County Profiles
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

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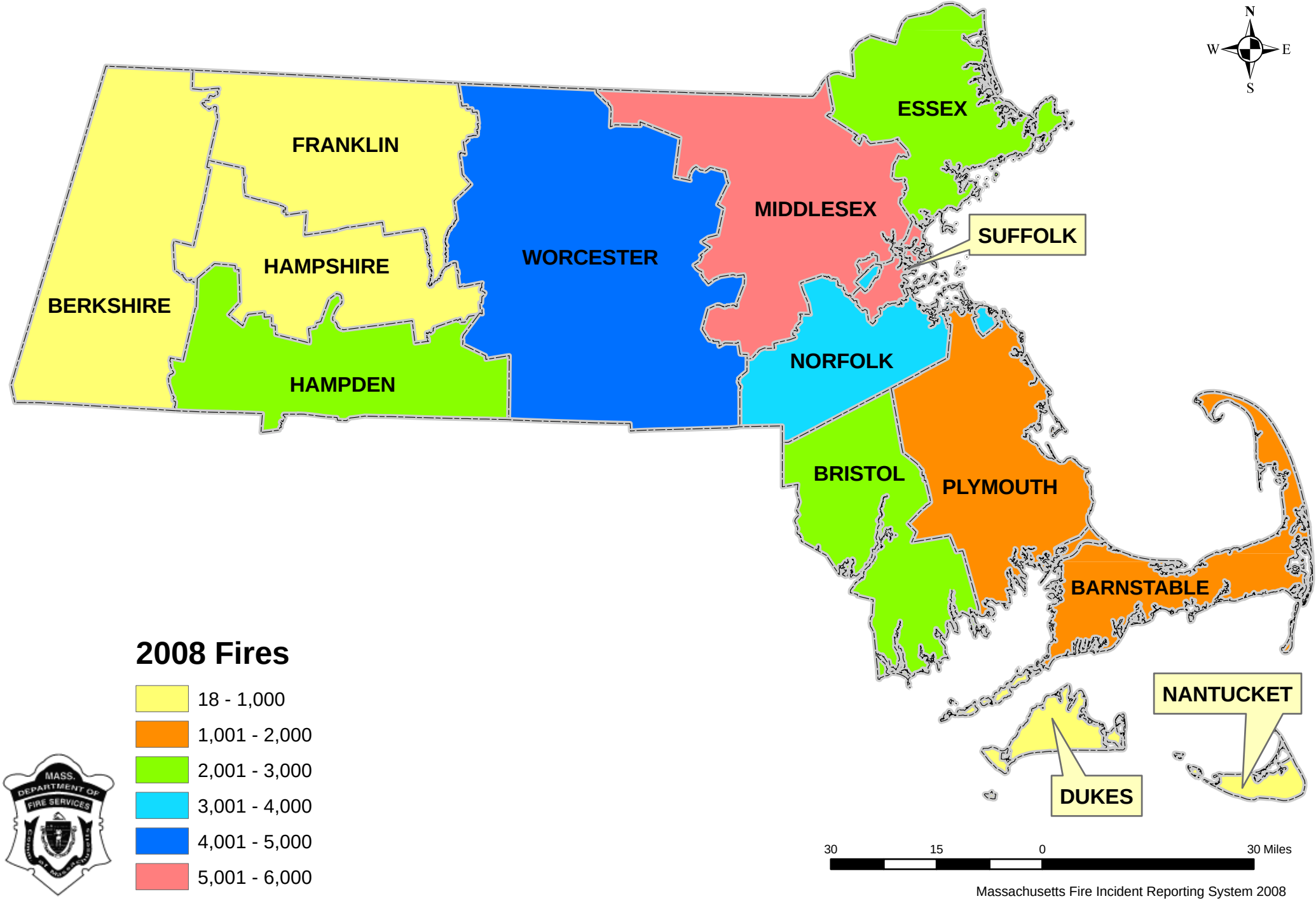
2008 Fires in Massachusetts by County



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2008 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	1,081	481	124	476	6	40	0	18	$10,337,845
Berkshire	713	430	46	237	1	7	0	7	6,997,973
Bristol	2,311	822	311	1,178	3	32	0	20	13,011,869
Dukes	18	11	3	4	0	0	0	0	437,500
Essex	2,887	1,628	326	933	8	13	0	45	25,585,337
Franklin	298	154	31	113	0	2	0	3	1,774,935
Hampden	2,485	1,395	271	819	6	48	0	73	20,446,331
Hampshire	518	223	42	253	2	13	0	6	5,902,133
Middlesex	5,260	3,402	506	1,352	7	56	0	136	48,545,309
Nantucket	24	13	5	6	0	0	0	0	3,320
Norfolk	3,067	1,830	290	947	5	26	0	99	26,505,096
Plymouth	1,773	774	232	767	5	28	0	48	17,351,650
Suffolk	5,535	3,833	428	1,274	4	37	1	70	52,226,746
Worcester	4,166	2,202	461	1,503	2	35	0	97	25,067,689
Total	**30,136**	**17,198**	**3,076**	**9,862**	**49**	**337**	**1**	**622**	**$254,193,733**

2008 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	93	12	7	74	0	2	0	0	$260,332
Berkshire	42	8	1	33	0	0	0	0	3,946
Bristol	129	31	22	76	0	0	0	4	1,528,560
Dukes	0	0	0	0	0	0	0	0	0
Essex	134	21	17	96	0	1	0	3	623,707
Franklin	14	1	1	12	0	0	0	1	2,700
Hampden	92	29	14	49	0	2	0	4	383,401
Hampshire	51	1	2	48	0	0	0	0	21,409
Middlesex	174	40	27	107	1	2	0	2	1,844,516
Nantucket	0	0	0	0	0	0	0	0	0
Norfolk	86	17	6	63	0	0	0	0	855,325
Plymouth	99	34	9	56	2	1	0	5	1,275,930
Suffolk	124	49	20	55	2	3	0	7	1,878,454
Worcester	143	36	24	83	0	0	0	11	3,301,894
Total	**1,181**	**279**	**150**	**752**	**5**	**11**	**0**	**37**	**$11,980,174**

*For statistical purposes 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.

2008 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	222,230	1,081	4.9	6	5.6	0.27	93	0.4
Berkshire	134,953	713	5.3	1	1.4	0.07	42	0.3
Bristol	534,678	2,311	4.3	3	1.3	0.06	129	0.2
Dukes	14,987	18	1.2	0	0.0	0.00	0	0.0
Essex	723,419	2,887	4.0	8	2.8	0.11	134	0.2
Franklin	71,535	298	4.2	0	0.0	0.00	14	0.2
Hampden	456,228	2,485	5.4	6	2.4	0.13	92	0.2
Hampshire	152,251	518	3.4	2	3.9	0.13	51	0.3
Middlesex	1,465,396	5,260	3.6	7	1.3	0.05	174	0.1
Nantucket	9,520	24	2.5	0	0.0	0.00	0	0.0
Norfolk	650,308	3,067	4.7	5	1.6	0.08	86	0.1
Plymouth	472,822	1,773	3.7	5	2.8	0.11	99	0.2
Suffolk	689,807	5,535	8.0	4	0.7	0.06	124	0.2
Worcester	750,963	4,166	5.5	2	0.5	0.03	143	0.2
Massachusetts	6,349,097	30,136	4.7	49	1.6	0.08	1,181	0.2

*Population statistics based on 2000 U.S. Census Bureau data.

2008 Non-Fire Responses By County and By Incident Type

County	Total Non-Fire Responses	Overpressure Rupt. & Explos. (No-fire)	Rescue EMS Incidents	Hazardous Conditions (No-fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX[1] & Natural Disaster	Special Incident Type
Barnstable	37,270	53	26,838	1,747	2,562	1,506	4,354	56	154
Berkshire	11,921	23	6,453	945	1,824	557	2,006	59	54
Bristol	43,959	64	25,424	2,722	3,479	3,315	8,599	62	294
Dukes	129	1	4	10	3	1	109	0	1
Essex	68,431	131	37,489	3,922	8,865	5,000	12,468	119	437
Franklin	4,506	11	1,916	461	747	550	716	39	66
Hampden	40,334	91	23,099	2,090	3,977	3,277	7,547	70	183
Hampshire	10,060	34	5,359	805	685	596	2,425	45	111
Middlesex	139,279	189	74,464	10,080	14,857	7,993	26,138	281	5,277
Nantucket	1,911	1	798	115	414	21	560	1	1
Norfolk	77,473	93	46,214	5,189	8,671	4,542	11,928	57	779
Plymouth	45,174	94	27,643	3,635	4,886	2,869	5,601	145	301
Suffolk	86,517	81	40,436	4,436	12,465	13,036	15,767	25	355
Worcester	82,272	116	50,864	5,785	7,457	4,534	12,306	431	779
Massachusetts	649,236	982	366,917	41,942	70,892	47,797	110,524	1,390	8,792

[1] WX is the abbreviation for Weather.

Barnstable County

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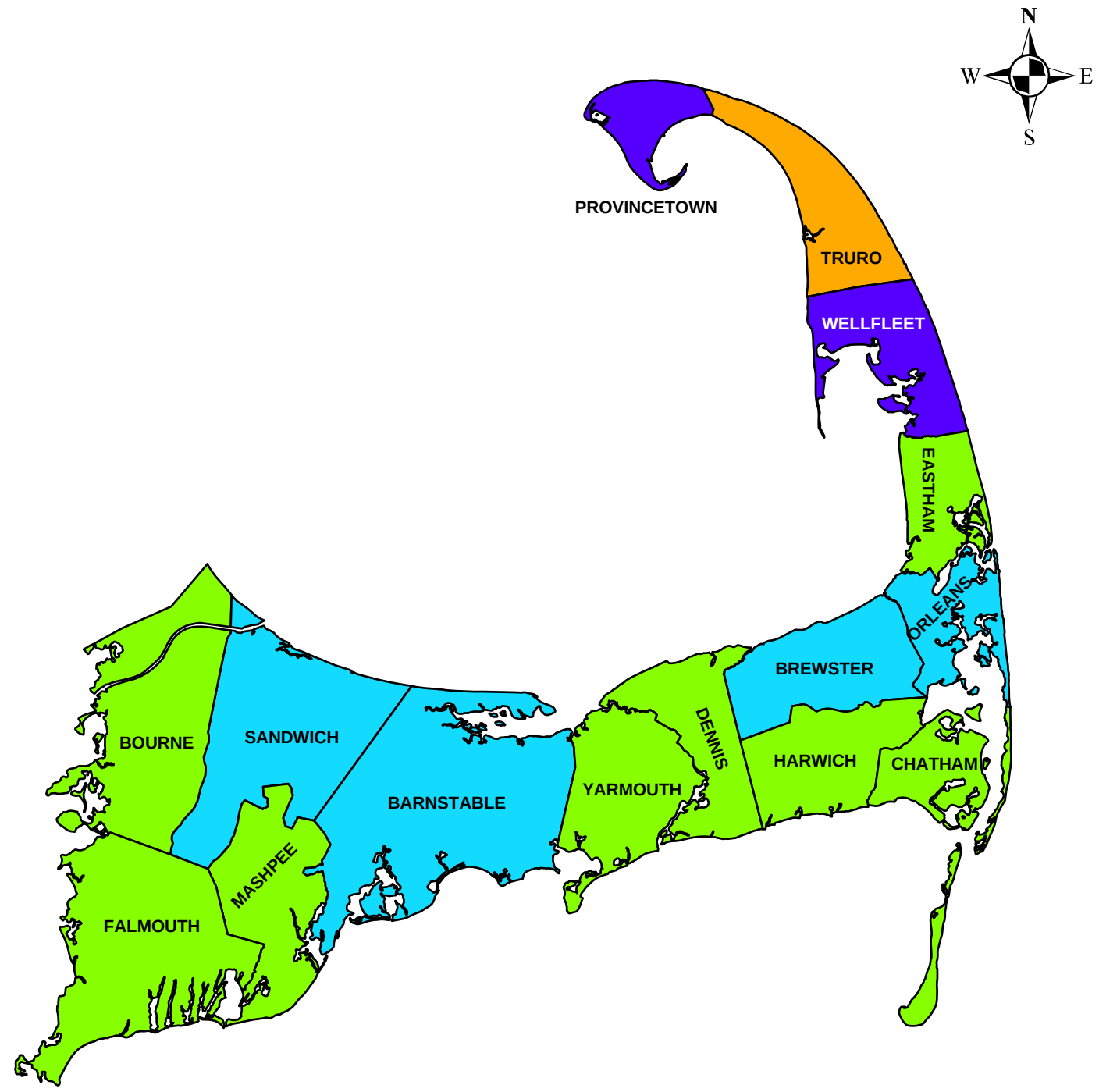
Barnstable County Fires in 2008



2008 Fires

- 0
- 1 - 25
- 26 - 50
- 51 - 75
- 76 - 250
- 251 - 715

MASS. DEPARTMENT OF FIRE SERVICES

0 3 6 12 18 24 Miles

Massachusetts Fire Incident Reporting System 2008

Barnstable County Fires in 2008

1,081 Total Fires — 481 Structures, 124 Vehicles & 476 Other Fires
Barnstable County ranked ninth out of the 14 Massachusetts counties in total reported fires. Barnstable County fire departments reported 1,081 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 481 structure fires, 124 motor vehicle fires, 298 brush, tree, or lawn fires, 90 outside rubbish fires, 48 special outside fires, two cultivated crop or vegetable fires, and 38 unclassified fires caused six civilian deaths, 40 civilian injuries, 18 fire service injuries and an estimated dollar loss of $10.3 million. Barnstable County's fires accounted for 4% of the 30,136 Massachusetts fires reported in 2008.

All 19 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 2008.

Structure & Motor Vehicle Fires Up
The total number of reported fire incidents increased by 21 from the 1,060 reported in 2007. Reported structure fires increased by 21 from the 460 reported during the previous year. Motor vehicle fires increased by five from the 119 reported during 2007. Outside and other fires decreased by five from the 481 reported the year before.

BARNSTABLE COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1,151	481	187	483	92	22	12	58
2005	1,173	539	144	490	57	16	4	37
2006	1,110	460	131	519	67	14	8	45
2007	1,060	460	119	481	83	16	7	60
2008	1,081	481	124	476	93	12	7	74

Fire and Fire Death Rates
Barnstable County had 4.9 fires per 1,000 population. That figure ranks Barnstable County fifth in the state and just above the state rate of 4.8 fires per 1,000 population. Barnstable County also had 0.27 fire deaths per 10,000 populations ranking it first among Massachusetts counties and above the state rate of 0.08 fire deaths per 10,000 population.

5 Barnstable County Fatal Fires Killed 6 Residents in 2008
- On January 20, 2008, at 11:05 p.m. the Eastham Fire Department was dispatched to a fatal smoking fire in a 2-family home. The fire began in the living room in an upholstered sofa. The victim, a 49-year old man, fell asleep while smoking but did wake up and attempted to escape. He was overcome by the heat and smoke during his escape. No one else was injured at this fire. It was undetermined if smoke detectors were present. Sprinklers were not present.

- On April 8, 2008, at 12:38 a.m., the Yarmouth Fire Department was called to a fatal smoking fire in a single-family home. A cigarette ignited some trash in the kitchen. The victim, a 47-year old woman, was trapped in a rear bedroom by the fire. One firefighter was injured fighting this fire. Smoke detectors were present but failed to operate because of a missing battery. There were no sprinklers. Damages from this fire were estimated to be $300,000.

- On May 17, 2008, at 1:38 p.m., the Falmouth Fire Department was called to a fatal fire of undetermined cause in a single-family home undergoing renovations. The fire started in the attic. The victim, a 48-year old male worker, was spraying blown insulation in the attic. It is believed that when the fire started he was overcome by the smoke and heat of the fire. His body was found towards the back of the building. Two possible scenarios of the cause of the fire are that the victim was a known smoker and could have tried to smoke a cigarette in the attic somehow igniting the insulation; or that the blown-in insulation could have self-combusted. Two firefighters were injured at this fire. Smoke detectors and sprinklers were not present. Damages from this fire were estimated to be $430,000.

- On May 23, 2008 at 8:53 p.m., the Harwich Fire Department was called to investigate an extinguished fire. The police had been called earlier to do a welfare check at a single-family home. Upon arrival they found the remnants of a smoking fire and the victim. The fire started in a first floor living room when a cigarette that fell on an upholstered sofa. The fire occurred approximately six days before it was discovered and was limited to the victim and the sofa. The victim, a 71-year old woman, was possibly impaired by alcohol and drugs. She died from burns and smoke inhalation. No one else was injured at this fire. Detectors were present but it was undetermined if they operated. Sprinklers were not present. Damages from the fire were estimated to be $85,000.

- On Christmas Eve, December 24, 2008, at 9:34 p.m., the Bourne Fire Department was called to a fatal electrical fire in a single-family home. The fire was caused by an electrical malfunction in a portable fan used to help distribute the heat from a nearby woodstove throughout the room. The victims, a 77-year old man and his 73-year old wife, were transported to a local hospital; but both succumbed to their injuries. There were no other injuries at this fire. Smoke detectors were present but failed to operate because of a missing battery. The building was not sprinklered, and damages were estimated to be $215,000.

Chatham Has Barnstable County's Largest Loss Fire

- On April 22, 2008, at 11:15 p.m., the Chatham Fire Department responded to a heating fire in a single-family room. The fire originated in the wall near the fireplace's firebox from radiant heat due to the vents being covered. One firefighter was injured battling this fire. Detectors were present but failed to operate because the fire began in the wall and extended to the attic, areas not protected by detectors. The building was not equipped with sprinklers. Damages were estimated to be $1.157,958.

STRUCTURE FIRES

Reported Structure Fires Up

The 481 structure fires caused all six civilian deaths, 40 civilian injuries, 18 fire service injuries and an estimated dollar loss of $9.7 million. These incidents represented 44% of Barnstable County's reported fires in 2008. The average estimated dollar loss per structure fire was $20,115. The total number of reported structure fires increased by 21, or 5%, from the 460 reported in 2007.

Arson Caused of 2% of Structure Fires

The 12 structure arsons caused an estimated dollar loss of $185,400. Arson was indicated as the cause of 2% of the structure fires and 2% of Barnstable County's structure fire dollar loss. The 12 structure arsons accounted for 13% of the Barnstable County arson fires reported in 2008. The total number of reported structure arsons dropped by four from 12 in 2007.

42% of Structure Arsons Occurred in Residences

Forty-two percent (42%) of Barnstable County's 12 structure arsons occurred in residential occupancies; 25% occurred in public assembly facilities; 17% occurred in educational facilities; and another 17% happened in unclassified properties.

BUILDING FIRES

There were 459 building fires of different types in Barnstable County in 2008. These 459 building fires accounted for 95.4% of all building fires in Barnstable County.

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

Three hundred and eighty-six (386), or 84%, of Barnstable County's 459 building fires occurred in residential occupancies. Twenty-two (22) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 17 fires. Educational facilities experienced 10 fires. Hospitals, prisons, and other institutional buildings experienced eight fires. Seven (7) fires took place in storage properties. Two (2) fires occurred in industrial, utility, defense, agricultural or mining facilities. Special properties had five fires. One (1) fire took place in a manufacturing or processing facility. Three (3) fires occurred in unclassified properties in Barnstable County in 2008.

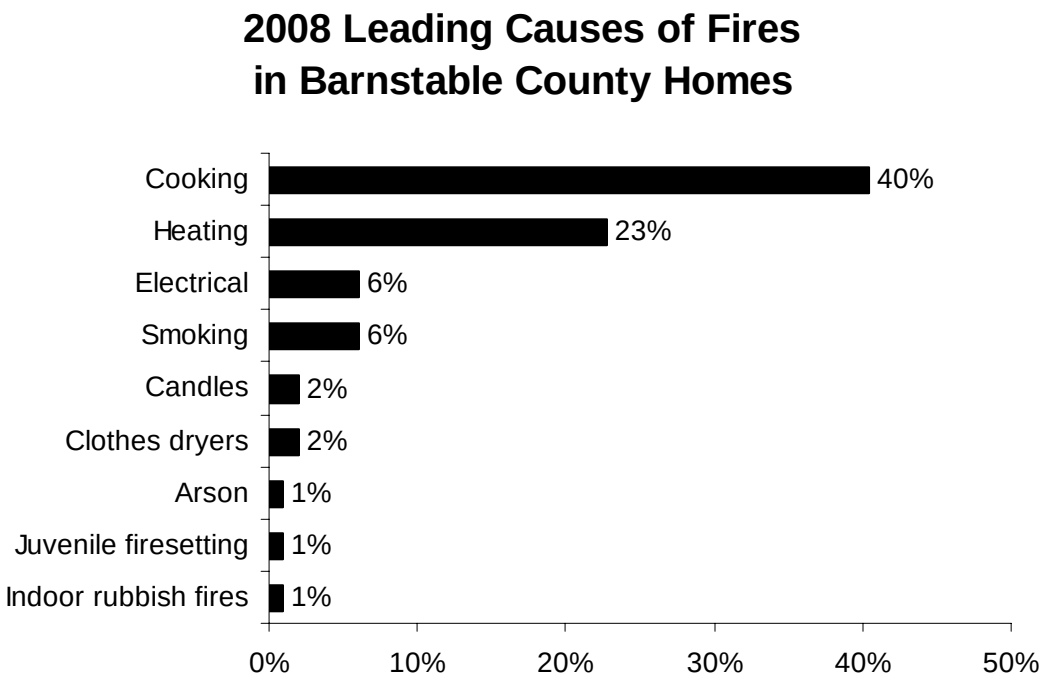
RESIDENTIAL FIRES

Residential Building Fires Are Up

There were 386 reported residential building fires in Barnstable County in 2008. These 386 fires are an increase of 40, or 12%, from the 346 residential building fires reported in 2007.

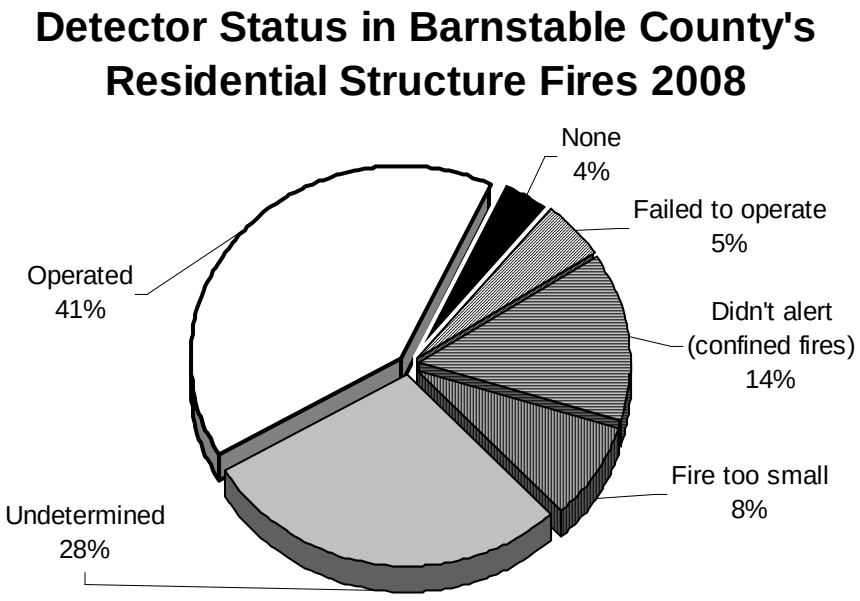
1- & 2-Family Homes Accounted for 78% of Residential Building Fires
The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 78% of the building fires in Barnstable County; 12% occurred in apartments; 3% happened in hotels or motels; another 3% happened in dormitories; 2% occurred in rooming houses; and 1% happened in residential board and care facilities. Eight (8), or 2% of the building fires in Barnstable County occurred in unclassified residential buildings.

Unattended Cooking Leading Cause of Residential Fires
The leading cause of residential building fires in Barnstable County was unattended cooking and other unsafe cooking practices, accounting for 40% of the fires. Heating fires accounted for 23% of the fires in people's homes in 2008; 55% of which involved chimney or flues, and 45% involved a fuel burner or boiler. Electrical problems and smoking each caused 6% of fires in residential buildings. Candles and clothes dryers each caused 2% of these fires. Arsons, juvenile-set fires, and indoor rubbish fires each caused 1% of the fires in residential occupancies in Barnstable County in 2008.



58% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Two hundred and twenty-two (222), or 58%, of all residential building fires were reported as confined to non-combustible containers in 2008. One hundred and forty (140), or 36%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Forty-five (45) of the reported fires were confined to a chimney accounting for 12% of residential building fires. Thirty-three (33), or 15%, were fires confined to a fuel burner or boiler malfunction. Four (4), or 1%, of these fires were rubbish fires contained to a non-combustible container in Barnstable County in 2008.

Detectors Alerted Occupants in 41% of Fires
Smoke or heat detectors operated and alerted the occupants in 155, or 41%, of the residential building fires. In 14% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 5% of these incidents. In 4% 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 110 incidents, or 28% of Barnstable County's residential building fires.



58% of Detectors Failed From Missing or Dead Batteries
Of the 21 fires where smoke detectors were present but failed to operate, six, 290%, failed because the batteries were either missing or disconnected. Another six, or 29%,

[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.

failed because the batteries were dead. Three (3), or 15%, failed because the power was shut-off or disconnected. Another detector, or 5%, failed because it was defective. It was undetermined in five cases, or 24%, why the detectors failed to operate.

VACANT BUILDINGS

7% of Building Fires Occurred in Vacant Buildings

Barnstable County reported 30 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 7% of the total 459 building fires reported to MFIRS in 2008. Sixteen (16) one- or two-family homes, three hotels or motels, two places of worship, a storage facility, a specialty shop, a museum, an apartment building, a livestock or poultry storage facility, an elementary school, a restaurant, a college building, and an unclassified property were reported as vacant building fire incidents.

Three (3), or 10%, of the vacant building fires in Barnstable County in 2008 were determined to be intentionally set. These fires occurred in a single-family home, a place of worship and a restaurant.

JUVENILE-SET FIRES

14 Juvenile-set Fires

There were 10 reported juvenile-set fires in Barnstable County in 2008. The two structure fires, seven brush fires, and one unclassified fire caused one civilian injury and $210 in estimated damages.

ARSONS

93 Total Arsons[4] — 12 Structures, 7 Vehicles & 74 Other Arsons

Ninety-three (93), or 9% of Barnstable County's 1,081 fires were considered intentionally set, or, for purposes of this analysis, arson. The 12 structure arsons, seven motor vehicle arsons and 74 outside and other arsons caused one civilian injury and an estimated dollar loss of $257,332.

Outside & Other Arson Up in 2008

The total number of reported arson fires increased by 10 from the 83 reported in 2007. Reported structure arsons decreased by four from the 16 reported the previous year.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

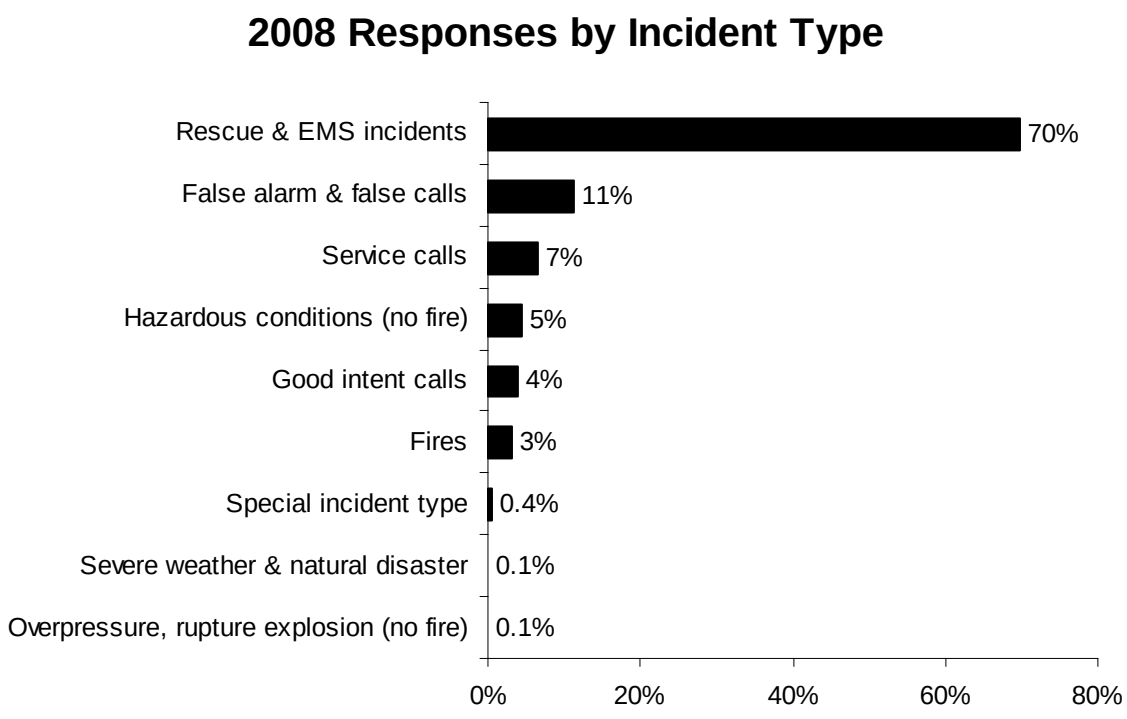
Motor vehicle arsons remained the same with six reported in both 2007 and 2008. Reported outside and other arsons increased by 14 from the 60 reported in 2007.

ALL INCIDENTS

Rescue & EMS Calls Are Over 2/3 of All Reported Incidents
In 2008, Barnstable County fire departments reported 38,500 responses[5] to MFIRS. Of these 38,500 incidents, 37,270 non-fire calls were voluntarily reported.

Of these 37,270 non-fire calls 26,838, or 70% of all of the responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 4,354, 11%, were reported false alarm or false calls; 2,562, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,747, or 5%, were reported hazardous condition calls with no fire; 1,506, or 4%, reported good intent calls; 154, or 0.4%, were special incident type calls such as citizen complaints; 56, or 0.1%, were severe weather responses; and 53, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand two hundred and thirty (1,230), or 3%, of the total responses submitted by Barnstable County fire departments were fires.



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

Barnstable County Departments Gave Aid 1039 Times

In 2008, Barnstable County fire departments reported coming to the aid of other fire departments 1,039 times. Of these 1,039 responses, 611, or 59%, were for rescue or EMS incidents; 148, or 14%, were for fires; 124, or 12%, were for service calls such as cover assignments; 93, or 9%, were for good intent calls; 38, or 4%, were for hazardous conditions calls with no fire; 23, or 2%, were for false alarms or false calls; one, or 0.1% was an overpressure, rupture, explosion or overheat call with no fire; and one, or 0.1%, were special incident type.

Barnstable County Received Mutual Aid in 748 Incidents

In 2008, Barnstable County fire departments received aid from surrounding departments in 748 incidents. Of these 748 incidents, 511, or 68%, were rescue and emergency medical services calls; 128, or 17%, were for fires; 38, or 5%, were false alarms or false calls; 29, or 4%, were hazardous conditions calls with no fire; 28, or 4%, were good intent calls; 11, or 1%, were service calls; and three, or 0.4%, were overpressure, rupture, explosion or overheat calls with no fire.

Barnstable County Population: 222,230

4.9 Fires/1,000 Population

Total Fires:	**1,081**		**$10,337,845**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	481	44%	$9,675,121
Vehicle Fires	124	12%	510,647
Other Fires	476	44%	152,077

5 Fatal Fires	5.55 Civilian Deaths/1,000 Fires
6 Civilian Deaths	0.27 Civilian Deaths/10,000 Population
40 Civilian Injuries	18 Fire Service Injuries

Building Fires: 459

Residential Structure Fires: 386

Residential Structure Fires Confined to Non-Combustible Containers: 222

Unconfined Residential Structure Fires: 164

6 Civilian Deaths 26 Civilian Injuries 16 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	300	78%
Apartments	47	12%
Hotels, motels	10	3%
Dormitories	10	3%
Rooming houses	8	2%

Detector Status	**Fires**	**%**
Operated	155	41%
Didn't operate	21	5%
None	15	4%
Fire too small	32	8%
Didn’t Alert (confined)	54	14%
Undetermined	110	28%

Area of Origin[6]	**%**
Kitchen	44%
Chimney or flue	12%
Heating room or area	10%
Bedroom	5%
Living room	4%

Heat Source	**%**	**%Unconfined**[7]
Heat from operating eq.	6%	15%
Arcing	6%	15%
Radiated heat/oper. eq.	5%	12%
Cigarettes	4%	9%
Hot or smoldering object	3%	7%
Hot ember or ash	3%	6%

[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 Ignited[8]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[9]**
Food, cooking materials	37%	Abandoned materials	5%	11%
Film, residue (creosote)	12%	Too close to combustibles	4%	10%
Flammable or comb. liquid	9%	Misuse of mater. or prod.	3%	7%
Electrical wire, cable insulation	7%	Mechanical failure, malfunct.	2%	5%
Structural member, framing	5%	Failure to clean	2%	5%

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Cooking equipment	40%	Unintentional	26%	62%
None	31%	Failure of eq. or heat source	7%	16%
Chimney or flue	12%	Intentional	2%	4%
Boiler, furnace, cent. heat unit	9%	Act of nature	1%	2%
Clothes dryer	2%	Undetermined	2%	4%
		Cause Under Investigation	5%	11%

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

Alerted Occupants	42%
Didn't Alert Occupants	24%
Undetermined	33%

[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	59	41	13	5
February	59	38	6	15
March	113	44	10	59
April	156	45	6	105
May	112	38	9	65
June	105	39	13	53
July	106	41	14	51
August	83	39	14	30
September	68	32	8	28
October	65	32	12	21
November	84	50	8	26
December	71	42	11	18

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	153	69	18	66
Monday	154	73	15	66
Tuesday	172	81	19	72
Wednesday	154	78	17	59
Thursday	162	55	18	89
Friday	158	79	18	61
Saturday	128	46	19	63

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	67	34	15	18
04:01 - 08:00	52	26	11	15
08:01 - 12:00	173	74	29	70
12:01 - 16:00	289	102	27	160
16:01 - 20:00	330	152	32	146
20:01 - 24:00	170	93	10	67

Motor Vehicle Fires

Total: 124
Automobiles: 90 (73%)
5 (6%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 93 **Dollar loss: $257,332**

0.4 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	12	2%	13%	$185,400
Vehicle Arsons	7	6%	7%	66,097
Other Arsons	74	16%	80%	5,835

0.05 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.33 Other arsons/1,000 population

1 Civilian Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	3	25%	00:01 - 04:00	3	43%
16:01 - 20:00	3	25%	16:01 - 20:00	2	29%

Other Arsons	#	%
16:01 - 20:00	31	42%
12:01 - 16:00	23	31%
20:01 - 00:00	13	18%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	5	42%
High/junior high/middle schools	2	17%

Town of Barnstable Fire Districts **Population: 47,821**

Barnstable ***Est Pop. Protected: 3,237***

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
2004	27	9	6	12	2	0	0	2
2005	32	10	4	18	1	0	0	1
2006	26	6	4	16	2	0	0	2
2007	23	8	4	11	0	0	0	0
2008	16	7	3	6	1	0	0	1

Centerville - Osterville - Marston Mills ***Est Pop. Protected: 23,380***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	88	48	12	28	13	4	0	9
2005	82	40	11	31	6	1	1	4
2006	84	35	11	38	10	0	1	9
2007	88	42	9	37	4	0	0	4
2008	80	30	12	38	7	0	0	7

Cotuit ***Est Pop. Protected: 3,173***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	0	1	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	2	1	0	1	0	0	0	0
2007	3	2	0	1	0	0	0	0
2008	3	1	2	0	0	0	0	0

Hyannis ***Est Pop. Protected: 12,543***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	192	71	30	91	20	8	3	9
2005	147	56	22	69	12	5	0	7
2006	133	43	17	73	10	5	1	4
2007	134	47	13	74	20	2	2	16
2008	158	57	18	83	8	2	1	5

West Barnstable ***Est Pop. Protected: 5,488***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	0	2	0	1	0	1	0
2005	37	10	5	22	1	0	0	1
2006	26	13	4	9	1	0	0	1
2007	10	3	3	4	1	0	0	1
2008	18	8	2	8	1	0	0	1

Bourne **Population: 18,721**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	70	18	24	28	0	0	0	0
2005	73	39	12	22	2	0	0	2
2006	85	33	13	39	12	5	2	5
2007	94	38	14	42	6	1	1	4
2008	88	40	14	34	5	0	1	4

Brewster **Population: 10,094**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	42	20	2	20	3	1	0	2
2005	6	3	0	3	1	1	0	0
2006	80	31	5	44	7	0	0	7
2007	63	33	1	29	2	0	0	2
2008	51	32	7	12	0	0	0	0

Chatham **Population: 6,625**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	20	8	2	10	0	0	0	0
2005	36	16	3	17	1	1	0	0
2006	32	13	2	17	0	0	0	0
2007	23	9	1	13	0	0	0	0
2008	31	13	8	10	1	0	1	0

Dennis **Population: 15,973**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	108	30	13	65	11	4	3	4
2005	85	20	8	57	3	0	0	3
2006	104	23	8	73	1	0	0	1
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	66	28	2	36	2	1	0	1

Eastham **Population: 5,453**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	27	20	2	5	0	0	0	0
2005	21	8	6	7	0	0	0	0
2006	24	6	6	12	0	0	0	0
2007	24	16	2	6	0	0	0	0
2008	23	13	0	10	0	0	0	0

Falmouth **Population: 32,660**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	73	28	23	22	8	1	2	5
2005	115	62	16	37	12	4	1	7
2006	77	34	14	29	10	2	3	5
2007	86	41	14	31	9	3	1	5
2008	162	44	15	103	48	8	1	39

Harwich **Population: 12,386**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	53	24	13	16	1	0	0	1
2005	52	30	8	14	0	0	0	0
2006	65	33	9	23	2	0	0	2
2007	63	26	7	30	0	0	0	0
2008	42	25	3	14	4	0	0	4

MA Military Reservation[12] **Population: 0**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Federal Fire Department - Did Not Report to the State.							
2005	Federal Fire Department - Did Not Report to the State.							
2006	Federal Fire Department - Did Not Report to the State.							
2007	Federal Fire Department - Did Not Report to the State.							
2008	0	0	0	0	0	0	0	0

Mashpee **Population: 12,946**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	52	19	11	22	2	0	0	2
2005	64	24	6	34	1	1	0	0
2006	71	40	7	24	2	0	1	1
2007	60	27	7	26	3	1	1	1
2008	64	27	7	30	3	0	1	2

Orleans **Population: 6,341**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	49	12	7	30	5	0	0	5
2005	36	15	2	19	0	0	0	0
2006	35	6	6	23	3	0	0	3
2007	40	8	2	30	3	0	0	3
2008	32	15	4	13	2	0	0	2

Provincetown **Population: 3,431**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	26	17	1	8	0	0	0	0
2005	27	14	5	8	1	0	0	1
2006	16	9	1	6	0	0	0	0
2007	47	23	5	19	13	8	1	4
2008	26	16	0	10	0	0	0	0

[12] The MA Military Reservation (MMR) Fire Department became a state fire department in October 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: 20,136**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	139	86	16	37	4	0	0	4
2005	174	111	15	48	8	2	1	5
2006	139	79	11	49	1	0	0	1
2007	126	84	14	28	3	0	0	3
2008	104	71	10	23	1	0	1	0

Truro **Population: 2,087**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	1	1	0	1	0	1	0
2005	3	3	0	0	0	0	0	0
2006	3	3	0	0	0	0	0	0
2007	2	2	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Wellfleet **Population: 2,749**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	45	19	2	24	2	1	0	1
2005	38	19	9	10	0	0	0	0
2006	25	18	3	4	1	1	0	0
2007	20	6	3	11	0	0	0	0
2008	27	16	2	9	0	0	0	0

Yarmouth **Population: 24,807**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	134	51	19	64	13	3	2	8
2005	110	44	15	51	4	0	1	3
2006	84	34	11	39	6	1	1	4
2007	150	40	20	90	19	1	1	17
2008	89	37	15	37	10	1	1	8

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
01919	Barnstable	873	17	1	579	35	78	36	125	1	1
01036	Bourne	3,547	97	17	2,628	146	126	76	417	3	37
01041	Brewster	1,642	70	2	1,055	88	91	71	250	11	4
01920	C.O.M.M.	3,781	93	4	2,666	171	250	119	439	6	33
01055	Chatham	2,481	41	0	1,633	109	200	177	312	4	5
01921	Cotuit	3	3	0	0	0	0	0	0	0	0
01075	Dennis	4,635	83	6	3,337	211	367	148	453	4	26
01086	Eastham	252	29	1	2	52	41	10	108	7	2
01096	Falmouth	250	163	0	0	22	17	1	47	0	0
01126	Harwich	3,744	72	2	2,580	193	397	179	317	3	1
01922	Hyannis	272	159	2	0	56	0	3	52	0	0
01172	Mashpee	2,881	73	2	1,851	132	257	136	427	1	2
01936	Ma Military Res.	179	4	0	14	41	52	10	58	0	0
01224	Orleans	2,249	48	2	1,775	61	64	62	223	2	12
01242	Provincetown	171	27	2	16	38	12	21	49	0	6
01261	Sandwich	3,497	106	4	2,452	159	289	141	319	8	19
01300	Truro	1	1	0	0	0	0	0	0	0	0
01318	Wellfleet	1,115	32	0	822	42	60	50	105	2	2
01923	West Barnstable	532	22	2	386	30	24	23	44	1	0
01351	Yarmouth	6,395	90	6	5,042	161	237	243	609	3	4
Total	**Barnstable County**	**38,500**	**1,230**	**53**	**26,838**	**1,747**	**2,562**	**1,506**	**4,354**	**56**	**154**

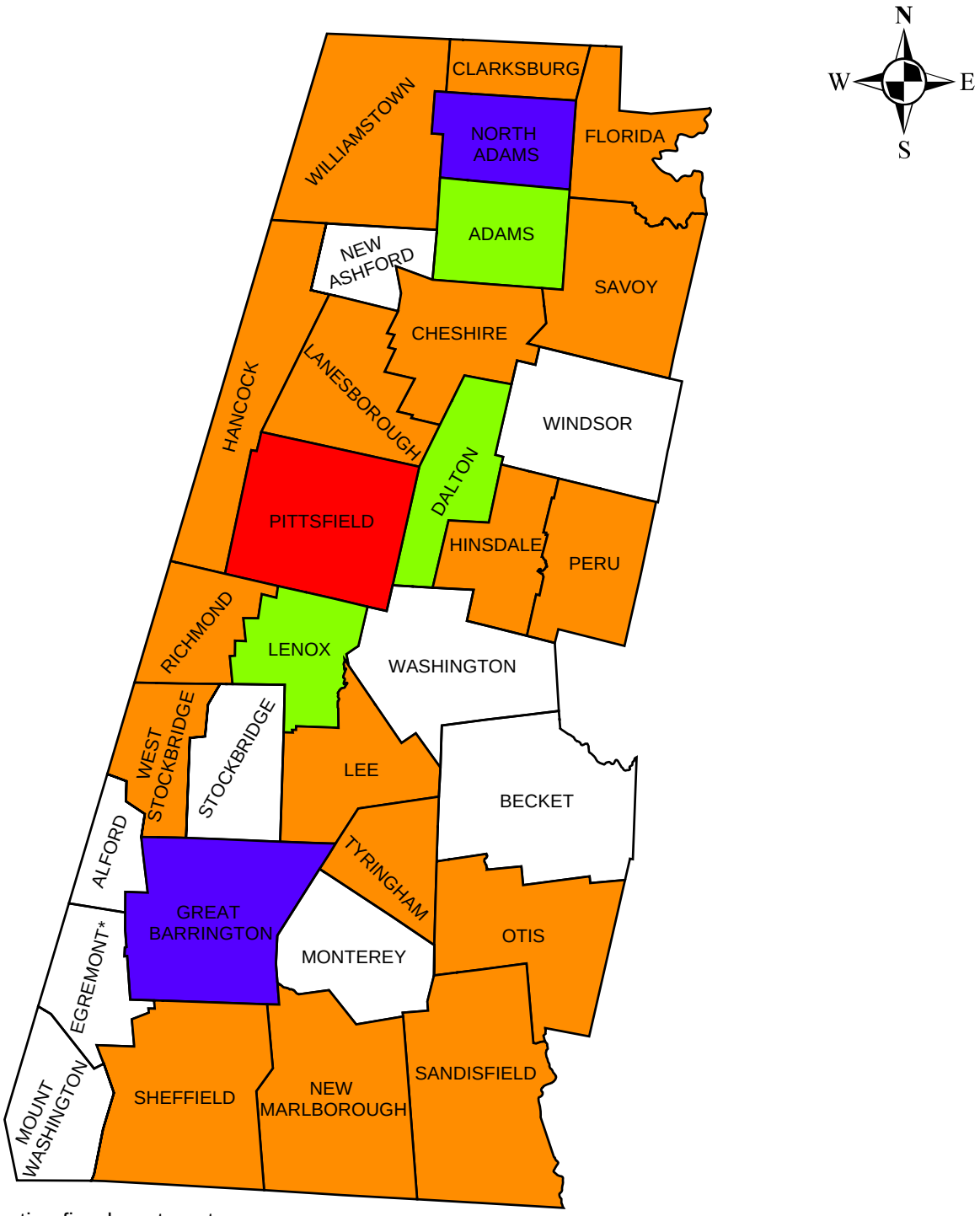
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

Berkshire County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Berkshire County Fires in 2008



* Non-reporting fire department

2008 Fires

- 0
- 1 - 25
- 26 - 50
- 51 - 75
- 76 - 100
- 101 - 325

0 3.75 7.5 15 22.5 30 Miles

Massachusetts Fire Incident Reporting System 2008

Berkshire County Fires in 2008

713 Total Fires — 430 Structures, 46 Vehicles & 237 Outside and Other Fires
Berkshire County ranked tenth out of the fourteen Massachusetts counties in total reported fires. Berkshire County Fire Departments reported 713 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 430 structure fires, 46 motor vehicle fires, 121 brush, tree or lawn fires, 58 outside rubbish fires, 28 special outside fires, one cultivated crop or vegetation fire, and 29 other fires caused one civilian death, seven civilian injuries, seven fire service injuries and an estimated dollar loss of $7 million. Berkshire County's fires accounted for 2% of the 30,136 Massachusetts fires reported in 2008.

Twenty-nine (29) of the 31 fire departments in Berkshire County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2008.

Structure & Outside & Other Fires Up
The total number of reported fire incidents increased by 40 from the 673 reported in 2007. Reported structure fires increased by 55 from the 375 reported during the previous year. Motor vehicle fires decreased by 16 from the 62 reported the year before. Outside and other fires increased by one from the 236 reported in 2007.

Berkshire County was one of only three counties that saw an increase in brush fires in 2008. Reported brush fires in Berkshire County increased by 29, or 32% from 2007. Brush fires across the entire state decreased by 27%. In 2007 when most of the state saw a dramatic increase in brush fires, Berkshire County, went the opposite way with a 43% decrease in brush fires from 2006.

BERKSHIRE COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	629	343	71	215	41	15	2	24
2005	723	381	51	291	52	12	1	39
2006	736	392	47	297	46	10	7	30
2007	673	375	62	236	30	12	1	17
2008	713	430	46	237	42	8	1	33

Fire and Fire Death Rates
Berkshire County had 5.3 fires per 1,000 population. That figure ranks Berkshire County fourth in the state and above the state rate of 4.8 fires per 1,000 population. Berkshire County also had 0.07 fire deaths per 10,000 populations ranking it seventh among Massachusetts counties and just below the state rate of 0.08 fire deaths per 10,000 population.

Berkshire Resident Killed in Smoking Fire

- On April 27, 2008, at 12:15 p.m., the Pittsfield Fire Department was called to a fatal smoking fire in a two-family home. A cigarette ignited the upholstered chair that the victim was sitting on. The victim was a 45-year old man. His clothes also ignited. He was possibly impaired by alcohol. No one else was injured at this fire. Smoke detectors were present but failed to operate because of a missing battery. There were no sprinklers. Damages from this fire were estimated to be $75,000.

Sandisfield Had Berkshire County's Largest Loss Fire

- On February 1, 2008, at 5:25 a.m., the Sandisfield Fire Department was called to a fire in a single-family home of undetermined cause. 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 $747,949.

STRUCTURE FIRES

Reported Structure Fires Up

The 430 structure fires caused one civilian death, six civilian injuries, seven fire service injuries and an estimated dollar loss of $6.6 million. These incidents represented 60% of Berkshire County's reported fires in 2008. The average estimated dollar loss per structure fire was $15,320. The total number of reported structure fires increased by 55, or 15%, from the 375 reported in 2007.

Arson Caused of 2% of Structure Fires

The eight structure arsons caused an estimated dollar loss of $1,250. Arson was indicated as the cause of 2% of the structure fires and less than 1% of Berkshire County's structure fire dollar loss. The eight structure arsons accounted for 19% of the Berkshire County arson fires reported in 2008. The total number of reported structure arsons decreased by four from 12 in 2007.

38% of Structure Arsons Occurred in Residences

Three (3), or 38%, of Berkshire County's eight structure arsons occurred in residential occupancies. Two (2) occurred in special properties, and one occurred each in a public assembly property, an educational facility, and a business.

BUILDING FIRES

There were 427 building fires of different types in Berkshire County in 2008. These 427 building fires accounted for 99.3% of all structure fires in Berkshire County.

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

Three hundred and twenty-one (321), or 75%, of Berkshire County's 427 building fires occurred in residential occupancies. Twenty-four (24) fires took place in public assembly properties, including restaurants and churches. Twenty-three (23) fires occurred at educational facilities. Special properties had 17 fires. Storage facilities had 15 fires. Mercantile and business properties had 12 fires. Hospitals, prisons, and other institutional

buildings experienced 11 fires. Two (2) fires occurred at industrial facilities and two fires occurred at manufacturing and processing facilities in Berkshire County in 2008.

RESIDENTIAL FIRES

Residential Building Fires Up

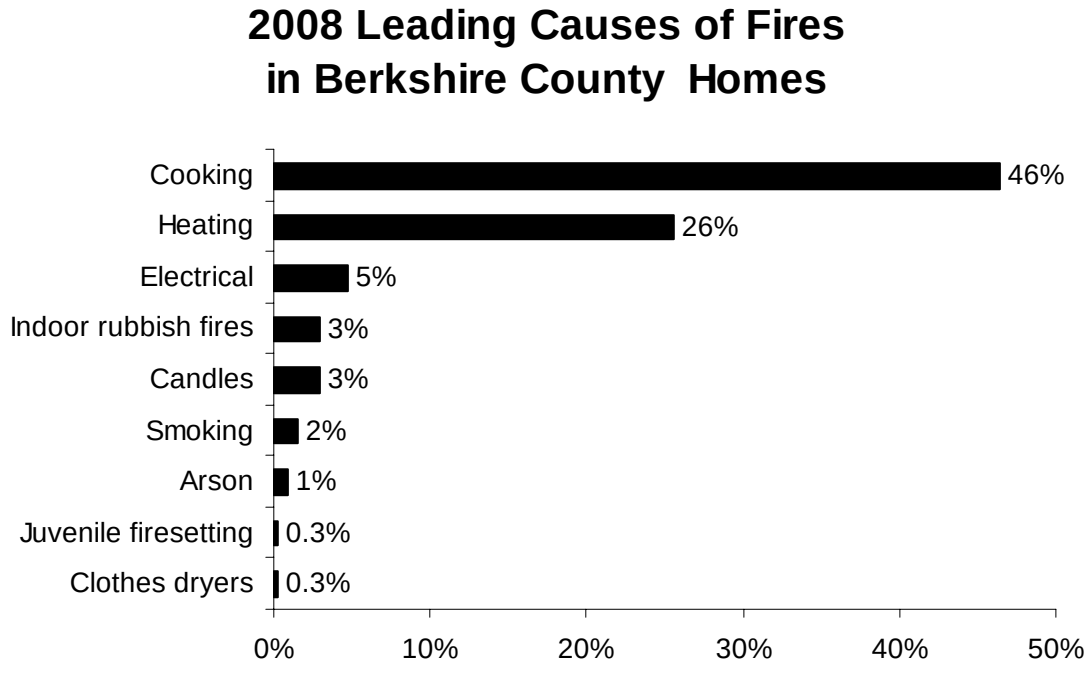
There were 321 reported residential building fires in Berkshire County in 2008. These 321 fires are an increase of 26, or 9%, from the 295 residential building fires reported in 2007.

1- & 2-Family Homes Accounted for Almost 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 Berkshire County; 32% occurred in apartments; 4% happened in hotels or motels; 2% occurred in dormitories; 1% occurred in rooming houses; and another 1% happened in residential board and care facilities. Six (6), or 1% of the building fires in Berkshire County, occurred in unclassified residential buildings.

