	0
2011	27	19	1	7	1	1	0	0

Merrimac					Population: 6,338			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	39	15	5	19	4	0	0	4
2008	49	27	2	20	5	0	0	5
2009	62	35	4	23	9	0	0	9
2010	63	28	10	25	12	0	1	11
2011	41	21	5	15	3	0	0	3

Methuen					Population: 47,255			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	198	79	19	100	2	0	1	1
2008	118	55	29	34	2	0	1	1
2009	150	86	23	41	4	1	1	2
2010	189	105	25	59	12	3	2	7
2011	133	61	27	45	2	1	0	1

Middleton					Population: 8,987			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007 ¹⁰	212	160	6	46	0	0	0	0
2008	169	137	1	31	3	1	0	2
2009	125	113	2	10	1	0	0	1
2010	187	146	5	36	0	0	0	0
2011	157	139	5	13	0	0	0	0

¹⁰ The large increase in fires is due to a correction in coding. Middleton stopped using the alarm/detector activation incident type codes (740 series) for confined cooking fires.

Nahant					Population: 3,410			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	7	1	0	6	0	0	0	0
2008	11	2	0	9	3	0	0	3
2009	7	3	1	3	0	0	0	0
2010	9	4	0	5	0	0	0	0
2011	12	6	0	6	0	0	0	0

Newbury					Population: 6,666			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	11	3	3	5	1	0	0	1
2008	6	3	3	0	0	0	0	0
2009	21	13	1	7	1	1	0	0
2010	53	30	2	21	4	0	0	4
2011	14	9	2	3	1	1	0	0

Newburyport					Population: 17,416			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	19	13	4	2	1	1	0	0
2008	8	5	2	1	0	0	0	0
2009	13	6	1	6	0	0	0	0
2010	18	13	4	1	0	0	0	0
2011	21	15	5	1	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
2007	134	78	10	46	1	0	0	1
2008	121	76	12	33	0	0	0	0
2009	135	104	8	23	1	0	0	1
2010	145	84	12	49	12	3	2	7
2011	158	118	11	29	2	0	0	2

Peabody					Population: 51,251			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	240	80	17	143	4	0	1	3
2008	180	74	22	84	4	1	1	2
2009	127	61	21	45	2	0	0	2
2010	193	79	19	95	2	0	0	2
2011	154	69	17	68	1	0	1	0

Rockport					Population: 6,952			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	22	7	1	14	0	0	0	0
2008	13	5	2	6	0	0	0	0
2009	10	7	1	2	0	0	0	0
2010	12	9	0	3	0	0	0	0
2011	15	7	1	7	0	0	0	0

Rowley					Population: 5,856			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	57	17	7	33	2	1	0	1
2008	28	14	5	9	0	0	0	0
2009	27	20	5	2	0	0	0	0
2010	20	7	2	11	0	0	0	0
2011	44	33	6	5	0	0	0	0

Salem					Population: 41,340			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	300	97	20	183	12	1	0	11
2008	189	78	14	97	2	0	1	1
2009	171	59	25	87	10	1	3	6
2010	174	73	9	92	3	0	2	1
2011	128	51	14	63	3	1	1	1

Salisbury					Population: 8,283			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	31	10	7	14	1	0	0	1
2008	19	6	6	7	0	0	0	0
2009	10	3	5	2	0	0	0	0
2010	29	12	7	10	1	0	0	1
2011	4	1	2	1	0	0	0	0

Saugus					Population: 26,628			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	221	62	14	145	7	0	0	7
2008	165	69	12	84	14	2	0	12
2009	166	68	14	84	7	1	1	5
2010	170	57	20	93	8	0	0	8
2011	114	49	12	53	5	1	0	4

Swampscott					Population: 13,787			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	57	25	3	29	1	1	0	0
2008	56	30	5	21	1	1	0	0
2009	40	23	4	13	8	4	0	4
2010	63	27	4	32	1	0	0	1
2011	36	14	7	15	0	0	0	0

Topsfield					Population: 6,085			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	115	74	6	35	6	0	1	5
2008	73	64	1	8	0	0	0	0
2009	70	55	5	10	2	0	0	2
2010	80	63	3	14	4	0	0	4
2011	66	58	1	7	0	0	0	0

Wenham					Population: 4,875			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	16	6	3	7	2	1	0	1
2008	21	15	2	4	1	0	0	1
2009	16	9	4	3	0	0	0	0
2010	19	11	2	6	1	1	0	0
2011	12	10	0	2	0	0	0	0

West Newbury					Population: 4,235			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	4	2	0	2	0	0	0	0
2008	6	1	1	4	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	7	1	1	5	0	0	0	0
2011	10	9	1	0	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
09007	Amesbury	3,532	66	2	2,092	160	681	217	306	2	6
09009	Andover	2,972	109	3	1,200	254	211	109	745	1	340
09030	Beverly	3,917	109	13	1,994	250	278	202	1,051	6	14
09038	Boxford	673	36	2	332	62	45	36	137	22	1
09071	Danvers	6,864	93	3	2,708	196	2,785	161	828	6	84
09092	Essex	173	23	0	37	37	15	8	45	8	0
09105	Georgetown	1,167	58	2	509	78	331	37	146	6	0
09107	Gloucester	4,174	111	1	2,787	179	338	288	459	1	10
09116	Groveland	2	2	0	0	0	0	0	0	0	0
09119	Hamilton	423	52	0	28	70	81	39	148	5	0
09128	Haverhill	2,198	279	4	1,216	81	161	102	348	1	6
09144	Ipswich	1,316	18	3	719	105	127	89	255	0	0
09149	Lawrence	6,462	251	2	3,457	231	372	164	1,958	0	27
09163	Lynn	10,487	549	11	5,965	333	1,013	502	2,095	4	15
09164	Lynnfield	1,563	113	2	944	109	139	70	180	5	1
09166	Manchester	1,007	35	5	435	125	129	72	203	1	2
09168	Marblehead	2,539	33	3	880	158	491	561	390	10	13

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
09180	Merrimac	802	59	1	499	31	72	55	70	13	2
09181	Methuen	6,174	134	3	4,361	293	431	246	691	1	14
09184	Middleton	1,803	162	3	765	103	310	127	324	2	7
09196	Nahant	558	16	1	298	57	71	28	74	1	12
09205	Newbury	449	16	1	263	25	32	28	82	0	2
09206	Newburyport	24	21	0	0	3	0	0	0	0	0
09210	North Andover	4,184	159	11	2,660	218	327	171	570	2	66
09229	Peabody	6,937	154	9	4,163	367	438	670	1,122	7	7
09252	Rockport	201	15	0	9	56	16	7	98	0	0
09254	Rowley	589	50	0	323	26	45	62	80	3	0
09258	Salem	6,010	128	10	3,056	493	571	326	1,418	4	4
09259	Salisbury	4	4	0	0	0	0	0	0	0	0
09262	Saugus	4,737	126	2	2,764	268	332	513	643	18	71
09291	Swampscott	2,029	46	5	1,057	194	202	127	312	84	2
09298	Topsfield	2,240	66	2	628	49	1,350	28	115	2	0
09320	Wenham	563	12	3	253	55	76	54	108	1	1
09324	West Newbury	318	12	0	180	23	51	12	39	0	1
	Essex County	87,091	3,117	107	46,582	4,689	11,521	5,111	15,040	216	708

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.

Lawrence Fires in 2011

251 Total Fires — 127 Structures, 53 Vehicles & 71 Other Fires

The Lawrence Fire Department reported 251 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 127 structure fires, 53 motor vehicle fires, 46 brush fires, 22 outside rubbish fires, and three unclassified fires caused one civilian death, five civilian injuries, eight fire service injuries and an estimated dollar loss of \$2.6 million.

1 Lawrence Resident Killed in Domestic Violence Fire

- On October 7, 2011, at 10:23 a.m., the Lawrence Fire Department was called to a fatal arson fire at a 90-unit apartment building. The deceased, a 55-year old woman, was the victim of a domestic violence homicide. The 79-year old arsonist's clothing had also ignited while he escaped and he received burns to multiple parts of his body. No one else was injured at this fire. Detectors were present and alerted the other occupants of the building. The building was not sprinklered. Damages were estimated to be \$85,000.

Structure & Outside Fires Down

Total fires decreased by 161 from the 412 incidents reported in 2010. Reported structure fires decreased by 81 from the 208 reported during the previous year. Motor vehicle fires increased by eight from the 45 reported in 2010. Outside and other fires decreased by 88 from 159 in 2010.

LAWRENCE FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	282	134	67	81	43	12	2	22
2008	260	136	40	84	11	5	5	1
2009	219	112	45	62	43	17	6	20
2010	412	208	45	159	25	6	9	10
2011	251	127	53	71	31	15	13	3

BUILDING FIRES

There were 126 building fires of different types in Lawrence in 2011. These 126 building fires accounted for 99.2% of all structure fires in Lawrence.

63% of Building Fires in Homes

The 126 building fires that occurred in Lawrence in 2011 can be broken down by fixed property use as follows: 80, or 63% of all building fires, were in residential properties; 25 fires happened in special properties; seven fires were at educational facilities; four fires occurred in public assembly properties; another four fires occurred in mercantile or business properties; three fires occurred in manufacturing or processing facilities, one fire

occurred in an institutional facility; another fire happened at an industrial facility and one fire occurred in a storage facility.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 80 reported residential building fires in Lawrence in 2011. These 80 fires were a decrease of 85, or 52%, from the 165 residential building fires reported in 2010.

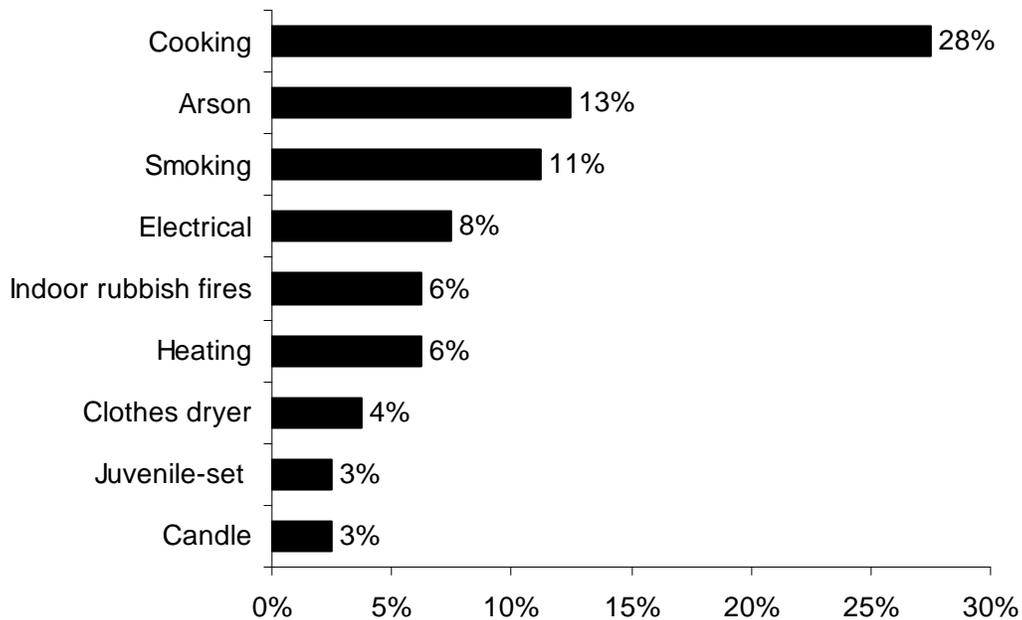
Apartments Accounted for 58% of Residential Building Fires

The peak fixed property uses for residential building fires in Lawrence were apartments, accounting for 58% of the residential building fires. Thirty-five percent (35%) occurred in 1- or 2-family homes; and 6% occurred in rooming houses. One percent (1%) of these fires happened in unclassified residential properties.

Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Lawrence was unattended cooking and other unsafe cooking practices, accounting for 28% of these fires. Arsons caused 13% of these fires. Eleven percent (11%) of were smoking fires. Electrical problems accounted for 8% of the fires in residential occupancies. Indoor rubbish fires and heating equipment each caused 6% of the residential fires in Lawrence in 2011. Clothes dryers were the cause of 4% and juvenile-set fires and candles each accounted for 3% of Lawrence’s residential fires in 2011.

2011 Leading Causes of Fires in Lawrence Homes



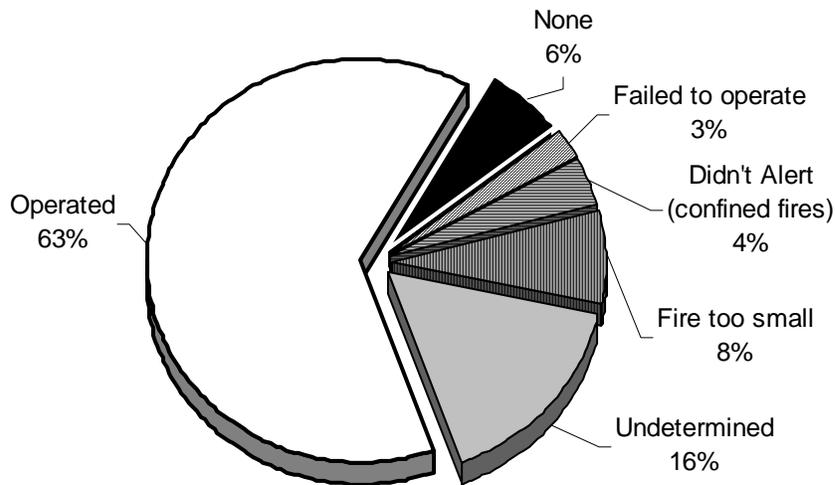
28% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Twenty-two (22), or 28% of all residential building fires were confined to non-combustible containers in 2011. Fifteen (15), or 19% of all residential building fires reported in 2011, were cooking fires contained to a non-combustible container. Four (4), or 5%, of all residential building fires were fuel burner or boiler malfunctions. Three (3), or 4%, of these fires were rubbish fires contained to a non-combustible container.

Detectors Alerted Occupants in Almost 2/3 of Fires

Smoke or heat detectors operated and alerted the occupants in 51, or 63%, of the residential building fires. In 4% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 6% 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 13 incidents, or 16% of Lawrence's residential building fires.

Detector Status in Lawrence Residential Fires 2011



Undetermined Why Detectors Failed

It was undetermined in both cases why the detectors failed to operate.

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

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

VACANT BUILDINGS

6% of Building Fires Occurred in Vacant Buildings

Lawrence reported eight fires that occurred in buildings that were vacant, under construction or demolition. This represented 6% of the total 126 building fires reported to MFIRS in 2011. Four (4) one- or two-family homes, three apartment buildings, and one unclassified business were reported as vacant building fire incidents.

JUVENILE-SET FIRES

4 Juvenile-set Fires

There were four juvenile-set fires in Lawrence in 2011. Three (3) of these fires were structure fires and one was an outside rubbish fire causing one fire service injury and an estimated \$61,000 in damages.

ARSONS

31 Total Arsons - 16 Structures, 13 Motor Vehicles & 3 Other

Thirty-one (31), or 12%, of Lawrence's 251 fires were considered intentionally set, or, for purposes of this analysis, arson. The 16 structure arsons, 13 motor vehicle arsons and 3 outside and other arsons caused one civilian death, two civilian injuries, four fire service injuries and an estimated dollar loss of \$399,500.

Structure & MV Arson Is Up

The total number of arsons increased by six from the 25 reported in 2010. Reported structure arsons increased by nine from the six reported in 2010. Motor vehicle arsons increased by four from nine in 2010. Outside and other arsons decreased by 7 from the 10 reported last year.

ALL INCIDENTS

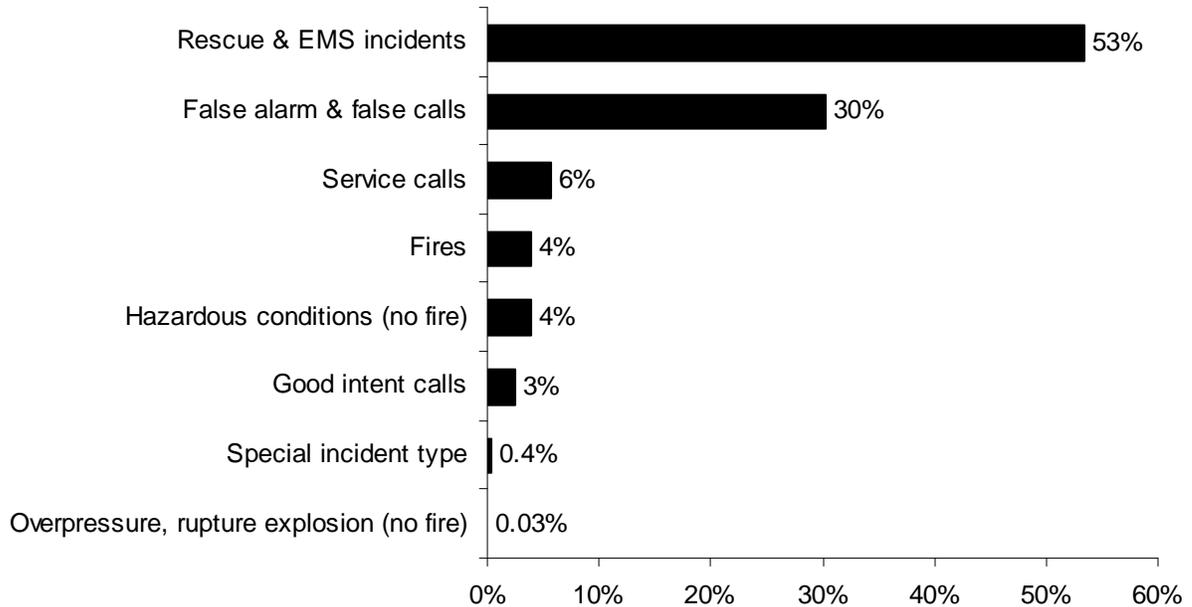
Rescue & EMS Calls Were Over 1/2 of All Reported Incidents

In 2011, Lawrence voluntarily reported 6,462 incidents to MFIRS. Of these 6,462 incidents, 6,211, or 96%, were non-fire incidents.

Of these 6,211 non-fire incidents 3,457, or 53% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 1,958, or 30%, were reported false alarm or false calls; 372, or 6%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 231, or 4%, were reported hazardous condition calls with no fire; 164, or 3%, were reported good intent calls; 27, or 0.4%, were special incident types; and two, or 0.03%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2011, Lawrence reported 251 fires³, accounting for 4% of all reported incidents.

2011 Incidents by Incident Type



Lawrence Gave Mutual Aid in 21 Reported Incidents

In 2011, Lawrence reported coming to the aid of other fire departments 21 times. All of these incidents were service calls such as station coverage.

Lawrence Received Aid in 10 Reported Incidents

In 2011, Lawrence reported receiving mutual aid at 10 incidents. Three (3), or 30%, of these incidents were fires; another three, or 30% were false alarms; three more, or 30%, were for rescue or EMS calls; and one, or 10%, was for a service call.

³ This figure includes the mutual aid calls that Lawrence responded to outside of their jurisdiction.

Lawrence**Population: 76,377****5.2 Fires/1,000 Population****Total Fires: 251 \$2,554,740**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	127	50%	\$2,443,790
Vehicle Fires	53	11%	105,950
Other Fires	71	39%	5,000

1 Civilian Death 3.98 Civilian Deaths/1,000 Fires
 1 Fatal Fire 0.13 Civilian Deaths/10,000 Population
 5 Civilian Injuries 8 Fire Service Injuries

Building Fires: 126**Residential Building Fires: 80****Residential Building Fires Confined to Non-Combustible Containers: 22****Unconfined Residential Building Fires: 58**

1 Civilian Death 5 Civilian Injuries 5 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	46	58%	Operated	51	63%
1- & 2-Family homes	28	35%	Didn't operate	2	3%
Rooming houses	5	4%	None	5	6%
Residential, other	1	1%	Fire too small	6	8%
			Didn't Alert (confined)	3	4%
			Undetermined	13	16%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	34%	Radiated heat from op. eq.	6%	9%
Bedroom	10%	Arcing.	6%	9%
Wall assembly, concealed	6%	Cigarette	5%	7%
Bathroom	5%	Hot or smoldering object	5%	7%
Heating room or area	5%	Heat from operating equip.	5%	7%
Laundry room	5%			

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignition	%	%Unconfined⁷
Cooking materials	25%	Equipment unattended	5%	7%
Rubbish, trash, waste	8%	Too close to combustibles	4%	5%
		Abandoned materials	4%	5%
		Accident. turned on/not off	4%	5%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
None	59%	Unintentional	40%	55%
Cooking equipment	23%	Failure of eq./heat source	3%	3%
Boiler, furnace, cent. heating unit	5%	Cause under investigation	8%	10%
Clothes dryer	4%	Intentional	10%	17%
Fan	3%	Undetermined	10%	14%

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

Alerted Occupants	68%
Didn't Alert Occupants	14%
Undetermined	18%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	3,457	53%
False alarms & false calls	1,958	30%
Service calls	372	6%
Fires ¹⁰	251	4%
Hazardous conditions (no fire)	231	4%
Good intent calls	164	3%
Special incident type	27	0.4%
Overpressure rupture, explosion or overheat calls (no fire)	2	0.03%
Severe weather & natural disaster	0	0%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This figure includes the 4 mutual aid calls that Lawrence responded to outside of their jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	13	6	5	2
February	11	6	4	1
March	20	11	3	6
April	24	13	4	7
May	23	12	2	9
June	27	12	8	7
July	35	17	6	12
August	20	11	3	6
September	14	9	4	1
October	25	11	10	4
November	24	11	2	11
December	15	8	2	5

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	32	18	2	12
Monday	45	17	13	15
Tuesday	38	21	6	11
Wednesday	22	10	6	6
Thursday	38	21	9	8
Friday	34	20	8	6
Saturday	42	20	9	13

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	43	24	17	4
04:01 - 08:00	20	7	5	4
08:01 - 12:00	28	14	5	10
12:01 - 16:00	57	29	13	16
16:01 - 20:00	60	28	7	24
20:01 - 24:00	43	25	10	13

Motor Vehicle Fires

Total: 53

Automobiles: 48 (91%)

13 (27%) of the automobile fires considered intentionally set.

Arson Fires**Total Arsons: 31****Dollar loss: \$399,500****0.41 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	15	12%	48%	\$345,500
Vehicle Arsons	13	25%	42%	54,000
Other Arsons	3	4%	10%	0

1 Civilian Death

2 Civilian Injuries

4 Fire Service Injuries

0.20 Structure arsons/1,000 population

0.17 Vehicle arsons/1,000 population

0.04 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	5	33%	00:01 - 04:00	7	54%
20:01 - 00:00	3	20%	04:01 - 08:00	3	23%
00:01 - 04:00	2	13%	12:01 - 16:00	1	8%
08:01 - 12:00	2	13%	16:01 - 20:00	1	8%
16:01 - 20:00	2	13%	20:01 - 00:00	1	8%

Outside & Other Arsons

16:01 - 20:00	2	67%
12:01 - 16:00	1	33%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	7	47%
1- or 2-Family homes	3	20%
Schools, non-adult	2	13%
Mercantile, business, other	1	7%

Lynn Fires in 2011

540 Total Fires — 428 Structures, 14 Vehicles & 98 Other Fires

The Lynn Fire Department reported 540 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 428 structure fires, 14 motor vehicle fires, 77 outside rubbish fires, 16 brush fires, four special outside fires; and one unclassified fire caused one civilian death and an estimated dollar loss of \$20,000.

1 Man Killed in Fiery Motor Vehicle Crash

- On October 15, 2011, at 11:55 p.m., the Lynn Fire Department was called to a fatal motor vehicle crash. The crash between the two vehicles started an ensuing fire. Upon arrival, firefighters were able to extricate the victim and extinguish the fire. The victim, a 58-year old man was transported to a local hospital with burn injuries. He later succumbed to those injuries. No one else was injured at this fire.

Structure Fires Up in 2011

Total fires increased by 58, or 12%, from the 482 incidents reported in 2010. Reported structure fires increased by 50 from the 378 reported during the previous year. Motor vehicle fires decreased by six from 20 the year before. Outside and other fires increased by 14 from the 84 reported in 2010.

LYNN FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	128	87	38	3	4	4	0	0
2008	126	83	42	1	8	2	6	0
2009 ¹	257	199	19	39	4	3	1	0
2010	482	378	20	84	5	2	2	1
2011	540	428	14	98	6	0	0	6

BUILDING FIRES

There were 428 building fires of different types in Lynn in 2011. These 428 building fires accounted for all structure fires in Lynn.

89% of Building Fires in Homes

The 428 building fires that occurred in Lynn in 2011 can be broken down by fixed property use as follows: 381, or 89% of all building fires, were in residential properties; 16 fires occurred in institutional facilities; nine fires occurred in special properties; another nine fires occurred in public assembly properties; six happened in mercantile or business properties; five fires occurred in educational facilities; and two fires were reported to have occurred at storage facilities.

¹ In July 2009, Lynn began reporting all incidents not just the mandated fires & explosions with a dollar loss or human casualty.

RESIDENTIAL FIRES

Residential Building Fires Up

There were 381 reported residential building fires in Lynn in 2011. These 381 fires are an increase of 51 from the 330 reported residential building fires reported in 2010.

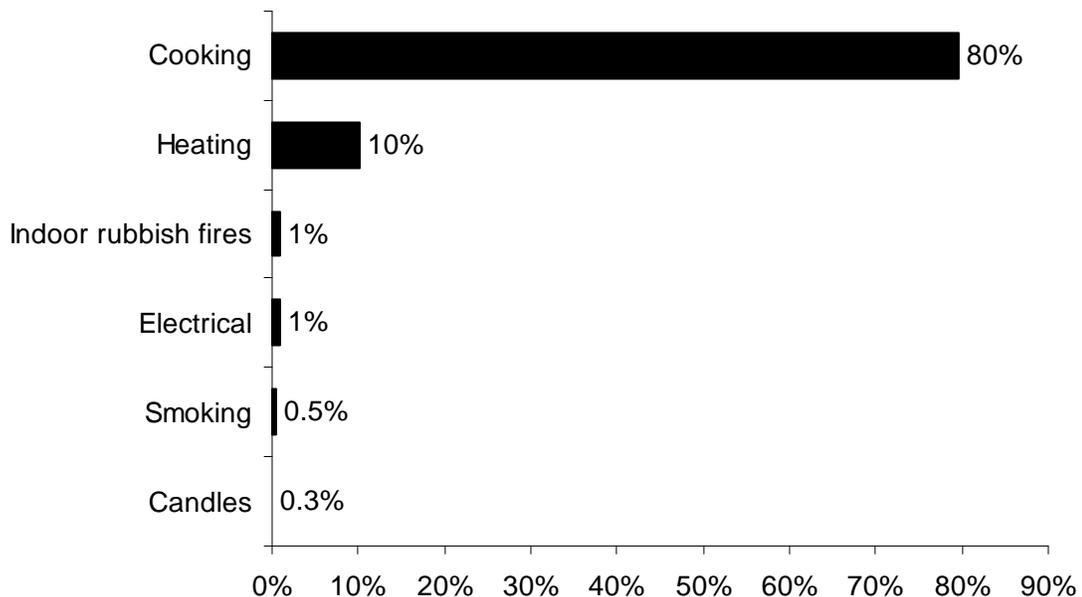
Apartments Accounted for Over 3/4 of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 76% of the building fires in Lynn; 17% occurred in 1- or 2-family homes; 6% happened in rooming houses; 1% occurred in residential board and care facilities and less than 1% happened in hotels or motels.

Unattended Cooking Caused 80% of Residential Fires

The leading cause of residential building fires in Lynn was unattended cooking and other unsafe cooking practices, accounting for 80% of these fires. Heating fires caused 10% of these fires. Indoor rubbish fires and electrical problems each caused 1% of the fires. Smoking and candles were each the cause of less than 1% of the fires in Lynn's residential occupancies in 2011.

2011 Leading Causes of Fires in Lynn Homes



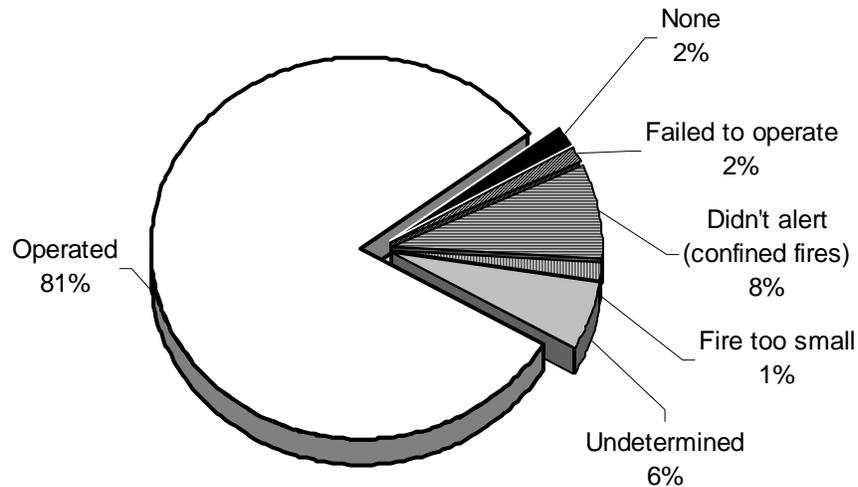
90% of Residential Building Fires Are Confined to Non-Combustible Containers²

Three hundred and forty-two (342), or 90% of all residential building fires were confined to non-combustible containers in 2011. Two hundred and ninety-eight (298), or 78%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Thirty-three (33), or 9%, were fires confined to a fuel burner or boiler malfunction. Five (5) fires, or 1%, were reported to have been contained to a chimney or flue. Five (5) fires, or 1%, were rubbish fires contained to a non-combustible container; and one fire, or less than 1%, was confined to an incinerator.

Detector Operated in 81% of Fires

Smoke or heat detectors operated and alerted the occupants in 310, or 81%, of the residential building fires. In 8% of these fires³, the detectors did not alert the occupants. There were no detectors in 2% of these fires. Detectors were present but did not operate in 2% of these incidents. The fire was too small to trigger the detector in 1% of these fires. Smoke detector performance was undetermined in 22 incidents, or 6% of Lynn's residential building fires.

Detector Status in Lynn's Residential Fires 2011



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 From Missing Batteries

Two (2) detectors failed because of missing batteries. Another two failed from dead batteries. One (1) detector failed because of improper installation or placement. It was undetermined in one fire why the detector failed.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Lynn reported four fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 428 building fires reported to MFIRS in 2011. Two (2) apartment buildings and two single- or two-family homes were reported as vacant building fire incidents.

JUVENILE-SET FIRES

1 Juvenile-set Fires

Lynn reported one juvenile-set fire in 2011, it was a brush fire.

ARSONS

6 Arsons - 0 Structure, 0 Motor Vehicle and 6 Outside & Other

Six (6), or 1%, of Lynn's 540 fires were considered intentionally set, or, for purposes of this analysis, arson. There were three brush arsons, two outside rubbish arson and one special outside arson.

All Arsons Up Slightly in 2011

The total number of arsons increased slightly in 2011 with six reported in 2011 and five in 2010. Reported structure arsons decreased by two from the two reported in 2010. Reported motor vehicle arsons decreased by two from the two arsons reported in 2010. Outside and other arsons increased by five from one reported the year before.

39 Fires Reported as Undetermined or Still Under Investigation

In 2011, Lynn reported 39 fires under investigation or cause undetermined after investigation. Five (5), or 13%, of these fires were reported to be undetermined after investigation. The other 34, or 87%, were still under investigation.

Twenty-eight (28), or 72%, of these 39 fires were structure fires. Five (5), or 13% were motor vehicle fires; and six, or 15%, were outside or other fires. Because so many fires are under investigation or undetermined after investigation, the true arson number might be actually higher in Lynn in 2011.

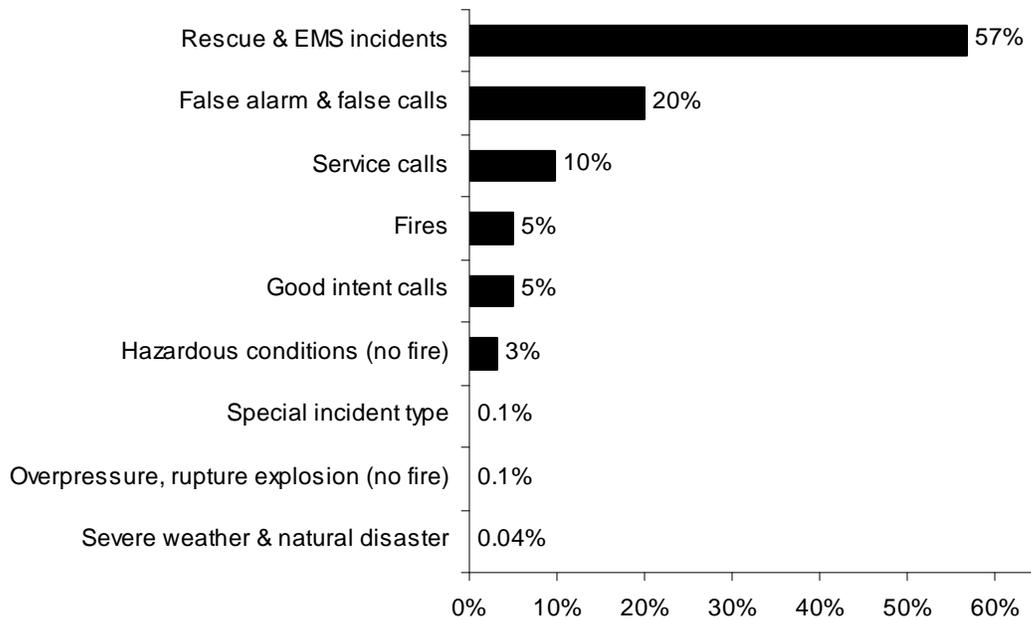
Rescue & EMS Calls Are 57% of All Reported Incidents

In 2011, Lynn voluntarily reported 10,487 incidents to MFIRS. Of these 10,487 incidents, 9,938, or 95%, were non-fire incidents.

Of these 9,938 non-fire incidents 5,965, or 57% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 2,095, or 20%, were reported false alarm or false calls; 1,013, or 10%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 502, or 5%, were reported good intent calls; 333, or 3%, were reported hazardous condition calls with no fire; 15, or 0.1%, were special type incidents; 11, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and four, or 0.04%, were responses to incidents caused by severe weather.

In 2011, Lynn reported 504 fires, accounting for 5% of all reported incidents.

2011 Incidents by Incident Type



Lynn Gave Mutual Aid in 47 Incidents

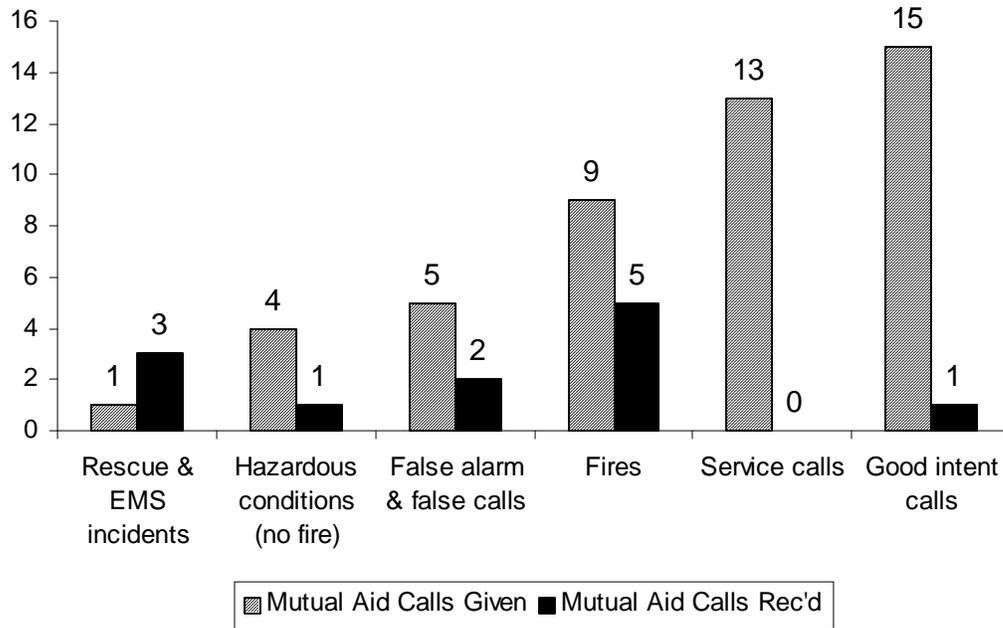
In 2011, Lynn reported giving mutual aid to other surrounding fire departments in 47 incidents. Fifteen (15), or 32% were for good intent calls; 13, or 28% were for service calls, nine, or 19%, were for fires; five, or 11%, were for false alarm or false calls; and one, or 2%, was for a rescue or EMS call.

Lynn Received Mutual Aid in 12 Incidents

In 2011, surrounding fire departments gave aid to Lynn in seven incidents. Of these 12 incidents, five, or 42%, were fires; three, or 25%, were rescue or EMS calls; two, or 17%, were false alarm or false calls; one, or 8% was a good intent call; and another call, or 8%, was for a hazardous condition with no fire.

The following chart compares the number of calls that the Lynn Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Lynn. In 2011 Lynn gave aid to other fire departments almost four times as much as they were asked for it.

Lynn's Mutual Aid Calls in 2011



Lynn**Population: 90,329****6.0 Fires/1,000 Population****Total Fires: 540 \$20,000**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	428	79%	\$20,000
Vehicle Fires	20	3%	0
Other Fires	98	18%	0

1 Civilian Death 1.85 Civilian Deaths/1,000 Fires
 1 Fatal Fire 0.11 Civilian Deaths/10,000 Population
 No Injuries

Building Fires: 428**Residential Structure Fires: 381****Residential Structure Fires Confined to Non-Combustible Containers: 342****Unconfined Residential Structure Fires: 39**

No Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	288	76%	Operated	310	81%
1- & 2-Family homes	64	17%	Didn't operate	6	2%
Boarding houses	23	6%	None	7	2%
Residential board & care	5	1%	Fire too small	5	1%
Hotel or motel	1	0.3%	Didn't Alert (confined)	31	8%
			Undetermined	22	6%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	80%	Radiated heat from op. eq.	1%	13%
Heating room or area	9%	Cigarettes	1%	5%
Chimney or flue	1%	Arcing	1%	5%
Bedroom	1%			
Bathroom	1%			

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignition	%	%Unconfined⁷
Cooking materials	80%	Too close to combustibles	1%	8%
Flammable or combustible liq.	9%	Abandoned materials	1%	5%
Rubbish, trash, waste	2%	Equipment unattended	1%	5%
Film, residue (creosote)	1%			

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	78%	Unintentional	3%	33%
Boiler, furnace, cent. heat. unit	9%	Failure of eq./heat source	0.3%	3%
None	9%	Undetermined	0%	0%
Chimney, flue	1%	Cause Under Investigation	7%	64%

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

Alerted Occupants	85%
Didn't Alert Occupants	9%
Undetermined	6%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	5,965	57%
False alarms & false calls	2,095	20%
Service calls	1,013	10%
Fires ¹⁰	549	5%
Good intent calls	502	5%
Hazardous conditions (no fire)	333	3%
Special Incident Types	15	0.1%
Overpressure rupture, explosion or overheat calls (no fire)	11	0.1%
Severe weather & natural disaster	4	0.04%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This includes the fires that Fitchburg responded to outside of their jurisdiction as mutual aid given.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	42	42	0	0
February	42	40	2	0
March	49	38	2	9
April	53	39	2	12
May	47	35	0	12
June	40	24	0	16
July	47	28	0	19
August	43	43	0	0
September	38	28	1	9
October	47	36	5	6
November	55	44	1	10
December	37	31	1	5

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	90	67	1	22
Monday	72	56	4	12
Tuesday	75	62	1	12
Wednesday	73	63	1	9
Thursday	65	51	2	12
Friday	79	63	1	15
Saturday	86	66	4	16

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	38	31	2	5
04:01 - 08:00	29	26	2	1
08:01 - 12:00	94	76	3	15
12:01 - 16:00	129	102	1	26
16:01 - 20:00	152	121	3	28
20:01 - 24:00	98	72	3	23

Motor Vehicle Fires

Total: 14

Automobiles: 14 (100%)

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

Arson Fires**Total Arsons: 6****Dollar loss: \$0****0.07 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	6	6%	100%	0

0.00 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
-------------------------	----------	----------	-----------------------	----------	----------

Other Arsons	#	%
16:01 - 20:00	2	33%
20:01 - 00:00	2	33%
08:01 - 12:00	1	17%
12:01 - 16:00	1	17%

Peak Fixed Property Uses for Structure Arsons	#	%
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Franklin County

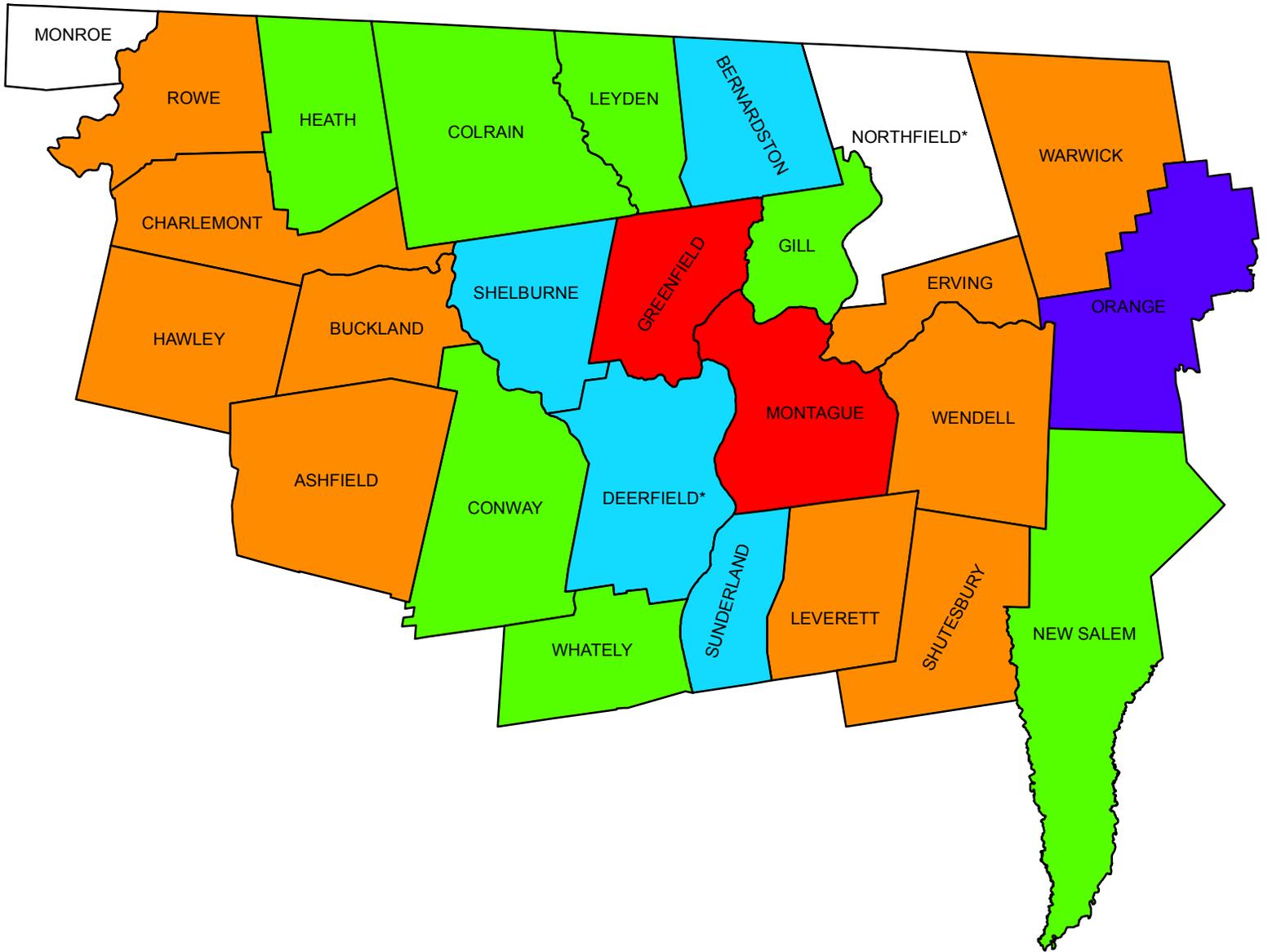
2011 Fire Data Analysis



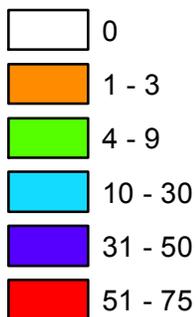
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Franklin County Fires 2011

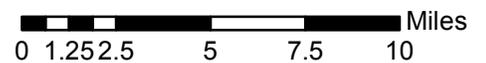


2011 Fires



*Non-reporting department

All the fires reported in Deerfield were reported by the South Deerfield Fire District



MFIRS
Massachusetts Fire Incident Reporting System

Franklin County Fires in 2011

235 Total Fires — 140 Structures, 29 Motor Vehicles & 66 Outside or Other Fires

Franklin County ranked twelfth out of the fourteen Massachusetts counties in total fires. Franklin County fire departments reported 235 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 140 structure fires, 29 motor vehicle fires, 28 brush, tree or lawn fires, 16 outside rubbish fires, nine special outside fires, one cultivated crop or vegetation fire and 12 unclassified fires caused four civilian injuries, four fire service injuries and an estimated dollar loss of \$2.3 million. Franklin County's fires accounted for 1% of the 29,110 Massachusetts fires reported in 2011.

Twenty-seven (27) of the 29, or 93%, 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 2011.

0 Civilian Fire Deaths in Franklin County in 2011

There were no reported fire deaths in Franklin County in 2011.

All Fires Down

The total number of reported fire incidents decreased by 177, or 43%, from the 412 reported in 2010. Reported structure fires decreased by 53 from the 193 reported during the previous year. Motor vehicle fires decreased by 14 from 43 in 2010. Outside and other fires decreased by 110 from the 176 reported the year before. The decrease in outside fires was a statewide trend.

FRANKLIN COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	329	127	36	166	18	5	1	12
2008	306	160	32	114	14	1	1	12
2009	307	164	27	116	17	2	1	14
2010	412	193	43	176	30	8	1	21
2011	235	140	29	66	13	4	2	7

Fire and Fire Death Rates

Franklin County had 3.3 fires per 1,000 population. That figure ranks Franklin County tied for tenth in the state and below the state rate of 4.4 fires per 1,000 population. Franklin County had 0 fire deaths per 10,000 population ranking it tied for eleventh among Massachusetts counties and below the state rate of 0.05 fire deaths per 10,000 population.

Greenfield Has Franklin County's Largest Loss Fire

- On October 22, 2011, at 5:32 a.m., the Greenfield Fire Department was called to a fire of undetermined cause in the clubhouse at the Greenfield Country Club. The fire

began in the basement and also destroyed the first floor. No one was injured at this fire. Detectors were present and operated. There were no sprinklers. Damages from this fire were estimated to be \$753,400.

STRUCTURE FIRES

Reported Structure Fires Down

The 140 structure fires caused all four civilian injuries, three fire service injuries, and an estimated dollar loss of \$2.2 million. These incidents represented 60% of Franklin County's reported fires in 2011. The average estimated dollar loss per structure fire was \$15,982. The total number of reported structure fires decreased by 53, or 27%, from the 153 reported in 2010.

Arson Caused 3% of Structure Fires

The four structure arsons caused an estimated dollar loss of \$90,000. Arson was indicated as the cause of 3% of the structure fires and 4% of Franklin County's structure fire dollar loss. The four structure arsons accounted for 31% of the Franklin County arson fires reported in 2011. The total number of reported structure arsons decreased by four, or 50%, from the eight reported in 2010.

2 of 4 Structure Arsons Occurred in Residences

Two (2), or 50%, of Franklin County's structure arsons occurred in residential properties. One (1) of these arsons occurred in a storage facility and the other in a special property in 2011.

BUILDING FIRES

There were 138 building fires of different types in Franklin County in 2011. These 138 building fires accounted for 98.6% of all structure fires in Franklin County.

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

One hundred and seventeen (117), or 85%, of Franklin County's 138 building fires occurred in residential occupancies. Storage facilities had eight fires. Mercantile or business properties and manufacturing or processing facilities each had four fires. Two (2) fires occurred at educational facilities. Public assembly properties, industrial facilities and special properties each had one fire in Franklin County in 2011.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 117 reported residential building fires in Franklin County in 2011. These 117 fires are a decrease of 46, or 28%, from the 163 residential building fires reported in 2010.

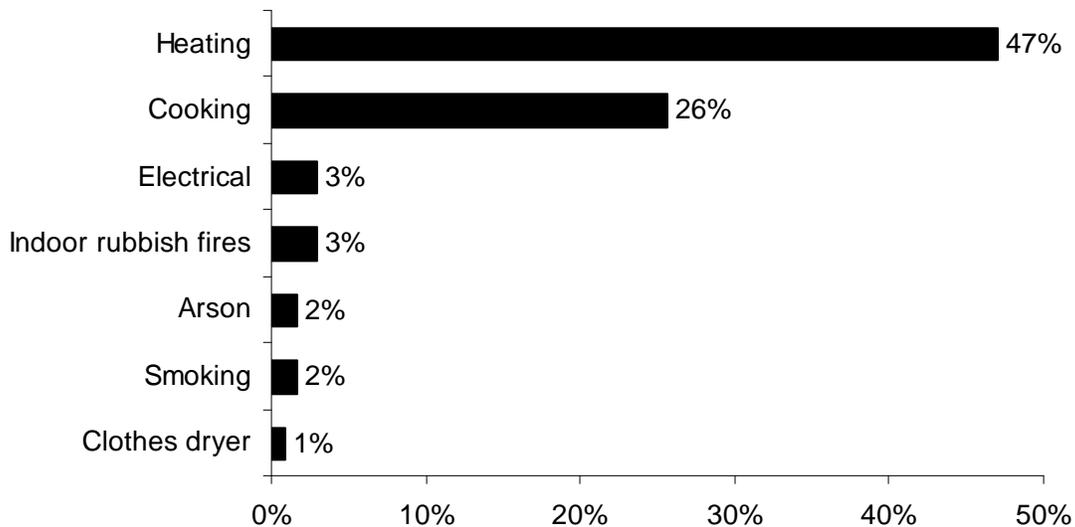
1- & 2-Family Homes Accounted for 71% of Residential Building Fires

The peak fixed property uses for residential building fires were one- & two-family homes, accounting for 71% of the building fires in Franklin County; 24% occurred in apartments; 1% each happened in rooming houses and dormitories. Four (4), or 3%, of the residential building fires in Franklin County occurred in unclassified residential buildings.

Heating Leading Cause of Residential Fires

Heating was the leading cause of residential fires in Franklin County in 2011. Forty-seven percent (47%) of the residential fires were caused by heating. Seventy-eight percent (78%) of these heating fires involved solid fueled equipment such as wood or coal stoves. Franklin County was the only county where cooking was not the leading cause of residential fires in 2011. Unattended cooking and other unsafe cooking practices accounted for 26% of the fires in people's homes. Electrical problems and indoor rubbish fires each caused 3% of these fires. Arson and smoking each accounted for 2% of the residential building fires. Clothes dryers caused 1% of the fires in people's homes in Franklin County in 2011.

2011 Leading Causes of Fires in Franklin County Homes



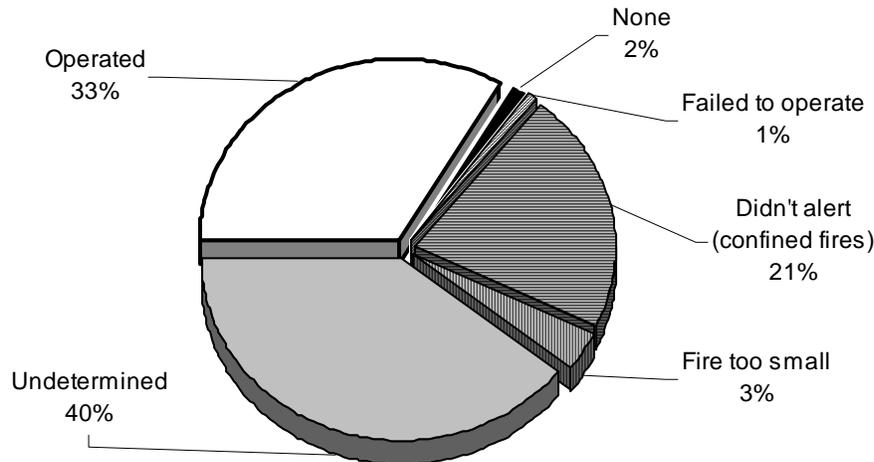
70% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Eighty-two (82), or 70%, of these fires were confined to a non-combustible container. Forty-one (41), or 35%, of all residential building fires reported in 2011 were fires confined to a chimney or flue. Twenty-seven (27) of the reported fires were cooking fires contained to a non-combustible container accounting for 23% of residential building fires. Eleven (11), or 9%, were fires confined to a fuel burner or boiler malfunction. Three (3), or 3%, of these fires were indoor rubbish fires contained to a non-combustible container in Franklin County in 2011.