Unattended Cooking Causes 46% of Residential Fires

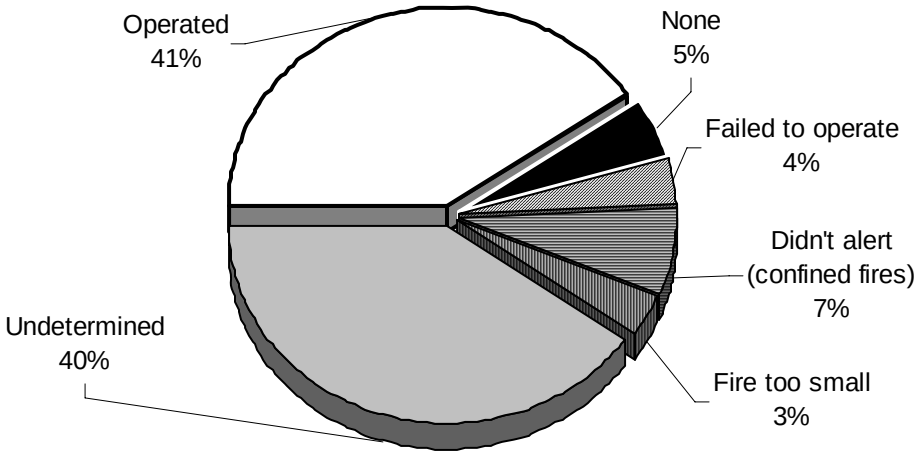
The leading cause of residential building fires in Berkshire County was unattended cooking and other unsafe cooking practices, accounting for 46% of the fires. Heating caused 26% of the residential building fires; of which 33, or 35%, were caused by chimney, fireplace or flue fires. Electrical problems caused 5% of the fires. Indoor rubbish fires and candles each caused 3%. Smoking caused 2% of these fires. Arson caused 1% of these fires. Juvenile-set fires and candles were each responsible for less than 1% of Berkshire County's residential building fires in 2008.



71% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Two hundred and twenty-eight (228), or 71%, of these fires were confined to a non-combustible container. One hundred and thirty-six (136), or 42%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Fires confined to a fuel burner or boiler malfunction accounted for 50, or 16%. Thirty (30) of the reported fires were confined to a chimney accounting for 9% of residential building fires. Twelve (12), or 4%, of these fires in Berkshire County in 2008 were indoor rubbish fires.

Detectors Alerted Occupants in 41% of Fires
Smoke or heat detectors operated and alerted the occupants in 130, or 41%, of the residential building fires. In 7% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 4% of these incidents. In 5% 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 106 incidents, or 40% of Berkshire County's residential building fires.

Detector Status in Berkshire County's Residential Structure Fires 2008



[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.

Over 1/2 of Failed Detectors Had Missing or Disconnected Batteries

Of the 12 fires where smoke detectors were present but failed to operate, seven, or 58%, failed because the batteries were either missing or disconnected. Two (2) detectors failed because of a power failure or shut-off, causing 17% of the failed detectors in Berkshire County in 2008. One (1), or 8%, failed due to dead batteries. Another detector was defective (8%), and another detector failed because it was improperly placed (8%).

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Berkshire County reported 12 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 427 building fires reported to MFIRS in 2008. Three (3) one- or two-family homes, two unclassified residential properties, one apartment building, one business; one outbuilding or shed, on warehouse, one detached residential parking garage, one livestock or poultry storage facility, and one clubhouse were reported as vacant building fire incidents.

Two (2), or 17%, of the vacant building fires in Berkshire County in 2008 was determined to be intentionally set. One of these fires occurred in a clubhouse while the other occurred at an unclassified business.

JUVENILE-SET FIRES

14 Juvenile-set Fires

There were 10 reported juvenile-set fires in Berkshire County in 2008. The two structure fires, seven brush fires, and one unclassified fire caused one civilian injury and $210 in estimated damages.

ARSONS

42 Total Arsons — 8 Structures, 1 Vehicle & 33 Other Arsons

Forty-two (42), or 6%, of Berkshire County's 713 fires were intentionally set, or, for purposes of this analysis, arson[4]. The eight structure arsons, one motor vehicle arson and 33 outside and other arsons caused an estimated dollar loss of $2,946.

Outside & Other Arsons Up

[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

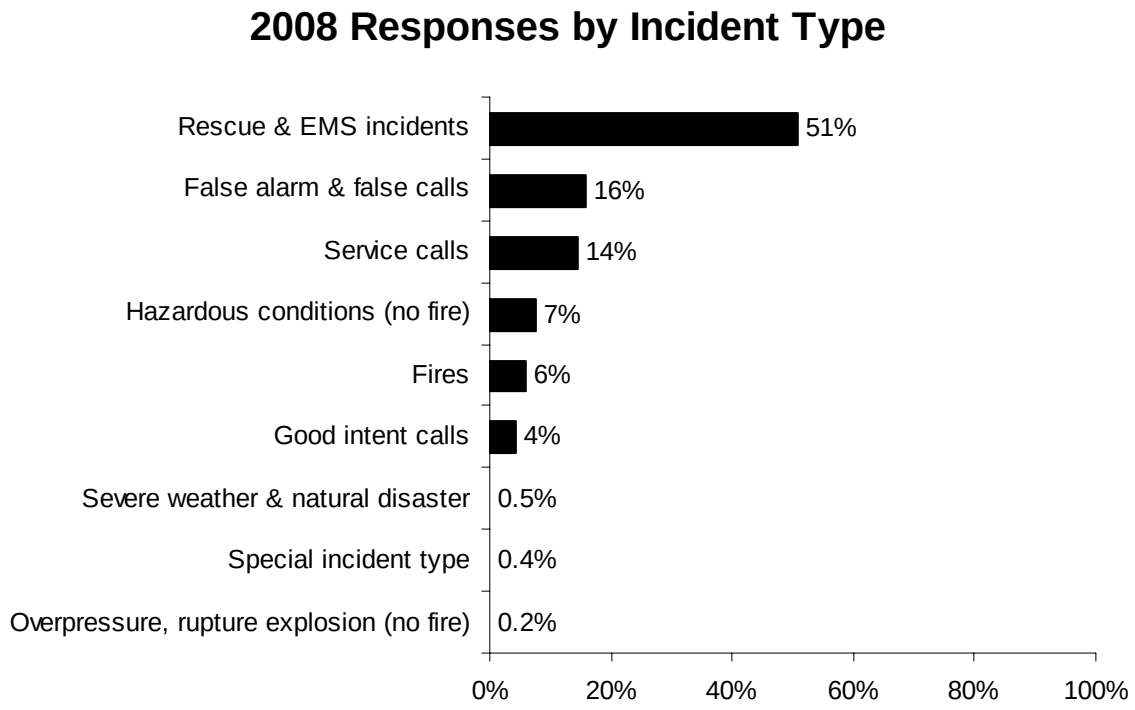
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

The total number of reported arson fires increased by 12 from the 30 reported in 2007. Reported structure arsons decreased by four from 12 in 2007. Motor vehicle arsons remained the same with one incident reported in both 2007 and 2008. Reported outside and other arsons increased by 16 from the 17 reported in 2007.

ALL INCIDENTS

Rescue & EMS Calls Are Over 1/2 of All Reported Responses
In 2008, Berkshire County fire departments reported 12,687 responses[5] to MFIRS. Of these 12,687 incidents, 11,921 non-fire incidents were voluntarily reported.

Of these 11,921 non-fire responses 6,453, or 51% of all the responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 2,006, or 16%, were reported false alarm or false calls; 1,824, or 14%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 945, or 7%, were reported hazardous condition calls with no fire; 557, or 4%, were reported good intent calls; 59, or 0.5%, were severe weather responses; 54, or 0.4% were special incident type calls such as citizen complaints; and 23, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.



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

Seven hundred and sixty-six (766), or 6%, of the total responses submitted by Berkshire County fire departments were fires.

Berkshire County Departments Reported Giving Mutual Aid 162 Times

In 2008, Berkshire County fire departments reported coming to the aid of other fire departments 162 times. Of these 162 responses, 67, or 41%, were for rescue or EMS calls; 53, or 33%, were for fires; 23, or 14%, were for service calls such as cover assignments; seven, or 4%, were for severe weather, five, or 3%, were for hazardous conditions calls with no fire; four, or 2% were good intent calls; two, or 1%, were for false alarms; and one, or 1%of all the Berkshire County mutual aid given responses, was a special incident type call.

Berkshire County Received Mutual Aid in 283 Incidents

In 2008, Berkshire County fire departments reported receiving aid from surrounding departments in 283 incidents. Of these 283 incidents, 207, or 73%, were rescue and emergency medical services calls; 53, or 19%, were for fires; 10, or 4%, were hazardous conditions calls with no fire; five, or 2%, were service calls; four, or 1%, were false alarms or false calls; two, or 1%, were severe weather calls; one, or 0.4%, was a good intent call; and one call, or 0.4%, was a special incident type call.

Berkshire County Population: 134,953

5.3 Fires/1,000 Population

Total Fires:	**713**		**$6,997,973**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	430	60%	$6,587,501
Vehicle Fires	46	6%	271,065
Other Fires	237	34%	139,407

1 Fatal Fire — 1.40 Civilian Deaths/1,000 Fires
1 Civilian Death — 0.07 Civilian Deaths/10,000 Population
7 Civilian Injuries — 7 Fire Service Injuries

Building Fires: 427

Residential Structure Fires: 321

Residential Structure Fires Confined to Non-Combustible Containers: 228

Unconfined Residential Structure Fires: 93

1 Civilian Death 4 Civilian Injuries 5 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	188	59%
Apartments	102	32%
Hotels or motels	14	4%
Dormitories	5	2%
Rooming houses	3	1%
Residential board & care	3	1%

Detector Status	**Fires**	**%**
Operated	130	41%
Didn't operate	12	4%
None	16	5%
Fire too small	11	3%
Didn’t alert (confined)	23	7%
Undetermined	129	40%

Area of Origin[6]	**%**
Kitchen	48%
Heating equipment room	16%
Chimney or flue	9%
Bedroom	2%
Living room	2%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat from op. eq.	4%	15%
Arcing	4%	13%
Candles	3%	10%
Heat from operating equip.	2%	9%

[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 Ignited[8]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[9]**
Food, cooking materials	44%	Too close to combustibles	2%	9%
Flammable, combustible liquid	16%	Electrical failure/malfunc.	1%	4%
Film, residue (creosote)	9%	Short-circuit, worn insul.	1%	4%
Rubbish, trash, waste	5%	Equipment unattended	1%	4%
		Mechanical failure/malfunc.	1%	3%

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Cooking equipment	45%	Unintentional	17%	60%
None	21%	Failure of eq. or heat source	3%	11%
Boiler, furnace, cent. heat unit	16%	Intentional	1%	2%
Chimney or flue	9%	Cause under investigation	4%	13%
		Undetermined	3%	10%
		Act of Nature	1%	4%

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

Alerted occupants	43%
Didn't alert occupants	10%
Undetermined	47%

[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	43	35	3	5
February	53	44	3	6
March	50	37	6	7
April	151	44	3	104
May	71	40	4	27
June	39	26	4	9
July	51	28	4	19
August	58	38	3	17
September	52	31	6	15
October	42	30	2	10
November	51	37	4	10
December	52	40	4	8

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	107	60	6	41
Monday	86	55	5	26
Tuesday	100	55	6	39
Wednesday	100	70	3	27
Thursday	85	48	8	29
Friday	128	83	10	35
Saturday	107	59	8	40

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	53	36	7	10
04:01 - 08:00	55	37	5	13
08:01 - 12:00	106	77	7	22
12:01 - 16:00	187	98	7	82
16:01 - 20:00	188	107	12	69
20:01 - 00:00	124	75	8	41

Motor Vehicle Fires

Total: 46
Automobiles: 35 (76%)
1, or (3%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 42 **Dollar loss: $2,946**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	$ Loss
Structure Arsons	8	2%	19%	$1,250
Vehicle Arsons	1	2%	2%	0
Other Arsons	33	14%	79%	1,696

0.06 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.24 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

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

Vehicle Arsons	#	%
12:01 - 16:00	1	100%

Other Arsons	#	%
16:01 - 20:00	9	27%
20:01 - 00:00	8	24%
08:01 - 12:00	6	18%
12:01 - 16:00	6	18%

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

Adams **Population: 8,809**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	38	24	2	12	2	2	0	0
2005	36	23	3	10	2	0	0	2
2006	40	28	3	9	2	0	0	2
2007	30	18	4	8	3	0	0	3
2008	40	31	3	6	3	0	0	3

Alford **Population: 399**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	2	2	0	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Becket **Population: 1,755**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Cheshire **Population: 3,401**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	2	1	0	0	0	0	0
2005	1	0	0	1	0	0	0	0
2006	3	2	0	1	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	8	3	2	3	0	0	0	0

Clarksburg **Population: 1,686**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	1	0	1	0	0	0	0	0
2006	2	1	1	0	0	0	0	0
2007	4	0	0	4	0	0	0	0
2008	3	1	1	1	0	0	0	0

Dalton **Population: 6,892**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	19	11	2	6	6	3	0	3
2005	19	15	0	4	0	0	0	0
2006	25	12	4	9	1	0	1	0
2007	19	14	1	4	0	0	0	0
2008	26	19	1	6	1	1	0	0

Egremont **Population: 1,345**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	10	3	0	7	1	0	0	1
2007	10	8	2	0	0	0	0	0
2008	Non-Reporting Community							

Florida **Population: 676**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	2	1	3	0	0	0	0
2005	1	0	0	1	0	0	0	0
2006	6	3	1	2	0	0	0	0
2007	5	1	2	2	1	0	0	1
2008	2	2	0	0	0	0	0	0

Great Barrington **Population: 7,527**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	81	61	2	18	0	0	0	0
2005	81	65	4	12	2	1	0	1
2006	104	80	3	21	2	0	0	2
2007	97	79	2	16	0	0	0	0
2008	92	73	3	16	1	1	0	0

Hancock **Population: 721**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	3	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	1	1	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0

Hinsdale **Population: 1,872**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	5	5	0	0	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	4	4	0	0	0	0	0	0

Lanesborough **Population: 2,990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	18	5	4	9	0	0	0	0
2005	24	7	4	13	2	0	0	2
2006	15	6	1	8	1	0	0	1
2007	10	2	0	8	0	0	0	0
2008	14	5	0	9	3	0	0	3

Lee **Population: 5,985**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	14	5	9	0	0	0	0	0
2005	9	7	2	0	0	0	0	0
2006	6	6	0	0	0	0	0	0
2007	12	9	3	0	1	1	0	0
2008	8	5	3	0	0	0	0	0

Lenox **Population: 5,077**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	51	33	5	13	0	0	0	0
2005	60	39	2	19	1	1	0	0
2006	62	40	2	20	1	1	0	0
2007	49	37	2	10	0	0	0	0
2008	49	38	0	11	0	0	0	0

Monterey **Population: 934**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	1	0	1	0	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	2	2	0	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							

New Ashford **Population: 247**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	1	1	0	0	0	0	0	0
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

New Marlborough **Population: 1,494**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	1	1	0	0	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	5	3	0	2	0	0	0	0
2008	6	3	2	1	0	0	0	0

North Adams **Population: 14,681**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	46	17	5	24	5	1	0	4
2005	54	21	5	28	3	0	0	3
2006	53	22	2	29	7	3	1	3
2007	82	30	10	42	5	0	0	5
2008	84	47	8	29	6	1	0	5

Otis **Population: 1,365**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006[12]	Fire Department in Good Standing, Certified No Reportable Fires							
2007	2	2	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Peru **Population: 821**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	2	1	3	0	0	0	0
2005	7	4	1	2	0	0	0	0
2006	1	0	0	1	0	0	0	0
2007	3	2	0	1	0	0	0	0
2008	6	2	1	3	1	0	0	1

[12] In 2006, the Otis Fire Department reported 2 non-fire incidents to MFIRS.

Pittsfield **Population: 45,793**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	287	148	34	105	26	9	2	15
2005	379	168	21	190	41	9	1	31
2006	336	155	19	162	26	5	5	16
2007	318	162	31	125	16	8	1	7
2008	312	166	19	127	26	5	1	20

Richmond **Population: 1,604**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	4	1	5	2	0	0	2
2005	8	5	0	3	0	0	0	0
2006	17	8	1	8	2	0	0	2
2007	2	0	1	1	0	0	0	0
2008	17	7	0	10	1	0	0	1

Sandisfield **Population: 824**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	1	1	0	0	0	0	0	0
2008	13	6	1	6	0	0	0	0

Savoy **Population: 705**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	1	1	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0

Sheffield **Population: 3,335**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	1	0	1	0	0	0	0
2005	2	1	1	0	0	0	0	0
2006	3	2	0	1	0	0	0	0
2007	4	2	0	2	0	0	0	0
2008	3	1	0	2	0	0	0	0

Stockbridge **Population: 2,276**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	0	1	0	0	0	0	0
2005	Non-Reporting Community							
2006	1	0	1	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	1	1	0	0	0	0	0	0

Tyringham **Population: 350**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007[13]	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

West Stockbridge **Population: 1,416**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	13	2	1	10	0	0	0	0
2005	10	3	2	5	0	0	0	0
2006	10	0	6	4	0	0	0	0
2007	5	0	1	4	0	0	0	0
2008	5	1	0	4	0	0	0	0

[13] In 2007 Tyringham reported 1 EMS call to MFIRS.

Williamstown **Population: 8,424**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	19	14	1	4	0	0	0	0
2005	19	12	4	3	0	0	0	0
2006	31	17	3	11	3	0	0	3
2007	8	5	2	1	2	1	1	0
2008	16	11	2	3	0	0	0	0

Windsor **Population: 875**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	5	2	1	2	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	4	0	0	4	0	0	0	0
2007	2	1	1	0	0	0	0	0
2008	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
03004	Adams	374	50	0	75	60	33	26	125	4	1
03058	Cheshire	11	9	0	0	0	2	0	0	0	0
03063	Clarksburg	12	12	0	0	0	0	0	0	0	0
03070	Dalton	749	26	1	551	39	47	14	70	0	1
03098	Florida	84	2	0	51	8	13	4	2	4	0
03113	Great Barrington	538	96	2	158	33	28	16	200	5	0
03121	Hancock	2	2	0	0	0	0	0	0	0	0
03132	Hinsdale	4	4	0	0	0	0	0	0	0	0
03148	Lanesborough	316	14	1	218	14	21	15	23	5	5
03150	Lee	8	8	0	0	0	0	0	0	0	0
03152	Lenox	610	54	2	95	51	135	17	251	5	0
03200	New Ashford	1	1	0	0	0	0	0	0	0	0
03203	New Marlborough	201	11	1	124	11	3	4	47	0	0
03209	North Adams	1,405	84	2	359	139	336	97	375	2	11
03225	Otis	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 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
03233	Peru	67	8	0	35	16	1	1	4	2	0
03236	Pittsfield	7,725	314	13	4,608	500	1,154	310	762	31	33
03249	Richmond	88	21	0	15	12	18	0	22	0	0
03260	Sandisfield	154	18	0	97	15	5	0	19	0	0
03263	Savoy	2	2	0	0	0	0	0	0	0	0
03267	Sheffield	3	3	0	0	0	0	0	0	0	0
03283	Stockbridge	1	0	0	0	0	0	0	0	0	0
03326	West Stockbridge	106	7	0	60	4	8	1	23	0	3
03341	Williamstown	226	19	1	7	43	20	52	83	1	0
Total	**Berkshire County**	**12,687**	**766**	**23**	**6,453**	**945**	**1,824**	**557**	**2,006**	**59**	**54**

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 2008

312 Total Fires — 166 Structures, 19 Vehicles & 127 Other Fires
The Pittsfield Fire Department reported 312 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 166 structure fires, 19 motor vehicle fires, 57 brush fires, 40 outside rubbish fires, 23 special outside fires; and seven unclassified fires caused one civilian death, two civilian injuries, four firefighter injuries and an estimated dollar loss of $2 million.

1 Male Resident Killed in a Smoking Fire

- On April 27, 2008, at 12:15 p.m., the Pittsfield Fire Department was called to a fatal smoking fire in a two-family home. A cigarette ignited the upholstered chair that the victim was sitting on. The victim, a 45-year old man, clothes also ignited. He was possibly impaired by alcohol. No one else was injured at this fire. Smoke detectors were present but failed to operate because of a missing battery. There were no sprinklers. Damages from this fire were estimated to be $75,000.

Structure Fires Up in Slightly 2008
Total fires decreased by five from the 317 incidents reported in 2007. Reported structure fires were increased by 11 from the 155 reported during the previous year. Motor vehicle fires decreased by 12 from 31 the year before. Outside and other fires decreased by four from the 131 reported in 2007.

PITTSFIELD FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	287	148	34	105	26	9	2	15
2005	379	168	21	190	41	9	1	31
2006	336	155	19	162	26	5	5	16
2007	317	155	31	131	16	8	1	7
2008	312	166	19	127	26	5	1	20

BUILDING FIRES

There were 163 building fires of different types in Pittsfield in 2008. These 163 building fires accounted for 98.2% of all structure fires in Pittsfield.

71% of Building Fires in Homes
The 163 building fires that occurred in Pittsfield in 2008 can be broken down by fixed property use as follows: 115, or 71% of all building fires, were in residential properties; 15 fires occurred in special properties; nine fires occurred in public assembly properties; eight fires happened in storage facilities; six fires occurred in educational facilities; five happened in mercantile or business properties; three fires occurred in institutional facilities; one fire occurred at a manufacturing or processing facility; and one fire occurred at a forest processing facility.

RESIDENTIAL FIRES

Residential Building Fires Down

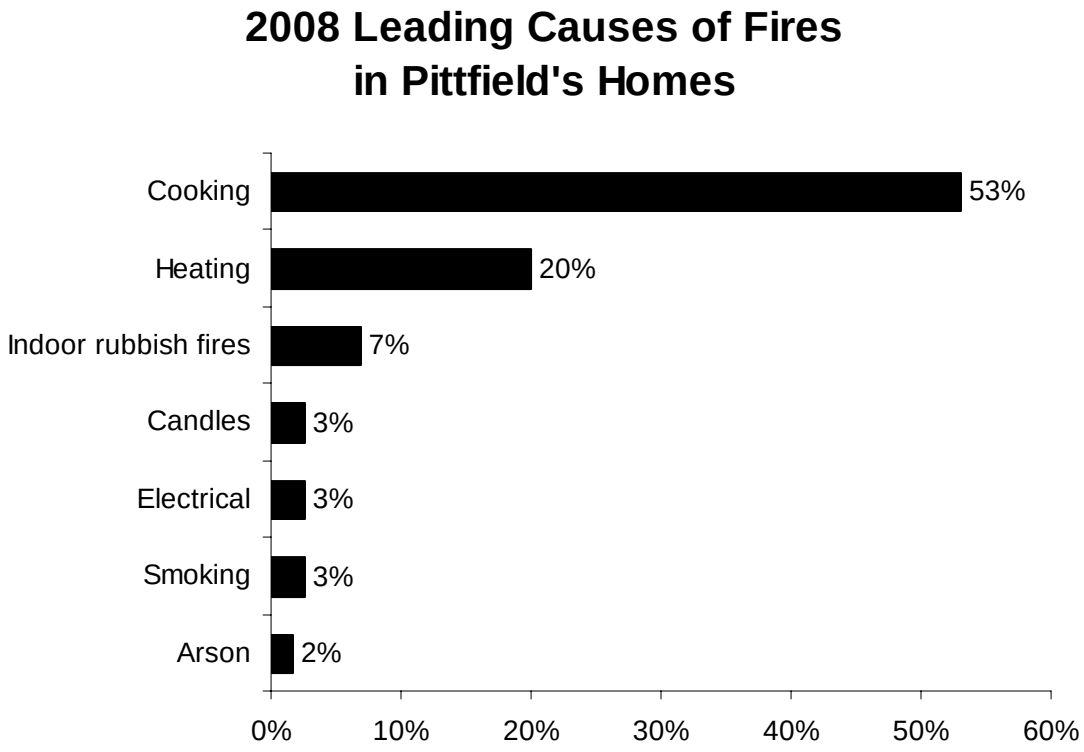
There were 115 reported residential building fires in Pittsfield in 2008. These 115 fires are an increase of 11 from the 126 reported residential building fires reported in 2007.

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

The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 58% of the building fires in Pittsfield; 36% occurred in apartments; 2% happened in rooming houses; 2% occurred in hotels and motels 1% happened in residential board and care facilities; and 1% occurred in unclassified residential buildings.

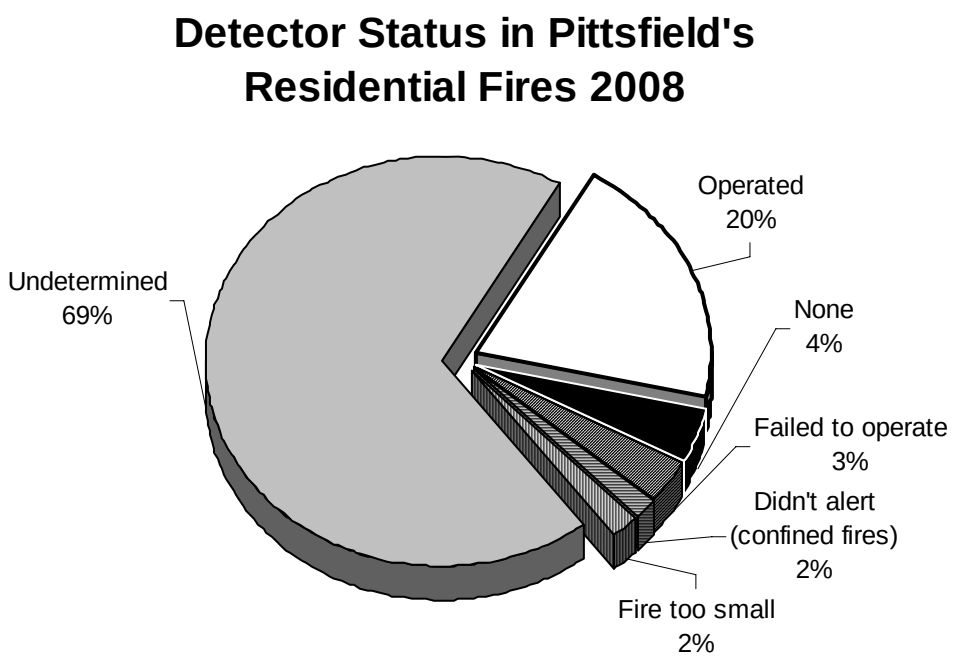
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Pittsfield was unattended cooking and other unsafe cooking practices, accounting for 53% of these fires. Heating fires caused 20% of these fires. Indoor rubbish fires caused 7% of residential fires. Candles, electrical problems and smoking each caused 3% of the fires. Arsons were the cause of 2% of the fires in Pittsfield's residential occupancies in 2008.



74% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Eighty-five (85), or 74% of all residential building fires were confined to non-combustible containers in 2008. Fifty-three (53), or 46%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Nineteen (19), or 17%, were fires confined to a fuel burner or boiler malfunction. Nine (9), or 8%, of these fires, were rubbish fires contained to a non-combustible container. Four (4) fires, or 1%, were reported to have been contained to a chimney or flue.

Detectors Worked in Only 1/4 of Fires
Smoke or heat detectors operated and alerted the occupants in 23, or 20%, of the residential building fires. In 2% of these fires[2], the detectors did not alert the occupants. There were no detectors in 4% of these fires. Detectors were present but did not operate in 3% of these incidents. The fire was too small to trigger the detector in 2% of these fires. Smoke detector performance was undetermined in 79 incidents, or 69% of Pittsfield's residential building fires.



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.

[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 of 4 Detectors Failed Detectors From a Missing Battery

Of the four fires where smoke detectors were present but failed to operate, three, or 75%, failed because of a missing battery. Improper installation or placement, or 25%, was the reason the other detector failed to operate.

VACANT BUILDINGS

4% of Building Fires Occurred in Vacant Buildings

Pittsfield reported seven fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 4% of the total 163 building fires reported to MFIRS in 2008. Two (2) 1- or 2-family homes, one apartment, one country club clubhouse, one unclassified business, and one detached residential parking garage were reported as vacant building fire incidents.

JUVENILE-SET FIRES

1 Juvenile-set Fire

There was one juvenile-set fires in Pittsfield in 2008. This structure fire caused an estimated $5,000 in damages.

ARSONS

26 Arsons[4] - 5 Structure, 1 Motor Vehicle and 20 Outside & Other

Twenty-six (26), or 8%, of Pittsfield's 312 fires were considered intentionally set, or, for purposes of this analysis, arson. There were five structure arsons, one motor vehicle arson and 20 outside and other arsons.

Outside & Other Arsons Up

The total number of arsons increased by 10 from the 16 reported in 2007. Reported structure arsons decreased by three from the eight reported in 2007. Reported motor vehicle arsons remained the same with one reported in both 2007 and 2008. Outside and other arsons increased by 13 from the seven reported the year before.

91 Fires Reported as Undetermined or Still Under Investigation

In 2008, Pittsfield reported 91 fires under investigation or cause undetermined after investigation. Eighty-three (83), or 91%, of these fires were reported to be undetermined after investigation. The other eight, or 9%, were still under investigation.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

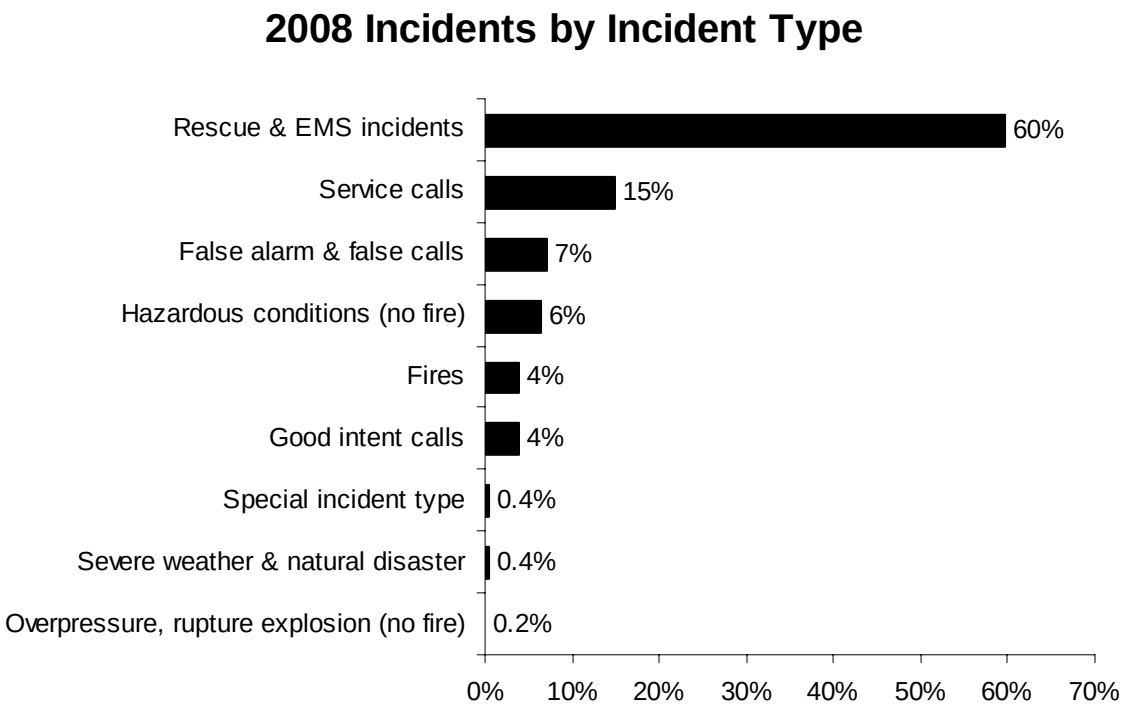
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

Twenty-five (25), or 27%, of these 91 fires were structure fires. Five (5), or 5% were motor vehicle fires; and 61, or 67%, 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 2008.

Rescue & EMS Calls Are 60% of All Reported Incidents
In 2008, Pittsfield voluntarily reported 7,725 incidents to MFIRS. Of these 7,725incidents, 7,411, or 96%, were non-fire incidents.

Of these 7,411 non-fire incidents 4,608, or 60% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 1,154, or 15%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 762, or 7%, were reported false alarm or false calls; 500, or 6%, were reported hazardous condition calls with no fire; 310, or 4%, were reported good intent calls; 33, or 0.4%, were special type incidents; 31, or 0.4%, were severe weather calls; and 13, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2008, Pittsfield reported 314 fires, accounting for 4% of all reported incidents.



Pittsfield Gave Mutual Aid in 4 Incidents

In 2008, Pittsfield reported giving mutual aid to other surrounding fire departments in four incidents. Two, or 50%, were for fires; and the other two, or 50%, were for hazardous condition calls with no fire.

Pittsfield Received Mutual Aid in 3 Incidents

In 2008, surrounding fire departments gave aid to Pittsfield in three incidents. Of these three incidents, one, or 33%, was for a fire; one, or 33%, was a service call; and one, or 33%, was a rescue or EMS call.

Pittsfield Population: 45,793

6.8 Fires/1,000 Population

Total Fires:	**312**		**$2,051,550**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	166	53%	$1,982,840
Vehicle Fires	19	6%	64,915
Other Fires	127	41%	3,795

1 Civilian Death	3.21 Civilian Deaths/1,000 Fires
1 Fatal Fire	0.22 Civilian Deaths/10,000 Population
2 Civilian Injuries	4 Fire Service Injuries

Building Fires: 163

Residential Structure Fires: 115

Residential Structure Fires Confined to Non-Combustible Containers: 85

Unconfined Residential Structure Fires: 30

1 Civilian Death 1 Civilian Injury 2 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	67	58%
Apartments	41	36%
Hotel/motel	3	3%
Boarding houses	2	2%
Residential board & care	1	1%

Detector Status	**Fires**	**%**
Operated	23	20%
Didn't operate	4	3%
None	5	4%
Fire too small	2	2%
Didn’t Alert (confined)	2	2%
Undetermined	79	69%

Area of Origin[5]	**%**
Kitchen	56%
Heating room or area	17%
Bedroom	3%
Chimney or flue	3%
Living room	3%

Heat Source	**%**	**%Unconfined**[6]
Radiated heat from op. eq.	5%	20%
Arcing	3%	13%
Candles	3%	10%
Cigarettes	3%	10%
Heat from operating equip.	3%	10%
Hot ember or ash	2%	7%

[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 Ignited[7]	**%**
Cooking materials	50%
Flammable or combustible liq.	17%
Rubbish, trash, waste	9%
Structural member, framing	3%
Film, residue (creosote)	3%

Factor Contrib. to Ignition	**%**	**%Unconfined**[8]
Equipment unattended	3%	10%
Abandoned materials	1%	3%
Too close to combustibles	1%	3%

Equipment[9]	**%**
Cooking equipment	52%
None	18%
Boiler, furnace, cent. heat. unit	17%
Chimney or flue	3%

Cause of Ignition	**%**	**%Unconfined**[10]
Unintentional	12%	47%
Intentional	1%	3%
Failure of eq./heat source	3%	10%
Cause Under Investigation	4%	17%
Undetermined	5%	20%
Act of nature	1%	3%

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

Alerted Occupants	15%
Didn't Alert Occupants	2%
Undetermined	83%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	4,608	60%
Service calls	1,154	15%
False alarms & false calls	762	7%
Hazardous conditions (no fire)	500	6%
Fires[11]	314	4%
Good intent calls	310	4%
Special Incident Types	33	0.4%
Severe weather & natural disaster	31	0.4%
Overpressure rupture, explosion or overheat calls (no fire)	13	0.4%

[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.

[11] 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	13	11	1	1
February	15	13	1	1
March	19	15	1	3
April	72	25	1	46
May	30	15	1	14
June	16	9	1	6
July	30	13	1	16
August	30	15	2	13
September	27	12	4	11
October	18	12	0	6
November	27	16	3	8
December	15	10	3	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	50	26	2	22
Monday	37	19	2	16
Tuesday	46	23	2	21
Wednesday	48	29	2	17
Thursday	36	17	3	16
Friday	53	31	3	19
Saturday	42	21	5	16

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	26	15	4	7
04:01 - 08:00	18	13	1	4
08:01 - 12:00	39	23	3	13
12:01 - 16:00	72	38	2	32
16:01 - 20:00	90	43	7	40
20:01 - 24:00	67	34	2	31

Motor Vehicle Fires

Total: 19
Automobiles: 16 (84%)
1 (6%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 26 **Dollar loss: $1,295**

0.6 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	5	3%	19%	$1,200
Vehicle Arsons	1	5%	14%	0
Other Arsons	20	16%	77%	95

0.11 Structure arsons/1,000 population
0.02 Vehicle arsons/1,000 population
0.44 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
04:01 - 08:00	2	40%
08:01 - 12:00	1	20%
16:01 - 20:00	1	20%
50:01 - 00:00	1	20%

Vehicle Arsons	#	%
12:01 - 16:00	1	100%

Other Arsons	#	%
16:01 - 20:00	6	30%
20:01 - 00:00	5	25%
08:01 - 12:00	3	15%
12:01 - 16:00	3	15%

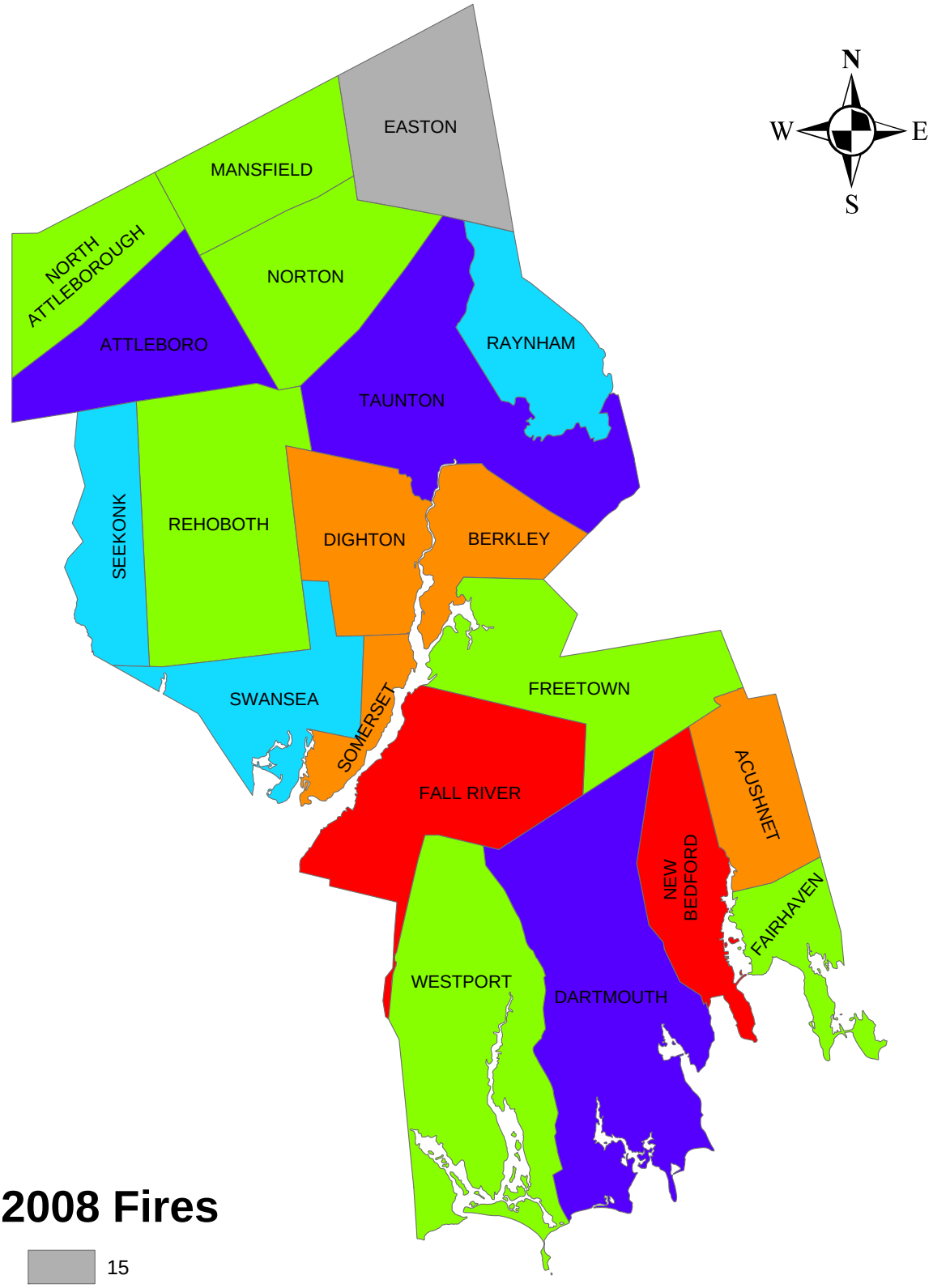
Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	2	40%
Country club clubhouse	1	20%
Mercantile, business, other	1	20%
Railroad right-of-way	1	20%

Bristol County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Bristol County Fires 2008



2008 Fires

- 15
- 16 - 50
- 51 - 75
- 76 - 100
- 101 - 300
- 301 - 475

0 3 6 12 18 24 Miles

Massachusetts Fire Incident Reporting System 2008

Bristol County Fires in 2008

2,311 Total Fires — 822 Structures, 311 Vehicles & 1,178 Other Fires
Bristol County ranked seventh out of the fourteen Massachusetts counties in total reported fires. The county reported 2,311 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 822 structure fires, 311 motor vehicle fires, 566 brush, tree or lawn fires, 366 outside rubbish fires, 137 special outside fires, four cultivated vegetation or crop fires, and 105 other fires caused three civilian deaths, 32 civilian injuries, 20 fire service injuries and an estimated dollar loss of $13 million. Bristol County's fires accounted for 8% of the 30,136 Massachusetts fires reported in 2008.

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

Motor Vehicle and Outside & Other Fires Down
The total number of reported fire incidents decreased by 206 from the 2,517 reported in 2007. Reported structure fires increased by 33 from the 789 reported during the previous year. The total number of reported motor vehicle fires dropped by 42 from the 353 incidents reported during 2007. Reported outside and other fires decreased by 197 from the 1,375 reported the year before.

BRISTOL COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2,193	807	423	963	163	42	26	95
2005	2,499	890	423	1,186	145	43	26	76
2006	2,331	837	353	1,141	159	53	38	68
2007	2,517	789	353	1,375	139	32	28	79
2008	2,311	822	311	1,178	129	31	22	76

Fire and Fire Death Rates
Bristol County had 4.3 fires per 1,000 population. That figure ranks Bristol County seventh in the state and below the state rate of 4.8 fires per 1,000 population. Bristol County also had 0.06 fire deaths per 10,000 populations ranking it eighth among Massachusetts counties and below the state rate of 0.08 fire deaths per 10,000 population.

3 Fires Kills 3 Bristol County Residents
- On March 20, 2008, at 12:38 p.m., the New Bedford Fire Department was called to a fatal smoking fire in a single-family home. The victim, an 85-year old man, fell asleep while smoking in a living room chair. The victim did awaken and attempted to escape. He died from smoke inhalation and the burns sustained in the fire. Detectors were present but it was undetermined if they operated. No one else was injured in this fire. Damages from this fire were estimated to be $70,000.

- On May 29, 2008, at 12:35 p.m., the Fall River Fire Department was called to a fatal cooking fire at a three-unit apartment building. The victim, a 56-year old man, was cooking when heat from the hotplate started the fire. The victim was overcome by heat and smoke. He was transported to a Rhode Island hospital where he later succumbed to his injuries. No one else was injured at this fire. Detectors were present and alerted the other tenants. There were no sprinklers. Damages from the blaze were estimated to be $6,000.

- On December 16, 2008, at 9:46 a.m., the New Bedford Fire Department was called to a fatal smoking fire in a single-family home. The fire began in a first floor bedroom. The victim, a 68-year old man fell asleep while smoking. He was on prescription medication that decreased his level of consciousness and ability to respond to the fire. The victim was the only thing that burned. There were no other injuries associated with this fire. Smoke detectors and sprinklers were not present. No estimation of the damages was made for this fire.

Westport Has Bristol County's Largest Loss Fire

- On August 14, 2008, at 3:22 a.m., the Westport Fire Department responded to a boat fire on the Westport River. During suppression operations, the catamaran began to sink extinguishing most of the fire. Investigators were unable to determine the cause of the fire. No one was injured by this fire. Damages were estimated to be $1 million.

STRUCTURE FIRES

Reported Structure Fires Up Slightly

The 822 structure fires caused three civilian deaths, 24 civilian injuries, 15 fire service injuries and an estimated dollar loss of $10.4 million. These incidents represented 36% of Bristol County's reported fires in 2008. The average estimated dollar loss per structure fire was $12,680. The total number of reported structure fires increased by 33, or 4%, from the 789 reported in 2007.

Arson Caused of 4% of Structure Fires

The 31 structure arsons caused four fire service injuries and an estimated dollar loss of $1.1 million. Arson was indicated as the cause of 4% of the structure fires and 11% of Bristol County's structure fire dollar loss. The 31 structure arsons accounted for 24% of the Bristol County arson fires reported in 2008. The total number of reported structure arsons decreased by one, or 3%, from 32 in 2007.

Over 2/3 of Structure Arsons Occurred in Residences

Sixty-eight percent (68%) of Bristol County's 31 structure arsons occurred in residential occupancies; 10% occurred each in storage facilities; 6% each happened in public assembly and educational properties; and 3% each occurred in manufacturing or processing facilities, mercantile or business properties, and special properties.

BUILDING FIRES

There were 812 building fires of different types in Bristol County in 2008. These 812 building fires accounted for 98.3% of all building fires in Bristol County.

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

Six hundred and forty-eight (648), or 80%, of Bristol County's 812 building fires occurred in residential occupancies. Thirty-three (33) fires took place in storage properties. Mercantile and business properties also had 33 fires. Thirty-one (31) fires took place in public assembly properties, including restaurants and churches. Twenty-two (22) fires took place in manufacturing and processing facilities. Special properties had 18 fires. Hospitals, prisons, and other institutional buildings experienced 10 fires. Educational facilities also had 10 fires. Three (3) fires occurred in industrial, utility, defense, agricultural or mining facilities in Bristol County in 2008.

RESIDENTIAL FIRES

Residential Building Fires Are Up

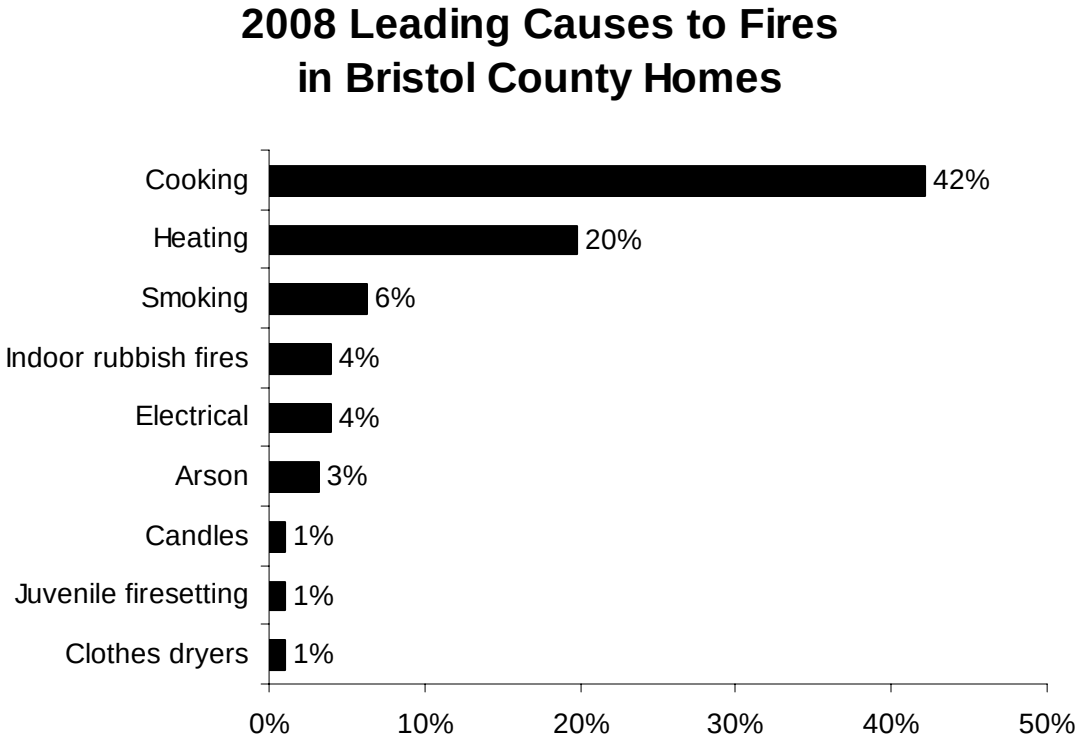
There were 648 reported residential building fires in Bristol County in 2008. These 648 fires are an increase of 56, or 9%, from the 592 residential building fires reported in 2007.

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 53% of the building fires in Bristol County; 42% occurred in apartments; 2% happened in rooming houses; and 1% each occurred in dormitories and residential board and care facilities. Ten (10), or 2% 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 42% of these fires. The second leading cause of residential building fires was heating equipment, accounting for 20%. Smoking caused 6% of the fires in people's homes. Indoor rubbish fires and electrical problems were each responsible for 4% of these fires. Arsons accounted for 3% of fires in residences. Candles, juvenile-set fires and clothes dryers each accounted for 1% of Bristol County's residential building fires in 2008.



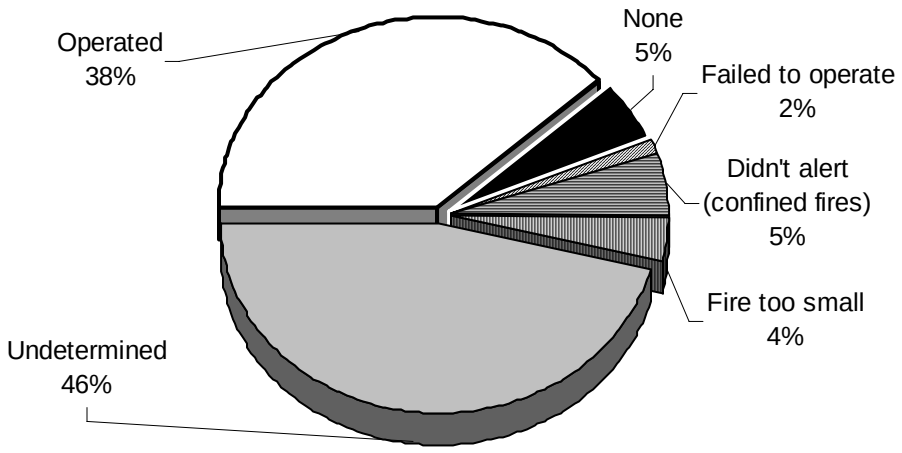
58% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Three hundred and seventy-eight (378), or 58% of all residential building fires were reported as confined to non-combustible containers in 2008. Two hundred and forty-two (242), or 37%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Sixty-two (62), or 10%, 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-nine (29), or 4%, of these fires were rubbish fires contained to a non-combustible container in Bristol County in 2008.

Detectors Alerted Occupants in Over 1/3 of Fires
Smoke or heat detectors operated and alerted the occupants in 248, or 38%, of the residential building fires. In 5% of these fires[2], 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 298 incidents, or 46% of Bristol County's residential building fires.

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

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

Detector Status in Bristol County's Residential Structure Fires 2008



Almost 1/3 of Failed Detectors Were Missing Batteries
Of the 10 fires where smoke detectors were present but failed to operate, three, or 30%, failed because the batteries were either missing or disconnected. One (1), or 10% failed because of dead batteries. It was undetermined or unclassified in six cases, or 60%, why the detectors failed to operate.

VACANT BUILDINGS

5% of Building Fires Occurred in Vacant Buildings
Bristol County reported 44 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 5% of the total 812 building fires reported to MFIRS in 2008. Twenty-five (25) fires occurred in vacant residential properties. Eleven (11) vacant building fires occurred in storage facilities. Two (2) of these fires happened in special properties. Public assembly properties, educational facilities, mercantile and business properties and a manufacturing facilities each accounted for one vacant building fire incident in Worcester County in 2008.

Eleven (11), or 25%, of the vacant building fires in Bristol County in 2008 were determined to be intentionally set. Six (6) occurred in apartment buildings; and one each

[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

occurred in a single-family home, a high school, a manufacturing facility, a parking garage and a shed.

JUVENILE-SET FIRES

12 Juvenile-set Fires

There were 12 reported juvenile-set fires in Bristol County in 2008. The five structure fires, one motor vehicle fire, four brush fires, one special outside fire, and one unclassified fire caused two civilian injuries and $54,900 in estimated damages.

ARSONS

129 Total Arsons[4] — 31 Structures, 22 Vehicles & 76 Other Arsons

Bristol County Fire Departments reported that 129, or 6%, of Bristol County's 2,311 fires were considered intentionally set, or, for purposes of this analysis, arson. The 31 structure arsons, 22 motor vehicle arsons and 76 outside and other arsons caused four fire service injuries and an estimated dollar loss of $1.5 million.

All Arsons Down

The total number of reported arson fires decreased by 210 from the 139 reported in 2007. Structure arsons decreased by one from the 32 reported in 2007. Motor vehicle arsons decreased by six from the 28 reported last year. Outside and other arsons dropped three from the 79 reported in 2007.

ALL INCIDENTS

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

In 2008, fire departments in Bristol County reported 46,333 responses[5] to MFIRS. Of these 46,333 incidents, 43,959 non-fire calls were voluntarily reported.

Of these 43,959 non-fire calls 25,424, or 55% of all the reported responses, were reported rescue and emergency medical services (EMS) calls; 8,599, or 19%, were reported false alarm or false calls; 3,479, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,315, or 7%, were reported good intent calls; 2,722, or 6%, were reported hazardous condition calls with no fire; 294, or 1%, were special incident type calls such as citizen complaints; 64, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 62, or 0.1% were severe weather responses.