Detectors Operation Undetermined in 40% of Fires

Smoke or heat detectors operated and alerted the occupants in 39, or 33%, of the residential building fires. In 21% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 46 incidents, or 40%, of Franklin County's residential building fires.

Detector Status in Franklin County's Residential Structure Fires 2011



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

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

1 Detector Failed

It was undetermined why the one detector failed.

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

Franklin County reported three fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 138 building fires reported to MFIRS in 2011. Two (2) fires occurred at vacant residences; and one occurred at a storage facility in Franklin County in 2011.

None of the vacant building fires in Franklin County in 2011 was determined to be intentionally set.

JUVENILE-SET FIRES**0 Juvenile-set Fires**

There were no reported juvenile-set fires in Franklin County in 2011.

ARSONS**13 Total Arsons — 4 Structure, 2 Motor Vehicle & 7 Other Arsons**

Thirteen (13), or 6%, of Franklin County's 235 fires were intentionally set, or, for purposes of this analysis, arson. The four structure arsons, two motor vehicle arsons and seven outside and other arsons caused an estimated dollar loss of \$92,600.

All Arson Down

The number of arsons decreased by 17, or 57%, from the 30 reported in 2010. Structure arsons decreased by four from eight reported in 2010. Motor vehicle arsons increased by one from one reported the previous year. Outside and other arsons fell by 14 from the 21 reported in 2010.

ALL INCIDENTS**Rescue & EMS Calls Are 47% of All Reported Responses**

In 2011, Franklin County fire departments reported 7,189 responses³ to MFIRS. Of these 7,189 incidents, 6,804 non-fire calls were voluntarily reported.

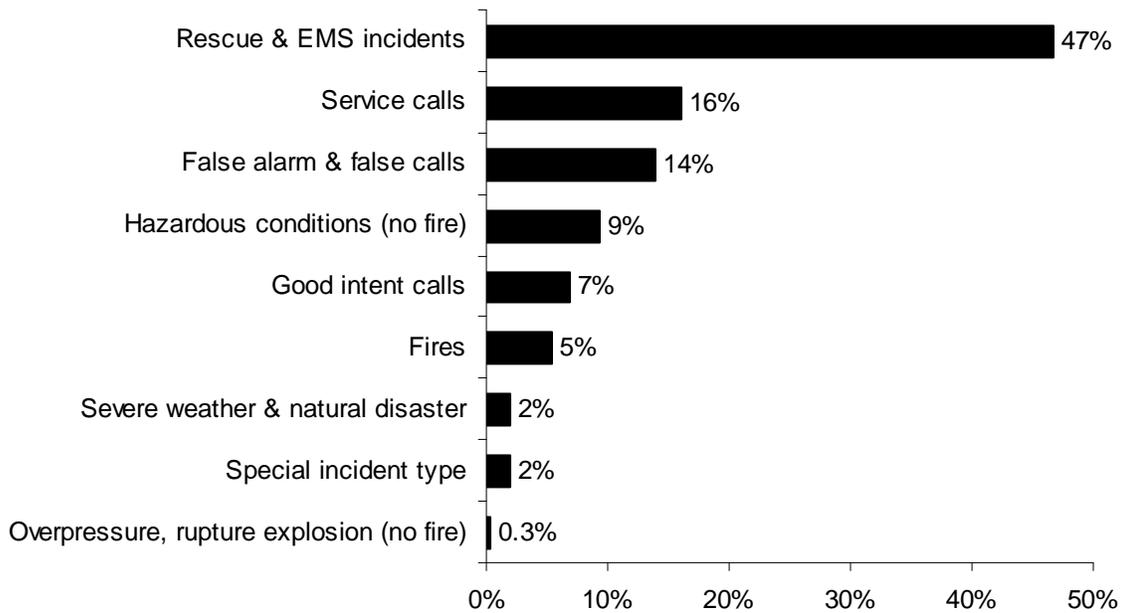
Of these 6,804 non-fire calls, 3,359, or 47%, of all of the responses reported in 2011 were reported rescue and emergency medical services (EMS) calls; 1,151, or 16%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 823, or 14%, were reported false alarm or false calls; 674 or

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

9%, were reported hazardous condition calls with no fire; 499, or 7%, were reported good intent calls; 144, or 2%, were severe weather responses; 136, or 2%, were special incident type calls such as citizen complaints; and 18, or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Three hundred and eighty-five (385), or 5%, of the total incidents submitted by Franklin County fire departments were fires.

2011 Responses by Incident Type



Franklin County Fire Departments Gave Mutual Aid 427 Times

In 2011, Franklin County fire departments reported coming to the aid of other fire departments 427 times. Of these 427 responses, 163, or 38%, were for rescue or EMS calls; 150, or 35%, were for fires; 51, or 12%, were for service calls such as cover assignments; 30, or 7%, were for good intent calls; 17, or 4%, was a severe weather calls; 14, or 3%, were for hazardous conditions calls with no fire; and two, or 0.5%, were for false alarms or false calls.

Franklin County Received Mutual Aid in 301 Incidents

In 2011, Franklin County fire departments reported receiving aid from surrounding departments in 301 incidents. Of these 301 incidents, 231, or 77%, were rescue and emergency medical services calls; 45, or 15%, were for fires; 10, or 3%, were hazardous conditions calls with no fire; six, or 2%, were false alarm or false calls; five, or 2%, were service calls; and four, or 1%, were good intent calls.

Franklin County**Population: 71,372****3.3 Fires/1,000 Population****Total Fires: 235 \$2,380,126**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	140	60%	\$2,237,500
Vehicle Fires	29	12%	132,800
Other Fires	66	28%	9,826

4 Civilian Injuries 4 Fire Service Injuries

Building Fires: 138**Residential Structure Fires: 117****Residential Structure Fires Confined to Non-Combustible Containers: 82****Unconfined Residential Structure Fires: 35**

4 Civilian Injuries 2 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	83	71%	Operated	39	33%
Apartments	28	24%	Didn't operate	1	1%
Rooming houses	1	1%	None	2	2%
Dormitories	1	1%	Fire too small	4	3%
Residential, unclassified	4	3%	Didn't Alert (confined)	25	21%
			Undetermined	46	40%

Area of Origin⁴	%	Heat Source	%	% Unconfined⁵
Chimney or flue	35%	Radiated heat from oper. eq.	4%	14%
Kitchen	27%	Arcing	3%	11%
Heating room or area	11%	Hot ember or ash	3%	9%
Attic	3%	Heat from oper. equipment	2%	6%

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Film, residue (creosote)	35%	Too close to combustibles	3%	9%
Cooking materials	23%	Electrical failure/malfunc.	2%	6%
Flamm. or combustible liquid	12%	Mechanical failure/malfunc.	2%	6%
Structural member, framing	3%			
Rubbish, trash, waste	3%			

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Chimney or flue	35%	Unintentional	18%	60%
None	25%	Failure of eq. or heat source	2%	6%
Cooking equipment	24%	Intentional	2%	6%
Boiler, furnace, cent. heat. unit	9%	Cause under investigation	6%	20%
		Undetermined	3%	9%

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

Alerted occupants	28%
Didn't alert occupants	30%
Undetermined	41%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	28	22	2	4
February	21	17	3	1
March	20	14	0	6
April	26	13	2	11
May	21	9	4	8
June	17	6	4	7
July	19	5	2	12
August	13	5	4	4
September	16	10	3	3
October	16	11	1	4
November	20	15	2	3
December	18	13	2	3

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	30	19	2	9
Monday	48	28	7	13
Tuesday	28	17	3	8
Wednesday	26	16	5	5
Thursday	31	21	5	5
Friday	39	22	2	15
Saturday	33	17	5	11

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	19	13	2	4
04:01 - 08:00	24	11	6	7
08:01 - 12:00	34	18	9	7
12:01 - 16:00	51	26	2	23
16:01 - 20:00	74	47	9	18
20:01 - 00:00	33	25	1	7

Motor Vehicle Fires

Total: 29

Automobiles: 21 (72%)

2, or 10%, of the automobile fires were considered intentionally set.

Arson Fires**Total Arsons: 13****Dollar loss: \$92,600****0.2 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	4	3%	31%	\$90,000
Vehicle Arsons	2	7%	15%	2,500
Other Arsons	7	11%	54%	100

0.06 Structure arsons/1,000 population

0.03 Vehicle arsons/1,000 population

0.10 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

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

Other Arsons	#	%
20:01 - 00:00	5	57%
00:01 - 04:00	1	14%
04:01 - 08:00	1	14%
16:01 - 20:00	1	14%

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

Ashfield **Population: 1,737**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	1	1	0	0	0	0	0	0
2009	2	2	0	0	0	0	0	0
2010	3	3	0	0	0	0	0	0
2011	1	0	1	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
2007	24	7	9	8	0	0	0	0
2008	22	7	1	14	0	0	0	0
2009	16	4	3	9	2	0	0	2
2010	15	6	1	8	2	0	0	2
2011	9	2	5	2	1	0	0	1

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	1	1	0	0	0	0	0	0

Charlemont **Population: 1,266**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	16	4	0	12	0	0	0	0
2008	9	7	0	2	0	0	0	0
2009	6	3	0	3	2	0	0	2
2010	6	4	0	2	0	0	0	0
2011	1	1	0	0	0	0	0	0

Colrain					Population: 1,671			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	16	10	1	5	1	1	0	0
2008	Non-Reporting Community							
2009	9	5	1	3	0	0	0	0
2010	23	12	2	9	3	0	0	3
2011	7	3	1	3	0	0	0	0

Conway					Population: 1,897			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	20	16	0	4	1	1	0	0
2008	9	5	0	4	0	0	0	0
2009	12	8	0	4	0	0	0	0
2010	12	7	0	5	2	1	0	1
2011	4	1	2	1	0	0	0	0

DEERFIELD FIRE DISTRICTS					Population: 5,125			
Deerfield					Est. Pop. Protected: 2,819			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	3	1	0	2	0	0	0	0
2008	7	2	0	5	0	0	0	0
2009	10	2	1	7	1	0	0	1
2010	5	1	0	4	0	0	0	0
2011	Non-Reporting Community							

South Deerfield					Est. Pop. Protected: 2,306			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	18	11	1	6	1	0	0	1
2008	17	10	4	3	0	0	0	0
2009	12	5	1	6	0	0	0	0
2010	17	7	6	4	0	0	0	0
2011	12	5	3	4	0	0	0	0

Erving **Population: 1,800**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007 ¹⁰	Non-Reporting Community							
2008	6	1	1	4	0	0	0	0
2009	4	3	1	0	0	0	0	0
2010	1	1	0	0	1	1	0	0
2011	2	2	0	0	0	0	0	0

Gill **Population: 1,500**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	13	4	3	6	1	0	0	1
2008	8	5	0	3	0	0	0	0
2009	6	3	0	3	2	0	0	2
2010	10	5	1	4	1	0	0	1
2011	5	4	0	1	1	1	0	0

Greenfield **Population: 187,456**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	104	41	12	51	4	1	0	3
2008	116	65	9	42	9	1	0	2
2009	100	62	7	31	7	2	0	5
2010	98	43	13	42	9	2	0	7
2011	56	29	5	22	2	0	1	4

Hawley **Population: 337**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	1	1	0	0	0	0	0
2008	2	0	0	2	0	0	0	0
2009	1	0	1	0	0	0	0	0
2010	1	1	0	0	0	0	0	0
2011	1	1	0	0	0	0	0	0

¹⁰ Erving had at least one reportable fire in 2007. In the early morning hours of July 30, 2007, the vacant Usher Paper Mill Building, on Route 2, was intentionally set ablaze.

Heath					Population: 706			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	4	1	0	0	0	0	0
2008	4	1	1	2	0	0	0	0
2009	5	2	0	3	0	0	0	0
2010	5	30	2	0	0	0	0	0
2011	4	3	0	1	0	0	0	0

Leverett					Population: 1,851			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	0	0	5	0	0	0	0
2008	3	1	1	1	0	0	0	0
2009	2	1	0	1	0	0	0	0
2010	4	3	1	0	0	0	0	0
2011	2	2	0	0	0	0	0	0

Leyden					Population: 711			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	3	0	0	3	2	0	0	2
2008	Non-Reporting Community							
2009	Non-Reporting Community							
2010	4	4	0	0	0	0	0	0
2011	5	5	0	0	0	0	0	0

Monroe					Population: 121			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	1	1	0	0	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	12	4	1	7	1	1	0	0
2008	14	8	1	5	0	0	0	0
2009	22	11	0	11	0	0	0	0
2010	21	7	0	14	0	0	0	0
2011	16	8	2	6	0	0	0	0

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	21	10	2	9	2	0	0	2
2008	32	21	4	7	1	0	2	0
2009	30	22	1	7	1	0	0	1
2010	51	26	3	22	3	2	0	1
2011	42	30	2	10	4	3	0	1

New Salem**Population: 990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	7	2	0	5	0	0	0	0
2008	7	1	1	5	0	0	0	0
2009	9	2	1	6	1	0	1	0
2010	14	1	3	10	1	0	0	1
2011	7	7	0	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
2007	Non-Reporting Community							
2008	10	3	2	5	1	0	0	1
2009	6	3	2	1	0	0	0	0
2010	Non-Reporting Community							
2011	Non-Reporting Community							

Orange					Population: 7,839			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	17	2	2	13	0	0	0	0
2008	5	4	0	1	0	0	0	0
2009	32	14	5	13	0	0	0	0
2010	48	25	3	20	0	0	0	0
2011	33	22	4	7	1	0	0	1

Rowe					Population: 393			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Non-Reporting Community							
2011	1	1	0	0	0	0	0	0

SHELBURNE FIRE DISTRICTS					Population: 1,893			
<i>Shelburne Center</i>					<i>Est. Pop. Protected: 965</i>			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	2	1	2	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	2	1	0	1	0	0	0	0
2010	5	4	0	1	0	0	0	0
2011	6	1	2	3	0	0	0	0

<i>Shelburne Falls</i>					<i>Est. Pop. Protected: 1,879</i>			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	10	2	0	8	3	1	0	2
2008	6	4	0	2	1	0	0	1
2009	4	1	1	2	0	0	0	0
2010	7	5	1	1	0	0	0	0
2011	4	3	0	1	0	0	0	0

Shutesbury						Population: 1,771		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	1	1	0	0	0	0	0
2008	7	4	2	1	0	0	0	0
2009	5	3	0	2	0	0	0	0
2010	8	2	4	2	0	0	0	0
2011	2	2	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
2007	10	4	1	5	1	0	0	1
2008	1	0	1	0	0	0	0	0
2009	3	2	0	1	0	0	0	0
2010	22	11	3	8	3	2	0	1
2011	9	6	0	3	0	0	0	0

Warwick						Population: 780		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	2	1	0	1	0	0	0	0
2011	1	0	0	1	0	0	0	0

Wendell						Population: 848		
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	1	0	4	1	0	0	1
2008	1	1	0	0	0	0	0	0
2009	2	1	0	1	0	0	0	0
2010	3	2	0	1	0	0	0	0
2011	1	0	1	0	1	0	1	0

Whately					Population: 1,496			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	10	2	0	8	0	0	0	0
2008	11	3	3	5	2	0	0	2
2009	5	2	2	1	0	0	0	0
2010	10	1	2	7	2	0	1	1
2011	3	1	1	1	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	1	1	0	0	0	0	0	0	0	0
11029	Bernardston	239	22	0	118	22	31	15	21	8	2
11047	Buckland	10	2	0	1	2	0	0	4	1	0
11053	Charlemont	67	9	0	22	7	11	1	16	1	0
11066	Colrain	200	13	2	87	33	54		5	6	0
11068	Conway	43	8	1	3	16	8	2	3	2	0
11091	Erving	2	2	0	0	0	0	0	0	0	0
11106	Gill	117	12	1	9	24	20	8	22	14	7
11114	Greenfield	2,239	67	2	911	217	389	270	365	8	10
11129	Hawley	60	5	0	24	6	10	2	3	10	0
11130	Heath	51	9	0	30	3	5		2	2	0
11154	Leverett	2	2	0	0	0	0	0	0	0	0
11156	Leyden	19	6	0	0	7	1	2	2	1	0
11192	Montague Center	236	27	0	101	50	20	8	15	14	1
11204	New Salem	120	21	1	48	15	2	3	6	24	0
11223	Orange	1,892	36	2	1,172	61	353	63	93	7	105
11253	Rowe	1	1	0	0	0	0	0	0	0	0

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11990	Shelburne Ctr	164	12	1	92	20	5	12	14	8	0
11989	Shelburne Falls	97	10	0	5	19	12	19	30	2	0
11272	Shutesbury	6	6	0	0	0	0	0	0	0	0
11976	South Deerfield	219	23	1	11	36	22	18	83	24	1
11289	Sunderland	238	19	0	135	22	11	19	30	2	0
11984	Turners Falls	1,097	63	4	557	108	188	54	105	8	10
11312	Warwick	1	1	0	0	0	0	0	0	0	0
11319	Wendell	41	2	0	26	5	4		3	1	0
11337	Whately	27	6	3	7	1	5	3	1	1	0
Total	Franklin County	7,189	385	18	3,359	674	1,151	499	823	144	136

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

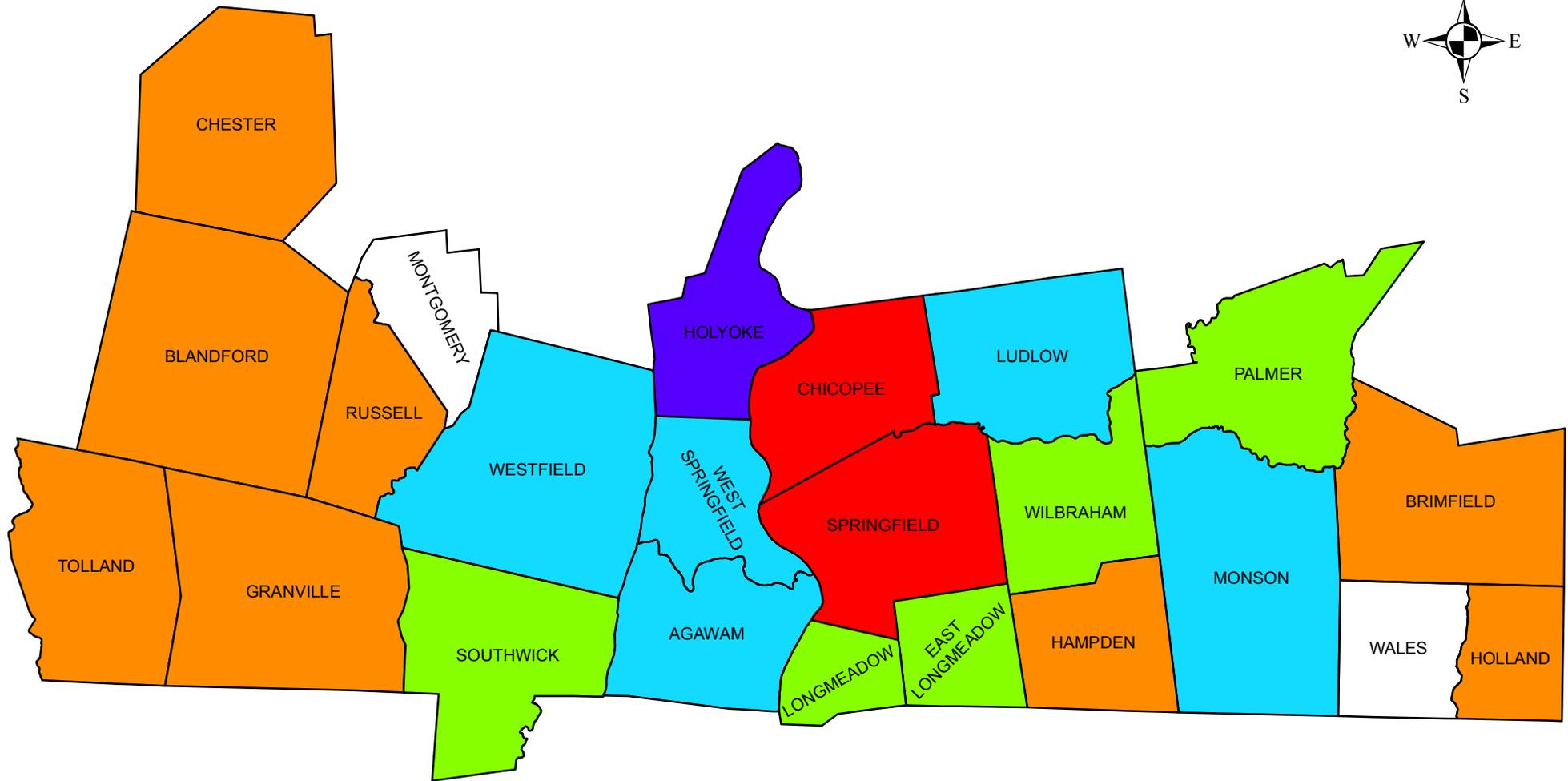
2011 Fire Data Analysis



Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Hampden County Fires 2011



2011 Fires



Hampden County Fires in 2011

2,093 Total Fires — 1,214 Structures, 293 Vehicles & 586 Other Fires

Hampden County ranked sixth out of the fourteen Massachusetts counties in total reported fires. Hampden County fire departments reported 2,093 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 1,214 structure fires, 293 motor vehicle fires, 205 brush, tree or lawn fires, 251 outside rubbish fires, 53 special outside fires, and 77 other fires caused nine civilian fire deaths, 45 civilian injuries, 43 fire service injuries and an estimated dollar loss of \$15.7 million. Hampden County's 2,093 fires accounted for 7% of the 29,110 fire incidents reported to MFIRS in 2011.

All 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 2011.

Structure & MV Fires Up Slightly

The total number of reported fire incidents decreased by 250 from the 2,343 reported in 2010. Reported structure fires increased by 27 from the 1,187 reported during the previous year. Motor vehicle fires increased by four from the 289 reported during 2010. Outside and other fires decreased by 281 from the 867 reported the year before. The significant drop in outside fires was a statewide trend in 2011.

HAMPDEN COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2,775	1,436	312	1,027	83	22	13	48
2008	2,489	1,398	270	821	97	33	15	49
2009	2,051	1,158	255	638	70	16	12	42
2010	2,343	1,187	289	867	76	17	12	47
2011	2,093	1,214	293	586	56	10	13	33

Fire and Fire Death Rates

Hampden County had 4.5 fires per 1,000 population. That figure ranks Hampden County fifth in the state and just above the state rate of 4.4 fires per 1,000 population. Hampden County also had 0.19 fire deaths per 10,000 population ranking it first among Massachusetts counties and well above the state rate of 0.08 fire deaths per 10,000 population.

9 Residents Died in 8 Hampden County Fires

In 2011, Hampden County had eight fatal fires that killed nine people.

- On February 17, 2011, at 3:00 p.m., the Westfield Fire Department was called to a fatal electrical fire at a single-family home. The fire was caused by an electrical malfunction between an extension cord and a television set. The victims, an 84-year

old woman and her 82-year old husband, were overcome by the heat and smoke. No one else was injured at this fire. Detectors were present but failed to operate because they were defective. Sprinklers were not present. Damages were estimated to be \$105,000.

- On March 14, 2011, at 2:17 a.m., the Chicopee Fire Department was called to a fatal electrical fire in a single-family home. The fire was caused by arcing in the wiring in the attic. The victim, a 62-year old woman was in her bedroom at the time of the fire. No one else was also injured at this fire. It was undetermined if detectors were present and the building did not have sprinklers. The fire caused an estimated \$180,000 worth of damage.
- On March 23, 2011, at 9:41 a.m., the West Springfield Fire Department was called to a fatal explosion with ensuing fire at an auto dealership. The fire was caused when a 33-year old male employee looked inside a 55-gallon drum with a cigarette lighter. There were still some gasoline vapors inside of the drum and the flame from the lighter ignited them causing the explosion and starting the fire. The victim was killed by debris from the exploding drum. One other civilian was injured at this fire. Damages from the fire were estimated to be \$150,000.
- On April 30, 2011, at 11:23 p.m., the West Springfield Fire Department was called to a fatal fire in a 24-unit apartment building of undetermined cause. The victim, a 37-year old man, was overcome by the heat and smoke when he re-entered the building. One other civilian was injured at this fire. It was undetermined if detectors were present and the building was not sprinklered. Damages from the blaze were estimated to be \$1 million.
- On June 18, 2011, at 1:06 a.m., the Springfield Fire Department was called to a fatal smoking fire in a single-family home. The 43-year old male victim was most likely asleep at the time of the fire. He was overcome by the smoke and transported to a local hospital where he succumbed to his injuries. Two (2) other civilians and a firefighter were injured at this fire. Detectors were present and alerted the other occupants of the building. There were no sprinklers. Damages from this fire were estimated to be \$55,000.
- On July 12, 2011, at 3:05 p.m., the Springfield Fire Department was called to a fatal arson fire in a single-family home. The victim of a homicide, an 80-year old woman, was in the home when someone set fire to the house. No one else was injured at this fire. The victim was transported to a local hospital where she later succumbed to her injuries. Smoke detectors were present but it was undetermined if they operated and no sprinklers were present. Damages from this fire were estimated to be \$45,000.
- On November 7, 2011, at 5:26 p.m., the Monson Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire began in the basement. The victim, a 53-year old man, who was possibly impaired by alcohol, was overcome by the heat and smoke when he re-entered the basement. No one else was

injured at this fire. Detectors were present and alerted the occupants of the building .The building was not sprinklered. Damages from the blaze were not estimated.

- On December 14, 2011, at 2:20 a.m., the West Springfield Fire Department was called to a fatal fire in a single-family home of undetermined cause. The victim, a 55-year old man, was sleeping at the time of the fire. No one else was injured at this fire. It was undetermined if detectors were present and the building was not sprinklered. Damages from the blaze were estimated to be \$300,000.

West Springfield Had Largest Loss Fire in Hampden County, Westfield 2nd

Hampden County had two large loss fire with a million dollar or greater dollar loss. These two fires accounted for \$2,050,000, or 13% of the county's total fire loss.

- See the April 30th fatal fire anecdote for the West Springfield fire.
- On October 30, 2011, at 11:01 a.m., the Westfield Fire Department was dispatched to a fire of undetermined cause in a six bay auto repair shop. The fire began in the first bay on the left side. Twenty-one (21) cars were inside the shop. One firefighter was injured fighting this fire. It was undetermined if detectors were present and the building was not sprinklered. Damages from this fire were estimated to be \$1 million.

STRUCTURE FIRES

Reported Structure Fires Up Slightly

The 1,214 structure fires caused all nine civilian deaths, 32 civilian injuries, 38 fire service injuries and an estimated dollar loss of \$14.3 million. These incidents represented 58% of Hampden County's reported fires in 2011. The average estimated dollar loss per structure fire was \$11,765. The total number of reported structure fires increased by 27, or 2%, from the 1,187 reported in 2010.

Arson Caused 1% of Structure Fires

The 10 structure arsons caused one civilian death, two civilian injuries and an estimated dollar loss of \$239,400. Arson was indicated as the cause of 1% of the structure fires and 2% of Hampden County's structure fire dollar loss. The 10 structure arsons accounted for 18% of the Hampden County arson fires reported in 2011. The total number of reported structure arsons decreased by seven, or 41%, from 17 in 2010.

70% of Structure Arsons Occurred in Residences

Seventy percent (70%) of Hampden County's 10 structure arsons occurred in residential occupancies. Ten percent (10%) each occurred in public assembly facilities, storage facilities and mercantile or business properties.

BUILDING FIRES

There were 1,198 building fires of different types in Hampden County in 2011. These 1,198 building fires accounted for 98.6% of all structure fires in Hampden County.

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

One thousand and eleven (1,011), or 84%, of Hampden County's 1,198 building fires occurred in residential occupancies. Mercantile and business properties experienced 40 fires. Thirty-four (34) building fires took place on educational properties. Twenty-eight (28) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings also experienced 28 fires. Twenty-five (25) fires took place in storage properties. Special properties also had 18 fires. Eight (8) fires took place in manufacturing and processing facilities. Five (5) fires occurred in industrial, utility, defense, agricultural or mining facilities in Hampden County in 2011.

RESIDENTIAL FIRES**Residential Building Fires Up Slightly**

There were 1,011 reported residential building fires in Hampden County in 2011. These 1,011 fires are an increase of 34, or 3%, from the 977 residential building fires reported in 2010.

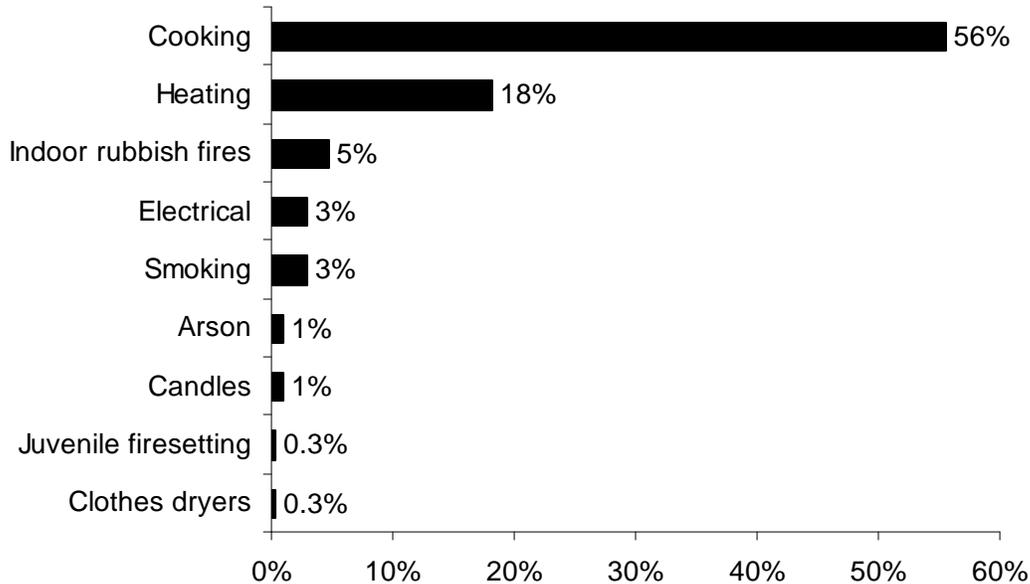
1- & 2-Family Homes Accounted for Over 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for over half, or 51%, of the building fires in Hampden County; 43% occurred in apartments; 2% occurred in rooming houses; 2% happened in dormitories; 1% happened in residential board and care facilities; and less than 1% happened in hotels or motels. Ten (10), or 1%, of the residential building fires in Hampden County occurred in unclassified residential buildings.

Cooking Causes 56% of Residential Fires

The leading cause of residential building fires in Hampden County was unattended cooking and other unsafe cooking practices, accounting for 56% of these fires. Heating was the second leading cause of fires in people's homes, accounting for 18% of these fires. Indoor rubbish fires caused 5%. Electrical problems and smoking each caused 3% of these fires and indoor rubbish fires caused 3%. Arson and candles each caused 1% of these residential fires. Juvenile-set fires and clothes dryers each caused less than 1% of the fires in Hampden County in 2011.

2011 Leading Causes of Fires in Hampden County Homes



74% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Seven hundred and forty-eight (748), or 74% of all residential building fires, were reported as confined to non-combustible containers in 2011. Five hundred and twenty-four (524) of the reported fires were cooking fires contained to a non-combustible container accounting for 52% of residential building fires. One hundred and fifteen (115), or 11%, were fires confined to a fuel burner or boiler malfunction. Sixty-one (61), or 5%, of all residential building fires reported in 2011 were fires confined to a chimney. Forty-six (46), or 5%, of these fires were contained rubbish fires. One (1), or less than 1% of confined fires, occurred in incinerators; and one, or less than 1%, was confined to a commercial compactor.

Detectors Alerted Occupants in 1/2 of Fires

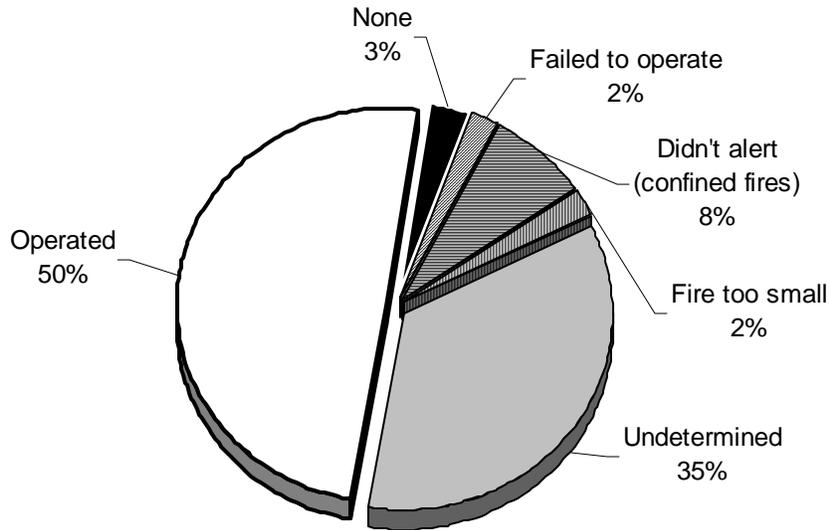
Smoke or heat detectors operated and alerted the occupants in 502, or 50%, of the residential building fires. In 8% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In another 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector

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

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

in 2% of the residential fires. Smoke detector performance was undetermined in 353 incidents, or 35%, of Hampden County's residential building fires.

Detector Status in Hampden County's Residential Structure Fires 2011



1/2 of Failed Detectors Had Dead, Missing or Disconnected Batteries

Of the 22 fires where smoke detectors were present but failed to operate, nine, or 41%, failed because the batteries were either missing or disconnected. In two incidents, or 9%, the detectors failed because the batteries were dead. In one fire, or 5%, the detector failed because it was defective. Another detector, or 5%, failed from improper installation or placement. Nine (9), or 41%, of the detectors failed for unclassified or undetermined reasons.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Hampden County reported 34 fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the total 1,198 building fires reported to MFIRS in 2011. Twenty-four (24) fires occurred in vacant residential properties. Four (4) fires in storage facilities were reported as vacant building fires. Public assembly facilities, education facilities and mercantile and business properties each accounted for two vacant building fires in Hampden County in 2011.

Three (3), or 9%, of the vacant building fires in Hampden County in 2011 were determined to be intentionally set.

JUVENILE-SET FIRES

7 Juvenile-set Fires Caused 1 Civilian Injury

There were seven reported juvenile-set fires in Hampden County in 2011. The three structure fires, one brush fire, one outside rubbish fire and two special outside fires caused five civilian injuries and \$159,000 in estimated damages.

ARSONS

56 Total Arsons — 10 Structures, 13 Vehicles & 33 Other Arsons

Fifty-six (56), or 3%, of Hampden County's 2,093 fires were considered intentionally set, or, for purposes of this analysis, arson. The 10 structure arsons, 13 motor vehicle arsons and 33 outside and other arsons caused one civilian death, two fire service injuries and an estimated dollar loss of \$281,625.

All Arson Down

The total number of reported arson fires decreased by 20 from the 76 reported in 2011. Structure arsons decreased by seven from the 17 reported in 2011. Motor vehicle arsons increased by one from 12 reported in 2010. Outside and other fires decreased by 14 from the 47 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 57% of All Reported Responses

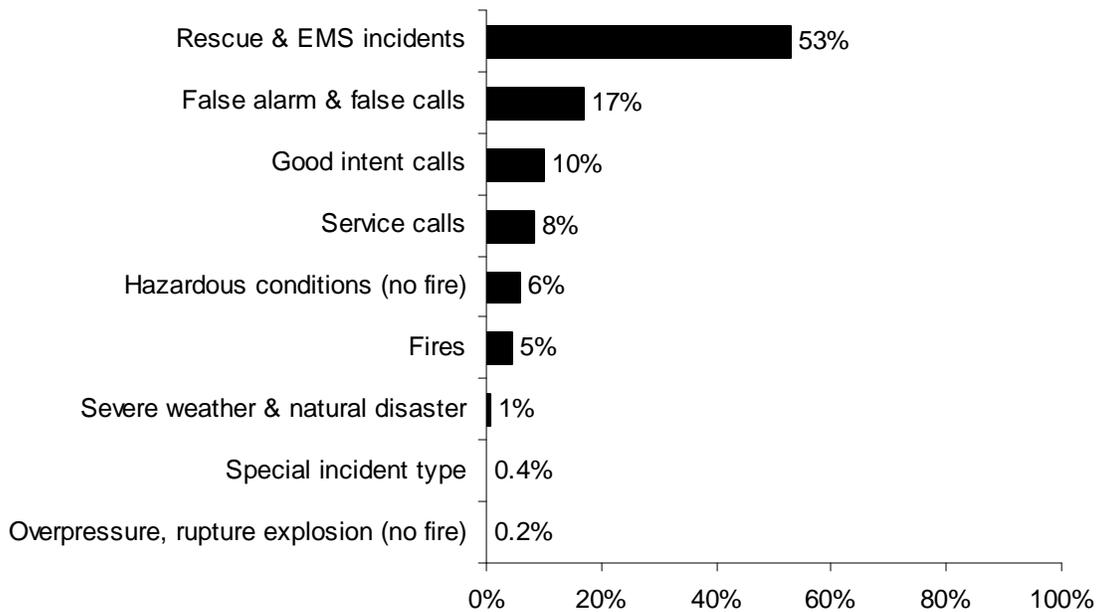
In 2011, fire departments in Hampden County reported 46,800 responses³ to MFIRS. Of these 46,800 incidents, 44,622 non-fire calls were voluntarily reported.

Of these 44,622 non-fire calls 24,779, or 53% of all reported responses in 2011, were reported rescue and emergency medical services (EMS) calls; 8,001, or 17%, were reported false alarm or false calls; 4,725, or 10%, were reported good intent calls; 3,820, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 2,738, or 6%, were reported hazardous condition calls with no fire; 260, or 1%, were severe weather responses; 192, or 0.4%, were special incident type calls such as citizen complaints; and 107, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire;.

Two thousand one hundred and seventy-eight (2,178), or 65, of the total responses submitted by Hampden County fire departments were fires.

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

2011 Responses by Incident Type



Hampden County Fire Departments Gave Mutual Aid 685 Times

In 2011, Hampden County fire departments reported coming to the aid of other fire departments 685 times. Of these 685 responses, 375, or 55%, were for rescue or EMS calls; 108, or 16%, were for service calls such as cover assignments; 84, or 12%, were for fires; 45, or 7%, were for good intent calls; 36, or 5%, were for hazardous conditions calls with no fire; 19, or 3%, were for false alarms or false calls; 16, or 2%, were severe weather or natural disaster calls; and two, or less than 1%, were special incident types.

Hampden County Received Mutual Aid in 1,097 Incidents

In 2011, Hampden County fire departments reported receiving aid from surrounding departments in 1,097 incidents. Of these 1,097 incidents, 862, or 79%, were rescue and emergency medical services calls; 76, or 7%, were for fires; 49, or 4%, were severe weather calls; 41, or 4%, were service calls; 33, or 3%, were hazardous conditions calls with no fire; 17, or 2%, were false alarms or false calls; another 17, or 2%, were good intent calls; and two, or less than 1%, were special incident types.

2 NATURAL DISASTERS HIT HAMPDEN COUNTY IN 2011

JUNE 1ST TORNADO AND LATE OCTOBER NOR'EASTER

During the day of June 1, 2011 a tornado touched down and crippled most of southern Hampden County. Many buildings were destroyed and trees and power lines were downed. Parts of the county lost power and some roads were not passable for up to two weeks. This storm strained the emergency resources of Hampden County and surrounding counties.

During the days of October 29 and 30, 2011 a rare October nor'easter crippled most of Hampden County. The heavy snow fall added to the destruction that was wrought by the June 1st tornado. More trees and power lines were downed. This storm strained the emergency resources of Hampden County and surrounding counties.

In 2011, Hampden County Fire Departments responded to an average number of 884 calls per week. During the week of the tornado, Hampden County fire departments responded to 1,283 calls. Three hundred and two (302) of these calls occurred on Wednesday, June 1. The majority of these calls were rescue and EMS calls, as well as service calls. During the week of the snowstorm, Hampden County fire departments responded to 2,311 calls. Five hundred and twenty-one (521) of these calls occurred on Sunday, October 30. The majority of these calls were rescue and EMS calls, as well as service calls.

Hampden County

Population: 463,490

4.5 Fires/1,000 Population

Total Fires: 2,093 \$15,702,326

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	1,214	58%	\$14,282,275
Vehicle Fires	293	14%	1,095,067
Other Fires	586	28%	324,984

8 Fatal Fires 4.30 Civilian Deaths/1,000 Fires
 9 Civilian Deaths 0.19 Civilian Deaths/10,000 Population
 45 Civilian Injuries 43 Fire Service Injuries

Building Fires: 1,198

Residential Structure Fires: 1,011

Residential Structure Fires Confined to Non-Combustible Containers: 748

Unconfined Residential Structure Fires: 263

8 Civilian Deaths 29 Civilian Injuries 32 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	511	51%	Operated	502	50%
Apartments	436	43%	Didn't operate	22	2%
Rooming houses	20	2%	None	32	2%
Dormitories	16	1%	Fire too small	24	2%
Residential board & care	13	1%	Didn't alert (confined)	78	8%
Hotels or motels	5	0.4%	Undetermined	353	35%

Area of Origin ⁴	%	Heat Source	%	%Unconfined ⁵
Kitchen	58%	Heat from operating equip.	7%	19%
Heating room or area	12%	Radiated heat/oper. eq.	3%	12%
Chimney, flue	6%	Arcing	2%	6%
Bedroom	2%	Cigarettes	1%	5%
Wall assembly, concealed	2%	Hot or smoldering object	1%	5%

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	55%	Equipment unattended	1%	6%
Flammable or combust. liquid	11%	Abandoned materials	1%	5%
Film, residue (creosote)	6%	Too close to combustibles	1%	4%
Rubbish, trash, waste	5%	Electrical failure, malfunc.	1%	4%
Structural member, framing	2%	Misuse of materials or prod.	1%	4%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	53%	Unintentional	13%	51%
None	23%	Failure of eq./heat source	3%	13%
Boiler, furnace, cent. heat unit	11%	Intentional	1%	3%
Chimney or flue	6%	Act of Nature	0.5%	1%
		Undetermined	1%	5%
		Cause under investigation	7%	25%

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

Alerted occupants	53%
Didn't alert occupants	10%
Undetermined	37%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	172	124	28	20
February	142	107	22	13
March	216	116	23	77
April	198	102	19	77
May	183	87	25	71
June	161	88	23	50
July	185	73	33	79
August	140	77	17	46
September	150	89	30	31
October	152	106	19	27
November	207	122	26	59
December	187	123	28	36

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	296	171	26	99
Monday	298	162	42	94
Tuesday	328	184	47	97
Wednesday	275	166	39	70
Thursday	260	154	49	57
Friday	326	186	52	88
Saturday	310	191	38	81

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	203	118	34	51
04:01 – 08:00	133	76	27	30
08:01 – 12:00	304	194	46	64
12:01 – 16:00	499	266	71	162
16:01 – 20:00	610	370	71	169
20:01 – 00:00	344	190	44	110

Motor Vehicle Fires

Total: 293

Automobiles: 250 (85%)

12, or (54%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 56

Dollar loss: \$281,625

0.12 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	10	1%	18%	\$239,400
Vehicle Arsons	13	4%	23%	39,575
Other Arsons	33	6%	59%	2,650

0.02 Structure arsons/1,000 population

0.03 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

1 Civilian Death

2 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	4	40%	20:01 - 00:00	4	31%
08:01 - 12:00	2	20%	00:01 - 04:00	3	23%
12:01 - 16:00	2	20%	16:01 - 20:00	3	23%
20:01 - 00:00	2	20%			

Other Arsons	#	%
20:01 - 00:00	11	33%
08:01 - 12:00	6	18%
12:00 - 16:00	6	18%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartment buildings	4	40%
1- and 2-Family homes	3	30%

Agawam **Population: 28,438**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	89	48	10	31	4	3	0	1
2008	100	56	13	31	4	0	1	3
2009	76	36	14	26	2	0	2	0
2010	94	38	13	43	6	2	0	4
2011	73	33	18	22	2	0	1	1

Blandford **Population: 1,233**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	12	6	5	1	0	0	0	0
2008	7	3	1	3	0	0	0	0
2009	9	4	3	2	0	0	0	0
2010	7	3	3	1	0	0	0	0
2011	4	0	2	2	0	0	0	0

Brimfield **Population: 3,609**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	0	1	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	6	3	2	1	0	0	0	0
2010	26	11	4	11	0	0	0	0
2011	15	7	2	6	0	0	0	0

Chester **Population: 1,337**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	12	1	1	10	0	0	0	0
2009	2	2	0	0	1	1	0	0
2010	11	6	0	5	0	0	0	0
2011	2	1	0	1	0	0	0	0

Chicopee **Population: 55,298**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	264	153	26	85	14	5	0	9
2008	244	134	33	77	20	10	0	10
2009	224	131	26	67	11	4	1	6
2010	246	121	24	101	17	5	2	10
2011	252	120	44	88	11	2	2	7

East Longmeadow **Population: 15,720**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	41	19	6	16	3	1	0	2
2008	43	18	1	24	1	1	0	0
2009	28	10	6	12	1	0	0	1
2010	37	12	2	23	0	0	0	0
2011	38	24	1	13	0	0	0	0

Granville **Population: 1,566**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Non-Reporting Community							
2008	Non-Reporting Community							
2009	Non-Reporting Community							
2010	Non-Reporting Community							
2011	9	7	1	1	0	0	0	0

Hampden **Population: 5,139**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	5	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	4	3	1	0	1	1	0	0
2010	35	20	5	10	2	0	2	0
2011	25	23	0	2	0	0	0	0

Holland					Population: 2,481			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	12	3	1	8	2	0	0	2
2008	23	6	1	16	5	0	0	5
2009	10	3	0	7	3	0	0	3
2010	17	3	1	13	0	0	0	0
2011	9	4	2	3	0	0	0	0

Holyoke					Population: 39,880			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	422	181	44	197	18	5	1	12
2008	330	196	29	105	17	3	3	11
2009	244	147	24	73	11	1	1	9
2010	262	123	38	101	10	4	1	5
2011	200	106	38	56	11	3	2	6

Longmeadow					Population: 15,784			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	41	21	3	17	1	0	0	1
2008	42	18	0	24	4	0	0	4
2009	42	16	6	20	1	0	0	1
2011	42	18	4	20	4	0	0	4

Ludlow					Population: 21,103			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	78	48	12	18	2	1	0	1
2008	64	38	12	14	1	0	2	2
2009	53	25	11	17	3	0	0	3
2010	76	31	13	3	2	1	0	3
2011	68	43	10	15	3	0	1	2

Monson					Population: 8,560			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	35	13	4	18	0	0	0	0
2008	31	18	3	10	1	0	0	1
2009	37	16	5	16	0	0	0	0
2010	49	23	7	19	2	1	1	0
2011	63	21	6	36	1	0	0	1

Montgomery					Population: 838			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	6	0	3	3	2	0	1	1
2010	4	1	1	2	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

Town of Palmer Fire Districts					Population: 12,140			
Palmer District # 1					Est. Pop. Protected: 5,584			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	58	20	14	24	0	0	0	0
2008	61	41	9	11	1	1	0	0
2009	44	29	5	10	1	1	0	0
2010	40	15	6	19	0	0	0	0
2011	37	26	6	5	1	0	0	1

Bondsville					Est. Pop. Protected: 2,792			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	8	2	1	5	0	0	0	0
2008	12	1	2	9	0	0	0	0
2009	15	2	2	11	5	0	0	5
2010	7	0	0	7	0	0	0	0
2011	6	3	0	3	0	0	0	0

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	9	4	1	4	0	0	0	0
2008	12	7	0	5	0	0	0	0
2009	5	2	1	2	0	0	0	0
2010	10	7	1	2	0	0	0	0
2011	4	2	1	1	0	0	0	0

Russell *Population: 1,775*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	10	4	0	6	0	0	0	0
2008	14	8	3	3	0	0	0	0
2009	9	1	2	6	0	0	0	0
2010	19	9	3	7	0	0	0	0
2011	8	6	0	2	0	0	0	0

Southwick *Population: 9,502*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	47	17	5	25	2	1	0	1
2008	51	29	4	18	2	1	1	0
2009	21	11	1	9	1	0	0	1
2010	50	28	4	18	4	0	1	3
2011	35	18	5	12	4	0	1	3

Springfield *Population: 153,060*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1,311	741	129	441	15	3	10	2
2008	1,138	687	104	347	24	13	6	5
2009	960	583	109	268	16	7	6	3
2010	1,053	613	108	332	10	2	3	5
2011	961	635	105	221	9	4	3	2

Tolland					Population: 485			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	6	0	0	6	0	0	0	0
2008	3	3	0	0	0	0	0	0
2009	5	0	1	4	0	0	0	0
2010	8	4	1	3	0	0	0	0
2011	2	1	0	1	0	0	0	0

Wales					Population: 1,838			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	2	2	0	0	0	0	0	0
2009	3	0	0	3	0	0	0	0
2010	1	0	1	0	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

West Springfield					Population: 28,391			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	128	45	25	59	14	2	2	10
2008	120	46	27	47	7	0	0	7
2009	65	22	13	30	4	0	0	4
2010	74	28	17	29	2	1	0	1
2011	74	24	23	27	2	0	1	1

Westfield					Population: 41,094			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	136	76	16	44	5	1	0	4
2008	135	60	20	55	2	1	1	0
2009	123	72	17	34	2	1	1	0
2010	123	52	23	15	4	1	0	3
2011	125	69	20	36	1	0	0	1

Wilbraham	Population: 14,219							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	56	27	10	19	3	0	0	3
2008	39	21	8	10	1	0	0	1
2009	46	32	3	11	2	0	0	2
2010	32	10	7	15	4	0	2	2
2011	41	23	5	13	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
13005	Agawam	2,363	74	1	1,405	119	340	99	313	4	8
13033	Blandford	93	8	0	47	1	8	2	20	2	5
13987	Bondsville	108	13	0	5	32	23	7	20	7	1
13043	Brimfield	363	22	0	188	25	33	18	41	35	1
13059	Chester	89	5	0	61	7	1	1	7	6	1
13061	Chicopee	4,487	252	13	2,151	249	547	463	765	4	43
13085	East Longmeadow	747	38	0	19	131	125	103	326	4	1
13112	Granville	67	13	0	32	7	6	5	3	0	1
13120	Hampden	126	28	0	6	31	21	6	31	3	0
13135	Holland	154	11	0	101	9	16	3	13	1	0
13137	Holyoke	4,955	201	2	2,878	210	202	331	1,091	4	36
13159	Longmeadow	2,456	44	3	1,460	153	268	106	412	6	4
13161	Ludlow	972	70	3	204	160	140	135	228	15	17
13191	Monson	1,477	71	1	980	81	149	50	72	70	3
13194	Montgomery	3	0	0	2	0	0	1	0	0	0

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
13986	Palmer #1	384	38	1	12	89	90	50	103	0	1
13256	Russell	129	19	0	76	10	5	0	17	2	0
13279	Southwick	398	42	1	53	89	58	53	98	3	1
13281	Springfield	15,851	963	71	7,408	805	832	2,780	2,916	31	45
13988	Three Rivers	131	10	2	10	16	38	16	36	3	0
13297	Tolland	60	8	0	31	5	11	4	0	1	0
13325	West Springfield	6,163	75	4	4,926	207	282	161	501	0	7
13329	Westfield	2,579	127	4	999	181	374	183	689	10	12
13339	Wilbraham	2,645	46	1	1,725	121	251	148	299	49	5
Hampden County		46,800	2,178	107	24,779	2,738	3,820	4,725	8,001	260	192

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.

Springfield Fires in 2011

961 Total Fires — 635 Structures, 108 Vehicles & 332 Other Fires

The Springfield Fire Department reported 961 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 635 structure fires, 105 motor vehicle fires, 130 outside trash fires, 58 brush fires, 15 special outside fires, and 18 unclassified fires caused two civilian deaths, 14 civilian injuries, 26 fire service injuries and an estimated dollar loss of \$4.5 million.

2 Killed in 2 Fatal Fires in Springfield

- On June 18, 2011, at 1:06 a.m., the Springfield Fire Department was called to a fatal smoking fire in a single-family home. The 43-year old male victim was most likely asleep at the time of the fire. He was overcome by the smoke and transported to a local hospital where he succumbed to his injuries. Two (2) other civilians and a firefighter were injured at this fire. Detectors were present and alerted the other occupants of the building. There were no sprinklers. Damages from this fire were estimated to be \$55,000.
- On July 12, 2011, at 3:05 p.m., the Springfield Fire Department was called to a fatal arson fire in a single-family home. The victim of a homicide, an 80-year old woman, was in the home when someone set fire to the house. No one else was injured at this fire. The victim was transported to a local hospital where she later succumbed to her injuries. Smoke detectors were present but it was undetermined if they operated and no sprinklers were present. Damages from this fire were estimated to be \$45,000.

Structure Fires Up Slightly in 2011

Total fires decreased by 92 from 1,053 incidents in 2010. Reported structure fires were up 22 from the 613 reported during the previous year. Motor vehicle fires decreased by three from 108 the year before. Outside and other fires decreased by 111 from the 332 reported in 2010.

SPRINGFIELD FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1,311	741	129	441	15	3	10	2
2008	1,138	687	104	347	22	12	6	4
2009	960	583	109	268	15	7	6	2
2010	1,053	613	108	332	10	2	3	5
2011	961	635	105	221	9	4	3	2

BUILDING FIRES

There were 627 building fires of different types in Springfield in 2011. These 627 building fires accounted for 99% of all structure fires in Springfield.

86% of Building Fires in Homes

The 627 building fires that occurred in Springfield in 2011 can be broken down by fixed property use as follows: 537, or 86% of all building fires, were in residential properties; 27 fires occurred in educational properties; 17 fires happened in mercantile or business properties; and another 17 fires occurred in institutional facilities; 11 fires took place in public assembly properties; eight fires occurred in storage properties; six fires occurred in special properties; and four fire happened in manufacturing or processing facilities.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

There were 537 reported residential building fires in Springfield in 2011. These 537 fires are an increase of one, or less than 1%, over the 536 residential building fires reported in 2010.

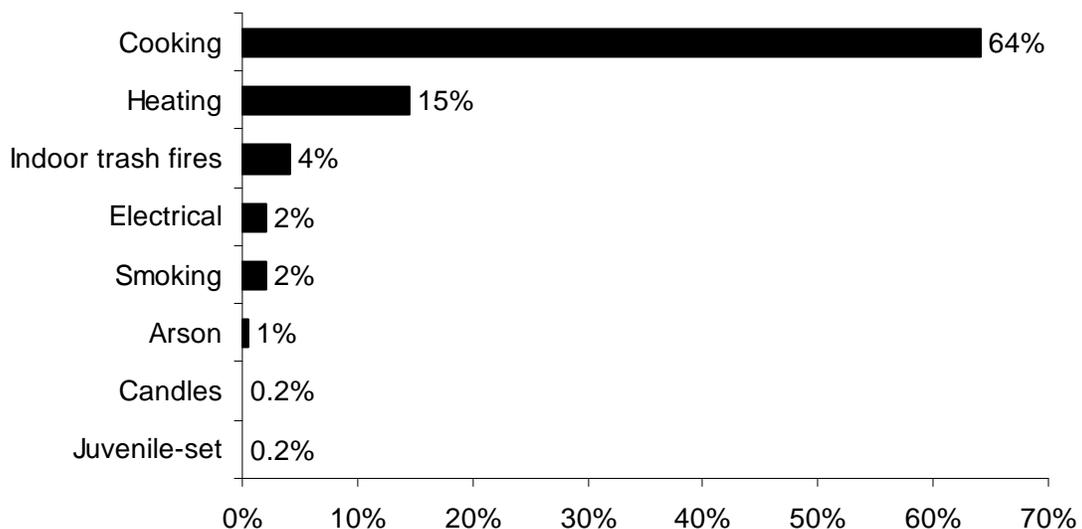
Apartments Accounted for 55% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 55% of these building fires in Springfield; 38% occurred in 1- or 2-family homes; 3% occurred in dormitories; 1% occurred in rooming houses; 1% occurred in residential board and care facilities; and less than 1% occurred in hotels or motels. One percent (1%) occurred in unclassified residential buildings.

Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Springfield was unattended cooking and other unsafe cooking practices, accounting for 64% of these fires. Heating equipment accounted for 15% of the residential building fires in 2011. Indoor rubbish fires were responsible for 4%. Smoking and electrical problems each caused 2% of these fires. Arsons were the cause of 1% of Springfield's home fires; and candles and juvenile-set fires each caused less than 1% of the fires in people's homes in Springfield in 2011.

2011 Leading Causes of Fires in Springfield Homes



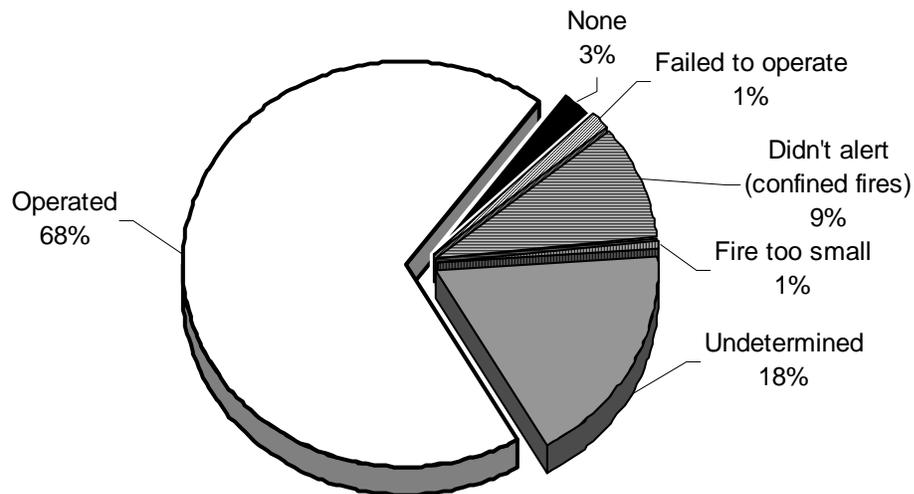
80% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Four hundred and thirty (430), or 80% of all residential building fires were confined to non-combustible containers in 2011. Three hundred and twenty-nine (329), or 61% of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Seventy (70), or 13% of all residential fires were fuel burner or boiler malfunctions. Twenty-one (21), or 4% of residential fires were rubbish fires contained to a non-combustible container. Eight (8) fires were confined to chimneys, which accounted for 1% of residential building fires. One (1) incinerator overload or malfunction, accounted for less than 1% of these fires; and one commercial compactor fire also caused less than 1% of residential building fires in 2011.

Detectors Alerted Occupants in Over 2/3 of Fires

Smoke or heat detectors operated and alerted the occupants in 368, or 68%, of the residential building fires. In 9% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 1% of the residential fires. Smoke detector performance was undetermined in 96 incidents, or 18% of Springfield's residential building fires.

Detector Status in Springfield Residential Fires 2011



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

1 Failed Detectors Had Missing Batteries

Of the seven fires where smoke detectors were present but failed to operate, one, or 14%, failed because the batteries were either missing or disconnected. It was undetermined in the other six cases, or 86%, why the detectors failed to operate.

VACANT BUILDINGS**19 Building Fires in Vacant Buildings**

Springfield reported 19 fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the total 627 building fires reported to MFIRS in 2011. Nine (9) one- or two-family homes, four apartment buildings, one unclassified vehicle storage facility, one movie theater, one motel, one elementary school, one vocational high school and one unclassified business were reported as vacant building fire incidents.

JUVENILE-SET FIRES**1 Juvenile-set Fires**

There was one juvenile-set fire reported in Springfield in 2011. The structure fire caused \$23,000 in estimated damages.

ARSONS**9 Total Arsons — 4 Structures, 3 Motor Vehicles, & 2 Other**

Nine (9), or 1%, of Springfield's 961 fires were intentionally set, or, for purposes of this analysis, arson. The four structure arsons, three motor vehicle arsons and two outside and other arsons caused one civilian death, two fire service injuries and an estimated dollar loss of \$253,000.

Structure Arsons Up Slightly

The total number of arsons reported, nine, decreased by one from the 10 reported in 2010. Reported structure arsons increased two from two the year before. Motor vehicle arsons remained the same with three reported in both 2010 and 2011. Outside and other arsons decreased three from the five reported last year.

Springfield reported 145, or 15%, of all fires are still under investigation or undetermined after investigation. This high number of fires with these classifications is one possible reason for the unusually low number of reported arsons in Springfield in 2011.

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

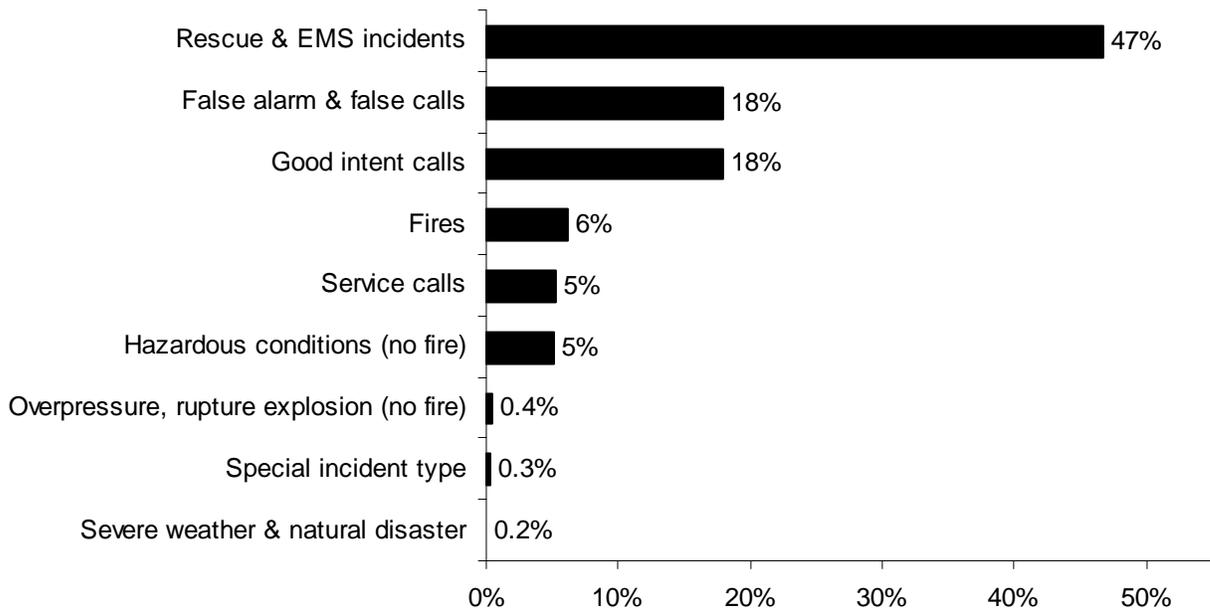
Rescue & EMS Calls Are Almost 1/2 of All Reported Incidents

In 2011, Springfield voluntarily reported 15,859 incidents to MFIRS. Of these 15,859 incidents, 14,888, or 94% were non-fire incidents.

Of these 14,888 non-fire incidents 7,408, or 47%, were reported rescue and emergency medical services (EMS) calls; 2,916, or 18%, were reported false alarm or false calls; 2,780, or 18%, were reported good intent calls; 832, or 5%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 805, or 5%, were reported hazardous condition calls with no fire; 71, or 0.4%, were reported overpressure, rupture, explosion or overheat calls with no fire; 45, or 0.3%, were special incident type calls, such as citizen complaints; and 31, or 0.2%, were responses to severe weather.

In 2011, Springfield reported 971 fires³ to MFIRS, accounting for 6% of all reported incidents.

2011 Incidents by Incident Type



³ This figure includes fires that Springfield responded to calls of mutual aid outside of their jurisdiction.

Springfield Gave Mutual Aid in 35 Reported Incidents

In 2011, Springfield reported giving mutual aid 35 times. Of these 35 incidents, 13, or 37%, were rescue or EMS incidents; 12, or 34%, were for cover assignments (service calls); four, or 11% were false alarms; three, or 9% were good intent calls; and severe weather, a hazardous condition and a special incident type were each responsible for one, or 3%, of Springfield's mutual aid given calls.

Springfield Received Mutual Aid in 15 Incidents

In 2011, Springfield reported receiving mutual aid from surrounding fire departments in 15 incidents. Of these 15 incidents, six, or 40%, were hazardous condition calls without fire; five, or 33%, were for rescue or EMS incidents; one, or 7%, was for a good intent call; one, or 7%, was for a fire; one, or 7%, was a service call; and one, or 7%, was for severe weather.

Springfield**Population: 153,060****6.3 Fires/1,000 Population****Total Fires: 961 \$4,500,160**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	635	66%	\$4,010,616
Vehicle Fires	105	11%	470,800
Other Fires	221	23%	18,744

2 Civilian Deaths 2.1 Civilian Deaths/1,000 Fires
 2 Fatal Fires 0.13 Civilian Deaths/10,000 Population
 14 Civilian Injuries 26 Fire Service Injuries

Building Fires: 627**Residential Structure Fires: 537****Residential Structure Fires Confined to Non-Combustible Containers: 430****Unconfined Residential Structure Fires: 107**

2 Civilian Deaths 6 Civilian Injuries 18 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	296	55%	Operated	368	68%
1- & 2-Family homes	205	38%	Didn't operate	7	1%
Dormitories	16	3%	None	14	3%
Boarding house	8	1%	Fire too small	3	1%
Residential board & care	3	1%	Didn't Alert (confined)	49	9%
Hotel, motel	1	0.2%	Undetermined	96	18%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	66%	Heat from operating eq.	5%	24%
Heating room or area	13%	Radiated heat from oper. eq.	1%	7%
Bedroom	3%	Other op. flame/smok. mat.	1%	6%
Function room, other	1%	Hot or smoldering object	1%	6%
Chimney or flue	1%	Cigarette	1%	5%
Exterior balcony/unencl. porch	1%			

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignition	%	%Unconfined⁷
Cooking materials	64%	Misuse of material or prod.	1%	7%
Flammable or combust. liquid	13%	Equipment unattended	1%	7%
Rubbish, trash, waste	4%	Combustibles too close	1%	6%
Structural member/framing	2%	Abandoned/discarded mater.	1%	5%
Film or residue (creosote)	1%	Electrical failure/malfunc.	1%	4%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	61%	Unintentional	8%	39%
None	21%	Failure of eq. or heat source	1%	7%
Boiler, furnace, cent. heat. unit	13%	Intentional	1%	3%
Chimney or flue	1%	Act of Nature	0.2%	1%
Incinerator	0.2%	Undetermined	1%	5%
Commercial compactor	0.2%	Cause Under Investigation	9%	44%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	7,408	47%
False alarms & false calls	2,916	18%
Good intent calls	2,780	18%
Fires ¹⁰	971	5%
Service calls	832	5%
Hazardous conditions (no fire)	805	5%
Overpressure rupture, explosion or overheat calls (no fire)	71	0.4%
Special incident type	45	0.3%
Severe weather & natural disaster	31	0.2%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This figure contains calls for mutual aid assistance.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	82	66	7	9
February	70	55	10	5
March	87	54	10	23
April	96	60	8	28
May	83	45	7	31
June	65	41	6	18
July	80	38	12	30
August	65	41	7	17
September	71	49	10	12
October	82	64	7	11
November	89	52	14	23
December	91	70	7	14

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	142	90	12	40
Monday	143	88	20	35
Tuesday	145	89	20	36
Wednesday	121	88	12	21
Thursday	119	76	19	24
Friday	140	93	12	35
Saturday	151	111	10	30

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	113	70	20	23
04:01 - 08:00	76	48	13	15
08:01 - 12:00	126	98	10	18
12:01 - 16:00	223	141	22	60
16:01 - 20:00	268	181	21	65
20:01 - 24:00	155	97	18	40

Motor Vehicle Fires

Total: 105

Automobiles: 93 (89%)

3 (3%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 9

Dollar loss: \$253,100

0.06 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	4	1%	44%	\$23,800
Vehicle Arsons	3	3%	33%	15,000
Other Arsons	2	1%	22%	0

1 Civilian Deaths 2 Fire Service Injuries

0.03 Structure arsons/1,000 population

0.02 Vehicle arsons/1,000 population

0.01 Other arsons/1,000 population

Peak Times of Day for:

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

Other Arsons	#	%
12:01 - 16:00	1	50%
20:01 - 00:00	1	50%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	2	50%
1- & 2-Family homes	1	25%
Food & beverage sales, grocery store	1	25%

Hampshire County

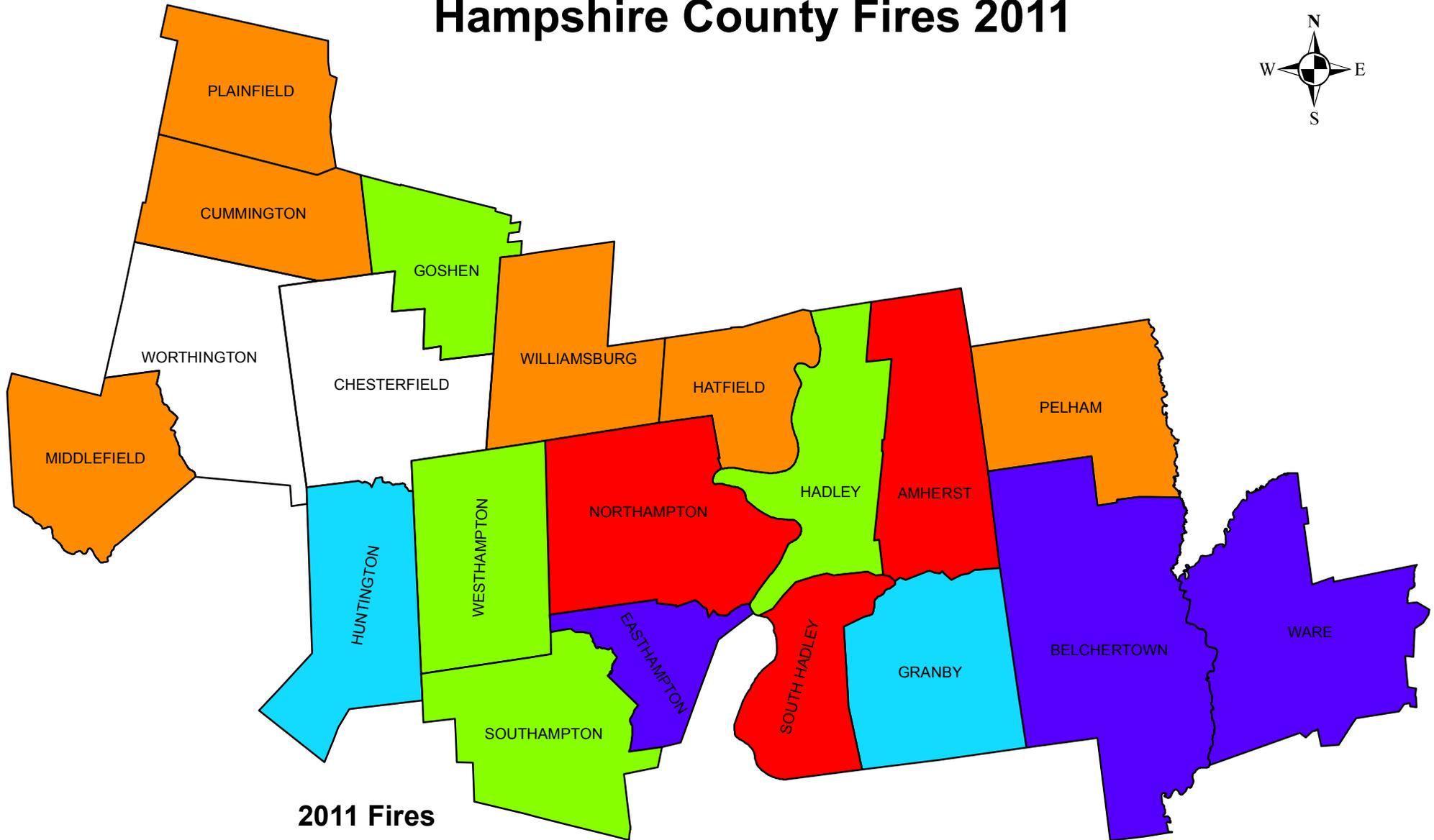
2011 Fire Data Analysis



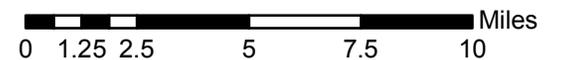
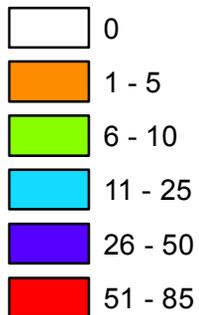
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Hampshire County Fires 2011



2011 Fires



Hampshire County Fires in 2011

452 Total Fires — 218 Structures, 40 Vehicles & 194 Other Fires

Hampshire County ranked eleventh out of the fourteen Massachusetts counties in total reported fires. Hampshire County fire departments reported 452 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 218 structure fires, 40 motor vehicle fires, 66 brush, tree or lawn fires, 69 outside rubbish fires, 19 special outside fires, two cultivated vegetation or crop fires and 38 other fires caused six civilian injuries, three fire service injuries and an estimated dollar loss of \$1.9 million. Hampshire County's 452 total reported fires accounted for 1% of the 29,110 fires reported to MFIRS in 2011.

All 21 fire departments in Hampshire County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2011.

All Fires Down

The total number of reported fire incidents decreased by 122 from the 574 reported in 2010. Reported structure fires decreased by 23 from the 241 reported during the previous year. Motor vehicle fires decreased by 19 from 59 the year before. The number of outside and other fires decreased by 80 from 274 in 2010. A decrease in brush fires was a statewide trend.

HAMPSHIRE COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	635	287	54	294	34	7	0	27
2008	537	233	45	259	54	1	2	51
2009	535	246	58	231	45	7	8	30
2010	574	241	59	274	44	9	1	34
2011	452	218	40	194	28	0	0	28

Fire and Fire Death Rates

Hampshire County had 2.9 fires per 1,000 population. That figure ranks Hampshire County thirteenth in the state and below the state rate of 4.4 fires per 1,000 population. Hampshire County also had 0 fire deaths per 10,000 population, ranking it tied for eleventh among Massachusetts counties and just below the state rate of 0.08 fire deaths per 10,000 population.

No Hampshire County Fire Deaths

There were no reported fire deaths in Hampshire County in 2011.

Ware Has Hampshire County's Largest Loss Fire

- On March 8, 2011, at 9:52 a.m., the Ware Fire Department was called to a space heater fire at a 16-unit apartment building. One civilian was injured at this fire. Detectors were not present and the building was not sprinklered. Damages from the blaze were estimated to be \$500,000.

STRUCTURE FIRES**Reported Structure Fires Down**

The 218 structure fires caused four civilian injuries, three fire service injuries and an estimated dollar loss of \$1.6 million. These incidents represented 48% of Hampshire County's reported fires in 2011. The average estimated dollar loss per structure fire was \$7,192. The total number of reported structure fires decreased by 23, or 10%, from the 241 reported in 2010.

0 Structure Arsons

In 2011 Hampshire County fire departments did not report a single structure arson.

BUILDING FIRES

There were 217 building fires of different types in Hampshire County in 2011. These 217 building fires accounted for 99.5% of all structure fires in Hampshire County.

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

One hundred and eighty-nine (189), or 87%, of Hampshire County's 217 building fires occurred in residential occupancies. Eleven (11) fires occurred in educational facilities. Storage facilities experienced seven fires. Four (4) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings and mercantile and business properties each had two fires. Industrial facilities, and special properties such as outbuildings or sheds each had one fire in Hampshire County in 2011.

RESIDENTIAL FIRES**Residential Building Fires Remain the Same**

There were 189 reported residential building fires in Hampshire County in 2011. Residential fires remained the same with 189 reported in both 2010 and 2011.

1- & 2-Family Homes Accounted for 61% of Residential Building Fires

The peak fixed property use for residential building fires were 1- & 2-family homes, accounting for 61% of the residential building fires in Hampshire County; 19% occurred in apartments; 14% occurred in dormitories; 2% occurred in rooming houses and 1% in hotels or motels. Four percent (4%) of the residential building fires in Hampshire County occurred in unclassified residential buildings.

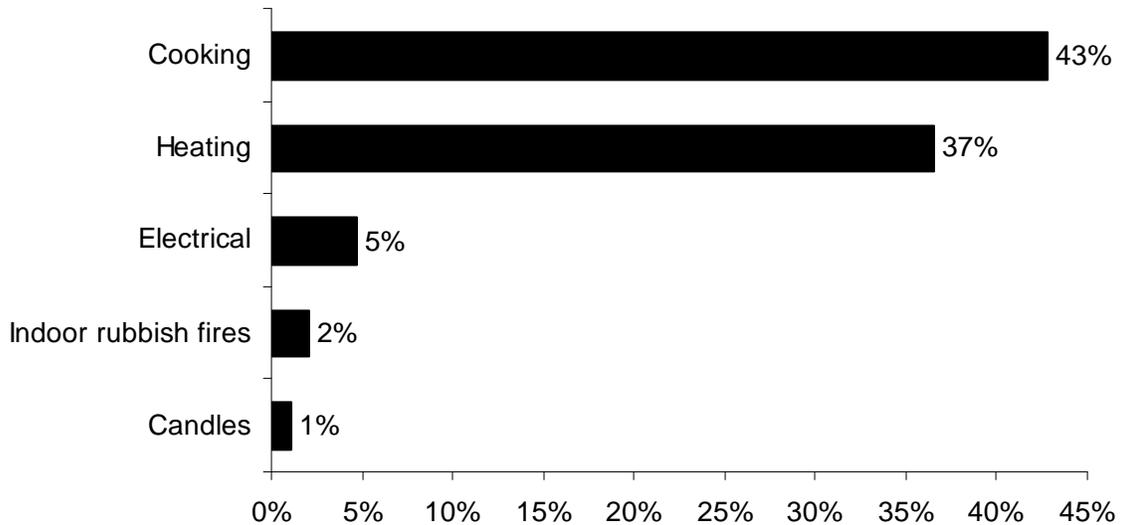
Although much of Hampshire County is rural, the county is home to several colleges and the main campus of the University of Massachusetts. Twenty-six (26), or 14%, of Hampshire County’s residential fires occurred in dormitories. Dormitory fires make up smaller percentages of the other counties’ fires.

Cooking Causes 43% of Residential Fires

Unattended cooking and other unsafe cooking practices was the leading cause of the 189 residential building fires in Hampshire County, accounting for 43% of these fires. Heating equipment fires accounted for 37% of home fires. Electrical problems caused 5% of the residential fires. Indoor rubbish fires caused 2%, and candles accounted for 1% of the residential fires in Hampshire County in 2011.

During the past five years, cooking and heating equipment have both been the leading cause of Hampshire County’s residential fires. In 2008 and in 2007 heating was the leading cause of residential fires in Hampshire and cooking was the second leading cause. In 2006, 2009 and 2010 cooking fires were the leading cause of residential fires and heating fires were the second leading cause.

2011 Leading Causes of Fires in Hampshire County Homes



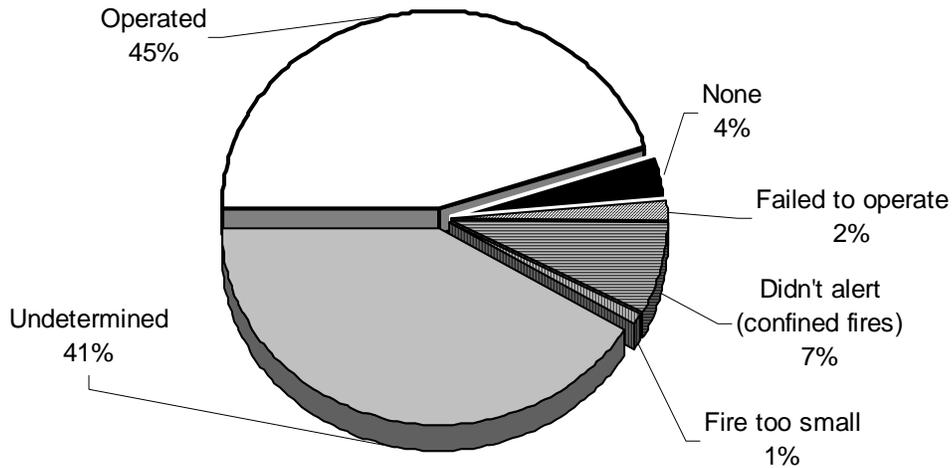
77% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One hundred and forty-five (145), or 77%, of all residential building fires were reported as confined to non-combustible containers in 2011. Seventy-five (75) of the reported fires were cooking fires contained to a non-combustible container, accounting for 40% of residential building fires. Thirty-nine (39), or 21%, of all residential building fires reported in 2011 were fires confined to a chimney. Twenty-seven (27), or 14%, were fires confined to a fuel burner or boiler malfunction. Four (4), or 2%, of these fires were rubbish fires contained to a non-combustible container in Hampshire County in 2011.

Detectors Operated in Only 45% of Fires

Smoke or heat detectors operated and alerted the occupants in 85, or 45%, of the residential building fires. In 7% of these fires², 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 1% of the residential fires. Smoke detector performance was undetermined in 78 incidents, or 41%, of Hampshire County’s residential building fires.

Detector Status in Hampshire County's Residential Structure Fires 2011



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

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

All Failed Detectors Were Undetermined

It was undetermined why the detectors failed in all three fires where smoke detectors were reported as present but failed to operate.

VACANT BUILDINGS**1% of Building Fires Occurred in Vacant Buildings**

Hampshire County reported three fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 217 building fires reported to MFIRS in 2011. Two (2) of these vacant building fires occurred in residential occupancies and one occurred in storage facilities.

None of the vacant building fires in Hampshire County in 2011 were determined to be intentionally set.

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

There were two reported juvenile-set fires in Hampshire County in 2011. They were special outside fires.

ARSONS**28 Total Arsons — 0 Structures, 0 Motor Vehicle & 28 Other Arsons**

Twenty-eight (28), or 6%, of Hampshire County's 452 fires were intentionally set, or, for purposes of this analysis, arson. None of these were structure or motor vehicle arsons. The nine brush arsons, nine outside rubbish arsons and six special outside arsons caused an estimated dollar loss of \$51.

All Arsons Down

The total number of reported arson fires decreased by 16 from the 44 reported in 2010. Structure arsons decreased by nine from the nine reported the previous year. Motor vehicle arsons decreased by one from one in 2010. Reported outside and other arsons decreased by six from the 34 reported in 2010.

ALL INCIDENTS**Rescue & EMS Calls Are 58% of All Reported Responses**

In 2011, Hampshire County fire departments reported 14,312 responses³ to MFIRS. Of these 14,312 incidents, 13,808 non-fire calls were voluntarily reported.

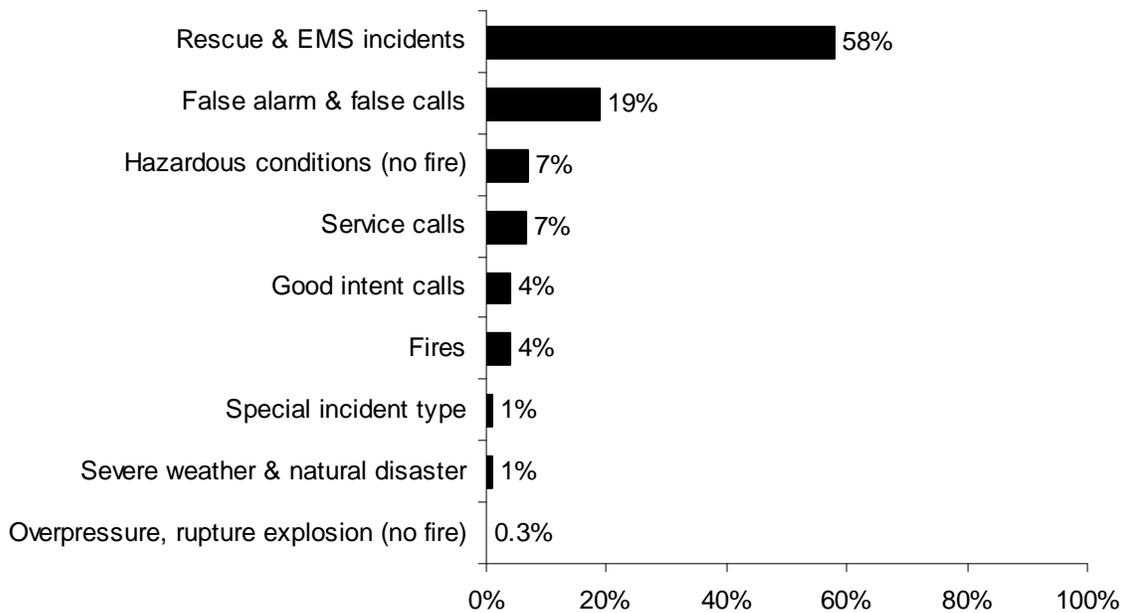
Of these 13,808 non-fire calls, 8,273, or 58% of all the responses reported in 2011, were reported rescue and emergency medical services (EMS) calls; 2,704, or 19%, were

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

reported false alarm or false calls; 977, or 7%, were reported hazardous condition calls with no fire; 958, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 616, or 4%, were reported good intent calls; 139, or 1%, were special incident type calls such as citizen complaints; 100, or 1%, were severe weather responses; and 41, or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire.

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

2011 Responses by Incident Type



Hampshire County Fire Departments Gave Mutual Aid 299 Times

In 2011, Hampshire County fire departments reported coming to the aid of other fire departments 299 times. Of these 299 responses, 145, or 48%, were for rescue or EMS calls; 52, or 17%, were for fires; 32, or 11%, were for good intent calls; 26, or 9%, were for service calls such as cover assignments; 19, or 6%, were for false alarms or false calls; 16, or 5%, were hazardous conditions calls with no fire; six, or 2%, were severe weather calls; two calls, or 1%, were for special incident types; and one, or 0.3%, was a reported overpressure, rupture, explosion or overheat call with no fire.

Hampshire County Received Mutual Aid in 166 Incidents

In 2011, Hampshire County fire departments received aid from surrounding departments in 166 incidents. Of these 166 incidents, 120, or 72%, were rescue and emergency medical services calls; 32, or 19%, were for fires; five, or 3%, were hazardous conditions calls with no fire; another five, or 3%, were false alarm or false calls; two, or 1%, were

severe weather calls; one, or 1%, was a service call; and one was a good intent call accounting for 1% of the mutual aid calls received in Hampshire County in 2011.

Hampshire County

Population: 158,080

2.9 Fires/1,000 Population

Total Fires: 452 \$1,863,724

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	218	48%	\$1,567,851
Vehicle Fires	40	9%	247,600
Other Fires	194	43%	48,273

6 Civilian Injuries 3 Fire Service Injuries

Building Fires: 217

Residential Structure Fires: 189

Residential Structure Fires Confined to Non-Combustible Containers: 145

Unconfined Residential Structure Fires: 44

4 Civilian Injuries 3 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	115	61%	Operated	85	45%
Apartments	35	19%	Didn't operate	3	2%
Dormitories	26	14%	None	7	4%
Rooming houses	4	2%	Fire too small	2	1%
Hotels or motels	2	1%	Didn't alert (confined)	14	7%
			Undetermined	78	41%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	45%	Radiated, con. Heat op. eq.	4%	16%
Chimney or flue	21%	Hot or smoldering object	3%	11%
Heating room or area	15%	Arcing	3%	11%
Bedroom	3%	Lightning	2%	7%
Function room, other	2%	Heat from operating eq.	2%	7%

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	42%	Elec. failure, malfunc., other	2%	9%
Film, residue (creosote)	21%	Too close to combustibles	2%	7%
Flamm. or combustible liquid	14%			
Structural member, framing	3%			
Electrical wire, cable insulation	3%			
Rubbish, trash, waste	2%			

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	40%	Unintentional	10%	41%
Chimney or flue	21%	Failure of eq. or heat source	4%	16%
None	19%	Intentional	0%	0%
Boiler, furnace, cent. heat unit	14%	Cause under investigation	4%	16%
		Undetermined	4%	18%
		Act of nature	1%	5%

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

Alerted occupants	46%
Didn't alert occupants	10%
Undetermined	45%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	41	24	8	9
February	37	23	3	11
March	46	22	3	21
April	53	17	1	35
May	57	20	3	34
June	30	13	5	12
July	22	9	2	11
August	26	12	5	9
September	27	10	2	15
October	38	22	5	11
November	41	25	0	16
December	34	21	3	10

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	84	34	6	44
Monday	73	38	10	25
Tuesday	58	35	6	17
Wednesday	49	22	4	23
Thursday	42	25	5	12
Friday	64	29	5	30
Saturday	82	35	4	43

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	45	11	1	33
04:01 - 08:00	30	14	3	13
08:01 - 12:00	53	27	6	20
12:01 - 16:00	97	39	10	48
16:01 - 20:00	143	79	16	48
20:01 - 00:00	84	48	4	32

Motor Vehicle Fires

Total: 40

Automobiles: 29 (73%)

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

Arson Fires

Total Arsons: 28 Dollar loss: \$51

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	28	14%	100%	51

0.00 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.18 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
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Other Arsons	#	%
20:01 - 00:00	8	29%
20:01 - 00:00	7	25%
12:01 - 16:00	5	18%
16:01 - 20:00	5	18%

Peak Fixed Property Uses for Structure Arsons # %

Amherst **Population: 37,819**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	105	49	10	46	14	2	0	12
2008	102	55	6	41	12	1	0	11
2009	98	44	8	46	16	2	0	14
2010	119	46	6	67	21	4	0	17
2011	85	31	3	51	12	0	0	12

Belchertown **Population: 14,649**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	62	30	5	27	4	2	0	2
2008	52	24	3	25	1	0	0	1
2009	33	16	4	13	2	0	0	2
2010	50	21	4	25	0	0	0	0
2011	45	26	3	16	0	0	0	0

Chesterfield **Population: 1,222**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	10	4	0	6	0	0	0	0
2008	8	4	1	3	0	0	0	0
2009	13	6	1	6	0	0	0	0
2010	8	3	0	5	1	0	0	1
2011	Fire Department in Good Standing, Certified No Reportable Fires							

Cummington **Population: 872**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5	5	0	0	0	0	0	0
2008	1	0	1	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	5	4	1	0	0	0	0	0
2011	1	1	0	0	0	0	0	0

Easthampton					Population: 16,053			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	85	56	8	21	1	0	0	1
2008	56	26	5	25	7	0	1	6
2009	48	30	3	15	2	0	0	2
2010	52	29	5	18	3	2	0	1
2011	43	28	5	10	2	0	0	2

Goshen					Population: 1,054			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	4	3	1	0	0	0	0	0
2009	4	1	0	3	0	0	0	0
2010	5	2	1	2	0	0	0	0
2011	6	2	0	4	0	0	0	0

Granby					Population: 6,240			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	29	14	1	14	5	0	0	5
2008	36	13	2	21	6	0	0	6
2009	41	19	2	20	1	0	0	1
2010	35	14	9	12	1	0	0	1
2011	24	10	3	11	1	0	0	1

Hadley					Population: 5,250			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	7	7	0	0	0	0	0	0
2008	5	1	3	1	1	0	1	0
2009	9	4	2	3	0	0	0	0
2010	7	7	0	0	0	0	0	0
2011	10	3	6	1	0	0	0	0

Hatfield					Population: 3,279			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	18	3	2	13	0	0	0	0
2008	6	2	2	2	0	0	0	0
2009	11	7	2	2	0	0	0	0
2010	8	0	3	5	0	0	0	0
2011	4	1	1	2	0	0	0	0

Huntington					Population: 2,180			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	12	4	0	8	1	1	0	0
2008	1	1	0	0	0	0	0	0
2009	11	6	0	5	0	0	0	0
2010	14	7	2	5	1	0	0	1
2011	16	3	2	11	5	0	0	5

Middlefield					Population: 521			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	1	1	0	0	0	0	0	0

Northampton					Population: 28,549			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	110	49	17	44	2	1	0	1
2008	114	54	12	48	0	0	0	0
2009	89	34	23	32	15	5	7	3
2010	93	33	16	44	0	0	0	0
2011	75	24	13	38	0	0	0	0

Pelham					Population: 1,321			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007 ¹⁰	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	1	1	0	0	0	0	0	0
2010	3	1	2	0	0	0	0	0
2011	1	1	0	0	0	0	0	0

Plainfield					Population: 648			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	2	1	1	0	0	0	0	0
2011	1	0	1	0	0	0	0	0

SOUTH HADLEY FIRE DISTRICTS					Population: 17,514			
South Hadley District # 1					Est. Pop. Protected: 11,734			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	0	1	0	0	0	0	0
2008	7	7	0	0	0	0	0	0
2009	46	9	7	30	4	0	1	3
2010	50	17	2	31	9	2	0	1
2011	24	12	0	12	3	0	0	3

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
2007	28	20	3	5	1	0	0	1
2008	13	11	1	1	0	0	0	0
2009	44	42	0	2	0	0	0	0
2010	44	38	2	4	1	0	0	1
2011	55	51	0	4	0	0	0	0

¹⁰ Pelham did report 1 severe weather response in 2007.

Southampton					Population: 5,792			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	65	7	1	57	1	0	0	1
2008	33	1	3	29	13	0	0	13
2009	11	1	0	10	3	0	0	3
2010	11	0	2	9	3	0	1	2
2011	7	5	1	1	0	0	0	0

Ware					Population: 9,872			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	76	25	4	47	10	1	0	9
2008	67	15	2	50	11	0	0	11
2009	51	16	4	31	0	0	0	0
2010	56	14	1	41	4	1	0	3
2011	45	15	0	30	6	0	0	6

Westhampton					Population: 1,607			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	4	2	1	1	0	0	0	0
2008	8	4	0	4	0	0	0	0
2009	13	6	2	5	0	0	0	0
2010	11	3	2	6	0	0	0	0
2011	6	2	2	2	0	0	0	0

Williamsburg					Population: 2,482			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	17	11	1	5	0	0	0	0
2008	8	4	1	3	0	0	0	0
2009	10	6	0	4	2	0	0	2
2010	1	1	0	0	0	0	0	0
2011	3	2	0	1	0	0	0	0

Worthington				Population: 1,156				
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	1	1	0	0	0	0	0	0
2010	Fire Department in Good Standing, Certified No Reportable Fires							
2011	Fire Department in Good Standing, Certified No Reportable 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
15008	Amherst	1,491	95	1	184	140	86	103	877	0	5
15024	Belchertown	396	47	0	4	92	56	43	149	5	0
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	2,507	46	4	1,942	86	160	54	185	7	23
15108	Goshen	111	9	0	71	6	7	5	13	0	0
15111	Granby	222	28	1	18	53	48	9	62	2	1
15117	Hadley	11	10	0	0	1	0	0	0	0	0
15127	Hatfield	118	4	0	8	36	14	8	43	5	0
15143	Huntington	280	25	0	136	29	26	18	35	9	2
15183	Middlefield	1	1	0	0	0	0	0	0	0	0
15214	Northampton	7,014	80	32	4,991	318	312	203	974	21	83
15230	Pelham	1	1	0	0	0	0	0	0	0	0
15237	Plainfield	1	1	0	0	0	0	0	0	0	0
15978	South Hadley #1	233	28	1	7	35	57	22	75	2	6
15979	South Hadley #2	702	60	0	388	48	63	42	98	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
15276	Southampton	616	7	1	365	49	45	29	77	40	3
15309	Ware	334	48	1	5	57	56	63	86	6	12
15331	Westhampton	170	10	0	90	20	19	9	22	0	0
15340	Williamsburg	103	3	0	64	7	9	8	8	0	4
15349	Worthington	0	0	0	0	0	0	0	0	0	0
Total	Hampshire County	14,312	504	41	8,273	977	958	616	2,704	100	139

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

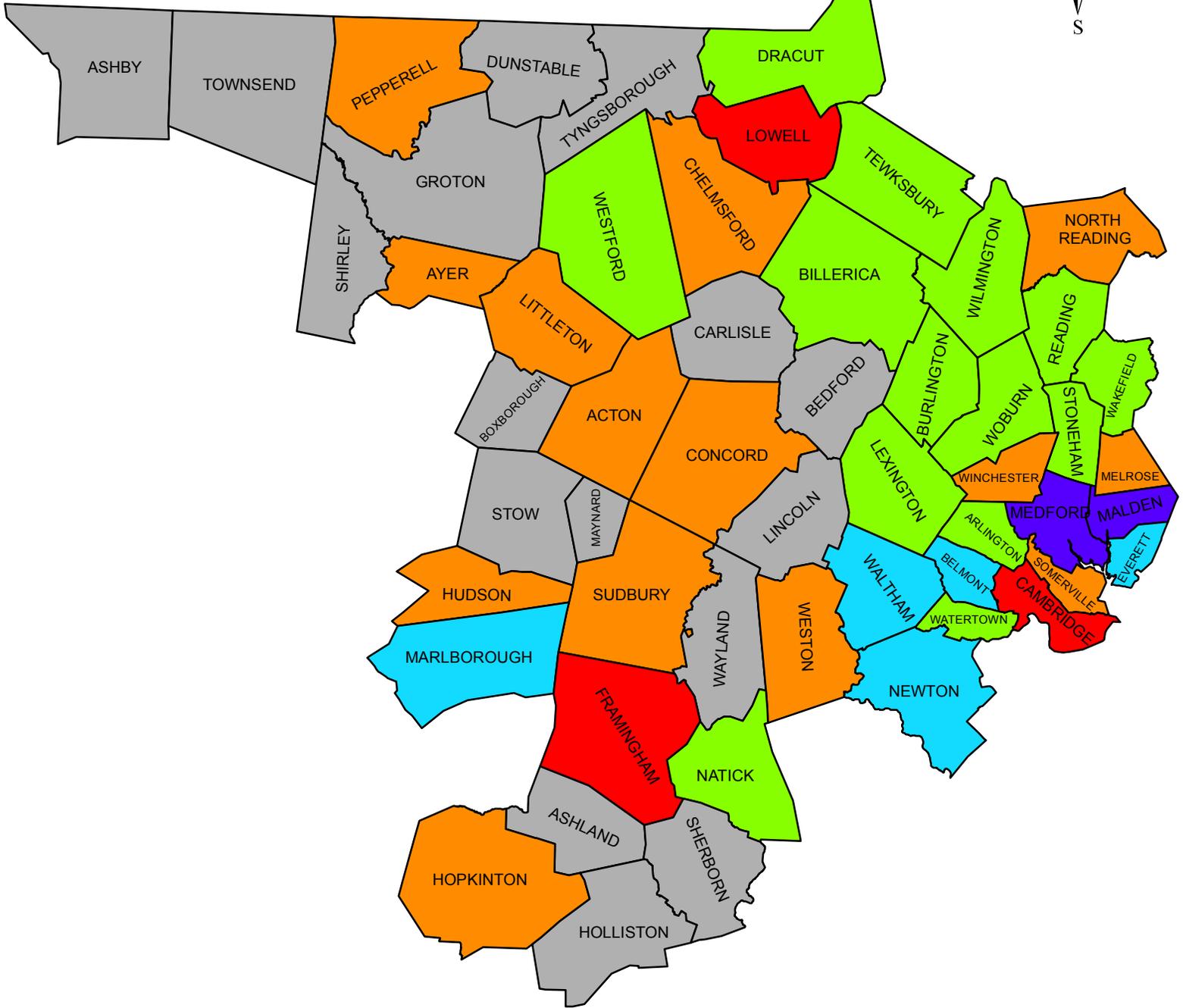
2011 Fire Data Analysis



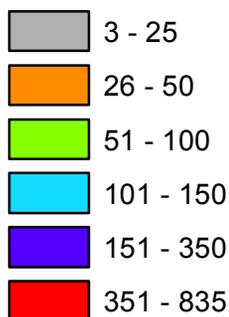
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

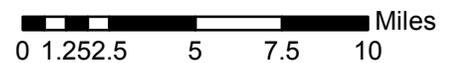
Middlesex County Fires 2011



2011 Fires



MFIRS
Massachusetts Fire Incident Reporting System



Middlesex County Fires in 2011

4,856 Total Fires — 3,239 Structures, 510 Vehicles & 1,107 Other Fires

Middlesex County ranked second out of the fourteen Massachusetts counties in total reported fires. Middlesex County fire departments reported 4,856 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 3,239 structure fires, 510 motor vehicle fires, 471 brush fires, 351 outside rubbish fires, 119 special outside fires, two cultivated vegetation or crop fires, and 164 unclassified fires caused 10 civilian deaths, 49 civilian injuries, 90 fire service injuries and an estimated dollar loss of \$36.4 million. Middlesex County's fires accounted for 17% of the 29,110 Massachusetts fires reported in 2011.

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 2011.

All Fires Down

The total number of reported fire incidents decreased by 906 from the 5,762 reported in 2010. Reported structure fires decreased by 167 from 3,406 in the previous year. Motor vehicle fires increased by four from the 506 reported during 2010. Reported outside and other fires decreased by 743 from 1,850 the year before. The significant drop in outside fires was a statewide trend in 2011.

MIDDLESEX COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	5,758	3,207	569	1,982	173	63	16	94
2008	5,323	3,447	512	1,364	168	40	27	101
2009	5,161	3,389	503	1,269	167	39	28	100
2010	5,762	3,406	506	1,850	161	44	13	104
2011	4,856	3,239	510	1,107	119	34	22	63

Fire and Fire Death Rates

Middlesex County had 3.2 fires per 1,000 population. That figure ranks Middlesex County twelfth in the state and below the state rate of 4.4 fires per 1,000 population. Middlesex County also had 0.07 fire deaths per 10,000 population ranking it seventh among Massachusetts counties and tied with the state rate of 0.05 fire deaths per 10,000 population.

9 Fatal Fires Killed 10 Middlesex County Residents

In 2011, nine fatal fires killed 10 people in Middlesex County.

- On January 11, 2011, at 4:27 p.m., the Somerville Fire Department was called to a fatal electrical fire in a seven-unit apartment building. The fire started in a first floor

bedroom. It is believed that the victim, a 64-year old woman, knocked over a lamp and the light bulb came into direct contact with combustibles starting the fire. She was unconscious and unable to act at the start of the fire. No one else was injured at this fire. Detectors were present but it was undetermined if they operated. There were no sprinklers. The fire caused an estimated \$30,000 worth of damage.

- On January 17, 2011, at 12:26 p.m., the Somerville Fire Department responded to a fatal heating fire at a two-family home. Bedding was too close to the baseboard heater and ignited. The victims, an 80-year old woman, and her 48-year old son, were overcome by the heat and smoke while trying to escape. They were transported to a local hospital where they succumbed to their injuries. Nine (9) firefighters were injured at this fire. Detectors were not present, and the building was not sprinklered. Damages from this fire were estimated to be \$550,000.
- On February 4, 2011, at 6:39 a.m., the Bedford Fire Department was dispatched to a fire in a single-family home of undetermined cause. The victim, a 69-year old man, was asleep at the time of the fire and was overcome by heat and smoke as he attempted to escape. There were no other injuries associated with this fire. Smoke detectors were present but failed to operate because of a missing battery. The building was not sprinklered and damages from this fire were estimated to be \$600,000.
- On February 21, 2011, at 1:24 a.m., the Newton Fire Department was called to a fatal fire in a two-family home of undetermined cause. The victim, a 63-year old woman, was overcome by the heat and smoke. No one else was injured at this fire. Detectors were present and operated but the building was not sprinklered. Damages from the blaze were estimated to be \$1.2 million.
- On May 13, 2011, at 8:52 a.m., the Medford Fire Department was called to a fatal cooking fire in a 175-unit apartment building. Combustibles too close to the stove ignited when the stove was operating. The victim, a 72-year old physically disabled man, was overcome by the smoke. He was rescued by firefighters and transported to a local hospital where he later succumbed to his injuries. One firefighter was injured at this fire. Smoke detectors were present, and operated. Sprinklers operated and actively suppressed the fire until firefighters could completely extinguish it. Damages from this fire were estimated to be \$200,000.
- On May 30, 2011, at 3:08 a.m., the Newton Fire Department was dispatched to a fire in a single-family home of undetermined cause. The victim, a 79-year old woman, was found overcome by smoke as she attempted to escape. There were no other injuries associated with this fire. Detectors were present and operated, but sprinklers were not. Damages from this fire were estimated to be \$704,900.
- On October 26, 2011, at 8:23 p.m., the Belmont Fire Department was called to a fatal electrical fire in a single-family home that started in a second-story bedroom. The victim, an 80-year old physically disabled man, was overcome by the heat and smoke while he attempted to escape. Four (4) firefighters were injured battling this fire.