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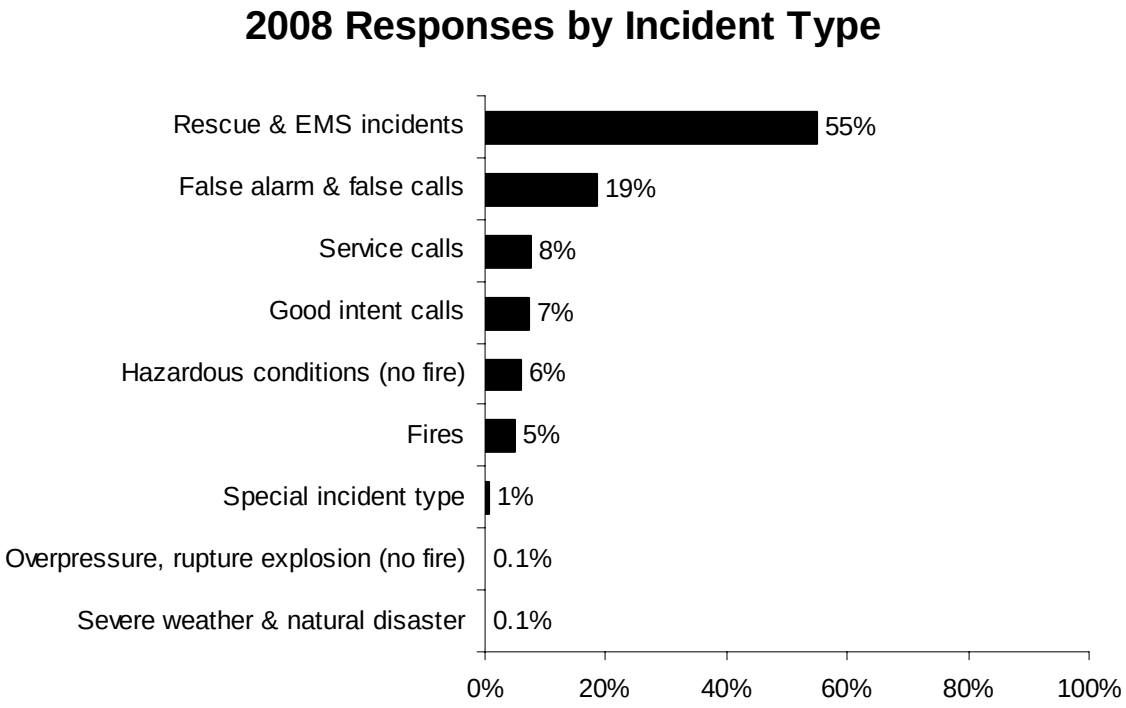
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

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

Two thousand three hundred and seventy-four (2,374), or 5%, of the total responses submitted by Bristol County fire departments were fires.



Bristol County Fire Departments Gave Mutual Aid 1,178 Times

In 2008, Bristol County fire departments reported coming to the aid of other fire departments 1,178 times. Of these 1,178 responses, 851, or 72%, were for rescue or EMS calls; 143, or 12%, were for service calls such as cover assignments; 88, or 7%, were for good intent calls; 67, or 6%, were for fires; 18, or 2%, were for hazardous conditions calls with no fire; nine, or 1%, were for false alarms or false calls; and two, or less than 1%, were special incident types.

Bristol County Received Mutual Aid in 945 Incidents

In 2008, Bristol County fire departments reported receiving aid from surrounding departments in 945 incidents. Of these 945 incidents, 795, or 84%, were rescue and emergency medical services calls; 97, or 10%, were for fires; 22, or 2%, were false alarms or false calls; 13, or 1%, were good intent calls; nine, or 1%, were service calls; eight, or 1%, were hazardous conditions calls with no fire; and one, or less than 1% was a reported overpressure, rupture, explosion or overheat call.

Bristol County Population: 534,678

4.3 Fires/1,000 Population

Total Fires:	**2,311**		**$13,011,869**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	822	36%	$10,423,097
Vehicle Fires	311	13%	2,251,106
Other Fires	1,178	51%	337,666

3 Fatal Fires	1.30 Civilian Deaths/1,000 Fires
3 Civilian Deaths	0.06 Civilian Deaths/10,000 Population
32 Civilian Injuries	20 Fire Service Injuries

Building Fires: 812

Residential Structure Fires: 648

Residential Structure Fires Confined to Non-Combustible Containers: 378

Unconfined Residential Structure Fires: 270

3 Civilian Deaths 22 Civilian Injuries 12 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	342	53%
Apartments	273	42%
Rooming houses	11	2%
Residential board & care	8	1%
Dormitories	4	1%

Detector Status	**Fires**	**%**
Operated	248	38%
Didn't operate	10	2%
None	34	5%
Fire too small	25	4%
Didn’t alert (confined)	33	5%
Undetermined	298	46%

Area of Origin[6]	**%**	**Heat Source**	**%**	**%Unconfined**[7]
Kitchen	46%	Heat from operating eq.	6%	13%
Heating room or area	10%	Radiated heat from op. eq.	6%	13%
Chimney or flue	4%	Cigarettes	5%	11%
Bedroom	4%	Arcing	4%	9%
Living room	4%	Spark/ember/flame op. eq.	3%	7%

[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 Ignited[8]	**%**
Food, cooking materials	41%
Flammable or combust. liquid	10%
Film or residue (creosote)	7%
Rubbish, trash, waste	5%
Structural member, framing	4%
Electrical wire, cable insulation	3%

Factor Contrib. to Ignit.	**%**	**%Unconfined**[9]
Abandoned materials	4%	9%
Too close to combustibles	2%	6%
Equipment unattended	2%	5%
Misuse of mater. or product	2%	4%
Mechanical failure, malfunc.	1%	2%
Electrical failure, malfunc.	1%	2%
Accident. turned on, not off	1%	2%

Equipment[10]	**%**
Cooking equipment	40%
None	30%
Boiler, furnace, cent. heat unit	10%
Chimney or flue	7%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	25%	59%
Failure of eq. or heat source	4%	10%
Intentional	3%	8%
Cause under investigation	4%	9%
Undetermined	5%	11%
Act of Nature	1%	3%

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

Alerted Occupants	30%
Didn't Alert Occupants	9%
Undetermined	61%

[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	148	79	25	44
February	134	70	21	43
March	193	80	25	88
April	372	83	35	254
May	278	83	22	173
June	230	73	28	129
July	241	52	35	154
August	173	58	26	89
September	147	45	29	73
October	136	63	22	51
November	146	65	22	59
December	113	71	21	21

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	336	111	55	170
Monday	334	138	47	149
Tuesday	328	108	37	183
Wednesday	329	117	44	168
Thursday	344	126	34	184
Friday	318	109	50	159
Saturday	322	113	44	165

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	216	68	52	96
04:01 - 08:00	140	60	20	60
08:01 - 12:00	351	131	58	162
12:01 - 16:00	662	198	72	398
16:01 - 20:00	619	226	72	321
20:01 - 24:00	317	139	37	141

Motor Vehicle Fires

Total: 311
Automobiles: 251 (81%)
19, or 8%, of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 129 **Dollar loss: $1,528,560**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	31	4%	24%	$1,135,100
Vehicle Arsons	22	7%	17%	248,600
Other Arsons	76	6%	59%	144,860

0.06 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.14 Other arsons/1,000 population

4 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%
20:01 - 00:00	11	35%
00:01 - 04:00	5	16%
08:01 - 12:00	5	16%

Vehicle Arsons	#	%
00:01 - 04:00	11	50%
08:01 - 12:00	3	14%
12:01 - 16:00	3	14%
20:01 - 00:00	3	14%

Other Arsons	#	%
16:01 - 20:00	24	32%
12:01 - 16:00	17	22%
20:01 - 00:00	13	17%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	14	45%
1- and 2-Family homes	7	23%
Outbuilding or shed	2	6%

Acushnet **Population: 10,161**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	38	16	6	16	3	3	0	0
2005	31	24	2	5	2	1	1	0
2006	31	20	4	7	3	1	1	1
2007	25	11	4	10	2	0	2	0
2008	37	17	5	15	2	1	0	1

Attleboro **Population: 42,068**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	140	36	36	68	12	2	4	6
2005	255	71	38	146	8	2	2	4
2006	121	52	15	54	1	0	0	0
2007	64	21	10	33	0	0	0	0
2008	168	66	26	76	12	3	0	11

Berkley **Population: 5,749**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	31	11	7	13	3	0	0	3
2005	17	4	4	9	5	1	0	4
2006	35	14	7	14	0	0	0	1
2007	17	5	6	6	2	1	0	1
2008	29	16	3	10	1	0	0	1

Dartmouth Fire Districts[12] **Population: 30,666**

Dartmouth District # 1 *Est Pop. Protected: 12,833*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	44	25	2	17	3	0	0	3
2005	5	2	1	2	0	0	0	0
2006	42	23	7	12	6	3	1	2
2007	45	19	3	23	2	0	0	2
2008	37	11	3	23	0	0	0	0

[12] The estimated population protected statistics were determined by the Dartmouth Town clerk on 1/4/07.

Dartmouth District #2 *Est Pop. Protected: 2,637*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	4	1	2	1	1	0	0	1
2005	3	1	0	2	0	0	0	0
2006	8	3	1	4	1	1	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	3	0	1	2	0	0	0	0

Dartmouth District #3 *Est Pop. Protected: 17,148*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	91	38	22	31	1	0	1	0
2005	129	35	13	81	5	0	0	5
2006	99	18	24	57	9	2	0	7
2007	135	7	16	112	8	0	1	7
2008	118	7	13	98	8	0	0	8

Dighton **Population: 6,175**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	20	7	4	9	1	0	0	1
2005	23	7	4	12	1	1	0	0
2006	30	10	5	15	0	0	0	0
2007	31	13	3	15	1	0	0	1
2008	32	4	8	20	1	0	0	1

Easton **Population: 22,299**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	23	14	8	1	0	0	0	0
2005	20	14	3	3	2	1	1	0
2006	22	17	4	1	1	0	0	1
2007	13	9	3	1	0	0	0	0
2008	15	10	3	2	0	0	0	0

Fairhaven **Population: 16,159**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	78	25	14	39	4	1	1	2
2005	71	21	8	42	2	1	0	1
2006	73	34	8	31	2	1	1	0
2007	87	25	15	47	0	0	0	0
2008	70	15	16	39	4	0	0	4

Fall River **Population: 91,938**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	515	211	91	213	34	15	4	15
2005	596	246	94	256	38	21	6	11
2006	560	249	74	237	51	24	8	19
2007	589	245	56	288	35	13	4	18
2008	472	232	65	175	20	7	3	10

Freetown **Population: 8,472**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	50	23	15	12	7	2	2	3
2005	59	24	16	19	7	0	3	4
2006	45	21	10	14	4	0	2	2
2007	60	25	14	21	5	1	2	2
2008	52	26	9	17	3	0	1	2

Mansfield **Population: 22,414**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	79	36	14	29	2	1	0	1
2005	91	25	17	49	7	1	0	6
2006	67	18	13	36	2	1	0	1
2007	62	12	13	37	1	0	0	1
2008	73	24	12	37	2	0	0	2

New Bedford **Population: 93,768**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	366	133	84	149	35	13	11	11
2005	432	153	102	177	20	5	8	7
2006	378	138	86	154	32	8	21	3
2007	426	141	76	209	29	11	14	4
2008	453	165	65	223	47	16	14	17

North Attleboro **Population: 27,143**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	128	41	18	69	3	0	0	3
2005	95	30	15	50	0	0	0	0
2006	100	31	12	57	1	0	1	0
2007	102	28	10	64	2	0	0	2
2008	70	28	7	35	1	0	0	1

Norton **Population: 18,036**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	42	6	9	27	12	0	0	12
2005	75	20	8	47	8	0	1	7
2006	82	13	6	63	5	1	0	4
2007	54	7	7	40	0	0	0	0
2008	73	20	10	43	1	0	1	0

Raynham **Population: 11,739**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	135	34	32	69	0	0	0	0
2005	87	23	23	41	0	0	0	0
2006	104	24	18	621	1	1	0	0
2007	100	23	20	57	0	0	0	0
2008	97	30	11	56	1	0	0	1

Rehoboth **Population: 10,172**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	67	35	10	22	3	2	1	0
2005	74	36	6	32	13	3	0	10
2006	62	36	3	23	7	4	0	3
2007	64	32	5	27	3	0	0	3
2008	73	36	8	29	2	0	1	1

Seekonk **Population: 13,425**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	82	22	11	49	13	1	1	11
2005	85	27	13	45	10	2	0	8
2006	76	21	5	50	9	3	0	6
2007	89	25	9	55	3	1	0	5
2008	80	25	6	49	4	0	0	4

Somerset **Population: 18,234**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	41	17	7	17	2	0	0	2
2005	52	20	10	22	1	0	0	1
2006	46	16	7	23	6	2	2	2
2007	47	10	10	27	3	1	1	1
2008	38	18	6	14	1	1	0	0

Swansea **Population: 15,901**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	119	59	16	44	4	1	0	3
2005	124	44	23	57	6	1	1	4
2006	85	32	7	46	5	0	0	5
2007	104	39	15	50	2	1	0	1
2008	85	35	5	45	4	2	0	2

Taunton **Population: 55,976**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	60	11	13	36	6	0	1	5
2005	108	28	15	65	7	1	2	4
2006	185	33	26	126	9	0	1	8
2007	246	31	37	178	31	2	4	25
2008	161	28	21	112	11	2	2	7

Westport **Population: 14,183**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	42	7	2	33	2	1	0	1
2005	57	15	4	38	2	1	1	0
2006	81	15	11	55	4	1	0	3
2007	88	24	9	55	7	1	0	6
2008	75	9	8	58	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
05003	Acushnet	344	40	2	38	68	96	25	56	0	19
05016	Attleboro	5,969	173	4	4,155	172	302	449	698	10	6
05027	Berkley	593	32	1	410	22	35	32	60	1	0
05972	Dartmouth #1	409	39	0	19	82	42	34	189	4	0
05973	Dartmouth #2	29	5	0	0	5	15	4	0	0	0
05974	Dartmouth #3	722	126	2	19	117	67	53	332	1	5
05076	Dighton	351	33	2	5	22	220	4	65	0	0
05088	Easton	18	15	1	0	2	0	0	0	0	0
05094	Fairhaven	2,630	75	6	1,869	165	140	96	272	0	7
05095	Fall River	4,567	474	6	850	536	189	622	1,873	0	17
05102	Freetown	1,058	52	1	702	50	67	86	94	1	5
05167	Mansfield	1,115	74	2	87	148	216	110	423	6	49
05201	New Bedford	10,287	453	15	6,694	326	304	849	1,633	8	5
05211	North Attleboro	3,612	81	7	2,290	238	309	199	478	9	1
05218	Norton	2,713	76	0	1,516	172	428	20	399	5	97
05245	Raynham	935	105	2	225	87	81	93	321	2	19
05247	Rehoboth	465	73	0	10	123	85	42	130	0	2

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any 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
05265	Seekonk	2,220	81	1	1,487	83	108	99	346	4	11
05273	Somerset	2,613	38	1	2,004	34	320	48	137	0	31
05292	Swansea	396	87	1	39	85	32	39	112	1	0
05293	Taunton	4,849	162	8	2,973	131	355	365	832	8	15
05334	Westport	438	80	2	32	54	68	46	149	2	5
	Bristol County	**46,333**	**2,374**	**64**	**25,424**	**2,722**	**3,479**	**3,315**	**8,599**	**62**	**294**

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.

Fall River Fires in 2008

472 Total Fires — 232 Structures, 65 Vehicles & 175 Other Fires
The Fall River Fire Department reported 472 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 232 structure fires, 65 motor vehicle fires, 87 brush fires, 63 trash fires, nine special outside fires, and 16 unclassified fires caused one civilian death, 11 civilian injuries, four fire service injuries and an estimated dollar loss of $1.3 million.

1 Fall River Resident Killed in a Cooking Fire

- On May 29, 2008, at 12:35 p.m., the Fall River Fire Department was called to a fatal cooking fire at a three-unit apartment building. The victim, a 56-year old man, was cooking when heat from the hotplate started the fire. The victim was overcome by heat and smoke. He was transported to a Rhode Island hospital where he later succumbed to his injuries. No one else was injured at this fire. Detectors were present and alerted the other tenants. There were no sprinklers. Damages from the blaze were estimated to be $6,000.

Structure & Other Fires Down
Total fires decreased by 117 from the 589 fires reported in 2007. Reported structure fires decreased by 13 from the 245 reported during the previous year. Motor vehicle fires increased by nine from 56 the year before. Outside and other fires decreased by 113 from 288 the year before.

FALL RIVER FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	515	211	91	213	34	15	4	15
2005	598	262	95	241	40	23	6	11
2006	559	248	74	237	50	24	8	18
2007	589	245	56	288	35	13	4	18
2008	472	232	65	175	20	7	3	10

BUILDING FIRES

There were 231 building fires of different types in Fall River in 2008. These 231 building fires accounted for 99.6% of all structure fires in Fall River.

Over 3/4 of Building Fires in Homes
The 231 building fires that occurred in Fall River in 2008 can be broken down by fixed property use as follows: 180, or 78% of all structure fires, were in residential properties; 11 fires took place in a special properties; another 11 happened in each at public assembly properties; eight fires occurred manufacturing or processing facilities; six fires each occurred in institutional facilities, mercantile or business properties, and storage facilities; and three fires happened in educational facilities.

RESIDENTIAL FIRES

Residential Building Fires Are Up Slightly

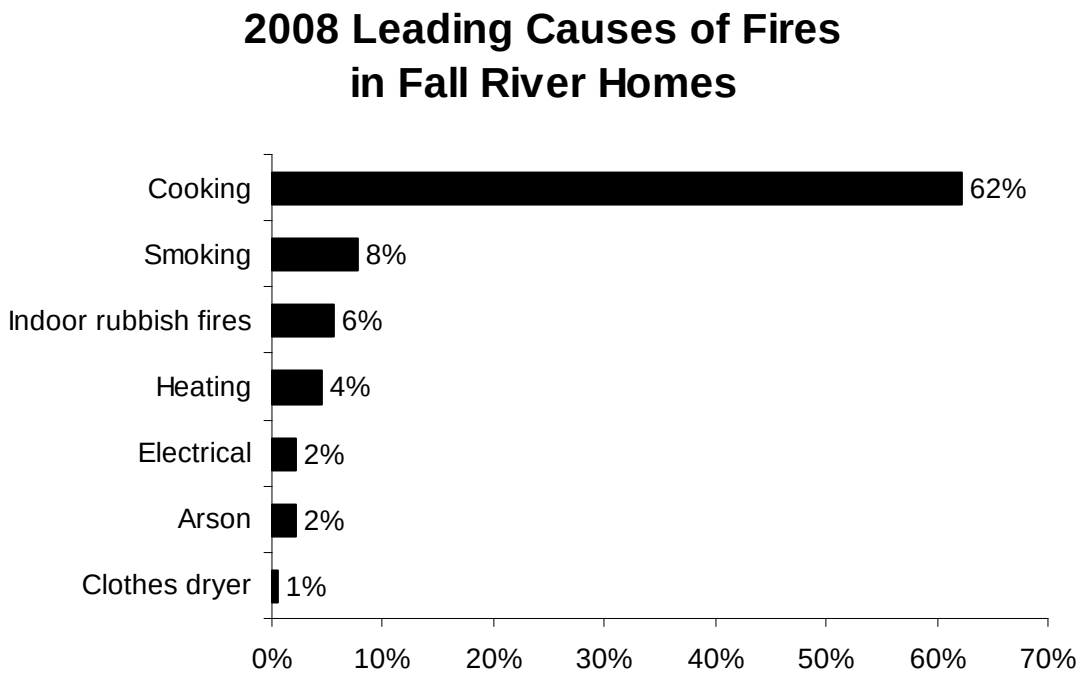
There were 180 reported residential building fires in Fall River in 2008. These 180 residential building fires are an increase of six, or 3%, from the 174 reported in 2007.

Apartments Accounted for Almost 2/3 of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 74% of the residential building fires in Fall River; 18% occurred in 1- or 2-family homes; 3% occurred in rooming houses; another 3% happened in residential board and care facilities; 1% occurred in dormitories; and 1% occurred in unclassified residential properties.

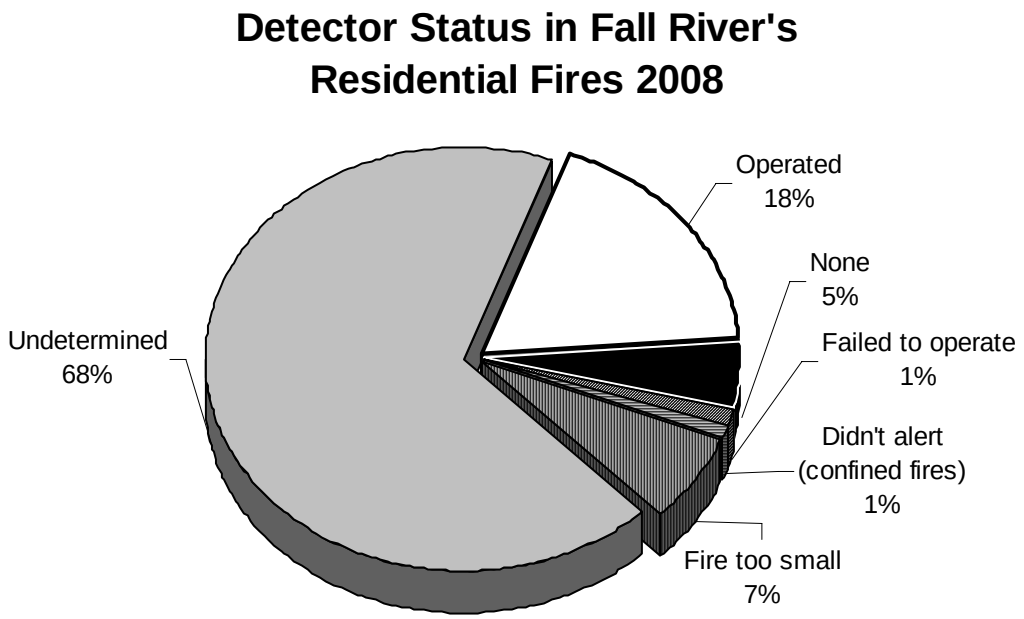
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Fall River was unattended cooking and other unsafe cooking practices, accounting for 62% of these fires. Smoking accounted for 8% of fires in residential occupancies. Indoor rubbish fires accounted for 6% of these fires. Heating equipment caused 4%. Arson and electrical problems each caused 2% of these fires. Clothes dryers accounted for 1% of the fires in people's homes in Fall River in 2008.



63% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and thirteen (113), or 63% of all residential building fires were confined to non-combustible containers in 2008. Ninety-nine (99), or 55%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Ten (10), or 6%, of these fires were rubbish fires contained to a non-combustible container. Four (4), or 2%, were fires confined to a fuel burner or boiler malfunction.

Detectors Operation Undetermined in Over 2/3 of Fires
Smoke or heat detectors operated and alerted the occupants in 33, or 18%, of the residential building fires. In 1% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 5% 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 122 incidents, or 68% of Fall River's residential building fires.



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.

1 of 2 Detectors Failed Because of a Dead Battery

There were two fires where smoke detectors were present but failed to operate. One (1), (50%) failed because the battery was dead. And the reason for failure was undetermined in the other case (50%).

VACANT BUILDING FIRES

3% of Building Fires Occurred in Vacant Buildings

Fall River reported eight fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 231 building fires reported to MFIRS in 2008. Four (4) apartment buildings, one storage facility, one outbuilding or shed, one construction site, and one unclassified building were reported as vacant building fire incidents.

JUVENILE-SET FIRES

There were two juvenile-set fires in Fall River in 2008, including one brush fire and one natural vegetation fire.

ARSONS

20 Total Arsons[4] — 7 Structures, 3 Motor Vehicles, & 10 Other

Twenty (20), or 3%, of Fall River's 472 fires were considered intentionally set, or, for purposes of this analysis, arson. The seven structure arsons, three motor vehicle arsons and 10 outside and other arsons caused two civilian injuries and an estimated dollar loss of $15,000.

All Arsons Down

The total number of arsons decreased by 15 from 35 in 2007. Reported structure arsons decreased by six from the 13 reported the year before. Motor vehicle arsons decreased by one from the four reported the previous year. Outside and other arsons decreased by eight from the 18 reported in 2007.

ALL INCIDENTS

False Alarm & False Calls Are 41% of All Reported Incidents

In 2008, Fall River voluntarily reported 4,567 incidents to MFIRS. Of these 4,567 incidents, 3,945, or 86%, were non-fire incidents.

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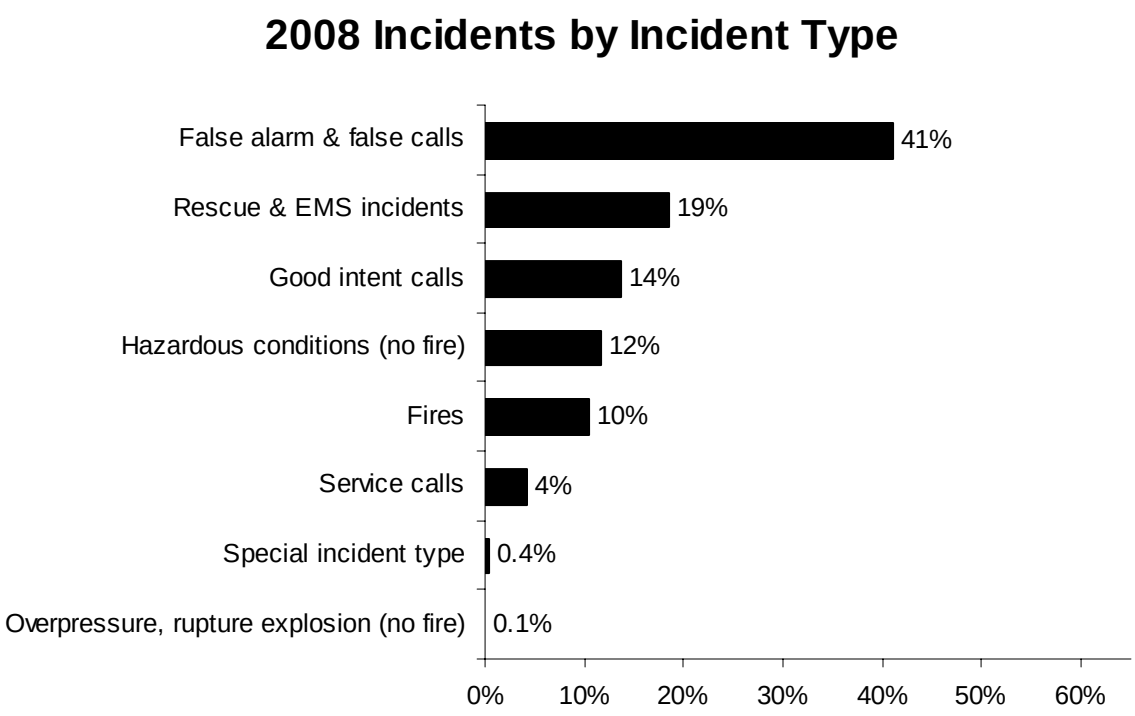
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 940 & 949. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

Of these 3,945 non-fire incidents 1,873, or 41% of all reported incidents in 2008, were reported false alarm or false calls; 850, or 19%, were reported rescue and emergency medical services (EMS) calls; 622, or 14%, were reported good intent calls; 536, or 12%, were reported hazardous condition calls with no fire; 189, or 4%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 17, or 0.4%, were special incident type calls; and six, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2008, Fall River reported 474 fires[5], accounting for 10% of all reported incidents.



Fall River Gave Mutual Aid in 6 Reported Incidents
In 2008, Fall River reported coming to the aid of other fire departments six times. Two (2) were for fires. Another two were for cover assignments; one was for a search for someone in the water, and the other was incident was cancelled en route.

Fall River Received Mutual Aid 7 Times
In 2008, Fall River reported receiving mutual aid from surrounding fire departments seven times. Three (3) were for fires. Two (2) were for medical assists; one was for a motor vehicle accident with injuries and another call was for a carbon monoxide incident.

[5] This figure includes the fires that Fall River responded to outside of their jurisdiction.

Fall River Population: 94,938

5.1 Fires/1,000 Population

Total Fires:	**472**		**$1,268,121**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	232	49%	$1,108,455
Vehicle Fires	65	14%	153,800
Other Fires	175	37%	5,866

1 Civilian Death	2.12 Civilian Deaths/1,000 Fires
1 Fatal Fire	0.11 Civilian Deaths/10,000 Population
11 Civilian Injuries	4 Fire Service Injuries

Building Fires: 231

Residential Structure Fires: 180

Residential Structure Fires Confined to Non-Combustible Containers: 113

Unconfined Residential Structure Fires: 67

1 Civilian Death 9 Civilian Injuries 3 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	133	74%
1- & 2-Family homes	33	18%
Residential board & care	6	3%
Rooming houses	5	3%
Dormitories	1	1%

Detector Status	**Fires**	**%**
Operated	33	18%
Didn't operate	2	1%
None	9	5%
Fire too small	12	7%
Didn’t Alert (confined)	2	1%
Undetermined	122	68%

Area of Origin[6]	**%**
Kitchen	66%
Living room	3%
Ext. balcony, unenclosed porch	3%
Heating room or area	3%
Bedroom	3%
Bathroom	3%

Heat Source	**%**	**%Unconfined**[7]
Heat from operating eq.	9%	25%
Cigarette	8%	21%
Radiated heat from op. eq.	5%	13%
Arcing	3%	7%
Spark, ember, flame/op. eq.	2%	6%

[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. This field does not need to be completed for confined fires, but is sometimes voluntarily reported.

Item First Ignited[8]	**%**
Cooking materials	61%
Rubbish, trash, waste	6%
Electrical wire, cable insulation	5%
Flammable or combustible liq.	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Abandoned materials	2%	4%
Misuse of materials	1%	2%
Electrical failure, malfunc.	1%	2%

Equipment[10]	**%**
Cooking Equipment	57%
None	29%
Boiler, furnace, cent. heat unit	6%
Fan	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	27%	72%
Intentional	2%	6%
Failure of eq. or heat source	1%	3%
Act of Nature	1%	1%
Undetermined	5%	13%
Cause under investigation	2%	4%

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

Alerted Occupants	1%
Didn't Alert Occupants	2%
Undetermined	97%

All Reported Incidents	**# of Incidents**	**% of Incidents**
False alarms & false calls	1,873	41%
Rescue & EMS incidents	850	19%
Good intent calls	622	14%
Hazardous conditions (no fire)	536	12%
Fires[12]	474	10%
Service calls	189	4%
Special incident type	17	0.4%
Overpressure rupture, explosion or overheat calls (no fire)	6	0.1%
Severe weather & natural disaster	0	0%

[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.

[12] 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	26	17	5	4
February	25	20	3	2
March	38	23	8	7
April	54	22	8	24
May	60	22	6	32
June	46	17	8	21
July	68	19	11	38
August	28	18	1	9
September	33	14	4	15
October	37	23	4	10
November	27	17	2	8
December	30	20	5	5

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	71	35	8	28
Monday	78	37	15	26
Tuesday	61	23	8	30
Wednesday	68	27	12	29
Thursday	77	41	7	29
Friday	55	30	6	19
Saturday	62	39	9	14

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	62	21	16	25
04:01 - 08:00	28	14	3	11
08:01 - 12:00	66	39	14	13
12:01 - 16:00	113	56	10	47
16:01 - 20:00	119	60	16	43
20:01 - 24:00	84	42	6	36

Motor Vehicle Fires

Total: 65
Automobiles: 58 (89%)
3 (5%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 20 **Dollar loss: $15,000**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	7	3%	35%	$11,000
Vehicle Arsons	3	3%	15%	3,000
Other Arsons	10	4%	50%	1,000

0.08 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.11 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
08:01 - 12:00	2	29%	00:01 - 04:00	1	33%
16:01 - 20:00	2	29%	12:01 - 16:00	1	33%
20:01 - 00:00	2	29%	20:01 - 00:00	1	33%

Other Arsons	#	%
16:01 - 20:00	6	60%
20:01 - 00:00	3	30%
08:01 - 12:00	1	10%

Peak Fixed Property Uses for Structure Arsons	#	%
Multi-family dwellings	3	43%
1 & 2 - Family homes	1	14%
MV or boat sales, service or repair	1	14%
Playground	1	14%

New Bedford Fires in 2008

453 Total Fires —165 Structures, 65 Vehicles & 223 Other Fires
The New Bedford Fire Department reported 453 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 165 structure fires, 65 motor vehicle fires, 134 outside trash fires, 66 brush fires, 19 special outside fires, one cultivated vegetation or crop fire, and three unclassified fires caused two civilian deaths, four civilian injuries, six fire service injuries, and an estimated dollar loss of $4 million.

2 New Bedford Residents Die in 2 Smoking Fires

- On March 20, 2008, at 12:38 p.m., the New Bedford Fire Department was called to a fatal smoking fire in a single-family home. The victim, an 85-year old man, fell asleep while smoking in a living room chair. The victim did awaken and attempted to escape. He died from smoke inhalation and the burns sustained in the fire. Detectors were present but it was undetermined if they operated. No one else was injured in this fire. Damages from this fire were estimated to be $70,000.

- On December 16, 2008, at 9:46 a.m., the New Bedford Fire Department was called to a fatal smoking fire in a single-family home. The fire began in a first floor bedroom. The victim, a 68-year old man fell asleep while smoking. He was on prescription medication that decreased his level of consciousness and ability to respond to the fire. The victim was the only thing that burned. There were no other injuries associated with this fire. Smoke detectors and sprinklers were not present. No estimation of the damages was made for this fire.

Structure & Outside & Other Fires are Up
Total fires increased by 27 from the 426 reported in 2007. Reported structure fires increased by 24 from the 141 reported during the previous year. Motor vehicle fires dropped 11 from 76 the year before. Outside and other fires increased by 14 from 209 the previous year.

NEW BEDFORD FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	366	133	84	149	35	13	11	11
2005	432	153	102	177	20	5	8	7
2006	378	138	86	154	32	8	21	3
2007	426	141	76	209	29	11	14	4
2008	453	165	65	223	47	16	14	17

Building Fires

There were 164 building fires of different types in New Bedford in 2008. These 164 building fires accounted for 99.4% of all structure fires in New Bedford.

83% of Building Fires in Homes

The 164 building fires that occurred in New Bedford in 2008 can be broken down by fixed property use as follows: 134, or 83% of all building fires, were in residential properties; seven fires took place in mercantile or business properties; six fires happened in manufacturing and processing facilities; five fires occurred in public assembly properties; three fires each occurred in educational, storage and institutional properties; and three fires occurred in an unclassified properties in 2008.

RESIDENTIAL FIRES

Apartments Accounted for 60% of Residential Building Fires

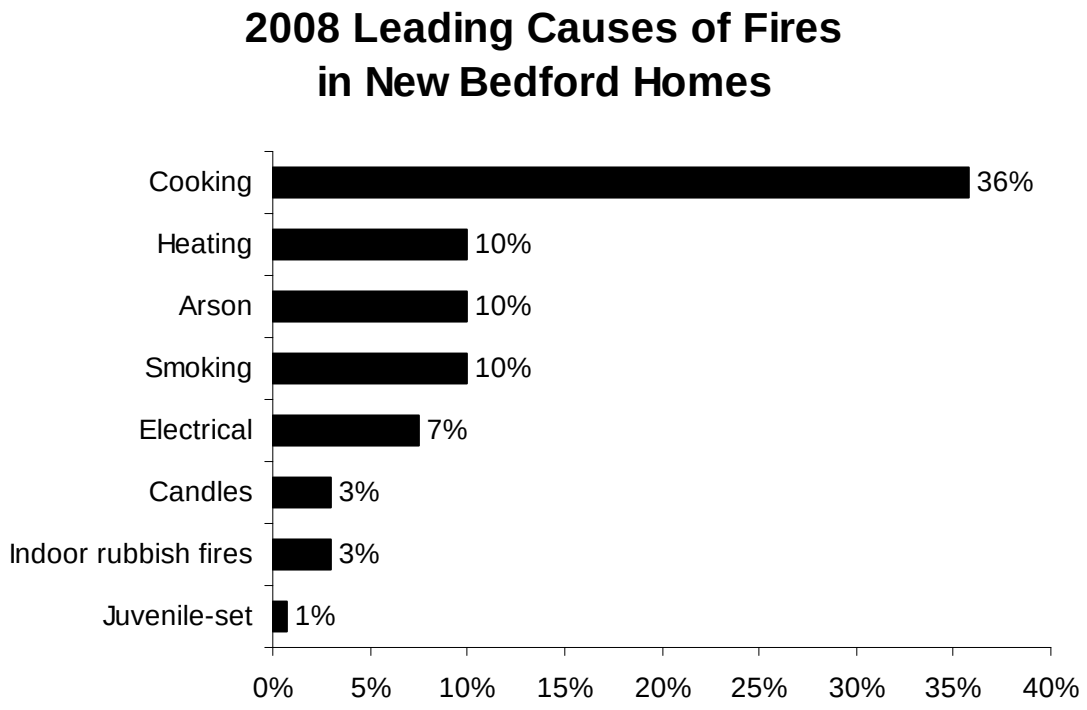
The peak fixed property uses for residential building fires were apartments, accounting for 60% of the building fires in New Bedford; 37% occurred in 1- or 2-family homes; 1% occurred in residential board and care facilities; another 1% occurred each in rooming houses; and 1% occurred in unclassified residential buildings.

Residential Building Fires Are Up

There were 134 reported residential building fires in New Bedford in 2008. These 134 fires are an increase of 25, or 23%, from the 109 residential building fires reported in 2007.

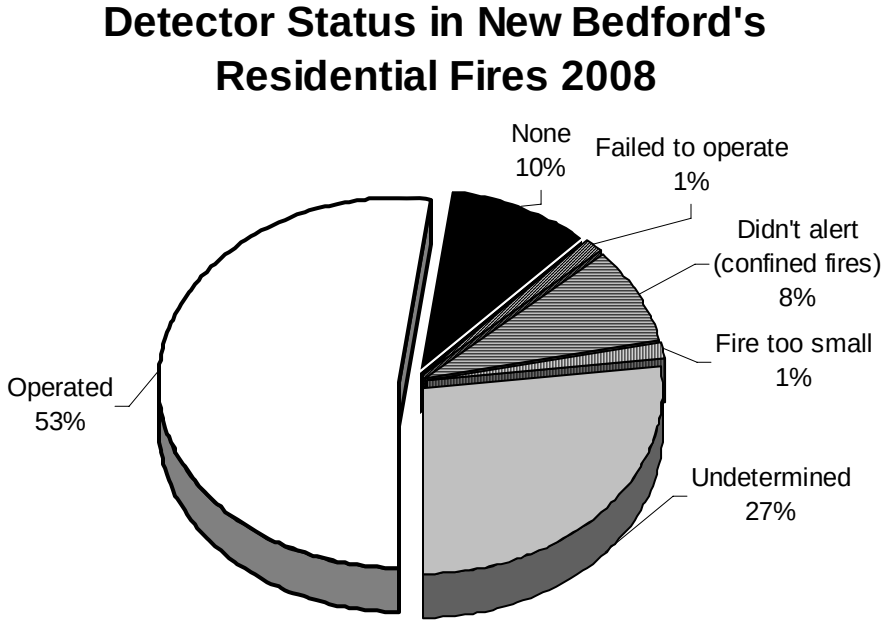
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in New Bedford was unattended cooking and other unsafe cooking practices, accounting for 36% of these fires. Heating problems accounted for 10% of residential fires. Arson and smoking each caused 10% of the fires in New Bedford homes. Electrical problems accounted for 7% of these fires. Candles and indoor rubbish fires each caused 3% of these fires. Juvenile-set fires accounted for 1% of the residential building fires in New Bedford in 2008.



40% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Fifty-four (54), or 40% of all residential building fires were confined to non-combustible containers in 2008. Forty-one (41), or 31%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Five (5) of the reported fires were fuel burner or boiler malfunctions, accounting for 4% of residential building fires in New Bedford in 2008. Four (4), or 3%, of these fires were rubbish fires contained to a non-combustible container. Another four of the reported fires were confined to a chimney or flue, accounting for 3% of residential building fires in New Bedford in 2008.

Detectors Alerted Occupants in Over 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 70, or 53%, of the residential building fires. In 8% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 1% 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 36 incidents, or 27% of New Bedford'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.

1 of 2 Detectors Failed Detectors From a Missing or Disconnected Batter

Of the two fires where smoke detectors were present but failed to operate, one, or 50%, of these detectors failed because it had a missing or disconnected battery. It was undetermined in the other cases, or 50%, why the detectors failed to operate.

VACANT BUILDINGS

10% of Building Fires Occurred in Vacant Buildings

New Bedford reported 16 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 10% of the total 164 building fires reported to MFIRS in 2008. Six (6) fires in apartment buildings, another six fires in one- or two-family homes; and one fire each in a high, junior high, or middle school, a business, an eating or drinking establishment, and an unclassified property occurred in vacant buildings.

JUVENILE-SET FIRES

1 Juvenile-set Fire

There was one juvenile-set fire in New Bedford in 2008. The one structure fire caused one civilian injury and $500 in estimated damages.

ARSONS

47 Total Arsons[4] — 16 Structures, 14 Motor Vehicles & 17 Other

Forty-seven (47), or 10%, of New Bedford's 453 fires were intentional, or for purposes of this analysis, arson. The 16 structure arsons, 14 motor vehicle arsons and 17 outside and other arsons caused four fire service injuries and an estimated dollar loss of $1.3 million.

All Arsons Are Up

The total number of arsons increased by 18 from the 29 reported in 2007. Reported structure arsons increased by five from 11 the year before. Motor vehicle arsons remained the same with 14 reported in both 2008 and 2007. Outside and other arsons increased by 13 from the four reported last year.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

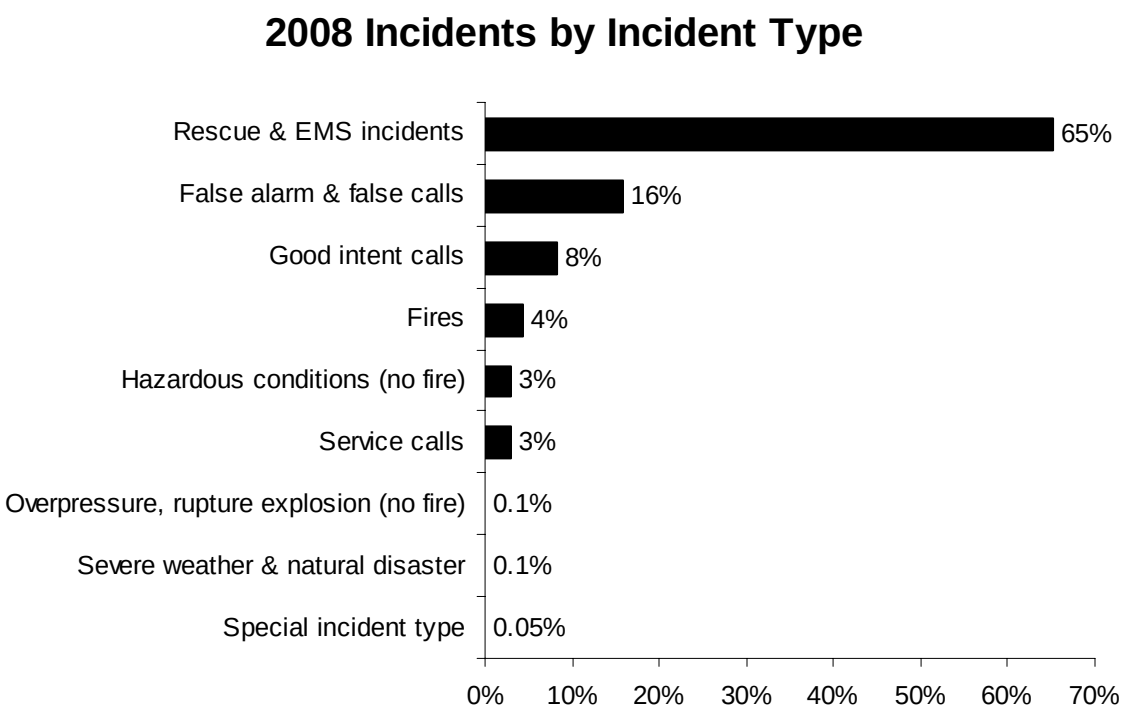
ALL INCIDENTS

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

In 2008, New Bedford voluntarily reported 10,284 incidents to MFIRS. Of these 10,284 incidents, 9,831, or 96%, were non-fire incidents.

Of these 9,831 non-fire incidents 6,694, or 65% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 1,633, or 16%, were reported false alarm or false calls; 846, or 8%, were reported good intent calls; 326, or 3%, were reported hazardous condition calls with no fire; 304, or 3%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 15, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; eight, or 0.1%, were severe weather calls; and five, or 0.05%, were special incident type calls such as citizen complaints.

In 2008, New Bedford reported 453 fires[5], accounting for 4% of all reported incidents.



New Bedford Gave Mutual Aid in 7 Reported Incidents

In 2008, New Bedford reported coming to the aid of other fire departments seven times. Of these seven incidents, five were for rescue or EMS calls, one was for a service call, and the other call was a special incident call.

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

New Bedford Received Mutual Aid in 30 Incidents

In 2008, New Bedford reported receiving aid from surrounding fire departments 30 times. Twenty-one (21) of these incidents were rescue or EMS calls, three were good intent calls, two were false alarm or false calls, another two were service calls, one was for a fire, and the other one was a hazardous condition call with no fire.

New Bedford Population: 93,768

4.8 Fires/1,000 Population

Total Fires:	**453**		**$3,965,685**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	165	37%	$3,532,240
Vehicle Fires	65	14%	416,375
Other Fires	223	49%	17,070

2 Civilian Deaths — 4.42 Civilian Deaths/1,000 Fires
2 Fatal Fires — 0.21 Civilian Deaths/10,000 Population
4 Civilian Injuries — 6 Fire Service Injuries

Building Fires: 164

Residential Building Fires: 134

Residential Building Fires Confined to Non-Combustible Containers: 54

Unconfined Residential Building Fires: 80

2 Civilian Deaths

Occupancy	**Fires**	**%**
Apartments	81	60%
1- & 2-Family homes	49	37%
Residential board & care	1	1%
Boarding houses	1	1%
Residential, other	2	1%

Detector Status	**Fires**	**%**
Operated	70	52%
Didn't operate	2	1%
None	13	10%
Fire too small	2	1%
Didn't Alert (confined)	13	8%
Undetermined	36	27%

Area of Origin[6]	**%**
Kitchen	43%
Bedroom	9%
Living room	7%
Exterior balcony/unencl. porch	6%
Structural area, other	4%

Heat Source	**%**	**%Unconfined**[7]
Cigarette	8%	14%
Heat from operating equip.	6%	10%
Heat open flame/smok. mat.	6%	10%
Spark/ember/flame op. eq.	5%	9%
Hot or smoldering obj., other	5%	9%
Radiated heat from oper. eq.	4%	6%

[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 Ignited[8]	**%**
Cooking materials	34%
Structural member, framing	7%
Flammable or combust. liquid	4%
Rubbish, trash, waste	4%
Upholstered sofa, chair	3%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Too close to combustibles	6%	10%
Abandoned materials	4%	8%
Improper container or storage	3%	5%
Misuse of material/products	2%	4%
Equipment unattended	2%	4%

Equipment[10]	**%**
None	38%
Cooking equipment	31%
Boiler, furnace, cent. heat unit	4%
Chimney or flue	3%
Electrical wire, other	3%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	33%	55%
Intentional	9%	15%
Failure of eq. or heat source	7%	11%
Cause under investigation	8%	14%
Undetermined	2%	4%

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

Alerted Occupants	54%
Didn't Alert Occupants	20%
Undetermined	26%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	6,694	65%
False alarms & false calls	1,633	16%
Good intent calls	846	8%
Fires[12]	453	4%
Hazardous conditions (no fire)	326	3%
Service calls	304	3%
Overpressure rupture, explosion or overheat calls (no fire)	15	0.1%
Severe weather & natural disaster	8	0.1%
Special incident type	5	0.05%

[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.

[12] 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	30	14	5	11
February	27	11	5	11
March	32	16	5	11
April	51	11	9	31
May	64	26	6	32
June	49	21	1	27
July	48	6	9	33
August	47	11	8	28
September	25	9	5	11
October	32	13	4	15
November	24	11	4	9
December	24	16	4	4

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	56	20	15	21
Monday	68	34	7	27
Tuesday	73	28	8	37
Wednesday	65	15	12	38
Thursday	72	28	3	41
Friday	68	21	12	35
Saturday	51	19	8	24

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	64	16	16	32
04:01 - 08:00	23	8	3	12
08:01 - 12:00	58	23	10	25
12:01 - 16:00	119	41	13	65
16:01 - 20:00	120	43	18	59
20:01 - 24:00	69	34	5	30

Motor Vehicle Fires

Total: 65
Automobiles: 55 (88%)
13 (24%) of the automobile fires considered intentional.

Arson Fires

Total Arsons: 47 **Dollar loss: $1,344,010**

0.5 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	16	10%	34%	$1,106,550
Vehicle Arsons	14	22%	30%	230,600
Other Arsons	17	8%	36%	6,8600

0.17 Structure arsons/1,000 population
0.15 Vehicle arsons/1,000 population
0.18 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 - 00:00	7	44%	00:01 - 04:00	8	57%
04:01 - 08:00	2	13%	08:01 - 12:00	2	14%
08:01 - 12:00	2	13%	20:01 - 00:00	2	14%

Other Arsons	#	%
00:01 - 04:00	7	41%
16:01 - 20:00	4	24%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	11	69%
1- or 2-Family homes	2	13%
Bar, nightclub	1	6%
High/junior high/middle school	1	6%
Adult education center, college classroom	1	6%

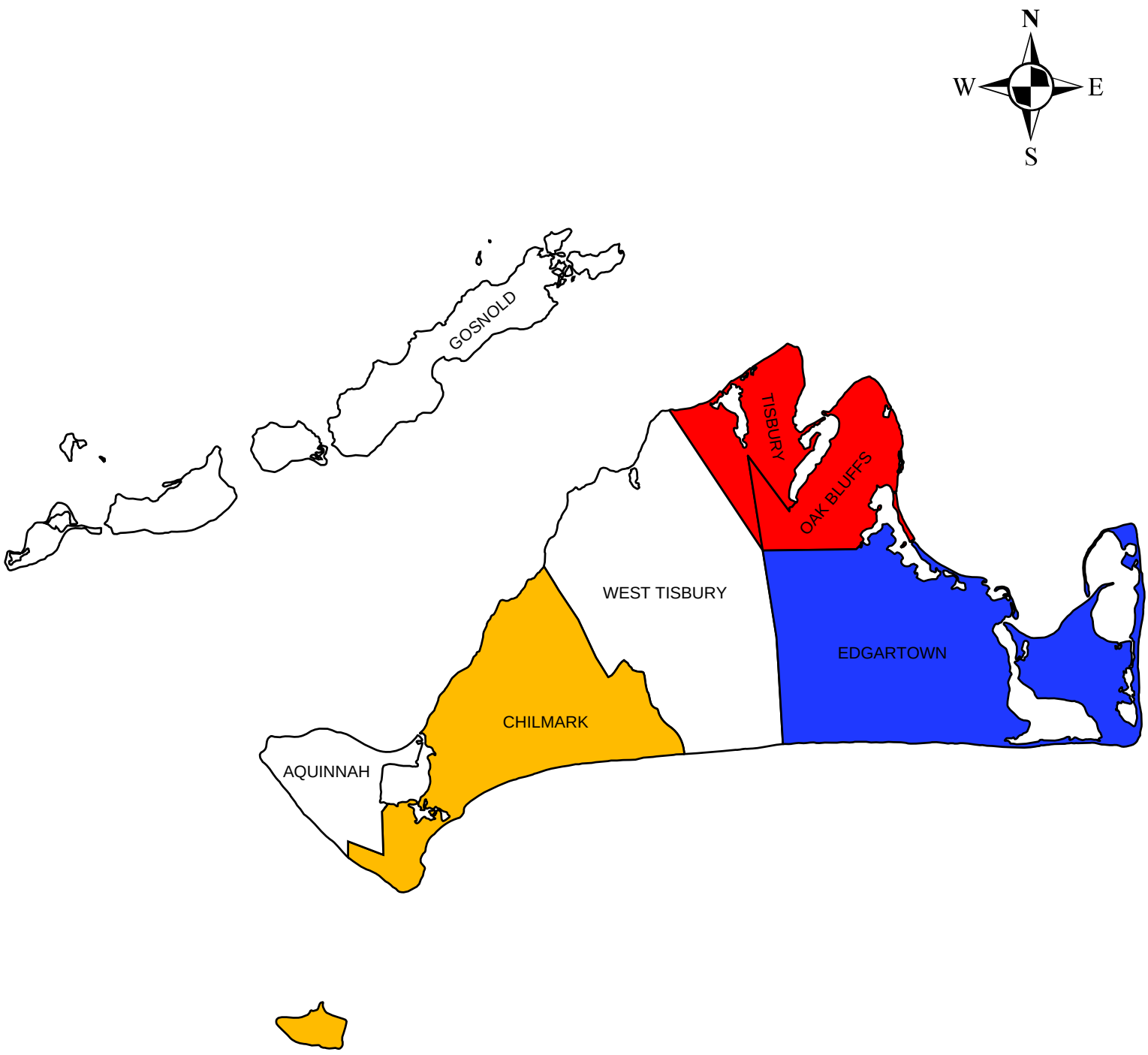
Dukes County

2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Dukes County Fires 2008



2008 Fires

- 0
- 1 - 2
- 3
- 4 - 6
- 7 - 14

0 1.5 3 6 9 12 Miles

Massachusetts Fire Incident Reporting System 2008

Dukes County Fires in 2008

19 Total Fires — 12 Structures, 3 Motor Vehicle Fires, 4 Other Fires
Dukes County ranked last out of the fourteen Massachusetts counties in total fires. Dukes County Fire Departments reported 19 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 12 structure fires, three motor vehicle fires, three brush, tree or lawn fires, and one outside trash fire caused an estimated dollar loss of $651,500. There were no fire-related deaths in Dukes County in 2008. Dukes County's fires accounted for 0.1% of the 30,136 Massachusetts fires reported in 2008.

All seven of the fire departments in Dukes County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2008.

Structure & Outside Fires Down
The total number of reported fire incidents decreased by 16 from the 35 reported in 2007. Reported structure fires decreased by 10 from the 22 reported in 2007. Motor vehicle fires remained the same with three fires reported in both 2007 and 2008. Outside and other fires decreased by six from the 10 reported in 2007.

Dukes County is an island community with a small year round population. During the summer months, the population increases immensely. Consequently, half of Duke County's reported fires occurred during the months June to August.

DUKES COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	21	14	4	3	0	0	0	0
2005	40	17	12	13	1	0	0	1
2006	38	18	7	13	2	0	0	2
2007	35	22	3	10	0	0	0	0
2008	19	12	3	4	0	0	0	0

Fire and Fire Death Rates
Dukes County had 1.2 fires per 1,000 population. That figure ranks Dukes County last in the state and below the state rate of 4.8 fires per 1,000 population. Dukes County also had 0 fire deaths per 10,000 population tying it ranked for twelfth among Massachusetts counties and below the state rate of 0.08 fire deaths per 10,000 population.

Edgartown Had Dukes County Largest Loss Fire
- On April 30, 2008, at 4:54 a.m., the Edgartown Fire Department was dispatched to an electrical fire at a single-family home. An unspecified short-circuit in the garage started the fire. There were no injuries associated with this fire. Detectors were present and but failed to operate because of a missing battery. The building did not have sprinklers and damages from this fire were estimated to be $435,000.

STRUCTURE FIRES

Reported Structure Fires Down

The 12 structure fires caused an estimated dollar loss of $651,500. These incidents represented 63% of Dukes County's reported fires in 2008, and 100% of the county's reported dollar loss. The average estimated dollar loss per structure fire was $54,292. The total number of reported structure fires decreased by 10, or 45%, from the 22 reported in 2007.

Arson Caused of 2% of Structure Fires

There were no reported structure arsons in Dukes County in 2008. The last reported structure arson in Dukes County occurred in 2003.

BUILDING FIRES

There were 12 building fires of different types in Dukes County in 2008. These 12 building fires accounted for all of the structure fires in Dukes County.

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

Ten (10), or 83%, of Dukes County's 12 building fires occurred in residential occupancies. Mercantile and business properties had one fires; and another fire occurred at a restaurant.

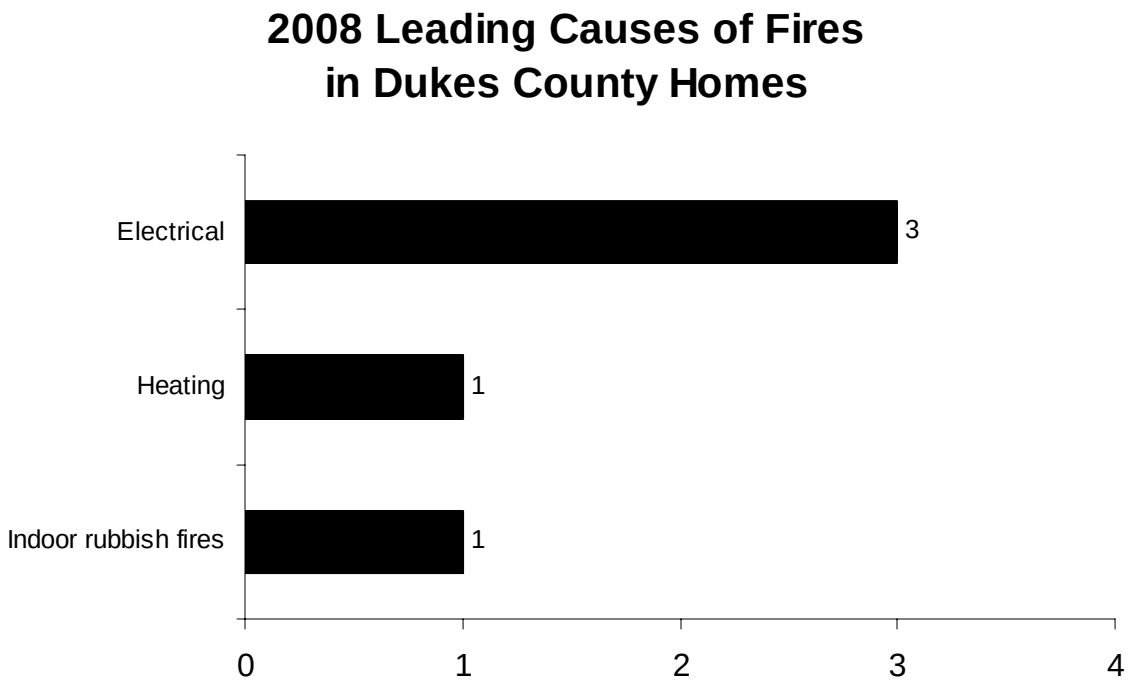
RESIDENTIAL FIRES

Residential Building Fires Down

There were 10 reported residential building fires in Dukes County in 2008. These 10 fires are a decrease of seven, or 41%, from the 17 residential building fires reported in 2007.

Electrical Problems Was the Leading Known Causes of Residential Fires

Electrical problems were the leading cause of residential building fires in Dukes County, accounting for three, or 33%, of these fires. Heating equipment caused one of the residential building fires in Dukes County in 2008, accounting for 11% of the fires. An indoor rubbish fire was each responsible for 11%, of the fires in Dukes County in 2008.

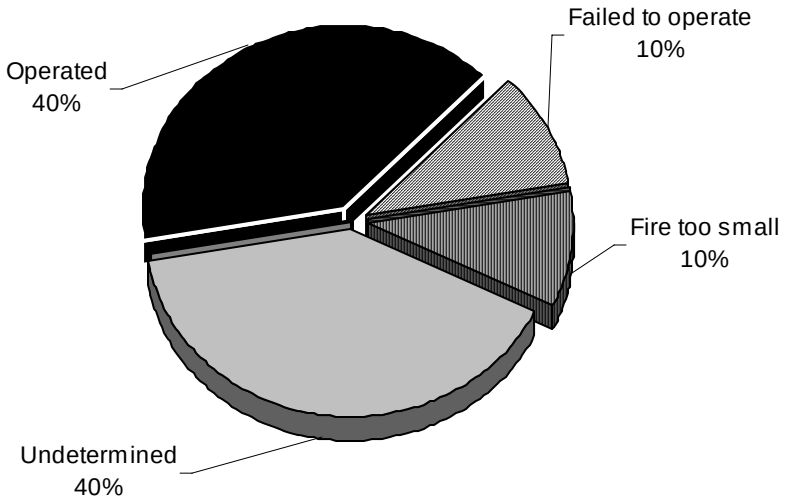


None of Residential Building Fires Are Confined to Non-Combustible Containers[1]
None of the reported fires in Dukes County were confined to a non-combustible container.

Detectors Alerted Occupants in 40% of Fires
Smoke or heat detectors operated and alerted the occupants in four, or 40%, of the residential building fires. Detectors were present but did not operate in one, or 10% of these incidents. In another fire, or 10% the fire was too small to activate the detector. Smoke detector performance was undetermined in four incidents, or 40% of Dukes 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.

Detector Status in Dukes County's Residential Fires 2008



1 Detector Failed to Operate Because of a Missing Battery
One detector failed to operate because its battery was missing.

VACANT BUILDINGS

36% of Building Fires Occurred in Vacant Buildings
Dukes County reported four fires that occurred in a building that were vacant, under construction or demolition[2]. This represented 36% of the total 11 building fires reported to MFIRS in 2008. The fires all occurred in residences.

None of the vacant building fires in Dukes County in 2008 were determined to be intentionally set.

JUVENILE-SET FIRES

No Juvenile-set Fires
There were no reported juvenile-set fires in Dukes County in 2008.

[2] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

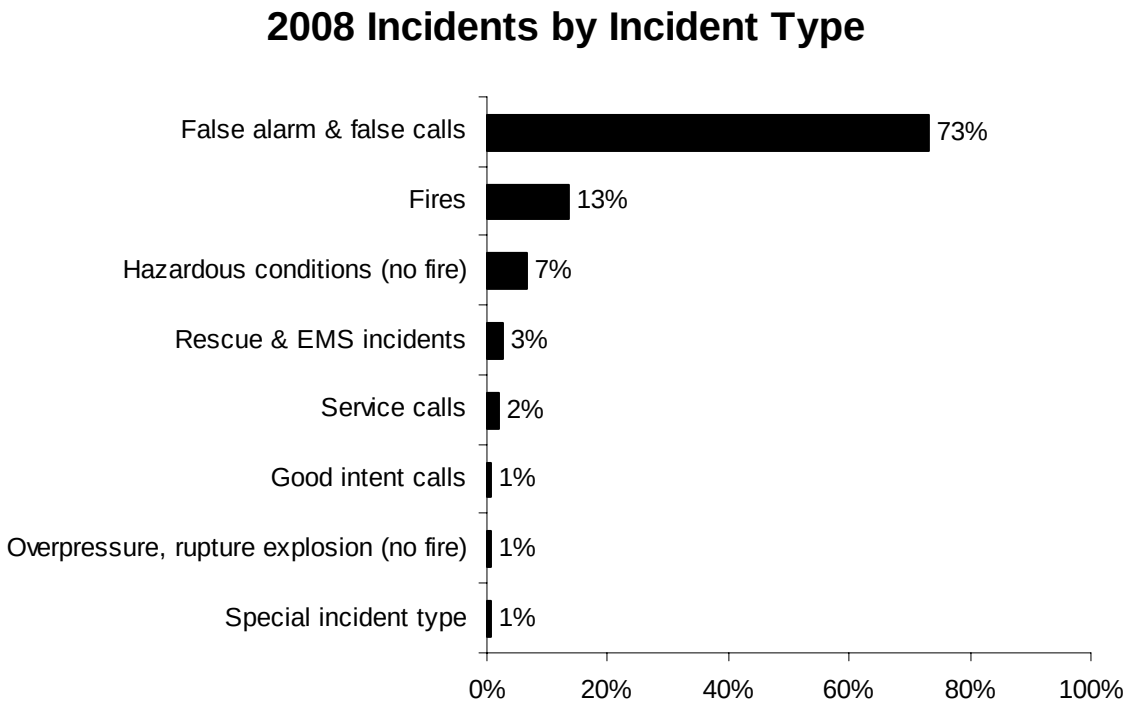
ARSONS

No Arsons
For the second year in a row, there were no reportable arsons in Dukes County.

ALL INCIDENTS

False Alarms Almost 3/4 of All Reported Responses
In 2008, Dukes County fire departments reported 149 responses[3] to MFIRS. Of these 149 incidents, 129 non-fire calls were voluntarily reported.

Of these 129 non-fire calls 109, or 73%, were reported false alarm or false calls; 10, or 7%, were reported hazardous condition calls with no fire; four, or 3% of all of the responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; two, or 2%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; one, or 1%, was a reported good intent call; one, or 1%, was a reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 1% was a special incident type.



Twenty (200), or 13%, of the total incidents submitted by Dukes County fire departments were fires.

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

Dukes County Fire Departments Gave Mutual Aid 6 Times
In 2008, Dukes County fire departments reported coming to the aid of other fire departments six times. Of these six responses, five, or 83%, were for false alarms or false calls; and one, or 17%, was for a fire.

Dukes County Fire Departments Received Mutual Aid in 5 Incidents
In 2008, Dukes County fire departments reported receiving aid from surrounding departments in five incidents. All five of these incidents were for fires.

Dukes County Population: 14,987

1.2 Fires/1,000 Population

Total Fires:	**19**		**$651,500**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	12	63%	$651,500
Vehicle Fires	3	16%	0
Other Fires	4	21%	0

No Deaths
No Injuries

Building Fires: 12

Residential Structure Fires: 10

Residential Structure Fires Confined to Non-Combustible Containers: 10

Unconfined Residential Structure Fires: 0

No Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	9	90%
Residential, other	1	10%

Detector Status	**Fires**	**%**
Operated	4	40%
Didn't operate	1	10%
None	0	0%
Fire too small	1	10%
Didn’t alert (confined)	0	0%
Undetermined	4	40%

Area of Origin[4]	**%**
Kitchen	20%
Storage area, other	20%
Closet	10%
MV storage area, garage	10%
Egress/exit, other	10%
Bedroom	10%

Heat Source	**%**	**%Unconfined**[5]
Arcing	0%	33%
Radiated heat from oper. eq.	0%	22%
Spon. comb./chem. reaction	0%	11%
Hot ember or ash	0%	11%

[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 Ignited[6]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[7]**
Electrical wire, cable insulation	10%	Worn out	11%	11%
Box, carton, bag, basket	10%	Unspec. short-circuit arc	11%	11%
Goods not made up	10%	Arc, spark from oper. equip.	11%	11%
Thermal, acoustical insulation	10%			
Interior ceiling covering/finsih	10%			
Floor covering, rug/carpet/mat	10%			
Rubbish, trash, waste	10%			
Structural component, other	10%			

Equipment[8]	**%**	**Cause of Ignition**	**%**	**%Unconfined[9]**
None	56%	Unintentional	50%	50%
Personal, household eq., other	11%	Failure of eq. or heat source	30%	30%
Painting tools, other	11%	Act of nature	0%	0%
Halogen light fixture, lamp	11%	Cause under investigation	10%	10%
HVAC, other	11%	Undetermined	10%	10%

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

Alerted occupants	0%
Didn't alert occupants	0%
Undetermined	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.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	2	0	2	0
February	2	1	0	1
March	3	3	0	0
April	2	2	0	0
May	0	0	0	0
June	4	2	0	2
July	4	2	1	1
August	1	1	0	0
September	0	0	0	0
October	1	1	0	0
November	0	0	1	0
December	0	0	0	0

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

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

Motor Vehicle Fires

Total: 3
Automobiles: 2 (67%)
None of the automobile fires were incendiary or suspicious in 2008.

Arson Fires

Total Arsons: 0 **Dollar loss: $0**

0.0 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	0	0%	0%	0

0.00 Structure arsons/1,000 population
0.00 Vehicle arsons/1,000 population
0.0 Other arsons/1,000 population

No Injuries

Aquinnah **Population: 344**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	1	1	0	0	0	0	0	0
2007	1	1	0	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Chilmark **Population: 843**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	0	0	0	0	0	0	0
2005	3	1	2	0	0	0	0	0
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	3	3	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0

Edgartown **Population: 3,779**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	6	1	1	0	0	0	0
2005	15	4	6	5	1	0	0	1
2006	11	2	2	7	1	0	0	1
2007	3	1	0	2	0	0	0	0
2008	4	3	0	1	0	0	0	0

Gosnold (Cuttyhunk) **Population: 86**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	1	0	0	1	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Oak Bluffs **Population: 3,713**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	4	3	0	1	0	0	0	0
2005	9	5	2	2	0	0	0	0
2006	4	3	1	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	1	1	0	0	0	0	0	0

Tisbury **Population: 3,755**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	4	1	2	1	0	0	0	0
2005	12	6	1	5	0	0	0	0
2006	20	11	3	6	1	0	0	1
2007	26	15	3	8	0	0	0	0
2008	12	6	3	3	0	0	0	0

West Tisbury **Population: 2,467**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	1	1	0	0	0	0	0
2005	2	1	1	0	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	2	2	0	0	0	0	0	0
2008	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	2	2	0	0	0	0	0	0	0	0
07089	Edgartown	4	4	0	0	0	0	0	0	0	0
07221	Oak Bluffs	1	1	0	0	0	0	0	0	0	0
07296	Tisbury	142	13	1	4	10	3	1	109	0	1
Total	**Dukes County**	**149**	**20**	**1**	**4**	**10**	**3**	**1**	**109**	**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 departments that wants to send all of their responses to do so.

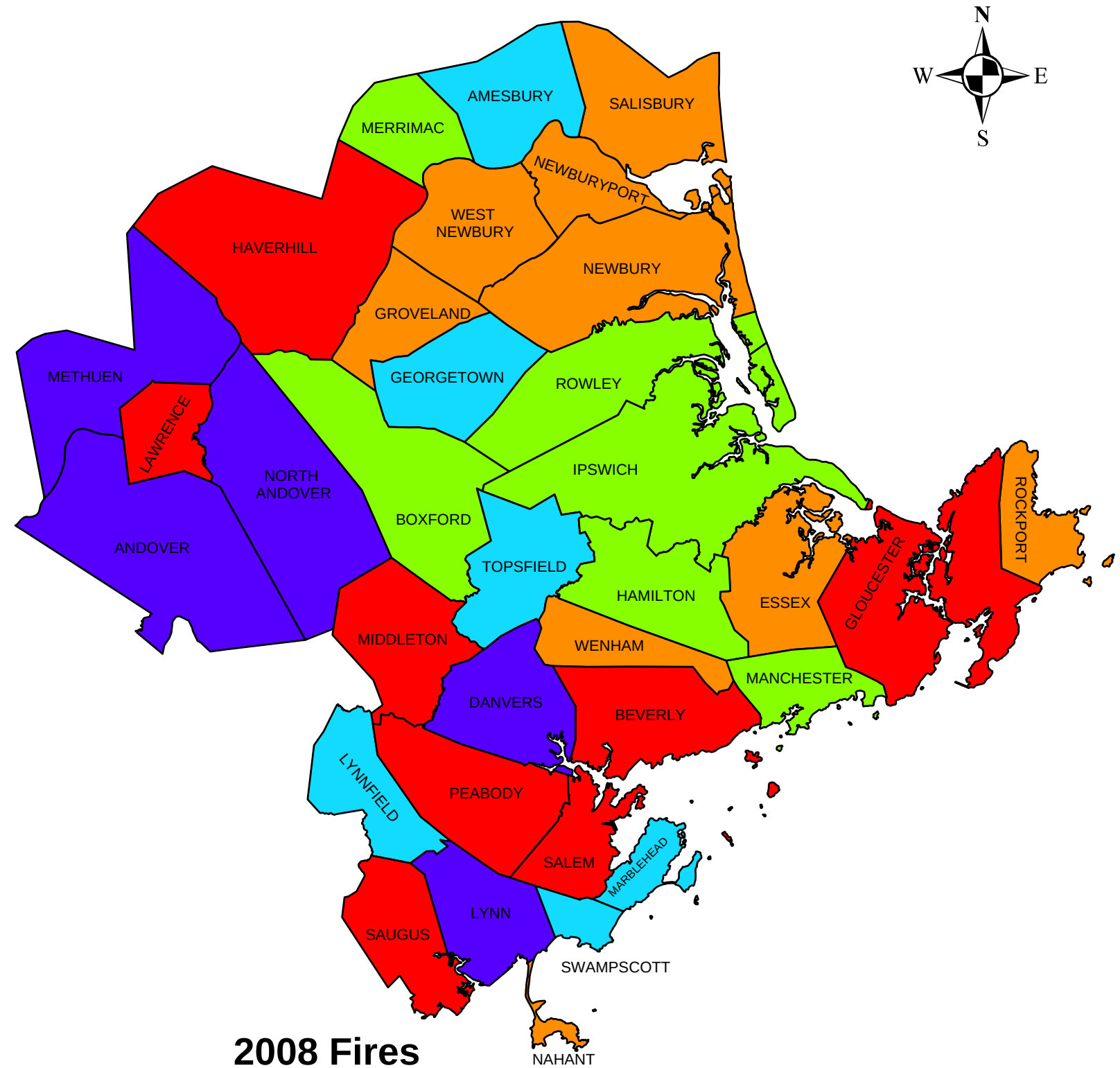
Essex County

2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Essex County Fires 2008



2008 Fires

- 0
- 1 - 25
- 26 - 50
- 51 - 100
- 101 - 150
- 151 - 325

Miles

0 2 4 8 12 16

Massachusetts Fire Incident Reporting System 2008

Essex County Fires in 2008

2,887 Total Fires — 1,628 Structures, 326 Vehicles & 933 Other Fires
Essex County ranked fifth out of the fourteen Massachusetts counties in total reported fires. The county reported 2,887 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 1,628 structure fires, 326 motor vehicle fires, 586 brush, tree or lawn fires, 203 outside rubbish fires, 68 special outside fires, six cultivated crop or vegetation fires, and 70 other fires caused eight civilian deaths, 13 civilian injuries[1], 45 fire service injuries and an estimated dollar loss of $25.6 million[2]. Essex County's fires accounted for 10% of the 30,136 Massachusetts fires reported in 2008.

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 2008.

All Fires Down
The total number of reported fire incidents decreased by 749 incidents from the 3,636 that were reported in 2007. Reported structure fires decreased by 66 from the 1,694 reported during the previous year. The total number of motor vehicle fires decreased by 14 from the 340 incidents reported during 2007. Reported outside and other fires decreased 669 from the 1,602 reported the year before.

Brush Fires Down by 39%
After a large increase in brush fires in 2007 by 514, or 115%, brush fires decreased by 376, or 39%, from the 962 reported in 2007. This is a major decrease and the main reason for the drop in all Norfolk County fires.

ESSEX COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3,055	1,738	383	934	146	25	14	107
2005	3,090	1,641	358	1,091	139	37	14	88
2006	2,875	1,443	343	1,089	107	27	12	68
2007	3,636	1,694	340	1,602	178	32	12	134
2008	2,887	1,628	326	933	134	21	17	96

Fire and Fire Death Rates
Essex County had 4.0 fires per 1,000 population. That figure ranks Essex County ninth in the state and below the state rate of 4.8 fires per 1,000 population. Essex County also had

[1] The Lawrence Fire Department reported only 1 civilian fire injuries in 2008.

[2] Essex County had 3 fires that reported a dollar loss greater than $1 million. Peabody FD had one fire where the loss totaled $6.8 million and another with $1.5 million in losses. Beverly, reported one fire where the dollar loss was $2 million.

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.

5 Fatal Fires Killed 8 Essex County Civilians

- On January 16, 2008 at 2:37 p.m., the Danvers Fire Department was called to a fatal electrical fire in a two-family home. Electrical arcing inside a wall started the fire. The victims, a 52-year old woman and her 53-year old husband, were overcome by heat and smoke. One firefighter was injured at this fire. Detectors were present but failed to operate because of a lack of cleaning. Sprinklers were not present. Damages from this fire were estimated to be $75,000.

- On February 14, 2008 at 7:24 p.m., the Lawrence Fire Department was called to a fatal smoking fire in a three-unit apartment building. The victim, a 55-year old man, fell asleep while smoking. There were no other injuries associated with this fire. Smoke detectors were present and operated. Sprinklers were not present. Damages from this fire were estimated to be $350,000.

- On May 15, 2008, at 12:53 p.m., the Swampscott Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire started in the basement. It is believed that the victim, a 61-year old man, was refinishing furniture in the basement. The vapors from the refinishing liquids were ignited by one of the multiple heat sources nearby. While attempting to escape the fire he became incapacitated by the heat and smoke and fell, hitting his head, and knocking over a can of gasoline intensifying the fire around him. Three firefighters were injured fighting this fire. There were no smoke detectors or sprinklers in the home. Damages from this fire were estimated to be $350,000.

- On November 3, 2008 at 11:51 p.m., the Lawrence Fire Department was called to a fatal electrical fire in a single-family home. The fire was caused by an unspecified short-circuit in the kitchen, either a baseboard heater or a nearby power strip malfunctioned. One of the victims, a 51-year old woman, initially escaped with her husband but reentered the building to rescue her 19-year old son. Both were overcome by heat and smoke. No one else was injured at this fire. It was

- On November 7, 2008 at 9:08 p.m., the Haverhill Fire District was called to a fatal fire in a single-family home of undetermined cause. The fire started in a third floor bedroom. The victims, a 6-year old boy and his 50-year old physically disabled aunt, were trapped by the fire and overcome by the heat and smoke. There were no other injuries associated with this fire. It was undetermined if detectors were present. There were no sprinklers. Damages from this fire were estimated to be $60,000.

Peabody Has Essex County's Largest Loss Fire in 2008

- On May 29, 2008, at 3:52 p.m., the Peabody Fire Department was called to a smoking fire in 38-unit apartment building. A cigarette improperly discarded in the courtyard bark mulch started this fire. A nearby bank of natural gas meters failed and

contributed to the rapid spread of the fire. No one was injured at this fire. Smoke detectors were present but it was undetermined if they operated. Sprinklers were also present, but it was also undetermined if they operated. Damages were estimated to be $6.8 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 1,628 structure fires caused all eight of the civilian deaths, 12 civilian injuries, 43 fire service injuries and an estimated dollar loss of $24.4 million. These incidents represented 56% of Essex County's reported fires in 2008. The average estimated dollar loss per structure fire was $14,972. The total number of reported structure fires decreased by 66, or 4%, from the 1,694 reported in 2007.

Arson Caused of 1% of Structure Fires

The 21 structure arsons caused three fire service injuries and an estimated dollar loss of $532,707. Arson was indicated as the cause of 1% of the structure fires and 2% of Essex County's structure fire dollar loss. The 21 structure arsons accounted for 16% of the Essex County arson fires reported in 2008. The total number of reported structure arsons decreased by 11 or 34%, from 32 in 2007.

62% of Structure Arsons Occurred in Residences

Sixty-two percent (62%), of Essex County's 21 structure arsons occurred in residential occupancies; 10% occurred each in public assembly properties, storage facilities and special properties; and institutional facilities and industrial facilities each accounted for 5% of the structure arsons in Essex County in 2008.

BUILDING FIRES

There were 1,617 building fires of different types in Essex County in 2008. These 1,617 building fires accounted for 99.3 % of all structure fires in Essex County.

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

One thousand three hundred and fifteen (1,315), or 81%, of Essex County's 1,617 building fires occurred in residential occupancies. Mercantile and business properties had 92 fires. Seventy-seven (77) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 50 fires. Twenty-five (25) building fires in Essex County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Twenty (20) building fires took place on educational properties. Seventeen (17) fires took place in manufacturing and processing facilities. Fourteen (14) fires took place in storage properties. Five (5) fires happened in industrial facilities; and two fires occurred in unclassified properties in Essex County in 2008.

RESIDENTIAL FIRES

Residential Building Fires Down Slightly in 2008

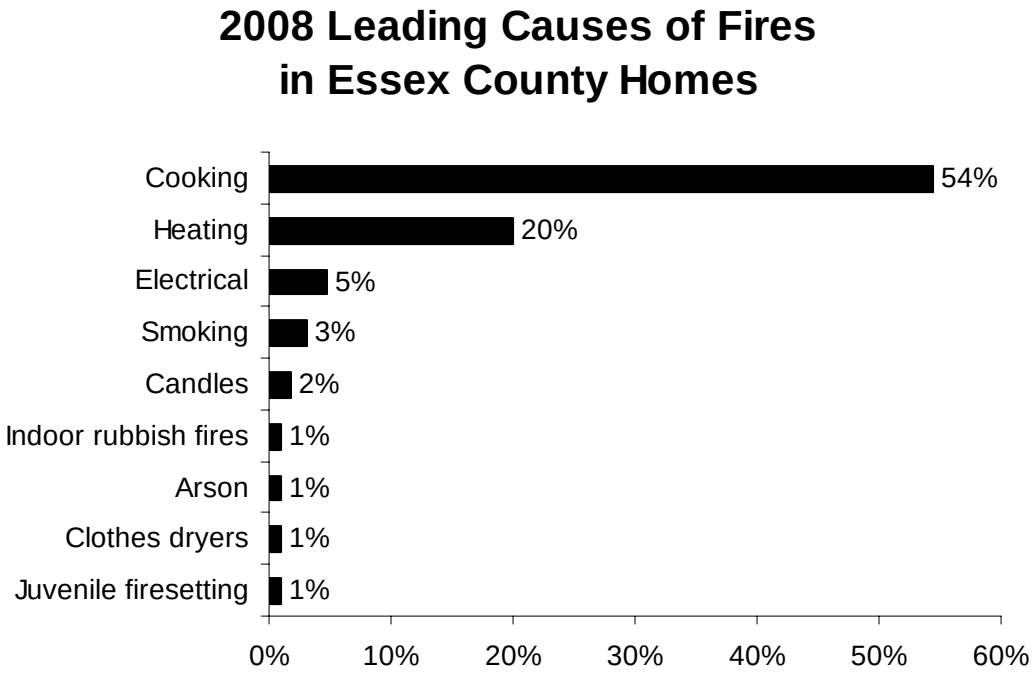
There were 1,315 reported residential building fires in Essex County in 2008. These 1,315 fires are a decrease of 36, or 3%, from the 1,351 residential building fires reported in 2007.

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

The peak fixed property uses for residential building fires were 1- and 2-family homes, accounting for half, or 51%, of the building fires in Essex County; 32% occurred in apartments; 1% each happened in rooming houses, dormitories, residential board and care facilities and hotels or motels. Seventy-two (72), or 4% of the residential building fires in Essex County occurred in unclassified residential buildings.

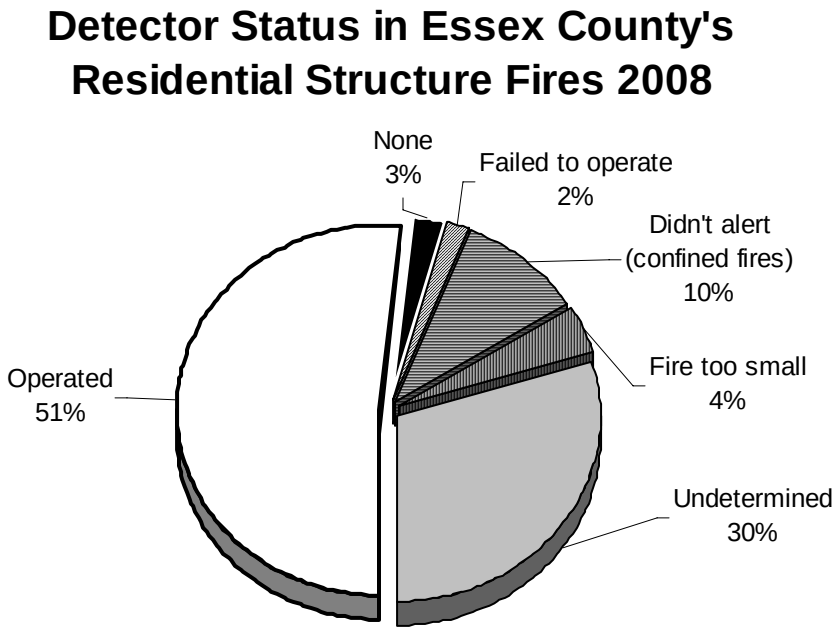
Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Essex County was unattended cooking and other unsafe cooking practices, accounting for 54% of these fires. Heating was the second leading cause, accounting for 20% of these fires. Electrical problems caused 5% of residential building fires. Smoking caused 3% of these fires. Candles were the cause of 2% of residential fires. Indoor rubbish fires, arson, clothes dryers, and juvenile-set fire each caused 1% of the fires in people's' homes in Essex County in 2008.



70% of Residential Building Fires Are Confined to Non-Combustible Containers[3]
Nine hundred and twenty-four (924), or 70% of all residential building fires were reported as confined to non-combustible containers in 2008. Six hundred and fifty-one (651), or 50%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. One hundred and forty-six (146), or 11%, were fires confined to a fuel burner or boiler malfunction. One hundred and six (106) of the reported fires were confined to a chimney accounting for 7% of residential building fires. Eighteen (18), or 1%, of these fires were rubbish fires contained to a non-combustible container. Two fires, or less than 1%, were incinerator overload or malfunctions; and one fire, or less than 1% of all residential fires, was confined to a commercial compactor.

Detectors Operated in Over 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 679, or 51%, of the residential building fires. In 10% of these fires[4], 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 392 incidents, or 30% of Essex County's residential building fires.



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

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

Almost 1/3 of Failed Detectors Had Missing or Disconnected Batteries

Of the 26 fires where smoke detectors were present but failed to operate, eight, or 31%, failed because the batteries were either missing or disconnected. Three (3), or 12%, failed because of a power failure, shutoff or disconnect. It was determined that another three detectors, or 12%, didn't work because of a lack of maintenance. One (1), or 4%, did not operate because of a dead battery. It was undetermined or unclassified in 11 cases, or 42%, why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Essex County reported 39 fires that occurred in buildings that were vacant, under construction or demolition[5]. This represented 2% of the total 1,617 building fires reported to MFIRS in 2008. Nineteen (19) fires occurred in vacant residential properties. Public assembly properties and storage facilities each accounted for six vacant building fire incidents. Mercantile and business properties had five of these fires. Educational facilities, manufacturing or processing facilities and special properties each accounted for one vacant building fire in Essex County in 2008.

Three (3) of the vacant building fires in Essex County in 2008 were determined to be intentionally set. Two (2) single-family homes, two storage facilities and one detached residential garage were vacant building arsons.

JUVENILE-SET FIRES

13 Juvenile-set Fires

There were 13 reported juvenile-set fires in Essex County in 2008. The 10 structure fires, two brush fires and one special outside fire caused $477,050 in estimated damages.

ARSONS

134 Total Arsons[6] — 21 Structures, 17 Vehicles & 96 Other Arsons

One hundred and thirty-four (134), or 5%, of Essex County's 2,887 fires were considered intentionally set, or, for purposes of this analysis, arson. The 21 structure arsons, 17 motor vehicle arsons and 96 outside and other arsons caused one civilian injury, three fire service injuries and an estimated dollar loss of $623,707.

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[5] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[6] 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.

Structure & Outside & Other Arsons Down

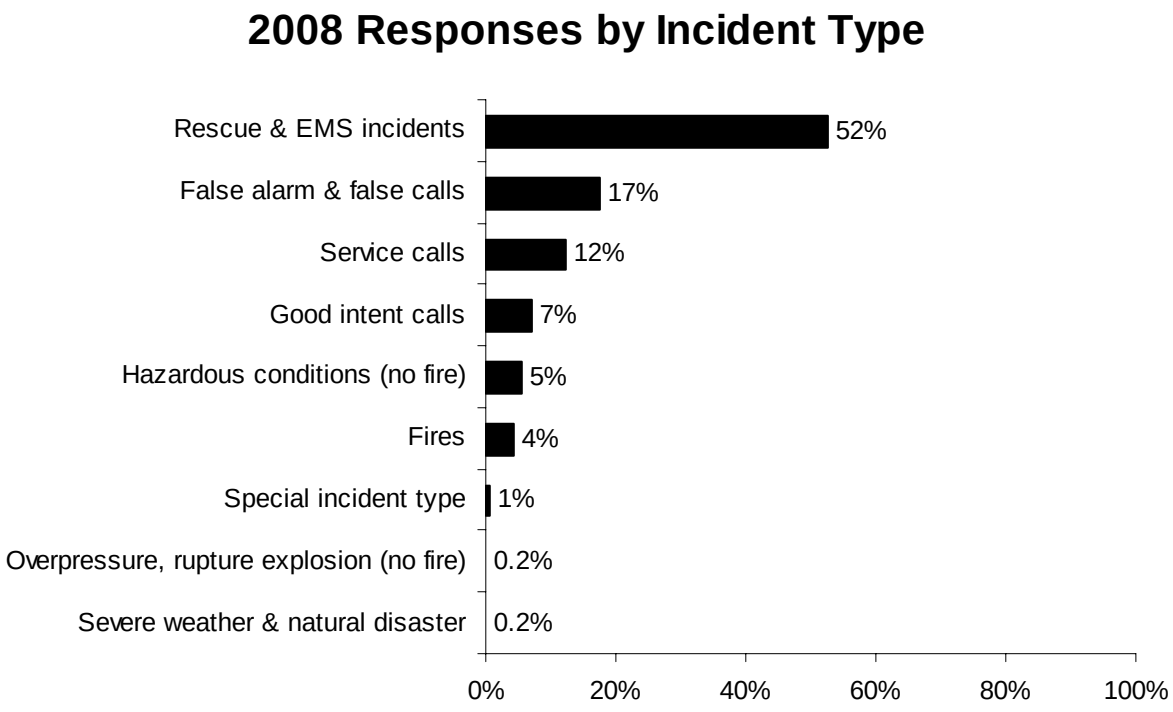
The total number of reported arson fires decreased by 44 from the 178 reported in 2007. Reported structure arsons decreased by 11 from the 32 reported the previous year. Motor vehicle arsons increased by five from the 12 reported in 2007. Outside and other arsons decreased by 38 from 134 reported the year before.

ALL INCIDENTS

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

In 2008, fire departments in Essex County reported 71,424 responses[7] to MFIRS. Of these 71,424 incidents, 68,431 non-fire calls were voluntarily reported.

Of these 68,431 non-fire calls, 37,489, or 52% of all the reported responses in 2008, were reported rescue and emergency medical services (EMS) calls; 12,468, or 17%, were reported false alarm or false calls; 8,865, or 12%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,000 or 7%, were reported good intent calls; 3,922, or 5%, were reported hazardous condition calls with no fire; 437, or 1%, were special incident type calls such as citizen complaints; 131, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire ; and 119, or 0.2%, were severe weather responses.



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

Two thousand nine hundred and ninety-three (2,993), or 4%, of the total incidents submitted by Essex County fire departments were fires.

Essex County Fire Departments Reported Giving Mutual Aid 1,141 Times

In 2008, Essex County fire departments reported coming to the aid of other fire departments 1,141 times. Of these 1,141 responses, 443, or 39%, were for rescue or EMS calls; 364, or 32%, were for service calls such as cover assignments; 146, or 12%, were for good intent calls; 107, or 9%, were for fires; 64, or 6%, were for false alarms or false calls; 12, or 1%, were for hazardous conditions calls with no fire; three, or 0.3%, were special incident types; and two, or 0.2% were reported overpressure, rupture, explosion or overheat calls with no fire.

Essex County Received Mutual Aid in 1,238 Incidents

In 2008, Essex County fire departments reported receiving aid from surrounding departments in 1,238 incidents. Of these 1,238 incidents, 812, or 66%, were rescue and emergency medical services calls; 182, or 15%, were for fires; 131, or 11%, were false alarms or false calls; 43, or 3%, were good intent calls; 39, or 3%, were hazardous conditions calls with no fire; 22, or 2% were service calls; eight, or 1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.1%, was for a severe weather or natural disaster call.

Essex County Population: 723,419

4.0 Fires/1,000 Population

Total Fires:	**2,887**		**$25,585,337**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	1,628	56%	$24,374,175
Vehicle Fires	326	11%	861,157
Other Fires	933	32%	350,005

5 Fatal Fires	2.77 Civilian Deaths/1,000 Fires
8 Civilian Deaths	0.11 Civilian Deaths/10,000 Population
13 Civilian Injuries	45 Fire Service Injuries

Building Fires: 1,617

Residential Structure Fires: 1,315

Residential Structure Fires Confined to Non-Combustible Containers: 924

Unconfined Residential Structure Fires: 391

8 Civilian Deaths 10 Civilian Injuries 34 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	672	51%
Apartments	512	39%
Dormitories	21	1%
Residential board & care	15	1%
Rooming houses	13	1%
Hotels/motels	10	1%

Detector Status	**Fires**	**%**
Operated	679	51%
Didn't operate	26	2%
None	34	3%
Fire too small	54	4%
Didn’t alert (confined)	130	10%
Undetermined	392	30%

Area of Origin[8]	**%**
Kitchen	58%
Heating equipment room	12%
Chimney or flue	8%
Living room	2%
Bedroom	2%

Heat Source	**%**	**%Unconfined**[9]
Radiated heat from oper. eq.	34%	14%
Arcing	3%	11%
Heat from operating equip.	3%	9%
Cigarettes	2%	6%
Candles	2%	6%

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

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

Item First Ignited[10]	**%**
Food, cooking materials	52%
Flammable/comb. liquid	11%
Film, residue (creosote)	8%
Rubbish, trash, waste	3%
Structural member, framing	2%

Factor Contrib. to Ignit.	**%**	**%Unconfined**[11]
Too close to combustibles	3%	9%
Abandoned materials	2%	6%
Electrical failure, malfunc.	2%	6%
Equipment unattended	2%	5%
Failure to clean	1%	5%

Equipment[12]	
Kitchen & cooking equipment	54%
None	21%
Boiler, furnace, cent. heat. unit	11%
Chimney, flue	8%
Clothes dryer	1%

Cause of Ignition	**%**	**%Unconfined**[13]
Unintentional	19%	65%
Failure of eq. or heat source	4%	15%
Intentional	1%	3%
Undetermined	2%	6%
Cause under investigation	2%	8%
Act of Nature	1%	2%

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

Alerted occupants	54%
Didn't alert occupants	14%
Undetermined	32%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	183	137	25	21
February	191	153	24	14
March	209	127	18	64
April	372	125	23	224
May	321	123	26	172
June	251	131	24	96
July	235	109	39	87
August	184	95	25	64
September	240	152	27	61
October	220	145	28	47
November	240	161	30	49
December	241	170	37	34

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	439	269	50	120
Monday	406	220	49	137
Tuesday	384	209	39	137
Wednesday	442	243	45	154
Thursday	441	253	42	146
Friday	372	205	45	122
Saturday	403	229	57	117

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	194	107	42	45
04:01 - 08:00	195	127	28	40
08:01 - 12:00	451	288	46	117
12:01 - 16:00	767	367	91	309
16:01 - 20:00	836	489	69	278
20:01 - 00:00	444	250	50	144

Motor Vehicle Fires

Total: 326
Automobiles: 276 (85%)
13, or (5%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 134 **Dollar loss: $623,707**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	21	1%	16%	$532,707
Vehicle Arsons	17	5%	13%	86,000
Other Arsons	96	10%	71%	5,000

0.03 Structure arsons/1,000 population
0.02 Vehicle arsons/1,000 population
0.13 Other arsons/1,000 population

1 Civilian Injury 3 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%
00:01 - 04:00	4	19%
04:01 - 08:00	4	19%
16:01 - 20:00	4	19%
20:01 - 00:00	4	19%

Vehicle Arsons	#	%
00:01 - 04:00	6	35%
20:01 - 00:00	4	24%

Other Arsons	#	%
16:01 - 20:00	36	38%
20:01 - 00:00	26	27%
12:01 - 16:00	20	21%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartment buildings	7	33%
1- and 2-Family homes	5	24%

Amesbury **Population: 16,450**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	65	44	9	12	1	0	0	1
2005	73	39	12	22	3	1	0	2
2006	68	39	5	24	2	1	0	1
2007	53	31	4	18	0	0	0	0
2008	64	33	12	19	1	1	0	0

Andover **Population: 31,247**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	142	51	34	57	7	1	1	5
2005	172	62	30	80	7	3	1	3
2006	132	59	27	46	1	0	1	0
2007	184	57	19	108	3	2	0	1
2008	146	78	32	36	0	0	0	0

Beverly **Population: 39,862**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	35	27	5	3	0	0	0	0
2005	27	20	6	1	1	1	0	0
2006	92	51	12	29	1	1	0	0
2007	156	71	14	71	5	2	0	3
2008	159	100	18	41	5	3	1	1

Boxford **Population: 7,921**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	31	14	2	15	4	0	0	4
2005	37	19	7	11	1	0	0	1
2006	37	20	7	17	0	0	0	0
2007	46	29	6	11	2	1	0	1
2008	34	20	0	14	2	0	0	2

Danvers **Population: 25,212**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	141	73	25	43	1	0	0	1
2005	118	72	16	30	2	1	1	0
2006	85	43	19	23	2	1	1	0
2007	186	55	13	118	0	0	0	0
2008	118	44	10	64	3	1	1	1

Essex **Population: 3,267**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	3	0	2	1	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	7	4	3	0	0	0	0	0

Georgetown **Population: 7,377**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	4	4	0	0	0	0	0	0
2006	26	9	1	16	1	1	0	0
2007	50	36	3	11	0	0	0	0
2008	55	49	1	5	1	0	0	1

Gloucester **Population: 30,273**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	154	85	17	52	11	1	3	7
2005	166	85	17	64	11	0	0	11
2006	153	87	14	52	2	0	0	2
2007	217	95	11	111	8	1	0	7
2008	164	100	17	47	7	0	1	6

Groveland **Population: 6,038**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	8	5	3	0	0	0	0	0
2006	4	3	1	0	1	1	0	0
2007	3	3	0	0	0	0	0	0
2008	2	1	1	0	0	0	0	0

Hamilton **Population: 8,315**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	22	16	1	5	4	1	0	3
2005	43	23	3	17	12	0	0	12
2006	57	30	3	24	3	0	0	3
2007	52	27	5	20	4	0	0	4
2008	31	17	4	10	1	0	0	1

Haverhill **Population: 58,969**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	158	43	34	81	29	1	2	26
2005	235	166	17	52	26	5	0	21
2006	272	190	26	56	29	5	0	24
2007	374	225	25	124	63	4	0	59
2008	311	209	8	94	52	2	0	50

Ipswich **Population: 12,987**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	41	18	0	23	3	1	0	2
2005	57	28	6	23	6	3	1	2
2006	41	14	3	24	2	0	1	1
2007	39	20	1	18	0	0	0	0
2008	41	19	7	15	1	0	0	1

Lawrence **Population: 72,043**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	385	223	45	117	17	3	2	12
2005	321	187	35	99	16	3	5	8
2006	296	97	64	135	13	5	3	5
2007	282	134	67	81	43	12	9	22
2008	260	136	40	84	11	5	5	1

Lynn **Population: 89,050**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	83	36	46	1	2	1	1	0
2005	69	39	29	1	4	3	1	0
2006	95	65	29	1	8	6	2	0
2007	128	87	38	3	3	3	0	0
2008	126	83	42	1	8	2	6	0

Lynnfield **Population: 11,542**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	95	62	5	28	0	0	0	0
2005	113	83	6	24	0	0	0	0
2006	112	75	7	30	0	0	0	0
2007	80	45	2	33	1	1	0	0
2008	57	31	4	22	1	0	0	1

Manchester-By-The-Sea **Population: 5,228**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	42	24	3	15	3	1	0	2
2005	35	24	2	9	0	0	0	0
2006	27	14	5	8	0	0	0	0
2007	36	17	4	15	1	0	0	1
2008	27	18	1	8	0	0	0	0

Marblehead **Population: 20,377**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	58	40	3	15	0	0	0	0
2005	79	46	5	28	1	1	0	0
2006	61	40	6	15	1	0	0	1
2007	67	33	3	31	0	0	0	0
2008	52	25	7	20	5	1	0	4

Merrimac **Population: 6,138**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	38	11	4	23	13	0	0	13
2005	30	16	4	10	2	0	0	2
2006	38	23	3	12	2	0	0	2
2007	39	15	5	19	4	0	0	4
2008	49	27	2	20	5	0	0	5

Methuen **Population: 43,789**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	157	85	29	43	3	0	3	0
2005	193	79	33	81	7	1	1	5
2006	201	83	20	98	5	0	1	4
2007	198	79	19	100	2	0	1	1
2008	118	55	29	34	2	0	1	1

Middleton **Population: 7,744**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	32	17	5	10	1	0	0	1
2005	57	8	7	42	0	0	0	0
2006	56	25	5	26	1	1	0	0
2007[14]	212	160	6	46	0	0	0	0
2008	169	137	1	31	3	1	0	2

[14] 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: 3,632**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	0	1	7	0	0	0	0
2005	6	2	0	4	0	0	0	0
2006	4	0	0	4	0	0	0	0
2007	7	1	0	6	0	0	0	0
2008	11	2	0	9	3	0	0	3

Newbury **Population: 6,717**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	14	7	3	4	0	0	0	0
2006	12	1	2	9	0	0	0	0
2007	11	3	3	5	1	0	0	1
2008	6	3	3	0	0	0	0	0

Newburyport **Population: 17,189**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	9	5	4	0	0	0	0	0
2005	19	14	3	2	1	1	0	0
2006	13	8	2	3	0	0	0	0
2007	19	13	4	2	1	1	0	0
2008	8	5	2	1	0	0	0	0

North Andover **Population: 27,202**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	121	64	8	45	5	3	0	2
2005	139	74	14	51	4	0	1	3
2006	108	66	5	37	4	1	0	3
2007	134	78	10	46	1	0	0	1
2008	121	76	12	33	0	0	0	0

Peabody **Population: 48,129**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	292	160	35	97	13	3	1	9
2005	243	107	29	107	3	1	0	2
2006	214	64	18	132	4	0	0	4
2007	240	80	17	143	4	0	1	3
2008	180	74	22	84	4	1	1	2

Rockport **Population: 7,767**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	20	4	1	15	1	0	0	1
2006	14	5	1	8	0	0	0	0
2007	22	7	1	14	0	0	0	0
2008	13	5	2	6	0	0	0	0

Rowley **Population: 5,500**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	26	16	5	5	1	1	0	0
2005	31	12	7	12	0	0	0	0
2006	33	18	4	11	0	0	0	0
2007	57	17	7	33	2	1	0	1
2008	28	14	5	9	0	0	0	0

Salem **Population: 40,407**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	539	428	21	90	12	5	0	7
2005	374	223	18	133	5	2	1	2
2006	190	97	16	77	6	2	3	1
2007	300	97	20	183	12	1	0	11
2008	189	78	14	97	2	0	1	1

Salisbury **Population: 7,827**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	20	4	5	11	2	1	0	1
2005	22	8	3	11	0	0	0	0
2006	29	6	5	18	0	0	0	0
2007	31	10	7	14	1	0	0	1
2008	19	6	6	7	0	0	0	0

Saugus **Population: 26,078**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	205	81	24	100	11	1	1	9
2005	202	80	29	93	23	9	1	13
2006	212	84	19	109	13	1	0	12
2007	221	62	14	145	7	0	0	7
2008	165	69	12	84	14	2	0	12

Swampscott **Population: 14,412**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	84	55	9	20	1	1	0	0
2005	70	44	4	22	2	1	1	0
2006	55	32	9	14	0	0	0	0
2007	57	25	3	29	1	1	0	0
2008	56	30	5	21	1	1	0	0

Topsfield **Population: 6,141**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	55	43	3	9	0	0	0	0
2005	52	34	6	12	1	1	0	0
2006	101	79	1	21	5	0	0	5
2007	115	74	6	35	6	0	1	5
2008	73	64	1	8	0	0	0	0

Wenham **Population: 4,440**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	4	1	1	0	0	0	0
2005	51	21	1	29	1	1	0	0
2006	20	10	0	10	1	1	0	0
2007	16	6	3	7	2	1	0	1
2008	21	15	2	4	1	0	0	1

West Newbury **Population: 4,149**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	4	2	0	2	0	0	0	0
2005	4	4	0	0	0	0	0	0
2006	12	5	2	5	0	0	0	0
2007	4	2	0	2	0	0	0	0
2008	6	1	1	4	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
09007	Amesbury	3,378	78	3	1,925	175	721	191	277	3	5
09009	Andover	2,630	147	13	993	246	274	130	815	7	5
09030	Beverly	4,589	160	15	2,536	250	261	274	1,069	15	9
09038	Boxford	715	35	2	314	46	73	58	179	4	4
09071	Danvers	6,670	118	9	2,326	182	2,871	221	866	9	68
09092	Essex	7	7	0	0	0	0	0	0	0	0
09105	Georgetown	808	60	2	506	25	41	45	125	3	1
09107	Gloucester	4,373	165	3	2,728	147	525	332	458	7	8
09116	Groveland	2	2	0	0	0	0	0	0	0	0
09119	Hamilton	510	32	0	154	76	53	37	153	2	3
09128	Haverhill	311	311	0	0	0	0	0	0	0	0
09144	Ipswich	1,412	41	5	757	123	141	75	265	3	2
09149	Lawrence	6,377	260	5	2,784	566	428	631	1,635	4	64
09163	Lynn	127	126	0	0	0	1	0	0	0	0
09164	Lynnfield	1,373	62	4	838	87	137	65	177	2	1
09166	Manchester	877	31	4	435	56	91	73	179	4	4
09168	Marblehead	2,340	54	4	583	162	295	799	417	8	18

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
09180	Merrimac	863	57	0	547	36	95	53	64	9	2
09181	Methuen	5,816	121	1	4,209	264	357	145	692	6	21
09184	Middleton	1,149	175	5	476	56	183	76	172	2	4
09196	Nahant	425	13	0	257	20	42	28	55	1	9
09205	Newbury	379	6	0	209	25	32	12	92	3	0
09206	Newburyport	10	8	0	1	1	0	0	0	0	0
09210	North Andover	4,443	123	9	2,801	201	440	129	620	7	113
09229	Peabody	7,313	179	25	4,593	308	345	541	1,296	7	19
09252	Rockport	187	13	0	18	39	18	4	95	0	0
09254	Rowley	603	35	0	346	25	45	56	93	3	0
09258	Salem	6,138	189	3	3,297	404	445	339	1,449	0	12
09259	Salisbury	21	19	0	0	0	2	0	0	0	0
09262	Saugus	3,873	175	5	2,056	172	264	493	644	2	62
09291	Swampscott	1,777	70	5	947	136	217	86	313	1	2
09298	Topsfield	1,323	88	5	591	54	409	44	127	4	1
09320	Wenham	575	26	4	262	35	58	61	127	2	0
09324	West Newbury	30	7	0	0	5	1	2	14	1	0
Total	**Essex County**	**68,046**	**2,915**	**128**	**35,564**	**3,747**	**8,144**	**4,809**	**12,191**	**116**	**432**

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.

Haverhill Fires in 2008

311 Total Fires — 209 Structures, 8 Vehicles & 94 Other Fires
The Haverhill Fire Department reported 311 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 209 structure fires, eight motor vehicle fires, 84 brush fires, seven special outside fires; and three unclassified fires caused two civilian deaths, two firefighter injuries and an estimated dollar loss of $1.5 million.

Haverhill Aunt & Nephew Die in Apartment Fire

- On November 7, 2008 at 9:08 p.m., the Haverhill Fire District was called to a fatal fire in a single-family home of undetermined cause. The fire started in a third floor bedroom. The victims, a 6-year old boy and his 50-year old physically disabled aunt, were trapped by the fire and overcome by the heat and smoke. There were no other injuries associated with this fire. It was undetermined if detectors were present. There were no sprinklers. Damages from this fire were estimated to be $60,000.