There were no detectors in the home and the building was not sprinklered. The fire caused an estimated \$125,000 in damages.

- On November 19, 2011, at 9:06 p.m., the Framingham Fire Department was dispatched to a fire in a single-family home of undetermined cause. The victim, a 40-year old man, was found by firefighters sleeping in the area of origin, a game room at the rear of the house. He was transported to a local hospital where he succumbed to his injuries. There were no other injuries associated with this fire. Detectors and sprinklers were not present. Damages from this fire were estimated to be \$125,000.
- On November 23, 2011, at 12:49 p.m., the Stow Fire Department was called to a fatal electrical fire in a single-family home. The victim, a 98-year old woman was overcome by smoke inhalation. No one else was injured at this fire. Detectors were present but failed because of a dead battery. Sprinklers were not present. Damages were estimated to be \$75,000.

Largest Loss Fire in 2011

In 2011, Middlesex County fire departments reported five fires with a reported dollar loss of \$1 million or greater. The combined dollar loss of these five fires totaled \$6.9 million, or 19%, of the county's total dollar loss. Concord had two of these fires.

- On April 30, 2011, at 1:15 a.m., the Waltham Fire Department was called to a fire of undetermined cause at a 24-unit apartment building. The fire started on an exterior wall. Three (3) firefighters were injured at this fire. Detectors were present but failed to operate from a lack of cleaning and sprinklers were not present. Damages from this fire were estimated to be \$1.62 million.

STRUCTURE FIRES

Reported Structure Fires Drop

The 3,239 structure fires caused all 10 civilian deaths, 32 civilian injuries, 86 fire service injuries and an estimated dollar loss of \$32.9 million. These incidents represented 67% of Middlesex County's reported fires in 2011. The average estimated dollar loss per structure fire was \$10,154. The total number of reported structure fires decreased by 167, or 5%, from the 3,406 reported in 2010.

Arson Caused of 1% of Structure Fires

The 34 structure arsons caused four fire service injuries and an estimated dollar loss of \$806,825. Arson was indicated as the cause of 1% of the structure fires and 2% of Middlesex County's structure fire dollar loss. The 34 structure arsons accounted for 29% of the Middlesex County arson fires reported in 2011. The total number of reported structure arsons decreased by 10, or 23%, from 44 in 2010.

Almost 2/3 of Structure Arsons Occurred in Residences

Sixty-three percent (63%) of Middlesex County's 34 structure arsons occurred in residential occupancies; educational facilities and special properties each accounted for 13% of these fires. Six percent (6%) occurred in mercantile or business properties. Public assembly facilities and storage facilities were each involved in 3% of Middlesex County's structure arsons in 2011.

BUILDING FIRES

There were 3,216 building fires of different types in Middlesex County in 2011. These 3,216 building fires accounted for 99.3% of all structure fires in Middlesex County.

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

Two thousand six hundred and thirty (2,630), or 82%, of Middlesex County's 3,216 building fires occurred in residential occupancies. One hundred and thirty-nine (139) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 127 fires. Hospitals, prisons, and other institutional buildings experienced 93 fires. Seventy-four (74) building fires took place in educational facilities. Seventy (70) building fires in Middlesex County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Forty (40) fires took place in storage properties. Twenty-two (22) fires took place in manufacturing and processing facilities. Nineteen (19) fires occurred in industrial, utility, defense, agricultural or mining facilities in Middlesex County in 2011.

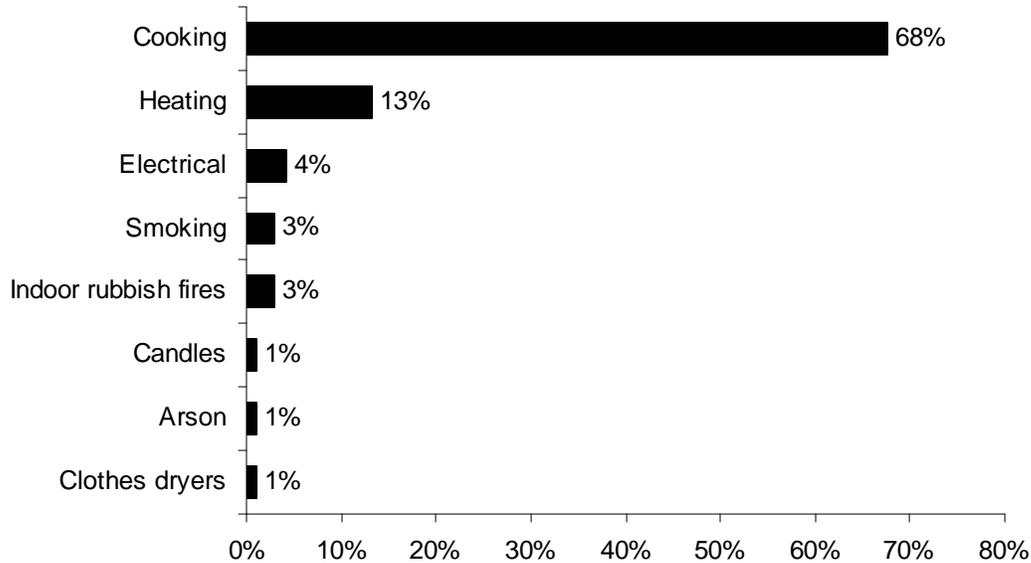
RESIDENTIAL FIRES**Residential Building Fires Are Down**

There were 2,630 reported residential building fires in Middlesex County in 2011. These 2,630 fires are a decrease of 155, or 6%, from the 2,785 residential building fires reported in 2010.

Unsafe Cooking Causes Over 2/3 of All Residential Fires

The leading cause of residential building fires in Middlesex County was unattended cooking and other unsafe cooking practices, accounting for 68% of these fires. Heating caused 13% of fires in people's homes. Electrical problems caused 4%. Smoking and indoor rubbish fires each accounted for 3% of these fires. Candles, arsons and clothes dryers each caused 1% of the residential fires in Middlesex County in 2011.

2011 Leading Causes of Fires in Middlesex County Homes



80% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Two thousand one hundred and thirteen (2,113), or 80%, of all residential building fires were reported as confined to non-combustible containers in 2011. One thousand seven hundred and seventeen (1,717) of the reported fires were cooking fires contained to a non-combustible container accounting for 65% of residential building fires. Two hundred and twenty-six (226), or 9%, were fires confined to a fuel burner or boiler malfunction. Ninety-three (93), or 4%, of all residential building fires reported in 2011 were fires confined to a chimney. Seventy-five (75), or 3%, of these fires were rubbish fires contained to a non-combustible container. Two (2) commercial compactor fires accounted for less than 1% of the residential fires in Middlesex County in 2011.

Detectors Alerted Occupants in Over 2/3 of Fires

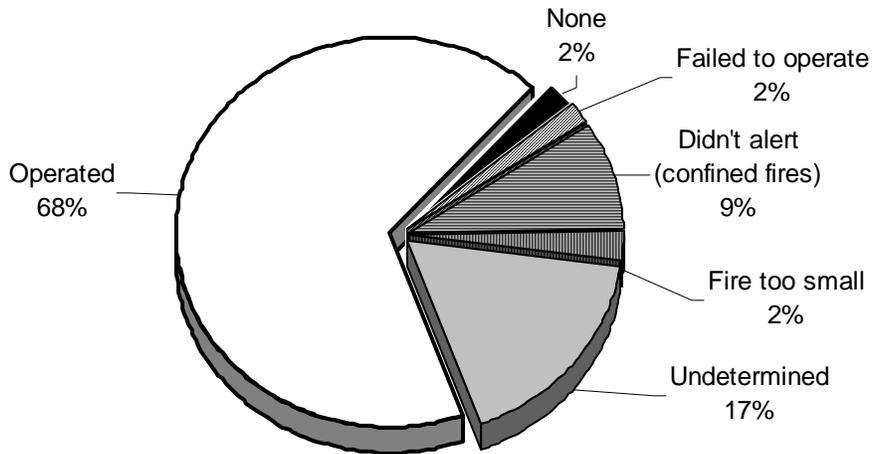
Smoke or heat detectors operated and alerted the occupants in 1,766, or 68%, of the residential building fires. In 9% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 2% of the

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

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

residential fires. Smoke detector performance was undetermined in 451 incidents, or 17%, of Middlesex County's residential building fires.

Detector Status in Middlesex County's Residential Structure Fires 2011



Almost 1/4 of Failed Detectors Had Dead Batteries

Of the 51 fires where smoke detectors were present but failed to operate, 12, or 24%, failed because of dead batteries. The batteries were either missing or disconnected in nine, or 18%, of these cases. Eight (8), or 16%, failed because of a power failure, shutoff or disconnect. Five (5) detectors, or 10%, failed from a lack of maintenance. Two (2) units, or 5%, failed because they were defective. It was undetermined or unclassified in 13 cases, or 25%, why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Middlesex County reported 37 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 3,216 building fires reported to MFIRS in 2011. Twenty-five (25) fires occurred in vacant residential properties. Five (5) vacant building fires occurred in storage facilities. Mercantile and business properties had three of these fires. Public assembly facilities, educational facilities, institutional facilities and special properties each accounted for one vacant building fire incident in Middlesex County in 2011.

Two (2), or 5%, of the vacant building fires in Middlesex County in 2011 were determined to be intentionally set. Two (2) of these fires occurred in apartment buildings.

JUVENILE-SET FIRES

18 Juvenile-set Fires

There were 18 reported juvenile-set fires in Middlesex County in 2011. The eight structure fires, four brush fires, two outside rubbish fires, and two special outside fires caused five civilian injuries, one fire service injury and an estimated \$147,227 in damages.

ARSONS

119 Total Arsons — 34 Structures, 22 Vehicles & 63 Other Arsons

One hundred and nineteen (119), or 2%, of Middlesex County's 4,856 fires were considered intentionally set, or, for purposes of this analysis, arson. The 34 structure arsons, 22 motor vehicle arsons and 63 outside and other arsons caused one civilian injury, four fire service injuries and an estimated dollar loss of \$939,625.

Structure & Outside Arson Down

The total number of reported arson fires decreased by 42 from the 161 reported in 2010. Reported structure arsons decreased by 10 from the 44 reported in the previous year. Motor vehicle arsons increased by nine from the 13 in 2010. Reported outside and other arsons decreased by 41 from 104 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are Over 1/2 of All Reported Responses

In 2011, fire departments in Middlesex County reported 161,075 responses³ to MFIRS. This is a less than 1% increase over the 160,501 responses reported in 2010. Of these 161,075 incidents, 156,002 non-fire calls were voluntarily reported.

Of these 156,002 non-fire calls, 85,989, or 53%, of all the responses reported in 2011 were reported rescue and emergency medical services (EMS) calls; 26,414, or 16%, were reported false alarm or false calls; 15,881, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 13,536, or 8%, reported hazardous condition calls with no fire; 9,108, or 6%, were reported good intent calls; 4,468, 3%, were special incident type calls such as citizen complaints; 447, or 0.3%, were severe weather responses; and 159, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Five thousand and seventy-three (5,073), or 3%, of the total responses submitted by Middlesex County fire departments were fires.

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

2011 Responses by Incident Type



Middlesex County Fire Departments Gave Mutual Aid 3,007 Times

In 2011, Middlesex County fire departments reported coming to the aid of other fire departments 3,007 times. Of these 3,007 responses, 1,525, or 51%, were for rescue or EMS calls; 617, or 21%, were for service calls such as cover assignments; 426, or 14%, were for good intent calls; 217, or 7%, were for fires; 121, or 4%, were for false alarms or false calls; 67, or 2%, were for hazardous conditions calls with no fire; 17, or 1%, were special incident types; one, or less than 1%, was a severe weather call; and three, or less than 1%, was for a reported overpressure, rupture, explosion or overheat call with no fire.

Middlesex County Received Mutual Aid in 1,962 Incidents

In 2011, Middlesex County fire departments reported receiving aid from surrounding departments in 1,962 incidents. Of these 1,962 incidents, 1,437, or 73%, were rescue and emergency medical services calls; 239, or 12%, were for fires; 137, or 7%, were false alarms or false calls; 57, or 3%, were hazardous conditions calls with no fire; 49, or 2%, were service calls; 37, or 2%, were good intent calls; two, or less than 1%, were severe weather calls; two, or less than 1%, were overpressure, rupture, explosion or overheat calls with no fire; and two, or less than 1%, were a special incident type.

Middlesex County**Population: 1,503,085****3.2 Fires/1,000 Population****Total Fires: 4,856 \$36,367,667**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	3,239	67%	\$32,887,989
Vehicle Fires	510	11%	2,156,638
Other Fires	1,107	23%	1,323,040

9 Fatal Fires 2.06 Civilian Deaths/1,000 Fires
 10 Civilian Deaths 0.07 Civilian Deaths/10,000 Population
 49 Civilian Injuries 90 Fire Service Injuries

Building Fires: 3,216**Residential Building Fires: 2,630****Residential Building Fires Confined to Non-Combustible Containers: 2,113****Unconfined Residential Building Fires: 517**

10 Civilian Deaths 30 Civilian Injuries 75 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	1,171	45%	Operated	1,766	68%
1- & 2-Family homes	1,037	39%	Didn't operate	51	2%
Dormitories	174	7%	None	58	2%
Rooming houses	59	2%	Fire too small	65	2%
Residential board & care	31	1%	Didn't alert (confined)	239	9%
Hotels or motels	21	1%	Undetermined	451	17%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	70%	Heat from operating eq.	3%	17%
Heating equipment room	9%	Arcing	3%	14%
Chimney or flue	4%	Radiated heat/oper. eq.	2%	11%
Bedroom	2%	Cigarette	2%	9%
Living room	1%	Hot ember or ash	1%	5%

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	67%	Elec. failure or malfunction	2%	9%
Flammable, combustible liquid	9%	Too close to combustibles	2%	8%
Film, residue (creosote)	4%	Abandoned materials	1%	6%
Rubbish, trash, waste	3%	Misuse of material or prod.	1%	5%
Structural member, framing	2%	Equipment unattended	1%	5%
Electrical wire, cable insulation	1%			

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	65%	Unintentional	13%	65%
None	14%	Failure of eq. or heat source	3%	17%
Boiler, furnace, cent. heat unit	9%	Intentional	1%	4%
Chimney or flue	4%	Act of nature	0.3%	2%
Clothes dryer	1%	Undetermined	2%	8%
		Cause under investigation	1%	4%

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

Alerted occupants	71%
Didn't alert occupants	11%
Undetermined	17%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	427	340	52	35
February	368	291	46	31
March	364	242	38	84
April	451	256	42	153
May	419	253	38	128
June	393	241	32	120
July	459	210	59	190
August	345	221	42	82
September	372	239	50	83
October	389	303	38	48
November	438	319	36	83
December	431	324	37	70

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	792	519	63	210
Monday	692	464	59	169
Tuesday	703	461	84	158
Wednesday	647	444	78	125
Thursday	618	426	77	115
Friday	665	410	92	163
Saturday	739	515	57	167

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	320	196	43	81
04:01 - 08:00	307	187	56	64
08:01 - 12:00	781	566	86	129
12:01 - 16:00	1,214	733	144	337
16:01 - 20:00	1,419	976	114	329
20:01 - 00:00	815	581	67	167

Motor Vehicle Fires

Total: 510

Automobiles: 435 (85%)

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

Arson Fires**Total Arsons: 119****Dollar loss: \$939,625****0.08 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	34	1%	29%	\$806,825
Vehicle Arsons	22	4%	18%	125,300
Other Arsons	63	6%	53%	7,500

0.02 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.04 Other arsons/1,000 population

1 Civilian Injury

4 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 20:00	7	24%	00:01 - 04:00	8	36%
04:01 - 00:00	8	21%	20:01 - 00:00	5	23%
08:01 - 12:00	6	18%			
16:01 - 20:00	6	18%			

Other Arsons	#	%
16:01 - 20:00	25	40%
20:01 - 00:00	13	21%
12:01 - 16:00	11	17%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	11	32%
Apartment buildings	8	24%

Acton	Population: 21,924							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	75	32	4	39	3	0	0	3
2008	66	49	0	17	0	0	0	0
2009	58	43	4	11	0	0	0	0
2010	73	40	1	32	8	0	0	8
2011	46	26	5	15	0	0	0	0

Arlington	Population: 42,844							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	103	48	5	50	9	1	0	8
2008	92	51	11	30	7	3	0	4
2009	72	41	5	26	5	0	0	5
2010	114	43	8	63	2	0	0	2
2011	93	38	15	40	5	0	2	3

Ashby	Population: 3,074							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	7	6	0	1	0	0	0	0
2008	7	6	1	0	0	0	0	0
2009	3	2	1	0	0	0	0	0
2010	8	7	1	0	0	0	0	0
2011	8	7	1	0	0	0	0	0

Ashland	Population: 16,593							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	51	13	14	24	0	0	0	0
2008	35	18	2	15	0	0	0	0
2009	10	8	0	2	1	1	0	0
2010	22	10	1	11	0	0	0	0
2011	10	7	3	0	0	0	0	0

Ayer	Population: 7,427							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	45	20	4	21	3	2	0	1
2008	24	10	3	11	1	1	0	0
2009	31	22	2	7	0	0	0	0
2010	39	12	6	21	0	0	0	0
2011	28	15	7	6	1	0	1	0

Bedford	Population: 13,320							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	40	18	7	15	2	0	0	2
2008	26	15	3	8	0	0	0	0
2009	33	18	6	9	1	0	1	0
2010	34	10	2	22	2	0	0	2
2011	22	14	2	6	0	0	0	0

Belmont	Population: 24,729							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	162	118	3	41	10	2	0	8
2008	186	164	5	17	2	1	0	1
2009	148	118	4	26	6	0	0	6
2010	157	123	2	32	12	2	0	10
2011	101	81	2	18	4	0	0	4

Billerica	Population: 40,243							
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	147	55	16	76	2	0	0	2
2008	129	58	21	50	9	1	2	6
2009	150	71	20	59	1	0	0	1
2010	153	55	14	84	6	3	0	3
2011	90	39	17	34	4	1	0	3

Boxborough					Population: 4,996			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	24	2	10	12	1	0	0	1
2008	13	3	3	7	2	0	0	2
2009	11	1	3	7	0	0	0	0
2010	17	2	8	7	1	0	0	1
2011	25	8	6	11	0	0	0	0

Burlington					Population: 24,498			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	91	34	14	43	2	0	0	2
2008	69	26	12	31	3	1	0	2
2009	68	34	8	26	5	1	0	4
2010	93	36	12	45	4	0	0	4
2011	68	24	26	18	5	0	1	4

Cambridge					Population: 105,162			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	669	523	20	126	7	5	0	2
2008	860	748	14	98	9	2	0	7
2009	874	775	17	82	4	0	0	4
2010	901	782	16	103	7	2	1	4
2011	835	746	13	76	0	0	0	0

Carlisle					Population: 4,852			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	1	0	0	1	0	0	0	0
2009	1	0	0	1	0	0	0	0
2010	3	1	1	1	0	0	0	0
2011	4	4	0	0	0	0	0	0

Chelmsford **Population: 33,802**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	41	28	9	4	1	1	0	0
2008	43	21	16	6	0	0	0	0
2009	36	13	16	7	2	0	1	1
2010	23	9	7	7	0	0	0	0
2011	35	9	13	13	1	0	1	0

Concord **Population: 17,668**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	64	28	6	30	5	2	0	3
2008	43	23	7	13	0	0	0	0
2009	38	14	4	20	3	1	1	1
2010	52	24	8	20	2	0	0	2
2011	41	20	7	14	3	1	0	2

Devens **Population: 3,290**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	16	5	3	8	0	0	0	0
2008	9	5	3	1	0	0	0	0
2009	16	2	1	13	0	0	0	0
2010	11	2	1	8	0	0	0	0
2011	23	7	5	11	0	0	0	0

Dracut **Population: 29,457**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	93	32	9	52	5	2	0	3
2008	61	25	11	25	6	1	3	2
2009	87	45	14	28	11	2	2	7
2010	95	36	7	52	12	1	0	10
2011	77	42	7	28	9	2	1	6

Dunstable					Population: 3,179			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1	1	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	3	3	0	0	0	0	0	0
2010	24	5	2	17	1	0	0	1
2011	12	4	2	6	0	0	0	0

Everett					Population: 41,667			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	176	102	17	57	10	8	1	1
2008	139	86	13	40	10	4	4	2
2009	152	90	27	35	12	7	3	2
2010	173	91	20	62	8	4	0	4
2011	144	95	9	40	7	3	0	4

Framingham					Population: 68,318			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	477	319	37	121	7	5	1	1
2008	420	305	39	76	8	3	2	3
2009	385	313	19	53	4	2	2	0
2010	440	326	29	85	0	0	0	0
2011	463	378	34	51	1	1	0	0

Groton					Population: 10,646			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	16	11	0	5	0	0	0	0
2008	31	15	1	15	2	0	0	2
2009	10	6	4	0	1	1	0	0
2010	32	6	3	23	1	0	0	1
2011	14	9	2	3	0	0	0	0

Holliston					Population: 13,547			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	6	5	1	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	7	7	0	0	0	0	0	0
2010	4	3	1	0	0	0	0	0
2011	3	3	0	0	0	0	0	0

Hopkinton					Population: 14,925			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	87	47	16	24	7	1	0	6
2008	81	54	6	21	0	0	0	0
2009	50	23	11	16	0	0	0	0
2010	60	29	7	24	1	0	0	1
2011	36	14	9	13	0	0	0	0

Hudson					Population: 19,063			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	64	21	8	35	1	1	0	0
2008	75	37	10	28	1	1	0	0
2009	59	24	7	28	5	1	1	3
2010	60	22	5	33	0	0	0	0
2011	48	20	10	18	0	0	0	0

Lexington					Population: 31,394			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	71	37	17	17	5	2	0	3
2008	57	36	12	9	1	0	0	1
2009	47	28	8	11	2	0	1	1
2010	73	39	12	22	1	0	0	1
2011	72	43	13	16	1	0	0	1

Lincoln					Population: 6,362			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	37	18	3	16	3	1	0	2
2008	25	12	4	9	2	0	0	2
2009	35	23	3	9	1	0	0	1
2010	44	28	4	12	0	0	0	0
2011	24	21	0	3	0	0	0	0

Littleton					Population: 8,924			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	50	24	12	14	0	0	0	0
2008	51	31	8	12	4	2	0	2
2009	48	32	6	10	0	0	0	0
2010	48	23	7	18	1	0	0	1
2011	40	24	9	7	0	0	0	0

Lowell					Population: 106,519			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	630	372	46	212	12	6	2	4
2008	573	403	43	127	24	5	12	7
2009	506	324	45	137	24	8	6	10
2010	662	392	45	225	20	7	8	5
2011	546	370	46	130	29	9	13	7

Malden					Population: 59,450			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	371	233	22	116	1	0	1	0
2008	307	212	18	77	4	3	0	1
2009	355	267	25	63	9	0	4	5
2010	344	248	14	82	7	1	0	6
2011	195	139	10	46	14	7	0	7

Marlborough **Population: 38,499**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	163	61	25	77	4	3	1	0
2008	131	63	21	47	8	3	1	4
2009	120	52	18	50	2	1	1	0
2010	133	54	14	65	9	2	1	6
2011	117	53	22	42	5	2	0	3

Maynard **Population: 10,106**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	8	8	0	0	2	2	0	0
2008	4	3	1	0	0	0	0	0
2009	3	1	2	0	0	0	0	0
2010	9	5	1	3	0	0	0	0
2011	11	8	3	0	0	0	0	0

Medford **Population: 56,173**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	304	179	19	106	13	4	1	8
2008	251	147	20	84	9	2	1	6
2009	367	217	34	116	18	1	1	16
2010	288	148	30	110	4	1	1	2
2011	265	168	22	75	4	0	0	4

Melrose **Population: 26,983**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	25	18	3	4	1	1	0	0
2008	20	13	4	3	0	0	0	0
2009	25	13	7	5	0	0	0	0
2010	25	23	1	1	0	0	0	0
2011	28	23	4	1	1	1	0	0

Natick **Population: 33,006**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	143	80	16	47	2	0	0	2
2008	128	71	12	45	4	0	0	4
2009	94	58	8	28	4	1	0	3
2010	131	61	17	53	3	2	0	1
2011	93	57	11	25	2	0	0	2

Newton **Population: 85,146**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	194	105	31	58	12	3	0	9
2008	190	126	19	45	2	0	0	2
2009	111	66	16	29	5	1	0	4
2010	145	74	22	49	3	0	1	2
2011	142	90	17	35	1	0	0	1

North Reading **Population: 14,892**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	13	17	7	19	2	1	0	1
2008	43	25	3	15	0	0	0	0
2009	49	26	2	21	4	0	0	4
2010	50	23	4	23	0	0	0	0
2011	50	25	6	19	1	0	0	1

Pepperell **Population: 11,497**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	19	8	4	7	1	0	0	1
2008	34	15	6	13	1	0	0	1
2009	38	21	2	15	0	0	0	0
2010	37	19	1	17	0	0	0	0
2011	43	27	2	14	2	1	0	1

Reading					Population: 24,747			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	138	73	11	54	7	1	0	6
2008	96	56	4	36	15	1	0	14
2009	71	32	9	30	6	0	0	6
2010	89	49	5	35	5	0	0	5
2011	77	55	7	15	1	0	0	1

Sherborn					Population: 4,119			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	23	7	2	14	3	0	0	3
2008	27	4	2	21	7	0	0	7
2009	26	10	3	13	5	1	1	3
2010	21	7	3	11	4	0	0	4
2011	18	2	1	15	0	0	0	0

Shirley					Population: 7,211			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	1	1	0	1	1	0	0
2008	3	3	0	0	0	0	0	0
2009	23	23	0	0	1	1	0	0
2010	7	6	1	0	0	0	0	0
2011	11	11	0	0	0	0	0	0

Somerville					Population: 75,754			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	52	34	18	0	5	3	2	0
2008	60	34	25	1	3	3	0	0
2009	49	32	16	1	2	2	0	0
2010	43	29	13	1	1	1	0	0
2011	50	33	17	0	2	2	0	0

Stoneham					Population: 21,437			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	88	78	5	5	0	0	0	0
2008	67	57	7	3	1	0	0	1
2009	87	72	6	9	1	1	0	0
2010	78	58	14	6	1	1	0	0
2011	75	69	4	2	0	0	0	0

Stow					Population: 6,590			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	27	8	4	15	0	0	0	0
2008	16	9	1	6	1	0	0	1
2009	18	5	3	10	2	0	0	2
2010	26	13	2	11	2	0	0	0
2011	16	13	2	1	0	0	0	0

Sudbury					Population: 17,659			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	57	29	3	25	4	1	0	3
2008	58	58	5	25	0	0	0	0
2009	32	13	4	15	1	0	1	0
2010	61	21	3	37	0	0	0	0
2011	41	13	4	24	0	0	0	0

Tewksbury					Population: 28,961			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	148	38	20	90	5	1	2	2
2008	82	27	11	44	3	0	0	3
2009	92	44	15	33	2	1	0	1
2010	105	41	11	53	7	5	0	2
2011	90	45	12	33	2	1	0	1

Townsend					Population: 8,926			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	6	4	0	2	1	1	0	0
2008	2	2	0	0	0	0	0	0
2009	8	6	2	0	0	0	0	0
2010	3	2	1	0	1	1	0	0
2011	15	10	2	3	0	0	0	0

Tyngsborough					Population: 11,292			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	21	7	1	13	0	0	0	0
2008	25	6	8	11	0	0	0	0
2009	19	7	4	8	0	0	0	0
2010	43	7	12	24	0	0	0	0
2011	18	8	4	6	0	0	0	0

Wakefield					Population: 24,932			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	65	43	18	4	1	0	1	0
2008	59	54	5	0	1	0	1	0
2009	54	38	13	3	1	0	1	0
2010	59	52	6	1	1	1	0	0
2011	53	43	8	2	2	2	0	0

Waltham					Population: 60,632			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	220	67	23	130	1	0	1	0
2008	173	76	22	75	1	0	1	0
2009	148	74	13	61	6	1	0	5
2010	185	76	26	83	6	3	0	3
2011	141	68	19	54	3	2	0	1

Watertown **Population: 31,915**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	79	35	7	37	0	0	0	0
2008	58	26	7	25	4	1	0	3
2009	50	24	7	19	0	0	0	0
2010	63	34	5	24	3	2	0	1
2011	69	35	7	27	1	0	0	1

Wayland **Population: 12,994**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	38	14	4	20	1	0	0	1
2008	27	19	4	4	0	0	0	0
2009	25	15	3	7	0	0	0	0
2010	47	26	5	16	1	1	0	0
2011	25	15	6	4	0	0	0	0

Westford **Population: 21,951**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	57	24	7	26	4	1	2	1
2008	77	27	9	41	6	0	0	6
2009	68	22	8	38	1	0	0	1
2010	74	24	12	38	7	2	0	5
2011	53	21	6	26	2	0	1	1

Weston **Population: 11,261**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	66	33	7	26	3	1	0	2
2008	41	20	7	14	1	0	0	1
2009	56	32	10	14	2	0	0	2
2010	39	22	8	9	1	1	0	0
2011	44	21	10	13	1	0	0	1

Wilmington					Population: 22,325			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	26	10	13	3	2	1	0	1
2008	47	13	13	21	1	0	0	1
2009	92	51	14	27	4	2	1	1
2010	118	58	20	40	4	1	0	3
2011	97	56	16	25	0	0	0	0

Winchester					Population: 21,374			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	59	19	5	35	0	0	0	0
2008	43	25	6	12	2	0	0	2
2009	64	42	7	15	3	2	0	13
2010	53	23	7	23	2	0	0	2
2011	35	23	2	10	1	0	0	1

Woburn					Population: 38,120			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	51	39	7	5	0	0	0	0
2008	72	40	18	14	2	2	0	0
2009	70	42	17	11	0	0	0	0
2010	71	47	18	6	1	0	0	1
2011	76	41	23	12	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17002	Acton	3,059	46	4	1,040	196	108	58	282	13	1,312
17010	Arlington	4,789	107	3	2,856	522	387	193	672	30	19
17012	Ashby	29	18	0	1	0	9	1	0	0	0
17014	Ashland	11	10	0	0	0	1	0	0	0	0
17019	Ayer	784	37	3	106	114	294	38	182	2	8
17023	Bedford	2,750	27	3	1,191	286	235	92	375	10	531
17026	Belmont	2,910	106	3	1,723	159	244	259	396	17	3
17031	Billerica	3,836	90	7	2,268	399	360	111	537	32	32
17037	Boxborough	519	26	0	151	53	113	15	154	2	5
17048	Burlington	3,870	69	2	2,256	250	495	143	646	8	1
17049	Cambridge	12,715	838	8	5,849	973	565	1,544	2,923	2	13
17051	Carlisle	5	4	0	0	1	0	0	0	0	0
17056	Chelmsford	37	35	1	0	1	0	0	0	0	0
17067	Concord	3,049	47	2	1,672	236	259	140	665	5	23
17919	Devens	592	27	0	161	40	208	13	142	1	
17079	Dracut	3,164	80	1	1,859	194	393	82	547	4	4
17081	Dunstable	271	12	2	117	24	57	13	32	14	
17093	Everett	4,865	149	3	2,927	253	321	313	880	4	15
17100	Framingham	10,121	464	2	6,349	362	893	696	1,347	4	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
17115	Groton	455	16	13	100	108	54	10	145	7	2
17136	Holliston	3	3	0	0	0	0	0	0	0	0
17139	Hopkinton	1,862	52	6	1,058	218	164	86	237	30	11
17141	Hudson	3,743	57	3	1,582	538	469	133	530	21	410
17155	Lexington	85	72	0	0	13	0	0	0	0	0
17157	Lincoln	989	28	10	382	81	107	97	266	4	14
17158	Littleton	1,489	49	3	862	153	136	79	195	6	6
17160	Lowell	13,998	556	12	7,239	805	1,658	1,210	2,389	15	114
17165	Malden	8,200	195	5	5,739	285	614	222	1,109	0	31
17170	Marlborough	6,554	118	2	3,502	453	570	475	1,367	10	57
17174	Maynard	14	11	0	0	3	0	0	0	0	0
17176	Medford	9,190	272	7	5,338	1,024	911	460	1,124	15	39
17178	Melrose	32	31	0	0	1	0	0	0	0	0
17198	Natick	4,912	95	7	2,811	566	485	236	656	28	28
17207	Newton	8,351	142	11	4,001	712	1,049	465	1,966	2	3
17213	North Reading	2,051	64	5	1,024	171	340	138	277	20	12
17232	Pepperell	570	46	1	68	97	112	64	180	2	0
17246	Reading	2,714	103		1,586	205	68	0	250	0	502
17269	Sherborn	389	20	1	24	134	59	21	89	40	1
17270	Shirley	11	11	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
17274	Somerville	50	50	0	0	0	0	0	0	0	0
17284	Stoneham	2,671	75	0	1,522	543	164	83	278	6	0
17286	Stow	820	19	0	489	61	63	33	118	28	9
17288	Sudbury	2,224	47	4	1,122	237	191	172	388	4	59
17295	Tewksbury	3,812	90	4	2,244	148	745	84	470	2	25
17299	Townsend	883	17	0	523	59	99	106	75	2	2
17301	Tyngsborough	1,223	18	0	504	166	247	49	238	1	0
17305	Wakefield	161	53	0	0	12	0	0	96	0	0
17308	Waltham	8,121	143	4	4,217	790	986	490	1,429	20	42
17314	Watertown	4,394	69	4	2,785	343	376	147	635	9	26
17315	Wayland	3,628	28	4	1,293	436	465	86	229	0	1,087
17330	Westford	2,501	64	3	1,354	172	260	46	589	6	7
17333	Weston	2,259	50	5	997	284	252	70	596	4	1
17342	Wilmington	2,753	98	0	1,827	196	107	218	290	12	5
17344	Winchester	2,297	43	0	1,171	441	172	112	355	1	2
17347	Woburn	290	76	1	99	18	16	5	68	4	3
	Middlesex County	161,075	5,073	159	85,989	13,536	15,881	9,108	26,414	447	4,468

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.

Cambridge Fires in 2011

835 Total Fires — 746 Structures, 13 Vehicles & 76 Other Fires

The Cambridge Fire Department reported 835 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 746 structure fires, 13 motor vehicle fires, 54 outside rubbish fires, 14 brush fires, four special outside fires, and four unclassified fires caused four fire service injuries and an estimated dollar loss of \$1.4 million. There were no fire deaths in Cambridge in 2011. Cambridge did not report any civilian injuries or deaths in 2011.

All Fires Decreased in 2011

Total fires decreased by 66, or 7%, from 901 incidents reported in 2010. Reported structure fires decreased by 36, or 5%, from the 782 reported during the previous year. Motor vehicle fires decreased three, or 19%, from 16 the year before. Outside and other fires decreased by 27 from the 103 reported the year before; this is a decrease of 26%.

CAMBRIDGE FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	669	523	20	126	7	5	0	2
2008	860	748	14	98	9	2	0	7
2009	874	775	17	82	4	0	0	4
2010	901	782	16	103	7	2	1	4
2011	835	746	13	76	0	0	0	0

BUILDING FIRES

There were 745 building fires of different types in Cambridge in 2011. These 745 building fires accounted for all but one of the structure fires in Cambridge.

82% of Building Fires in Homes

The 745 building fires that occurred in Cambridge in 2011 can be broken down by fixed property use as follows: 608, or 82% of all structure fires, were in residential properties; 38 occurred in public assembly properties; 27 fires happened in educational facilities; 25 fires occurred in mercantile or business properties; 19 occurred in special properties; 16 fires took place in institutional properties; seven occurred in industrial, utility, defense, agricultural or mining facilities; and five occurred in a storage facilities.

RESIDENTIAL FIRES

Residential Building Fires Are Up

There were 608 reported residential building fires in Cambridge in 2011. These 608 fires are a decrease of 33, or 5%, from the 641 residential building fires reported in 2010.

Apartments Accounted for Over 1/2 of Residential Building Fires

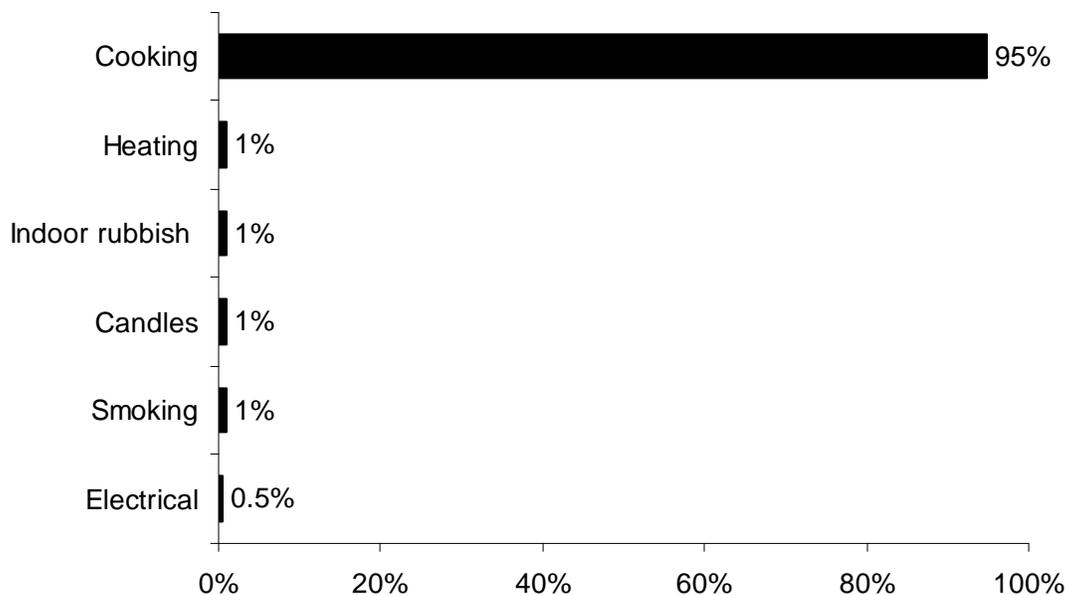
The peak fixed property uses for residential building fires were apartments, accounting for 52% of the residential building fires in Cambridge; 23% occurred in dormitories; 11% occurred in 1- or 2-family homes; 3% happened in rooming houses; 1% occurred in hotels or motels; less than 1% happened in residential board and care facilities; and 10% occurred in unclassified residences.

Cambridge is home to several colleges and universities, Massachusetts Institute of Technology and Harvard University among them. This is the main reason dormitory fires make up such a high percentage of Cambridge's residential fires.

Unattended Cooking Caused 95% of Residential Fires

The leading cause of residential building fires in Cambridge was unattended cooking and other unsafe cooking practices, accounting for 95% of these fires. Heating equipment, indoor rubbish fires, candles and smoking each caused 1% of the residential fires in Cambridge. Electrical problems caused less than 1% of the fires in Cambridge homes in 2011.

2011 Leading Causes of Fires in Cambridge Homes

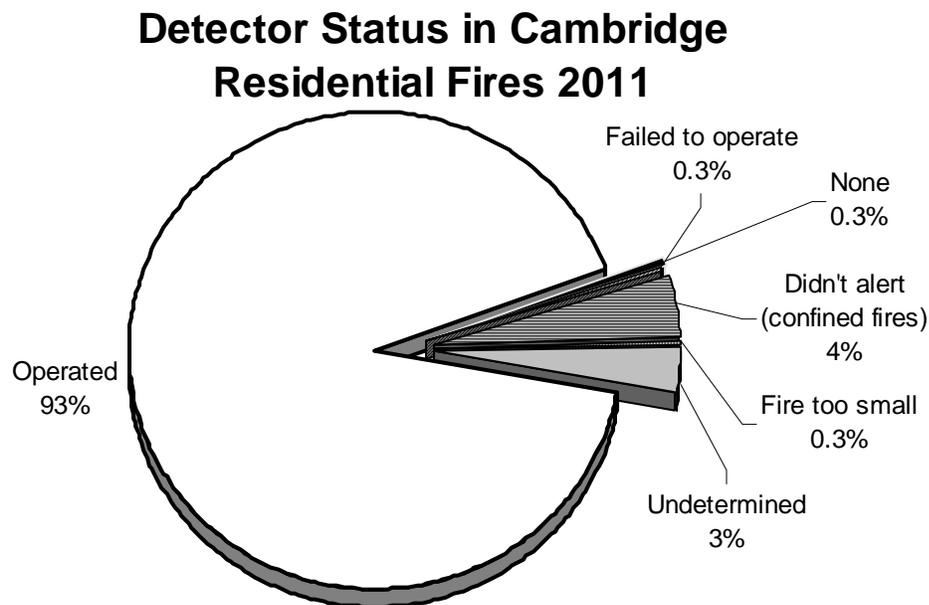


96% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Five hundred and eighty-four (584), or 96% of all residential building fires were confined to non-combustible containers in 2011. Five hundred and sixty-nine (569), or 94%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Nine (9), or 1%, of these fires were rubbish fires contained to a non-combustible container. Five (5), or 1%, were fires confined to a fuel burner or boiler malfunction. One (1) fire, or less than 1%, was confined to a chimney or flue in Cambridge in 2011.

Detectors Alerted Occupants in 93% of Fires

Smoke or heat detectors operated and alerted the occupants in 558, or 93%, of the residential building fires. In 4% of these fires², the detectors did not alert the occupants. Detectors were present but failed to operate in less than 1% of these fires. In less than 1% of these fires, no detectors were present at all. The fire was too small to trigger the detector in less than 1% of the residential fires. Smoke detector performance was undetermined in 18 incidents, or 3% of Cambridge's residential building fires.



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

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

2 Failed Detectors

Cambridge reported two residential fires where the detector failed to operate. In one of these fires, the detector failed because of a missing or disconnected battery. In the other case the detector failed because of a lack of maintenance.

VACANT BUILDINGS**No Building Fires Occurred in Vacant Buildings**

Cambridge did not report any fires that occurred in buildings that were vacant, under construction or demolition.

JUVENILE-SET FIRES**0 Juvenile-set Fires**

In 2011, Cambridge did not report any juvenile-set fires.

ARSONS**0 Total Arsons**

Cambridge did not report any arsons in 2011.

All Arsons Are Down

The total number of arsons decreased by seven from the seven arsons that were reported in 2010. Reported structure arsons decreased by two from two the year before. Motor vehicle arsons decreased by one from one in 2010. Outside and other arsons decreased by four from four the year before.

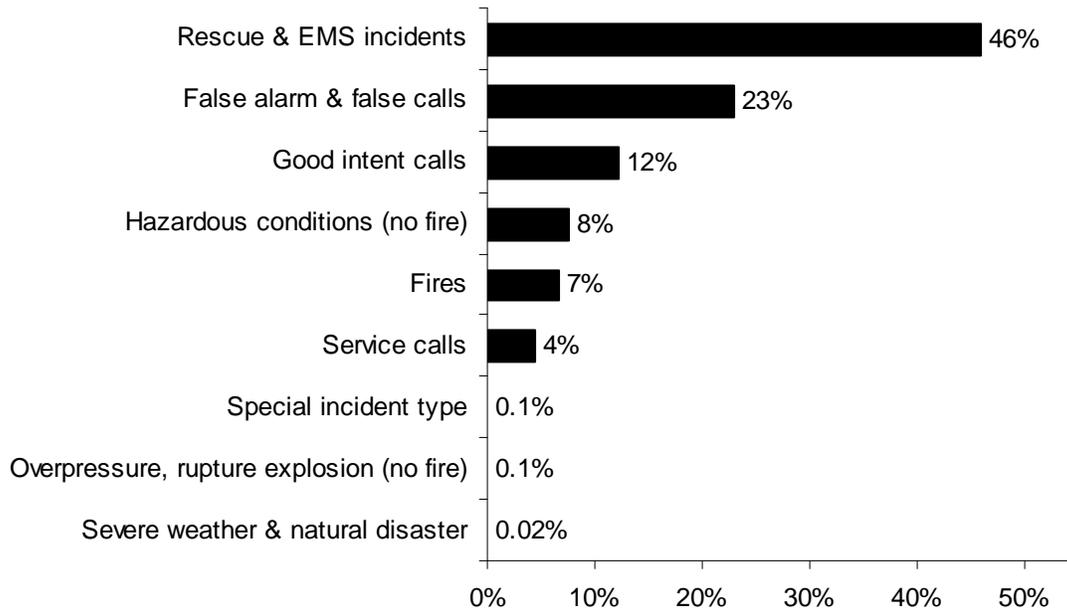
Rescue & EMS Calls Are 48% of All Reported Incidents

In 2011, Cambridge voluntarily reported 12,715 incidents to MFIRS. Of these 12,715 incidents, 11,877, or 93%, were non-fire incidents.

Of these 11,877 non-fire incidents 5,849, or 46% of all the incidents reported in 2011, were reported rescue and emergency medical services (EMS) calls; 2,923, or 23%, were reported false alarm or false calls; 1,544, or 12%, were reported good intent calls; 973, or 8%, were reported hazardous condition calls with no fire; 565, or 4%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 13, or 0.1%, were special incident type calls such as citizen complaints; eight, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and two, or 0.02%, were responses to severe weather.

In 2011, Cambridge reported 838 fires³, accounting for 7% of all reported incidents.

2011 Incidents by Incident Type



Cambridge Gave Mutual Aid in 64 Reported Incidents

In 2011, Cambridge reported coming to the aid of other fire departments 64 times. Of these 64 incidents, 50, or 78%, were for cover assignments (service calls); six, or 9%, were for hazardous conditions calls with no fire; three, or 5%, were for good intent calls; another three, or 5%, were for fires; and rescue or EMS calls and false alarms each accounted for one, or 2% of the mutual aid calls.

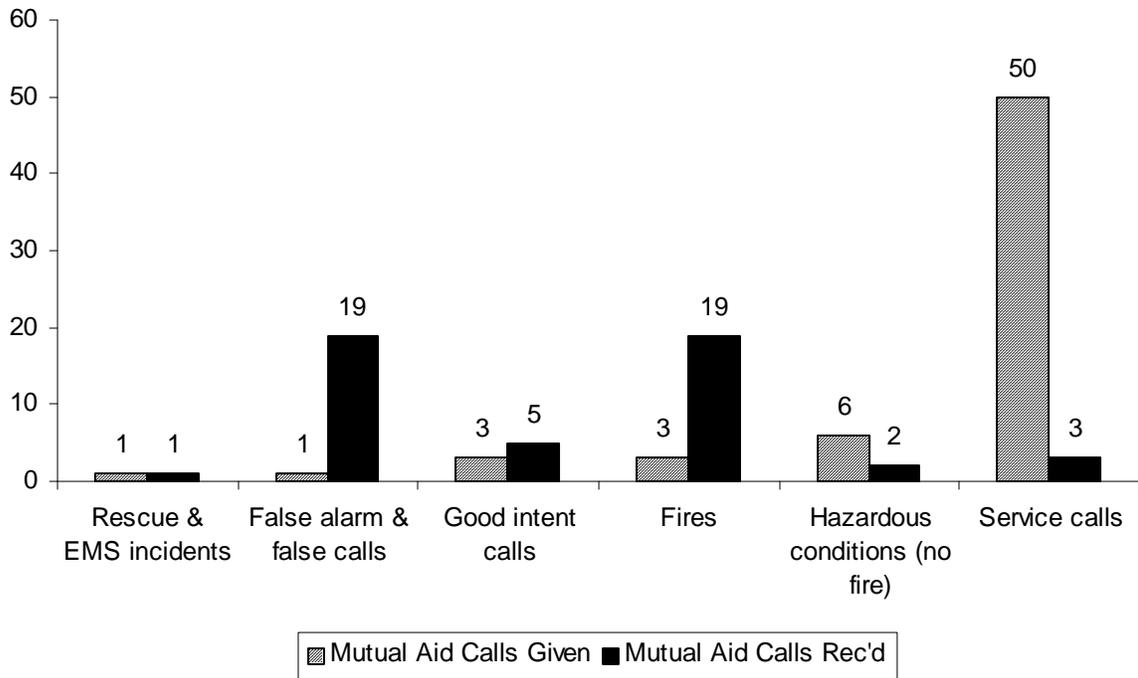
Cambridge Received Mutual Aid in 49 Incidents

In 2011, surrounding fire departments gave aid to Cambridge in 49 incidents. Of these 49 incidents, 19, or 39%, were false alarms or false calls; another 19, or 39%, were fires; five, or 10%, were good intent calls; three, or 6%, were for service calls; two, or 4%, were hazardous conditions calls with no fire; and one, or 2% was a rescue or EMS call.

The following chart compares the number of calls that the Cambridge Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Cambridge. In 2011 Cambridge was asked to send an apparatus outside of Cambridge 1.3 times more than they asked neighboring fire departments for help.

³ These fire calls include mutual aid call outside of Cambridge's jurisdiction.

Cambridge's Mutual Aid Calls in 2011



Cambridge**Population: 105,162****7.9 Fires/1,000 Population**

Total Fires:	835		\$1,416,032
Situation	Fires	% of Fires	Dollar Loss
Structure Fires	746	89%	\$1,306,751
Vehicle Fires	13	2%	5,700
Other Fires	76	9%	103,581

4 Fire Service Injuries

Building Fires: 745**Residential Structure Fires: 608****Residential Structure Fires Confined to Non-Combustible Containers: 584****Unconfined Residential Structure Fires: 24**

3 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	314	52%	Operated	558	93%
Dormitories	139	23%	Didn't operate	2	0.3%
1- & 2-Family homes	67	11%	None	2	0.3%
Rooming houses	18	3%	Fire too small	2	0.3%
Hotels, motels	7	2%	Didn't Alert (confined)	26	4%
Residential board & care	3	0.5%	Undetermined	18	3%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	95%	Candles	1%	21%
Heating room or area	1%	Heat from operating. eq.	1%	21%
Living room	1%	Rad., conduct./heat-op. eq.	1%	17%
Exterior balcony/unencl. porch	0.5%			

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignition %	% Unconfined⁷
Cooking materials	95%	Too close to combustibles 1%	21%
Rubbish, trash, waste	1%	Abandoned materials 0.5%	13%
Flammable or combustible liq.	1%	Improper container/storage 0.3%	8%
Electrical wire, cable insulation	1%	Electrical failure, malfunc. 0.3%	8%

Equipment⁸	%	Cause of Ignition	%	% Unconfined⁹
Cooking equipment	95%	Unintentional	3%	75%
None	2%	Failure of eq./heat source	1%	17%
Boiler, furnace, cent. heat unit	1%	Intentional	0%	0%
		Act of nature	0%	0%
		Undetermined	0.2%	4%
		Cause under investigation	0.2%	4%

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

Alerted Occupants	93%
Didn't Alert Occupants	4%
Undetermined	3%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	5,849	46%
False alarms & false calls	2,923	23%
Good intent calls	1,544	12%
Hazardous conditions (no fire)	973	8%
Fires	838 ¹⁰	7%
Service calls	564	4%
Special incident type	13	0.1%
Overpressure rupture, explosion or overheat calls (no fire)	8	0.1%
Severe weather & natural disaster	2	0.02%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This includes the mutual aid fire calls outside of Cambridge's city limits.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	77	72	4	1
February	92	86	3	3
March	59	51	0	8
April	63	56	0	7
May	80	73	1	6
June	60	48	1	11
July	50	37	0	13
August	56	46	0	10
September	60	50	2	8
October	78	73	1	4
November	82	79	1	2
December	78	75	0	3

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	123	109	2	12
Monday	128	115	0	13
Tuesday	102	93	2	7
Wednesday	110	99	1	10
Thursday	111	99	1	11
Friday	121	102	5	14
Saturday	140	129	2	9

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	41	36	0	5
04:01 - 08:00	50	44	1	5
08:01 - 12:00	110	101	2	7
12:01 - 16:00	177	152	4	21
16:01 - 20:00	268	237	6	25
20:01 - 24:00	189	176	0	13

Motor Vehicle Fires

Total: 13

Automobiles: 14 (85%)

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

Arson Fires**Total Arsons: 0****Dollar loss: \$0****0.00 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	0	0%	0%	\$0
Motor Vehicle Arsons	0	0%	0%	0
Other Arsons	0	0%	0%	0

No Injuries

0.00 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.00 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
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Other Arsons	#	%
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Lowell Fires in 2011

546 Total Fires — 370 Structures, 46 Vehicles & 130 Other Fires

The Lowell Fire Department reported 546 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 370 structure fires, 46 motor vehicle fires, 79 outside rubbish fires, 40 brush fires, six special outside fires; and five unclassified fires caused two civilian injuries, two firefighter injuries and an estimated dollar loss of \$1.9 million.

All Fires Down in 2011

Total fires decreased by 116 from the 662 incidents reported in 2010. Reported structure fires decreased by 22 from the 392 reported during the previous year. Motor vehicle fires increased by one from 45 reported in 2010. Outside and other fires decreased by 95 from the 225 reported in 2010.

LOWELL FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	630	372	46	212	12	6	2	4
2008	573	403	43	127	24	5	12	7
2009	506	324	45	137	24	8	6	10
2010	662	392	45	225	20	7	8	5
2011	546	370	46	130	29	9	13	7

BUILDING FIRES

There were 367 building fires of different types in Lowell in 2011. These 367 building fires accounted for 99.2% of all structure fires in Lowell.

85% of Building Fires in Homes

The 367 building fires that occurred in Lowell in 2011 can be broken down by fixed property use as follows: 313, or 85% of all building fires, were in residential properties; 20 fires occurred in public assembly properties; 15 fires occurred in special properties; eight happened in mercantile or business properties; four fires occurred in institutional facilities; three fires occurred in educational facilities; two fires happened in storage facilities; one fire happened at an industrial facility; and another fire occurred in a manufacturing or processing facility.

RESIDENTIAL FIRES

Residential Building Fires Were Down

There were 313 reported residential building fires in Lowell in 2011, a decrease of 18 from the 331 reported residential building fires reported in 2010.

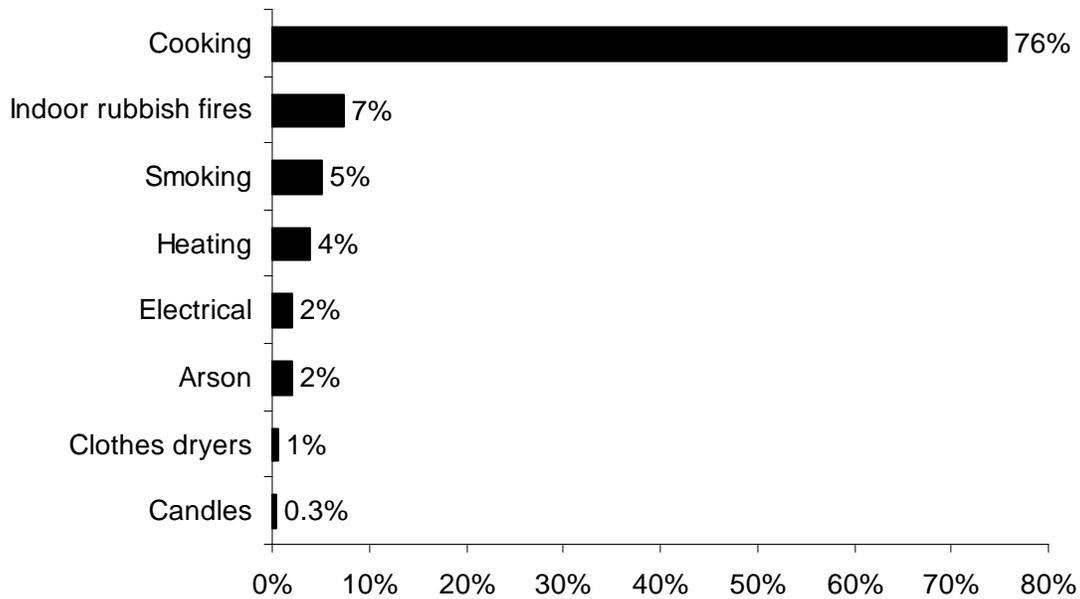
Apartments Accounted for Almost 3/4 of Residential Building Fires

Apartments, accounting for 74% of the building fires in Lowell were the peak fixed property use for residential building fires in 2011. Twenty percent (20%) of residential fires occurred in 1- or 2-family homes; 2% happened in rooming houses; 2% happened in residential board and care facilities; and 1% occurred in dormitories.

Unattended Cooking Caused Over 3/4 of Residential Fires

The leading cause of residential building fires in Lowell was unattended cooking and other unsafe cooking practices, over three-quarters, or 76%, of these fires. Indoor rubbish fires caused 7% of these fires. Smoking caused 5% while heating fires was the cause of 4% of Lowell’s residential fires. Electrical problems and arsons each caused 2% and clothes dryers caused 1% of these fires. Candles were the cause of less than 1% of the fires in Lowell’s residential occupancies in 2011.

2011 Leading Causes of Fires in Lowell Homes



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

Two hundred and fifty-four (254), or 81% of all residential building fires were confined to non-combustible containers in 2011. Two hundred and twenty-three (223), or 71%, of all residential building fires reported in 2011 were cooking fires contained to a non-

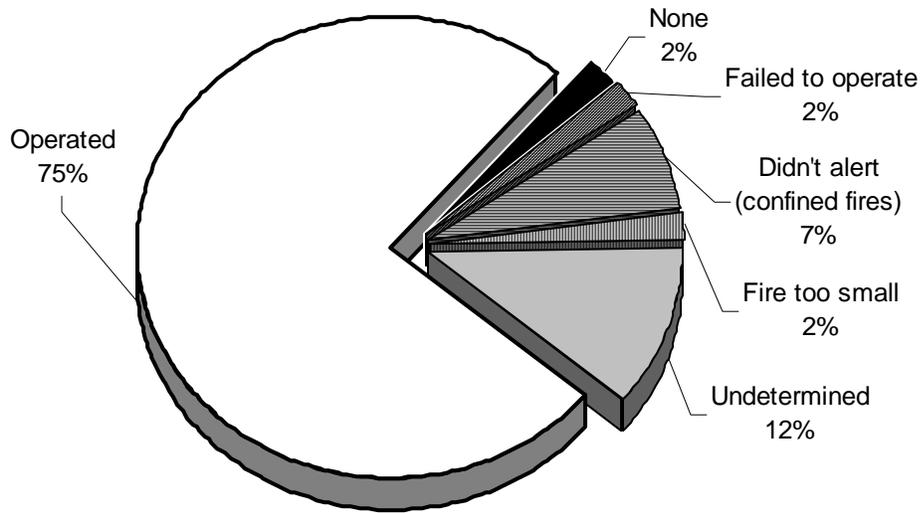
¹ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing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

combustible container. Twenty-two (22), or 7%, of these fires were rubbish fires contained to a non-combustible container. Five (5), or 2%, were fires confined to a fuel burner or boiler malfunction. Three (3) fires, or 1%, were reported to have been contained to a chimney or flue, and one fire, or less than 1% was confined to a commercial compactor.

Detectors Worked in 3/4 of Fires

Smoke or heat detectors operated and alerted the occupants in 236, or 75%, of the residential building fires. In 7% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 2% of these fires. Smoke detector performance was undetermined in 36 incidents, or 12% of Lowell’s residential building fires.

Detector Status in Lowell's Residential Fires 2011



1 Failed Detectors Had Dead Batteries

Of the six fires where smoke detectors were present but failed to operate, one, or 17%, failed because the batteries were dead. A power failure, shutoff or disconnect also caused one, or 17%, of the detectors to fail. It was undetermined in the other four, or 67% cases why the detectors failed to operate.

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

VACANT BUILDINGS

3 Building Fires in Vacant Buildings

Lowell reported three fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 387 building fires reported to MFIRS in 2011. One (1) warehouse, one apartment building, and one unclassified building were reported as vacant building fire incidents.

JUVENILE-SET FIRES

0 Juvenile-set Fires

There were no reported juvenile-set fires in Lowell in 2011.

ARSONS

29 Arsons - 9 Structure, 13 Motor Vehicle and 7 Outside & Other

Twenty-nine (29), or 5%, of Lowell's 546 fires were considered intentionally set, or, for purposes of this analysis, arson. There were nine structure arsons, 13 motor vehicle arsons and seven outside and other arsons.

All Arsons Up Slightly in 2011

The total number of arsons increased by nine from the 20 total arsons reported in 2010. Reported structure arsons increased by two from the seven reported in 2011. Motor vehicle arsons increased by five from the eight reported in 2010. Outside and other arsons increased by five from two reported the year before.

29 Fires Reported as Undetermined

In 2011, Lowell reported 29 fires with an undetermined cause after investigation. Twelve (12), or 41%, of these 29 fires were structure fires. Ten (10), or 34% were motor vehicle fires; and seven, or 24%, were outside or other fires.

ALL INCIDENTS

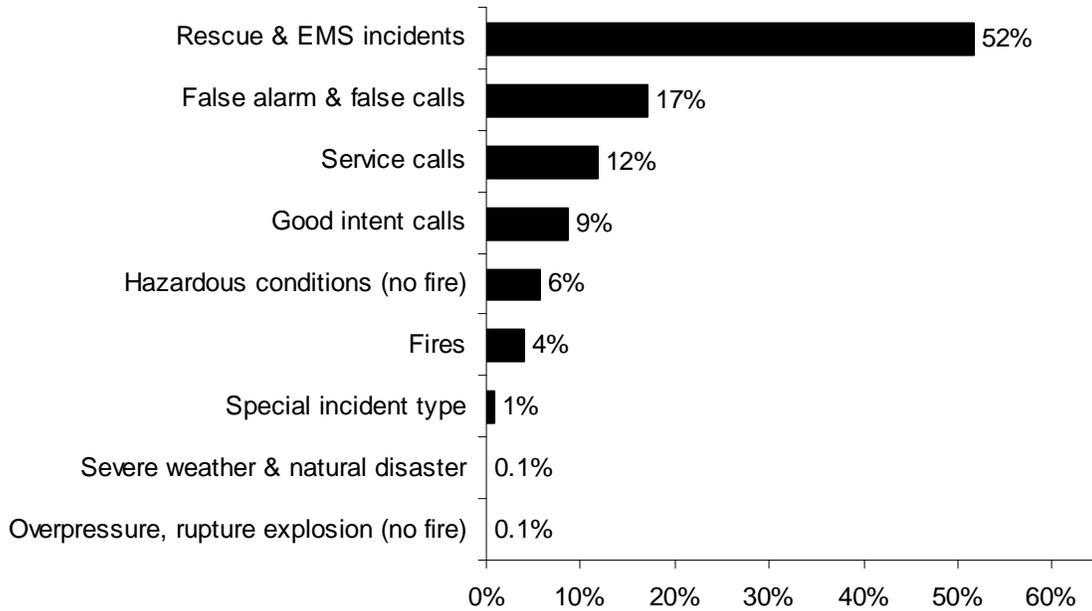
Rescue & EMS Calls Are Over 1/2 of All Reported Incidents

In 2011, Lowell voluntarily reported 13,998 incidents to MFIRS. Of these 13,998 incidents, 13,442, or 96% were non-fire incidents.

Of these 13,442 non-fire incidents 7,239, or 52% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 2,389, or 17%, were reported false alarm or false calls; 1,658, or 12%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 1,210, or 9%, were reported good intent calls; 805, or 6%, were reported hazardous condition calls with no fire; 114, or 1%, were special incident types; 15 or 0.1%, were severe weather calls; and 12, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2011, Lowell reported 556 fires³, accounting for 4% of all reported incidents.

2011 Incidents by Incident Type



Lowell Gave Mutual Aid in 20 Reported Incidents

In 2011, Lowell reported coming to the aid of other fire departments 20 times. Of these 20 incidents, 10, or 50%, were for fires; four, or 20%, were for cover assignments or other service calls; another four, or 20%, were for rescue or EMS calls, and two, or 10%, were special incident types.

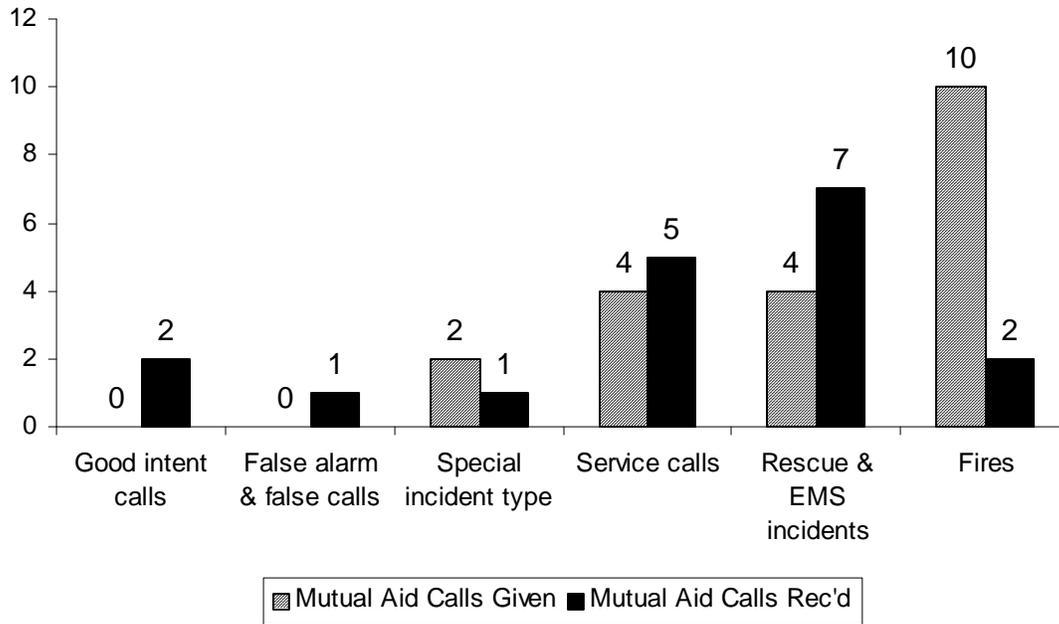
Lowell Received Mutual Aid in 18 Incidents

In 2011, surrounding fire departments gave aid to Lowell during 18 incidents. Of these 18 incidents, seven, or 39%, were rescue or EMS calls, five, or 28%, were service calls; two, or 11%, were for fires; two, or 11%, were good intent calls; one, or 6%, were false alarms or false calls; and another call, or 6% was a special incident type.

The following chart compares the number of calls that the Lowell Fire Department received mutual aid from a neighboring community compared to the number of calls that Lowell gave assistance to a neighboring community. In 2011 Lowell received aid as many times as they gave it.

³ This includes the fires that Lowell responded to as mutual aid calls outside of their jurisdiction.

Lowell's Mutual Aid Calls in 2011



Lowell**Population: 106,519****5.1 Fires/1,000 Population**

Total Fires:	546		\$1,923,035
Situation	Fires	% of Fires	Dollar Loss
Structure Fires	370	68%	\$1,678,910
Vehicle Fires	46	8%	236,675
Other Fires	130	24%	7,450

2 Civilian Injuries 2 Fire Service Injuries

Building Fires: 367**Residential Structure Fires: 313****Residential Structure Fires Confined to Non-Combustible Containers: 254****Unconfined Residential Structure Fires: 59**

2 Civilian Injuries 2 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	233	74%	Operated	236	75%
1- & 2-Family homes	63	20%	Didn't operate	6	2%
Residential board & care	7	2%	None	7	2%
Boarding houses	6	2%	Fire too small	6	2%
Dormitories	3	1%	Didn't Alert (confined)	22	7%
			Undetermined	36	12%

Area of Origin⁴	%	Heat Source	%	%Unconfined⁵
Kitchen	79%	Heat from operating equip.	4%	24%
Substructure area or space	2%	Cigarette	4%	20%
Wall surface, exterior	2%	Radiated heat from op. eq.	2%	10%
Heating room or area	2%	Arcing	1%	7%
Bedroom	1%			

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

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

Item First Ignited⁶	%	Factor Contrib. to Ignition	%	%Unconfined⁷
Cooking materials	75%	Abandoned materials	2%	12%
Rubbish, trash, waste	9%	Equipment unattended	2%	12%
Multiple items	2%	Too close to combustibles	2%	8%
Flammable or combustible liq.	2%	Electrical fail./malf., other	1%	5%
		Mechanical fail./malf., other	1%	5%

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Cooking equipment	75%	Unintentional	12%	66%
None	12%	Intentional	2%	10%
Boiler, furnace, cent. heat. unit	2%	Failure of eq./heat source	2%	8%
Chimney, flue	1%	Cause Under Investigation	0%	0%
		Undetermined	3%	14%

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

Alerted Occupants	80%
Didn't Alert Occupants	9%
Undetermined	11%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	7,239	52%
False alarms & false calls	2,389	17%
Service calls	1,658	12%
Good intent calls	1,210	9%
Hazardous conditions (no fire)	805	6%
Fires ¹⁰	556	4%
Special incident type	114	1%
Severe weather & natural disaster	15	0.1%
Overpressure rupture, explosion or overheat calls (no fire)	12	0.1%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

¹⁰ This figure contains the fires that Lowell gave mutual aid to in another jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	34	27	5	2
February	28	18	7	3
March	36	27	3	6
April	53	32	7	14
May	35	21	3	11
June	47	35	1	11
July	54	26	3	25
August	45	30	5	10
September	55	39	5	11
October	42	33	3	6
November	56	38	2	16
December	61	44	2	15

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	88	52	5	31
Monday	71	48	7	16
Tuesday	83	54	7	22
Wednesday	67	48	4	15
Thursday	63	50	6	7
Friday	81	56	8	17
Saturday	93	62	9	22

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	67	36	10	21
04:01 - 08:00	39	23	7	9
08:01 - 12:00	69	58	3	8
12:01 - 16:00	105	67	12	26
16:01 - 20:00	162	114	8	40
20:01 - 24:00	104	77	6	26

Motor Vehicle Fires

Total: 46

Automobiles: 45 (98%)

13 (29%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 29

Dollar loss: \$135,800

0.27 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	9	2%	31%	\$55,500
Vehicle Arsons	13	28%	45%	80,300
Other Arsons	7	5%	24%	0

0.08 Structure arsons/1,000 population

0.12 Vehicle arsons/1,000 population

0.07 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
04:01 - 08:00	5	56%	00:01 - 04:00	6	46%
20:01 - 00:00	2	22%	20:01 - 00:00	4	31%

Other Arsons	#	%
08:01 - 12:00	3	43%
04:01 - :00	1	14%
12:01 - 16:00	1	14%
16:01 - 20:00	1	14%
20:01 - 00:00	1	14%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	4	44%
1- or 2-Family	2	22%

Nantucket County

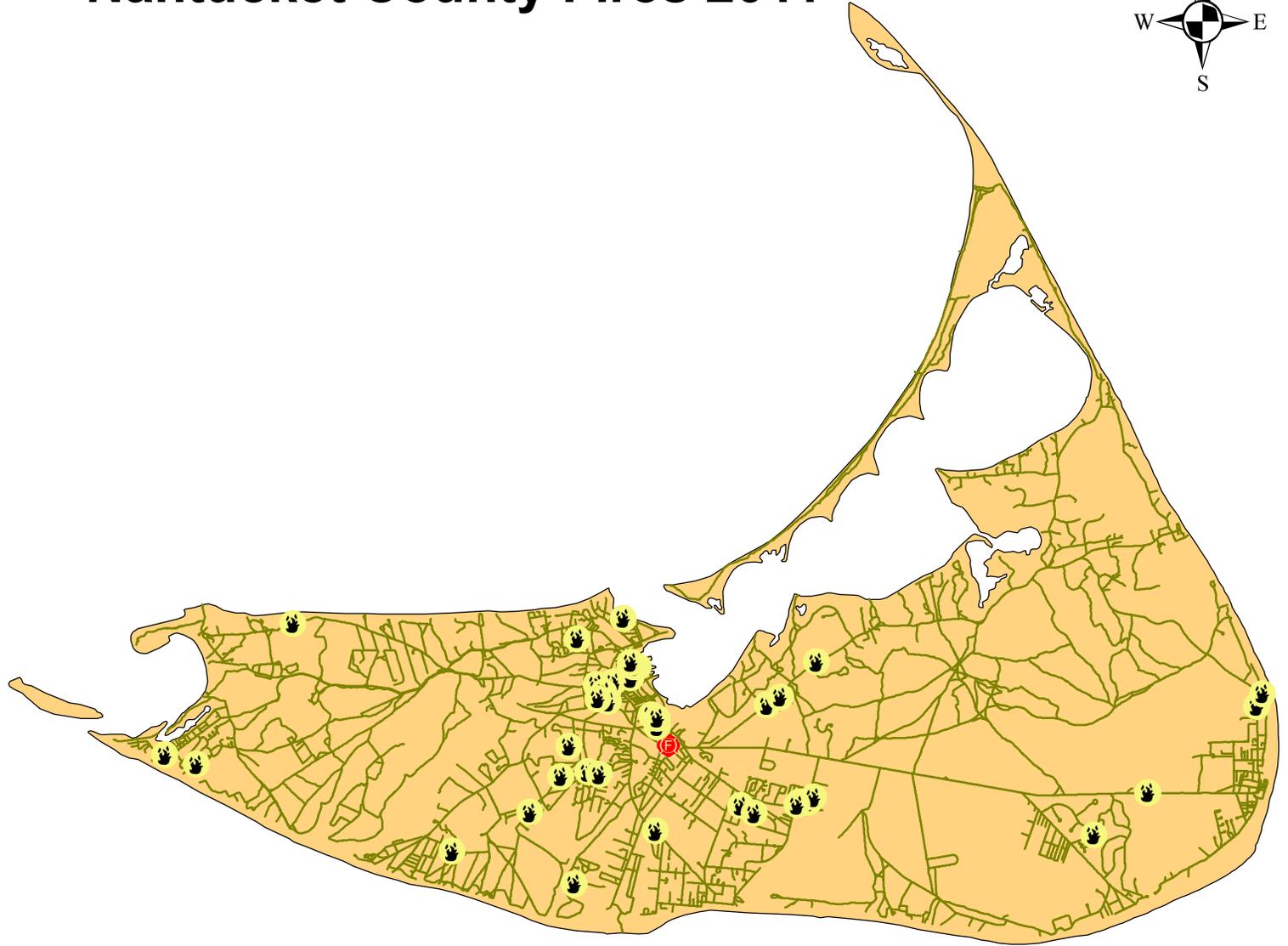
2011 Fire Data Analysis



Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

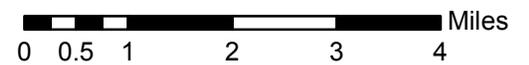
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Nantucket County Fires 2011



2011 Fires

-  Fires
-  Fire Stations



Massachusetts Fire Incident Reporting System 2011



MFIRS
Massachusetts Fire Incident Reporting System

Nantucket County Fires in 2011

48 Total Fires — 37 Structures, 3 Vehicles & 9 Outside and Other Fires

Nantucket County ranked thirteenth out of the fourteen Massachusetts counties in total reported fires. The Nantucket Fire Department reported 48 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 37 structure fires, two motor vehicle fires, one brush fire, two outside rubbish fires, and six unclassified fires caused an estimated dollar loss of \$95,000. Nantucket County's fires accounted for 0.2% of the 29,110 Massachusetts fires reported in 2011.

Structure Fires Up

The total number of reported fire incidents increased by one from the 47 fires reported in 2010. Structure fires increased by seven from the 30 reported in 2010. Motor vehicle fires decreased by one from the three reported the previous year. Reported outside and other fires decreased by five from the 14 reported in 2010. A decrease in outside fires was a statewide trend in 2011.

Nantucket is an island community with a small year round population. During the summer months, the population increases immensely. Consequently, 56% of Nantucket's fires occurred between the months of May and September.

No Reported Fire Deaths

In 2011, Nantucket did not report any fire-related deaths.

NANTUCKET FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	63	24	3	36	0	0	0	0
2008	25	14	5	6	0	0	0	0
2009	39	27	3	9	1	0	0	1
2010	47	30	3	14	1	0	0	1
2011	48	37	2	9	2	0	0	2

Fire and Fire Death Rates

Nantucket County had 4.7 fires per 1,000 population. That figure ranks Nantucket County third in the state and above the state rate of 4.4 fires per 1,000 population. Nantucket County also had no fire deaths, tying it for eleventh among Massachusetts counties and below the state rate of 0.08 fire deaths per 10,000 population.

1-Family Home Fire Was Nantucket's Largest Loss Fire

- On May 29, 2011, at 4:23 p.m., the Nantucket Fire Department was called to a fire in a single-family home of undetermined cause. The fire began in a first floor bedroom. No one was injured at this fire. Detectors and sprinklers were not present and damages were estimated to be \$50,000.

STRUCTURE FIRES

Reported Structure Fires Up

There were 37 structure fires in Nantucket in 2011. These incidents represented 77% of Nantucket County's reported fires in 2011. Dollar loss was estimated at \$95,000. The total number of reported structure fires increased by seven from the 30 reported in 2010.

No Reported Structure Arsons

Nantucket County did not report any structure arsons in 2011. The last year that Nantucket reported a structure arson was 2003.

BUILDING FIRES

There were 37 building fires of different types in Nantucket County in 2011. These 37 building fires accounted for all of the structure fires in Nantucket County.

86% of Nantucket Building Fires Occurred in People's Homes

Thirty-two (32), or 86%, of Nantucket County's 37 building fires occurred in residential occupancies. Three (3) fires took place in public assembly properties, and two fires occurred in storage facilities.

RESIDENTIAL FIRES

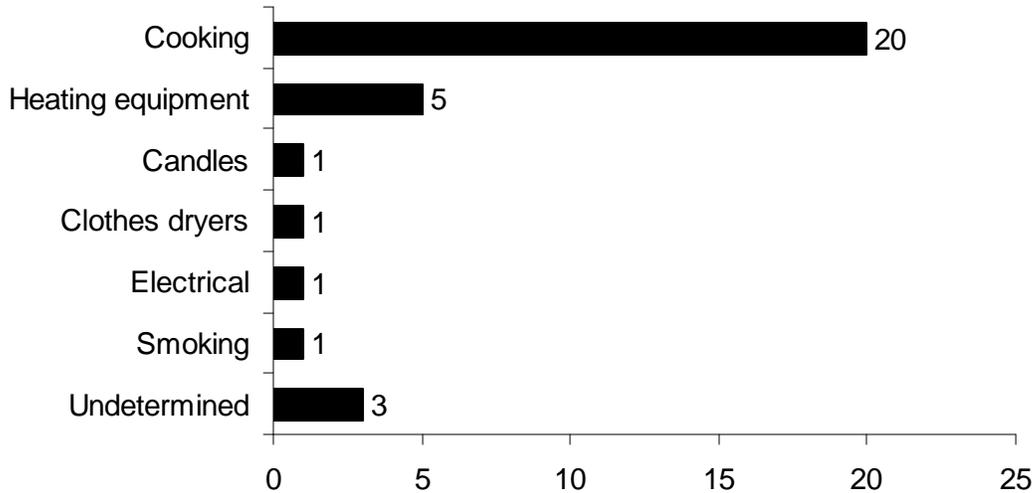
Residential Building Fires Up

There were 32 reported residential building fires in Nantucket County in 2011. These 32 fires are an increase of eight, or 33%, from the 24 residential building fires reported in 2010. Twenty-nine (29), or 91%, occurred in one- or two-family homes; two, or 6%, occurred in dormitories; and one, or 3%, happened in a rooming house.

Cooking Fires Cause Almost 2/3 Residential Fires

The leading cause of residential building fires in Nantucket County was unattended cooking and other unsafe cooking practices, accounting for 20, or 63%, of these fires. Heating equipment caused five, or 16%, of these fires. Candles, clothes dryers, electrical problems and smoking each were the cause of one, or 3%, of residential fires. It was undetermined what caused three, or 9%, of Nantucket's 2011 residential fires.

2011 Leading Causes of Fires in Nantucket Homes



23 Residential Building Fires Are Confined to Non-Combustible Containers¹

Twenty-three (23), or 72%, of all residential building fires were reported as confined to non-combustible containers in 2011. Nineteen (19) of the reported fires were cooking fires contained to a non-combustible container accounting for 59% of the residential fires. Three, or 9%, were fires confined to a fuel burner or boiler malfunction; and one, or 3%, of Nantucket's residential fires was confined to a chimney or flue.

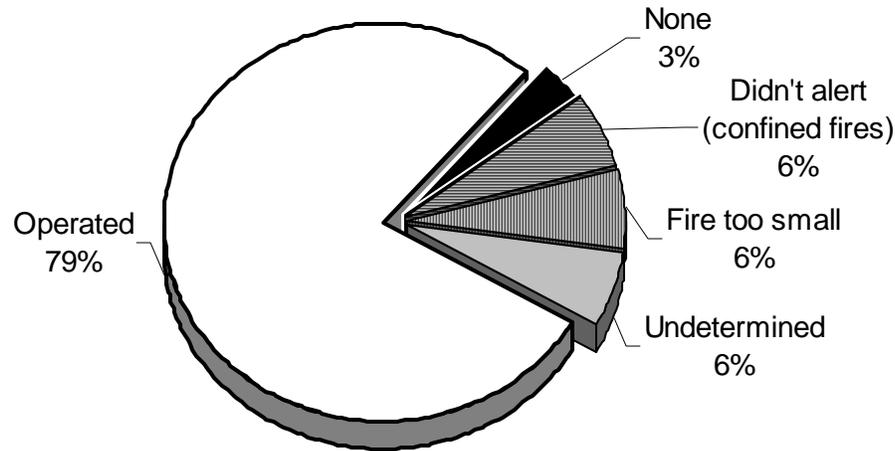
Detectors Alerted Occupants in 79% of Fires

Smoke or heat detectors operated and alerted the occupants in 25, or 79%, of the residential building fires. In two, or 6%, of these fires² the detectors did not alert the occupants. In one, or 3% of these fires, no detectors were present at all. The fire was too small to activate the detector in two, or 6%. Detector performance was undetermined in two, or 6%, of Nantucket's residential fires.

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

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

Detector Status in Nantucket County's Residential Fires 2011



VACANT BUILDING FIRES

1 of Nantucket County Building Fires Occurred in Vacant Buildings

Nantucket County reported one fire that occurred in a building that was vacant, under construction or demolition. This represented 3% of the total 37 building fires reported to MFIRS in 2011. This vacant building fire occurred in a single-family home.

None of the vacant building fires in Nantucket County in 2011 were determined to be intentionally set.

JUVENILE-SET FIRES

No Juvenile-set Fires

Nantucket County did not report any juvenile-set fires in 2011.

ARSONS

2 Total Arsons — 2 Outside Arson

Two (2), or 4%, of Nantucket County's 48 fires was considered intentionally set, or, for purposes of this analysis, arson. The one brush arson and one unclassified arson accounted for all of the county's total arson fires, and none of the county's total dollar losses.

Outside Arson Fires Up Slightly

Nantucket reported two arsons. The total number of arsons increased by one from one reported in 2010. Reported structure and motor vehicle arsons remained the same with

none reported in both 2010 and 2011. Outside and other arsons increased by one from one in 2010.

ALL INCIDENTS

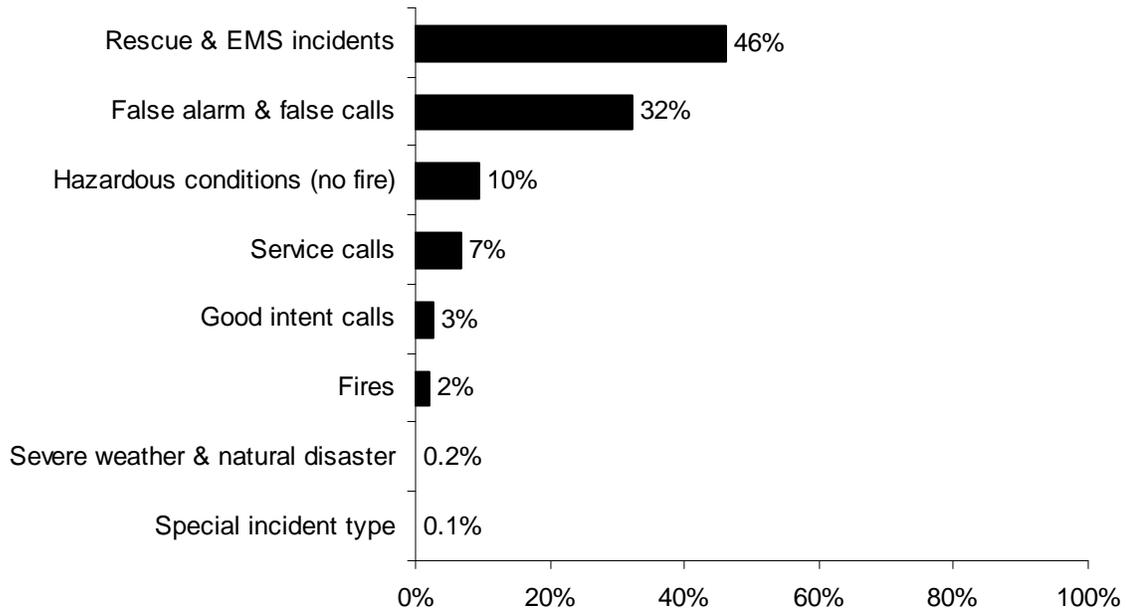
Rescue & EMS Calls Are 46% of All Reported Incidents

In 2011, Nantucket County reported 2,433 responses to MFIRS. Of these 2,433 incidents, 2,385 non-fire calls were voluntarily reported.

Of these 2,385 non-fire calls 1,126, or 46% of the total responses reported in 2011, were reported rescue and emergency medical services (EMS) calls; 788, or 32%, were reported false alarm or false calls; 233, or 10%, were reported hazardous condition calls with no fire; 162, or 7%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 68, or 3%, were reported good intent calls; six, or 0.2%, were severe weather calls; and two, or 0.1%, were special incident type calls.

Forty-eight (48), or 2%, of the total responses submitted by the Nantucket Fire Department were fires.

2011 Incidents by Incident Type



Nantucket County**Population: 10,172****4.7 Fires/1,000 Population****Total Fires: 48 \$95,000**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	37	77%	\$95,000
Vehicle Fires	2	4%	0
Other Fires	9	19%	0

No Casualties

Building Fires: 37**Residential Structure Fires: 32****Residential Structure Fires Confined to Non-Combustible Containers: 23****Unconfined Residential Structure Fires: 9**

No Casualties

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	29	91%	Operated	25	79%
Dormitories	2	6%	Didn't operate	0	0%
Rooming houses	1	3%	None	1	3%
			Fire too small	2	6%
			Didn't alert (confined)	2	6%
			Undetermined	2	6%

Area of Origin³	%	Heat Source	%	%Unconfined⁴
Kitchen	66%	Multiple heat sources	6%	22%
Heating room or area	9%	Radiat/cond. heat fr. op eq.	6%	22%
Bedroom	6%	Candle	3%	11%
Chimney or flue	3%	Match	3%	11%
		Molten, hot metal	3%	11%

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

⁴ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited⁵	%	Factor Contrib. to Ignit.	%	%Unconfined⁶
Cooking materials	63%	Abandoned materials	3%	11%
Flammable, combustible liquid	9%	Too close to combustibles	3%	11%
Furniture, utensils	6%	Elec. failure, malfunction	3%	11%
Film, residue (creosote)	3%	Natural condition, other	3%	11%

Equipment⁷	%	Cause of Ignition	%	%Unconfined⁸
Cooking equipment	63%	Unintentional	16%	56%
None	13%	Other	3%	11%
Boiler, furnace, cent. heat. unit	9%	Cause under investigation	6%	22%
Chimney or flue	3%	Undetermined	3%	11%

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

Alerted Occupants	87%
Didn't Alert Occupants	9%
Undetermined	4%

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

⁶ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

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

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

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	6	5	0	1
Monday	8	5	0	3
Tuesday	8	5	0	3
Wednesday	7	5	1	1
Thursday	9	8	1	0
Friday	4	4	0	0
Saturday	6	5	0	1

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	3	1	1	1
04:01 - 08:00	4	1	0	3
08:01 - 12:00	9	7	0	2
12:01 - 16:00	8	6	1	1
16:01 - 20:00	16	14	0	2
20:01 - 00:00	8	8	0	0

Motor Vehicle Fires

Total: 2

Automobiles: 1(50%)

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

Arson Fires**Total Arsons: 2****Dollar loss: \$0****0.20 Arson Fires/1,000 Population**

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	2	22%	100%	0

0.00 Structure arsons/1,000 population

0.00 Vehicle arsons/1,000 population

0.20 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Other Arsons	#	%
08:01 – 12:00	1	50%
16:01 – 20:00	1	50%

Responses Reported to MFIRS by Month

Incident Type	# of Incidents	January	February	March	April	May	June	July	August	September	October	November	December
Fires	48	4	3	5	4	3	6	5	9	4	2	2	1
Overpressure, rupture explosion (no fire)	0	0	0	0	0	0	0	0	0	0	0	0	0
Rescue & EMS incidents	1,126	50	46	52	67	95	109	187	177	88	93	78	84
Hazardous conditions (no fire)	233	25	11	11	9	9	23	42	34	22	20	15	12
Service calls	162	10	11	14	11	17	20	18	17	11	15	12	6
Good intent calls	68	7	2	7	7	7	7	10	4	9	2	3	3
False alarm & false calls	788	43	39	40	48	77	66	98	113	94	70	55	45
Severe weather & natural disaster	6	0	0	0	0	0	1	5	0	0	0	0	0
Special incident type	2	0	0	0	0	0	0	1	0	0	0	1	0
Total	2,433	139	112	129	146	208	232	366	354	228	202	166	151

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.

Norfolk County

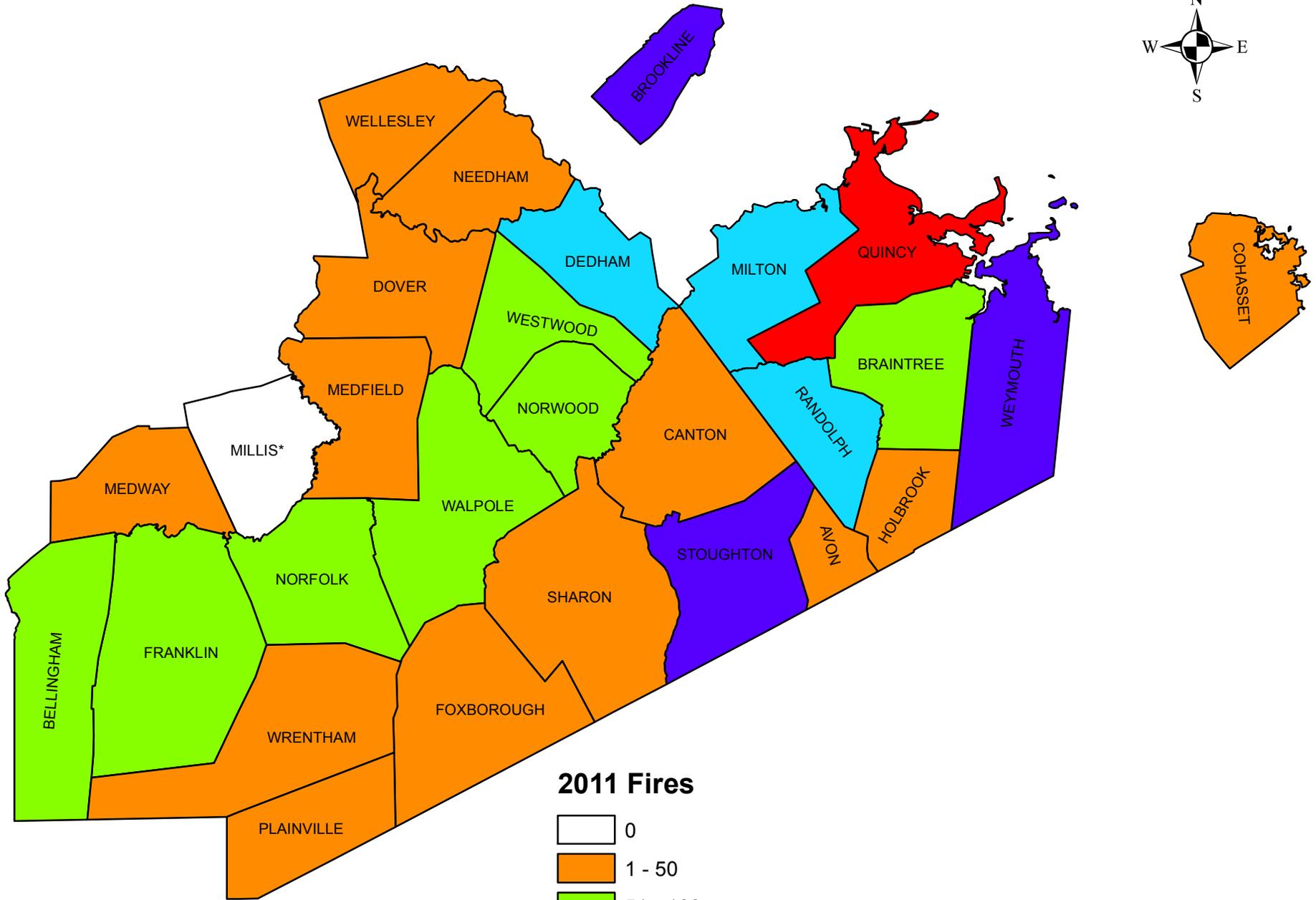
2011 Fire Data Analysis



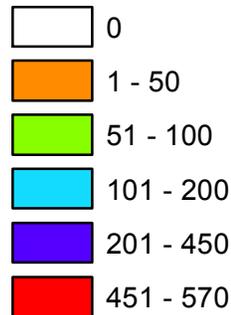
Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

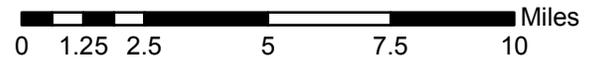
Norfolk County Fires 2011



2011 Fires



*Non-reporting department



Norfolk County Fires in 2011

3,047 Total Fires — 1,982 Structures, 287 Vehicles & 778 Other Fires

Norfolk County ranked fourth out of the fourteen Massachusetts counties in total reported fires. Norfolk County fire departments reported 3,047 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 1,982 structure fires, 287 motor vehicle fires, 415 brush, tree or lawn fires, 194 outside rubbish fires, 75 special outside fires, eight cultivated vegetation or crop fires, and 86 other fires caused three civilian deaths, 11 civilian injuries, 43 fire service injuries and an estimated dollar loss of \$26.8 million. Norfolk County's fires accounted for 10% of the 29,110 Massachusetts fires reported in 2011.

Twenty-seven (27) of the 28 fire departments in Norfolk County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2011.

All Fires Down

The total number of reported fire incidents decreased by 376 from the 3,423 reported in 2010. Reported structure fires decreased 41 from the 2,023 reported during the previous year. Motor vehicle fires increased by three from the 284 reported the year before. Reported outside and other fires decreased by 388 from the 1,116 reported a year earlier.

Brush Fires Down by 41%

Brush fires decreased by 290, or 41%, from the 704 reported in 2011. This is a major decrease and the main reason for the drop in all Norfolk County fires. This was a statewide trend.

NORFOLK COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	3,750	1,686	308	1,756	94	21	4	69
2008	3,068	1,830	290	948	86	17	6	63
2009	2,786	1,850	275	661	59	9	5	45
2010	3,423	2,023	284	1,116	81	16	4	61
2011	3,047	1,982	287	778	65	7	3	55

Fire and Fire Death Rates

Norfolk County had 4.5 fires per 1,000 population. That figure ranks Norfolk County fourth in the state and equal to the state rate of 4.5 fires per 1,000 population. Norfolk County also had 0.04 fire deaths per 10,000 population ranking it ninth among Massachusetts counties and below the state rate of 1.9 fire deaths per 10,000 population.

2 Norfolk Fires Kill 3 People

In 2011, one motor vehicle fire and one residential building fire killed three people in Norfolk County.

- On May 6, 2011, at 11:50 p.m., the Canton Fire Department was dispatched to a fatal motor vehicle fire. The sole occupant of the vehicle, a 47-year old man, successfully attempted self-immolation. He had three 20-pound propane tanks in the back seat with their valves forced open with adapters. The victim tried to ignite the gas inside the vehicle but the atmosphere was too rich, so he lowered the window and then ignited an explosion in front of a witness.
- On November 27, 2011, at 1:25 a.m., the Randolph Fire Department was called to a fatal candle fire in a single-family home. The fire began in a first floor bedroom. The victims, an 85-year old woman and an 81-year old man, were overcome by the heat and smoke while they attempted to escape. They were transported to a local hospital where they both succumbed to their injuries. No one else was injured at this fire. There were no smoke detectors and the building was not sprinklered. Damages from this fire were not estimated.

Quincy Has Norfolk County's Largest Loss Fire in 2011

There were four fires in Norfolk County that caused over \$1 million in estimated damages. These four fires accounted for half of all the dollar loss for the county.

- The Quincy Fire Department was dispatched to a fire 24-unit apartment building at 9:46 p.m. on July 9, 2011. The three alarm fire started on a first floor balcony. One firefighter was injured fighting this fire. Detectors were present and alerted the residents of the building. Sprinklers were present but it was not reported if they operated. Damages from this fire were estimated to be \$8.4 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 1,982 structure fires caused two of Norfolk County's civilian deaths, nine civilian injuries, 38 fire service injuries and an estimated dollar loss of \$25.3 million. These incidents represented 65% of Norfolk County's reported fires in 2011. The average estimated dollar loss per structure fire was \$12,758. The total number of reported structure fires decreased by 41, or 2%, from the 2,023 reported in 2010.

Arson Caused <1% of Structure Fires

The seven structure arsons caused an estimated dollar loss of \$2.4. Arson was indicated as the cause of less than 1% of the structure fires and 9% of Norfolk County's structure fire dollar loss. The seven structure arsons accounted for 11% of the Norfolk County arson fires reported in 2011. The total number of reported structure arsons decreased by seven, or 56%, from 16 in 2010.

3 of 7 Structure Arsons Occur in Residential Properties

Forty-three percent (43%), of Norfolk County's seven structure arsons occurred in residential occupancies; 29% occurred in public assembly properties; and 14% each occurred in mercantile or business properties and institutional facilities.

BUILDING FIRES

There were 1,970 building fires of different types in Norfolk County in 2011. These 1,970 building fires accounted for 98.9% of all structure fires in Norfolk County.

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

One thousand six hundred and seventy-six (1,676), or 85%, of Norfolk County's 1,970 building fires occurred in residential occupancies. Eighty-eight (88) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 75 fires. Hospitals, prisons, and other institutional buildings also experienced 66 fires. Nineteen (19) building fires took place on educational properties. Twelve (12) building fires in Norfolk County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Ten (10) fires took place in manufacturing and processing facilities. Nine (9) fires took place in storage properties and six fires occurred in industrial facilities in Norfolk County in 2011.

RESIDENTIAL FIRES

Apartments Accounted for 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were apartments accounting for 50% of the residential building fires in Norfolk County; 42% occurred in 1- or 2-family homes; 4% happened in rooming houses; 1% occurred in residential board and care facilities; 1% happened in hotels or motels; and 1% occurred in dormitories. Sixteen (16), or 1%, of the residential building fires in Norfolk County occurred in unclassified residential buildings.

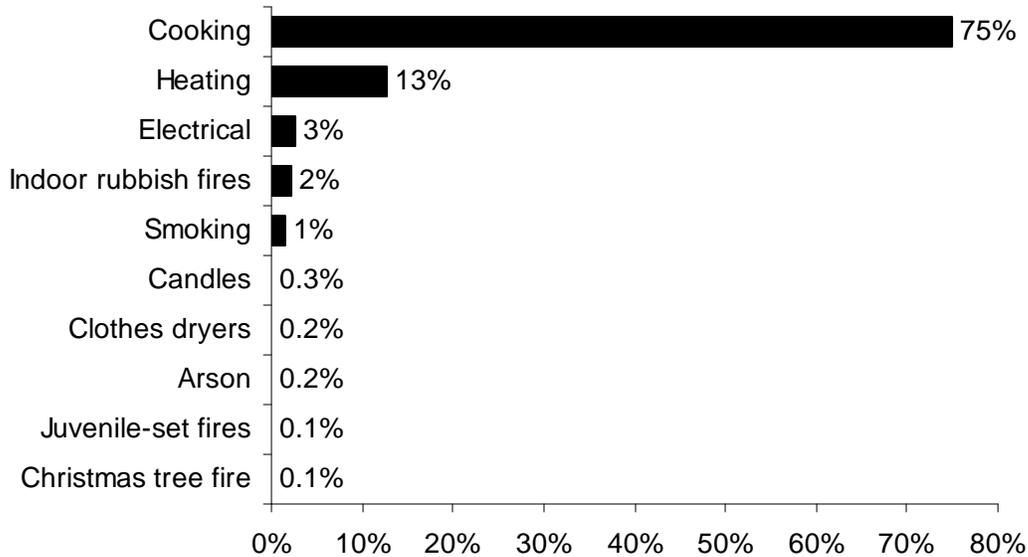
Residential Building Fires Are Down Slightly

There were 1,676 reported residential building fires in Norfolk County in 2011. These 1,676 fires are a decrease of 26, or 2%, from the 1,702 residential building fires reported in 2010.

Cooking Caused 3/4 of Residential Fires

The leading cause of residential building fires in Norfolk County was unattended cooking and other unsafe cooking practices, accounting for 75% of the fires. Heating caused 13% of fires in people's homes. Electrical problems caused 3% of these fires. Indoor rubbish fires accounted for 2% of residential fires. Smoking caused 1% of these fires. Candles, clothes dryers, arson, juvenile-set fires, and a Christmas tree fire each caused less than 1% of the residential building fires in Norfolk County in 2011.

2011 Leading Causes of Fires in Norfolk County Homes



88% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One thousand four hundred and seventy-six (1,476), or 88%, of all residential building fires were reported as confined to non-combustible containers in 2011. One thousand two hundred and thirty-six (1,236) of the reported fires were cooking fires contained to a non-combustible container accounting for 74% of residential building fires. One hundred and thirty-three (133), or 8%, were fires confined to a fuel burner or boiler malfunction. Seventy-one (71), or 4%, of all residential building fires reported in 2011 were fires confined to a chimney. Thirty-five (35), or 2%, were contained rubbish fires. A confined incinerator overload accounted for less than 1% of Norfolk County's residential fires in 2011.

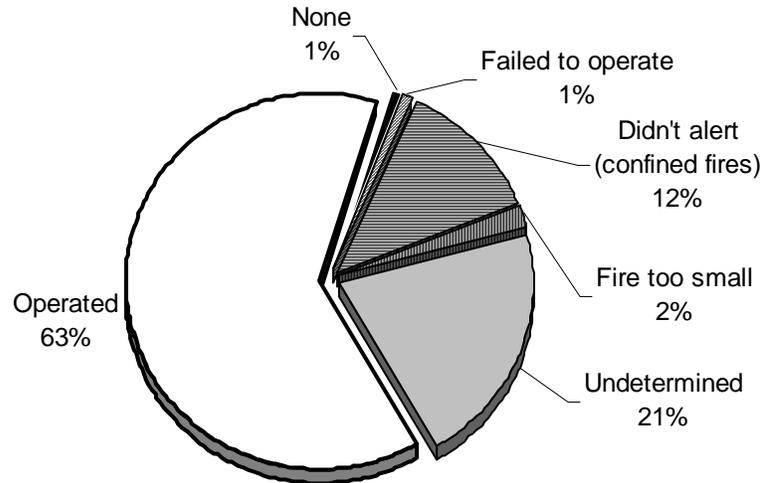
Detectors Alerted Occupants in 63% of Fires

Smoke or heat detectors operated and alerted the occupants in 1,055, or 63%, of the residential building fires. In 12% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 1% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 2% of the residential fires. Smoke detector performance was undetermined in 349 incidents, or 21%, of Norfolk County's residential building fires.

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

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

Detector Status in Norfolk County's Residential Structure Fires 2011



2 of Failed Detectors Had Dead Batteries

Of the 13 fires where smoke detectors were present but failed to operate, two, or 15%, failed because of dead batteries. Another two detectors, or 15%, each failed because the power was shut-off or disconnected. A lack of maintenance and a defective detector each were responsible for one incident of a detector that failed to operate. It was undetermined or unclassified in six cases, or 46%, why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Norfolk County reported 14 fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 1,970 building fires reported to MFIRS in 2011. Eight (8) fires occurred in vacant residential properties. Storage facilities, public assembly properties and mercantile or business properties each reported two vacant building fires.

Two (2), or 14%, of the vacant building fires in Norfolk County in 2011 were determined to be intentionally set. One (1) vacant building arson occurred in a single-family home and one happened in a house of worship.

JUVENILE-SET FIRES

12 Juvenile-set Fires

There were 12 reported juvenile-set fires in Norfolk County in 2011. The five structure fires, six brush fires, and one outside equipment fire caused a \$500 in estimated damages.

ARSONS

65 Total Arsons - 7 Structures, 3 Vehicles & 55 Other Arsons

Sixty-five (65), or 2%, of Norfolk County's 3,047 fires were intentionally set, or, for purposes of this analysis, arson. The seven structure arsons, three motor vehicle arsons and 55 outside and other arsons caused one death and an estimated loss of \$2.4 million.