All Fires Down in 2008
Total fires decreased by 63 from the 374 incidents reported in 2007. Reported structure fires were down by 16 from the 225 reported during the previous year. Motor vehicle fires decreased by 17 from 25 the year before. Outside and other fires decreased by 30 from the 124 reported in 2007.

HAVERHILL FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	142	60	22	60	13	9	1	9
2005	220	129	26	65	13	5	1	7
2006	304	225	9	70	6	1	0	5
2007	336	216	30	90	16	5	1	10
2008	334	242	26	66	16	4	3	90

BUILDING FIRES

There were 208 building fires of different types in Haverhill in 2008. These 208 building fires accounted for 99.5% of all structure fires in Haverhill.

79% of Building Fires in Homes
The 208 building fires that occurred in Haverhill in 2008 can be broken down by fixed property use as follows: 164, or 79% of all building fires, were in residential properties; 14 fires occurred in public assembly properties; 10 happened in mercantile or business properties; six fires occurred in institutional facilities; five fires occurred in manufacturing or processing facilities; three fires occurred in educational facilities; another three fires happened in storage facilities; and three other fires occurred in special properties.

RESIDENTIAL FIRES

Residential Building Fires Down Slightly

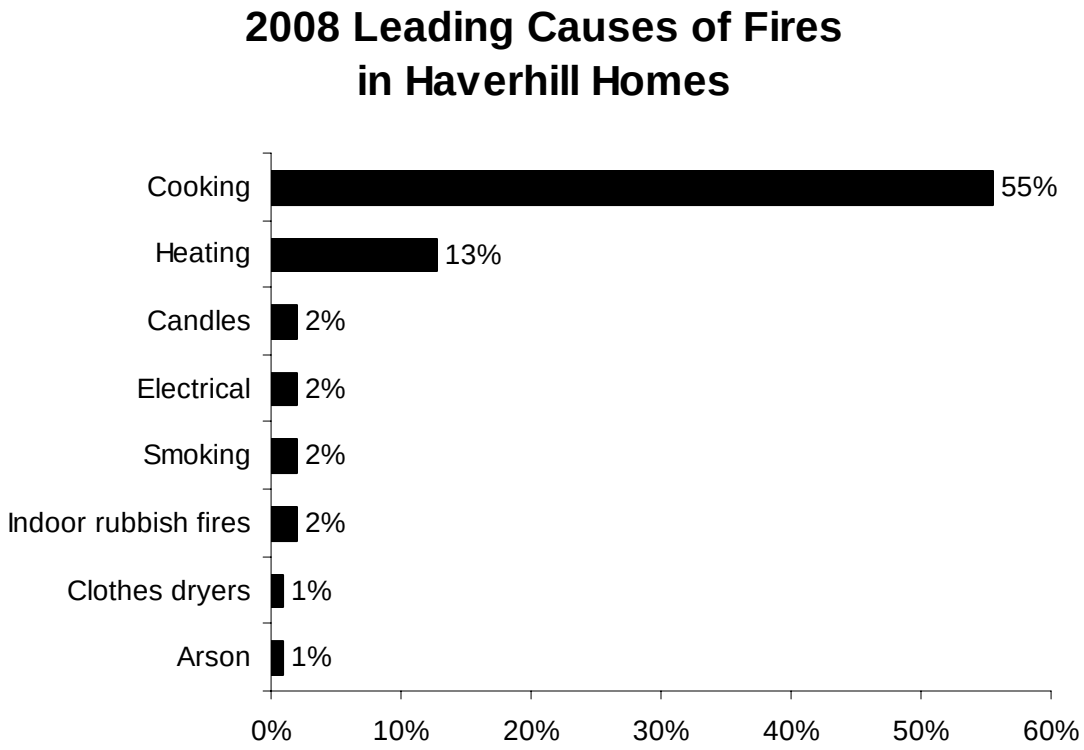
There were 164 reported residential building fires in Haverhill in 2008. These 164 fires are a decrease of nine from the 173 reported residential building fires reported in 2007.

Apartments Accounted for 37% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 37% of the building fires in Haverhill; 32% occurred in 1- or 2-family homes; and 2% each happened in rooming houses, residential board and care facilities and hotels and motels; and 26% occurred in unclassified residences.

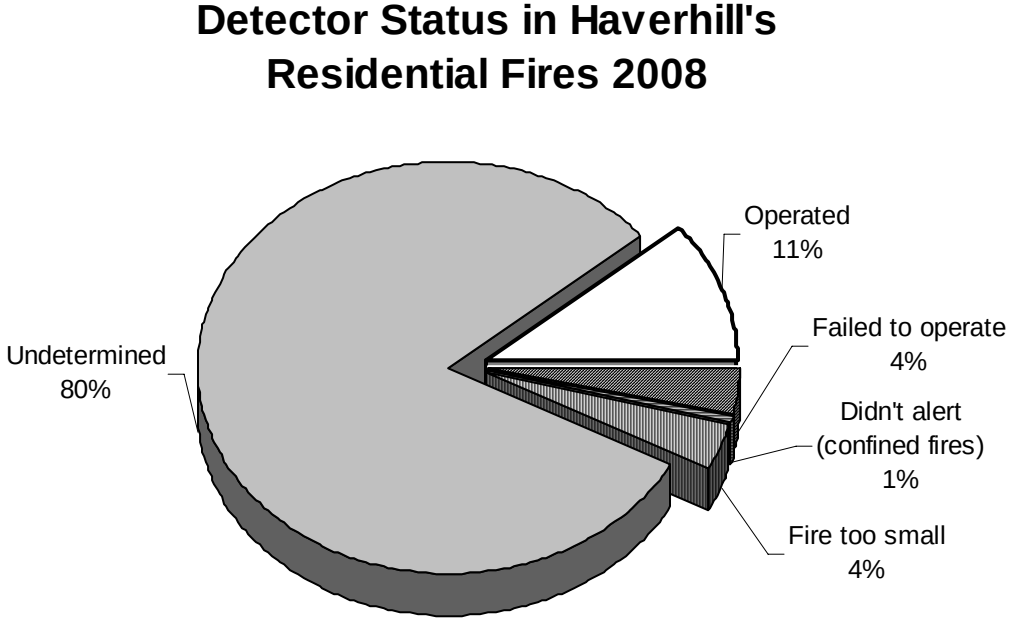
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Haverhill was unattended cooking and other unsafe cooking practices, accounting 55% of these fires. Heating fires caused 13% of these fires. Candles, electrical problems, smoking and indoor rubbish fires each caused 2% of the fires. Clothes dryers and arsons were each the cause of 1% of the fires in Haverhill's residential occupancies in 2008.



68% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and twelve (112), or 68% of all residential building fires were confined to non-combustible containers in 2008. Eighty-nine (89), or 54%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Twelve (12) fires, or 7%, were reported to have been contained to a chimney or flue. Nine (9), or 7%, were fires confined to a fuel burner or boiler malfunction. Two (2), or 1%, of these fires were rubbish fires contained to a non-combustible container.

Detectors Worked in Only 11% of Fires
Smoke or heat detectors operated and alerted the occupants in 18, or 11%, of the residential building fires. In 1% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 4% of these incidents. The fire was too small to trigger the detector in 4% of these fires. Smoke detector performance was undetermined in 133 incidents, or 80% of Haverhill's residential building fires.



The lack of data on smoke detector performance in confined fires does not present a true picture of functioning smoke alarms in Haverhill. 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.

1/3 of Detectors Failed Detectors From Missing Batteries

Of the three fires where smoke detectors were present but failed to operate, two, or 33%, failed because it had a missing or disconnected battery. It was undetermined in four cases, or 67%, why the detectors failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Haverhill reported six fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 208 building fires reported to MFIRS in 2008. Two (2) apartment buildings, one 1- or 2-family home, one church, mosque or synagogue, one outbuilding or protective shelter, and one unclassified storage facility were reported as vacant building fire incidents.

JUVENILE-SET FIRES

No Juvenile-set Fires in 2008

There were no reported juvenile-set fires in Haverhill in 2008.

ARSONS

52 Arsons[4] - 2 Structure, 0 Motor Vehicle and 50 Outside & Other

Fifty-two (52), or 17%, of Haverhill's 311 fires were considered intentionally set, or, for purposes of this analysis, arson. There were two structure arsons and 50 outside and other arsons.

All Arsons Down in 2008

The total number of arsons decreased by 34 from the 29 reported in 2007. Reported structure arsons decreased by two from the four reported in 2007. For the third year in a row, there were no reported motor vehicle arsons in Haverhill. Outside and other arsons decreased by six from the 56 reported the year before.

43 Fires Reported as Undetermined or Still Under Investigation

In 2008, Haverhill reported 43 fires under investigation or cause undetermined after investigation. Fifteen (15), or 35%, of these fires were reported to be undetermined after investigation. The other 43, or 65%, were still under investigation.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

Twenty (20), or 47%, of these 43 fires were structure fires. Five (5), or 12% were motor vehicle fires; and 18, or 42%, 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 Haverhill in 2008.

ALL INCIDENTS

Haverhill Only Reports Fires to MFIRS

Haverhill only reports their fires to MFIRS.

Haverhill Population: 58,969

5.3 Fires/1,000 Population

Total Fires:	**311**		**$1,508,550**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	209	67%	$1,508,300
Vehicle Fires	8	3%	0
Other Fires	94	30%	250

2 Civilian Deaths
1 Fatal Fire
2 Fire Service Injuries

6.43 Civilian Deaths/1,000 Fires
0.34 Civilian Deaths/10,000 Population

Building Fires: 208

Residential Structure Fires: 164

Residential Structure Fires Confined to Non-Combustible Containers: 112

Unconfined Residential Structure Fires: 52

2 Civilian Deaths 2 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	60	37%
1- & 2-Family homes	53	32%
Boarding houses	3	2%
Hotel/motel	3	2%
Residential board & care	3	2%

Detector Status	**Fires**	**%**
Operated	18	11%
Didn't operate	6	4%
None	0	0%
Fire too small	6	4%
Didn’t Alert (confined)	1	1%
Undetermined	133	80%

Area of Origin[5]	**%**
Kitchen	60%
Chimney or flue	7%
Heating room or area	5%
Bedroom	4%
Bathroom	3%
Wall assembly, concealed space	3%

Heat Source	**%**	**%Unconfined**[6]
Candles	2%	8%
Cigarettes	2%	8%
Heat from operating equip.	2%	8%
Heat from another fire	1%	4%
Incendiary device	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 Ignited[7]	**%**
Cooking materials	55%
Film, residue (creosote)	7%
Flammable or combustible liq.	5%
Rubbish, trash, waste	3%
Thermal/acoust. insul. w/in wall	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[8]
Electrical failure, malfunc.	2%	6%
Short-circuit arc, def. insul.	1%	4%
Equipment unattended	1%	4%

Equipment[9]	**%**
Cooking equipment	54%
None	30%
Chimney or flue	7%
Boiler, furnace, cent. heat. unit	5%
Clothes dryer	1%

Cause of Ignition	**%**	**%Unconfined**[10]
Unintentional	18%	58%
Intentional	1%	2%
Failure of eq./heat source	2%	8%
Cause Under Investigation	9%	29%
Undetermined	1%	2%
Act of nature	1%	2%

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

Alerted Occupants	1%
Didn't Alert Occupants	1%
Undetermined	98%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Fires[11]	311	100%

[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.

[11] Haverhill only reports fires to MFIRS.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	24	23	0	1
February	17	17	0	0
March	17	13	1	3
April	35	14	1	20
May	34	12	1	21
June	23	16	1	6
July	22	12	2	8
August	22	13	0	9
September	28	19	0	9
October	26	20	1	5
November	32	24	0	8
December	31	26	1	4

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	52	39	2	11
Monday	41	30	2	9
Tuesday	33	22	1	10
Wednesday	55	36	1	18
Thursday	37	27	1	12
Friday	47	29	0	18
Saturday	46	29	1	16

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	18	13	2	3
04:01 - 08:00	19	16	1	2
08:01 - 12:00	52	43	2	7
12:01 - 16:00	74	44	1	29
16:01 - 20:00	87	51	1	35
20:01 - 24:00	61	42	1	18

Motor Vehicle Fires

Total: 8
Automobiles: 7 (88%)
0 (0%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 52 **Dollar loss: $0**

0.9 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	2	1%	4%	$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	50	53%	96%	0

0.03 Structure arsons/1,000 population
0.00 Vehicle arsons/1,000 population
0.85 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
16:01 - 20:00	1	50%
20:01 - 00:00	1	50%

Vehicle Arsons	#	%

Other Arsons	#	%
16:01 - 20:00	20	40%
20:01 - 00:00	15	30%
12:01 - 16:00	11	22%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	1	50%
Forest, timberland, woodland facilities	1	50%

Lawrence Fires in 2008

260 Total Fires — 136 Structures, 40 Vehicles & 81 Other Fires
The Lawrence Fire Department reported 260 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 136 structure fires, 40 motor vehicle fires, 45 outside rubbish fires, 36 brush fires, and one unclassified fires caused three civilian deaths, one civilian injury, six fire service injuries and an estimated dollar loss of $5 million.

3 Lawrence Residents Killed in 2 Fatal Fires

- On February 14, 2008 at 7:24 p.m., the Lawrence Fire Department was called to a fatal smoking fire in a three-unit apartment building. The victim, a 55-year old man, fell asleep while smoking. There were no other injuries associated with this fire. Smoke detectors were present and operated. Sprinklers were not present. Damages from this fire were estimated to be $350,000.

- On November 3, 2008 at 11:51 p.m., the Lawrence Fire Department was called to a fatal electrical fire in a single-family home. The fire was caused by an unspecified short-circuit in the kitchen, either a baseboard heater or a nearby power strip malfunctioned. One of the victims, a 51-year old woman, initially escaped with her husband but reentered the building to rescue her 19-year old son. Both were overcome by heat and smoke. No one else was injured at this fire. It was undetermined if detectors were present. Sprinklers were not present. Damages from this fire were estimated to be $175,000.

Motor Vehicle Fires Are Down
Total fires decreased by 22 from the 282 incidents reported in 2007. Reported structure fires increased by two from the 134 reported during the previous year. Motor vehicle fires decreased by 27 from 67 the year before. Outside and other fires increased by three from 81 in 2007.

LAWRENCE FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	385	223	45	117	17	3	2	12
2005	321	187	35	99	16	3	5	8
2006	296	97	64	135	13	5	3	5
2007	282	134	67	81	43	12	2	22
2008	260	136	40	84	11	5	5	1

BUILDING FIRES

There were 135 building fires of different types in Lawrence in 2008. These 135 building fires accounted for 99.3% of all structure fires in Lawrence.

80% of Building Fires in Homes

The 135 building fires that occurred in Lawrence in 2008 can be broken down by fixed property use as follows: 108, or 80% of all building fires, were in residential properties; seven fires happened in special properties; another seven fires occurred in mercantile or business properties; six fires occurred in public assembly properties; two fires occurred in manufacturing or processing facilities, and another two fires occurred in educational facilities.

RESIDENTIAL FIRES

Residential Building Fires Are Up Slightly

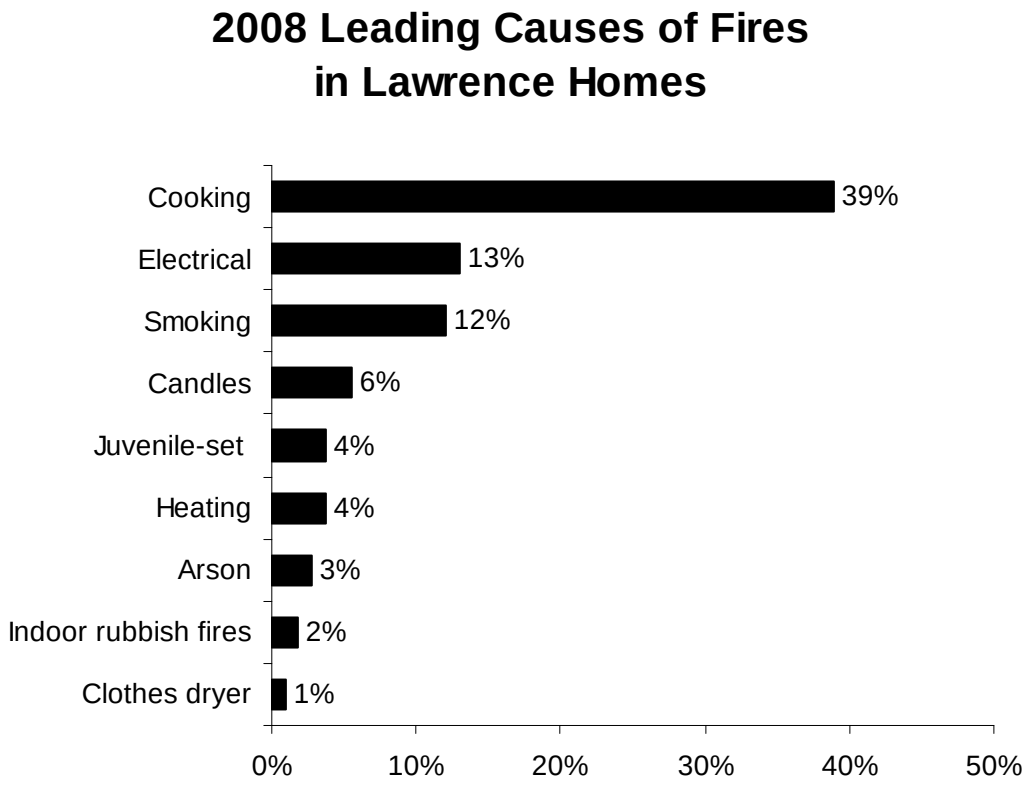
There were 108 reported residential building fires in Lawrence in 2008. These 108 fires are an increase of six, or 6%, from the 102 residential building fires reported in 2007.

Apartments Accounted for Over 61% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 61% of the residential building fires in Lawrence; 29% occurred in 1- or 2-family homes; 3% occurred in boarding houses; 1% occurred in residential board and care facilities; and 6% happened in unclassified residential properties.

Unattended Cooking Leading Cause of Residential Fires

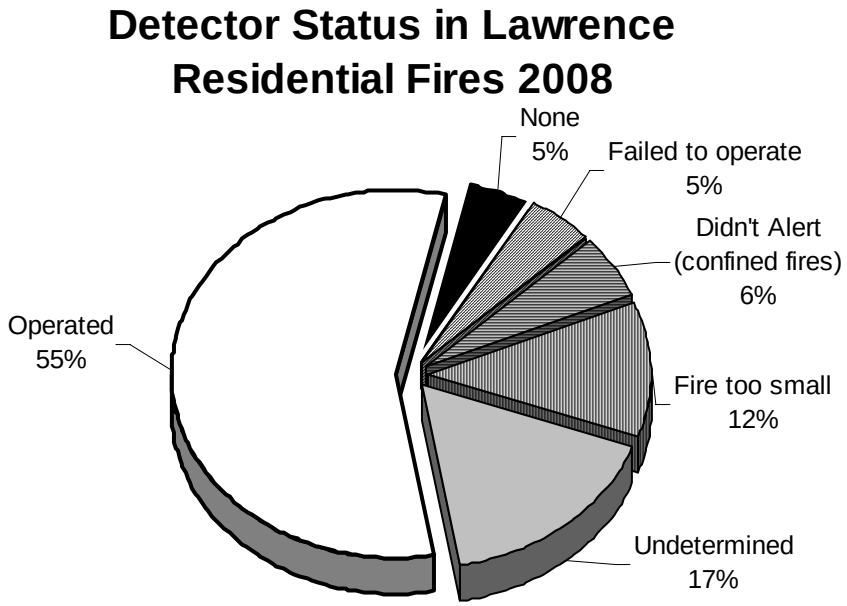
The leading cause of residential building fires in Lawrence was unattended cooking and other unsafe cooking practices, accounting for 39% of these fires. Thirteen percent (13%) of these fires were caused by electrical problems. Smoking accounted for 12% of the fires in residential occupancies. Candles caused 6% of the residential fires. Juvenile-set fires



and heating equipment each caused 4% of the residential fires in Lawrence in 2008. Arson caused 3% of the residential fires. Indoor rubbish fires accounted for 2% of these fires. Clothes dryers accounted for 1% of Lawrence's residential fires in 2008.

26% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Twenty-eight (28), or 26% of all residential building fires were confined to non-combustible containers in 2008. Twenty (20), or 19% of all residential building fires reported in 2008, were cooking fires contained to a non-combustible container. Four (4), or 4%, of all residential building fires were fuel burner or boiler malfunctions. Another four, or 4%, of these fires were rubbish fires contained to a non-combustible container.

Detectors Alerted Occupants in Over 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 61, or 55%, of the residential building fires. In 6% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in another 5% of these incidents. In 5% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 12% of the residential fires. Smoke detector performance was undetermined in 18 incidents, or 17% of Lawrence'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.

Power Failure or Shut-offs Caused 40% of Failures

Of the five fires where smoke detectors were present but failed to operate, two, or 40%, failed because the power was shut off or failed. It was undetermined in the other three cases, or 60%, why the detectors failed to operate.

VACANT BUILDINGS

7% of Building Fires Occurred in Vacant Buildings

Lawrence reported ten fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 7% of the total 135 building fires reported to MFIRS in 2008. Six (6) apartment buildings, one one- or two-family home, one house of worship, one bar or nightclub, and one unclassified non-adult school were reported as vacant building fire incidents.

JUVENILE-SET FIRES

6 Juvenile-set Fires

There were six juvenile-set fires in Lawrence in 2008. The five structure fires and one brush fire caused an estimated $416,050 in damages.

ARSONS

11 Total Arsons[4] - 5 Structures, 5 Motor Vehicles & 1 Other

Eleven (11), or 4%, of Lawrence's 260 fires were considered intentionally set, or, for purposes of this analysis, arson. The five structure arsons, five motor vehicle arsons and one outside and other arson caused an estimated dollar loss of $476,500.

All Arson Is Down

The total number of arsons decreased by 32 from the 43 reported in 2007. Reported structure arsons decreased by seven from the 12 reported in 2007. Motor vehicle arsons decreased by four from 10 in 2007. Outside and other arsons decreased by 21 from the 22 reported last year.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

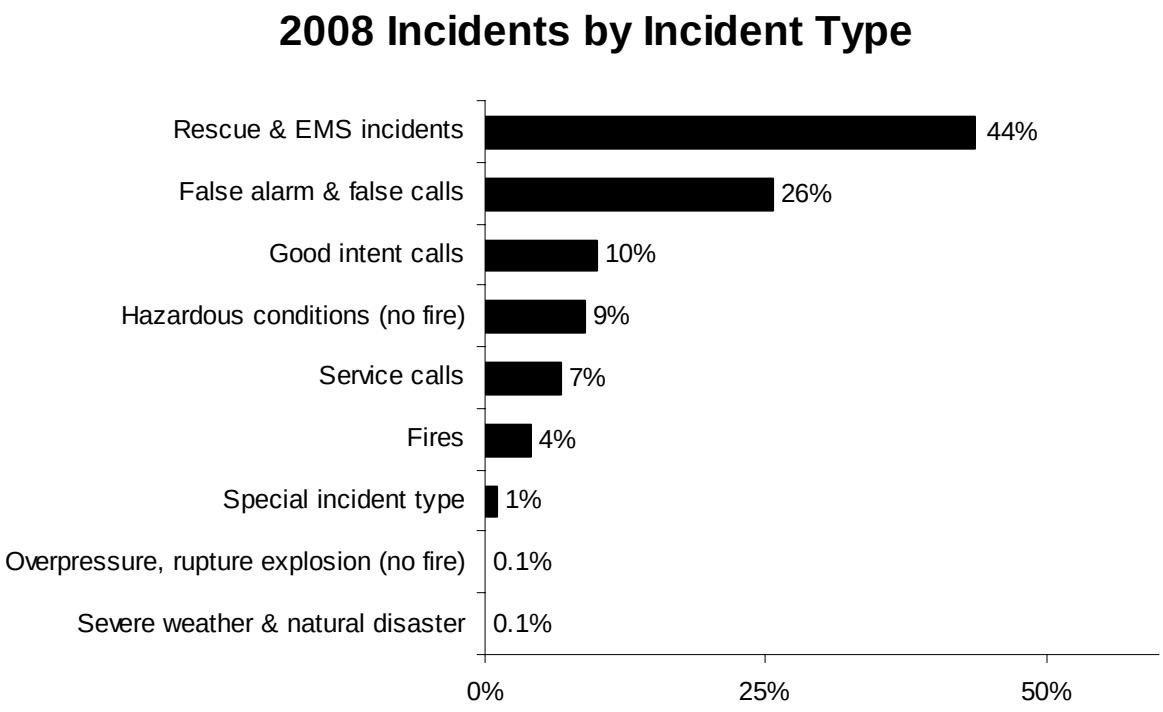
ALL INCIDENTS

Rescue & EMS Calls Were 44% of All Reported Incidents

In 2008, Lawrence voluntarily reported 6,377 incidents to MFIRS. Of these 6,377 incidents, 6,117, or 96%, were non-fire incidents.

Of these 6,117 non-fire incidents 2,784, or 44% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 1,635, or 26%, were reported false alarm or false calls; 631, or 10%, were reported good intent calls; 566, or 9%, were reported hazardous condition calls with no fire; 428, or 4%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 64, or 1%, were special incident types; five, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and four, or 0.1% were severe weather calls;.

In 2008, Lawrence reported 260 fires[5], accounting for 4% of all reported incidents.



Lawrence Gave Mutual Aid in 6 Reported Incidents

In 2008, Lawrence reported coming to the aid of other fire departments six times. All six, or 100%, of these incidents were service calls such as station coverage.

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

Lawrence Received Aid in 12 Reported Incidents

In 2008, Lawrence reported receiving mutual aid at 12 incidents. All 12, or 100%, of these incidents were fires.

Lawrence Population: 72,043

3.6 Fires/1,000 Population

Total Fires:	**260**		**$4,923,485**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	136	52%	$4,737,830
Vehicle Fires	40	15%	113,900
Other Fires	81	32%	71,755

3 Civilian Deaths	11.54 Civilian Deaths/1,000 Fires
2 Fatal Fires	0.42 Civilian Deaths/10,000 Population
1 Civilian Injury	6 Fire Service Injuries

Building Fires: 135

Residential Building Fires: 108

Residential Building Fires Confined to Non-Combustible Containers: 28

Unconfined Residential Building Fires: 80

3 Civilian Deaths 6 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	66	61%
1- & 2-Family homes	31	29%
Rooming houses	3	3%
Residential board & care	1	1%

Detector Status	**Fires**	**%**
Operated	61	55%
Didn't operate	5	5%
None	5	5%
Fire too small	13	12%
Didn’t Alert (confined)	6	6%
Undetermined	18	17%

Area of Origin[6]	**%**
Kitchen	43%
Living room	10%
Bedroom	5%
Heating room or area	5%
Exterior balcony, unencl. porch	4%
Courtyard, patio, terrace	4%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat from op. eq.	7%	10%
Cigarette	6%	9%
Heat from direct flame	6%	8%
Arcing	6%	8%
Candles	5%	6%

[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 Ignited[8]	%
Cooking materials	29%
Multiple items	6%
Rubbish, trash, waste	6%
Structural member, framing	4%
Upholstered sofa, chair	4%
Therm/acoust. insul. w/in wall	4%
Flammable or combustible liquid	4%

Factor Contrib. to Ignition	%	%Unconfined[9]
Too close to combustibles	7%	10%
Elec. failure/malfunction	6%	8%
Equipment unattended	6%	8%
Abandoned materials	5%	6%
Failure to clean	5%	6%

Equipment[10]	%
None	46%
Cooking equipment	34%
Boiler, furnace, cent. heating unit	4%
Electrical wiring, other	2%

Cause of Ignition	%	%Unconfined[11]
Unintentional	49%	66%
Failure of eq./heat source	8%	11%
Cause under investigation	2%	3%
Intentional	3%	4%
Undetermined	12%	16%

All Reported Incidents	# of Incidents	% of Incidents
Rescue & EMS incidents	2,784	44%
False alarms & false calls	1,635	26%
Good intent calls	631	10%
Hazardous conditions (no fire)	566	9%
Service calls	428	7%
Fires[12]	260	4%
Special incident type	64	1%
Overpressure rupture, explosion or overheat calls (no fire)	5	0.1%
Severe weather & natural disaster	4	0.1%

[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.

[12] 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	16	14	1	1
February	14	11	2	1
March	18	6	5	7
April	32	14	3	15
May	30	13	1	16
June	26	12	4	10
July	20	6	5	9
August	20	14	1	5
September	20	10	5	5
October	13	5	3	5
November	19	11	3	5
December	32	20	7	5

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	42	23	8	11
Monday	46	24	5	17
Tuesday	35	18	4	13
Wednesday	35	19	6	10
Thursday	40	23	2	15
Friday	20	10	3	7
Saturday	42	19	12	11

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	30	15	4	8
04:01 - 08:00	26	18	4	4
08:01 - 12:00	22	17	2	4
12:01 - 16:00	48	18	9	21
16:01 - 20:00	69	37	10	22
20:01 - 24:00	65	31	18	25

Motor Vehicle Fires

Total: 40
Automobiles: 39 (98%)
5 (13%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 11 **Dollar loss: $476,500**

0.15 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	5	4%	45%	$451,500
Vehicle Arsons	5	13%	45%	25,000
Other Arsons	1	1%	10%	0

No Injuries

0.07 Structure arsons/1,000 population
0.07 Vehicle arsons/1,000 population
0.01 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 04:00	2	40%	20:01 - 00:00	2	40%
04:01 - 08:00	1	20%	00:01 - 04:00	1	20%
12:01 - 16:00	1	20%	12:01 - 16:00	1	20%
20:01 - 00:00	1	20%	16:01 - 20:00	1	20%

Outside & Other Arsons

16:01 - 20:00	1	100%

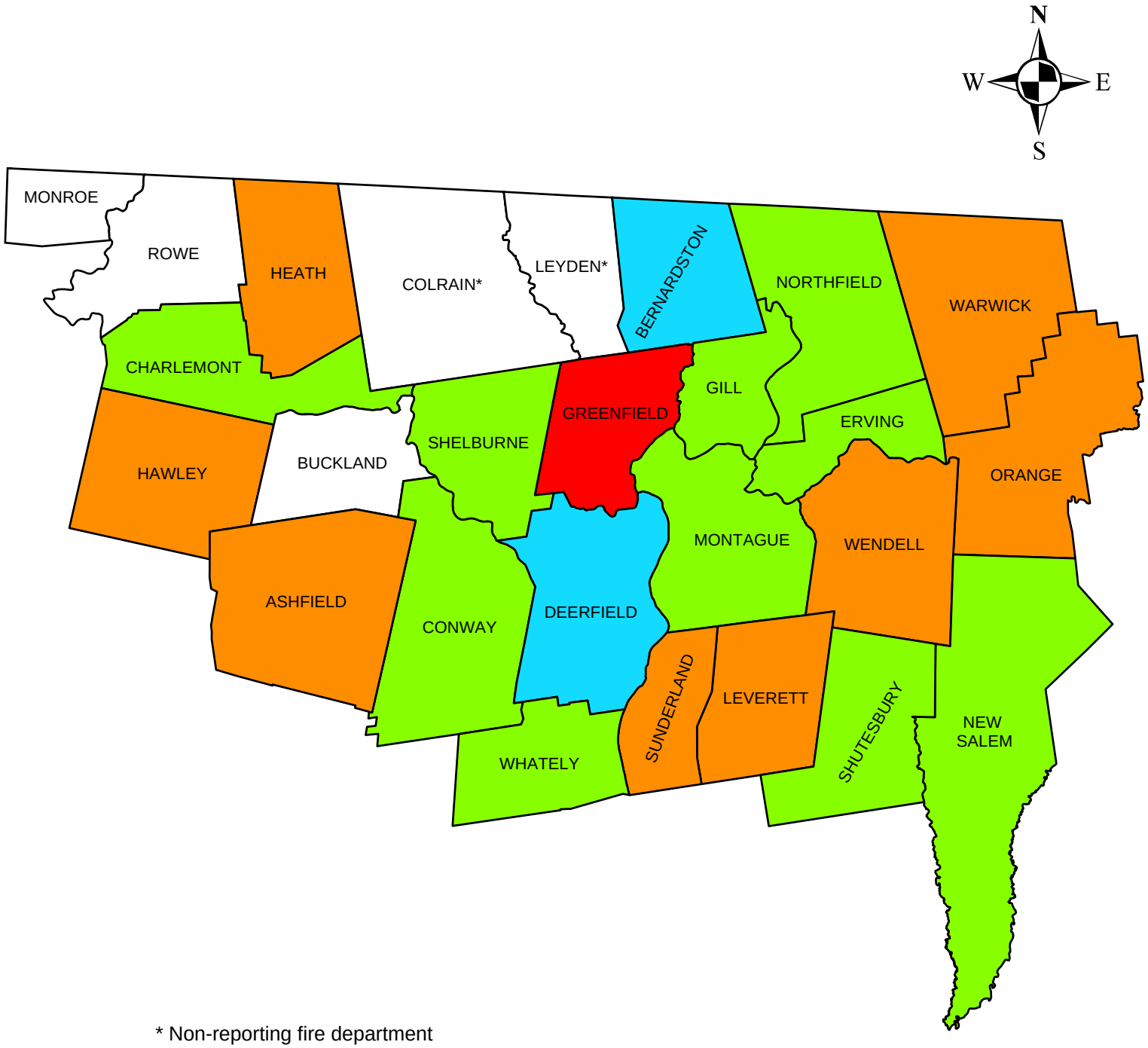
Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	3	60%
Police Station	1	20%

Franklin County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Franklin County Fires 2008



* Non-reporting fire department

2008 Fires

- 0
- 1 - 5
- 6 - 15
- 16 - 25
- 26 - 50
- 51 - 125

0 2.5 5 10 15 20 Miles

Massachusetts Fire Incident Reporting System 2008

Franklin County Fires in 2008

298 Total Fires — 154 Structures, 31 Motor Vehicles & 113 Outside or Other Fires
Franklin County ranked twelfth out of the fourteen Massachusetts counties in total fires. Franklin County fire departments reported 298 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 154 structure fires, 31 motor vehicle fires, 47 brush, tree or lawn fires, 39 outside rubbish fires, seven special outside fires, one cultivated crop or vegetation fire and 19 unclassified fires caused two civilian injuries, three fire service injuries and an estimated dollar loss of $1.8 million. There were no fatal fires in Franklin County in 2008. Franklin County's fires accounted for 1% of the 30,136 Massachusetts fires reported in 2008.

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 2008.

Structure Fires Up
The total number of reported fire incidents decreased by 31 from the 329 reported in 2007. Reported structure fires increased 27 from the 127 reported during the previous year. Motor vehicle fires decreased by five from 36 in 2007. Outside and other fires decreased 53 from the 166 reported the year before.

FRANKLIN COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	363	176	39	148	12	6	1	5
2005	395	182	39	174	18	3	2	13
2006	383	175	35	173	14	3	3	8
2007	329	127	36	166	18	5	1	12
2008	298	154	31	113	14	1	1	12

Fire and Fire Death Rates
Franklin County had 4.2 fires per 1,000 population. That figure ranks Franklin County ninth in the state and below the state rate of 4.8 fires per 1,000 population. Franklin County also had 0 fire deaths per 10,000 population ranking it tied for twelfth among Massachusetts counties and below the state rate of 0.08 fire deaths per 10,000 population.

Greenfield Has Franklin County's Largest Loss Fire
- On May 11, 2008, at 9:43 p.m., the Greenfield Fire Department was called to a fire of undetermined cause at a strip mall at an antique shop. The fire began on the first floor. Two (2) firefighters were injured battling this blaze. It was undetermined if smoke detectors were present. The building was not sprinklered. Damages from this fire were estimated to be $272,000.

STRUCTURE FIRES

Reported Structure Fires Up

The 154 structure fires caused one civilian injury, two fire service injuries and an estimated dollar loss of $1.6 million. These incidents represented 52% of Franklin County's reported fires in 2008. The average estimated dollar loss per structure fire was $10,329. The total number of reported structure fires increased by 27, or 21%, from the 127 reported in 2007.

Arson Caused of 1% of Structure Fires

The one structure arson caused an estimated dollar loss of $100. Arson was indicated as the cause of 1% of the structure fires and less than 1% of Franklin County's structure fire dollar loss. The one structure arsons accounted for 7% of the Franklin County arson fires reported in 2008. The total number of reported structure arsons decreased by four, or 80%, from the three reported in 2007.

100% Structure Arsons Occurred in Residences

The one structure arson, or 100%, of Franklin County's structure arsons occurred in a 1-family home.

BUILDING FIRES

There were 151 building fires of different types in Franklin County in 2008. These 151 building fires accounted for 98.1% of all structure fires in Franklin County.

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

One hundred and twenty (120), or 79%, of Franklin County's 151 building fires occurred in residential occupancies. Seven (7) fires occurred in special properties. Manufacturing and processing facilities and mercantile or business properties each had six fires. Storage facilities had five fires. Three (3) fires happened at institutional facilities. Two (2) fires took place in public assembly properties, including restaurants and churches. One (1) fire occurred at an educational facility, and another in an industrial facility in Franklin County in 2008.

RESIDENTIAL FIRES

Residential Building Fires UP

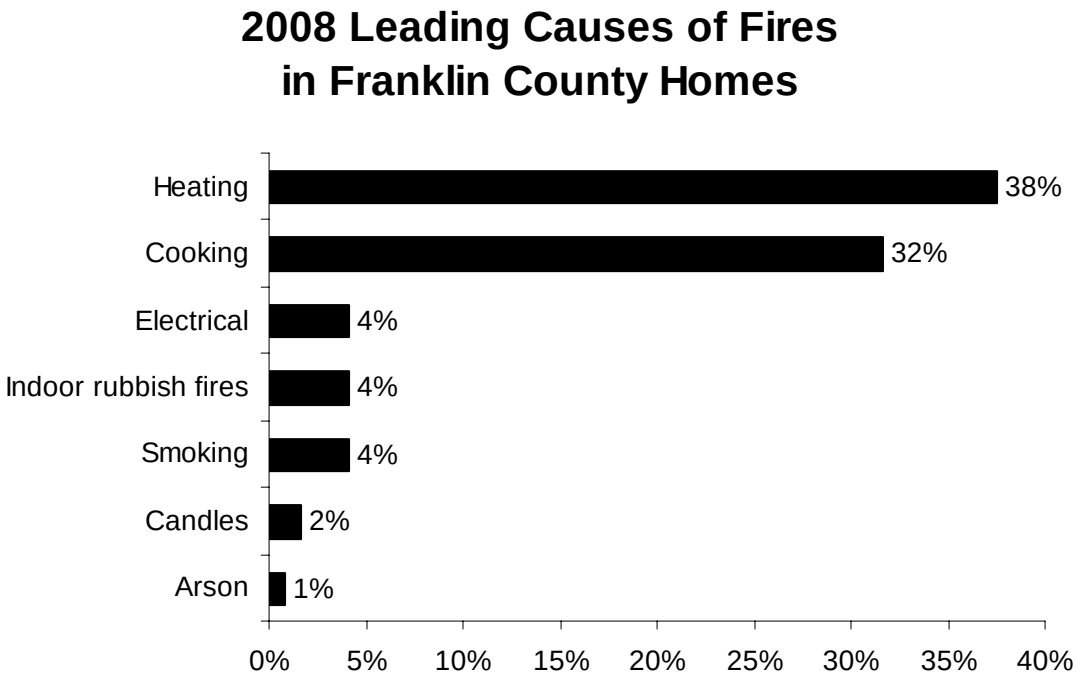
There were 120 reported residential building fires in Franklin County in 2008. These 120 fires are an increase of 22, or 22%, from the 98 residential building fires reported in 2007.

1- & 2-Family Homes Accounted for Over 3/4 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 77% of the building fires in Franklin County; 18% occurred in apartments; 2% happened rooming houses; and 1% each occurred hotels and motels and

residential board and care facilities. Three (3), 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 2008. Thirty-eight percent (38%) of the residential fires were caused by heating. Eighty-nine percent (89%) of these heating fires involved solid fueled equipment such as wood or coal stoves. Franklin County and Hampshire County were the only counties where cooking was not the leading cause of residential fires in 2008. Unattended cooking and other unsafe cooking practices accounted for 32% of the fires in people's homes. Electrical problems, indoor rubbish fires and smoking each caused 4% of these fires. Candles accounted for 2% of the residential building fires. Arson caused 1% of the fires in people's homes in Franklin County in 2008.



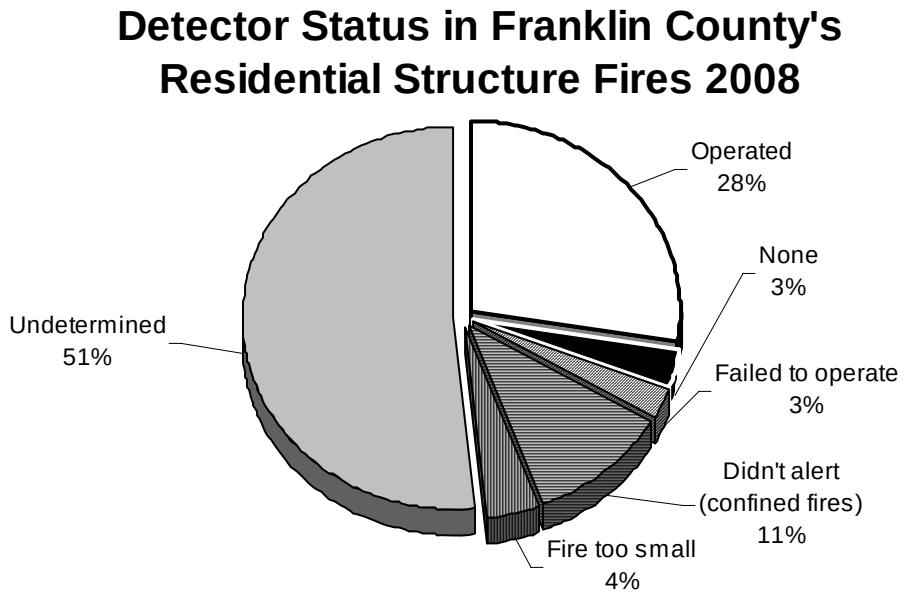
68% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Eighty-two (82), or 68%, of these fires were confined to a non-combustible container. Thirty-seven (37), or 45% of all residential building fires reported in 2008, were fires confined to a chimney or flue. Another 37 of the reported fires were cooking fires contained to a non-combustible container accounting for 45% of residential building fires. Five (5), or 4%, of these fires were indoor rubbish 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. Three (3), or 3%, were fires confined to a fuel burner or boiler malfunction in Franklin County in 2008.

Detectors Operation Undetermined in Over 1/2 of Fires

Smoke or heat detectors operated and alerted the occupants in 33, or 28%, of the residential building fires. In 11% of these fires[2], 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 62 incidents, or 51% of Franklin County's residential building fires.



3 Detectors Failed

In the three fires where smoke detectors were present but failed to operate, one failed because it was defective; another failed because of a power shutoff; and it was unclassified why the third detector failed.

VACANT BUILDINGS

5% of Building Fires Occurred in Vacant Buildings

Franklin County reported 7 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 5% of the total 151 building fires reported

[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-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.

to MFIRS in 2008. Three (3) fires occurred in vacant residential properties; two occurred at storage facilities; and one vacant building fire occurred at a hospital, and the other in an antique shop in Franklin County in 2008.

None of the vacant building fires in Franklin County in 2008 were determined to be intentionally set.

JUVENILE-SET FIRES

No Reported Juvenile-set Fires

There were no reported juvenile-set fires in Franklin County in 2008.

ARSONS

14 Total Arsons — 1 Structure, 1 Motor Vehicle & 12 Other Arsons

Fourteen (14), or 5%, of Franklin County's 298 fires were intentionally set, or, for purposes of this analysis, arson[4]. The one structure arson, one motor vehicle arson and 12 outside and other arsons caused one fire service injury and an estimated dollar loss of $2,700.

Structure Arson Down Slightly

The number of arsons decreased by four, or 22%, in 2008. Structure arsons decreased by four from the five reported in 2007. Motor vehicle arsons remained the same with one reported in both 2007 and 2008. Outside and other arsons also remained the same with 12 reported in both 2007 and 2008.

ALL INCIDENTS

Rescue & EMS Calls Are 39% of All Reported Responses

In 2008, Franklin County fire departments reported 4,506 responses[5] to MFIRS. Of these 4,506 incidents, 4,506 non-fire calls were voluntarily reported.

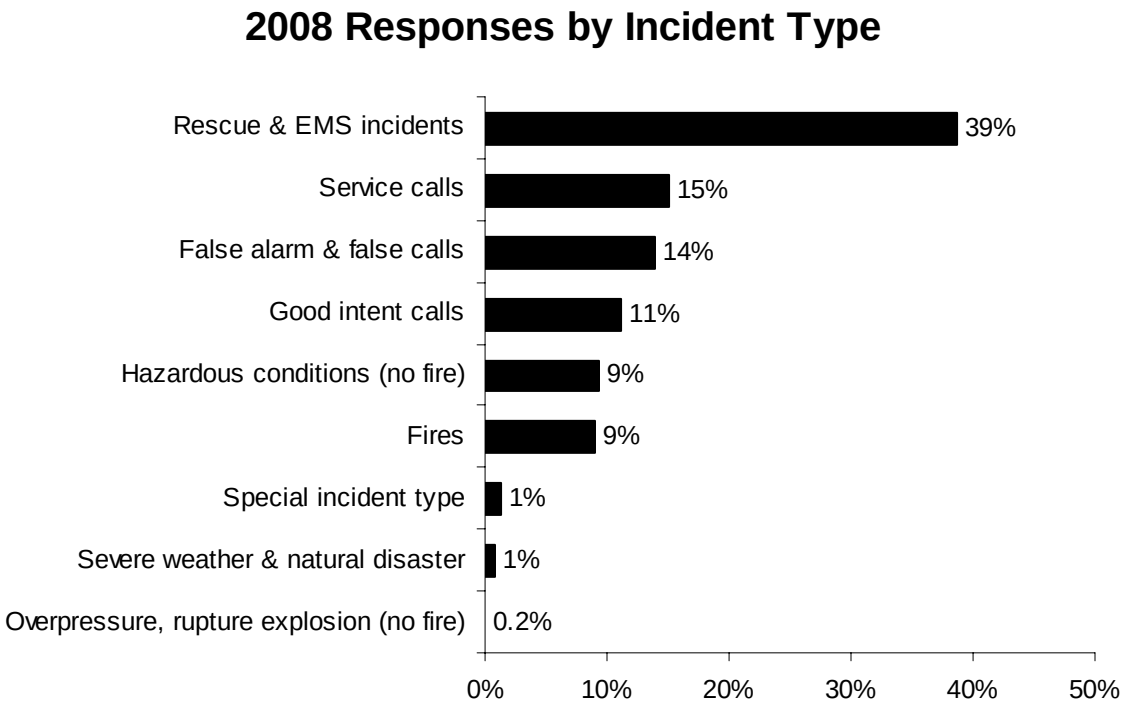
Of these 4,506 non-fire calls 1,916, or 39% of all of the responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 747, or 15%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 716, or 14%, were reported false alarm or false calls; 550, or 11%, were reported good intent calls; 461 or 9%, were reported hazardous condition calls with no fire; 66, or 1%, were special incident type calls such as citizen complaints; 39, or 1%,

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

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

were severe weather responses; and 11, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four hundred and forty-six (446), or 9%, of the total incidents submitted by Franklin County fire departments were fires.



Franklin County Fire Departments Gave Mutual Aid 256 Times

In 2008, Franklin County fire departments reported coming to the aid of other fire departments 256 times. Of these 256 responses, 143, or 56%, were for fires; 54, or 21%, were for service calls such as cover assignments; 38, or 15%, were for rescue or EMS calls; 11, or 4%, were for good intent calls; six, or 2%, were for hazardous conditions calls with no fire; three, or 1%, were for false alarms or false calls; and one, or 0.4% was for an overpressure, rupture explosion with no fire.

Franklin County is the only county where giving mutual aid for fires is the leading type of mutual aid given calls in that county.

Franklin County Received Mutual Aid in 139 Incidents

In 2008, Franklin County fire departments reported receiving aid from surrounding departments in 139 incidents. Of these 139 incidents, 68, or 49%, were rescue and emergency medical services calls; 41, or 29%, were for fires; 10, or 7%, were service calls; six, or 4%, were hazardous conditions calls with no fire; another six, or 4%, was a false alarm or false call; three, or 2%, were good intent calls; one, 1% was severe weather call; and another one, or 1% was a special incident type call.