All Arsons Down

The total number of reported arson fires decreased by 16 from the 81 reported in 2010. Reported structure arsons decreased by nine from the 16 reported the previous year. Motor vehicle arsons decreased by one from the four reported in 2010. Reported outside and other arsons decreased by six from 61 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 56% of All Reported Incidents

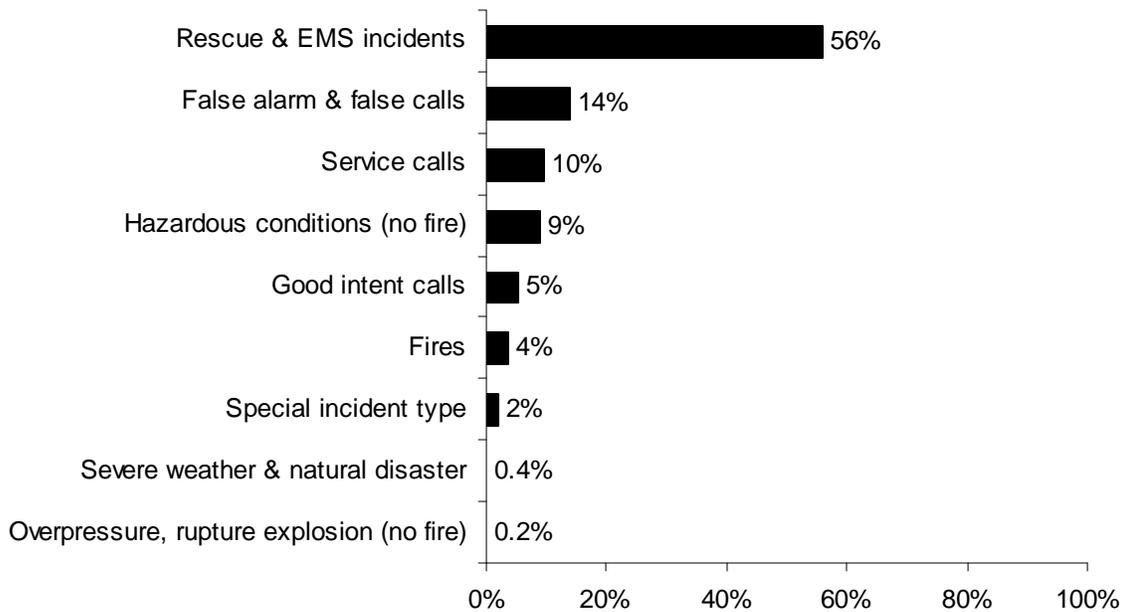
In 2011, fire departments in Norfolk County reported 88,139 responses³ to MFIRS. Of these 88,926 incidents, 84,926 non-fire calls were voluntarily reported.

Of these 84,926 non-fire incidents, 49,313, or 56%, of all the incidents reported in 2011, were reported rescue and emergency medical services (EMS) calls; 12,284, or 14%, were reported false alarm or false calls; 8,532, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 7,899, or 9%, were reported hazardous condition calls with no fire; 4,639, or 5%, were reported good intent calls; 1,758, 2%, were special incident type calls such as citizen complaints; 347, or 0.4%, were severe weather responses; and 154, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire;.

Three thousand two hundred and thirteen (3,213), or 4%, of the total responses submitted by Norfolk County fire departments were fires.

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

2011 Responses by Incident Type



Norfolk County Fire Departments Gave Mutual Aid 3,087 Times

In 2011, Norfolk County fire departments reported coming to the aid of other fire departments 3,087 times. Of these 3,087 responses, 1,868, or 61%, were for rescue or EMS calls; 496, or 16%, were for service calls such as cover assignments; 376, or 12%, were for good intent calls; 163, or 5%, were for fires; 124, or 4%, were for false alarms or false calls; 35, or 1%, were for hazardous conditions calls with no fire; 21, or 1%, were special incident types; and four, or 0.1%, were severe weather calls.

Norfolk County Received Mutual Aid in 2,163 Incidents

In 2011, Norfolk County fire departments reported receiving aid from surrounding departments in 1,765 incidents. Of these 2,163 incidents, 1,685, or 78%, were rescue and emergency medical services calls; 185, or 9%, were false alarms or false calls; 155, or 7%, were for fires; 50, or 2%, were good intent calls; 43, or 2%, were hazardous conditions calls with no fire; 40, or 2%, were service calls; four, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire, and one incident, or 0.05%, was a severe weather call.

Item First Ignited⁶	%	Factor Contrib. to Ignit.	%	%Unconfined⁷
Food, cooking materials	74%	Abandoned materials	1%	11%
Flammable/comb. liquid	8%	Too close to combustibles	1%	8%
Film, residue (creosote)	4%	Electrical failure, malfunc.	1%	7%
Rubbish, trash, waste	2%	Failure to clean	1%	5%
Structural member, framing	1%			

Equipment⁸	%	Cause of Ignition	%	%Unconfined⁹
Kitchen & cooking equipment	74%	Unintentional	7%	55%
None	9%	Failure of eq. or heat source	2%	19%
Boiler, furnace, cent. heat. unit	8%	Intentional	0.2%	2%
Chimney, flue	4%	Act of nature	0.4%	3%
Fan	0.2%	Cause under investigation	2%	15%
		Undetermined	1%	7%

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

Alerted occupants	65%
Didn't alert occupants	14%
Undetermined	21%

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

⁷ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

⁹ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Cause of Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	249	211	30	8
February	188	144	31	13
March	255	176	15	64
April	279	163	16	100
May	236	135	17	84
June	304	169	28	107
July	294	129	24	141
August	267	151	34	82
September	229	151	24	54
October	241	177	29	35
November	273	194	22	57
December	232	182	17	33

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	504	333	27	144
Monday	412	253	31	128
Tuesday	401	260	37	104
Wednesday	388	253	45	90
Thursday	446	295	46	105
Friday	446	287	55	104
Saturday	450	301	46	103

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	151	106	23	22
04:01 - 08:00	198	126	23	49
08:01 - 12:00	523	350	63	110
12:01 - 16:00	781	462	77	242
16:01 - 20:00	972	663	68	241
20:01 - 00:00	422	275	33	114

Motor Vehicle Fires

Total: 287

Automobiles: 234 (82%)

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

Arson Fires

Total Arsons: 65

Dollar loss: \$2,425,618

0.10 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	7	0.4%	11%	\$416,300
Vehicle Arsons	3	1%	5%	7,500
Other Arsons	55	7%	85%	500

0.01 Structure arsons/1,000 population

0.004 Vehicle arsons/1,000 population

0.08 Other arsons/1,000 population

1 Civilian Death

Peak Times of Day for

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 - 00:00	3	43%	00:01 - 04:00	1	33%
16:01 - 20:00	2	14%	08:01 - 12:00	1	33%
12:01 - 16:00	2	14%	20:01 - 00:00	1	33%

Other Arsons	#	%
16:01 - 20:00	25	45%
20:01 - 00:00	15	27%
12:01 - 16:00	7	13%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	3	43%
Police station	1	14%
Mercantile, business, other	1	14%
Fixed use recreation places, other	1	14%
Church, mosque, synagogue, temple, chapel	1	14%

Avon					Population: 4,356			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	58	10	14	34	1	0	1	0
2008	55	17	14	24	0	0	0	0
2009	30	8	11	11	0	0	0	0
2010	32	8	13	11	4	0	1	3
2011	34	12	9	13	1	1	0	0

Bellingham					Population: 16,332			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	83	33	12	38	0	0	0	0
2008	55	33	7	15	3	2	0	1
2009	50	25	6	19	2	0	0	2
2010	59	26	6	27	1	1	0	0
2011	56	29	10	17	1	0	0	1

Braintree					Population: 35,744			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	143	31	23	89	8	0	0	8
2008	100	18	21	61	5	0	0	5
2009	81	15	16	50	5	0	0	5
2010	114	24	19	71	5	0	0	5
2011	92	28	19	45	2	0	0	2

Brookline					Population: 58,732			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	29	27	1	1	0	0	0	0
2008 ¹⁰	372	322	11	39	1	0	1	0
2009	430	387	11	32	1	0	1	0
2010	464	423	13	28	1	1	0	0
2011	427	409	5	13	0	0	0	0

¹⁰ In 2008 Brookline automated its fire incident reporting and began reporting all incidents to MFIRS, not just the mandated fires and explosions that resulted in a dollar loss or human casualty.

Canton					Population: 21,561			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	39	18	10	11	1	1	0	0
2008	45	21	15	9	1	0	0	1
2009	31	10	17	4	3	1	0	2
2010	36	17	13	6	2	1	1	0
2011	24	7	13	4	1	0	1	0

Cohasset					Population: 7,542			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	68	24	2	42	2	0	0	2
2008	37	12	3	22	4	0	0	4
2009	27	16	0	11	1	0	0	1
2010	41	15	2	24	7	1	0	6
2011	36	24	2	10	3	0	0	3

Dedham					Population: 24,729			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	8	7	0	1	0	0	0	0
2008	17	14	3	0	0	0	0	0
2009	34	19	7	8	0	0	0	0
2010	192	119	10	63	9	0	0	9
2011	155	104	16	35	6	0	0	6

Dover					Population: 5,589			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	4	4	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0
2009	7	4	1	2	0	0	0	0
2010	27	17	3	7	0	0	0	0
2011	35	25	2	8	0	0	0	0

Foxborough **Population: 16,865**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	56	16	11	29	3	0	1	2
2008	50	16	13	21	3	1	1	1
2009	36	17	8	11	0	0	0	0
2010	35	14	6	15	4	0	1	3
2011	37	15	6	16	0	0	0	0

Franklin **Population: 31,635**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	89	24	6	59	0	0	0	0
2008	64	22	9	33	2	2	0	0
2009	51	15	8	28	1	0	0	1
2010	74	24	8	42	1	0	0	1
2011	58	20	7	31	2	2	0	0

Holbrook **Population: 10,791**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	94	28	4	62	5	1	1	3
2008	46	23	3	20	0	0	0	0
2009	36	18	7	11	2	0	2	0
2010	55	21	0	34	4	0	0	4
2011	46	30	5	11	1	1	0	0

Medfield **Population: 12,024**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	45	20	4	21	10	0	1	9
2008	31	13	3	15	13	0	2	11
2009	19	9	3	7	6	1	0	5
2010	26	15	1	10	3	1	0	2
2011	22	15	1	6	2	0	0	2

Medway **Population: 12,752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	9	6	1	2	0	0	0	0
2008	1	0	0	1	0	0	0	0
2009	50	41	3	6	0	0	0	0
2010	44	28	4	12	1	1	0	0
2011	10	2	5	3	0	0	0	0

Millis **Population: 7,891**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2	1	0	1	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	Non-Reporting Community							
2011	Non-Reporting Community							

Milton **Population: 27,003**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	225	137	16	72	13	0	0	13
2008	187	129	15	43	5	0	0	5
2009	160	111	17	32	8	0	0	8
2010	175	102	17	56	6	1	0	5
2011	166	94	22	50	15	0	0	15

Needham **Population: 28,886**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	82	36	11	35	5	1	0	4
2008	78	35	14	29	6	0	0	6
2009	49	25	7	17	4	0	0	4
2010	84	34	13	37	0	0	0	0
2011	49	24	8	17	0	0	0	0

Norfolk					Population: 11,227			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	51	39	2	10	0	0	0	0
2008	57	43	3	11	3	3	0	0
2009	62	50	1	11	0	0	0	0
2010	66	47	2	17	2	0	0	2
2011	82	69	4	9	3	1	0	2

Norwood					Population: 28,602			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	142	48	16	78	3	0	0	3
2008	91	34	9	48	0	0	0	0
2009	75	33	9	33	1	1	0	0
2010	118	43	14	61	0	0	0	0
2011	69	33	8	22	0	0	0	0

Plainville					Population: 8,264			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	51	19	4	28	2	1	0	1
2008	36	17	4	15	5	1	0	4
2009	29	9	8	12	1	0	0	1
2010	30	11	7	12	3	1	0	2
2011	32	13	7	12	0	0	0	0

Quincy					Population: 92,271			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	861	293	51	517	15	1	0	14
2008	532	282	45	205	15	2	0	13
2009	531	308	44	179	7	0	1	6
2010	574	268	38	268	4	0	0	4
2011	564	326	33	205	8	0	1	7

Randolph **Population: 32,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	249	140	24	85	1	1	0	0
2008	214	141	17	56	0	0	0	0
2009	187	136	22	29	1	0	0	1
2010	218	143	24	51	1	0	1	0
2011	196	136	23	37	4	1	0	3

Sharon **Population: 17,612**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	61	31	8	22	1	0	0	1
2008	51	22	11	18	0	0	0	0
2009	38	23	12	3	0	0	0	0
2010	53	27	8	18	2	0	0	2
2011	39	21	9	9	1	0	0	1

Stoughton **Population: 26,962**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	287	230	18	39	4	2	1	1
2008	266	219	24	23	4	0	2	2
2009	266	246	11	9	0	0	0	0
2010	266	238	11	17	1	0	0	1
2011	272	230	14	28	3	1	0	2

Walpole **Population: 24,070**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007 ¹¹	134	82	8	44	10	9	0	1
2008	105	69	8	28	7	4	0	3
2009	86	58	8	20	2	2	0	0
2010	114	77	6	31	1	0	0	1
2011	86	59	10	17	3	0	0	3

¹¹ 7 of the 10 arsons occurred at MCI – Cedar Junction maximum security state penitentiary.

Wellesley **Population: 27,982**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	135	90	13	32	2	1	0	1
2008	94	75	6	13	1	1	0	0
2009	77	48	6	23	2	1	0	1
2010	48	16	10	23	0	0	0	0
2011	42	20	11	11	1	0	0	1

Westwood **Population: 14,618**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	133	70	10	53	2	0	0	2
2008	110	56	9	45	2	1	0	1
2009	81	64	8	9	0	0	0	0
2010	121	81	11	29	1	0	0	1
2011	90	64	8	18	1	0	0	1

Weymouth **Population: 53,743**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	470	209	31	230	11	3	0	8
2008	307	188	17	102	6	0	0	6
2009	220	137	21	62	8	3	1	4
2010	308	173	21	114	11	6	0	5
2011	306	164	23	119	4	0	1	3

Wrentham **Population: 10,955**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	142	14	8	120	1	0	0	1
2008	63	6	6	51	0	0	0	0
2009	39	15	3	21	4	0	0	4
2010	46	9	4	33	6	0	0	6
2011	23	10	7	6	3	0	0	3

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
21018	Avon	1,489	42	2	944	84	185	125	106	0	1
21025	Bellingham	1,796	57	1	1,210	94	179	60	178	11	6
21040	Braintree	5,114	92	68	2,715	359	755	288	755	17	65
21046	Brookline	7,349	429	9	4,150	551	522	338	1,342	7	1
21050	Canton	24	24	0	0	0	0	0	0	0	0
21065	Cohasset	1,991	40	2	899	191	473	87	245	31	23
21073	Dedham	4,364	159	14	2,864	501	188	118	480	37	3
21078	Dover	346	39	1	23	55	35	23	146	24	
21099	Foxborough	889	41	0	131	240	89	56	324	4	4
21101	Franklin	3,365	69	1	2,166	107	369	187	446	17	3
21133	Holbrook	2,518	51	2	1,283	156	475	286	253	9	3
21175	Medfield	1,120	29	1	514	171	210	46	136	10	3
21177	Medway	11	10	0	0	1	0	0	0	0	0
21189	Milton	3,904	172	6	1,980	233	360	108	523	6	516

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
21199	Needham	3,502	49	2	1,792	277	572	231	574	0	5
21208	Norfolk	1,778	106	0	809	470	39	23	327	4	0
21220	Norwood	5,417	72	3	3,848	385	351	207	534	13	4
21238	Plainville	2,604	34	0	962	132	144	101	204	59	968
21243	Quincy	9,816	565	23	5,471	893	748	541	1,546	10	19
21244	Randolph	4,900	200	0	3,115	370	535	192	477	5	6
21266	Sharon	2,240	49	3	1,260	277	195	198	249	9	0
21285	Stoughton	5,490	293	4	3,134	308	531	374	722	22	102
21307	Walpole	3,084	104	1	1,939	280	236	144	368	8	4
21317	Wellesley	4,047	43	1	1,716	358	518	184	1,187	37	3
21335	Westwood	2,862	112	1	1,620	322	216	148	438	3	2
21336	Weymouth	6,169	307	7	3,459	918	354	546	559	3	16
21350	Wrentham	1,950	25	2	1,309	166	253	28	165	1	1
	Norfolk County	88,139	3,213	154	49,313	7,899	8,532	4,639	12,284	347	1,758

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.

Quincy Fires in 2011

564 Total Fires — 326 Structures, 33 Vehicles & 205 Other Fires

The Quincy Fire Department reported 564 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 326 structure fires, 33 motor vehicle fires, 110 brush fires, 55 outside rubbish fires, 19 special outside fires; three cultivated crop or vegetation fires; and 18 unclassified fires caused one civilian injury, 17 firefighter injuries and an estimated dollar loss of \$9.4 million.

There were no fatal fires in Quincy in 2011.

Structure Fires Up in 2011

Total fires decreased by 10, or 2%, from the 574 incidents reported in 2010. Reported structure fires increased by 58 from the 268 reported during the previous year. Motor vehicle fires decreased by five from 38 the year before. Outside and other fires decreased by 63 from the 268 reported in 2010.

QUINCY FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	861	293	51	517	15	1	0	14
2008	532	282	45	205	15	2	0	13
2009	531	308	44	179	7	0	0	6
2010	574	268	38	268	4	0	0	4
2011	564	326	33	205	8	0	1	7

BUILDING FIRES

There were 322 building fires of different types in Quincy in 2011. These 322 building fires accounted 98.8% of the structure fires in Quincy.

88% of Building Fires in Homes

The 322 building fires that occurred in Quincy in 2011 can be broken down by fixed property use as follows: 283, or 88% of all building fires, were in residential properties; 15 fires occurred in institutional facilities; 10 fires occurred in public assembly properties; another 10 happened in mercantile or business properties; one occurred at a storage facility; one fire occurred in an educational facility; and another fire occurred in a special property.

RESIDENTIAL FIRES

Residential Building Fires Up

There were 283 reported residential building fires in Quincy in 2011. These 283 fires are an increase of 54 from the 229 reported residential building fires reported in 2010.

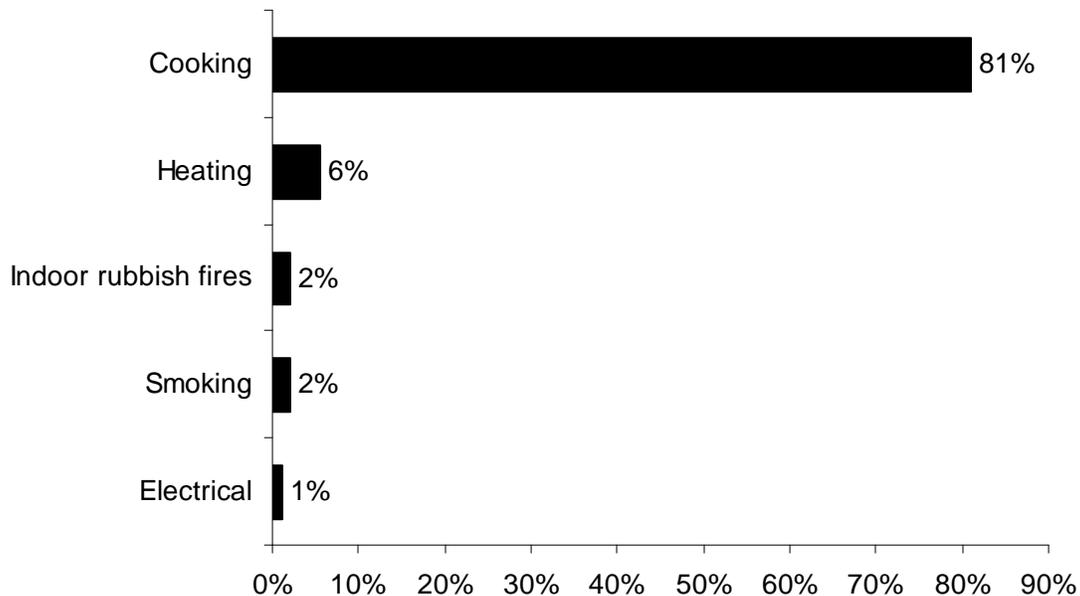
Apartments Accounted for 60% of Residential Building Fires

The peak fixed property uses for residential building fires in Quincy were apartments, accounting for 60% of the building fires; 22% occurred in 1- or 2-family homes; 15% happened in rooming houses; 2% occurred in residential board and care facilities; and less than 1% happened in dormitories. One percent (1%) of residential fires occurred in unclassified residential occupancies.

Unattended Cooking Caused Over 81% of Residential Fires

The leading cause of residential building fires in Quincy was unattended cooking and other unsafe cooking practices, accounting for 81% of these fires. Heating fires caused 6% of these fires. Indoor rubbish fires and smoking and each caused 2% of the fires. Electrical problems were the cause of less than 1% of the fires in Quincy's residential occupancies in 2011.

2011 Leading Causes of Fires in Quincy Homes



89% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Two hundred and fifty-one (251), or 89% of all residential building fires were confined to non-combustible containers in 2011. Two hundred and twenty-seven (227), or 80%, of all residential building fires reported in 2011 were cooking fires contained to a non-

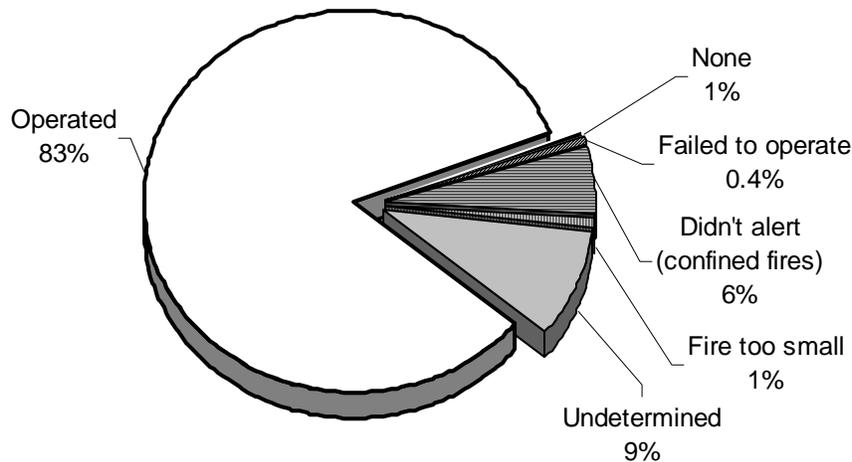
¹ In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing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

combustible container. Fifteen (15), or 5%, were fires confined to a fuel burner or boiler malfunction. Seven (7) fires, or 2%, were rubbish fires contained to a non-combustible container; One (1) fire, or less than 1%, was reported to have been contained to a chimney or flue; and another fire, or less than 1%, was confined to a commercial compactor.

Detector Operated in 83% of Fires

Smoke or heat detectors operated and alerted the occupants in 235, or 83%, of the residential building fires. In 6% of these fires², the detectors did not alert the occupants. There were no detectors in 1% of these fires. Detectors were present but did not operate in less than 1% of these incidents. The fire was too small to trigger the detector in 1% of these fires. Smoke detector performance was undetermined in 26 incidents, or 9% of Quincy’s residential building fires.

Detector Status in Quincy's Residential Fires 2011



Unknown Why Detector Failed

It was undetermined in the one fire where the detectors were reported to have failed.

VACANT BUILDINGS

None of Building Fires Occurred in Vacant Buildings

In 2011, Quincy did not report any fires that occurred in buildings that were vacant, under construction or demolition.

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

JUVENILE-SET FIRES

2 Juvenile-set Fires

Quincy reported two juvenile-set fires in 2011. Both of these fires were brush fires.

ARSONS

8 Arsons - 0 Structure, 1 Motor Vehicle and 7 Outside & Other

Eight (8), or 1%, of Quincy's 564 fires were considered intentionally set, or, for purposes of this analysis, arson. There were four brush arsons, three special outside arsons and one motor vehicle arson.

Total Arsons Rise Slightly

The total number of arsons increased by four from the four reported in 2010. Reported structure arsons remained the same with none reported in both 2011 and 2010. Reported motor vehicle arsons increased by one from none reported in 2010. Outside and other arsons increased by three from four reported the year before.

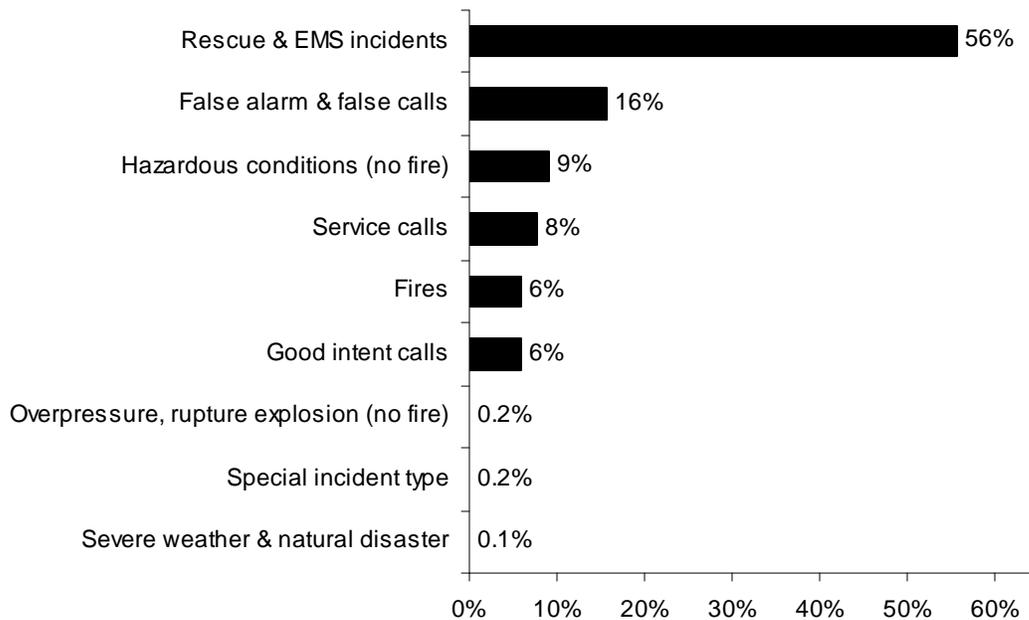
Rescue & EMS Calls Are 56% of All Reported Incidents

In 2011, Quincy voluntarily reported 9,816 incidents to MFIRS. Of these 9,816 incidents, 9,251, or 94%, were non-fire incidents.

Of these 9,251 non-fire incidents 5,471, or 56% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 1,546, or 16%, were reported false alarm or false calls; 893, or 9%, were reported hazardous condition calls with no fire; 748, or 8%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 541, or 6%, were reported good intent calls; 23, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; 19, or 0.2%, were special type incidents; and 10, or 0.1%, were responses to incidents caused by severe weather;.

In 2011, Quincy reported 565 fires, accounting for 6% of all reported incidents.

2011 Incidents by Incident Type



Quincy Gave Mutual Aid in 8 Incidents

In 2011, Quincy reported coming to the aid of other fire departments eight times. Three (3) were for cover assignments; one was for a fire; one was rescue or EMS call, another was for a hazardous condition with no fire; one was a good intent call and one was for a special incident type.

Quincy Report Receiving Mutual Aid Twice

In 2011, Quincy reported two incidents where surrounding fire departments provided them with aid. One was for a fire and the other incident was a rescue or EMS call.

Quincy

Population: 92,271

6.2 Fires/1,000 Population

Total Fires:	564		\$9,443,500
Situation	Fires	% of Fires	Dollar Loss
Structure Fires	326	58%	\$9,383,500
Vehicle Fires	33	6%	60,000
Other Fires	205	36%	0

No Deaths

1 Civilian Injury 17 Fire Service Injuries

Building Fires: 322

Residential Structure Fires: 283

Residential Structure Fires Confined to Non-Combustible Containers: 251

Unconfined Residential Structure Fires: 32

15 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	169	60%	Operated	235	83%
1- & 2-Family homes	61	22%	Didn't operate	1	0.4%
Boarding houses	42	15%	None	2	1%
Residential board & care	7	2%	Fire too small	2	1%
			Didn't Alert (confined)	17	6%
			Undetermined	26	9%

Area of Origin³	%	Heat Source	%	%Unconfined⁴
Kitchen	82%	Hot or smoldering object	3%	28%
Heating room or area	5%	Heat from operating equip.	2%	19%
Exterior balcony/unencl. porch	2%	Cigarette	1%	9%
Bedroom	1%	Arcing	1%	9%

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

⁴ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited⁵	%	Factor Contrib. to Ignition	%	%Unconfined⁶
Cooking materials	81%	Abandoned materials	2%	19%
Flammable or combustible liq.	5%	Misuse of material or prod.	1%	9%
Rubbish, trash, waste	3%	Electrical failure/malfunc.	1%	9%
Structural member, framing	1%	Short circuit arc fr. def. ins.	1%	6%

Equipment⁷	%	Cause of Ignition	%	%Unconfined⁸
Cooking equipment	80%	Unintentional	6%	56%
None	12%	Failure equip./heat source	1%	6%
Boiler, furnace, cent. heat. unit	5%	Undetermined	0.4%	3%
Chimney, flue	0.4%	Under investigation	4%	34%

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

Alerted Occupants	87%
Didn't Alert Occupants	7%
Undetermined	6%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	5,471	56%
False alarms & false calls	1,546	16%
Hazardous conditions (no fire)	893	9%
Service calls	748	8%
Fires ⁹	565	6%
Good intent calls	541	6%
Overpressure rupture, explosion or overheat calls (no fire)	23	0.2%
Special Incident Types	19	0.2%
Severe weather & natural disaster	10	0.1%

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

⁶ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

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

⁹ This includes the fires that Fitchburg responded to outside of their jurisdiction as mutual aid given.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	37	34	3	0
February	27	20	3	4
March	47	30	1	16
April	40	23	1	16
May	40	16	3	21
June	65	33	5	27
July	86	34	2	50
August	43	20	3	20
September	38	21	3	14
October	38	25	3	10
November	48	30	4	14
December	55	40	2	13

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	95	55	2	38
Monday	84	50	5	29
Tuesday	78	37	7	34
Wednesday	71	44	3	24
Thursday	75	49	4	22
Friday	75	41	9	25
Saturday	86	50	3	33

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	27	15	2	10
04:01 - 08:00	38	23	1	14
08:01 - 12:00	81	53	7	21
12:01 - 16:00	134	68	10	56
16:01 - 20:00	181	117	6	58
20:01 - 24:00	103	50	7	46

Motor Vehicle Fires

Total: 33

Automobiles: 24 (73%)

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

Arson Fires

Total Arsons: 8 Dollar loss: \$0

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	0	0%	0%	\$0
Vehicle Arsons	1	3%	12%	0
Other Arsons	7	3%	88%	0

0.00 Structure arsons/1,000 population

0.01 Vehicle arsons/1,000 population

0.08 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
			08:01 - 12:00	1	100%

Other Arsons	#	%
20:01 - 00:00	3	43%
16:01 - 20:00	2	14%
12:01 - 16:00	1	29%
00:01 - 04:00	1	14%

Peak Fixed Property Uses for Structure Arsons # %

Plymouth County

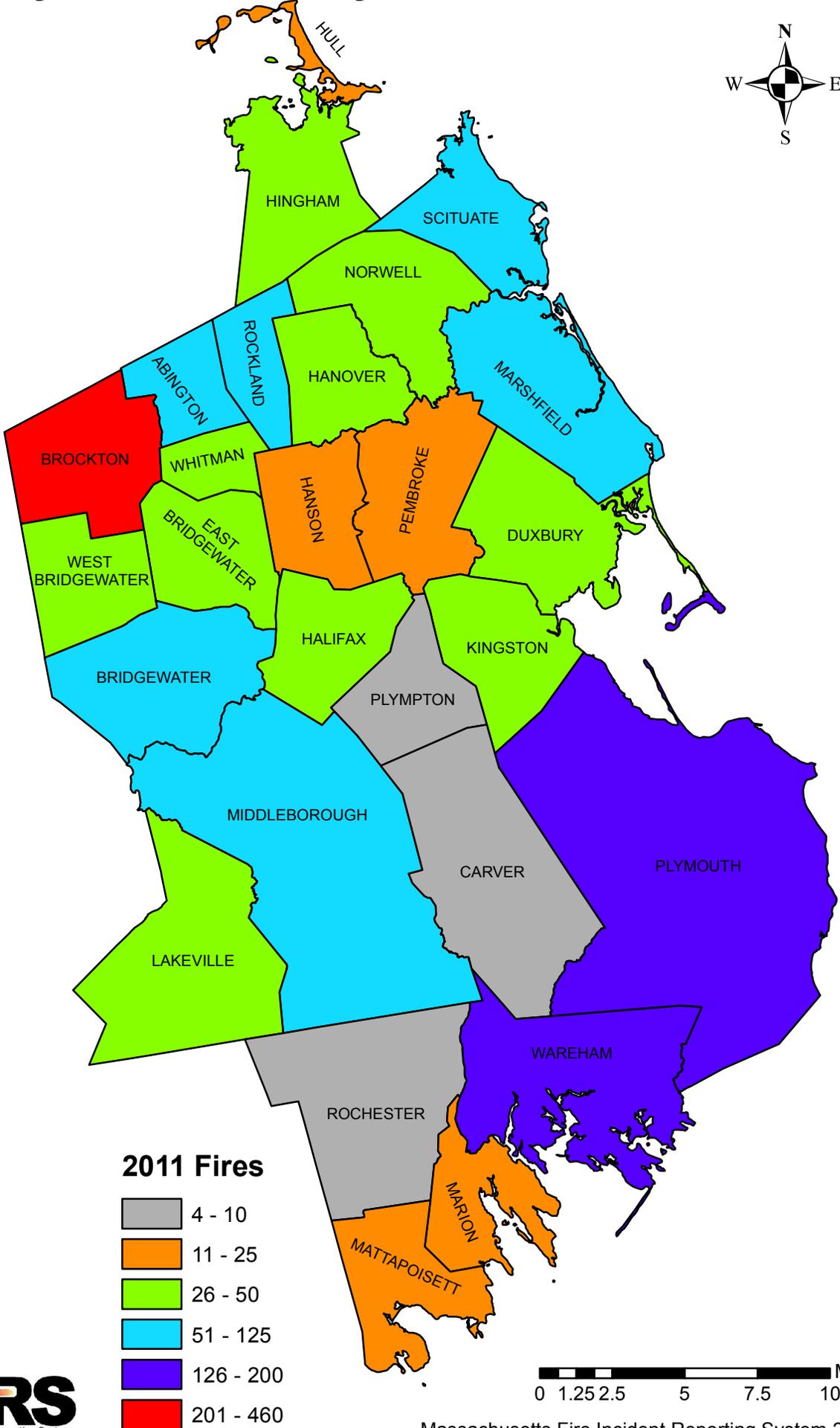
2011 Fire Data Analysis



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Plymouth County Fires 2011



MFIRS
Massachusetts Fire Incident Reporting System

Plymouth County Fires in 2011

1,796 Total Fires — 805 Structures, 271 Vehicles & 720 Other Fires

Plymouth County ranked eighth out of the fourteen Massachusetts counties in total reported fires. Plymouth County fire departments reported 1,796 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 805 structure fires, 271 motor vehicle fires, 349 brush, tree or lawn fires, 181 outside rubbish fires, 117 special outside fires, two cultivated vegetation or crop fires and 71 other fires caused four civilian deaths, 54 civilian injuries, 31 fire service injuries and an estimated dollar loss of \$10.5 million. Plymouth County's fires accounted for 6% of the 29,110 Massachusetts fires reported in 2011.

All 28 fire departments in Plymouth County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2011.

Motor Vehicle Fires Up

The total number of reported fire incidents decreased by 120 from the 1,916 reported in 2010. Reported structure fires decreased by 13 from 818 the year before. Motor vehicle fires increased by 52 from 219 the previous year. Reported outside and other fires decreased by 159 from 879 in 2010.

Brush Fires Down Dramatically

Plymouth County had a large decrease in brush fires in 2011. Brush fires decreased by 112, or 24%, from the 461 reported in 2010. This is the main reason for the drop in overall fires in Plymouth County. This was a statewide trend.

PLYMOUTH COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	2,010	884	268	858	91	28	12	51
2008	1,776	776	232	768	99	34	9	56
2009	1,486	727	257	502	75	25	23	30
2010	1,916	818	219	879	95	19	12	64
2011	1,796	805	271	720	98	19	11	68

Fire and Fire Death Rates

Plymouth County had 3.6 fires per 1,000 population. That figure ranks Plymouth County ninth in the state and below the state rate of 4.4 fires per 1,000 population. Plymouth County also had 0.08 fire deaths per 10,000 population ranking it fifth among Massachusetts counties and tied with the state rate of 0.08 fire deaths per 10,000 population.

4 Plymouth County Fatal Fires Killed 4 Civilians in 2011

- On March 17, 2011, at 2:17 a.m., the Brockton Fire Department was called to a fatal electrical fire at a three-unit apartment building. Arcing from electrical wiring in the kitchen started the fire. The victim, a 41-year old woman was most likely sleeping at the time of the fire. Four (4) other civilians and one firefighter were injured at this fire. Detectors were present and alerted the other occupants to the fire. Sprinklers were not present. Damages were estimated to be \$85,000.
- On March 18, 2011, at 10:36 a.m., the Plymouth Fire Department was called to a fatal outside fire in a backyard. The victim, a 74-year old man, was using gasoline to burn ants out of a tree stump. He fell over the tree stump and his clothes ignited. He was transported to a local hospital where he later succumbed to his injuries. No one else was injured in this fire.
- On May 6, 2011, at 11:00 p.m., the Brockton Fire Department was called to a fatal electrical fire at a two-family home. The victim, a 46-year old woman was unfamiliar with the exits in the basement apartment and unable to act at the time of the fire. No one else was injured at this fire. It was undetermined if detectors were present. Sprinklers were not present. Damages were estimated to be \$135,000.
- On May 23, 2011, at 10:17 p.m., the Scituate Fire Department responded to a fatal arson fire in a mixed-use building. The first floor housed law offices and the upper story contained apartments. The victim, a 28-year old man, poured gasoline on himself and lit himself on fire. No one else was injured at this fire. Detectors were present but it was undetermined if they operated. Damages from this fire were estimated at \$120,000.

Hanover Has Plymouth County's Largest Loss Fire in 2011

- On July 19, 2011, at 2:47 a.m., the Hanover Fire Department responded to a fire of undetermined cause in a single-family home. One (1) firefighter was injured by this fire. It was undetermined if detectors were present. The building was not sprinklered. Damages from this fire were estimated to be \$764,700.

STRUCTURE FIRES

Reported Structure Fires Down Slightly

The 805 structure fires caused three civilian deaths, 36 civilian injuries, 29 fire service injuries and an estimated dollar loss of \$8.7 million. These incidents represented 45% of Plymouth County's reported fires in 2011. The average estimated dollar loss per structure fire was \$10,856. The total number of reported structure fires decreased by 13, or 2%, from the 818 reported in 2010.

Arson Caused 2% of Structure Fires

The 19 structure arsons caused one civilian fire death, five civilian injuries, two fire service injuries and an estimated dollar loss of \$457,700. Arson was indicated as the cause of 2% of the structure fires and 5% of Plymouth County's structure fire dollar loss. The 19 structure arsons accounted for 19% of the Plymouth County arson fires reported in 2011.

The total number of reported structure arsons increased by one, or less than 1%, from 18 in 2010.

Almost 1/2 of Structure Arsons Occurred in Residences

Forty-seven percent (47%) of Plymouth County's 19 structure arsons occurred in residential occupancies; 21% occurred in storage facilities; 16% happened in mercantile or business properties; 11% happened in institutional facilities; and 5% happened in special properties.

BUILDING FIRES

There were 793 building fires of different types in Plymouth County in 2011. These 793 building fires accounted for 98.5% of all structure fires in Plymouth County.

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

Six hundred and sixty-two (662), or 83%, of Plymouth County's 793 building fires occurred in residential occupancies. Mercantile and business properties had 36 fires. Thirty (30) fires took place in public assembly properties, including restaurants and churches. Seventeen (17) fires took place in storage facilities. Sixteen (16) building fires in Plymouth County occurred in special properties such as outbuildings and sheds. Hospitals, prisons, and other institutional buildings experienced 13 fires. Ten (10) building fires took place in educational facilities. Six (6) fires took place in manufacturing and processing facilities. Three (3) fires occurred in industrial, utility, defense, agricultural or mining facilities in Plymouth County in 2011.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

There were 662 reported residential building fires in Plymouth County in 2011. These 662 fires are an increase of five, or 1%, from the 657 residential building fires reported in 2010.

1- & 2-Family Homes Accounted for 64% of Residential Building Fires

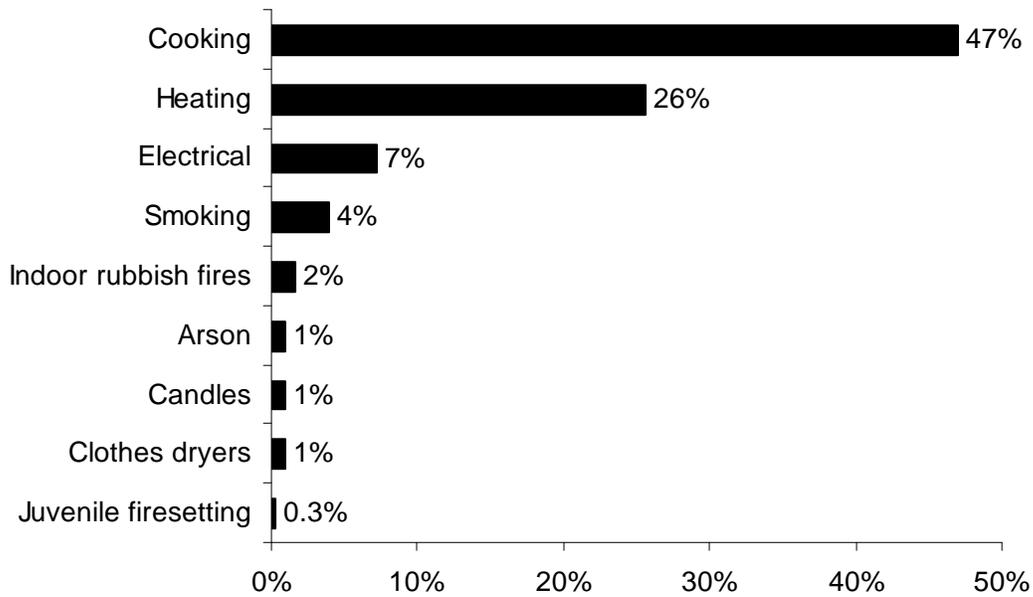
The peak fixed property use for residential building fires were 1- & 2-family homes, accounting for 64% of the residential building fires in Plymouth County; 32% occurred in apartments. Rooming houses and dormitories each had 1%; and hotels or motels, and had less than 1% of these fires. Nine (9), or 1%, of the residential building fires in Plymouth County occurred in unclassified residential buildings.

One- and two-family home fires dropped by 72, or 15%, from the 494 reported in 2010. Interestingly enough, fires in apartments rose by 70, or 48%, from the 145 reported in 2010.

Cooking & Heating Leading Causes of Residential Fires

The leading cause of the 662 residential building fires in Plymouth County was unattended cooking and other unsafe cooking practices, accounting for 47% of these fires. Heating problems caused 26% of the fires in people’s homes. Electrical problems caused 7% and smoking caused 4% of these fires. Indoor rubbish fires caused 2% of these fires. Arson, candles and clothes dryers each caused 1% of residential fires. Juvenile-set fires were responsible for less than 1% of the residential fires in Plymouth County in 2011.

2011 Leading Causes of Fires in Plymouth County Homes



2/3 of Residential Building Fires Are Confined to Non-Combustible Containers¹

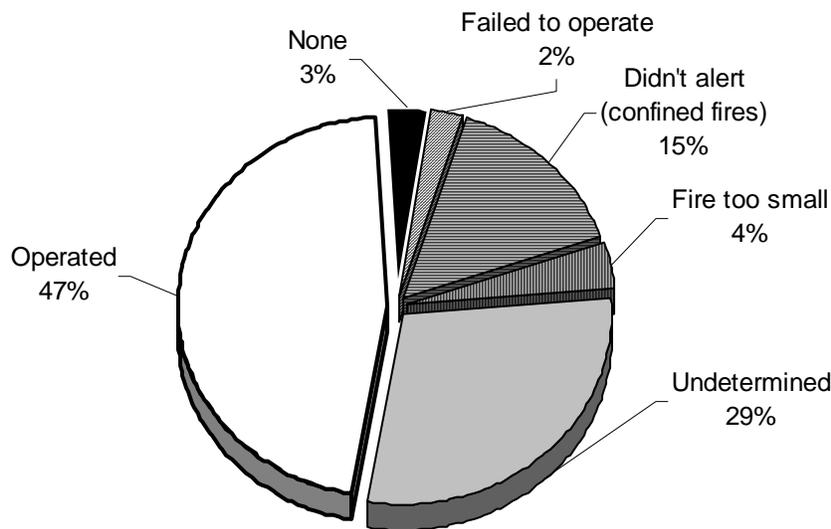
Four hundred and forty-two (442), or 67% of all residential building fires, were reported as confined to non-combustible containers in 2011. Two hundred and seventy-six (276) of the reported fires were cooking fires contained to a non-combustible container accounting for 42% of residential building fires. Eighty-nine (89), or 13%, were fires confined to a fuel burner or boiler malfunction. Sixty-six (66), or 10%, of all residential building fires reported in 2011 were fires confined to a chimney. Eleven (11), or 2%, of these fires were contained rubbish fires.

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

Detectors Alerted Occupants in 47% of Fires

Smoke or heat detectors operated and alerted the occupants in 308, or 47%, of the residential building fires; a 10% increase over 2010’s 37%. In 15% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 4% of the residential fires. Smoke detector performance was undetermined in 194 incidents, or 29%, of Plymouth County’s residential building fires.

Detector Status in Plymouth County's Residential Structure Fires 2011



Almost 1/2 of Failed Detectors Were Undetermined

Of the 15 fires where smoke detectors were present but failed to operate, four detectors, or 27%, failed from a power failure, shutoff or disconnect. Three (3), or 20%, failed because the batteries were either missing or disconnected. One (1), or 7%, failed because of lack of maintenance. It was undetermined or unclassified in seven cases, or 47%, why the detectors failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Plymouth County reported 22 fires that occurred in buildings that were vacant, under construction or demolition³. This represented 2% of the total 793 building fires reported to

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

³ In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-

MFIRS in 2011. Fifteen (15) fires occurred in vacant residential properties. Four (4) vacant building fires occurred in storage facilities. Two (2) of these occurred in educational facilities; and one of these fires happened in mercantile and business properties.

Two (2), or 9%, of the vacant building fires in Plymouth County in 2011 were determined to be intentionally set. One (1) each in an outbuilding or shed and a warehouse.

JUVENILE-SET FIRES

12 Juvenile-set Fires

There were 12 reported juvenile-set fires in Plymouth County in 2011. The four structure fires, four brush fires, two special outside fires, and two unclassified fires caused \$15,500 in estimated damages.

ARSONS

98 Total Arsons — 19 Structures, 11 Vehicles & 68 Other Arsons

Ninety-eight (98), or 5%, of Plymouth County's 1,796 fires were considered intentionally set, or, for purposes of this analysis, arson. The 19 structure arsons, 11 motor vehicle arsons and 68 outside and other arsons caused one civilian death, eight civilian injuries, two fire service injuries and an estimated dollar loss of \$493,860.

All Arsons Up Slightly

The total number of reported arson fires increased by three from the 95 reported in 2010. Reported structure arsons remained the same with 19 reported arsons in both 2010 and 2011. Motor vehicle arsons decreased by one from 12 in 2010. Reported outside and other arsons increased by four from 64 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 61% of All Reported Responses

In 2011, Plymouth County fire departments reported 73,574 responses⁴ to MFIRS. Of these 73,574 incidents, 71,670 non-fire calls were voluntarily reported.

Of these 71,670 non-fire calls, 44,953, or 61%, of the total responses reported in 2011, were reported rescue and emergency medical services (EMS) calls; 8,831 or 12%, were reported false alarm or false calls; 6,270, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 6,102, or 8%, were reported hazardous condition calls with no fire; 4,670, or 6%, were reported good intent calls; 419, or 1%, were severe weather responses; 307, or 0.4%, were special

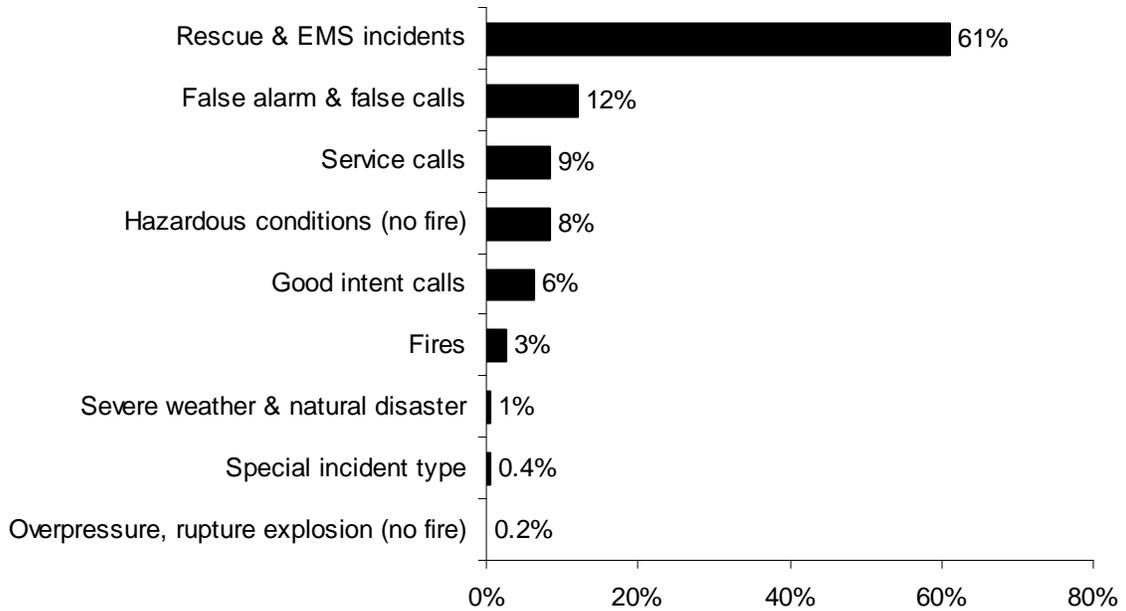
Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

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

incident type calls such as citizen complaints; and 118, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand and nine hundred and four (1,904), or 3%, of the total responses submitted by Plymouth County fire departments were fires.

2011 Responses by Incident Type



Plymouth County Fire Departments Gave Mutual Aid 1,903 Times

In 2011, Plymouth County fire departments reported coming to the aid of other fire departments 1,903 times. Of these 1,903 responses, 1,355, or 71%, were for rescue or EMS calls; 195, or 10%, were for service calls such as cover assignments; 183, or 10%, were for good intent calls; 102, or 5%, were for fires; 37, or 2%, were for hazardous conditions calls with no fire; 22, or 1%, were for false alarms or false calls; seven, or 0.4%, were for severe weather calls; and two, or 0.2%, were for a special incident type call.

Plymouth County Received Mutual Aid in 1,796 Incidents

In 2011, Plymouth County fire departments received aid from surrounding departments in 1,796 incidents. Of these 1,796 incidents, 1,573, or 88%, were rescue and emergency medical services calls; 85, or 5%, were for fires; 42, or 2%, were false alarms or false calls; 35, or 2%, were hazardous conditions calls with no fire; 33, or 2%, were service calls; 25, or 1%, were good intent calls; two, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.1%, was a severe weather call.