Franklin County Population: 70,092

4.3 Fires/1,000 Population

Total Fires: 298 **$1,774,935**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	154	52%	$1,590,710
Vehicle Fires	31	10%	177,775
Other Fires	113	38%	6,450

No Deaths
2 Civilian Injuries 3 Fire Service Injuries

Building Fires: 151

Residential Structure Fires: 120

Residential Structure Fires Confined to Non-Combustible Containers: 82

Unconfined Residential Structure Fires: 38

1 Civilian Injury

Occupancy	Fires	%
1- & 2-Family homes	92	77%
Apartments	21	18%
Rooming houses	2	2%
Hotels, motels	1	1%
Residential board & care	1	1%

Detector Status	Fires	%
Operated	33	28%
Didn't operate	3	3%
None	4	3%
Fire too small	5	4%
Didn't Alert (confined)	13	11%
Undetermined	62	51%

Area of Origin[6]	%
Kitchen	36%
Chimney or flue	31%
Substructure area, crawlspace	3%
Ceiling & wall assembly	3%
Wall surface, exterior	3%
Heating room or area	3%

Heat Source	%	%Unconfined[7]
Hot ember or ash	4%	13%
Arcing	4%	13%
Radiated heat from oper. eq.	4%	13%
Cigarette	3%	8%
Candle	2%	5%
Hot or smoldering object	2%	5%

[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 Ignited[8]	**%**
Film, residue (creosote)	31%
Cooking materials	31%
Structural member, framing	7%
Rubbish, trash, waste	5%

Factor Contrib. to Ignit.	**%**	**%Unconfined[9]**
Too close to combustibles	4%	13%
Misuse of prod. or materials	2%	5%
Unspec. short-circuit arc	2%	5%
Design deficiency	2%	5%
Installation deficiency	2%	5%

Equipment[10]	**%**
Chimney or flue	32%
Cooking equipment	31%
None	25%
Boiler, furnace, cent. heat. unit	3%

Cause of Ignition	**%**	**%Unconfined[11]**
Unintentional	22%	68%
Failure of eq. or heat source	4%	13%
Intentional	1%	3%
Cause under investigation	3%	8%
Undetermined	1%	3%
Act of nature	2%	5%

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

Alerted occupants	18%
Didn't alert occupants	16%
Undetermined	66%

[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	16	9	3	4
February	20	18	1	1
March	19	13	3	3
April	47	10	4	33
May	26	15	1	10
June	25	13	4	8
July	20	9	5	8
August	28	9	3	16
September	21	6	1	14
October	27	16	2	9
November	26	17	2	7
December	23	19	2	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	51	35	4	14
Monday	38	21	4	13
Tuesday	40	18	6	16
Wednesday	49	27	3	19
Thursday	36	16	5	15
Friday	47	25	5	17
Saturday	35	12	4	19

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	23	13	2	8
04:01 - 08:00	27	19	2	6
08:01 - 12:00	37	21	5	11
12:01 - 16:00	77	31	10	36
16:01 - 20:00	81	41	8	32
20:01 - 00:00	53	29	4	20

Motor Vehicle Fires

Total: 31
Automobiles: 23 (74%)
1, or 4%, of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 14 **Dollar loss: $2,700**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	1	1%	7%	$100
Vehicle Arsons	1	3%	7%	100
Other Arsons	12	11%	86%	2,500

0.01 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.17 Other arsons/1,000 population

1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%
08:01 - 12:00	1	100%

Vehicle Arsons	#	%
20:01 - 00:00	1	100%

Other Arsons	#	%
20:01 - 00:00	3	25%
00:01 - 04:00	2	17%
04:01 - 08:00	2	17%
12:01 - 16:00	2	17%
16:01 - 20:00	2	17%

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

Ashfield **Population: 1,800**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	1	0	1	0	0	0	0	0
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	1	1	0	0	0	0	0	0

Bernardston **Population: 2,155**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	13	4	2	7	0	0	0	0
2005	23	3	3	17	4	0	0	4
2006	26	4	4	18	0	0	0	0
2007	24	7	9	8	0	0	0	0
2008	22	7	1	14	0	0	0	0

Buckland **Population: 1,991**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	1	1	0	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Charlemont **Population: 1,358**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	3	1	3	0	0	0	0
2005	3	0	0	3	0	0	0	0
2006	7	4	1	2	0	0	0	0
2007	16	4	0	12	0	0	0	0
2008	9	7	0	2	0	0	0	0

Colrain **Population: 1,813**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	11	6	0	5	0	0	0	0
2005	9	5	1	3	1	0	0	0
2006	9	7	1	1	0	0	0	0
2007	16	10	1	5	1	1	0	0
2008	Non-Reporting Community							

Conway **Population: 1,809**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	2	0	4	0	0	0	0
2005	7	2	0	5	0	0	0	0
2006	14	7	2	5	1	0	1	0
2007	20	16	0	4	1	1	0	0
2008	9	5	0	4	0	0	0	0

DEERFIELD FIRE DISTRICTS **Population: 4,771**

Deerfield ***Population: 2,641***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	14	6	1	7	0	0	0	0
2005	6	0	1	5	0	0	0	0
2006	Non-Reporting Community							
2007	3	1	0	2	0	0	0	0
2008	7	2	0	5	0	0	0	0

South Deerfield ***Population: 2,130***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	19	8	4	7	0	0	0	0
2005	7	3	0	4	0	0	0	0
2006	20	13	2	5	0	0	0	0
2007	18	11	1	6	1	0	0	1
2008	17	10	4	3	0	0	0	0

Erving **Population: 11,467**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	12	4	0	8	0	0	0	0
2005	16	5	1	10	0	0	0	0
2006	6	3	0	3	0	0	0	0
2007[12]	Non-Reporting Community							
2008	6	1	1	4	0	0	0	0

Gill **Population: 1,363**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	9	4	0	5	0	0	0	0
2005	13	7	3	3	1	0	0	1
2006	16	2	3	11	2	0	0	2
2007	13	4	3	6	1	0	0	1
2008	8	5	0	3	0	0	0	0

Greenfield **Population: 18,168**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	115	67	8	40	3	3	0	0
2005	141	80	7	54	3	1	1	1
2006	102	51	8	43	4	2	1	1
2007	104	41	12	51	4	1	0	3
2008	116	65	9	42	9	1	0	2

Hawley **Population: 336**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	4	3	1	0	0	0	0	0
2006	5	3	0	2	0	0	0	0
2007	2	1	1	0	0	0	0	0
2008	2	0	0	2	0	0	0	0

[12] 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: 805**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	4	1	1	2	0	0	0	0
2005	12	10	1	1	1	1	0	0
2006	3	3	0	0	0	0	0	0
2007	5	4	1	0	0	0	0	0
2008	4	1	1	2	0	0	0	0

Leverett **Population: 11,663**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	3	2	2	0	0	0	0
2005	7	5	0	2	0	0	0	0
2006	10	6	1	3	0	0	0	0
2007	5	0	0	5	0	0	0	0
2008	3	1	1	1	0	0	0	0

Leyden **Population: 772**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	3	0	3	1	1	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	3	0	0	3	2	0	0	2
2008	Non-Reporting Community							

Monroe **Population: 93**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

MONTAGUE FIRE DISTRICTS **Population: 8,316**

Montague Center ***Population: 2,078***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	1	2	4	4	0	1	0
2005	18	2	1	15	0	0	0	0
2006	25	11	1	13	2	1	1	0
2007	12	4	1	7	1	1	0	0
2008	14	8	1	5	0	0	0	0

Turners Falls ***Population: 6,238***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	37	20	2	15	3	1	0	2
2005	31	19	2	10	3	1	0	2
2006	44	30	4	10	2	0	0	2
2007	21	10	2	9	2	0	0	2
2008	32	21	4	7	1	0	2	0

New Salem **Population: 929**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	5	2	0	0	0	0	0
2005	5	4	1	0	0	0	0	0
2006	3	0	0	3	0	0	0	0
2007	7	2	0	5	0	0	0	0
2008	7	1	1	5	0	0	0	0

Northfield **Population: 2,915**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	7	0	0	0	0	0	0
2005	Non-Reporting Community							
2006	Non-Reporting Community							
2007	Non-Reporting Community							
2008	10	3	2	5	1	0	0	1

Orange **Population: 7,518**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	24	8	4	12	1	0	0	1
2005	29	11	4	14	3	0	1	2
2006	20	12	0	8	0	0	0	0
2007	17	2	2	13	0	0	0	0
2008	5	4	0	1	0	0	0	0

Rowe **Population: 351**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

SHELBURNE FIRE DISTRICTS **Population: 3,212**

Shelburne Center ***Est. Pop. Protected: 1,012***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	9	2	3	4	0	0	0	0
2005	5	1	1	3	0	0	0	0
2006	12	2	1	9	0	0	0	0
2007	5	2	1	2	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Shelburne Falls ***Est. Pop. Protected: 2,200***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	1	1	0	0	0	0	0	0
2006	10	0	1	9	1	0	0	1
2007	10	2	0	8	3	1	0	2
2008	6	4	0	2	1	0	0	1

Shutesbury **Population: 1,810**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	3	0	0	0	0	0	0
2005	3	1	0	2	0	0	0	0
2006	2	1	1	0	0	0	0	0
2007	2	1	1	0	0	0	0	0
2008	7	4	2	1	0	0	0	0

Sunderland **Population: 3,777**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	16	7	2	7	1	1	0	0
2005	14	6	1	7	0	0	0	0
2006	15	5	1	9	1	0	0	1
2007	10	4	1	5	1	0	0	1
2008	1	0	1	0	0	0	0	0

Warwick **Population: 750**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	5	0	3	0	0	0	0
2005	11	5	3	3	0	0	0	0
2006	1	0	0	1	0	0	0	0
2007	1	1	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Wendell **Population: 986**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	12	5	1	6	1	0	0	1
2007	5	1	0	4	1	0	0	1
2008	1	1	0	0	0	0	0	0

Whately **Population: 1,573**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	15	1	5	9	0	0	0	0
2005	19	4	6	9	2	0	0	2
2006	20	5	3	12	0	0	0	0
2007	10	2	0	8	0	0	0	0
2008	11	3	3	5	2	0	0	2

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11013	Ashfield	1	1	0	0	0	0	0	0	0	0
11029	Bernardston	232	39	1	130	13	25	10	7	7	0
11053	Charlemont	60	14	0	13	8	6	5	12	1	1
11068	Conway	57	12	0	1	25	10	3	6	0	0
11975	Deerfield	127	8	0	9	13	27	9	60	0	1
11091	Erving	150	24	2	95	7	6	4	10	0	2
11106	Gill	96	15	0	11	8	17	9	23	8	5
11114	Greenfield	2,451	130	2	885	209	436	432	333	8	16
11129	Hawley	45	3	0	16	9	8	1	5	3	0
11130	Heath	25	7	0	16	2	0	0	0	0	0
11154	Leverett	4	3	1	0	0	0	0	0	0	0
11192	Montague Center	141	25	0	79	19	4	6	8	0	0
11204	New Salem	15	13	0	0	2	0	0	0	0	0
11217	Northfield	113	25	1	5	23	13		42	3	1
11223	Orange	235	5	1	131	3	43	7	14	0	31

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
11990	Shelburne Ctr	139	8	0	79	21	7	11	13	0	0
11989	Shelburne Falls	92	10	1	18	8	6	3	42	3	1
11272	Shutesbury	12	11	1	0	0	0	0	0	0	0
11976	South Deerfield	119	21	0	14	21	9	12	39	0	3
11289	Sunderland	1	1	0	0	0	0	0	0	0	0
11984	Turners Falls	766	53	1	390	62	124	38	90	3	5
11312	Warwick	1	1	0	0	0	0	0	0	0	0
11319	Wendell	1	1	0	0	0	0	0	0	0	0
11337	Whately	69	16	0	24	8	6		12	3	0
Total	**Franklin County**	**4,951**	**445**	**11**	**1,916**	**461**	**747**	**550**	**716**	**39**	**66**

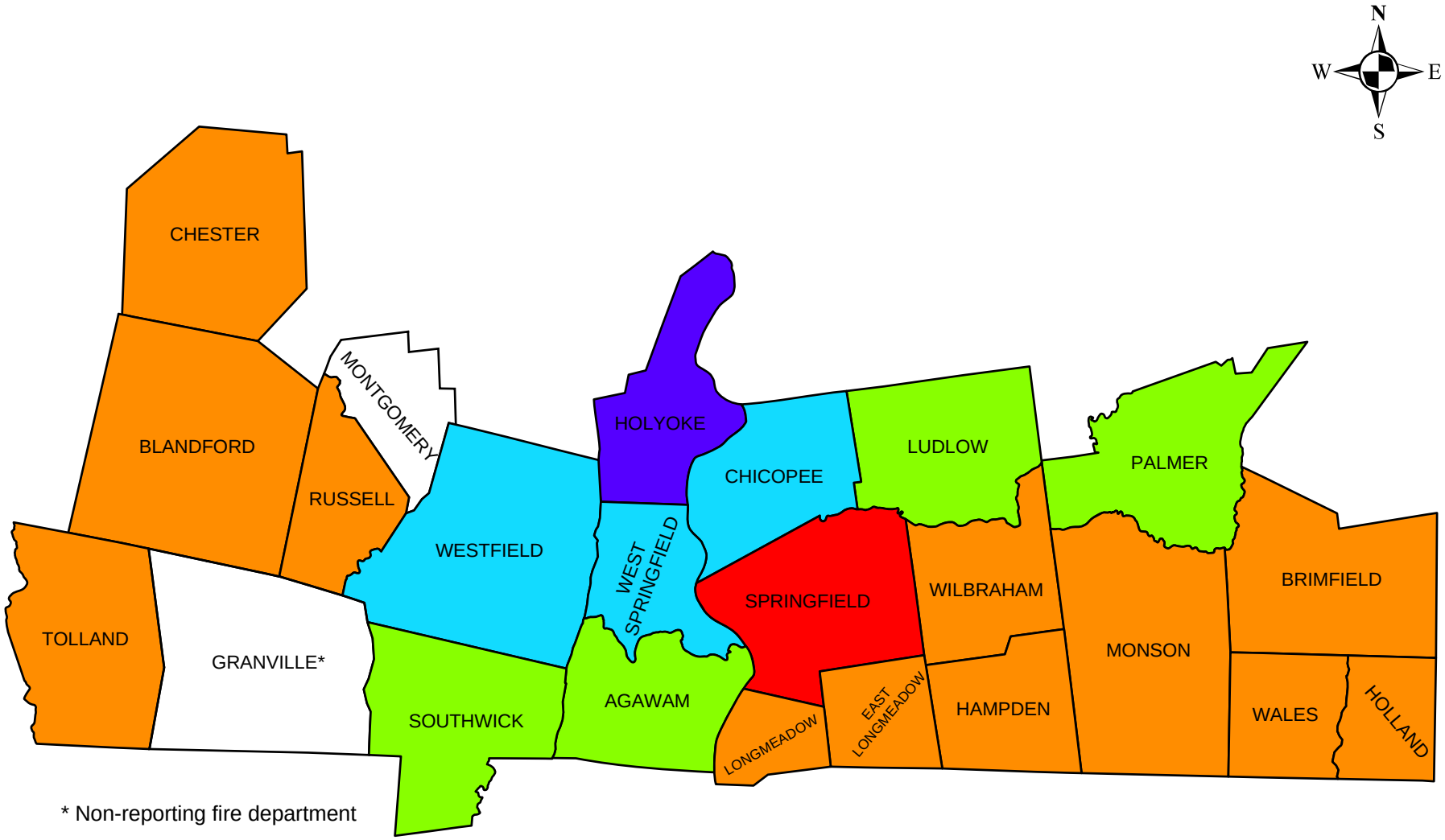
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

Hampden County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Hampden County Fires 2008



* Non-reporting fire department

2008 Fires

- 0
- 1 - 50
- 51 - 100
- 101 - 300
- 301 - 600
- 601 - 1,200

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2008

Hampden County Fires in 2008

2,485 Total Fires — 1,395 Structures, 271 Vehicles & 819 Other Fires
Hampden County ranked sixth out of the fourteen Massachusetts counties in total reported fires. Hampden County Fire Departments reported 2,485 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 1,395 structure fires, 271 motor vehicle fires, 356 brush, tree or lawn fires, 326 outside rubbish fires, 63 special outside fires, two cultivated vegetation or crop fires, and 72 other fires caused six civilian fire deaths, 48 civilian injuries, 73 fire service injuries and an estimated dollar loss of $20.4 million. Hampden County's 2,485 fires accounted for 8% of the 30,136 fire incidents reported to MFIRS in 2008.

Twenty-four (24), or 96%, of the 25 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 2008.

All Fires Down
The total number of reported fire incidents decreased by 290 from the 2,775 reported in 2007. Reported structure fires decreased by 41 from the 1,436 reported during the previous year. Motor vehicle fires also decreased by 41 from the 312 reported during 2007. Outside and other fires decreased by 208 from the 1,027 reported the year before.

HAMPDEN COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2,449	1,218	336	895	170	40	29	101
2005	2,421	1,233	344	844	116	26	24	66
2006	2,480	1,257	290	933	70	21	6	43
2007	2,775	1,436	312	1,027	83	22	13	48
2008	2,485	1,395	271	819	93	30	14	49

Fire and Fire Death Rates
Hampden County had 5.4 fires per 1,000 population. That figure ranks Hampden County third in the state and above the state rate of 4.8 fires per 1,000 population. Hampden County also had 0.13 fire deaths per 10,000 population ranking it tied for second among Massachusetts counties and above the state rate of 0.08 fire deaths per 10,000 population.

6 Residents Died in 5 Hampden County Fires
- On March 28, 2008 at 9:37 a.m., the Chicopee Fire Department was called to a fatal gasoline tanker fire on Interstate 91 North. The tanker had been cut off and the driver swerved to avoid the other vehicle. The truck rolled off the highway onto several other vehicles below. Other motorists pulled the driver out of his burning cab. The 43-year old driver was transported to a local hospital. He was then transferred to a

Boston hospital where he later succumbed to his injuries. One firefighter was injured in this fire, and damages were estimated at $60,000.

- On April 10, 2008, at 12:48 a.m., the West Springfield Fire Department was called to a fatal smoking fire in a 60-unit apartment building. The fire was started in a first floor bedroom by a cigarette. The victim, a 58-year old man was using home oxygen. He was discovered by firefighters and taken out of the building and died from burns and smoke inhalation. No other injuries were associated with this fire. Smoke detectors were present but it was undetermined if they operated. There were no sprinklers. Damages from the fire were estimated to be $10,000.

- On April 10, 2008, at 7:25 p.m., the Holyoke Fire Department was called to a fatal juvenile-set fire in a single-family home. The victims, a 1-year old girl and her 4-year old brother, were both in the room where their older brother was playing with a cigarette lighter. He accidentally lit something on fire. A 20-year old man was burned when he went into the burning home and brought all three of the children out. They were all transported to a local hospital where the two victims later succumbed to their injuries. Detectors were present but it was undetermined if they operated. There were no smoke detectors. No estimation of the damages was made for this fire.

- On May 13, 2008, at 8:05 p.m., the Palmer Fire Department was called to a fatal electrical fire in a four-unit apartment building. The fire was caused by a pinched electrical cord in the living room. The victim, a 79-year old man, was overcome by the heat and smoke. There were no other injuries at this fire. Smoke detectors were present but it was undetermined if they operated. The building was not sprinklered, and damages were estimated to be $75,000.

- On November 13, 2008 at 1:16 a.m., the Palmer Fire Department was called to a heating fire in a four-unit apartment building. The fire was started when the victim's blanket came into contact with the electric baseboard heater. The victim, a 44-year old, man was overcome by the heat and smoke. There was one other civilian injury associated with this fire. It was undetermined if detectors were present, but sprinklers were not. Damages were estimated to be $195,900.

Springfield & West Springfield Each Had Largest Loss Fire in Hampden County

- On March 27, 2008, at 3:30 p.m., the West Springfield Fire Department responded to a fire at a motor vehicle repair shop. Some of the employees had removed a gas tank from a vehicle and were moving it to another location. Another employee was using a cutting torch and that ignited the gas fumes coming from the tank. Both of the men carrying the gas tank were severely injured when their clothes ignited. It was undetermined if detectors were present and the building was not sprinklered. Damages were estimated to be $2 million.

- On November 5, 2008, at 3:11 a.m., the Springfield Fire Department responded to an intentionally set fire at a church under construction that was 90% complete at the time of the fire. The church had a predominantly black congregation. Started just hours

after the presidential election, the fire is believed to have been set in reaction to the election of President Obama, the first black U.S. President. Five (5) firefighters were injured battling this fire. Detectors were not present and the building was not sprinklered. Damages were estimated to be $2 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 1,395 structure fires caused five civilian deaths, 40 civilian injuries, 67 fire service injuries and an estimated dollar loss of $18.5 million. These incidents represented 56% of Hampden County's reported fires in 2008. The average estimated dollar loss per structure fire was $13,248. The total number of reported structure fires decreased by 41, or 3%, from the 1,436 reported in 2007.

Arson Caused 2% of Structure Fires

The 30 structure arsons caused one civilian injury, nine fire service injuries and an estimated dollar loss of $2,321,841. Arson was indicated as the cause of 2% of the structure fires and 13%, of Hampden County's structure fire dollar loss. The 30 structure arsons accounted for 32% of the Hampden County arson fires reported in 2008. The total number of reported structure arsons increased by eight, or 36%, from 22 in 2007.

62% of Structure Arsons Occurred in Residences

Sixty-two percent (62%) of Hampden County's 29 structure arsons occurred in residential occupancies; 14% happened in special properties; and 7% each occurred in public assembly properties, educational properties, storage facilities, and mercantile or business properties.

BUILDING FIRES

There were 1,383 building fires of different types in Hampden County in 2008. These 1,383 building fires accounted for 99.1% of all structure fires in Hampden County.

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

One thousand one hundred and fifty-one (1,151), or 83%, of Hampden County's 1,383 building fires occurred in residential occupancies. Mercantile and business properties experienced 46 fires. Hospitals, prisons, and other institutional buildings experienced 42 fires. Special properties had 40 fires. Thirty-four (34) fires took place in public assembly properties, including restaurants and churches. Thirty-one (31) building fires took place on educational properties. Twenty-five (25) fires took place in storage properties. 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 2008.

RESIDENTIAL FIRES

Residential Building Fires Down Slightly

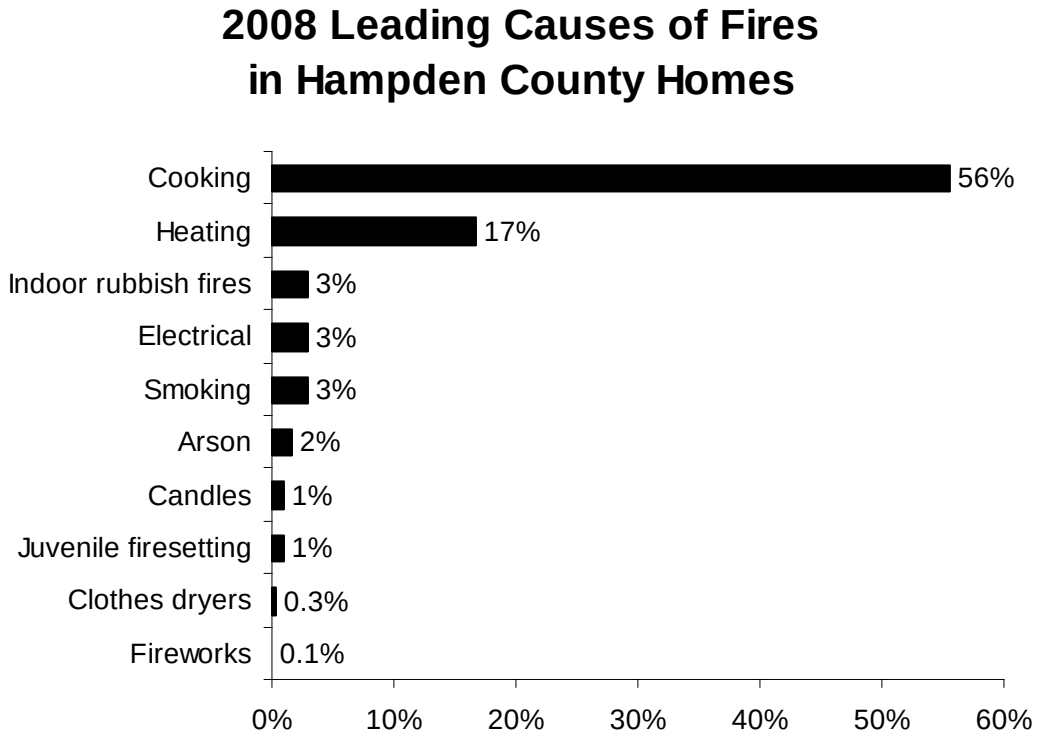
There were 1,151 reported residential building fires in Hampden County in 2008. These 1,151 fires are a decrease of nine, or 1%, from the 1,160 residential building fires reported in 2007.

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 almost half, or 49%, of the building fires in Hampden County; 45% occurred in apartments; 2% happened in residential board and care facilities; 1% happened in rooming houses; another 1% happened in hotels or motels; 1% occurred in dormitories. Eight (8), or 1% of the residential building fires in Hampden County occurred in unclassified residential buildings.

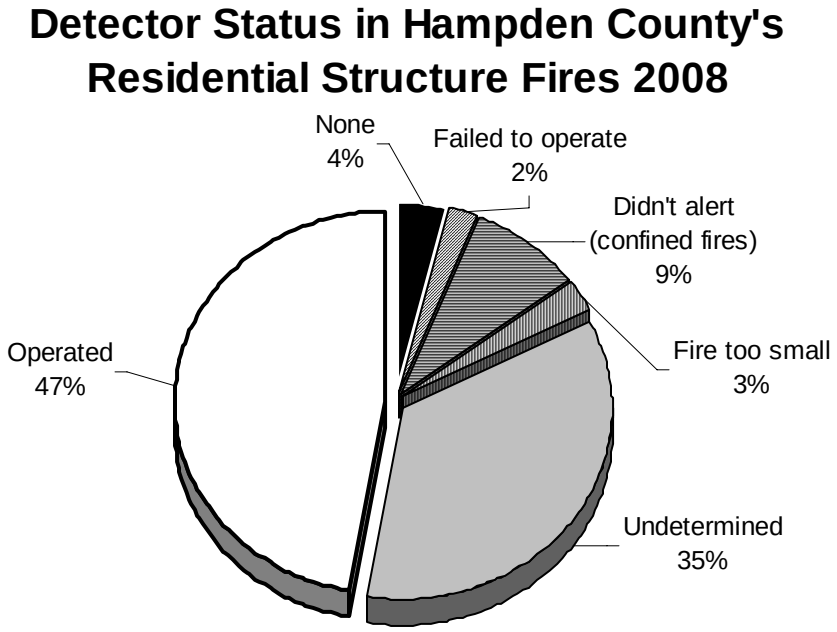
Unattended Cooking Causes Over 1/2 of Residential Fires

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 17% of these fires. Indoor rubbish fires, smoking and electrical problems each caused 3% of these fires. Arsons caused 2% of these fires. Candles and juvenile-set fires each caused 1% of the fires in Hampden County in 2008. Less than 1% of residential fires in Hampden County were caused by clothes dryers and fireworks.



73% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Eight hundred and forty (840), or 73% of all residential building fires, were reported as confined to non-combustible containers in 2008. Six hundred and six (606) of the reported fires were cooking fires contained to a non-combustible container accounting for 53% of residential building fires. One hundred and twenty-seven (127), or 11%, were fires confined to a fuel burner or boiler malfunction. Fifty-seven (57), or 5%, of all residential building fires reported in 2008 were fires confined to a chimney. Forty-five (45), or 4%, of these fires were contained rubbish fires. Five (5), or 1%, of confined fires occurred in incinerators.

Detectors Alerted Occupants in Almost 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 545, or 47%, of the residential building fires. In 9% of these fires[2], 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 3% of the residential fires. Smoke detector performance was undetermined in 407 incidents, or 35% of Hampden 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.

Almost 1/2 of Failed Detectors Had Missing or Disconnected Batteries

Of the 28 fires where smoke detectors were present but failed to operate, 13, or 46%, failed because the batteries were either missing or disconnected. In three incidents, or 11%, the detectors failed because the batteries were dead. In one fire, or 4%, the detector failed because of a lack of maintenance. Eleven (11), or 39% of the detectors failed for unclassified or undetermined reasons.

VACANT BUILDINGS

4% of Building Fires Occurred in Vacant Buildings

Hampden County reported 52 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 4% of the total 1,383 building fires reported to MFIRS in 2008. Thirty-nine (39) fires occurred in vacant residential properties. Four (4) fires in storage facilities were reported as vacant building fires. Mercantile and business properties reported three vacant building fire incidents. Another three of these fires occurred at manufacturing and processing facilities. Public assembly properties also accounted for three vacant building fires in Hampden County in 2008.

Six (6), or 12%, of the vacant building fires in Hampden County in 2008 were determined to be intentionally set. Three of these fires occurred in single-family homes and the other three happened in apartment buildings.

JUVENILE-SET FIRES

21 Juvenile-set Fires Caused 2 Civilian Deaths

There were 21 reported juvenile-set fires in Hampden County in 2008. The nine structure fires, one motor vehicle fire, eight brush fires and two special outside fires, and one unclassified fire caused two civilian deaths, one civilian injury, one fire service injury and $354,240 in estimated damages.

ARSONS

92 Total Arsons — 29 Structures, 14 Vehicles & 49 Other Arsons

Ninety-two (92), or 4%, of Hampden County's 2,485 fires were considered intentionally set, or, for purposes of this analysis, arson[4]. The 29 structure arsons, 14 motor vehicle arsons and 49 outside and other arsons caused one civilian injury, four fire service injuries and an estimated dollar loss of $383,391.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

All Arson Up

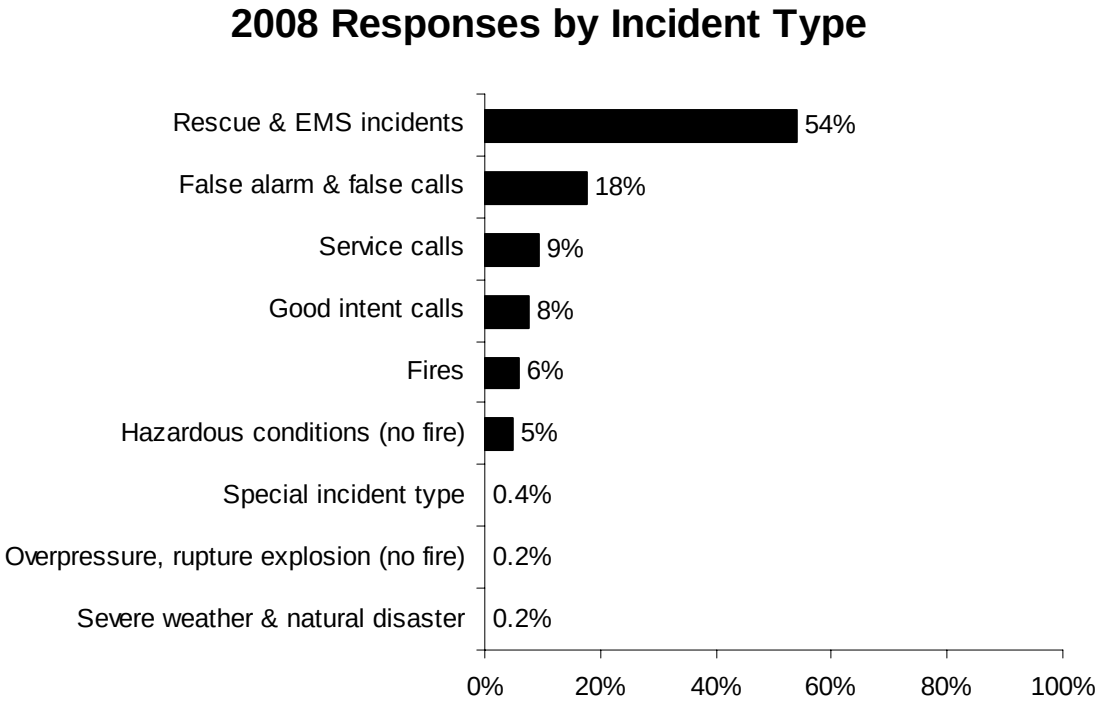
The total number of reported arson fires increased by nine from the 83 reported in 2007. Structure arsons increased by seven from the 22 reported in 2007. Motor vehicle arsons increased by one from the 13 reported the year before. Outside and other fires increased by one from the 48 reported the year before.

ALL INCIDENTS

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

In 2008, fire departments in Hampden County reported 42,921 responses[5] to MFIRS. Of these 42,921 incidents, 40,334 non-fire calls were voluntarily reported.

Of these 40,334 non-fire calls 23,099, or 54% of all reported responses in 2008, were reported rescue and emergency medical services (EMS) calls; 7,547, or 18%, were reported false alarm or false calls; 3,977, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,277, or 8%, were reported good intent calls; 2,090, or 5%, were reported hazardous condition calls with no fire; 183, or 0.4%, were special incident type calls such as citizen



complaints; 91, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 70, or 0.2%, were severe weather responses.

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

Two thousand five hundred and eighty-seven (2,587), or 6%, of the total responses submitted by Hampden County fire departments were fires.

Hampden County Fire Departments Gave Mutual Aid 654 Times

In 2008, Hampden County fire departments reported coming to the aid of other fire departments 654 times. Of these 654 responses, 394, or 60%, were for rescue or EMS calls; 102, or 16%, were for fires; 94, or 14%, were for service calls such as cover assignments; 35, or 5%, were for good intent calls; 19, or 3%, were for hazardous conditions calls with no fire; eight, or 1%, were for false alarms or false calls; and two, or less than 1%, were special incident types.

Hampden County Received Mutual Aid in 817 Incidents

In 2008, Hampden County fire departments reported receiving aid from surrounding departments in 817 incidents. Of these 817 incidents, 711, or 87%, were rescue and emergency medical services calls; 68, or 8%, were for fires; 14, or 2%, were service calls; nine, or 1%, were false alarms or false calls; eight, or 1%, were good intent calls; and seven, or 1%, were hazardous conditions calls with no fire.

Hampden County Population: 456,228

5.45 Fires/1,000 Population

Total Fires:	**2,485**		**$20,446,331**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	1,395	56%	$18,481,429
Vehicle Fires	271	11%	1,496,969
Other Fires	819	33%	467,933

5 Fatal Fires	2.41 Civilian Deaths/1,000 Fires
6 Civilian Deaths	0.13 Civilian Deaths/10,000 Population
48 Civilian Injuries	73 Fire Service Injuries

Building Fires: 1,383

Residential Structure Fires: 1,151

Residential Structure Fires Confined to Non-Combustible Containers: 840

Unconfined Residential Structure Fires: 311

5 Civilian Deaths 36 Civilian Injuries 54 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	564	49%
Apartments	523	45%
Residential board & care	23	2%
Hotels or motels	12	1%
Rooming houses	11	1%
Dormitories	10	1%

Detector Status	**Fires**	**%**
Operated	545	47%
Didn't operate	28	2%
None	42	4%
Fire too small	30	3%
Didn’t alert (confined)	99	9%
Undetermined	407	35%

Area of Origin[6]	**%**	**Heat Source**	**%**	**%Unconfined**[7]
Kitchen	59%	Heat from operating equip.	4%	16%
Heating room or area	11%	Radiated heat/oper. eq.	3%	11%
Chimney, flue	5%	Arcing	2%	6%
Bedroom	4%	Cigarettes	1%	5%
Substructure area, crawl space	2%	Candles	1%	5%

[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 Ignited[8]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[9]**
Food, cooking materials	55%	Too close to combustibles	2%	8%
Flammable or combust. liquid	11%	Equipment unattended	2%	8%
Rubbish, trash, waste	5%	Abandoned materials	2%	7%
Film, residue (creosote)	5%	Electrical failure, malfunc.	2%	6%
Structural member, framing	3%	Misuse of materials or prod.	1%	3%

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Cooking equipment	54%	Unintentional	17%	54%
None	24%	Failure of eq./heat source	3%	10%
Boiler, furnace, cent. heat unit	11%	Intentional	2%	7%
Chimney or flue	5%	Act of Nature	1%	3%
		Undetermined	2%	6%
		Cause under investigation	6%	20%

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

Alerted occupants	50%
Didn't alert occupants	11%
Undetermined	39%

[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	164	123	13	28
February	142	98	19	25
March	226	135	22	69
April	418	150	24	244
May	258	121	28	109
June	183	100	23	60
July	180	93	18	69
August	171	101	22	48
September	152	90	19	43
October	202	119	25	58
November	201	134	28	39
December	188	131	30	27

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	351	209	39	103
Monday	319	174	30	115
Tuesday	373	221	29	123
Wednesday	338	211	37	90
Thursday	355	185	38	132
Friday	372	190	62	120
Saturday	377	205	36	136

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	256	128	41	87
04:01 – 08:00	150	82	31	37
08:01 – 12:00	321	207	36	78
12:01 – 16:00	623	339	60	224
16:01 – 20:00	728	419	69	240
20:01 – 00:00	407	220	34	153

Motor Vehicle Fires
Total: 271
Automobiles: 222 (82%)
13, or (6%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 93 **Dollar loss: $2,383,391**

0.61 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	30	2%	32%	$2,321,841
Vehicle Arsons	14	5%	15%	561,000
Other Arsons	49	6%	53%	550

0.20 Structure arsons/1,000 population
0.09 Vehicle arsons/1,000 population
0.32 Other arsons/1,000 population

1 Civilian Injury 9 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%
00:01 - 04:00	10	33%
12:01 - 16:00	7	23%
16:01 - 20:00	6	20%

Vehicle Arsons	#	%
00:01 - 04:00	8	57%
20:01 - 00:00	4	29%
04:01 - 08:00	1	7%
16:01 - 20:00	1	7%

Other Arsons	#	%
20:01 - 00:00	17	35%
16:01 - 20:00	15	31%
12:00 - 16:00	10	20%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	9	31%
Apartment buildings	7	24%

Agawam **Population: 28,144**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	103	37	15	51	6	1	0	5
2005	93	42	10	41	9	1	1	7
2006	125	68	14	43	1	0	0	1
2007	89	48	10	31	4	3	0	1
2008	100	56	13	31	4	0	1	3

Blandford **Population: 1,214**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	2	4	1	0	0	0	0
2005	14	6	4	4	1	0	0	1
2006	14	5	8	1	1	0	0	1
2007	12	6	5	1	0	0	0	0
2008	7	3	1	3	0	0	0	0

Brimfield **Population: 3,339**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	1	1	0	0
2005	3	3	0	0	0	0	0	0
2006	3	2	1	0	0	0	0	0
2007	1	0	1	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Chester **Population: 1,308**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	3	1	6	2	1	0	1
2005	3	1	1	1	0	0	0	0
2006	14	5	1	8	0	0	0	0
2007	1	1	0	0	0	0	0	0
2008	12	1	1	10	0	0	0	0

Chicopee **Population: 54,653**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	244	111	40	93	44	10	5	29
2005	307	140	54	113	29	7	5	17
2006	229	113	32	84	11	5	0	6
2007	264	153	26	85	14	5	0	9
2008	244	134	33	77	20	10	0	10

East Longmeadow **Population: 14,100**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	40	21	6	13	6	2	0	4
2005	40	17	10	13	2	0	0	2
2006	38	6	6	26	2	0	0	2
2007	41	19	6	16	3	1	0	2
2008	43	18	1	24	1	1	0	0

Granville **Population: 1,521**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	1	0	2	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	5	3	0	2	0	0	0	0
2007	Non-Reporting Community							
2008	Non-Reporting Community							

Hampden **Population: 5,171**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	4	3	0	1	1	1	0	0
2005	1	1	0	0	0	0	0	0
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	5	5	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Holland **Population: 2,407**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	15	2	3	10	4	0	0	4
2005	13	6	1	6	0	0	0	0
2006	24	4	1	19	13	1	0	12
2007	12	3	1	8	2	0	0	2
2008	23	6	1	16	5	0	0	5

Holyoke **Population: 39,838**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	331	154	41	136	18	5	2	11
2005	321	148	43	130	14	3	4	7
2006	282	138	35	109	9	2	3	4
2007	422	181	44	197	18	5	1	12
2008	330	196	29	105	17	3	3	11

Longmeadow **Population: 15,633**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	39	30	4	5	1	0	0	1
2005	36	22	6	8	2	0	0	2
2006	43	19	8	16	1	0	0	1
2007	41	21	3	17	1	0	0	1
2008	42	18	0	24	4	0	0	4

Ludlow **Population: 21,209**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	62	33	13	16	4	0	1	3
2005	68	32	12	24	3	1	0	2
2006	69	37	9	23	7	2	0	5
2007	78	48	12	18	2	1	0	1
2008	64	38	12	14	1	0	2	2

Monson **Population: 8,359**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	37	19	8	10	0	0	0	0
2005	32	8	6	18	0	0	0	0
2006	39	15	3	21	0	0	0	0
2007	35	13	4	18	0	0	0	0
2008	31	18	3	10	1	0	0	1

Montgomery **Population: 654**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	Non-Reporting Community							
2006	Non-Reporting Community							
2007	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Town of Palmer Fire Districts **Population: 13,000**

Palmer District # 1 ***Est. Pop. Protected: 6,000***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	38	20	10	8	0	0	0	0
2005	60	26	15	19	1	1	0	0
2006	48	21	11	16	1	0	0	1
2007	58	20	14	24	0	0	0	0
2008	61	41	9	11	1	1	0	0

Bondsville ***Est. Pop. Protected: 3,000***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	6	5	0	1	1	1	0	0
2006	6	2	2	2	0	0	0	0
2007	8	2	1	5	0	0	0	0
2008	12	1	2	9	0	0	0	0

Three Rivers ***Est. Pop. Protected: 4,000***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	5	2	3	0	0	0	0
2005	15	6	2	7	4	1	2	1
2006	15	1	5	9	0	0	0	0
2007	9	4	1	4	0	0	0	0
2008	12	7	0	5	0	0	0	0

Russell **Population: 1,657**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	7	2	1	2	2	0	0
2005	15	9	2	4	0	0	0	0
2006	10	5	0	5	2	0	0	2
2007	10	4	0	6	0	0	0	0
2008	14	8	3	3	0	0	0	0

Southwick **Population: 8,835**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	53	24	1	28	1	0	0	1
2005	44	24	3	17	2	0	1	1
2006	47	20	5	22	0	0	0	0
2007	47	17	5	25	2	1	0	1
2008	51	29	4	18	2	1	1	0

Springfield **Population: 152,082**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1,083	562	133	388	55	11	11	33
2005	1,004	574	128	302	30	7	5	18
2006	1,146	633	108	405	10	5	1	4
2007	1,311	741	129	441	15	3	10	2
2008	1,138	687	104	347	24	13	6	5

Tolland **Population: 426**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	5	0	2	3	2	0	1	1
2006	5	3	0	2	0	0	0	0
2007	6	0	0	6	0	0	0	0
2008	3	3	0	0	0	0	0	0

Wales **Population: 1,737**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	2	0	1	0	0	0	0	0
2006	1	1	0	0	1	1	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	2	2	0	0	0	0	0	0

West Springfield **Population: 27,899**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	134	75	20	39	11	2	4	5
2005	144	65	20	59	7	2	2	3
2006	143	66	25	52	3	1	2	0
2007	128	45	25	59	14	2	2	10
2008	120	46	27	47	7	0	0	7

Westfield **Population: 40,072**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	151	81	23	47	6	3	0	3
2005	150	75	18	57	4	1	1	2
2006	136	74	13	49	4	3	0	1
2007	136	76	16	44	5	1	0	4
2008	135	60	20	55	2	1	1	0

Wilbraham **Population: 13,473**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	70	21	10	39	3	0	1	2
2005	41	20	5	16	5	1	2	2
2006	37	15	3	19	4	1	0	3
2007	56	27	10	19	3	0	0	3
2008	39	21	8	10	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
13005	Agawam	2,231	102	1	1,397	98	281	98	234	6	14
13033	Blandford	105	8	0	60	15	9	2	8	1	2
13987	Bondsville	69	24	1	5	9	14	3	13	0	0
13043	Brimfield	1	1	0	0	0	0	0	0	0	0
13059	Chester	62	14	1	39	5	1	1	0	0	1
13061	Chicopee	3,942	246	7	1,876	199	452	334	790	7	31
13085	East Longmeadow	586	43	2	11	106	70	82	266	3	3
13120	Hampden	1	1	0	0	0	0	0	0	0	0
13135	Holland	138	25	0	98	6	1	1	6	0	1
13137	Holyoke	6,326	330	8	4,125	191	227	179	1,228	14	24
13159	Longmeadow	2,153	46	0	1,272	120	301	90	322	0	2
13161	Ludlow	917	67	4	283	86	153	116	192	6	10
13191	Monson	1,200	35	0	972	42	73	23	55	0	0
13194	Montgomery	41	0	0	29	5	1	2	4	0	0
13986	Palmer #1	387	61	0	14	68	109	59	68	1	7

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any 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
13256	Russell	182	23	0	93	17	13	6	29	1	0
13279	Southwick	314	58	0	36	31	41	47	98	2	1
13281	Springfield	13,590	1,161	54	5,977	659	1,117	1,731	2,835	14	42
13297	Tolland	50	12	1	21	4	5	2	1	4	0
13988	Three Rivers	165	24	5	9	26	45	15	39	1	1
13306	Wales	2	2	0	0	0	0	0	0	0	0
13325	West Springfield	5,794	121	2	4,503	171	278	172	538	2	7
13329	Westfield	2,600	139	3	837	173	606	187	620	4	31
13339	Wilbraham	2,065	44	2	1,442	59	180	127	201	4	6
	Hampden County	**40,585**	**2,477**	**90**	**21,642**	**1,977**	**3,687**	**3,177**	**7,305**	**63**	**167**

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.

Springfield Fires in 2008

1,138 Total Fires — 687 Structures, 104 Vehicles & 347 Other Fires
The Springfield Fire Department reported 1,138 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 687 structure fires, 104 motor vehicle fires, 196 outside trash fires, 108 brush fires, 24 special outside fires, and 19 unclassified fires caused 21 civilian injuries, 61 fire service injuries and an estimated dollar loss of $9 million.

No Fire Deaths in Springfield in 2008
There were no reported fire deaths in Springfield in 2008. This is a dramatic turn around from the previous year when seven Springfield residents were killed in two fatal fires and two fatal domestic arsons.

All Fires Down in 2008
Total fires decreased by 173 from 1,311 incidents in 2007. Reported structure fires were down 54 from the 741 reported during the previous year. Motor vehicle fires decreased by 25 from 129 the year before. Outside and other fires decreased by 94 from the 441 reported in 2007.

SPRINGFIELD FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1,082	562	133	387	63	15	16	32
2005	1,004	574	128	302	30	7	5	18
2006	1,146	633	108	405	10	5	1	4
2007	1,311	741	129	441	15	3	10	2
2008	1,138	687	104	347	22	12	6	4

BUILDING FIRES

There were 684 building fires of different types in Springfield in 2008. These 684 building fires accounted for 99.4% of all structure fires in Springfield.

87% of Building Fires in Homes
The 684 building fires that occurred in Springfield in 2008 can be broken down by fixed property use as follows: 592, or 87% of all building fires, were in residential properties; 24 fires occurred in institutional properties; 21 fires occurred in educational properties; 16 fires happened in mercantile or business properties; 14 fires took place in public assembly properties; nine fires occurred in storage properties; four fires occurred at industrial facilities; two fires occurred in special properties; one fire happened in a manufacturing or processing facility; and one fire occurred in an unclassified building.

RESIDENTIAL FIRES

Residential Building Fires Down Slightly

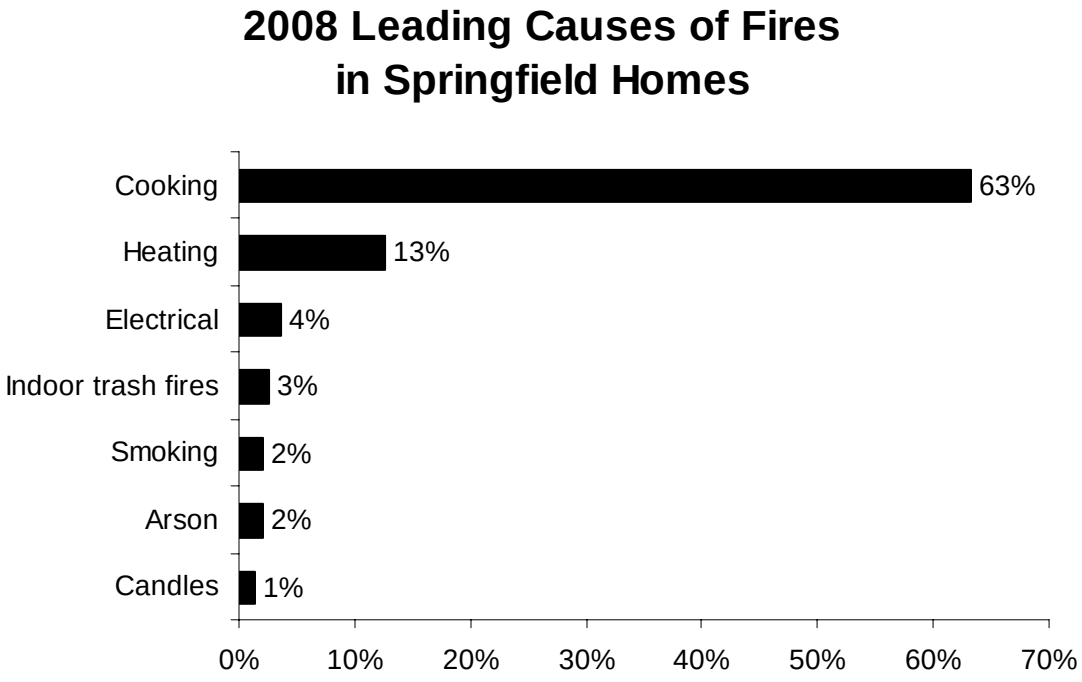
There were 592 reported residential building fires in Springfield in 2008. These 592 fires are a decrease of 49, or 8%, over the 641 residential building fires reported in 2007.

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; 39% occurred in 1- or 2-family homes; 3% occurred in residential board and care facilities; 1% occurred in dormitories, 1% occurred in hotels or motels; and another 1% occurred in rooming houses. One percent (1%) also occurred in unclassified residential buildings.

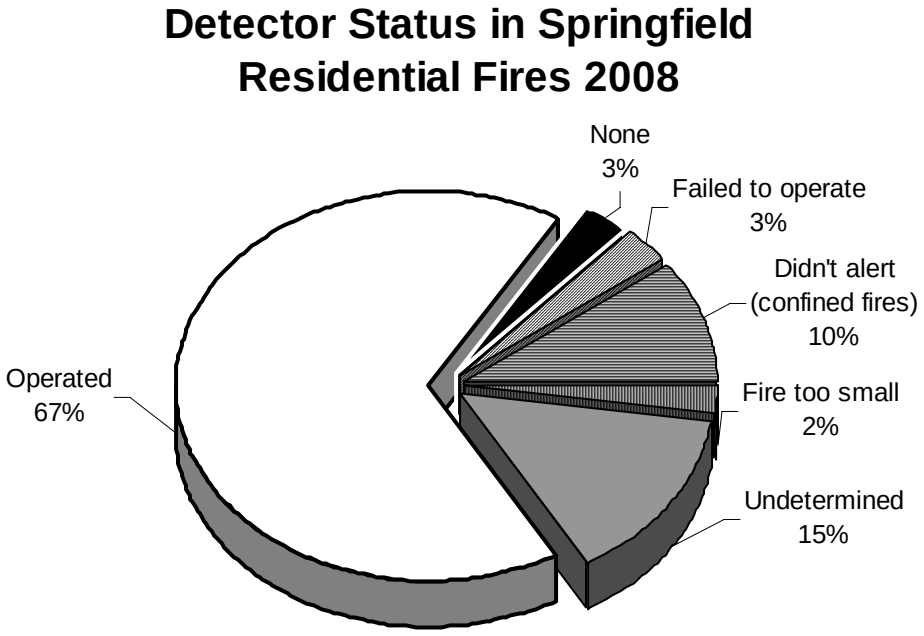
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Springfield was unattended cooking and other unsafe cooking practices, accounting for 63% of these fires. Heating equipment accounted for 13% of the residential building fires in 2008. Electrical problems were responsible for 4% of these fires. Indoor rubbish fires were responsible for 3%. Smoking and arson each caused 2% of these fires. Candles caused 1% of the fires in people's homes in Springfield in 2008.



76% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Four hundred and forty-eight (448), or 76% of all residential building fires were confined to non-combustible containers in 2008. Three hundred and fifty-seven (357), or 60% of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Seventy (70), or 12% of all residential fires were fuel burner or boiler malfunctions. Thirteen (13), or 2% of residential fires were rubbish fires contained to a non-combustible container. Four (4) fires were confined to chimneys, which accounted for 1% of residential building fires. Four (4) incinerator overloads or malfunctions, accounted for 1% of residential building fires in 2008.

Detectors Alerted Occupants in 2/3 of Fires
Smoke or heat detectors operated and alerted the occupants in 396, or 67%, of the residential building fires. In 10% of these fires[2], 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 2% of the residential fires. Smoke detector performance was undetermined in 86 incidents, or 15% of Springfield'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.

Almost 1/2 of Failed Detectors Had Missing or Disconnected Batteries

Of the 17 fires where smoke detectors were present but failed to operate, eight, or 47%, failed because the batteries were either missing or disconnected. A lack of maintenance caused one, or 6%, of the detectors to fail. A dead battery was also responsible for one, or 6%, of the smoke detectors that failed to operate. It was undetermined in the other seven, or 41%, cases why the detectors failed to operate.

VACANT BUILDINGS

23 Building Fires in Vacant Buildings

Springfield reported 23 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 684 building fires reported to MFIRS in 2008. Fourteen (14) one- or two-family homes, five apartment buildings, one detached residential garage, one unclassified business; one church; and an unclassified variable use amusement or recreation facility were reported as vacant building fire incidents.

JUVENILE-SET FIRES

2 Juvenile-set Fires

There were two juvenile-set fires in Springfield in 2008. The one unclassified motor vehicle fire and one unclassified fire caused $1,300 in estimated damages.

ARSONS

22 Total Arsons[4] — 12 Structures, 6 Motor Vehicles, & 4 Other

Twenty-two (22), or 2%, of Springfield's 1,138 fires were intentionally set, or, for purposes of this analysis, arson. The 12 structure arsons, six motor vehicle arsons and four outside and other arsons caused three fire service injuries and an estimated dollar loss of $284,055.

0 Civilian Deaths or Injuries in 2008 Arsons

In 2007, the City of Springfield had two fatal fires and four resulting deaths that were the result of domestic violence arsons. In 2008 Springfield didn't report any civilian deaths or civilian injuries from arson.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

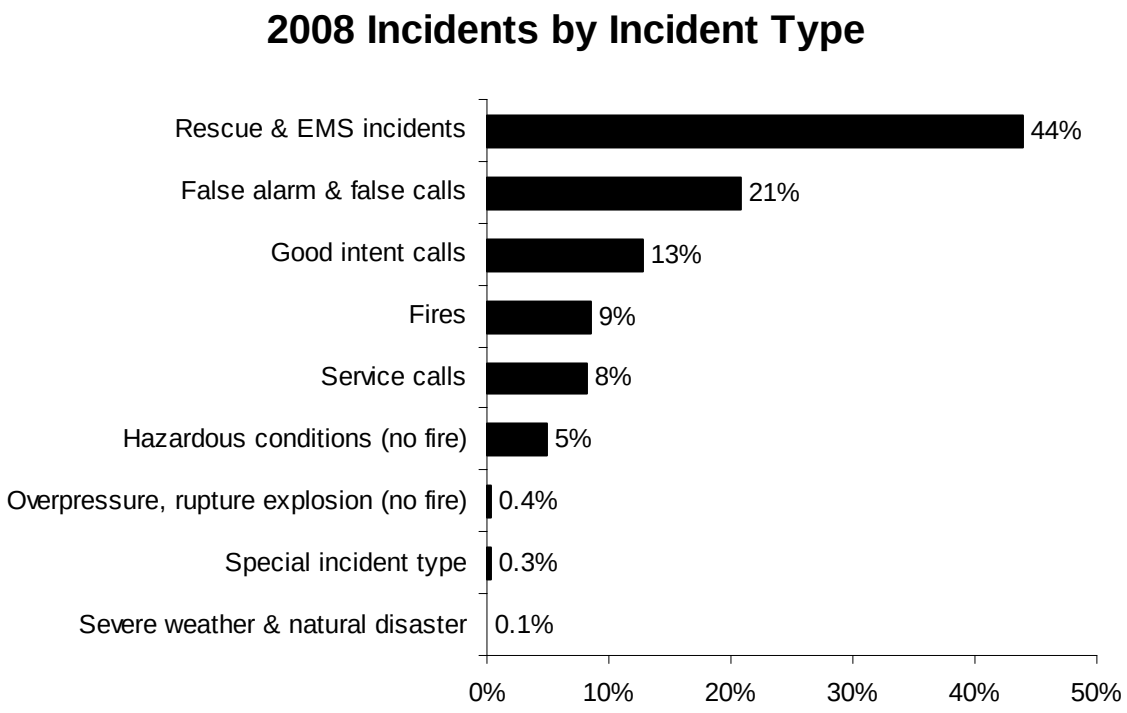
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

Structure Arsons Up
The total number of arsons reported, 22, increased by seven from the 15 reported in 2007. Reported structure arsons increased nine from three the year before. Motor vehicle arsons decreased four from the 10 reported in 2007. Outside and other arsons increased two from the two reported last year.

Springfield reported 129 fires that 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 2008.

Rescue & EMS Calls Are 44% of All Reported Incidents
In 2008, Springfield voluntarily reported 13,590 incidents to MFIRS. Of these 13,590 incidents, 12,429, or 91% were non-fire incidents.

Of these 12,429 non-fire incidents 5,977, or 44%, were reported rescue and emergency medical services (EMS) calls; 2,835, or 21%, were reported false alarm or false calls; 1,731, or 13%, were reported good intent calls; 1,117, or 8%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 659, or 5%, were reported hazardous condition calls with no fire; 54,or 0.4%, were reported overpressure, rupture, explosion or overheat calls with no fire; 42, or 0.3%, were special incident type calls, such as citizen complaints; and 14, or 0.1%, were responses caused by severe weather.



In 2008, Springfield reported 1,161 fires[5] to MFIRS, accounting for 9% of all reported incidents.

Springfield Gave Mutual Aid in 83 Reported Incidents

In 2008, Springfield reported giving mutual aid 83 times. Of these 83 incidents, 26, or 31%, were rescue or EMS incidents; 23, or 28%, were for fires; 15, or 18%, were for cover assignments (service calls); 12, or 14% were good intent calls; five, or 6% were false alarms; one, or 1%, was a hazardous condition call without fire; and another mutual aid given call, or 1%, was for a special incident type.

Springfield Received Mutual Aid in 23 Incidents

In 2008, Springfield reported receiving mutual aid from surrounding fire departments in 23 incidents. Of these 23 incidents, 12, or 52%, were for rescue or EMS incidents; three, or 13%, were service calls; another three, or 13%, were for false alarms; three, or 13%, were for good intent calls; and two, or 9%, were for fires.

[5] This figure includes fires that Springfield responded to calls of mutual aid outside of their jurisdiction.

Springfield Population: 152,082

7.5 Fires/1,000 Population

Total Fires:	**1,138**		**$9,011,886**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	687	60%	$8,460,244
Vehicle Fires	104	9%	492,365
Other Fires	347	31%	59,277

21 Civilian Injuries 61 Fire Service Injuries

Building Fires: 684

Residential Structure Fires: 592

Residential Structure Fires Confined to Non-Combustible Containers: 448

Unconfined Residential Structure Fires: 144

18 Civilian Injuries 49 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	326	55%
1- & 2-Family homes	232	39%
Residential board & care	16	3%
Dormitories	6	1%
Hotel/motel	4	1%
Boarding house	3	1%

Detector Status	**Fires**	**%**
Operated	396	67%
Didn't operate	18	3%
None	19	3%
Fire too small	13	2%
Didn’t Alert (confined)	60	10%
Undetermined	86	15%

Area of Origin[6]	**%**
Kitchen	67%
Heating room or area	12%
Bedroom	4%
Substructure area, crawl space	2%
Wall surface, exterior	2%
Function room, other	1%

Heat Source	**%**	**%Unconfined**[7]
Heat from operating eq.	8%	31%
Radiated heat from oper. eq.	2%	7%
Candles	1%	6%
Spark, ember, flame op. eq.	1%	5%
Hot or smoldering object	1%	5%
Cigarette	1%	4%

[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 Ignited[8]	**%**
Cooking materials	63%
Flammable or combust. liquid	12%
Rubbish, trash, waste	3%
Structural member/framing	3%
Bedding	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Equipment unattended	3%	13%
Abandoned materials	2%	10%
Elec. Failure/malfunc. other	2%	8%
Combustibles too close	2%	7%
Misuse of material or prod.	1%	6%

Equipment[10]	**%**
Cooking equipment	61%
None	24%
Boiler, furnace, cent. heat. unit	12%
Chimney or flue	1%
Electrical meter, box	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	12%	49%
Failure of eq. or heat source	3%	13%
Intentional	2%	9%
Act of Nature	0.2%	1%
Undetermined	1%	2%
Cause Under Investigation	7%	29%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	5,977	44%
False alarms & false calls	2,835	21%
Good intent calls	1,731	13%
Fires[12]	1,161	9%
Service calls	1,117	8%
Hazardous conditions (no fire)	659	5%
Overpressure rupture, explosion or overheat calls (no fire)	54	0.4%
Special incident type	42	0.3%
Severe weather & natural disaster	14	0.1%

[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.

[12] This figure contains calls for mutual aid assistance.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	79	60	5	14
February	66	50	8	8
March	112	74	11	27
April	153	74	3	76
May	115	62	7	46
June	80	38	11	31
July	88	39	10	39
August	87	55	10	22
September	74	45	5	24
October	106	66	10	30
November	100	71	13	16
December	78	53	11	14

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	150	93	15	42
Monday	160	90	9	61
Tuesday	178	109	13	56
Wednesday	144	97	12	35
Thursday	164	101	16	47
Friday	167	103	21	43
Saturday	175	94	18	63

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	134	63	23	48
04:01 - 08:00	74	36	12	26
08:01 - 12:00	151	117	10	24
12:01 - 16:00	257	173	19	65
16:01 - 20:00	326	197	28	101
20:01 - 24:00	196	101	12	83

Motor Vehicle Fires

Total: 104
Automobiles: 104 (100%)
6 (6%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 22 **Dollar loss: $284,055**

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	12	2%	55%	$278,055
Vehicle Arsons	6	6%	27%	6,000
Other Arsons	4	1%	18%	0

3 Fire Service Injuries

0.08 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.03 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
00:01 - 04:00	6	50%
08:01 - 12:00	3	25%
12:01 - 16:00	2	17%

Vehicle Arsons	#	%
00:01 - 04:00	4	67%
16:01 - 20:00	1	13%
20:01 - 00:00	1	13%

Other Arsons	#	%
20:01 - 00:00	3	60%
12:01 - 16:00	1	20%
16:01 - 20:00	1	20%

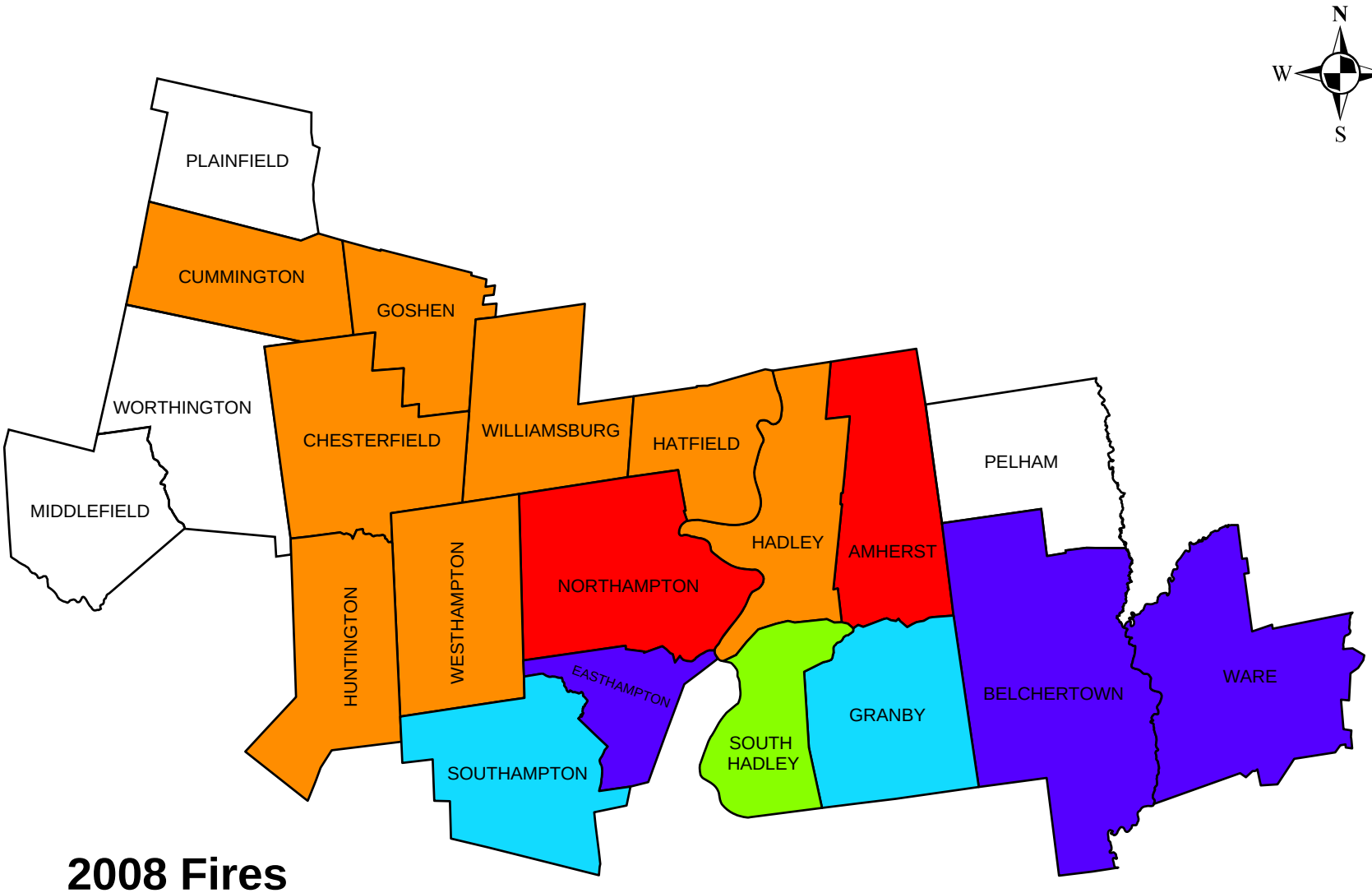
Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	5	42%
1- & 2-Family homes	4	33%
Elementary school	1	8%
Grocery store	1	8%
Restaurant or cafeteria	1	8%

Hampshire County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Hampshire County Fires 2008



2008 Fires

- 0
- 1 - 10
- 11 - 25
- 26 - 50
- 51 - 75
- 76 - 125

Miles

0 2 4 8 12 16

Massachusetts Fire Incident Reporting System 2008

Hampshire County Fires in 2008

518 Total Fires — 223 Structures, 42 Vehicles & 253 Other Fires
Hampshire County ranked eleventh out of the fourteen Massachusetts counties in total reported fires. Hampshire County Fire Departments reported 518 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 223 structure fires, 42 motor vehicle fires, 106 brush, tree or lawn fires, 65 outside rubbish fires, 22 special outside fires, one cultivated vegetation or crop fire and 59 other fires caused two civilian deaths, 13 civilian injuries, six fire service injuries and an estimated dollar loss of $6 million. Hampshire County's 518 total reported fires accounted for 2% of the 30,136 fires reported to MFIRS in 2008.

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 2008.

All Fires Down
The total number of reported fire incidents decreased by 117 from the 635 reported in 2007. Reported structure fires decreased by 64 from the 287 reported during the previous year. Motor vehicle fires decreased by 12 from 54 the year before. The number of outside and other fires decreased by 41 from 294 in 2007.

HAMPSHIRE COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	536	238	79	219	60	13	4	43
2005	540	214	66	260	44	7	0	37
2006	664	224	67	373	82	5	3	74
2007	635	287	54	294	34	7	0	27
2008	518	223	42	253	51	1	2	48

Fire and Fire Death Rates
Hampshire County had 3.4 fires per 1,000 population. That figure ranks Hampshire County twelfth in the state and below the state rate of 4.8 fires per 1,000 population. Hampshire County also had 0.13 fire deaths per 10,000 population ranking it tied for second among Massachusetts counties and above the state rate of 0.08 fire deaths per 10,000 population.

2 Hampshire County Residents Killed in 2 Fires
- On January 14, 2008, at 11:48 a.m., the Ware Fire Department was called to a fatal electrical fire in a four-unit apartment building that took the life of a 59-year old woman. The fire was caused by an arcing electrical wire in the space between the ceiling and the floor above it. The fire started right under the victim's bedroom. One firefighter was injured at this fire. Detectors were present and operated. Sprinklers were not present. Damages from the blaze were estimated to be $75,000.

- On November 23, 2008, at 10:59 a.m., the Hadley Fire Department was called to a fatal smoking fire in a 15-room hotel. The victim, a 56-year old physically disabled woman was smoking while on home oxygen. The fire started while the victim was trying to light a cigarette. No one else was injured at this fire. Detectors were present and alerted the other occupants of the building. Sprinklers were not present. Damages from the fire were estimated to be $80,000.

Ware Has Hampshire County's Largest Loss Fire

- On November 21, 2008, at 4:35 p.m., the Ware Fire Department was called to a cooking fire at a bank. The fire began on an in a basement break room. There were no injuries associated with this fire. Detectors were present and alerted the occupants. The building was not sprinklered. Damages from the blaze were estimated to be $1,000,000.

STRUCTURE FIRES

Reported Structure Fires Down

The 223 structure fires caused two civilian deaths, 12 civilian injuries, six fire service injuries and an estimated dollar loss of $5.8 million. These incidents represented 43% of Hampshire County's reported fires in 2008. The average estimated dollar loss per structure fire was $25,890. The total number of reported structure fires decreased by 64, or 22%, from the 287 reported in 2007.

One Structure Arson

The one structure arson caused an estimated dollar loss of $50. Arson was indicated as the cause of less than 1% of the structure fires and less than 1% of Hampshire County's structure fire dollar loss. The one structure arson accounted for 2% of the Hampshire County arson fires reported in 2008. The total number of reported structure arsons decreased by six, or 86%, from seven in 2007.

1 Structure Arson Occurred at a High School

The one reported structure arson, or 100%, of Hampshire County's structure arsons occurred at the Amherst Regional Senior High School.

BUILDING FIRES

There were 221 building fires of different types in Hampshire County in 2008. These 221 building fires accounted for 99.1% of all structure fires in Hampshire County.

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

One hundred and seventy-seven (177), or 80%, of Hampshire County's 221 building fires occurred in residential occupancies. Special properties experienced 12 fires. Mercantile and business properties had nine fires. Seven (7) fires occurred in storage facilities. Six (6) fires occurred in educational facilities. Five (5) fires took place each in public assembly properties, including restaurants and churches, and in storage facilities.

Hospitals, prisons, and other institutional buildings experienced four fires. One fire in Hampshire County in 2008 occurred in a manufacturing or processing facility.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 177 reported residential building fires in Hampshire County in 2008. This is a decrease of 56 fires, or 24%, from the 233 residential fires Hampshire County fire departments reported to MFIRS in 2007.

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

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 64% of the building fires in Hampshire County; 25% occurred in apartments; 6% occurred in dormitories; 2% happened in rooming houses, and 1% occurred in hotels or motels. Two percent (2%) of the residential building fires in Hampshire County occurred in unclassified residential buildings.

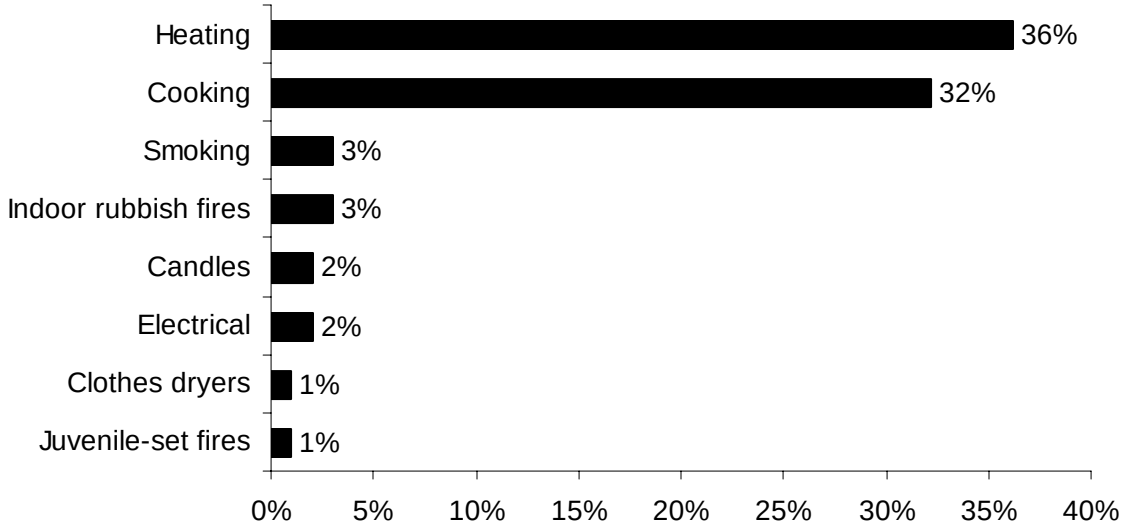
Although much of Hampshire County is rural, the county is home to several colleges and the main campus of the University of Massachusetts. Ten (10), or 6%, of Hampshire County's residential fires occurred in dormitories. Dormitory fires make up smaller percentages of the other counties' fires. In 2008, none of the structure arsons in Hampshire County occurred in dormitories.

Heating Equipment Fires Cause Over 36% of Residential Fires

The leading cause of the 177 residential building fires in Hampshire County was heating equipment fires accounting for 36% of home fires. Unattended cooking and other unsafe cooking practices accounted for 32% of these fires in Hampshire County. Smoking and indoor rubbish fires each accounted for 3% of these fires. Candles and electrical problems each caused 2% of these fires. Clothes dryer fires and juvenile-set fires each accounted for 1% of the residential fires in Hampshire County in 2008.

During the past five years, cooking and heating equipment have both been the leading cause of Hampshire County's residential fires. In 2008, 2007 and in 2005, heating was the leading cause of residential fires in Hampshire and cooking was the second leading cause. In 2006 and 2004 cooking fires were the leading cause of residential fires and heating fires were the second leading cause.

2008 Leading Causes of Fires in Hampshire County Homes



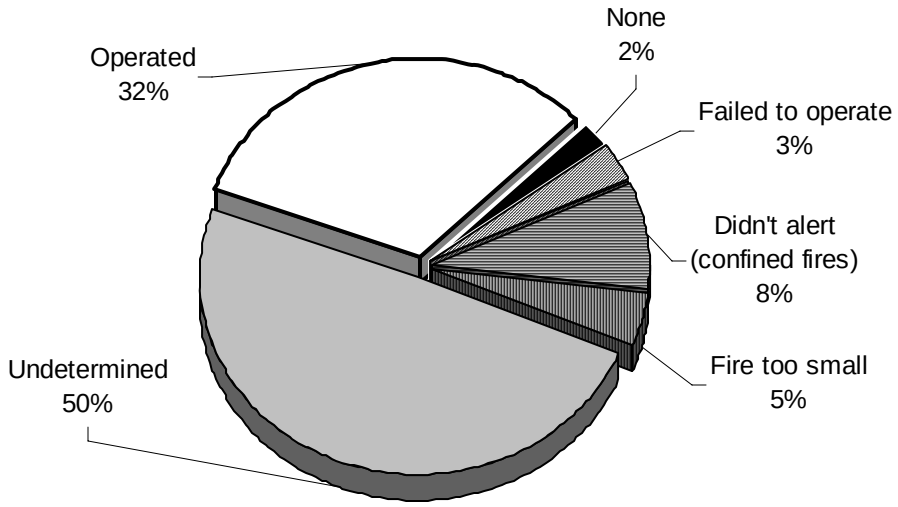
63%of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and eleven (111), or 63% of all residential building fires were reported as confined to non-combustible containers in 2008. Forty-seven (47) of the reported fires were cooking fires contained to a non-combustible container accounting for 27% of residential building fires. Forty (40), or 23%, of all residential building fires reported in 2008 were fires confined to a chimney. Nineteen (19), or 11%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 3%, of these fires were rubbish fires contained to a non-combustible container in Hampshire County in 2008.

Undetected if Detectors Operated in 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 57, or 32%, of the residential building fires. In 8% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 5% of the residential fires. Smoke detector performance was undetermined in 87 incidents, or 50% of Hampshire 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 Hampshire County's Residential Structure Fires 2008



17% Failed Detectors Had Missing or Disconnected Batteries
In one of the six fires where smoke detectors were present but failed to operate, they failed because the batteries were either missing or disconnected. Another detector failed to operate because it was defective; and another detector failed because of a dead battery. It was undetermined in three cases why the detector failed.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings
Hampshire County reported seven fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 221 building fires reported to MFIRS in 2008. Three (3) fires occurred in vacant residential properties. Storage facilities accounted for another three vacant building fires. Mercantile and business properties reported one vacant building fire incidents in Hampshire County in 2008.

None, of the vacant building fires in Hampshire County in 2008 were determined to be intentionally set.

[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

JUVENILE-SET FIRES

3 Juvenile-set Fires

There were three reported juvenile-set fires in Hampshire County in 2008. The one structure fire, one brush fire and one outside rubbish fires caused an $110,000 in estimated damages.

ARSONS

51 Total Arsons — 1 Structures, 2 Motor Vehicle & 48 Other Arsons

Fifty-one (51), or 10%, of Hampshire County's 518 fires were intentionally set, or, for purposes of this analysis, arson[4]. The one structure arson, two motor vehicle arsons and 48 outside and other arsons caused an estimated dollar loss of $14,909.

Motor Vehicle & Outside Arson Up

The total number of reported arson fires increased by 17 from the 34 reported in 2007. Structure arsons decreased by six from the seven reported the previous year. Motor vehicle arsons increased by two from none in 2007. Reported outside and other arsons increased 21 from the 27 reported in 2007.

ALL INCIDENTS

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

In 2008, Hampshire County fire departments reported 10,679 responses[5] to MFIRS. Of these 10,679 incidents, 10,060 non-fire calls were voluntarily reported.

Of these 10,060 non-fire calls, 5,359, or 50% of all the responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 2,425, or 23%, were reported false alarm or false calls; 805, or 8%, were reported hazardous condition calls with no fire; 685, or 6%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 596, or 6%, were reported good intent calls; 111 or 1%, were special incident type calls such as citizen complaints; 45, or 0.4%, were severe weather responses; and 34, or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Six hundred and nineteen (619), or 6% of the total responses submitted by Hampshire County fire departments were fires.

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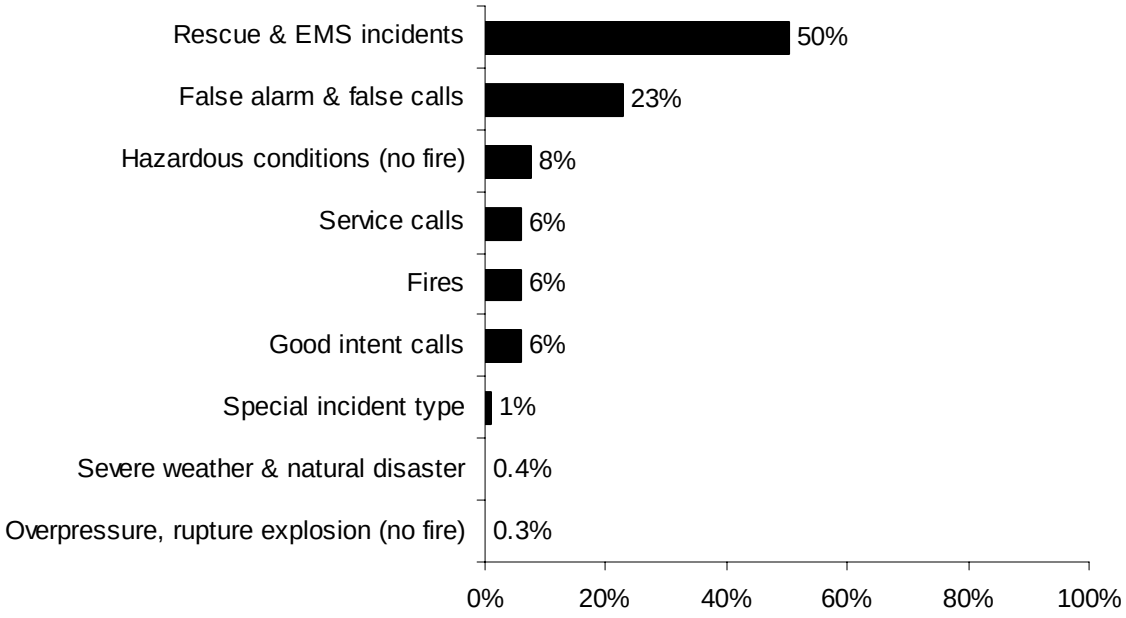
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

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

2008 Responses by Incident Type



Hampshire County Fire Departments Gave Mutual Aid 393 Times

In 2008, Hampshire County fire departments reported coming to the aid of other fire departments 393 times. Of these 393 responses, 146, or 37%, were for rescue or EMS calls; 133, or 34%, were for fires; 49, or 12%, were for service calls such as cover assignments; 30, or 8%, were for false alarms or false calls; 17, or 4%, were for good intent calls; 16, or 4%, were hazardous conditions calls with no fire; and two, or 1%, were severe weather calls.

Hampshire County Received Mutual Aid in 136 Incidents

In 2008, Hampshire County fire departments received aid from surrounding departments in 136 incidents. Of these 136 incidents, 76, or 56%, were rescue and emergency medical services calls; 44, or 32%, were for fires; seven, or 5%, were false alarm or false calls; six, or 4%, was a hazardous conditions call with no fire; one, or 1%, was a service call; one call, or 1% was an overpressure or rupture explosion with no fire; and another call was a special incident type call also accounting for 1% of the mutual aid calls received in Hampshire County in 2008.

Hampshire County Population: 152,251

3.4 Fires/1,000 Population

Total Fires:	**518**		**$5,908,133**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	223	43%	$5,773,472
Vehicle Fires	42	8%	88,700
Other Fires	253	49%	39,961

2 Fatal Fires	3.86 Civilian Deaths/1,000 Fires
2 Civilian Deaths	0.13 Civilian Deaths/10,000 Population
13 Civilian Injuries	6 Fire Service Injuries

Building Fires: 221

Residential Structure Fires: 177

Residential Structure Fires Confined to Non-Combustible Containers: 111

Unconfined Residential Structure Fires: 66

2 Civilian Deaths 15 Civilian Injuries 6 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	113	64%
Apartments	45	25%
Dormitories	10	6%
Rooming houses	3	2%
Hotels or motels	2	1%

Detector Status	**Fires**	**%**
Operated	57	32%
Didn't operate	6	3%
None	4	2%
Fire too small	8	5%
Didn’t alert (confined)	15	8%
Undetermined	87	50%

Area of Origin[6]	**%**
Kitchen	35%
Chimney or flue	23%
Heating room or area	11%
Bedroom	6%
Bathroom	4%

Heat Source	**%**	**%Unconfined**[7]
Radiated, con. Heat op. eq.	6%	17%
Heat from operating eq.	5%	14%
Arcing	3%	9%
Hot ember or ash	3%	8%
Spark/ember/flame op. eq.	2%	6%

[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 Ignited[8]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[9]**
Food, cooking materials	30%	Mechanical failure, malfunc.	3%	9%
Film, residue (creosote)	23%	Misuse of mater. or products	3%	8%
Flamm. or combustible liquid	11%	Equipment unattended	2%	5%
Structural member, framing	5%	Abandoned materials	2%	5%
Rubbish, trash, waste	3%	Too close to combustibles	1%	3%
		Leak or break	1%	3%
		Accident. turned on, not off	1%	3%

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Cooking equipment	28%	Unintentional	21%	58%
None	28%	Failure of eq. or heat source	7%	18%
Chimney or flue	23%	Intentional	0%	0%
Boiler, furnace, cent. heat unit	11%	Cause under investigation	2%	6%
Stove, heating	1%	Undetermined	6%	15%
Clothes dryer	1%	Act of nature	1%	3%

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

Alerted occupants	23%
Didn't alert occupants	14%
Undetermined	63%

[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	39	33	2	4
February	37	25	4	8
March	46	27	3	16
April	115	23	2	90
May	51	16	2	33
June	43	22	3	18
July	25	7	2	16
August	29	11	6	12
September	23	6	5	12
October	40	23	4	13
November	40	16	5	19
December	30	14	4	12

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	76	39	2	35
Monday	89	39	12	38
Tuesday	69	28	5	36
Wednesday	65	26	9	30
Thursday	63	29	4	30
Friday	68	24	5	39
Saturday	88	38	5	45

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	37	19	4	14
04:01 - 08:00	35	22	1	12
08:01 - 12:00	80	35	6	39
12:01 - 16:00	139	57	13	69
16:01 - 20:00	139	49	12	78
20:01 - 00:00	88	41	6	41

Motor Vehicle Fires

Total: 42
Automobiles: 32 (76%)
2, or (6%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 51 **Dollar loss: $14,909**

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	1	0.4%	2%	$50
Vehicle Arsons	2	5%	4%	11,000
Other Arsons	48	19%	94%	3,859

0.002 Structure arsons/1,000 population
0.004 Vehicle arsons/1,000 population
0.11 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%
12:01 - 16:00	1	100%

Vehicle Arsons	#	%
00:01 - 04:00	1	50%
08:01 - 12:00	1	50%

Other Arsons	#	%
16:01 - 20:00	16	33%
20:01 - 00:00	11	23%
08:01 - 12:00	8	17%

Peak Fixed Property Uses for Structure Arsons	#	%
High/junior high/middle school	1	100%

Amherst **Population: 34,874**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	145	71	10	64	30	6	0	24
2005	122	54	5	63	20	5	0	15
2006	120	52	14	54	20	4	0	15
2007	105	49	10	46	14	2	0	12
2008	102	55	6	41	12	1	0	11

Belchertown **Population: 12,968**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	50	27	5	18	4	0	0	4
2005	48	23	5	20	6	0	0	6
2006	47	19	7	21	4	0	0	4
2007	62	30	5	27	4	2	0	2
2008	52	24	3	25	1	0	0	1

Chesterfield **Population: 1,201**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	9	3	0	6	1	0	0	1
2006	9	2	0	7	1	0	0	1
2008	8	4	1	3	0	0	0	0

Cummington **Population: 978**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	1	2	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	5	5	0	0		0	0	0
2008	1	0	1	0	0	0	0	0

Easthampton **Population: 15,994**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	59	26	11	22	7	3	2	2
2005	71	31	11	29	0	0	0	0
2006	80	35	8	37	6	1	1	4
2007	85	56	8	21	1	0	0	1
2008	56	26	5	25	7	0	1	6

Goshen **Population: 921**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	1	1	0	0	0	0	0	0
2008	4	3	1	0	0	0	0	0

Granby **Population: 6,132**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	21	5	6	10	1	0	0	1
2005	10	3	1	6	1	0	0	1
2006	35	8	4	23	11	0	0	11
2007	29	14	1	14	5	0	0	5
2008	36	13	2	21	6	0	0	6

Hadley **Population: 4,793**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	14	7	2	5	1	0	1	0
2005	12	4	2	6	2	0	0	2
2006	1	0	0	1	0	0	0	0
2007	7	7	0	0	0	0	0	0
2008	5	1	3	1	1	0	1	0

Hatfield **Population: 3,249**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	3	3	4	0	0	0	0
2005	12	6	2	4	0	0	0	0
2006	18	5	2	11	0	0	0	0
2007	18	3	2	13	0	0	0	0
2008	6	2	2	2	0	0	0	0

Huntington **Population: 2,174**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	4	1	5	1	0	0	1
2005	1	1	0	0	0	0	0	0
2006	11	5	0	6	0	0	0	0
2007	12	4	0	8	1	1	0	0
2008	1	1	0	0	0	0	0	0

Middlefield **Population: 542**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Northampton **Population: 28,978**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	114	54	24	36	4	2	0	2
2005	114	48	22	44	2	0	0	2
2006	153	65	25	63	7	0	0	7
2007	110	49	17	44	2	1	0	1
2008	114	54	12	48	0	0	0	0

Pelham **Population: 1,403**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	2	0	2	0	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007[12]	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Plainfield **Population: 589**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	3	3	0	0	1	1	0	0
2006	1	1	0	0	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	Fire Department in Good Standing, Certified No Reportable Fires							

SOUTH HADLEY FIRE DISTRICTS **Population: 15,000**

South Hadley District # 1 ***Est. Pop. Protected: 10,000***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	5	2	3	0	0	0	0	0
2005	4	3	1	0	0	0	0	0
2006	3	3	0	0	0	0	0	0
2007	1	0	1	0	0	0	0	0
2008	7	7	0	0	0	0	0	0

South Hadley District # 2 ***Est. Pop. Protected: 5,000***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	5	1	1	1	0	1	0
2005	8	2	2	4	1	0	0	1
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	28	20	3	5	1	0	0	1
2008	13	11	1	1	0	0	0	0

[12] Pelham did report 1 severe weather response in 2007.

Southampton **Population: 5,387**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	19	5	3	11	2	0	0	2
2005	41	6	2	33	1	1	0	0
2006	75	6	0	69	4	0	0	4
2007	65	7	1	57	1	0	0	1
2008	33	1	3	29	13	0	0	13

Ware **Population: 9,707**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	55	17	8	30	8	1	0	7
2005	74	21	10	43	8	0	0	8
2006	96	18	6	72	28	0	2	26
2007	76	25	4	47	10	1	0	9
2008	67	15	2	50	11	0	0	11

Westhampton **Population: 1,468**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	13	3	0	10	0	0	0	0
2005	4	2	0	2	1	0	0	1
2006	5	1	0	4	1	0	0	1
2007	4	2	1	1	0	0	0	0
2008	8	4	0	4	0	0	0	0

Williamsburg **Population: 2,427**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	3	0	3	0	0	0	0
2005	5	4	1	0	0	0	0	0
2006	10	4	1	5	1	0	0	1
2007	17	11	1	5	0	0	0	0
2008	8	4	1	3	0	0	0	0

Worthington **Population: 1,270**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	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	1,432	117	4	187	107	70	119	817	5	6
15024	Belchertown	321	53	1	3	64	45	30	122	3	0
15060	Chesterfield	102	12	0	42	23	12	1	11	0	1
15069	Cummington	1	1	0	0	0	0	0	0	0	0
15087	Easthampton	2,340	69	2	1,817	84	106	51	182	3	26
15108	Goshen	108	11	0	56	10	7	7	14	2	1
15111	Granby	167	38	1	15	29	19	6	58	0	1
15117	Hadley	5	5	0	0	0	0	0	0	0	0
15127	Hatfield	124	6	1	10	36	32	4	30	2	3
15143	Huntington	1	1	0	0	0	0	0	0	0	0
15214	Northampton	4,455	122	21	2,451	297	252	269	979	14	50
15978	South Hadley #1	8	7	0	0	1	0	0	0	0	0
15979	South Hadley #2	350	34	0	226	22	15	6	46	0	1
15276	Southampton	534	43	0	341	39	40	16	48	6	1
15309	Ware	319	73	2	7	52	39	60	71	4	11
15331	Westhampton	132	17	0	70	16	8	3	18	0	0
15340	Williamsburg	280	10	2	134	25	40	24	29	6	10
Total	**Hampshire County**	**10,679**	**619**	**34**	**5,359**	**805**	**685**	**596**	**2,425**	**45**	**111**

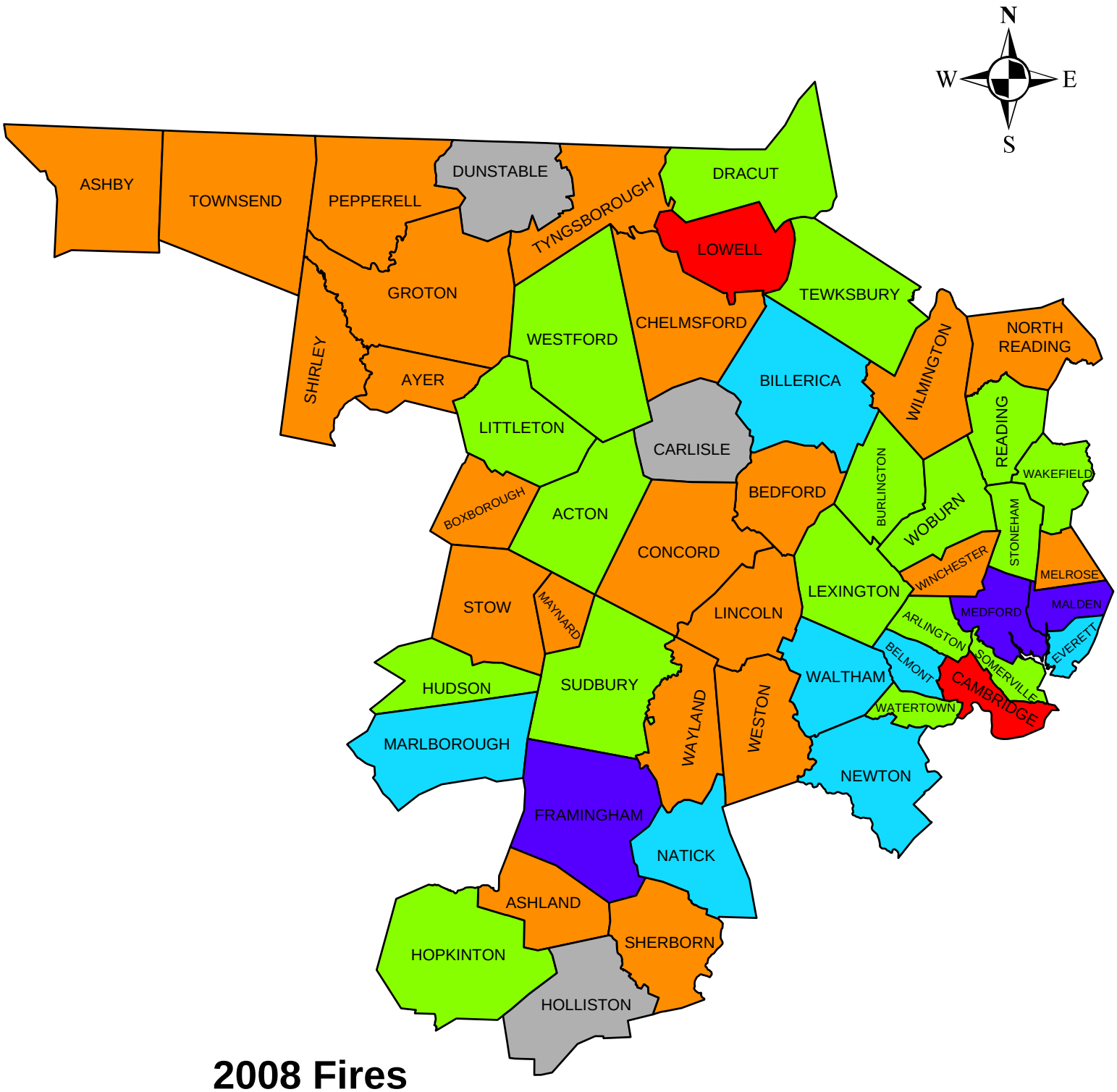
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

Middlesex County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Middlesex County Fires 2008



2008 Fires

- 1
- 2 - 50
- 51 - 100
- 101 - 200
- 201 - 500
- 501 - 900

0 3 6 12 18 24 Miles

Massachusetts Fire Incident Reporting System 2008

Middlesex County Fires in 2008

5,260 Total Fires — 3,402 Structures, 506 Vehicles & 1,352 Other Fires
Middlesex County ranked second out of the fourteen Massachusetts counties in total reported fires. Middlesex County fire departments reported 5,260 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 3,402 structure fires, 506 motor vehicle fires, 608 brush fires, 414 outside rubbish fires, 124 special outside fires, five cultivated vegetation or crop fires, and 201 unclassified fires caused seven civilian deaths, 56 civilian injuries, 136 fire service injuries and an estimated dollar loss of $48.5 million. Middlesex County's fires accounted for 17% of the 30,136 Massachusetts fires reported in 2008.

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 2008.

Structure Fires Up & Outside & Other Fires Down
The total number of reported fire incidents decreased by 498 from the 5,758 reported in 2007. Reported structure fires were up 195 from 3,207 in the previous year. Motor vehicle fires decreased by 63 from the 569 reported during 2007. Reported outside and other fires decreased by 630 from 1,982 the year before.

Brush Fires Down by 35%
Brush fires decreased by 331, or 35%, from the 939 reported in 2008. This is a major decrease and the main reason for the drop in all Middlesex County fires.

MIDDLESEX COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	4,501	2,746	578	1,177	146	44	23	79
2005	5,029	2,819	633	1,577	154	48	24	82
2006	5,344	3,171	564	1,609	171	52	24	95
2007	5,758	3,207	569	1,982	173	63	16	94
2008	5,260	3,402	506	1,352	174	40	27	107

Fire and Fire Death Rates
Middlesex County had 3.6 fires per 1,000 population. That figure ranks Middlesex County tenth in the state and below the state rate of 4.8 fires per 1,000 population. Middlesex County also had 0.05 fire deaths per 10,000 populations ranking it eleventh among Massachusetts counties and below the state rate of 0.08 fire deaths per 10,000 population.

7 Fatal Fires Killed 7 Middlesex County Residents

- On January 16, 2008, at 2:09 a.m., the Wakefield Fire Department was called to a fatal arson car fire that was a successful attempt at self-immolation. The victim, a 49-year old man, poured gasoline inside of the car and ignited it. He died from smoke inhalation and burns. No one else was injured in this fire, and damages were not estimated.

- On January 25, 2008, at 4:18 a.m. the Newton Fire Department was called to a fatal smoking fire in a 2-family home. The fire began in a first floor closet. One of the residents left his pipe in his coat in the closet. The 83-year old victim, a woman, was sleeping at the time of the fire. Rescuers found her in her second floor bedroom and brought her outside. She was transported to a local hospital where she succumbed to her injuries. There was one other civilian injury and five firefighter injuries at this fire. Smoke detectors were present but failed to operate because of improper installation. Sprinklers were not present. Damages from this fire were estimated to be $600,000.

- On February 21, 2008, at 12:33 a.m., the Lowell Fire Department was called to a fatal clothes dryer fire at a nursing home. The fire started in the laundry room and three sprinkler heads suppressed it. The 51-year old victim, was a female employee who collapsed after she helped evacuate some of the nursing home's residents. She was transported to a local hospital where she died from cardiac arrest. Detectors were present and alerted the occupants. No one else was injured in this fire, and damages were not estimated.

- On March 14, 2008, at 7:42 p.m., the Arlington Fire Department was called to a fatal cooking fire at a 100-unit apartment building. The victim, a 92-year old woman, was trying to make a cup of tea. She got too close to the burner and her clothing ignited. When firefighters arrived, they discovered the victim on the floor of her kitchen. She was the only thing that burned. No one else was injured at this fire. Detectors and sprinklers were both present but the fire was too small to activate them. Damages from the blaze were estimated to be $10,000.

- On September 13, 2008, at 4:50 a.m., the Lexington Fire Department was called to a fatal clothes dryer fire in a single-family home. The heat from the dryer ignited the lint in the vent pipe. It smoldered in the pipe until it broke into an open fire, came out the vent pipe and traveled up the exterior of the house and into the first floor. The victim, a 48-year old woman was overcome by the heat and smoke as she attempted to escape. Her two daughters were able to escape out a window and onto the garage. Detectors were present but it was undetermined if they operated. There were no sprinklers. Damages were estimated to be $400,000.

- On November 2, 2008 at 9:12 p.m., the Hopkinton Fire Department was called to a fatal heating fire in a single-family home. The 53-year old male victim could be characterized as a hoarder. He placed combustibles too close to the coal burning stove. Radiated heat from the coal stove ignited the rubbish nearby starting the fire in

the first floor living room. He was overcome by the heat and smoke as he was attempting to escape. No one else was injured at this fire. Detectors and sprinklers were not present. Damages were estimated to be $257,700.

- On November 25, 2008 at 3:31 a.m., the Cambridge Fire Department was called to a fatal fire of undetermined cause in a six-unit apartment building. The five-alarm fire was fought by 99 firefighters. The victim, an 84-year old woman, was asleep at the time of the fire. She was rescued by firefighters and transported to a local hospital. She died days later succumbing to her injuries. The victim's 80-year old husband and three firefighters were also injured at this fire. It was undetermined if smoke detectors were present. The building had no sprinklers and damages from this fire were estimated to be $2,260,000.

Largest Loss Fires in 2008

In 2008, Middlesex County fire departments reported 10 fires with a reported dollor loss of $1 million or greater. The combined dollar loss of these 10 fires totaled $17.3 million, or 36% of the county's total dollar loss. Newton had three of these fires, and Cambridge had two.

- On April 11, 2008, at 12:21 p.m., the Framingham Fire Department was called to a fire at 72-unit apartment complex. A plumber working in a second floor bathroom accidentally ignited the lining of a plumbing chase with his torch. The fire smoldered undetected before erupting into open flames. Two (2) civilians and 13 firefighters were injured at this fire. Detectors were present and alerted the occupants. The building was not sprinklered. Damages from this fire were estimated to be $3 million.

- On September 17, 2008, at 2:45 p.m., the Lincoln Fire Department was called to a fire in a two-family home. The fire was caused by a mechanical failure on the second floor. No one was injured at this fire. Detectors were present and alerted the occupants. It was undetermined if sprinklers were present. Damages from this fire were estimated to be $2.85 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 3,402 structure fires caused six civilian deaths, 49 civilian injuries, 131 fire service injuries and an estimated dollar loss of $44.3 million. These incidents represented 65% of Middlesex County's reported fires in 2008. The average estimated dollar loss per structure fire was $13,018. The total number of reported structure fires increased by 195, or 16%, from the 3,207 reported in 2007.

Arson Caused of 1% of Structure Fires

The 40 structure arsons caused one civilian injury, two fire service injuries and an estimated dollar loss of $1.7 million. Arson was indicated as the cause of 1% of the structure fires and 4% of Middlesex County's structure fire dollar loss. The 40 structure

arsons accounted for 23% of the Middlesex County arson fires reported in 2008. The total number of reported structure arsons decreased by 23, or 37%, from 63 in 2007.

58% of Structure Arsons Occurred in Residences
Fifty-eight percent (58%) of Middlesex County's 40 structure arsons occurred in residential occupancies; 15% happened in educational facilities; 10% happened at storage facilities; 5% occurred in public assembly buildings; another 5% occurred in mercantile or business properties; 5% occurred in special properties; and 3% occurred in manufacturing or processing facilities.

BUILDING FIRES

There were 3,362 building fires of different types in Middlesex County in 2008. These 3,362 building fires accounted for 98.8% of all structure fires in Middlesex County.

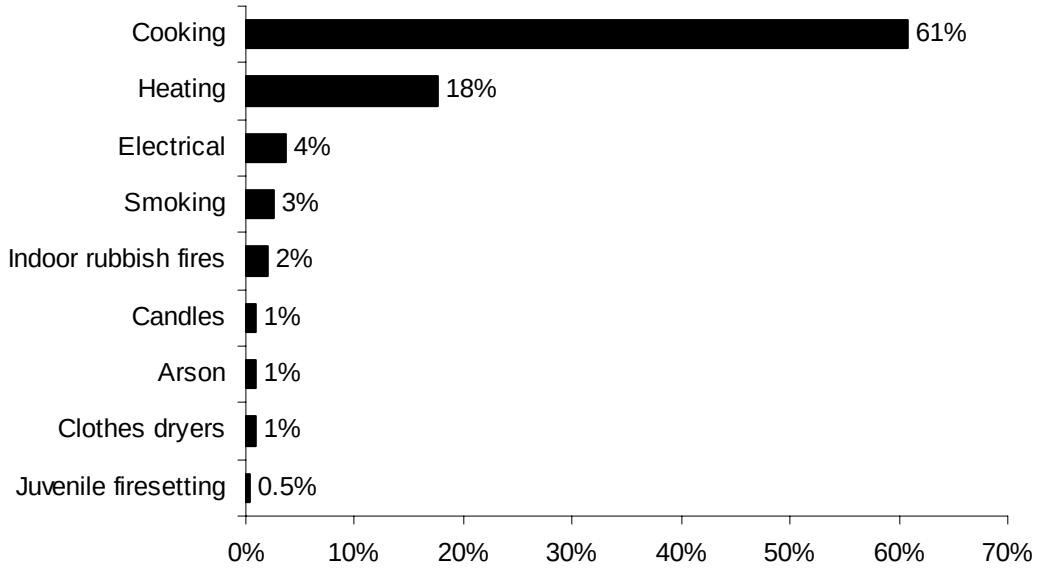
79% of Middlesex Building Fires Occurred in People's Homes
Two thousand six hundred and fifty (2,650), or 79%, of Middlesex County's 3,362 building fires occurred in residential occupancies. One hundred and fifty-nine (159) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 152 fires. One hundred and nine (109) building fires in Middlesex County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. One hundred and two (102) building fires took place in educational facilities. Hospitals, prisons, and other institutional buildings experienced 101 fires. Forty-five (45) fires took place in storage properties. Twenty-three (23) fires occurred in industrial, utility, defense, agricultural or mining facilities. Twenty (20) fires took place in manufacturing and processing facilities, and one fire occurred in unclassified buildings in Middlesex County in 2008.

RESIDENTIAL FIRES

Residential Building Fires Are Up
There were 2,650 reported residential building fires in Middlesex County in 2008. These 2,650 fires are an increase of 117, or 5%, from the 2,533 residential building fires reported in 2007.

Unsafe Cooking Causes 61% of All Residential Fires
The leading cause of residential building fires in Middlesex County was unattended cooking and other unsafe cooking practices, accounting for 61% of these fires. Heating caused 18% of fires in people's homes. Electrical problems caused 4%, and smoking caused 3% of these fires. Indoor rubbish fires accounted for 2% of these fires; and candles, arsons, clothes dryers and juvenile-set fires each caused 1% of the residential fires in Middlesex County in 2008.

2008 Leading Causes of Fires in Middlesex County Homes



76% of Residential Building Fires Are Confined to Non-Combustible Containers1
Two thousand nineteen (2,019), or 76%, of all residential building fires were reported as confined to non-combustible containers in 2008. One thousand five hundred and thirty-five (1,535) of the reported fires were cooking fires contained to a non-combustible container accounting for 58% of residential building fires. Three hundred and seven (307), or 12%, were fires confined to a fuel burner or boiler malfunction. One hundred and seventeen (117), or 4%, of all residential building fires reported in 2008 were fires confined to a chimney. Fifty-nine (59), or 2%, of these fires were rubbish fires contained to a non-combustible container. One commercial compactor fire confined to the rubbish accounted for less than 1% of the residential fires in Middlesex County in 2008.

Detectors Alerted Occupants in Almost 2/3 of Fires
Smoke or heat detectors operated and alerted the occupants in 1,691, or 63%, of the residential building fires. In 11% of these fires[2], 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 473 incidents, or 18% of Middlesex County's residential building fires.

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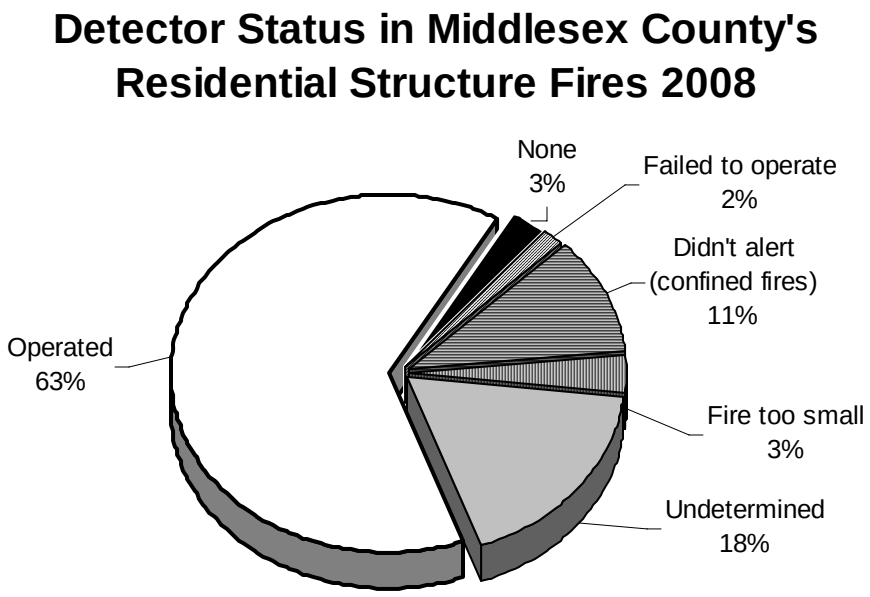
[1] In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing 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.



1/5 of Failed Detectors Had Missing or Disconnected Batteries
Of the 46 fires where smoke detectors were present but failed to operate, nine, or 20%, failed because the batteries were either missing or disconnected. Eight (8), or 17%, did not operate because of dead batteries. Four (4) detectors, or 9%, failed from a lack of maintenance. Three (3), or 7%, failed because of a power failure, shutoff or disconnect. One (1) unit, or 2%, failed because of improper installation or placement. It was undetermined or unclassified in 21 cases, or 46%, why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings
Middlesex County reported 44 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 1% of the total 3,362 building fires reported to MFIRS in 2008. Twenty-six (26) fires occurred in vacant residential properties. Six (6) vacant building fires occurred in storage facilities. Industrial facilities, public assembly properties and special properties each accounted for three vacant building fire incidents. Manufacturing or processing facilites accounted for two of these fires. Institutional facilities accounted for one vacant building fire in Middlesex County in 2008.

Five (5), or 11%, of the vacant building fires in Middlesex County in 2008 were determined to be intentionally set. Three (3) of these fires occurred in single-family

[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

homes. A vacant building fire also occurred in a manufacturing or processing facility and a warehouse.

JUVENILE-SET FIRES

34 Juvenile-set Fires

There were 34 reported juvenile-set fires in Middlesex County in 2008. The 17 structure fires, eight brush fires, three outside rubbish fires, three special outside fires, and three unclassified fires caused three civilian injuries, one fire service injury and $214,650 in estimated damages.

ARSONS

174 Total Arsons[4] — 40 Structures, 27 Vehicles & 107 Other Arsons

One hundred and seventy-four (174), or 3%, of Middlesex County's 5,260 fires were considered intentionally set, or, for purposes of this analysis, arson. The 40 structure arsons, 27 motor vehicle arsons and 107 outside and other arsons caused one civilian death, two civilian injuries, two fire service injuries and an estimated dollar loss of $1.8 million.

Structure Arsons Down – MV Arson Up

The total number of reported arson fires increased by one from the 173 reported in 2007. Reported structure arsons decreased by 23 from the 63 reported in the previous year. Motor vehicle arsons increased by 11 from the 16 in 2007. Reported outside and other arsons increased by 13 from 94 the year before.

ALL INCIDENTS

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

In 2008, fire departments in Middlesex County reported 144,748 responses[5] to MFIRS. This is a 3% increase over the 140,629 responses reported in 2007. Of these 144,748 incidents, 139,279 non-fire calls were voluntarily reported.