Plymouth County

Population: 494,919

3.6 Fires/1,000 Population

Total Fires: 1,796 \$10,542,566

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	805	45%	\$8,739,475
Vehicle Fires	271	15%	1,619,051
Other Fires	720	40%	184,040

4 Fatal Fires 2.23 Civilian Deaths/1,000 Fires
 4 Civilian Deaths 0.08 Civilian Deaths/10,000 Population
 54 Civilian Injuries 31 Fire Service Injuries

Building Fires: 793

Residential Building Fires: 662

Residential Building Fires Confined to Non-Combustible Containers: 442

Unconfined Residential Building Fires: 220

3 Civilian Deaths 31 Civilian Injuries 25 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
1- & 2-Family homes	422	64%	Operated	308	47%
Apartments	215	32%	Didn't operate	15	2%
Hotels or motels	8	1%	None	22	3%
Dormitories	5	1%	Fire too small	24	4%
Rooming houses	3	0.5%	Didn't Alert (confined)	99	15%
			Undetermined	194	29%

Area of Origin ⁵	%	Heat Source	%	%Unconfined ⁶
Kitchen	50%	Radiated, cond./heat op. eq.	6%	17%
Heating room or area	14%	Arcing	5%	16%
Chimney or flue	10%	Heat from operating eq.	4%	12%
Bedroom	3%	Hot ember or ash	3%	9%
Substructure area or space	2%	Spark, ember, flame, op. eq.	3%	9%

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	45%	Too close to combustibles	3%	8%
Flammable or combust. liquid	13%	Abandoned materials	3%	8%
Film, residue (creosote)	10%	Electrical failure, malfunc.	2%	5%
Electrical wire, cable insulation	3%	Failure to clean	1%	4%
Structural member, framing	3%	Mechanical failure, malfunc.	1%	3%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Cooking equipment	52%	Unintentional	21%	63%
None	22%	Failure of eq. or heat source	6%	19%
Boiler, furnace, cent. heat. unit	13%	Intentional	1%	3%
Chimney or flue	10%	Act of Nature	1%	4%
Clothes dryer	1%	Cause under investigation	2%	7%
		Undetermined	2%	5%

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

Alerted Occupants	47%
Didn't Alert Occupants	22%
Undetermined	31%

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	119	82	20	17
February	100	70	10	20
March	194	91	28	75
April	195	76	17	102
May	173	66	26	81
June	149	52	17	80
July	205	55	30	120
August	148	54	29	65
September	136	55	30	51
October	118	60	19	39
November	133	67	26	40
December	126	77	19	30

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	277	115	35	127
Monday	254	116	38	100
Tuesday	249	109	52	88
Wednesday	247	118	38	91
Thursday	220	105	34	81
Friday	257	113	34	110
Saturday	292	129	40	123

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	101	44	28	29
04:01 - 08:00	110	67	22	21
08:01 - 12:00	288	124	58	106
12:01 - 16:00	497	183	64	250
16:01 - 20:00	519	261	57	201
20:01 - 00:00	281	126	42	113

Motor Vehicle Fires

Total: 271

Automobiles: 224 (83%)

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

Abington					Population: 15,985			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	106	49	12	45	4	0	0	4
2008	82	42	6	34	4	0	0	4
2009	61	34	9	18	0	0	0	0
2010	78	47	3	28	3	1	0	2
2011	55	26	12	17	3	1	1	1

Bridgewater					Population: 26,563			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	120	46	12	62	3	2	0	1
2008	95	26	22	47	2	1	1	0
2009	67	24	13	30	8	2	2	4
2010	87	31	14	42	15	4	2	9
2011	105	55	14	36	8	5	1	2

Brockton					Population: 93,810			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	311	211	59	41	18	13	4	1
2008	197	142	36	19	13	9	1	3
2009 ¹¹	199	138	35	26	18	11	5	2
2010	375	181	41	153	25	8	3	14
2011	452	224	55	173	46	9	3	34

Carver					Population: 11,509			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	11	4	7	0	0	0	0	0
2008	9	2	7	0	1	0	1	0
2009	10	6	4	0	0	0	0	0
2010	12	6	6	0	0	0	0	0
2011	4	1	3	0	0	0	0	0

¹¹ In 2009, this does not include their July incidents. Because of computer problems the Brockton Fire Department was unable to submit them to MFIRS.

Duxbury**Population: 15,059**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	61	25	10	26	0	0	0	0
2008	38	14	20	1	0	0	0	1
2009	41	18	4	19	8	4	1	3
2010	45	23	5	17	4	2	1	1
2011	42	18	8	16	0	0	0	0

East Bridgewater**Population: 13,794**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	61	33	5	23	1	1	0	0
2008	44	25	4	15	0	0	0	0
2009	51	34	5	12	1	1	0	0
2010	62	37	6	19	1	1	0	0
2011	43	18	10	15	1	0	1	0

Halifax**Population: 7,518**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	30	24	3	3	2	1	1	0
2008	65	29	3	33	6	2	0	4
2009	20	9	4	7	1	0	1	0
2010	48	25	4	19	4	0	0	4
2011	33	17	4	12	2	1	0	1

Hanover**Population: 13,879**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	91	18	11	62	1	0	1	0
2008	59	15	4	40	4	0	0	4
2009	47	25	7	15	0	0	0	0
2010	33	16	3	14	0	0	0	0
2011	31	17	4	10	1	0	0	1

	Hanson				Population: 10,209			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	33	9	2	22	4	2	0	2
2008	38	12	1	25	2	1	0	1
2009	21	14	2	5	1	0	0	1
2010	22	10	3	9	1	0	0	1
2011	19	9	5	5	0	0	0	0

	Hingham				Population: 22,157			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	120	69	6	45	1	0	0	1
2008	75	35	11	29	3	1	1	1
2009	69	33	8	28	2	0	1	1
2010	69	35	3	31	4	0	1	3
2011	46	21	2	23	3	0	0	3

	Hull				Population: 10,293			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	33	20	2	11	2	0	2	0
2008	26	19	2	5	1	1	0	0
2009	27	13	2	12	1	1	0	0
2010	31	20	3	8	0	0	0	0
2011	23	15	0	8	0	0	0	0

	Kingston				Population: 12,629			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	87	22	17	48	10	0	0	10
2008	62	23	10	29	4	1	2	1
2009	41	14	8	19	1	0	0	1
2010	52	21	5	26	5	0	0	5
2011	46	20	9	17	2	0	0	2

Lakeville					Population: 10,602			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	40	12	3	25	3	2	0	1
2008	52	6	6	40	0	0	0	0
2009	39	7	4	28	5	1	1	3
2010	54	8	6	40	0	0	0	0
2011	31	7	3	21	1	0	0	1

Marion					Population: 4,907			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	4	3	1	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	19	11	1	7	0	0	0	0
2011	17	6	3	8	2	0	0	2

Marshfield					Population: 25,132			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	135	57	6	72	12	1	0	11
2008	129	59	5	65	8	0	0	8
2009	127	63	11	53	6	0	2	4
2010	128	40	8	80	5	0	0	5
2011	117	48	18	51	3	0	1	2

Mattapoisett					Population: 6,045			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	14	4	3	7	0	0	0	0
2008	25	14	2	9	1	0	0	1
2009	14	9	2	3	0	0	0	0
2010	17	6	1	10	2	0	0	2
2011	12	4	2	6	0	0	0	0

Middleborough					Population: 23,116			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	95	40	15	40	7	0	4	3
2008	101	35	15	51	3	0	0	3
2009	73	26	17	30	3	0	1	2
2010	105	20	26	59	0	0	0	0
2011	83	31	16	36	1	0	0	1

Norwell					Population: 10,506			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	63	27	9	27	2	0	0	2
2008	54	20	8	26	4	1	0	3
2009	36	20	6	10	0	0	0	0
2010	37	10	5	22	0	0	0	0
2011	36	15	8	13	3	0	0	3

Pembroke					Population: 17,837			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	25	15	7	3	3	2	0	1
2008	22	15	5	2	0	0	0	0
2009	13	9	3	1	2	2	0	0
2010	22	16	4	2	0	0	0	0
2011	19	9	6	4	0	0	0	0

Plymouth					Population: 56,468			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	222	65	33	124	6	2	0	4
2008	200	68	29	103	12	5	0	7
2009	167	66	37	64	6	1	3	2
2010	205	73	25	107	5	1	0	4
2011	188	80	28	80	6	2	2	2

Plympton					Population: 2,820			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	18	5	3	10	3	0	0	3
2008	21	8	0	13	2	0	0	2
2009	12	6	3	3	0	0	0	0
2010 ¹²	Non-Reporting Community							
2011	6	2	3	1	0	0	0	0

Rochester					Population: 5,232			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	7	6	1	0	0	0	0	0
2008	12	9	3	0	1	0	1	0
2009	9	6	3	0	0	0	0	0
2010	2	2	0	0	0	0	0	0
2011	6	3	1	2	0	0	0	0

Rockland					Population: 17,489			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	18	14	1	3	0	0	0	0
2008	59	25	3	31	2	0	0	0
2009	58	23	12	23	2	0	1	1
2010	53	28	2	23	1	1	0	0
2011	68	25	14	29	5	0	1	4

Scituate					Population: 18,133			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	74	26	3	45	1	0	0	1
2008	72	36	8	28	4	3	0	1
2009	55	25	5	25	2	0	0	2
2010	96	41	4	51	5	0	0	5
2011	62	24	3	35	3	1	0	2

¹² In 2010 Plympton had some fires, but because of problems with their computer system were unable to report them to MFIRS.

WAREHAM FIRE DISTRICTS

Population: 21,822

Onset

Est. Pop. Protected: 4,801

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	6	5	1	0	0	0	0	0
2008	39	15	6	18	5	3	1	1
2009	36	19	6	11	2	0	1	1
2010	35	14	5	16	3	0	2	1
2011	42	30	1	11	0	0	0	0

Wareham District

Est. Pop. Protected: 17,021

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	126	37	22	67	3	0	0	3
2008	118	52	21	45	11	3	1	7
2009	94	44	24	26	2	0	1	1
2010	136	52	22	62	5	0	1	4
2011	135	48	24	63	5	0	2	3

West Bridgewater

Population: 6,916

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	45	15	8	22	3	0	0	3
2008	38	14	8	16	0	0	0	0
2009	34	6	16	12	2	0	2	0
2010	34	8	11	15	3	0	1	2
2011	34	7	12	15	3	0	1	2

Whitman

Population: 14,489

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	53	23	6	24	2	2	0	0
2008	40	13	3	24	5	1	0	4
2009	42	20	3	19	3	0	0	3
2010	46	17	3	26	2	0	1	1
2011	45	27	3	15	1	0	0	1

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
23001	Abington	3,147	56	2	1,953	473	145	137	361	16	4
23042	Bridgewater	3,203	114	5	1,881	234	212	102	544	22	89
23044	Brockton	19,768	459	25	14,477	630	1,053	509	2,550	46	19
23052	Carver	4	4	0	0	0	0	0	0	0	0
23082	Duxbury	2,297	46	9	1,352	317	227	54	249	32	11
23083	East Bridgewater	2,391	48	4	1,660	244	128	75	202	28	2
23118	Halifax	1,483	33	3	907	119	174	100	136	9	2
23122	Hanover	2,820	33	4	1,662	459	339	73	221	13	16
23123	Hanson	1,380	22	1	842	177	165	59	101	4	9
23131	Hingham	356	47	2	205	19	19	28	35	1	0
23142	Hull	2,446	23	6	1,585	208	271	109	235	5	4
23145	Kingston	2,288	47	1	1,592	172	156	57	237	10	16
23146	Lakeville	680	35	0	415	58	45	28	85	9	5
23169	Marion	847	20	5	411	129	35	63	155	4	25
23171	Marshfield	3,873	118	11	2,391	336	476	110	412	10	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
23173	Mattapoissett	495	16	2	6	129	93	18	181	40	10
23182	Middleborough	3,568	89	8	563	175	182	2,132	396	6	17
23219	Norwell	2,160	40	1	1,112	353	255	98	287	11	3
23993	Onset	1,706	57	1	750	212	470	81	123	8	4
23231	Pembroke	22	19	0	0	2	1	0	0	0	0
23239	Plymouth	6,239	196	8	3,792	401	420	364	1,007	39	12
23240	Plympton	6	6	0	0	0	0	0	0	0	0
23250	Rochester	8	6	0	0	0	0	0	0	2	0
23251	Rockland	2,863	69	3	2,033	206	136	53	333	17	13
23264	Scituate	2,974	71	8	1,888	296	250	125	333	1	2
23992	Wareham	2,295	142	7	1,009	395	247	173	292	14	16
23322	West Bridgewater	1,488	38	1	959	65	204	11	134	67	9
23338	Whitman	2,767	50	1	1,508	293	567	111	222	5	10
Total	Plymouth County	73,574	1,904	118	44,953	6,102	6,270	4,670	8,831	419	307

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.

Brockton Fires in 2011

452 Total Fires — 224 Structures, 55 Vehicles & 173 Other Fires

The Brockton Fire Department reported 452 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 224 structure fires, 55 motor vehicle fires, 61 brush fires, 49 outside rubbish fires, 37 special outside fires; one cultivated crop or vegetation fire; and 25 unclassified fires caused two civilian deaths, 24 civilian injuries, 11 firefighter injuries and an estimated dollar loss of \$2.1 million.

2 Brockton Residents Killed in 2 Electrical Fires

- On March 17, 2011, at 2:17 a.m., the Brockton Fire Department was called to a fatal electrical fire at a three-unit apartment building. Arcing from electrical wiring in the kitchen started the fire. The victim, a 41-year old woman was most likely sleeping at the time of the fire. Four (4) other civilians and one firefighter were injured at this fire. Detectors were present and alerted the other occupants to the fire. Sprinklers were not present. Damages were estimated to be \$85,000.
- On May 6, 2011, at 11:00 p.m., the Brockton Fire Department was called to a fatal electrical fire at a two-family home. The victim, a 46-year old woman was unfamiliar with the exits in the basement apartment and unable to act at the time of the fire. No one else was injured at this fire. It was undetermined if detectors were present. Sprinklers were not present. Damages were estimated to be \$135,000.

All Fires Up in 2011

Total fires increased by 77 from the 375 incidents reported in 2010. Reported structure fires were up 43 from the 181 reported during the previous year. Motor vehicle fires increased by 14 from 41 the year before. Outside and other fires increased by 20 from the 153 reported in 2010.

BROCKTON FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	311	211	59	41	18	13	4	1
2008	197	142	36	19	12	9	1	2
2009 ¹	199	138	35	26	17	11	5	1
2010 ²	375	181	41	153	23	8	3	12
2011	452	224	55	173	46	9	3	34

¹ July 2009 fires not included.

² 2010 is the first year that Brockton reported all of their fire incidents electronically in the version 5 format. This included all fires not just the fires mandated by statute. This is the main reason for the large increase in outside fires and subsequently total fires.

BUILDING FIRES

There were 221 building fires of different types in Brockton in 2011. These 221 building fires accounted for 98.7% of all the structure fires in Brockton.

89% of Building Fires in Homes

The 221 building fires that occurred in Brockton in 2011 can be broken down by fixed property use as follows: 197, or 89% of all building fires, were in residential properties; nine happened in mercantile or business properties; four fires occurred in institutional facilities; three fires happened in storage facilities; another three fires happened in a public assembly buildings; two fire each happened at educational facilities and special properties; and one fire occurred at a manufacturing facility.

RESIDENTIAL FIRES

Residential Building Fires Up

There were 197 reported residential building fires in Brockton in 2011. These 197 fires are an increase of 41 from the 156 reported residential building fires reported in 2010.

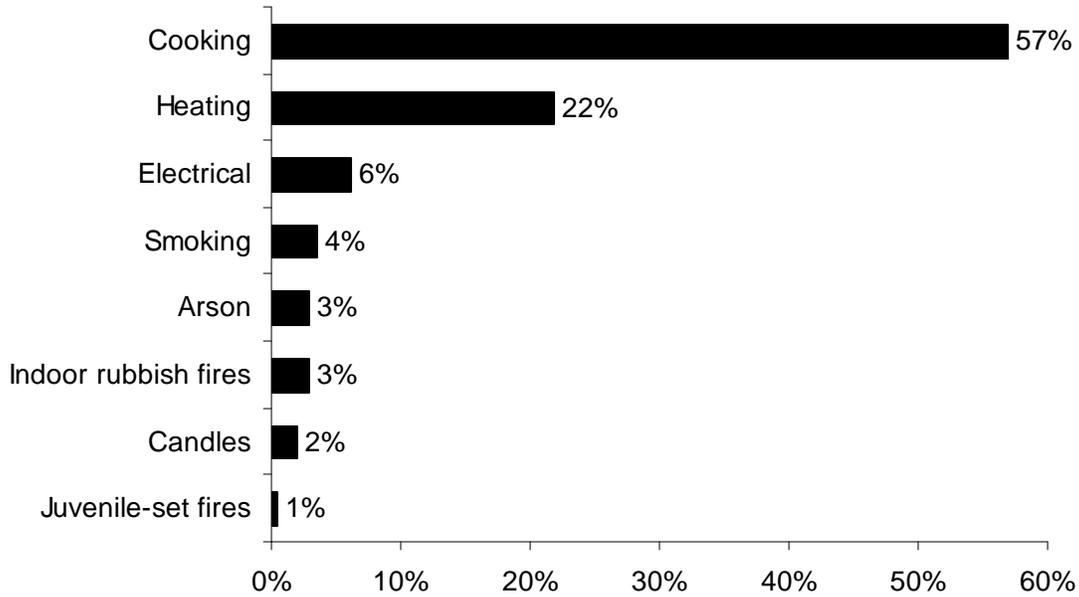
Apartments Accounted for 59% of Residential Building Fires

The peak fixed property uses for residential building fires in Brockton were apartments, accounting for 59% of the building fires; 36% occurred in 1- or 2-family homes; 3% happened in residential board and care facilities; and 1% each happened in hotels or motels and dormitories. Another 1% occurred in unclassified residences.

Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Brockton was unattended cooking and other unsafe cooking practices, accounting for 57% of these fires. Heating fires caused 22% of these fires. Electrical problems caused 6% of these fires. Smoking was the cause of 4% of Brockton's residential fires. Arsons and indoor rubbish fires each caused 3% of these fires. Candles caused 2% and juvenile-set fires caused 1% of the fires in Brockton's residential occupancies in 2011.

2011 Leading Causes of Fires in Brockton Homes



72% of Residential Building Fires Are Confined to Non-Combustible Containers³

One hundred and forty-two (142), or 72% of all residential building fires were confined to non-combustible containers in 2011. Ninety-seven (97), or 49%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Thirty-nine (39), or 20%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 3%, were confined indoor rubbish fires. One (1) fire, or 1%, was reported to have been contained to a chimney or flue.

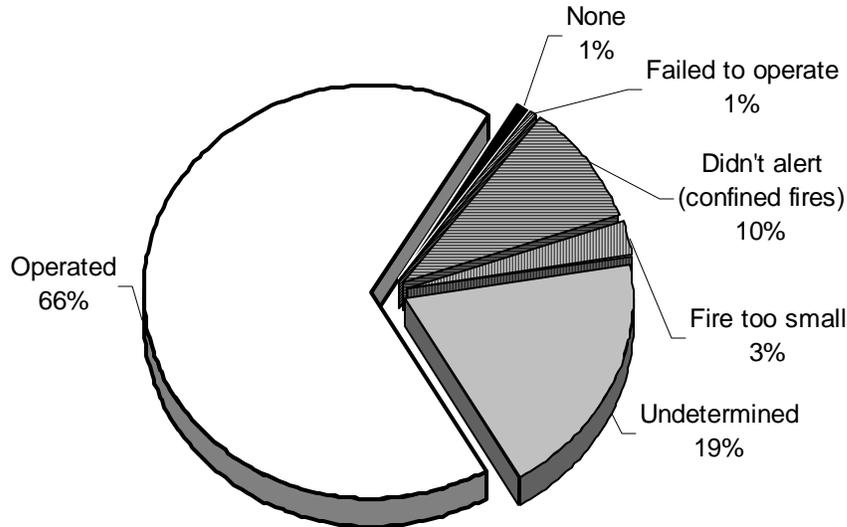
Detectors Worked in 2/3 of Fires

Smoke or heat detectors operated and alerted the occupants in 132, or 66%, of the residential building fires. In 10% of these fires⁴, the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 1% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of these fires. Smoke detector performance was undetermined in 38 incidents, or 19% of Brockton'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 Brockton's Residential Fires 2011



Undetermined Why the Detector Failed

It was undetermined in the one case why the detector failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Brockton reported three fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 221 building fires reported to MFIRS in 2011. One (1) outbuilding or shed, one unclassified business and one elementary school were reported as vacant building fire incidents.

JUVENILE-SET FIRES

2 Juvenile-set Fires in 2011

Brockton reported two juvenile-set fires in 2011. One was a building fire and the other was a special outside fire.

ARSONS

46 Arsons - 9 Structure, 3 Motor Vehicle and 34 Outside & Other

Forty-six (46), or 10%, of Brockton's 452 fires were considered intentionally set, or, for purposes of this analysis, arson. There were nine structure arsons, three motor vehicle arsons and 34 outside and other arsons.

All Arsons Up in 2011

The total number of arsons increased by eight from the 23 reported in 2010. Reported structure arsons increased by one from the eight reported in 2010. Motor vehicle arsons remained the same with three reported in both 2010 and 2011. Outside and other arsons increased by 22 from the 12 reported the previous year.

72 Fires Reported as Undetermined or Still Under Investigation

In 2011, Brockton reported 72 fires under investigation or cause undetermined after investigation. Fifty-four (54), or 75%, of these fires were reported to be undetermined after investigation. The other 18, or 25%, were still under investigation.

Eleven (11), or 15%, of these 72 fires were structure fires. Twenty-eight (28), or 39% were motor vehicle fires; and 33, or 46%, were outside or other fires. Because so many fires or under investigation or undetermined after investigation, the true arson number might be actually higher in Brockton for 2011.

ALL INCIDENTS**Rescue & EMS Incidents Are Almost 3/4 of All Reported Incidents⁵**

In 2011, Brockton voluntarily reported 19,768 incidents to MFIRS. Of these 19,768 incidents, 19,309, or 98% were non-fire incidents. For the first time since 2001, Brockton voluntarily reported all of their incidents to MFIRS.

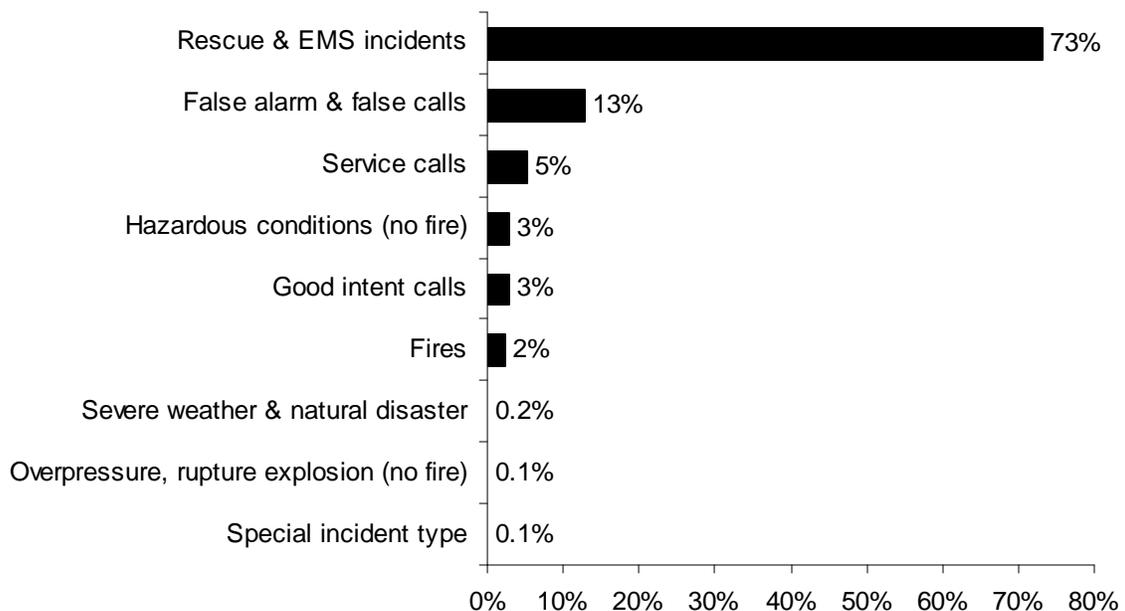
Of these 19,309 non-fire incidents 14,477, or 73% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 2,550, or 13%, were reported false alarm or false calls; 1,053 incidents, or 5%, were service calls; 630, or 3%, were reported hazardous condition calls with no fire; 509, or 3%, were good intent calls; 46, or 0.2%, were severe weather or natural disaster calls; 25, or 0.1%, were overpressure, rupture or explosions with no after fire calls; and 19, or 0.1%, were special incident types.

In 2011, Brockton reported 459 fires⁶, accounting for 2% of all reported incidents.

⁵ Brockton started to report all of their incidents in August of 2010. 2011 is the first year that Brockton reported all of their incidents for the entire year.

⁶ This includes fires that Brockton responded to as mutual aid calls outside of their jurisdiction.

2011 Incidents by Incident Type



Brockton Gave Mutual Aid in 24 Reported Incidents

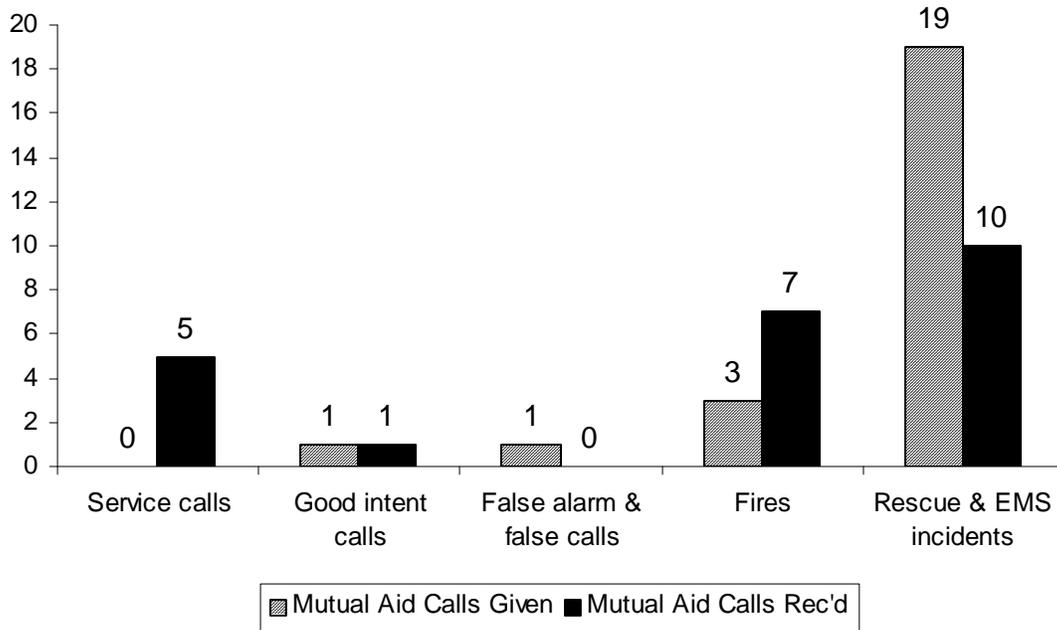
In 2011, Brockton reported coming to the aid of other fire departments 24 times. Nineteen (19), or 79%, of these calls were rescue or EMS calls; three, or 13%, were for fires; one, or 4% was for a false alarm or false call; and the other call, or 4%, was for a good intent call.

Brockton Received Mutual Aid in 23 Incidents

In 2011, surrounding fire departments gave aid to Brockton during 23 incidents. Ten, or 43%, were for rescue or EMS incidents, seven, or 30%, of these incidents were for fires, five, or 22%, were for service calls; and one, or 4% was for a good intent call.

The following chart compares the number of calls the Brockton Fire Department gave mutual aid to a neighboring community compared to the number of calls where a neighboring community assisted Brockton. In 2011 Brockton received aid from other fire departments almost the same as much as they were asked for it.

Brockton's Mutual Aid Calls in 2011



Item First Ignited⁹	%	Factor Contrib. to Ignition	%	%Unconfined¹⁰
Cooking materials	54%	Misuse of materials	1%	2%
Flammable or combustible liq.	20%	Abandoned materials	1%	2%
Rubbish, trash, waste	4%	Too close to combustibles	1%	2%
Structural member, framing	3%	Playing with heat source	1%	2%

Equipment¹¹	%	Cause of Ignition	%	%Unconfined¹²
Cooking equipment	57%	Unintentional	18%	65%
Boiler, furnace, cent. heat. unit	15%	Intentional	3%	11%
None	20%	Failure of eq./heat source	3%	11%
HVAC, other	1%	Act of Nature	1%	2%
Electrical wiring, other	1%	Undetermined	1%	4%
Lamp, lighting, other	1%	Cause Under Investigation	2%	7%

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

Alerted Occupants	71%
Didn't Alert Occupants	13%
Undetermined	15%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	14,477	73%
False alarms & false calls	2,550	13%
Service calls	1,053	5%
Hazardous conditions (no fire)	630	3%
Good intent calls	509	3%
Fires ¹³	459	2%
Severe weather & natural disaster calls	46	0.2%
Overpressure rupture, explosion or overheat calls (no fire)	25	0.1%
Special incident type calls	19	0.1%

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.

¹³ This figure contains the fire that Brockton gave mutual aid to in another jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	33	26	5	2
February	26	20	1	5
March	51	29	7	5
April	46	21	2	23
May	38	14	8	16
June	32	14	1	17
July	52	11	7	34
August	41	20	5	16
September	40	22	7	11
October	34	18	2	14
November	29	11	8	10
December	30	18	2	10

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	73	31	13	29
Monday	66	36	8	22
Tuesday	69	34	6	29
Wednesday	56	32	6	18
Thursday	63	27	7	29
Friday	60	28	6	26
Saturday	65	36	9	20

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	29	12	10	7
04:01 - 08:00	34	23	3	8
08:01 - 12:00	58	30	13	15
12:01 - 16:00	119	50	11	58
16:01 - 20:00	131	67	12	52
20:01 - 24:00	81	42	6	33

Motor Vehicle Fires

Total: 55

Automobiles: 52 (95%)

3 (6%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 46

Dollar loss: \$264,500

0.49 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	9	4%	20%	\$259,500
Vehicle Arsons	3	5%	7%	5,000
Other Arsons	34	20%	74%	0

0.10 Structure arsons/1,000 population

0.03 Vehicle arsons/1,000 population

0.36 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	3	33%	00:01 - 04:00	3	100%
04:01 - 08:00	2	22%			
08:01 - 12:00	2	22%			

Other Arsons	#	%
16:01 - 20:00	10	29%
12:01 - 16:00	8	24%
20:01 - 00:00	7	21%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	5	56%
1- or 2-Family homes	1	11%
Specialty shop	1	11%
MV or boat sales, services, repair	1	11%
Hospital – medical or psychiatric	1	11%

**Suffolk County Has
It's Own In-Depth
Analysis Report
Which Is
Published
Separately**

Worcester County

2011 Fire Data Analysis



Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Division of Fire Safety
Department of Fire Services

P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Worcester County Fires in 2011

3,807 Total Fires — 2,185 Structures, 438 Vehicles & 1,184 Other Fires

Worcester County ranked third out of the fourteen Massachusetts counties in total reported fires. Worcester County fire departments reported 3,807 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 2,185 structure fires, 438 motor vehicle fires, 465 brush fires, 566 outside rubbish fires, 69 special outside fires, two cultivated vegetation or crop fires and 82 unclassified fires caused five civilian deaths, one fire service death, 40 civilian injuries, 48 fire service injuries and an estimated dollar loss of \$25.7 million. Worcester County's fires accounted for 13% of the 29,110 Massachusetts fires reported in 2011.

Fifty-nine (59), or 98.3%, of the 60 fire departments in Worcester County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2011.

Structure & Outside Fires Down

Total fires decreased by 522, or 12%, from 4,329 incidents in 2010. Reported structure fires decreased by 92 from the 2,277 reported during the previous year. Motor vehicle fires increased by 38 from 400 the year before. Outside and other fires decreased by 468 from 1,652 the year before.

Brush Fires Down by 43%

Brush fires decreased by 349, or 43%, from the 814 reported in 2011. This decrease is the main reason for the drop in all Worcester County fires. This was a state wide trend.

WORCESTER COUNTY FIRES FROM 2007 TO 2011

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	4,634	2,275	501	1,858	149	40	21	88
2008	4,182	2,203	461	1,518	142	36	24	82
2009	3,805	2,179	381	1,245	185	40	29	116
2010	4,329	2,277	400	1,652	170	37	11	122
2011	3,807	2,185	438	1,184	154	37	22	95

Fire and Fire Death Rates

Worcester County had 4.8 fires per 1,000 population. That figure ranks Worcester County second in the state and above the state rate of 4.4 fires per 1,000 population. Worcester County also had 0.06 fire deaths per 10,000 population ranking it tied for eighth among Massachusetts counties and below the state rate of 1.90 fire deaths per 10,000 population.

5 Residents Died in 5 Worcester County Fires

Worcester County did not have a fatal fire in the first seven months of 2011. In the last five months there were three motor vehicle fires and associated deaths and two residential building fires and associated deaths.

- On August 1, 2011, at 5:17 p.m., the Fitchburg Fire Department was called to a fatal motor vehicle fire in front of a single-family home. The victim, a 33-year old man, drove to the home of his estranged wife, poured gasoline inside her car and ignited it; and then ignited the gasoline he had poured inside the vehicle. A civilian that witnessed the event was injured when he attempted to rescue the victim.
- On September 12, 2011, at 3:43 p.m., the Worcester Fire Department was dispatched to a fire in a single-family home of undetermined cause. The victim was a 54-year old woman. One (1) firefighter was injured at this fire. It was undetermined if detectors were present, and sprinklers were not. Damages from this fire were estimated to be \$100,000.
- On October 6, 2011 at 2:47 a.m., the Fitchburg Fire Department was called to a fatal motor vehicle crash with ensuing fire. A car had gone off the road and crashed into a boulder. The driver, a 33-year old woman, who was the only occupant, was trapped inside of the vehicle.
- On October 30, 2011, at 8:06 a.m., the Lunenburg Fire Department was called to a fatal fire in a single-family home of undetermined cause. This fire occurred during a 'freak' Fall snowstorm causing delayed reporting and delayed response by the fire department. The victim was a 91-year old physically disabled woman. One other civilian was injured at this fire. Detectors and sprinklers were not present. Damages from the blaze were estimated to be \$200,000.
- On December 29, 2011, at 10:22 p.m., the Holden Fire Department was called to a motor vehicle crash with ensuing fire. The victim, a 40-year old male driver, was trapped inside the vehicle. No one else was injured in this fire.

Worcester FF Jon Davies Killed in Undetermined Fire in a 3-Decker

- On December 8, 2011, at 4:21 a.m., the Worcester Fire Department was dispatched to a fire in a three-decker apartment building of undetermined cause. Firefighters Jon Davies and Brian Carroll were searching for victims on the second floor when the building partially collapsed trapping them beneath the rubble. FF Davies was located first and transported to a local hospital where he succumbed to his injuries. FF Carroll was located some time later. He was also transported to a local hospital where he recovered from his injuries. Three (3) other firefighters were injured at this incident. It was undetermined if detectors were present and the building did not have sprinklers. Damages from this fire were estimated to be \$250,000.

Largest Loss Fire in 2011

- On June 13, 2011, at 9:24 p.m., the Fitchburg Fire Department was called to a fire of undetermined cause in a 52-unit apartment building. The fire is believed to have started in the attic. Three (3) firefighters were injured at this fire. Detectors were present and they alerted the occupants. Sprinklers were present but failed to operate because the fire was in an area that was not protected by them. Damages from this fire were estimated to be \$2.3 million.

STRUCTURE FIRES**Reported Structure Fires Down**

The 2,185 structure fires caused two civilian deaths, one fire service death, 37 civilian injuries, 46 fire service injuries and an estimated dollar loss of \$22.8 million. These incidents represented 57% of Worcester County's reported fires in 2011. The average estimated dollar loss per structure fire was \$10,441. The total number of reported structure fires decreased by 92, or 4%, from the 2,277 reported in 2010.

Arson Caused 2% of Structure Fires

The 37 structure arsons caused four civilian injuries and an estimated dollar loss of \$382,050. Arson was indicated as the cause of 2% of the structure fires and 2% of Worcester County's structure fire dollar loss. The 37 structure arsons accounted for 24% of the Worcester County arson fires reported in 2011. The total number of reported structure remained the same with 37 reported in both 2010 and 2011.

Over 1/2 of Structure Arsons Occurred in Residences

Fifty-one percent (51%) of Worcester County's 37 structure arsons occurred in residential occupancies; 14% happened in educational facilities; 11% happened in special properties; 8% occurred in public assembly facilities. Institutional facilities, mercantile and business properties, and institutional facilities each accounted for 5% of structure arsons in Worcester County in 2011.

BUILDING FIRES

There were 2,173 building fires of different types in Worcester County in 2011. These 2,173 building fires accounted for 99.5% of all structure fires in Worcester County.

86% of Worcester Building Fires Occurred in People's Homes

One thousand eight hundred and sixty-eight (1,868), or 86%, of Worcester County's 2,173 building fires occurred in residential occupancies. Hospitals, prisons, and other institutional buildings experienced 64 fires. Sixty-one (61) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 51 fires. Forty (40) fires took place in storage properties. Thirty-nine (39) building fires took place on educational properties. Twenty-three (23) building fires in Worcester County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Twenty (20) fires took place in manufacturing and processing facilities.

Three (3) fires occurred in industrial, utility, defense, agricultural or mining facilities, and one fire occurred in an unclassified building in Worcester County in 2011.

RESIDENTIAL FIRES

Residential Building Fires Were Down

There were 1,868 reported residential building fires in Worcester County in 2011. These 1,868 fires are a decrease of 36, or 2%, from the 1,904 residential building fires reported in 2010.

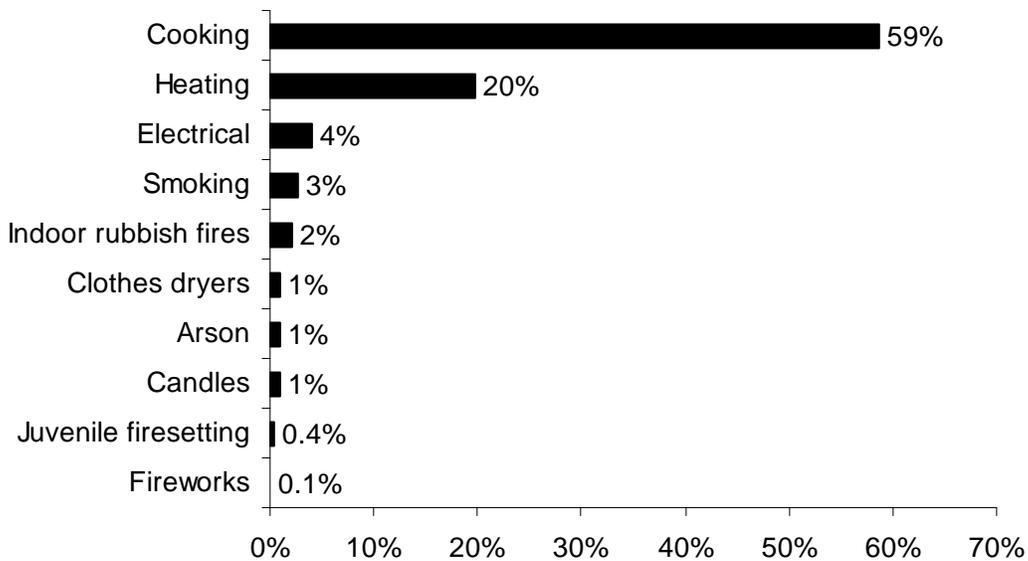
Apartments Accounted for 45% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 45% of the residential building fires in Worcester County; 42% occurred in one- or two-family homes; 5% happened in rooming houses; 4% occurred in dormitories; 2% occurred in residential board and care facilities; and 1% happened in hotels or motels. Twenty-five (25), or 1%, of the residential building fires in Worcester County occurred in unclassified residential buildings.

Unattended Cooking Caused 59% of Residential Fires

The leading cause of residential building fires in Worcester County was unattended cooking and other unsafe cooking practices accounting for 59% of these fires. Heating caused 20% of fires in people’s homes. Electrical problems accounted for 4% of these fires. Smoking caused 3% and indoor rubbish fires caused 2%. Clothes dryers, arson and candles each caused 1% of the fires in people’s homes in Worcester County in 2011. Juvenile-set fires, clothes dryers and fireworks each caused less than 1% of these fires in 2011.

2011 Leading Causes of Fires in Worcester County Homes



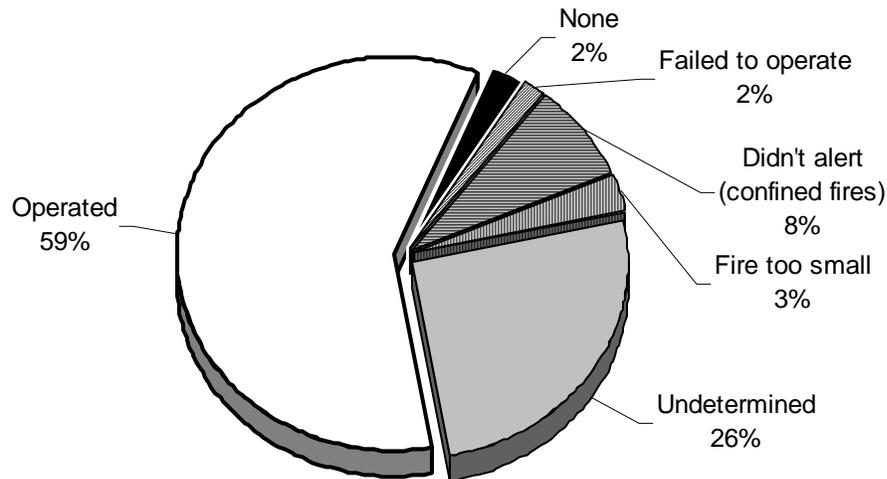
76% of Residential Building Fires Are Confined to Non-Combustible Containers¹

One thousand four hundred and fifteen (1,415), or 76% of all residential building fires, were reported as confined to non-combustible containers in 2011. One thousand and twenty-five (1,025) of the reported fires were cooking fires contained to a non-combustible container accounting for 55% of residential building fires. One hundred and eighty-six (186), or 10%, were fires confined to a fuel burner or boiler malfunction. One hundred and sixty-two (162), or 9%, of all residential building fires reported in 2011 were confined to a chimney. Forty (40), or 2%, of the residential building fires in Worcester County in 2011 were contained rubbish fires. One (1) fire, or less than 1%, was confined to a commercial compactor; and another fire, or less than 1%, was confined to an incinerator overload or malfunction.

Detectors Alerted Occupants in 59% of Fires

Smoke or heat detectors operated and alerted the occupants in 1,107, or 59%, of the residential building fires. In 8% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In another 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 479 incidents, or 26%, of Worcester County’s residential building fires.

Detector Status in Worcester County's Residential Structure Fires 2011



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

38% of Failed Detectors Had Missing or Dead Batteries

Of the 32 fires where smoke detectors were present but failed to operate, six, or 19%, failed because the batteries were either missing or disconnected, and another six, or 19%, failed because the batteries were dead. Three (3), or 9%, failed because of a power failure, shutoff or disconnect. Improper installation or placement and a lack of maintenance each caused one, or 3%, of the detectors to fail. It was undetermined or unclassified in 15 cases, or 47%, why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Worcester County reported 40 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2% of the total 2,173 building fires reported to MFIRS in 2011. Thirty (30) fires occurred in vacant residential properties. Five (5) vacant building fires occurred in storage facilities. Two (2) vacant building fires occurred in educational facilities in 2011. One (1) of these fires occurred in a mercantile or business property. Public assembly properties also accounted for one vacant building fire incident; and another fire occurred in special properties in Worcester County in 2011.

One (1), or 3%, of the vacant building fires in Worcester County in 2011 were determined to be intentionally set. An outbuilding or shed accounted for the lone reported vacant structure arson.

JUVENILE-SET FIRES

25 Juvenile-set Fires

There were 25 reported juvenile-set fires in Worcester County in 2011. The 10 structure fire, 12 brush fires and two outside rubbish fires caused three civilian injuries and \$188,900 in estimated damages.

ARSONS

154 Total Arsons³ — 37 Structures, 22 Vehicles & 95 Other Arsons

One hundred and fifty-four (154), or 4%, of Worcester County's 3,807 fires were considered intentionally set, or, for purposes of this analysis, arson. The 37 structure arsons, 22 motor vehicle arsons and 95 outside and other arsons caused two civilian deaths, five civilian injuries and an estimated dollar loss of \$479,750. Worcester

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

³ In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

County's arson fires accounted for 16% of the state's total arson fires, but only 4% of the state's total dollar losses from arsons.

Motor Vehicle Arson Fires Up

The total number of arsons decreased by 16 from 170 in 2010. Reported structure arsons remained the same with 37 reported in both 2010 and 2011. Motor vehicle arsons increased 11 from 11 reported in 2010. Outside and other arsons decreased by 27 from the 122 reported last year.

ALL INCIDENTS

Rescue & EMS Calls Are 62% of All Reported Responses

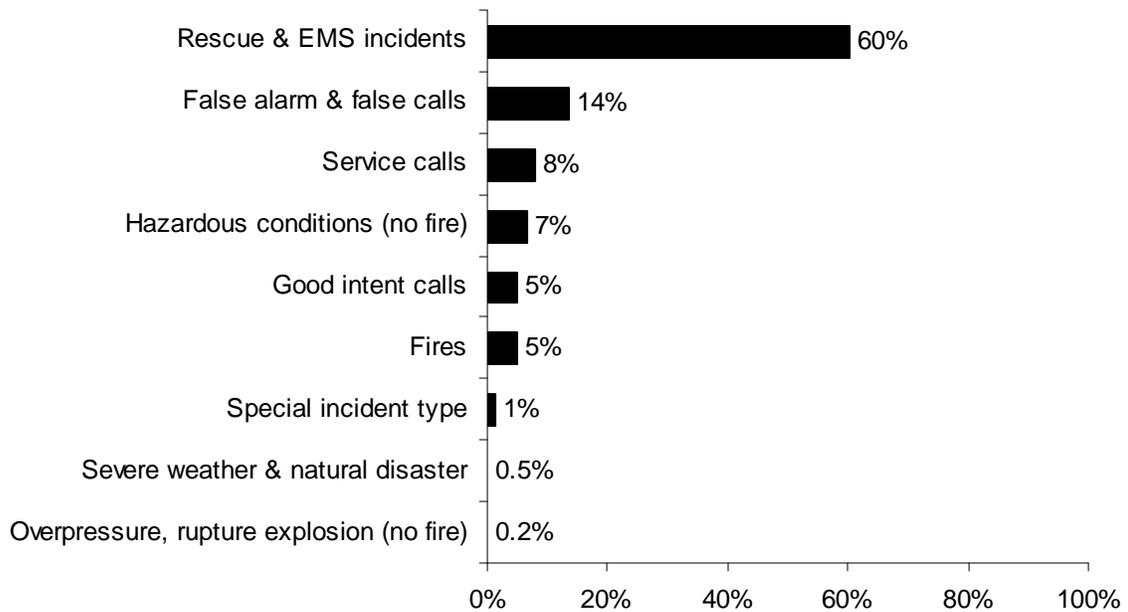
In 2011, fire departments in Worcester County reported 85,668 responses⁴ to MFIRS. This is an increase of 1,936 runs, or 2%, over the 83,732 reported in 2010. Of these 85,668 responses, 81,580 non-fire calls were voluntarily reported.

Of these 81,580 non-fire calls, 51,547, or 60%, of all the responses reported in 2011, were reported rescue and emergency medical services (EMS) calls; 11,717, or 14%, were reported false alarm or false calls; 6,794, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,740, or 7%, reported hazardous condition calls with no fire; 4,204, or 5%, were reported good intent calls; 1,032, or 1%, were special incident type calls such as citizen complaints; 409, or 0.5%, were severe weather calls; and 137, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four thousand and eighty-eight (4,088), or 5%, of the total responses submitted by Worcester County fire departments were fires.

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

2011 Responses by Incident Type



Worcester County Fire Departments Reported Giving Mutual Aid 2,011 Times

In 2011, Worcester County fire departments reported coming to the aid of other fire departments 2,011 times. Of these 2,011 responses, 1,017, or 51%, were for rescue or EMS incidents; 424, or 21%, were for service calls such as cover assignments; 273, or 14%, were for fires; 163, or 8%, were for good intent calls; 80, or 4%, were for false alarms or false calls; 29, or 1%, were for hazardous conditions calls with no fire; 22, or 1%, were severe weather calls; and three, or 0.1%, were special incident types.

Worcester County Fire Departments Received Mutual Aid in 919 Incidents

In 2011, Worcester County fire departments reported receiving aid from surrounding departments in 919 incidents. Of these 919 incidents, 595, or 65% were rescue and emergency medical services calls; 167, or 18%, were for fires; 63, or 7%, were false alarms or false calls; 36, or 4%, were hazardous conditions calls with no fire; 26, or 3%, were service calls; 24, or 3%, were good intent calls; four, or 0.4%, were severe weather calls; two, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.1%, were special incident type calls.

Worcester County

Population: 798,552

4.8 Fires/1,000 Population

Total Fires: 3,807 \$25,629,253

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	2,185	57%	\$22,814,078
Vehicle Fires	438	12%	2,712,515
Other Fires	1,184	31%	102,660

5 Fatal Fires 1.31 Civilian Deaths/1,000 Fires
 5 Civilian Deaths 0.06 Civilian Deaths/10,000 Population
 1 Fire Service Death 53 Civilian Injuries 105 Fire Service Injuries

Building Fires: 2,173

Residential Structure Fires: 1,868

Residential Structure Fires Confined to Non-Combustible Containers: 1,415

Unconfined Residential Structure Fires: 453

2 Civilian Deaths 1 Fire Service Death 32 Civilian Injuries 35 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	841	45%	Operated	1,107	59%
1- & 2-Family homes	789	42%	Didn't operate	32	2%
Rooming houses	98	5%	None	46	2%
Dormitories	69	3%	Fire too small	56	3%
Residential board & care	29	1%	Didn't Alert (confined)	148	8%
Hotels or motels	17	1%	Undetermined	479	26%

Area of Origin ⁵	%	Heat Source	%	%Unconfined ⁶
Kitchen	61%	Radiated heat from oper. eq.	3%	14%
Heating room or area	10%	Heat from operating eq.	3%	13%
Chimney or flue	9%	Arcing	2%	10%
Bedroom	2%	Hot or smoldering object	2%	8%
Laundry room	1%	Hot ember or ash	2%	7%
		Cigarette	1%	4%

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	57%	Too close to combustibles	2%	9%
Flammable, combustible liquid	10%	Misuse of materials	2%	8%
Film or residue (creosote)	9%	Abandoned materials	2%	7%
Rubbish, trash, waste	3%	Failure to clean	2%	7%
Structural member, framing	2%	Equipment unattended	2%	7%
		Elec. fail., malfunc., other	1%	4%

Equipment⁹	%	Cause of Ignition	%	%Unconfined¹⁰
Cooking equipment	57%	Unintentional	13%	55%
None	18%	Failure of eq. or heat source	3%	13%
Boiler, furnace, cent. heat. unit	10%	Intentional	1%	4%
Chimney or flue	9%	Act of Nature	0.2%	1%
Clothes dryer	1%	Cause under investigation	5%	21%
		Undetermined	1%	5%

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

Alerted Occupants	62%
Didn't Alert Occupants	10%
Undetermined	27%

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	309	236	8	35
February	327	268	42	17
March	349	211	27	111
April	395	184	30	181
May	353	146	50	157
June	286	136	40	110
July	333	113	47	173
August	295	140	29	126
September	272	159	35	78
October	302	212	37	53
November	315	198	37	80
December	271	182	26	63

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	620	357	56	207
Monday	546	320	59	167
Tuesday	553	314	79	160
Wednesday	489	293	48	148
Thursday	484	265	70	149
Friday	523	299	64	160
Saturday	592	337	62	196

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	299	159	46	94
04:01 – 08:00	262	166	38	64
08:01 – 12:00	647	419	78	150
12:01 – 16:00	858	461	96	301
16:01 – 20:00	1,069	623	113	333
20:01 – 00:00	666	357	67	242

Motor Vehicle Fires

Total: 438

Automobiles: 375 (86%)

22, or (6%), of the automobile fires considered incendiary or suspicious

Arson Fires

Total Arsons: 154

Dollar loss: \$479,750

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	37	2%	24%	\$382,050
Vehicle Arsons	22	5%	14%	94,950
Other Arsons	95	8%	62%	2,750

0.05 Structure arsons/1,000 population

0.03 Vehicle arsons/1,000 population

0.12 Other arsons/1,000 population

2 Civilian Deaths

5 Civilian Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 – 16:00	10	27%	20:01 – 00:00	9	39%
16:01 – 20:00	8	22%	00:01 – 04:00	5	22%
20:01 – 00:00	6	19%	16:01 – 20:00	5	22%
00:01 – 04:00	5	14%			

Other Arsons	#	%
16:01 – 20:00	32	34%
12:01 – 16:00	21	22%
20:01 – 00:00	17	18%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	14	38%
1- or 2-Family homes	5	14%

Ashburnham					Population: 6,081			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	19	13	2	4	0	0	0	0
2008	16	5	4	7	0	0	0	0
2009	13	7	3	3	1	1	0	0
2010	12	7	2	3	0	0	0	0
2011	6	4	2	0	0	0	0	0

Athol					Population: 11,584			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	78	39	10	29	4	2	1	1
2008	63	24	8	31	0	0	0	0
2009	56	21	5	30	7	1	0	6
2010	58	20	7	31	0	0	0	0
2011	39	18	6	15	4	1	0	3

Auburn					Population: 16,188			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	80	29	21	30	1	0	0	1
2008	47	18	11	18	1	0	0	1
2009	50	23	11	16	0	0	0	0
2010	67	20	20	27	2	1	0	1
2011	57	17	25	15	1	0	1	0

Barre					Population: 5,398			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	28	13	4	11	1	0	0	1
2008	21	12	1	8	0	0	0	0
2009	26	11	2	13	0	0	0	0
2010	32	15	2	15	2	2	0	0
2011	16	9	4	3	0	0	0	0

Berlin					Population: 2,886			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	43	16	10	17	1	0	0	1
2008	34	14	6	14	0	0	0	0
2009	16	5	2	9	0	0	0	0
2010	29	12	6	11	7	3	1	3
2011	22	10	1	11	2	1	0	1

Blackstone					Population: 9,026			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	53	17	4	32	6	1	0	5
2008	37	13	2	22	8	1	1	6
2009	41	18	5	18	2	0	0	2
2010	35	13	2	20	0	0	0	0
2011	28	18	1	9	2	0	0	2

Bolton					Population: 4,897			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	30	8	2	20	0	0	0	0
2008	21	8	8	5	1	1	0	0
2009	19	5	2	12	0	0	0	0
2010	29	7	10	12	0	0	0	0
2011	9	1	2	6	0	0	0	0

Boylston					Population: 4,355			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	3	1	1	1	0	0	0	0
2008	7	5	2	0	0	0	0	0
2009	5	3	1	1	0	0	0	0
2010	5	1	3	1	0	0	0	0
2011	9	6	2	1	0	0	0	0

Brookfield						Population: 3,390		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	1	1	0	0	0	0	0	0
2008	4	3	0	1	0	0	0	0
2009	3	3	0	0	0	0	0	0
2010	5	3	0	2	0	0	0	0
2011	2	1	0	1	0	0	0	0

Charlton						Population: 12,981		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	63	28	11	24	2	0	0	2
2008	67	36	15	16	2	0	0	2
2009	59	37	6	16	2	1	0	1
2010	65	36	8	21	2	1	0	1
2011	63	32	14	17	0	0	0	0

Clinton						Population: 13,606		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	184	110	2	72	5	0	0	5
2008	95	49	6	40	5	0	0	5
2009	149	127	0	22	1	0	0	1
2010	169	128	7	34	0	0	0	0
2011	156	122	9	25	2	1	0	1

Douglas						Population: 8,471		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	33	16	2	15	4	0	0	4
2008	33	24	1	8	3	0	0	3
2009	33	22	3	8	0	0	0	0
2010	41	29	1	11	0	0	0	0
2011	48	23	2	23	7	0	0	7

Dudley					Population: 11,390			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	46	22	2	22	3	0	1	2
2008	54	18	7	29	3	1	0	2
2009	80	24	7	49	7	0	1	6
2010	60	15	5	40	5	0	0	5
2011	29	15	5	9	0	0	0	0

East Brookfield					Population: 2,183			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	16	4	3	9	0	0	0	0
2008	9	6	0	3	1	0	0	1
2009	6	1	0	5	1	0	0	1
2010	5	4	0	1	0	0	0	0
2011	8	7	0	1	0	0	0	0

Fitchburg					Population: 40,318			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	336	216	30	90	16	5	1	10
2008	334	242	26	66	16	4	3	9
2009	366	293	19	54	14	5	2	7
2010	412	308	26	78	7	2	0	5
2011	391	301	28	62	14	1	4	9

Gardner					Population: 20,228			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	130	52	19	59	5	3	1	1
2008	91	40	12	39	0	0	0	0
2009	89	41	10	38	3	1	0	2
2010	80	53	8	19	1	1	0	0
2011	76	46	11	19	4	3	0	1

Grafton					Population: 17,765			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	62	29	12	21	1	0	0	1
2008	7	4	2	1	0	0	0	0
2009	37	17	7	13	2	0	0	2
2010	28	17	7	4	0	0	0	0
2011	51	36	13	2	1	1	0	0

Hardwick					Population: 2,990			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	33	4	2	27	2	0	0	2
2008	16	6	0	10	0	0	0	0
2009	8	5	0	3	0	0	0	0
2010	6	3	0	3	1	0	0	1
2011	15	8	0	7	0	0	0	0

Harvard					Population: 6,520			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	25	5	2	18	1	0	0	1
2008	26	9	4	13	1	0	0	1
2009	24	6	2	16	1	0	0	1
2010	32	11	1	20	2	0	0	2
2011	8	4	2	2	0	0	0	0

Holden					Population: 17,346			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	59	36	7	16	1	0	0	1
2008	79	45	14	20	1	0	0	1
2009	34	24	3	7	0	0	0	0
2010	50	30	6	14	0	0	0	0
2011	41	24	4	13	2	0	1	1

Hopedale					Population: 5,911			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	20	18	2	0	0	0	0	0
2008	13	9	2	2	2	1	0	1
2009	5	5	0	0	0	0	0	0
2010	9	8	0	1	0	0	0	0
2011	4	2	1	1	0	0	0	0

Hubbardston					Population: 4,382			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	25	12	2	11	3	0	0	3
2008	39	14	2	23	2	0	1	1
2009	19	10	0	9	0	0	0	0
2010	21	9	2	10	0	0	0	0
2011	18	13	1	4	0	0	0	0

Lancaster					Population: 8,055			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	23	9	5	9	0	0	0	0
2008	27	10	4	13	3	2	0	1
2009	19	10	3	6	3	0	0	3
2010	25	5	8	12	1	1	0	0
2011	14	1	5	8	4	0	2	2

Leicester					Population: 10,970			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	35	11	1	23	0	0	0	0
2008	37	12	4	21	1	0	1	0
2009	29	6	9	14	1	1	0	0
2010	20	6	2	12	0	0	0	0
2011	21	7	5	9	3	0	0	3

Leominster **Population: 40,759**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	290	180	27	83	4	2	0	2
2008	257	160	18	79	7	2	0	5
2009	203	120	25	58	8	0	6	2
2010	217	108	22	87	20	4	0	16
2011	213	131	24	58	8	3	0	5

Lunenburg **Population: 10,086**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	52	27	6	19	2	0	0	2
2008	60	34	6	20	0	0	0	0
2009	41	26	1	14	0	0	0	0
2010	48	28	3	17	0	0	0	0
2011	47	33	7	7	2	1	1	0

Mendon **Population: 5,839**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	24	8	3	13	0	0	0	0
2008	24	7	3	14	0	0	0	0
2009	18	4	4	10	6	1	0	5
2010	21	5	1	15	7	0	0	7
2011	18	7	0	11	1	0	0	1

Milford **Population: 27,999**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	162	82	16	64	3	0	1	2
2008	112	54	25	33	0	0	0	0
2009	117	67	20	30	5	3	1	1
2010	98	43	13	42	3	0	2	1
2011	81	53	3	25	9	3	0	6

Millbury					Population: 13,261			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	64	31	19	14	1	1	0	0
2008	33	22	6	5	0	0	0	0
2009	49	31	8	10	2	1	1	0
2010	66	43	8	15	0	0	0	0
2011	56	32	12	12	2	0	2	0

Millville					Population: 3,190			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	10	4	1	5	0	0	0	0
2008	14	10	0	4	0	0	0	0
2009	9	4	0	5	0	0	0	0
2010	7	5	0	2	0	0	0	0
2011	16	11	3	2	0	0	0	0

New Braintree					Population: 999			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	2	0	2	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	Non-Reporting Community							
2010	Non-Reporting Community							
2011	Non-Reporting Community							

North Brookfield					Population: 4,680			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	27	9	0	18	4	0	0	4
2008	27	9	2	16	1	0	0	1
2009	22	6	3	13	4	0	1	3
2010	23	9	0	14	3	0	0	3
2011	31	2	1	28	2	0	0	2

Northborough					Population: 14,155			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	51	18	6	27	3	0	3	0
2008	39	12	8	19	1	1	0	0
2009	27	5	10	12	0	0	0	0
2010	43	15	7	21	2	0	0	2
2011	27	15	4	8	3	1	0	2

Northbridge					Population: 15,707			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	64	29	6	29	1	0	0	1
2008	43	18	3	22	2	1	0	1
2009	43	29	3	11	0	0	0	0
2010	82	45	6	31	2	1	0	1
2011	39	25	4	10	2	0	0	2

Oakham					Population: 1,902			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	14	4	1	9	2	0	0	2
2008	12	6	0	6	0	0	0	0
2009	9	4	0	5	0	0	0	0
2010	17	4	0	13	0	0	0	0
2011	8	4	0	4	1	0	0	1

Oxford					Population: 13,709			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	82	27	16	39	7	2	3	2
2008	70	38	12	20	5	2	3	0
2009	54	35	7	12	2	2	0	0
2010	60	32	10	18	2	1	0	1
2011	53	28	7	18	0	0	0	0

Paxton					Population: 4,806			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	12	8	3	1	0	0	0	0
2008	9	8	1	0	0	0	0	0
2009	5	3	0	2	0	0	0	0
2010	12	7	2	3	0	0	0	0
2011	11	6	3	2	0	0	0	0

Petersham					Population: 1,234			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	12	7	0	5	0	0	0	0
2008	8	5	0	3	0	0	0	0
2009	11	9	0	2	0	0	0	0
2010	5	2	0	3	0	0	0	0
2011	Fire Department in Good Standing, Certified No Reportable Fires							

Phillipston					Population: 1,682			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	10	1	1	8	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	2	0	0	2	1	0	0	1
2011 ¹¹	Fire Department in Good Standing, Certified No Reportable Fires							

Princeton					Population: 3,413			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	8	3	0	5	1	0	0	1
2008	17	7	1	9	2	1	0	1
2009	12	3	2	7	3	2	1	0
2010	22	7	2	13	2	1	0	1
2011	19	13	1	5	0	0	0	0

¹¹ In 2011 Phillipston reported 19 incidents, none of them fires.

Royalston **Population: 1,258**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	Non-Reporting Community							
2008	1	1	0	0	0	0	0	0
2009	6	4	1	1	1	1	0	0
2010	2	2	0	0	0	0	0	0
2011	1	1	0	0	0	0	0	0

Rutland **Population: 7,973**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	26	8	1	17	2	0	0	2
2008	3	2	0	1	1	0	0	1
2009	30	10	1	19	4	1	0	3
2010	24	10	1	13	0	0	0	0
2011	20	10	4	6	1	1	0	0

Shrewsbury **Population: 35,608**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	134	69	15	50	3	0	1	2
2008	126	63	19	44	5	0	1	4
2009	107	71	11	25	4	0	0	4
2010	126	64	13	49	2	0	1	1
2011	90	57	12	21	3	1	2	0

Southborough **Population: 9,767**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	39	19	8	12	2	1	0	1
2008	33	20	3	10	1	0	0	1
2009	25	15	6	4	0	0	0	0
2010	29	10	10	9	0	0	0	0
2011	26	13	4	9	2	0	0	2

Southbridge						Population: 16,719		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	93	50	7	36	7	1	2	4
2008	74	43	10	21	1	0	1	0
2009	76	55	7	14	3	2	1	0
2010	82	48	6	28	2	0	0	2
2011	64	37	11	16	1	0	0	1

Spencer						Population: 11,688		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	81	54	2	25	3	0	0	3
2008	82	46	6	30	0	0	0	0
2009	68	40	8	20	4	1	1	2
2010	91	58	5	28	3	1	0	2
2011	62	45	7	10	0	0	0	0

Sterling						Population: 7,808		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	59	24	6	29	4	2	0	2
2008	45	17	5	23	0	0	0	0
2009	41	15	6	20	4	1	1	2
2010	33	10	3	20	0	0	0	0
2011	46	18	7	21	0	0	0	0

Sturbridge						Population: 9,268		
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	47	16	7	24	2	0	0	2
2008	44	6	18	20	0	0	0	0
2009	40	17	7	16	1	0	0	1
2010	43	15	9	19	3	0	0	3
2011	46	15	8	23	6	1	0	5

Sutton					Population: 8,963			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	17	6	4	7	1	0	0	1
2008	10	2	3	5	0	0	0	0
2009	20	10	2	8	1	0	0	1
2010	16	4	3	9	1	0	0	1
2011	22	15	2	5	0	0	0	0

Templeton					Population: 8,013			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	35	18	5	12	1	1	0	0
2008	37	18	4	15	3	0	0	3
2009	47	26	4	17	3	0	0	3
2010	42	32	0	10	2	1	0	1
2011	31	25	2	4	1	0	1	0

Upton					Population: 7,542			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	42	12	5	25	1	0	1	0
2008	36	12	1	23	3	0	0	3
2009	42	23	6	13	9	0	0	9
2010	37	20	5	12	0	0	0	0
2011	32	15	5	12	5	0	0	5

Uxbridge					Population: 13,457			
	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	83	40	11	32	5	2	0	3
2008	57	27	9	21	3	0	1	2
2009	58	35	6	17	3	0	0	3
2010	45	18	10	17	3	1	0	2
2011	40	19	10	11	1	1	0	0

Warren					Population: 5,135			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	19	8	2	9	0	0	0	0
2008	26	13	2	11	1	0	0	1
2009	21	11	3	7	2	1	0	1
2010	24	11	3	10	0	0	0	0
2011	16	9	3	4	0	0	0	0

Webster					Population: 16,767			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	36	6	12	18	0	0	0	0
2008	69	31	9	29	0	0	0	0
2009	46	12	3	31	5	0	0	5
2010	69	22	6	41	10	2	0	8
2011	49	16	5	28	4	0	0	4

West Boylston					Population: 7,669			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	28	12	4	12	1	0	0	1
2008	28	4	6	18	0	0	0	0
2009	21	6	0	15	3	0	0	3
2010	26	7	7	12	2	0	0	2
2011	23	5	10	8	1	0	0	1

West Brookfield					Population: 3,701			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	3	3	0	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	9	7	0	2	0	0	0	0
2010 ¹²	Fire Department in Good Standing, Certified No Reportable Fires							
2011	2	1	1	0	1	1	0	0

¹² In 2010, West Brookfield did not report any fires, but they did report 1 Hazardous condition call with no fire, and 1 severe weather response.

Westborough					Population: 18,272			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	97	40	17	40	1	1	0	0
2008	60	26	10	6	2	0	0	2
2009	59	29	10	20	2	0	0	2
2010	64	37	5	22	3	2	0	1
2011	52	35	6	11	1	1	0	0

Westminster					Population: 7,277			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	54	17	4	33	4	1	0	3
2008	32	16	10	6	1	1	0	0
2009	24	10	4	10	3	1	1	1
2010	40	15	6	19	0	0	0	0
2011	27	14	4	9	0	0	0	0

Winchendon					Population: 10,300			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	45	23	9	13	1	1	0	0
2008	40	26	1	13	1	0	0	0
2009	26	20	2	4	0	0	0	0
2010	49	27	2	20	0	0	0	0
2011	42	33	4	5	3	0	1	2

Worcester					Population: 181,045			
	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
	Fires	Fires	Fires	Fires	Arsons	Arsons	Arsons	Arsons
2007	1,389	700	120	569	28	13	6	9
2008	1,449	811	117	521	53	18	12	23
2009	1,232	696	111	425	56	13	12	31
2010	1,430	730	95	605	58	13	6	39
2011	1,374	723	122	529	48	15	7	26

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	11	10	0	0	0	1	0	0	0	0
27015	Athol	848	47	1	166	101	248	138	122	4	21
27017	Auburn	3,021	64	7	2,061	302	143	177	251	8	8
27021	Barre	273	16	0	126	17	59	22	29	1	3
27028	Berlin	418	31	0	34	59	37	26	107	12	112
27032	Blackstone	571	37	0	174	50	40	82	160	20	8
27034	Bolton	235	11	0	32	45	34	41	65	7	0
27039	Boylston	25	11	1	2	9	2	0	0	0	0
27045	Brookfield	2	2	0	0	0	0	0	0	0	0
27054	Charlton	2,030	67	2	1,291	286	110	108	152	10	4
27064	Clinton	1,878	162	3	1,082	104	82	30	397	4	14
27077	Douglas	331	54	1	75	56	36	29	69	4	7
27080	Dudley	473	43	14	76	113	41	49	114	20	3
27084	East Brookfield	59	9	0	4	19	7	2	8	4	6
27097	Fitchburg	4,296	405	6	1,939	337	503	240	855	0	11

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.

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
27103	Gardner	3,407	82	0	1,784	144	542	73	559	0	223
27110	Grafton	456	56	1	30	64	72	58	171	1	3
27124	Hardwick	73	20	0	2	19	12	1	15	2	2
27125	Harvard	79	10	0	17	5	27	0	19	0	1
27134	Holden	1,871	43	5	1,306	59	161	113	178	5	1
27138	Hopedale	6	4	0	1	0	0	0	0	1	0
27140	Hubbardston	551	18	1	343	25	59	39	46	20	0
27147	Lancaster	307	14	1	101	43	45	22	66	0	15
27151	Leicester	235	32	2	13	23	78	16	59	7	5
27153	Leominster	6,946	225	2	4,357	368	529	189	874	18	384
27162	Lunenburg	377	49	3	33	66	80	16	97	0	33
27179	Mendon	839	18	0	641	32	35	26	74	10	3
27185	Milford	4,390	88	4	2,783	193	649	147	421	65	40
27186	Millbury	262	64	0	12	73	50	15	44	4	0
27188	Millville	300	22	1	158	27	39	31	21	1	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	179	38	0	4	49	20	3	58	4	3
27215	Northborough	1,970	33	1	1,108	134	269	106	313	6	0
27216	Northbridge	774	44	0	203	117	129	60	211	8	2
27222	Oakham	173	10	0	123	7	12	7	12	2	0
27226	Oxford	606	53	4	119	79	99	67	170	7	8
27228	Paxton	13	11	0	1	0	0	1	0	0	0
27235	Phillipston	19	0	0	0	0	9	2	8	0	0
27241	Princeton	292	19	1	178	8	32	14	36	4	0
27255	Royalston	1	1	0	0	0	0	0	0	0	0
27257	Rutland	808	20	0	600	26	49	37	73	3	0
27271	Shrewsbury	3,016	93	3	2,075	218	193	63	343	10	18
27277	Southborough	1,370	31	4	739	112	150	61	264	7	2
27278	Southbridge	1,114	70	2	454	124	130	76	216	8	34
27280	Spencer	500	73	1	15	156	69	35	118	28	5
27282	Sterling	1,145	54	0	716	29	166	47	130	0	3

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.

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
27287	Sturbridge	581	53	6	65	87	120	62	179	7	2
27290	Sutton	480	33	3	260	38	32	11	69	34	0
27294	Templeton	215	33	1	57	16	51	11	45	1	0
27303	Upton	396	34	3	24	109	114	19	83	9	1
27304	Uxbridge	2,049	52	2	1,533	83	106	96	164	9	4
27311	Warren	252	21	0	49	29	58	17	74	3	1
27316	Webster	484	60	1	5	104	95	37	167	8	7
27321	West Boylston	1,213	30	3	928	37	70	50	92	3	0
27323	West Brookfield	2	2	0	0	0	0	0	0	0	0
27328	Westborough	2,987	63	8	1,997	168	124	141	471	12	3
27332	Westminster	811	27	6	280	86	194	53	155	2	8
27343	Winchendon	1,595	42	0	1,101	45	182	102	120	1	2
27348	Worcester	28,053	1,374	33	20,270	1,240	600	1,336	3,173	5	22
Total	Worcester County	85,668	4,088	137	51,547	5,740	6,794	4,204	11,717	409	1,032

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.

Fitchburg Fires in 2011

391 Total Fires — 301 Structures, 28 Vehicles & 62 Other Fires

The Fitchburg Fire Department reported 391 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 301 structure fires, 28 motor vehicle fires, 34 brush fires, 22 outside rubbish fires; three special outside fires; and three unclassified fires caused two civilian deaths, seven civilian injuries and an estimated dollar loss of \$4.3 million.

2 People Killed in 2 Motor Vehicle Fires

- On August 1, 2011, at 5:17 p.m., the Fitchburg Fire Department was called to a fatal motor vehicle fire in front of a single-family home. The victim, a 33-year old man, drove to home of his estranged wife, and ignited the gasoline he had poured inside the vehicle. A civilian that witnessed the event was injured when he attempted to rescue the victim.
- On October 6, 2011 at 2:47 a.m., the Fitchburg Fire Department was called to a fatal motor vehicle crash with ensuing fire. A car had gone off the road and crashed into a boulder. The driver was trapped inside. The victim, a 33-year old woman, was the only occupant of the vehicle.

All Fires Down in 2011

Total fires decreased by 21 from the 412 incidents reported in 2010. Reported structure fires were down seven from the 308 reported during the previous year. Motor vehicle fires increased by two from 26 the year before. Outside and other fires decreased by 16 from the 78 reported in 2010.

FITCHBURG FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	335	216	30	90	16	5	1	10
2008	334	242	26	66	16	3	3	9
2009	366	293	19	54	14	5	2	7
2010	412	308	26	78	7	2	0	5
2011	391	301	28	62	14	1	4	9

BUILDING FIRES

There were 300 building fires of different types in Fitchburg in 2011. These 300 building fires accounted for 99.7% of all structure fires in Fitchburg.

86% of Building Fires in Homes

The 300 building fires that occurred in Fitchburg in 2011 can be broken down by fixed property use as follows: 258, or 86% of all building fires, were in residential properties; 12 fires occurred in institutional facilities; 10 fires occurred in public assembly

properties; another 10 happened in mercantile or business properties; storage facilities had six fires; and two fires occurred in an educational facilities.

RESIDENTIAL FIRES

Residential Building Fires Down Slightly

There were 258 reported residential building fires in Fitchburg in 2011. These 258 fires are a decrease of eight from the 266 reported residential building fires reported in 2010.

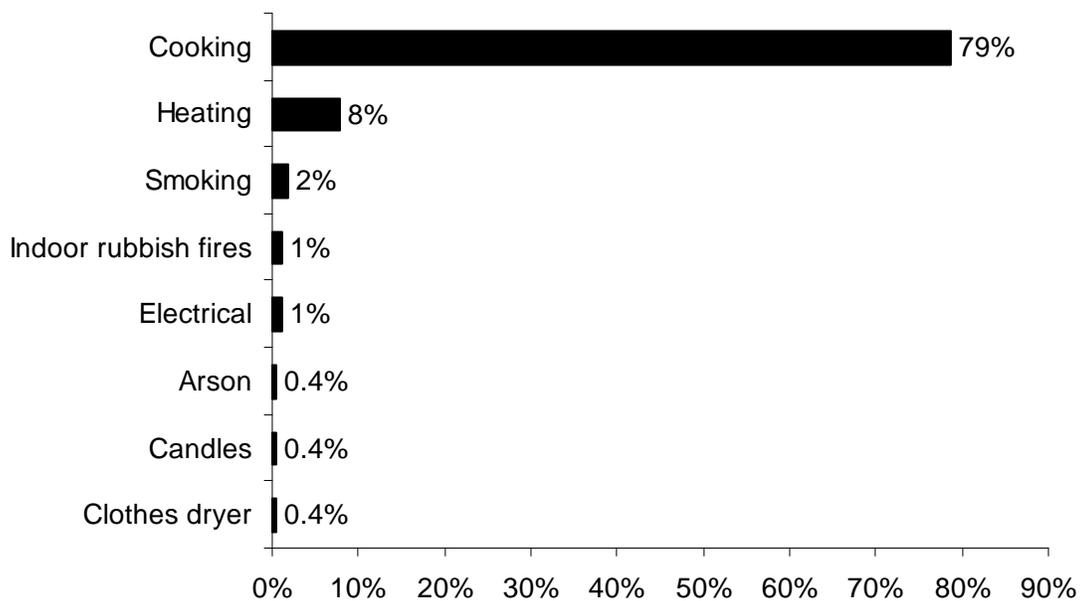
Apartments Accounted for 62% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 62% of the building fires in Fitchburg; 29% occurred in 1- or 2-family homes; 4% occurred in dormitory style residences; 3% happened in rooming houses, 1% happened in residential board and care facilities; 1% occurred in hotels or motels; and 2% occurred in unclassified residences.

Unattended Cooking Cause Over 3/4 of Residential Fires

The leading cause of residential building fires in Fitchburg was unattended cooking and other unsafe cooking practices, accounting 79% of these fires. Heating fires caused 8% of these fires. Smoking caused 2% of these fires. Indoor rubbish fires and electrical problems were each the cause of 1% of these fires; and arson, candles and clothes dryers each accounted for less than 1% of the fires in Fitchburg’s residential occupancies in 2011.

2011 Leading Causes of Fires in Fitchburg Homes



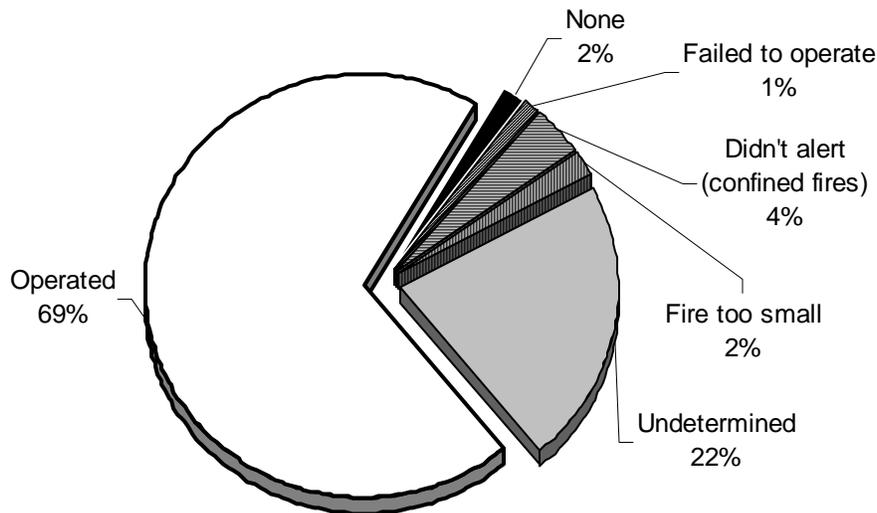
85% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Two hundred and nineteen (219), or 85% of all residential building fires were confined to non-combustible containers in 2011. One hundred and ninety-seven (197), or 76%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Seventeen (17), or 7%, were fires confined to a fuel burner or boiler malfunction. Three (3), or 1%, were indoor rubbish fires contained to a non-combustible container. Two (2), or 1%, of these fires, were reported to have been contained to a chimney or flue.

Detectors Worked in Over 2/3 of Fires

Smoke or heat detectors operated and alerted the occupants in 180, or 69%, of the residential building fires. In 4% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 2% of the residential fires. Smoke detector performance was undetermined in 56 incidents, or 22% of Fitchburg’s residential building fires.

Detector Status in Fitchburg's Residential Fires 2011



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

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

2 of 3 Detectors Failed from a Power Shutoff or Disconnect

Of the three fires where smoke detectors were present but failed to operate, two, or 67%, failed because of a power failure, shutoff or disconnect. It was undetermined in the other case, or 33%, why the detectors failed to operate.

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

Fitchburg reported 10 fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the total 300 building fires reported to MFIRS in 2011. Five (5) 1- or 2-family homes, four apartment buildings, and one ballroom or gymnasium were reported as vacant building fire incidents.

JUVENILE-SET FIRES**2 Juvenile-set Fires in 2011**

There were two reported juvenile-set fires in Fitchburg in 2011. One (1) was a brush fire, the other was an outside rubbish fire.

ARSONS**14 Arsons - 1 Structure, 4 Motor Vehicle and 9 Outside & Other**

Fourteen (14), or 4%, of Fitchburg's 391 fires were considered intentionally set, or, for purposes of this analysis, arson. There was one structure arson, four motor vehicle arsons and nine outside and other arsons.

All Arsons Up in 2011

The total number of arsons increased by seven from the seven reported in 2010. Reported structure arsons decreased by one from one reported the year before. Motor vehicle arsons increased by four from none reported in 2010. Outside and other arsons increased by four from the five reported the year before.

56 Fires Reported as Undetermined or Still Under Investigation

In 2011, Fitchburg reported 56 fires under investigation or cause undetermined after investigation. Thirty-nine (39), or 70%, of these fires were reported to be undetermined after investigation. The other 17, or 30%, were still under investigation.

Twenty-one (21), or 38%, of these 56 fires were structure fires. Ten (10), or 18% were motor vehicle fires; and 25, or 45%, were outside or other fires. Because so many fires or under investigation or undetermined after investigation, the true arson number might be actually higher in Fitchburg in 2011.

ALL INCIDENTS

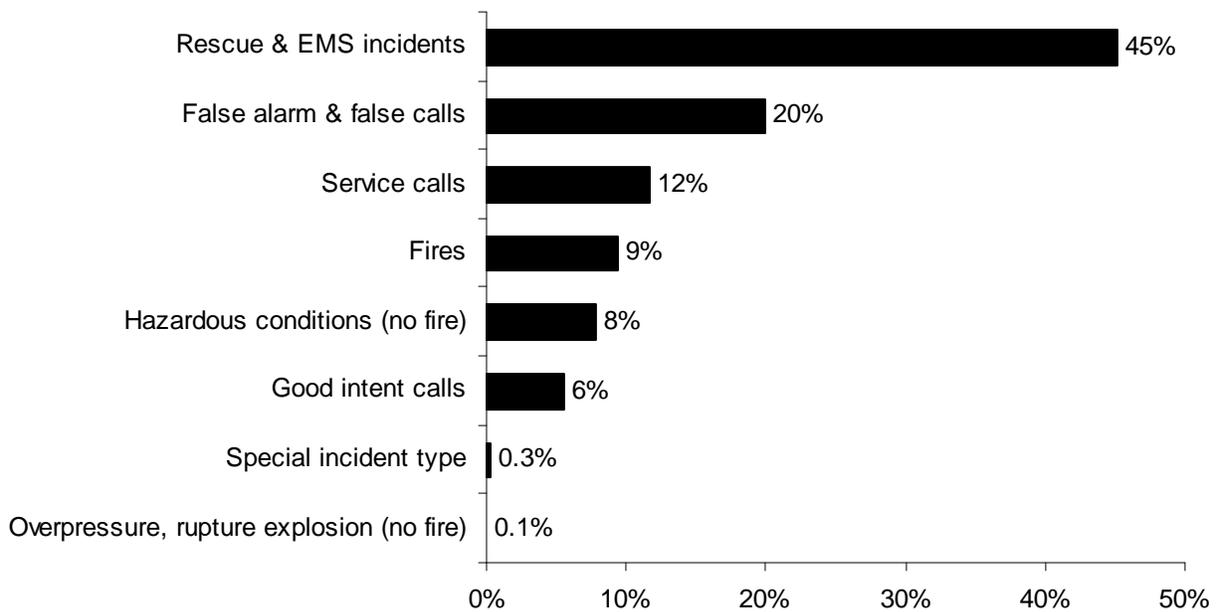
Rescue & EMS Calls Are Almost 1/2 of All Reported Incidents

In 2011, Fitchburg voluntarily reported 4,296 incidents to MFIRS. Of these 4,296 incidents, 3,891, or 91%, were non-fire incidents.

Of these 3,891 non-fire incidents 1,939, or 45% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 855, or 20%, were reported false alarm or false calls; 503, or 12%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 337, or 8%, were reported hazardous condition calls with no fire; 240, or 6%, were reported good intent calls; 11, or 0.3%, were special type incidents; and six, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2011, Fitchburg reported 1,376 fires, accounting for 9% of all reported incidents.

2011 Incidents by Incident Type



Fitchburg Gave Mutual Aid in 26 Incidents

In 2011, Fitchburg reported giving mutual aid to other surrounding fire departments in 26 incidents. Fourteen (14), or 54%, of these incidents were fires; seven, or 27%, were service calls for station coverage; four, or 15%, were rescue or EMS calls; and one, or 8%, was a hazardous condition call with no ensuing fire.

Fitchburg Received Mutual Aid in 19 Incidents

In 2011, Fitchburg reported 19 incidents in which they received mutual aid from another fire department. Thirteen (13), or 68%, were for fires; two, or 11%, were for false alarms; another two, or 11%, were for rescue or EMS calls, one, or 5%, was for a service call; and another call, or 5%, was for a hazardous condition with no ensuing fire.

Fitchburg**Population: 40,318****9.7 Fires/1,000 Population****Total Fires: 391 \$4,289,745**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	301	77%	\$4,104,775
Vehicle Fires	28	7%	184,650
Other Fires	62	16%	320

2 Civilian Deaths 5.12 Civilian Deaths/1,000 Fires
 2 Fatal Fires 0.50 Civilian Deaths/10,000 Population
 7 Civilian Injuries 5 Fire Service Injuries

Building Fires: 300**Residential Structure Fires: 258****Residential Structure Fires Confined to Non-Combustible Containers: 219****Unconfined Residential Structure Fires: 39**

6 Civilian Injuries 5 Fire Service Injuries

Occupancy	Fires	%	Detector Status	Fires	%
Apartments	159	62%	Operated	180	69%
1- & 2-Family homes	74	29%	Didn't operate	3	1%
Dormitories	10	4%	None	4	2%
Rooming houses	7	3%	Fire too small	5	2%
Residential, other	4	2%	Didn't Alert (confined)	10	4%
			Undetermined	56	22%

Area of Origin³	%	Heat Source	%	%Unconfined⁴
Kitchen	80%	Cigarettes	2%	10%
Heating room or area	7%	Hot or smoldering object	2%	10%
Exterior balcony/unencl. porch	2%	Rad. or cond. heat fr op. eq.	2%	10%
Attic	1%	Heat from operating equip.	2%	10%
Bathroom	1%	Arcing	2%	5%
Laundry room	1%			

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

⁴ These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Heat Source from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited⁵	%	Factor Contrib. to Ignition	%	%Unconfined⁶
Cooking materials	78%	Misuse of mater. or prod.	1%	8%
Flammable or combustible liq.	7%	Too close to combustibles	1%	8%
Clothes, not on a person	2%	Electrical fail./malfunction	1%	5%
Rubbish, trash, waste	1%	Equipment unattended	1%	5%
Film, residue (creosote)	1%			
Thermal/acoustical insulation	1%			

Equipment⁷	%	Cause of Ignition	%	%Unconfined⁸
Cooking equipment	77%	Unintentional	9%	62%
None	13%	Intentional	0.4%	3%
Boiler, furnace, cent. heat. unit	7%	Failure of eq./heat source	1%	8%
Chimney or flue	1%	Cause Under Investigation	4%	26%
Clothes dryer	1%	Undetermined	0.4%	3%
		Act of nature	0%	0%

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

Alerted Occupants	73%
Didn't Alert Occupants	5%
Undetermined	23%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	1,939	45%
False alarms & false calls	855	20%
Service calls	503	12%
Fires	405	9%
Hazardous conditions (no fire)	337	8%
Good intent calls	240	6%
Special Incident Types	11	0.3%
Overpressure rupture, explosion or overheat calls (no fire)	6	0.1%
Severe weather & natural disaster	0	0%

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

⁶ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	28	21	0	7
February	38	35	2	1
March	27	18	1	8
April	31	24	2	5
May	41	33	4	4
June	27	19	2	6
July	36	19	3	14
August	23	11	2	10
September	27	24	3	0
October	38	30	8	0
November	38	35	0	3
December	37	32	1	4

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	72	54	6	12
Monday	54	42	4	8
Tuesday	56	48	5	3
Wednesday	58	44	2	12
Thursday	46	34	4	8
Friday	57	43	3	11
Saturday	48	36	4	8

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	31	18	5	8
04:01 - 08:00	27	24	0	3
08:01 - 12:00	74	61	5	8
12:01 - 16:00	87	65	6	16
16:01 - 20:00	111	89	8	14
20:01 - 24:00	61	44	4	13

Motor Vehicle Fires

Total: 28

Automobiles: 27 (96%)

4 (15%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 14 Dollar loss: \$47,150

0.35 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	1	0.3%	7%	\$0
Vehicle Arsons	4	14%	29%	46,950
Other Arsons	9	15%	64%	200

0.02 Structure arsons/1,000 population

0.10 Vehicle arsons/1,000 population

0.22 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	1	100%	16:01 - 20:00	2	50%
			00:01 - 04:00	1	25%
			20:01 - 00:00	1	25%

Other Arsons	#	%
16:01 - 20:00	3	33%
20:01 - 00:00	3	33%
00:01 - 04:00	2	22%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	1	100%

Worcester Fires in 2011

1,374 Total Fires — 723 Structures, 122 Vehicles & 529 Other Fires

The Worcester Fire Department reported 1,374 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2011. The 723 structure fires, 122 motor vehicle fires, 106 brush fires, 413 outside rubbish fires, and 10 special outside fires caused one civilian death, one fire service death, two civilian injuries, 33 fire service injuries and an estimated dollar loss of \$7.4 million.

Female Resident Killed in Undetermined Fire

- On September 12, 2011, at 3:43 p.m., the Worcester Fire Department was dispatched to a fire in a single-family home of undetermined cause. The victim was a 54-year old woman. One (1) firefighter was injured at this fire. It was undetermined if detectors were present, and sprinklers were not. Damages from this fire were estimated to be \$100,000.

FF Jon Davies Killed in Undetermined Fire in a 3-Decker

- On December 8, 2011, at 4:21 a.m., the Worcester Fire Department was dispatched to a fire in a three-decker apartment building of undetermined cause. Firefighters Jon Davies and Brian Carroll were searching for victims on the second floor when the building partially collapsed trapping them beneath the rubble. FF Davies was located first and transported to a local hospital where he succumbed to his injuries. FF Carroll was located some time later. He was also transported to a local hospital where he recovered from his injuries. Three (3) other firefighters were injured at this incident. It was undetermined if detectors were present and the building did not have sprinklers. Damages from this fire were estimated to be \$250,000.

Motor Vehicles Fires Up 2011

Total fires decreased by 56 from the 1,430 incidents reported in 2010. Reported structure fires decreased by seven from the 730 reported during the previous year. Motor vehicle fires increased by 27 from 95 the year before. Outside and other fires decreased by 76 from the 605 reported the year before.

WORCESTER FIRES FROM 2007 TO 2011

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2007	1,390	701	120	569	29	14	6	9
2008	1,445	807	117	521	53	18	12	23
2009	1,232	696	111	425	56	13	12	31
2010	1,430	730	95	605	58	13	6	39
2011	1,374	723	122	529	48	15	7	26

BUILDING FIRES

There were 720 building fires of different types in Worcester in 2011. These 720 building fires accounted for 99% of all structure fires in Worcester.

88% of Building Fires in Homes

The 720 building fires that occurred in Worcester in 2011 can be broken down by fixed property use as follows: 632, or 88% of all building fires, were in residential properties; 26 fires took place in institutional properties; 22 fires took place in public assembly properties; 13 fires occurred in mercantile or business properties; another 13 fires happened in educational properties; seven fires occurred at manufacturing or processing facilities; four fires happened in special properties; two fires occurred in storage facilities; and one fire happened at an industrial facility.

RESIDENTIAL FIRES

Apartments Accounted for 56% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 56% of the building fires in Worcester; 19% occurred in one- or two-family homes; 13% occurred in rooming houses; 8% occurred in dormitories; 3% happened in residential board and care properties; less than 1% occurred in hotels and motels; and 1% occurred in unclassified residential properties.

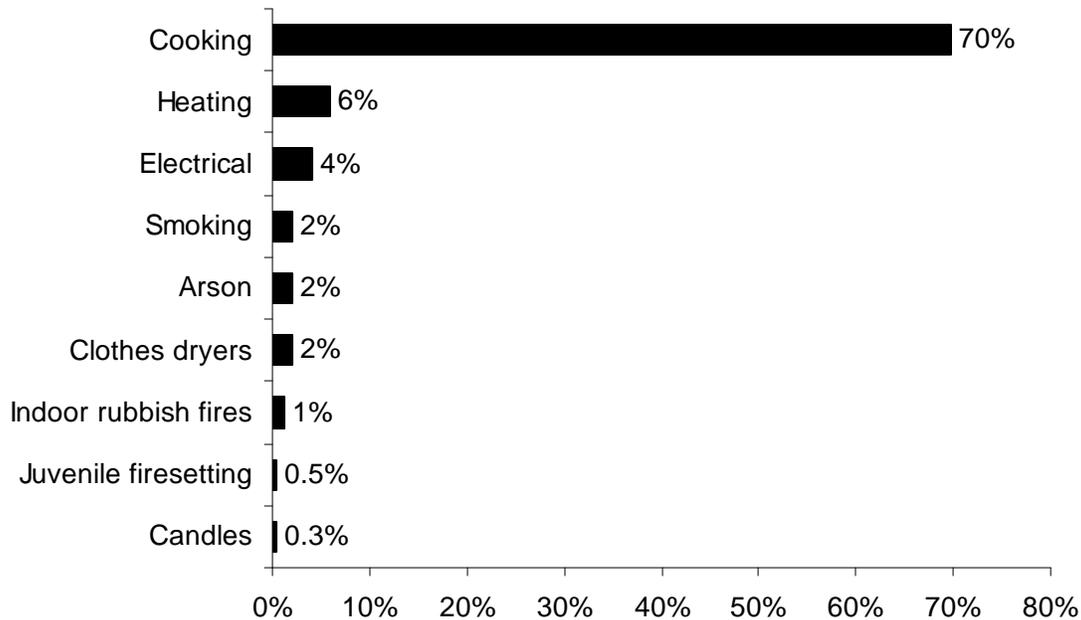
Residential Building Fires Were Up

There were 632 reported residential building fires in Worcester in 2011. These 632 fires were an increase of 12, or 2%, from the 620 residential building fires reported in 2010.

Unattended Cooking Caused 70% of All Residential Fires

The leading cause of residential building fires in Worcester was unattended cooking and other unsafe cooking practices, accounting for 70% of these fires. Heating fires accounted for 6% of these fires. Electrical problems caused 4% of the fires in Worcester homes. Smoking, arsons and clothes dryers were each responsible for 2% of these fires. Indoor rubbish fires caused 1% of these fires. Juvenile-set fires and candles were each responsible for less than 1% of the residential building fires in Worcester in 2011.

2011 Leading Causes of Fire In Worcester Homes



72% of Residential Building Fires Are Confined to Non-Combustible Containers¹

Four hundred and fifty-seven (457), or 72% of all residential building fires were confined to non-combustible containers in 2011. Four hundred and fourteen (414), or 66%, of all residential building fires reported in 2011 were cooking fires contained to a non-combustible container. Twenty-two (22), or 3%, of all residential building fires were fuel burner or boiler malfunctions. Twelve (12) of the reported fires were confined to a chimney, accounting for 2% of residential building fires in Worcester in 2011. Eight (8) rubbish fires contained to a non-combustible container caused 1% of these fires and one commercial compactor fire caused less than 1%, of these Worcester's residential fires.

Detectors Alerted Occupants in Over 3/4 of Fires

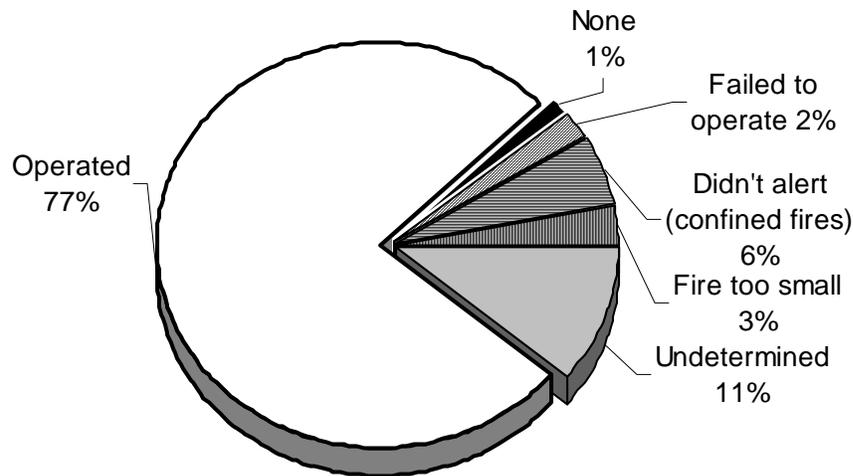
Smoke or heat detectors operated and alerted the occupants in 485, or 77%, of the residential building fires. In 6% of these fires², the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 1% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the

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

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

residential fires. Smoke detector performance was undetermined in 70 incidents, or 11% of Worcester's residential building fires.

Detector Status in Worcester Residential Fires 2011



2 of the Failed Detectors Had Dead Batteries

Of the 14 fires where smoke detectors were present but failed to operate, two, or 14%, failed because the batteries were dead. Improper installation or placement caused one, or 7%, of the detectors to fail. A missing or disconnected battery was also responsible for one, or 7%, of the smoke detectors that failed to operate. It was undetermined in the other 10 cases why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Worcester reported seven fires that occurred in buildings that were vacant, under construction or demolition. This represented 1% of the total 720 building fires reported to MFIRS in 2011. Two (2) apartment buildings, two one- or two-family homes, one elementary school, one rooming house and one adult education center were reported as vacant building fire incidents.

These seven vacant building fires caused three fire service injuries. That is almost one firefighter injury for every two vacant building fires in Worcester in 2011.

JUVENILE-SET FIRES

8 Juvenile-set Fires

There were eight juvenile-set fires in Worcester in 2011. The four structure fires and four brush fires caused \$12,500 in estimated damages.

ARSONS

48 Total Arsons — 15 Structures, 7 Motor Vehicles, & 26 Other

Forty-eight (48), or 4%, of Worcester's 1,374 fires were considered intentionally set, or, for purposes of this analysis, arson. The 15 structure arsons, seven motor vehicle arsons and 26 outside and other arsons caused an estimated dollar loss of \$208,200.

Outside & Other Arsons Decrease

The total number of arsons decreased by 10. This is a 17% decrease from the 58 arsons reported in 2010. Reported structure arsons increased by two from the 15 reported in 2010. Motor vehicle arsons increased by one from seven in 2010. Outside and other arsons decreased by 13 from the 39 reported the year before.

Worcester reported 177 fires that are still under investigation or undetermined after investigation. One hundred and twenty-one (121) of these fires were reported as under investigation and 56 were classified as undetermined.

ALL INCIDENTS

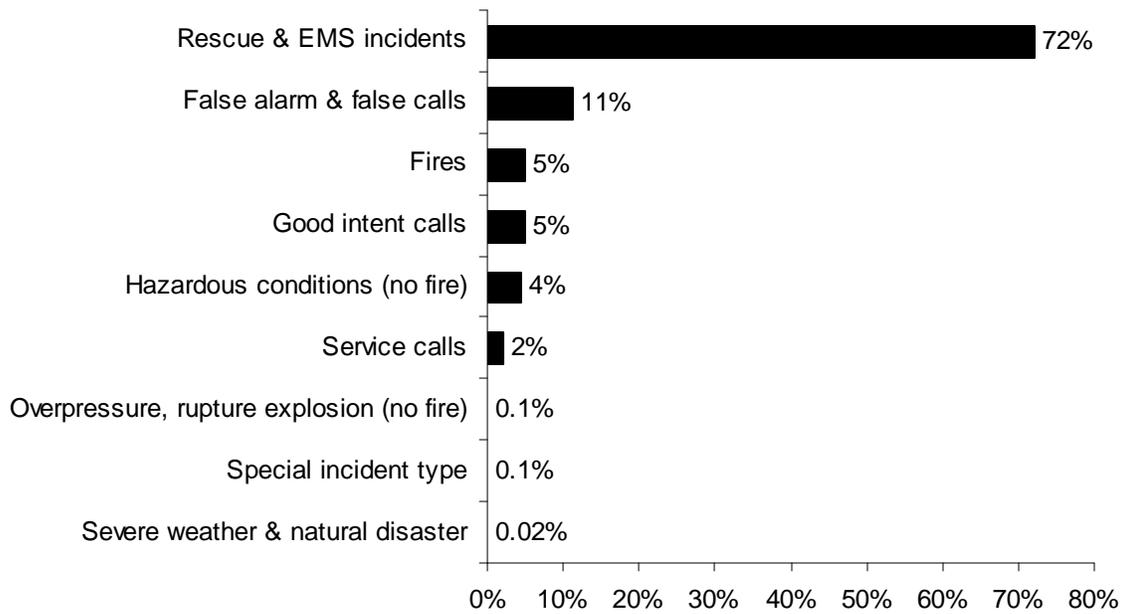
Rescue & EMS Calls Are Almost 3/4 of All Reported Incidents

In 2011, Worcester voluntarily reported 28,055 incidents to MFIRS. Of these 28,055 incidents, 26,679, or 95%, were non-fire incidents.

Of these 26,679 non-fire incidents 20,270, or 72% of all reported incidents in 2011, were reported rescue and emergency medical services (EMS) calls; 3,173, or 11%, were reported false alarm or false calls; 1,336, or 5%, were reported good intent calls; 1,240, or 4%, were reported hazardous condition calls with no fire; 600, or 2%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 33, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; 22, or 0.1%, were special type incidents; and five, or 0.02%, were responses to incidents caused by severe weather.

In 2011, Worcester reported 1,376 fires, accounting for 5% of all reported incidents.

2011 Incidents by Incident Type



Worcester Gave Mutual Aid in 3 Incidents

In 2011, Worcester reported giving mutual aid to other surrounding fire departments in three fire incidents.

Worcester Received Mutual Aid in 1 Incident

In 2011, Worcester reported one incident in which they received mutual aid from another fire department.

Item First Ignited⁵	%	Factor Contrib. to Ignition	%	%Unconfined⁶
Cooking materials	69%	Misuse of material or prod.	4%	14%
Flammable or combust. liquid	3%	Too close to combustibles	3%	11%
Rubbish, trash, waste	2%	Equipment unattended	3%	10%
Film or residue (creosote)	2%	Abandoned materials	2%	6%
Dust, fiber, lint	1%	Failure to clean	2%	6%
Electrical wire, cable insulation	1%			
Structural member, framing	1%			

Equipment⁷	%	Cause of Ignition	%	%Unconfined⁸
Cooking equipment	67%	Unintentional	14%	51%
None	22%	Failure of eq./heat source	3%	9%
Boiler, furnace, cent. heat. unit	3%	Intentional	2%	6%
Chimney or flue	2%	Act of Nature	0.2%	1%
Clothes dryer	2%	Undetermined	0.3%	1%
		Cause under investigation	9%	31%

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

Alerted Occupants	85%
Didn't Alert Occupants	8%
Undetermined	8%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	20,270	72%
False alarms & false calls	3,173	11%
Fires	1,376	5%
Good intent calls	1,336	5%
Hazardous conditions (no fire)	1,240	2%
Service calls	600	2%
Overpressure rupture, explosion or overheat calls (no fire)	33	0.1%
Special Incident Types	22	0.1%
Severe weather & natural disaster	5	0.02%

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

⁶ Some fields in version 5 allow for multiple entries. Therefore the number of entries may be greater than the actual number of incidents being analyzed. These figures were calculated only from those incidents, which were coded as Unconfined fires (Incident Types 111-112 or 120-129). The USFA & NFPA do not recommend inferring codes for Factors Contributing to Ignition from the fires contained to non-combustible containers (Incident Types 113 – 118). This field does not need to be completed for confined fires.

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	95	79	9	7
February	88	71	11	6
March	92	53	5	34
April	121	51	9	61
May	135	49	16	70
June	102	38	7	57
July	131	36	14	81
August	119	50	8	61
September	126	67	15	44
October	125	87	9	29
November	130	73	9	48
December	110	69	10	31

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	227	125	10	92
Monday	189	97	15	77
Tuesday	208	114	22	72
Wednesday	156	80	15	61
Thursday	169	83	20	66
Friday	188	93	22	73
Saturday	237	131	18	88

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	135	60	24	51
04:01 - 08:00	84	45	11	28
08:01 - 12:00	216	145	18	53
12:01 - 16:00	270	151	16	103
16:01 - 20:00	375	197	19	150
20:01 - 24:00	294	125	19	150

Motor Vehicle Fires

Total: 122

Automobiles: 117 (96%)

7 (6%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 48

Dollar loss: \$208,200

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	15	2%	31%	\$206,200
Vehicle Arsons	7	4%	15%	0
Other Arsons	26	7%	54%	2,000

0.08 Structure arsons/1,000 population

0.04 Vehicle arsons/1,000 population

0.14 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	4	27%	00:01 - 04:00	3	43%
00:01 - 04:00	3	20%	20:01 - 00:00	2	29%
16:01 - 20:00	3	20%			
20:01 - 00:00	3	20%			

Other Arsons	#	%
16:01 - 20:00	10	38%
12:01 - 16:00	7	27%
20:01 - 00:00	5	19%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	9	60%