Of these 139,279 non-fire calls, 74,464 or 51% of all the responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 26,138 or 18%, were reported false alarm or false calls; 14,857, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 10,080, or 7%, reported hazardous condition calls with no fire; 7,993, or 6%, were reported good intent calls; 5,277, 4%, were special incident type calls such as citizen

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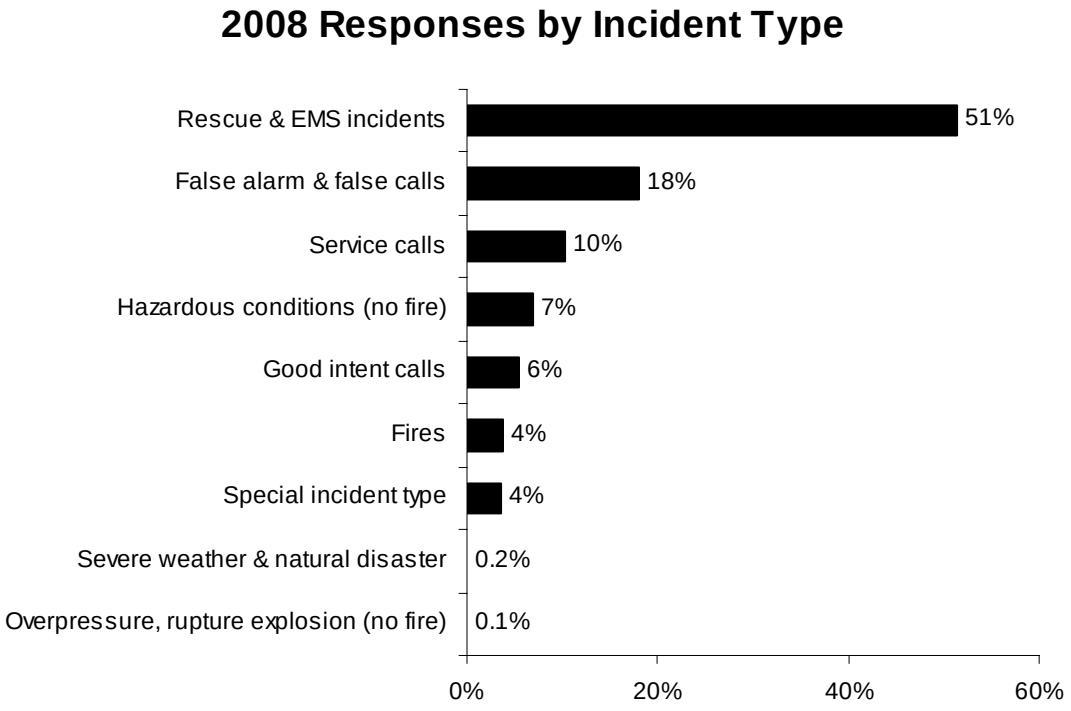
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

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

complaints; 281, or 0.2%, were severe weather responses; 189, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Five thousand four hundred and sixty-nine (5,469), or 4%, of the total responses submitted by Middlesex County fire departments were fires.



Middlesex County Fire Departments Gave Mutual Aid 2,531 Times
In 2008, Middlesex County fire departments reported coming to the aid of other fire departments 2,531 times. Of these 2,531 responses, 1,282, or 51%, were for rescue or EMS calls; 606 or 24%, were for service calls such as cover assignments; 238, or 9%, were for good intent calls; 209, or 8%, were for fires; 111, or 4%, were for false alarms or false calls; 53, or 2%, were for hazardous conditions calls with no fire; 26, or 1%, were special incident types; four, or less than 1%, were severe weather calls; and two, or less than 1%, were for reported overpressure, rupture, explosion or overheat calls with no fire.

Middlesex County Received Mutual Aid in 2,204 Incidents
In 2008, Middlesex County fire departments reported receiving aid from surrounding departments in 2,204 incidents. Of these 2,204 incidents, 1,365, or 67%, were rescue and emergency medical services calls; 295, or 15%, were for fires; 210, or 10%, were false alarms or false calls; 62, or 3%, were hazardous conditions calls with no fire; 44, or 2%, were service calls; 38, or 2%, were good intent calls; four, or less than 1% were overpressure, rupture, explosion or overheat calls with no fire; another four, or less than 1%, was a severe weather call; and two, or less than 1%, were special incident types.

Middlesex County Population: 1,465,396

3.6 Fires/1,000 Population

Total Fires:	**5,260**		**$48,545,309**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	3,402	65%	$44,286,885
Vehicle Fires	506	10%	1,920,750
Other Fires	1,352	26%	2,337,674

7 Fatal Fires	1.33 Civilian Deaths/1,000 Fires
7 Civilian Deaths	0.05 Civilian Deaths/10,000 Population
56 Civilian Injuries	136 Fire Service Injuries

Building Fires: 3,362

Residential Building Fires: 2,650

Residential Building Fires Confined to Non-Combustible Containers: 2,019

Unconfined Residential Building Fires: 631

5 Civilian Deaths 43 Civilian Injuries 117 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	1,130	43%
Apartments	1,125	42%
Dormitories	123	5%
Rooming houses	57	2%
Residential board & care	37	1%
Hotel or motel	26	1%

Detector Status	**Fires**	**%**
Operated	1,691	63%
Didn't operate	46	2%
None	73	3%
Fire too small	84	3%
Didn’t alert (confined)	283	11%
Undetermined	473	18%

Area of Origin[6]	**%**
Kitchen	63%
Heating equipment room	12%
Chimney or flue	4%
Bedroom	3%
Living room	1%

Heat Source	**%**	**%Unconfined[7]**
Heat from operating eq.	4%	17%
Radiated heat/oper. eq.	3%	12%
Arcing	3%	11%
Cigarette	1%	6%
Spark/ember/flame op. eq.	1%	5%

[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 Ignited[8]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[9]**
Food, cooking materials	60%	Too close to combustibles	3%	11%
Flammable, combustible liquid	12%	Abandoned materials	2%	7%
Film, residue (creosote)	4%	Elec. Failure or malfunction	2%	7%
Rubbish, trash, waste	3%	Misuse of material or prod.	2%	6%
Structural member, framing	2%	Equipment unattended	1%	5%
Electrical wire, cable insulation	2%	Failure to clean	1%	3%

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Cooking equipment	60%	Unintentional	14%	61%
None	16%	Failure of eq. or heat source	4%	17%
Boiler, furnace, cent. heat unit	12%	Intentional	1%	4%
Chimney or flue	5%	Act of nature	1%	3%
Clothes dryer	1%	Undetermined	2%	6%
		Cause under investigation	2%	9%

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

Alerted occupants	68%
Didn't alert occupants	14%
Undetermined	18%

[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	383	295	41	47
February	389	314	41	34
March	459	316	49	94
April	705	314	40	351
May	517	271	51	195
June	412	246	47	119
July	377	218	52	107
August	346	215	38	93
September	382	266	38	78
October	431	305	36	90
November	439	320	26	93
December	420	322	47	51

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	715	486	58	171
Monday	669	434	72	163
Tuesday	729	482	71	176
Wednesday	709	472	62	175
Thursday	824	486	74	264
Friday	804	513	86	195
Saturday	810	529	73	208

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	340	203	52	85
04:01 - 08:00	324	224	48	50
08:01 - 12:00	853	594	97	162
12:01 - 16:00	1,352	794	123	435
16:01 - 20:00	1,539	1,021	121	397
20:01 - 00:00	852	564	65	223

Motor Vehicle Fires

Total: 506
Automobiles: 419 (83%)
21, or (5%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 174 **Dollar loss: $1,844,516**

0.12 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	40	1%	23%	$1,707,690
Vehicle Arsons	27	5%	16%	131,500
Other Arsons	107	8%	61%	5,326

0.03 Structure arsons/1,000 population
0.02 Vehicle arsons/1,000 population
0.07 Other arsons/1,000 population

1 Civilian Death 2 Civilian Injuries 2 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%
20:01 - 00:00	11	28%
16:01 - 20:00	9	23%
00:01 - 04:00	6	15%
12:01 - 16:00	6	15%

Vehicle Arsons	#	%
00:01 - 04:00	10	37%
20:01 - 00:00	7	26%
12:01 - 16:00	4	15%

Other Arsons	#	%
16:01 - 20:00	44	41%
12:01 - 16:00	30	28%
20:01 - 00:00	16	15%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	15	38%
Apartment buildings	7	18%
High/junior high/middle schools	5	13%
Parking garage (detached residential)	2	5%
Playground	2	5%

Acton **Population: 20,331**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	2	0	1	0	0	0	0
2005	1	0	1	0	0	0	0	0
2006	43	14	3	26	0	0	0	0
2007	75	32	4	39	3	0	0	3
2008	66	49	0	17	0	0	0	0

Arlington **Population: 42,389**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	64	38	11	15	1	1	0	0
2005	123	64	11	48	3	1	0	2
2006	92	49	9	34	8	2	1	5
2007	103	48	5	50	9	1	0	8
2008	92	51	11	30	7	3	0	4

Ashby **Population: 2,845**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	11	10	1	0	0	0	0	0
2005	11	9	0	2	0	0	0	0
2006	9	7	1	1	0	0	0	0
2007	7	6	0	1	0	0	0	0
2008	7	6	1	0	0	0	0	0

Ashland **Population: 14,674**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	2	1	0	0	0	0	0
2005	2	0	1	1	0	0	0	0
2006	20	10	1	9	0	0	0	0
2007	51	13	14	24	0	0	0	0
2008	35	18	2	15	0	0	0	0

Ayer **Population: 7,287**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	32	22	1	9	0	0	0	0
2005	26	9	1	16	2	2	0	0
2006	40	16	1	23	5	3	0	2
2007	45	20	4	21	3	2	0	1
2008	24	10	3	11	1	1	0	0

Bedford **Population: 12,595**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	32	15	5	12	3	1	1	1
2005	31	14	4	13	4	2	1	1
2006	29	14	6	9	2	2	0	0
2007	40	18	7	15	2	0	0	2
2008	26	15	3	8	0	0	0	0

Belmont **Population: 24,194**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	165	142	10	13	7	3	0	4
2005	183	144	7	32	5	3	0	2
2006	178	146	6	26	4	0	0	0
2007	162	118	3	41	10	2	0	8
2008	186	164	5	17	2	1	0	1

Billerica **Population: 38,981**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	192	94	36	62	14	0	4	10
2005	193	80	28	85	17	1	1	15
2006	166	71	19	76	10	0	2	8
2007	147	55	16	76	2	0	0	2
2008	129	58	21	50	9	1	2	6

Boxborough **Population: 4,868**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	23	8	7	8	1	0	0	1
2005	26	8	8	10	2	0	0	2
2006	32	13	8	11	0	0	0	0
2007	24	2	10	12	1	0	0	1
2008	13	3	3	7	2	0	0	2

Burlington **Population: 22,876**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	114	57	28	29	2	1	0	1
2005	122	47	18	57	2	0	0	2
2006	82	42	19	21	0	0	0	0
2007	91	34	14	43	2	0	0	2
2008	69	26	12	31	3	1	0	2

Cambridge **Population: 101,355**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	487	366	38	83	12	9	0	3
2005	482	354	30	98	13	7	1	5
2006	630	495	33	102	15	6	1	8
2007	669	523	20	126	7	5	0	2
2008	860	748	14	98	9	2	0	7

Carlisle **Population: 4,717**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	1	0	2	0	0	0	0
2005	3	1	1	1	0	0	0	0
2006	1	1	0	0	0	0	0	0
2007	1	1	0	0	0	0	0	0
2008	1	0	0	1	0	0	0	0

Chelmsford **Population: 33,858**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	60	38	14	8	1	1	0	0
2005	48	25	16	7	0	0	0	0
2006	49	23	18	8	2	0	1	1
2007	41	28	9	4	1	1	0	0
2008	43	21	16	6	0	0	0	0

Concord **Population: 16,993**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	36	19	3	14	1	1	0	0
2005	73	37	6	30	2	0	0	2
2006	60	22	7	31	9	3	2	4
2007	64	28	6	30	5	2	0	3
2008	43	23	7	13	0	0	0	0

Devens **Population: 2,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	24	12	3	9	2	1	0	1
2005	15	7	2	6	1	1	0	0
2006	17	8	2	7	0	0	0	0
2007	16	5	3	8	0	0	0	0
2008	9	5	3	1	0	0	0	0

Dracut **Population: 28,562**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	89	22	6	61	5	1	1	3
2005	89	32	17	40	6	2	2	2
2006	96	33	14	49	5	2	1	2
2007	93	32	9	52	5	2	0	3
2008	61	25	11	25	6	1	3	2

Dunstable **Population: 2,829**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	Fire Department in Good Standing, Certified No Reportable Fires							
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	1	1	0	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Everett **Population: 38,037**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	133	61	24	48	2	1	0	1
2005	168	94	22	52	16	10	2	4
2006	154	72	29	53	18	4	5	9
2007	176	102	17	57	10	8	1	1
2008	139	86	13	40	10	4	4	2

Framingham **Population: 66,910**

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
2004	462	332	43	87	8	3	1	4
2005	423	281	36	106	5	3	1	1
2006	402	282	22	98	8	4	0	4
2007	477	319	37	121	7	5	1	1
2008	420	305	39	76	8	3	2	3

Groton **Population: 9,547**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	24	12	0	12	6	1	0	5
2005	23	17	3	3	0	0	0	0
2006	36	14	1	21	3	0	1	2
2007	16	11	0	5	0	0	0	0
2008	31	15	1	15	2	0	0	2

Holliston **Population: 13,801**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	9	5	4	0	0	0	0	0
2005	13	9	3	1	0	0	0	0
2006	6	6	0	0	0	0	0	0
2007	6	5	1	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Hopkinton **Population: 13,346**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	88	56	11	21	4	0	0	4
2005	116	72	14	30	3	0	0	3
2006	80	50	10	20	5	1	1	3
2007	87	47	16	24	7	1	0	6
2008	81	54	6	21	0	0	0	0

Hudson **Population: 18,113**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	23	8	7	8	1	0	1	0
2005	22	14	4	4	0	0	0	0
2006	57	34	9	14	4	2	1	1
2007	64	21	8	35	1	1	0	0
2008	75	37	10	28	1	1	0	0

Lexington **Population: 30,355**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	63	34	22	7	6	3	0	3
2005	62	39	16	1	2	2	0	0
2006	45	27	10	8	1	0	0	1
2007	71	37	17	17	5	2	0	3
2008	57	36	12	9	1	0	0	1

Lincoln **Population: 8,056**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	52	37	1	14	0	0	0	0
2005	39	17	3	19	0	0	0	0
2006	33	16	3	14	0	0	0	0
2007	37	18	3	16	3	1	0	2
2008	25	12	4	9	2	0	0	2

Littleton **Population: 8,184**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	59	29	18	12	0	0	0	0
2005	49	25	14	10	1	0	0	1
2006	51	18	18	15	0	0	0	0
2007	50	24	12	14	0	0	0	0
2008	51	31	8	12	4	2	0	2

Lowell **Population: 105,167**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	59	58	0	1	2	1	0	1
2005	393	227	49	117	3	0	3	0
2006	688	443	53	192	13	6	1	6
2007	630	372	46	212	12	6	2	4
2008	573	403	43	127	24	5	12	7

Malden **Population: 56,340**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	191	109	16	66	1	0	0	1
2006	315	173	20	122	6	2	0	4
2007	371	233	22	116	1	0	1	0
2008	307	212	18	77	4	3	0	1

Marlborough **Population: 36,255**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	48	14	11	23	4	1	0	3
2005	146	72	23	51	5	1	0	4
2006	118	56	21	41	3	1	1	1
2007	163	61	25	77	4	3	1	0
2008	131	63	21	47	8	3	1	4

Maynard **Population: 10,433**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	6	0	0	0	0	0	0
2005	3	3	0	0	1	1	0	0
2006	9	4	2	0	0	0	0	0
2007	8	8	0	0	2	2	0	0
2008	4	3	1	0	0	0	0	0

Medford **Population: 55,765**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	253	143	28	82	1	0	0	1
2005	200	120	18	62	11	1	2	8
2006	300	196	19	85	1	0	1	0
2007	304	179	19	106	13	4	1	8
2008	251	147	20	84	9	2	1	6

Melrose **Population: 27,134**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	12	10	2	0	1	1	0	0
2005	37	18	11	8	1	0	0	1
2006	40	30	3	7	4	2	0	2
2007	25	18	3	4	1	1	0	0
2008	20	13	4	3	0	0	0	0

Natick **Population: 32,170**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	134	88	7	39	4	1	0	3
2005	17	12	3	2	0	0	0	0
2006	105	58	13	34	5	3	0	2
2007	143	80	16	47	2	0	0	2
2008	128	71	12	45	4	0	0	4

Newton **Population: 83,829**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	205	137	17	51	5	2	1	2
2005	189	118	13	58	7	3	1	3
2006	187	107	20	60	8	1	0	7
2007	194	105	31	58	12	3	0	9
2008	190	126	19	45	2	0	0	2

North Reading **Population: 13,837**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	69	43	7	19	1	1	0	0
2005	65	36	8	21	2	1	0	1
2006	66	32	7	27	3	1	0	2
2007	13	17	7	19	2	1	0	1
2008	43	25	3	15	0	0	0	0

Pepperell **Population: 11,142**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	26	22	3	1	0	0	0	0
2005	38	23	1	14	4	0	0	4
2006	21	12	3	6	0	0	0	0
2007	19	8	4	7	1	0	0	1
2008	34	15	6	13	1	0	0	1

Reading **Population: 23,708**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	59	41	13	5	0	0	0	0
2005	48	38	8	2	1	1	0	0
2006	80	68	7	5	2	1	0	1
2007	138	73	11	54	7	1	0	6
2008	96	56	4	36	15	1	0	14

Sherborn **Population: 4,200**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	24	11	2	11	1	0	0	1
2005	23	5	2	16	4	0	0	4
2006	16	6	1	9	0	0	0	0
2007	23	7	2	14	3	0	0	3
2008	27	4	2	21	7	0	0	7

Shirley **Population: 6,373**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	10	0	0	0	0	0	0
2005	23	19	2	2	0	0	0	0
2006	7	6	1	0	0	0	0	0
2007	2	1	1	0	1	1	0	0
2008	3	3	0	0	0	0	0	0

Somerville **Population: 77,478**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	74	46	26	2	6	1	5	0
2005	69	30	39	0	4	1	3	0
2006	66	36	29	1	4	2	2	0
2007	52	34	18	0	5	3	2	0
2008	60	34	25	1	3	3	0	0

Stoneham **Population: 22,219**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	19	7	10	2	0	0	0	0
2005	63	35	14	14	1	0	1	0
2006	65	45	9	11	0	0	0	0
2007	88	78	5	5	0	0	0	0
2008	67	57	7	3	1	0	0	1

Stow **Population: 5,902**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	2	0	0	0	0	0	0
2005	17	5	0	12	2	0	0	2
2006	32	12	5	15	3	0	1	2
2007	27	8	4	15	0	0	0	0
2008	16	9	1	6	1	0	0	1

Sudbury **Population: 16,841**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	65	32	2	31	4	0	0	4
2005	69	30	2	37	0	0	0	0
2006	68	31	3	34	3	0	0	3
2007	57	29	3	25	4	1	0	3
2008	58	58	5	25	0	0	0	0

Tewksbury **Population: 28,851**

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
2004	97	52	17	28	4	1	0	3
2005	99	32	14	53	4	0	0	4
2006	93	37	12	44	4	1	0	3
2007	148	38	20	90	5	1	2	2
2008	82	27	11	44	3	0	0	3

Townsend **Population: 9,198**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	13	7	2	4	0	0	0	0
2005	11	8	2	1	0	0	0	0
2006	4	2	1	1	0	0	0	0
2007	6	4	0	2	1	1	0	0
2008	2	2	0	0	0	0	0	0

Tyngsborough **Population: 11,081**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	37	18	8	11	7	1	1	5
2005	20	4	9	7	0	0	0	0
2006	22	6	6	10	2	0	0	2
2007	21	7	1	13	0	0	0	0
2008	25	6	8	11	0	0	0	0

Wakefield **Population: 24,804**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	85	66	16	3	4	1	2	1
2005	74	58	14	2	0	0	0	0
2006	73	56	15	2	0	0	0	0
2007	65	43	18	4	1	0	1	0
2008	59	54	5	0	1	0	1	0

Waltham **Population: 59,226**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	204	94	27	83	2	0	0	2
2005	217	93	26	98	7	4	1	2
2006	196	76	26	94	4	2	2	0
2007	220	67	23	130	1	0	1	0
2008	173	76	22	75	1	0	1	0

Watertown **Population: 32,986**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	95	55	7	33	2	1	1	0
2005	87	52	8	27	0	0	0	0
2006	72	30	8	34	0	0	0	0
2007	79	35	7	37	0	0	0	0
2008	58	26	7	25	4	1	0	3

Wayland **Population: 13,100**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	67	26	2	39	2	0	0	2
2005	56	16	4	36	3	0	0	3
2006	28	10	2	16	0	0	0	0
2007	38	14	4	20	1	0	0	1
2008	27	19	4	4	0	0	0	0

Westford **Population: 20,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	29	8	7	14	1	1	0	0
2005	61	29	9	23	1	0	0	1
2006	31	10	3	18	2	0	0	2
2007	57	24	7	26	4	1	2	1
2008	77	27	9	41	6	0	0	6

Weston **Population: 11,469**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	110	67	18	25	3	1	0	2
2005	98	31	18	49	2	0	0	2
2006	72	35	7	30	4	0	0	4
2007	66	33	7	26	3	1	0	2
2008	41	20	7	14	1	0	0	1

Wilmington **Population: 21,363**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	106	56	18	32	3	1	1	1
2005	44	20	8	16	0	0	0	0
2006	43	26	8	9	1	1	0	0
2007	26	10	13	3	2	1	0	1
2008	47	13	13	21	1	0	0	1

Winchester **Population: 20,810**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	11	10	1	0	0	0	0	0
2005	7	3	4	0	0	0	0	0
2006	35	25	4	6	0	0	0	0
2007	59	19	5	35	0	0	0	0
2008	43	25	6	12	2	0	0	2

Woburn **Population: 37,258**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	84	67	9	8	1	0	1	0
2005	83	55	15	13	0	0	0	0
2006	66	48	5	13	0	0	0	0
2007	51	39	7	5	0	0	0	0
2008	72	40	18	14	2	2	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
17002	Acton	4,165	66	7	1,292	220	171	97	348	12	1,952
17010	Arlington	4,740	92	3	2,745	376	422	233	816	6	47
17012	Ashby	26	19	0	0	3	2	2	0	0	0
17014	Ashland	84	36	0	0	6	12	2	28	0	0
17019	Ayer	737	35	1	89	98	295	49	163	0	7
17023	Bedford	2,380	35	7	1,172	141	194	111	349	4	367
17026	Belmont	3,073	193	1	1,653	165	252	261	540	2	6
17031	Billerica	3,837	130	8	2,305	312	409	85	542	15	31
17037	Boxborough	429	13	1	151	41	66	15	138	0	4
17048	Burlington	3,675	70	1	2,182	131	474	178	629	8	2
17049	Cambridge	13,760	861	16	6,341	858	591	1,756	3,314	3	20
17051	Carlisle	1	1	0	0	0	0	0	0	0	0
17056	Chelmsford	43	43	0	0	0	0	0	0	0	0
17067	Concord	3,066	46	2	1,570	186	296	143	798	7	18
17919	Devens	857	15	2	212	52	381	13	178	1	3
17079	Dracut	3,214	62	2	1,826	185	440	36	653	4	6
17081	Dunstable	1	1	0	0	0	0	0	0	0	0
17093	Everett	202	139	1	0	14	0	2	46	0	0
17100	Framingham	9,273	421	4	5,651	321	806	512	1,547	7	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	1,028	38	8	666	56	50	7	169	33	1
17136	Holliston	2	1	1	0	0	0	0	0	0	0
17139	Hopkinton	1,826	105	5	1,095	176	141	51	227	13	13
17141	Hudson	3,200	78	5	1,335	349	489	62	509	16	357
17155	Lexington	89	57	2	1	7	1	1	19	1	0
17157	Lincoln	841	37	19	141	67	204	96	270	3	4
17158	Littleton	1,398	60	1	823	118	134	42	203	8	9
17160	Lowell	12,616	576	16	6,542	672	1,416	666	2,645	10	73
17165	Malden	7,721	308	1	5,133	274	679	220	1,091	2	13
17170	Marlborough	5,716	134	13	2,809	444	587	485	1,187	12	45
17174	Maynard	6	4	0	0	2	0	0	0	0	0
17176	Medford	7,296	266	6	3,931	730	844	317	1,131	9	62
17178	Melrose	21	20	0	0	1	0	0	0	0	0
17198	Natick	4,718	134	1	2,866	386	382	218	694	14	23
17207	Newton	7,952	190	10	3,562	537	967	688	1,984	11	3
17213	North Reading	1,901	53	2	992	113	304	149	268	9	11
17232	Pepperell	344	35	0	45	35	85	21	120	3	0
17246	Reading	3,479	120	0	1,711	158	223	0	282	0	985
17269	Sherborn	266	28	0	14	53	59	16	89	6	1
17270	Shirley	3	3	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	60	60	0	0	0	0	0	0	0	0
17284	Stoneham	2,690	67	0	1,602	396	186	120	314	0	5
17286	Stow	766	22	0	450	37	76	33	138	9	1
17288	Sudbury	1,941	61	7	1,059	120	189	150	300	12	43
17295	Tewksbury	3,354	82	3	2,100	173	499	82	391	8	16
17299	Townsend	2	2	0	0	0	0	0	0	0	0
17301	Tyngsborough	863	25	0	375	92	146	48	177	0	0
17305	Wakefield	176	59	0	0	30	0	0	87	0	0
17308	Waltham	7,864	175	3	3,778	703	1,026	550	1,567	5	57
17314	Watertown	4,382	61	8	2,700	315	384	132	764	10	8
17315	Wayland	2,908	32	6	941	254	372	78	162	3	1,060
17330	Westford	1,226	79	2	497	83	136	36	380	8	5
17333	Weston	2,124	51	8	982	203	260	105	505	5	5
17342	Wilmington	77	48	2	0	10	5	0	12	0	0
17344	Winchester	2,189	48	3	1,123	357	191	120	336	1	10
17347	Woburn	140	72	1	2	20	11	5	28	1	0
	Middlesex County	**144,748**	**5,469**	**189**	**74,464**	**10,080**	**14,857**	**7,993**	**26,138**	**281**	**5,277**

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 2008

860 Total Fires — 748 Structures, 14 Vehicles & 98 Other Fires
The Cambridge Fire Department reported 860 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 523 structure fires, 14 motor vehicle fires, 56 outside rubbish fires, 33 brush fires, seven special outside fires and two unclassified fires caused one civilian death, three civilian injuries, 25 fire service injuries and an estimated dollar loss of $6.5 million.

1 Cambridge Woman Killed in Undetermined Apartment Fire

- On November 25, 2008 at 3:31 a.m., the Cambridge Fire Department was called to a fatal fire of undetermined cause in a six-unit apartment building. The five-alarm fire was fought by 99 firefighters. The victim, an 84-year old woman, was asleep at the time of the fire. She was rescued by firefighters and transported to a local hospital. She died days later succumbing to her injuries. The victim's 80-year old husband and three firefighters were also injured at this fire. It was undetermined if smoke detectors were present. The building had no sprinklers, and damages from this fire were estimated to be $2,260,000.

Structure Fires Increased in 2008
Total fires increased by 119, or 29%, from 669 incidents reported in 2007. Reported structure fires increased by 225, or 43%, from the 523 reported during the previous year. Motor vehicle fires decreased six, or 30%, from 20 the year before. Outside and other fires decreased by 28 from the 126 reported the year before; this is a decrease of 22%.

CAMBRIDGE FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	487	366	38	83	12	9	0	3
2005	482	354	30	98	13	7	1	5
2006	630	495	33	102	15	6	1	8
2007	669	523	20	126	7	5	0	2
2008	860	748	14	98	9	2	0	7

BUILDING FIRES

There were 744 building fires of different types in Cambridge in 2008. These 774 building fires accounted for 99.5% of all structure fires in Cambridge.

Over 3/4 of Building Fires in Homes
The 774 building fires that occurred in Cambridge in 2008 can be broken down by fixed property use as follows: 574, or 77% of all structure fires, were in residential properties; 42 occurred in public assembly properties; 37 fires occurred in mercantile or business properties; 35 fires happened in educational facilities; 30 occurred in special properties;

13 fires took place in institutional properties; nine occurred in industrial, utility, defense, agricultural or mining facilities; and four occurred in storage facilities.

RESIDENTIAL FIRES

Residential Building Fires Are Up

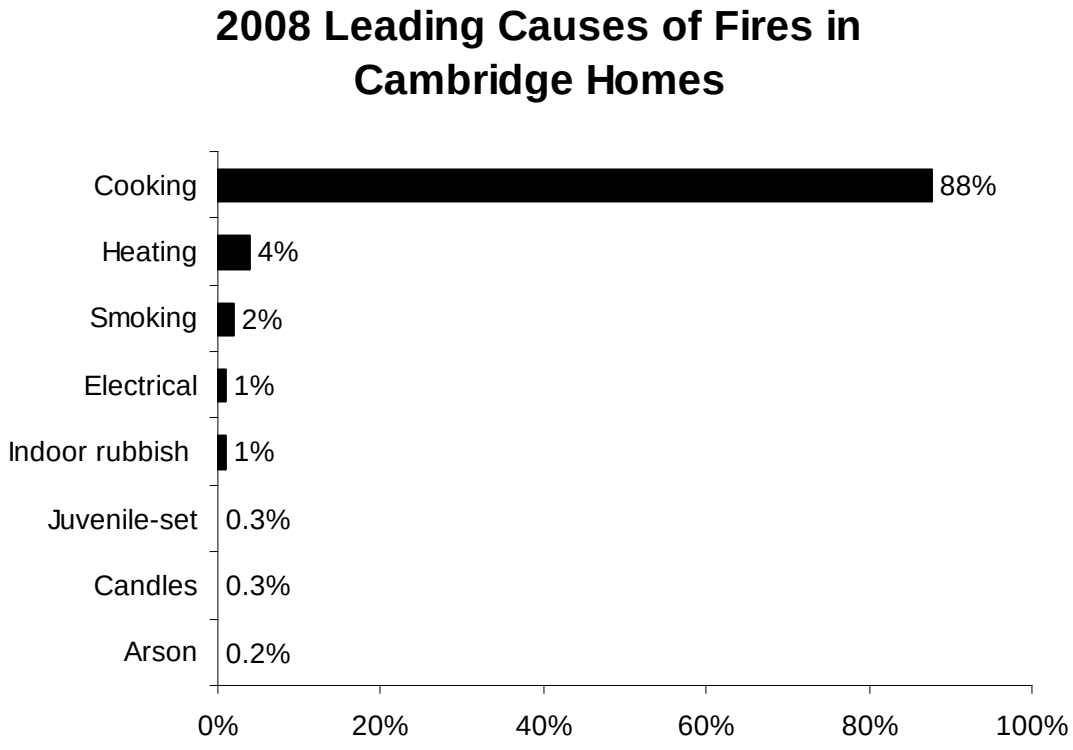
There were 574 reported residential building fires in Cambridge in 2008. These 574 fires are an increase of 165, or 40%, from the 409 residential building fires reported in 2007.

Apartments Accounted for Over 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 56% of the residential building fires in Cambridge; 17% occurred in dormitories; 10% occurred in 1- or 2-family homes; 2% happened in rooming houses; another 2% occurred in hotels or motels; 1% happened in residential board and care facilities; and 10% occurred in unclassified residences.

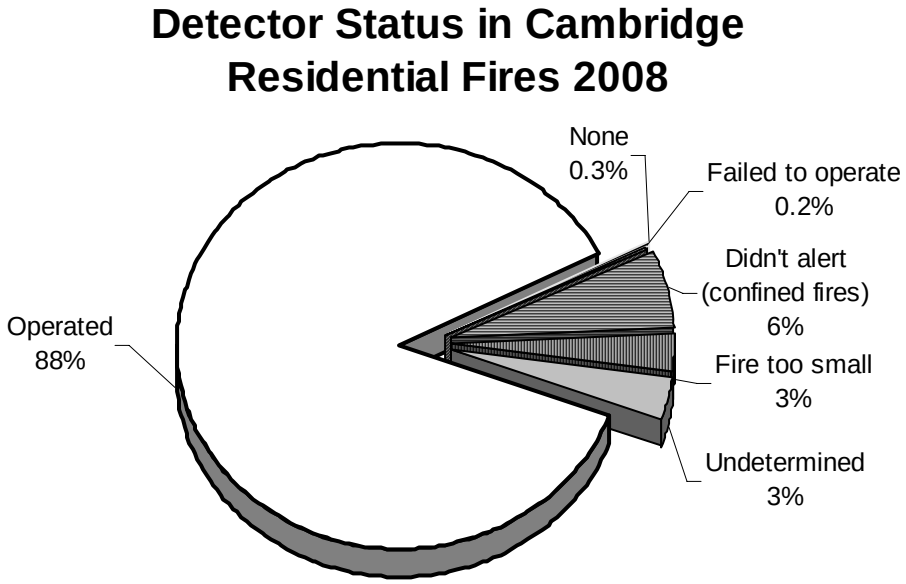
Unattended Cooking Caused 88% of Residential Fires

The leading cause of residential building fires in Cambridge was unattended cooking and other unsafe cooking practices, accounting for 88% of these fires. Heating equipment caused 4% of the residential fires in Cambridge. Smoking caused 2% of these fires. Electrical problems and indoor rubbish fires were each responsible for 1% of fires in people's homes. Juvenile-set fires, candles and arsons each caused less than 1% of the fires in Cambridge homes in 2008.



89% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Five hundred and eleven (511), or 89% of all residential building fires were confined to non-combustible containers in 2008. Four hundred and ninety (490), or 85%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Fourteen (14), or 2%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 1%, of these fires were rubbish fires contained to a non-combustible container. Two (2) fires, or less than 1%, were confined to a chimney or flue in Cambridge in 2008.

Detectors Alerted Occupants in 88% of Fires
Smoke or heat detectors operated and alerted the occupants in 499, or 87%, of the residential building fires. In 6% of these fires[2], 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 3% of the residential fires. Smoke detector performance was undetermined in 19 incidents, or 3% of Cambridge's residential building fires.



1 Failed Detector
It was undetermined in the one case why the detector 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

2 Building Fires Occurred in Vacant Buildings

Cambridge reported two fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 0.3% of the total 744 building fires reported to MFIRS in 2008. A single-family home and a laboratory were reported as vacant building fire incidents.

JUVENILE-SET FIRES

3 Juvenile-set Fires

There were three juvenile-set fires in Cambridge in 2008. The two structure fires and one outside mailbox fire caused one civilian injury, one fire service injury and $63,550 in estimated damages.

ARSONS

9 Total Arsons[4] — 2 Structure, 0 Motor Vehicle & 7 Other or Outside Arsons

Nine (9), or 1%, of Cambridge's 860 fires were considered intentionally set, or, for purposes of this analysis, arson. The two structure arsons and seven outside arsons caused an estimated dollar loss of $10,100.

Outside Arsons Are Up

The total number of arsons increased by two, or 29%, from the seven arsons that were reported in 2007. Reported structure arsons decreased by three from five the year before. There were no reported motor vehicle arsons in 2008 or in 2007. Outside and other arsons increased by five from the two reported in 2007.

Rescue & EMS Calls Are 46% of All Reported Incidents

In 2008, Cambridge voluntarily reported 13,760 incidents to MFIRS. Of these 13,760 incidents, 12,899, or 94%, were non-fire incidents.

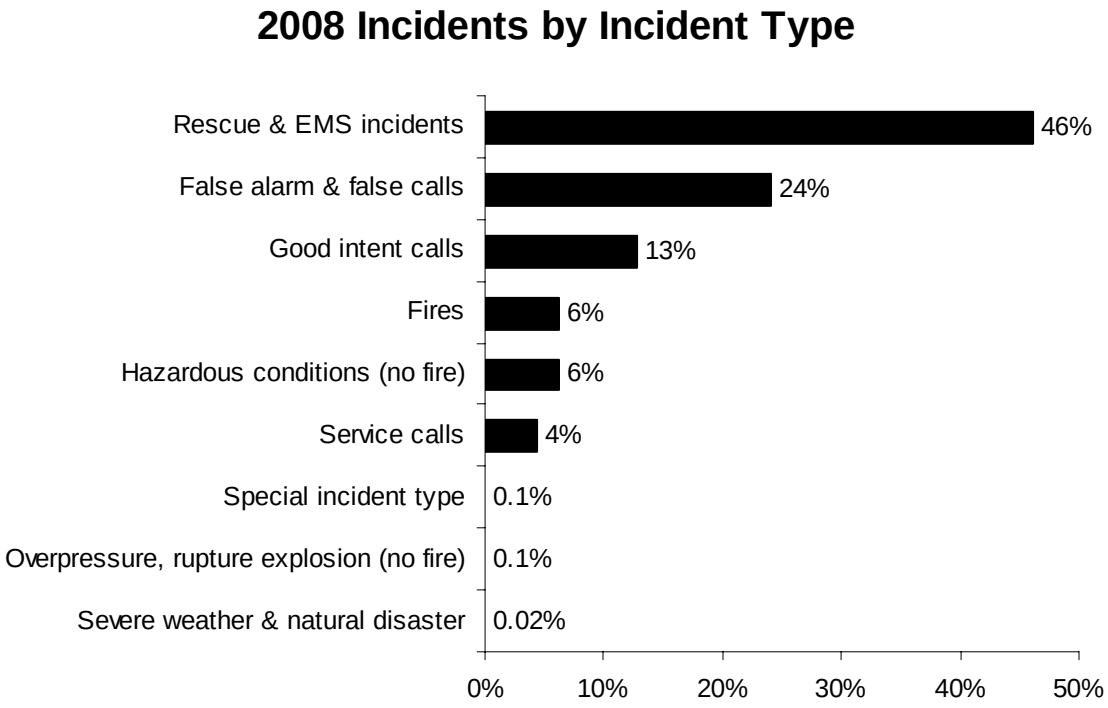
Of these 12,899 non-fire incidents 6,341, or 46% of all the incidents reported in 2008, were reported rescue and emergency medical services (EMS) calls; 3,314, or 24%, were reported false alarm or false calls; 1,756, or 13%, were reported good intent calls; 858, or 6%, were reported hazardous condition calls with no fire; 591, or 4%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public

[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

service assistance; 20, or 0.1%, were special incident type calls such as citizen complaints; 16, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and three, or 0.02%, were severe weather calls.

In 2008, Cambridge reported 861 fires[5], accounting for 6% of all reported incidents.



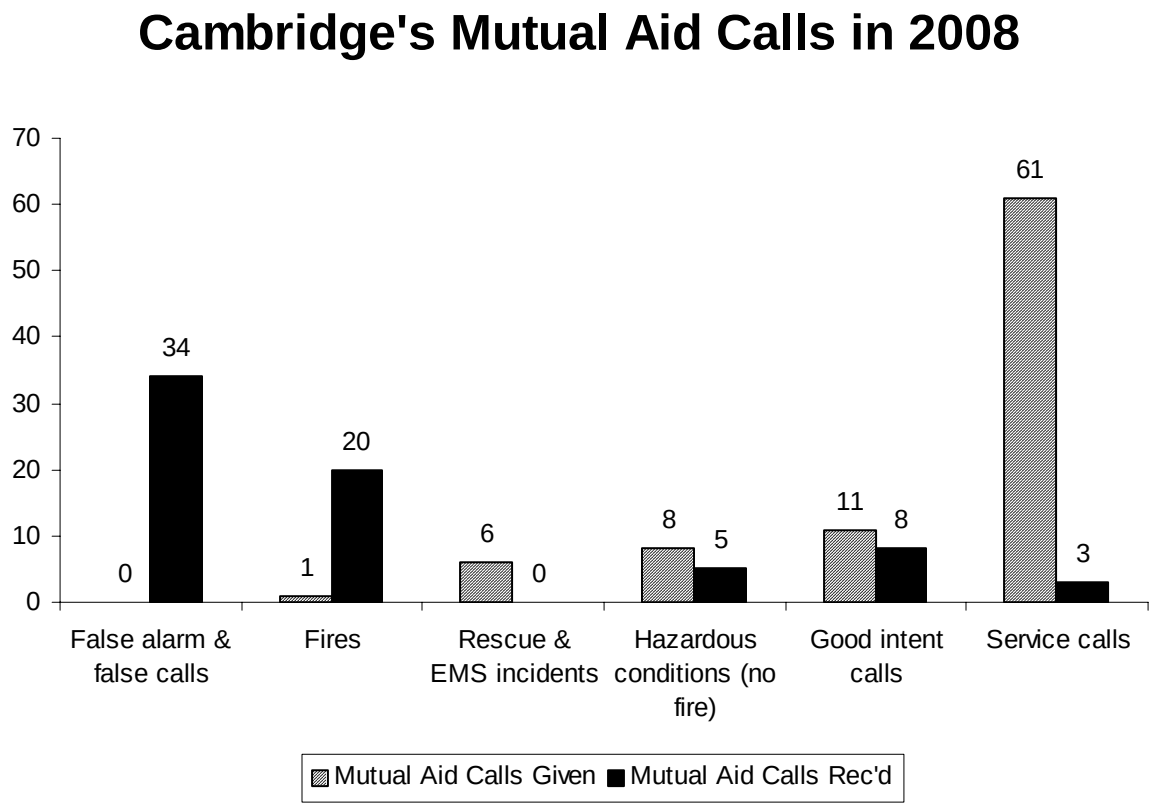
Cambridge Gave Mutual Aid in 87 Reported Incidents
In 2008, Cambridge reported coming to the aid of other fire departments 87 times. Of these 87 incidents, 61, or 70%, were for cover assignments (service calls); 11, or 13%, were for good intent calls; eight, or 9%, were for hazardous conditions calls with no fire; six, or 7% were for rescue or EMS calls; and one, or 1%, was for a fire.

Cambridge Received Mutual Aid in 70 Incidents
In 2008, surrounding fire departments gave aid to Cambridge in 70 incidents. Of these 70 incidents, 34, or 49%, were false alarms or false calls; 20, or 29%, were fires; eight, or 11%, were good intent calls; five, or 7%, were hazardous conditions calls with no fire; and three, or 4%, were service calls.

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 2008 Cambridge was asked to send an

[5] These fire calls include mutual aid call outside of Cambridge's jurisdiction.

apparatus outside of Cambridge 1.2 times more than they asked neighboring fire departments for help.



Cambridge Population: 101,355

8.5 Fires/1,000 Population

Total Fires:	**860**		**$6,470,304**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	748	87%	$6,419,149
Vehicle Fires	14	2%	50,700
Other Fires	98	11%	445

1 Civilian Death 1.16 Civilian Deaths/1,000 Fires
1 Fatal Fire 0.10 Civilian Deaths/10,000 Population
3 Civilian Injuries 25 Fire Service Injuries

Building Fires: 744

Residential Structure Fires: 574

Residential Structure Fires Confined to Non-Combustible Containers: 511

Unconfined Residential Structure Fires: 63

1 Civilian Death 3 Civilian Injuries 25 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	322	56%
Dormitories	99	17%
1- & 2-Family homes	58	10%
Hotels, motels	14	2%
Rooming houses	13	2%
Residential board & care	5	1%

Detector Status	**Fires**	**%**
Operated	499	88%
Didn't operate	1	0.3%
None	2	0.2%
Fire too small	17	3%
Didn’t Alert (confined)	36	6%
Undetermined	19	3%

Area of Origin[6]	**%**
Kitchen	89%
Heating room or area	3%
Bedroom	1%
Exterior balcony, unencl. porch	1%
Roof surface, exterior	1%

Heat Source	**%**	**%Unconfined**[7]
Heat from operating. eq.	2%	22%
Cigarette	2%	14%
Rad., conduct./heat-op. eq.	1%	10%
Spark, ember, flame-op. eq.	1%	6%
Arcing	1%	5%

[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 Ignited[8]	**%**
Cooking materials	86%
Flammable or combustible liq.	2%
Rubbish, trash, waste	2%
Structural member, framing	1%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Combustible too close	2%	17%
Abandoned materials	1%	11%
Misuse of material or prod.	1%	6%
Equipment unattended	1%	6%
Failure to clean	1%	5%

Equipment[10]	**%**
Cooking equipment	88%
None	6%
Boiler, furnace, cent. heat unit	2%
Stove, heating	1%
Chimney, flue	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	7%	60%
Failure of eq./heat source	1%	8%
Intentional	0%	0%
Act of nature	1%	5%
Undetermined	1%	6%
Cause under investigation	2%	21%

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

Alerted Occupants	90%
Didn't Alert Occupants	7%
Undetermined	3%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	6,341	46%
False alarms & false calls	3,314	24%
Good intent calls	1,756	13%
Fires	861[12]	6%
Hazardous conditions (no fire)	858	6%
Service calls	591	4%
Special incident type	20	0.1%
Overpressure rupture, explosion or overheat calls (no fire)	16	0.1%
Severe weather & natural disaster	3	0.02%

[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.

[12] This includes the mutual aid fire calls outside of Cambridge's city limits.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	74	70	0	4
February	70	66	0	4
March	76	70	0	6
April	85	64	1	20
May	79	61	3	15
June	53	41	0	12
July	46	35	1	10
August	63	54	1	8
September	70	61	1	8
October	77	69	3	5
November	93	85	3	5
December	74	72	1	1

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	107	100	1	6
Monday	108	89	4	15
Tuesday	133	119	0	14
Wednesday	116	100	2	14
Thursday	137	110	2	25
Friday	128	109	5	14
Saturday	131	121	0	10

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	59	53	0	6
04:01 - 08:00	36	33	0	3
08:01 - 12:00	134	121	4	9
12:01 - 16:00	164	135	1	28
16:01 - 20:00	279	245	4	30
20:01 - 24:00	188	161	5	22

Motor Vehicle Fires

Total: 14
Automobiles: 14 (100%)
None of the automobile fires considered intentional.

Arson Fires

Total Arsons: 9 **Dollar loss: $10,100**

0.09 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	2	0.3%	22%	$10,100
Motor Vehicle Arsons	0	0%	0%	0
Other Arsons	7	7%	78%	0

No Injuries

0.02 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	#	%
04:01 - 08:00	1	50%
16:01 - 20:00	1	50%

Vehicle Arsons	#	%

Other Arsons	#	%
12:01 - 16:00	2	29%
16:01 - 20:00	2	29%
20:01 - 00:00	2	29%

Peak Fixed Property Uses for Structure Arsons	#	%
Office: veterinary or research	1	50%
Parking garage, detached residential	1	50%

Framingham Fires in 2008

420 Total Fires — 305 Structures, 39 Vehicles & 76 Other Fires
The Framingham Fire Department reported 420 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 305 structure fires, 39 motor vehicle fires, 49 brush fires, 20 outside rubbish fires, six special outside fires, and one cultivated vegetation or crop fire, caused five civilian injuries, 20 fire service injuries and an estimated dollar loss of $5 million.

All Fires Down in 2008
Total fires decreased by 57 from the 477 incidents reported in 2007. Reported structure fires were down 14 from the 319 reported during the previous year. Motor vehicle fires increased by two from 37 the year before. Outside and other fires decreased by 45 from the 121 fires reported in the previous year.

FRAMINGHAM FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	462	332	43	87	8	3	1	4
2005	423	281	36	106	5	3	1	1
2006	402	282	22	98	8	4	0	4
2007	477	319	37	121	7	5	1	1
2008	420	305	39	76	8	3	2	3

BUILDING FIRES

There were 304 building fires of different types in Framingham in 2008. These 304 building fires accounted for all 99.7% of all structure fires in Framingham.

87% of Building Fires in Homes
The 304 building fires that occurred in Framingham in 2008 can be broken down by fixed property use as follows: 264, or 87% of all structure fires, were in residential properties; 18 fires took place in institutional properties; nine fires happened in mercantile or business properties; eight fires occurred in public assembly properties; four fires happened at educational facilities; one fire occurred at a laboratory.

RESIDENTIAL FIRES

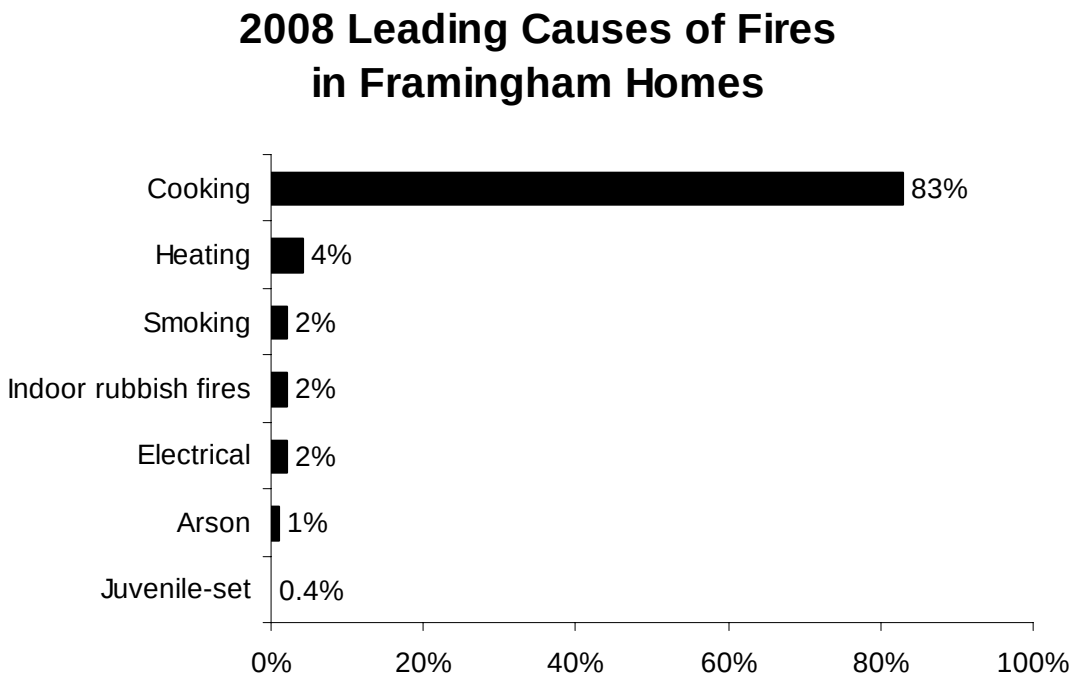
Residential Building Fires
There were 264 reported residential building fires in Framingham in 2008. These 264 fires are a decrease of 15, or 5%, over the 279 residential building fires reported in 2007.

Apartments Accounted for 63 of Residential Building Fires
The peak fixed property uses for residential building fires were apartments, accounting for 63% of the residential building fires in Framingham; 22% occurred in 1- or 2-family

homes; 10% occurred in rooming houses; 4% occurred in residential board and care facilities; 1% occurred in dormitories or barracks; and 1% occurred in unclassified residential buildings.

Unattended Cooking Caused 83% of Residential Fires

The leading cause of residential building fires in Framingham was unattended cooking and other unsafe cooking practices, accounting for 83% of these fires. Heating equipment caused 4% of fires in people's homes. Smoking, indoor rubbish fires, and electrical problems each caused 2% of residential fires. Arsons caused 1% of these fires. Juvenile-set fires were responsible for less than 1% of the reported residential building fires in Framingham in 2008.



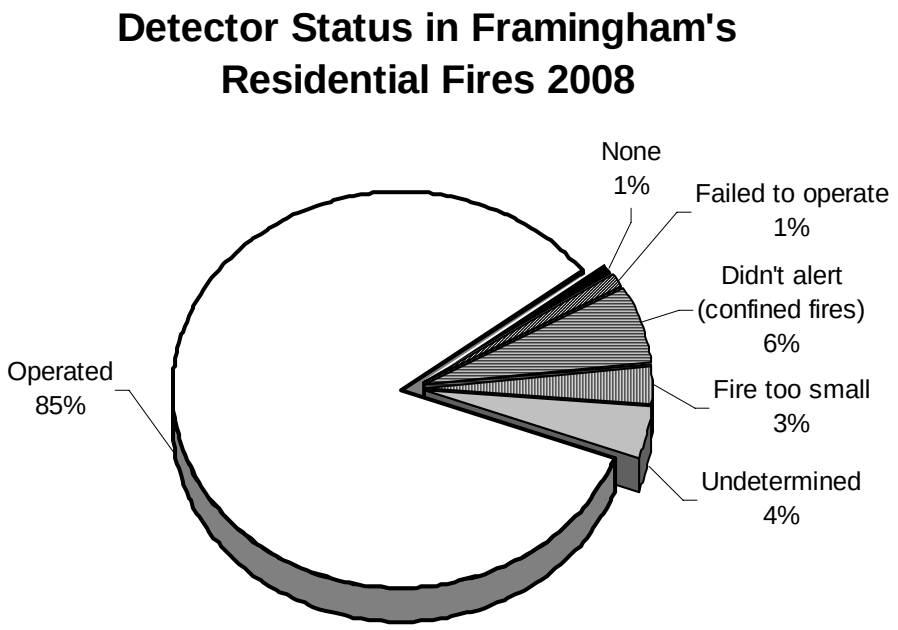
86% of Residential Building Fires Confined to Non-Combustible Containers[1]

Two hundred and twenty-eight (228), or 86%, of all residential building fires were confined to non-combustible containers in 2008. Two hundred and twelve (212), or 80%, of all residential fires were cooking fires contained to a non-combustible container. Six (6) of the reported fires were confined to a chimney, accounting for 2% of the residential building fires. Five (5), or 2%, were fires confined to a fuel burner or boiler malfunction. Another five of these fires were rubbish fires contained to a non-combustible container accounting for 2% of the residential fires in Framingham in 2008.

[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 85% of Fires

Smoke or heat detectors operated and alerted the occupants in 222, or 85%, of the residential building fires. In 6% of these fires[2], 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 11 incidents, or 4% of Framingham's residential building fires.



3 Detectors Failed

In two incidents, or 67% of the fires where the detector did not operate, the detector failed because of the battery was missing. In one incident, or 33% of these fires, the smoke detector was present but failed to operate because the battery was dead.

VACANT BUILDING FIRES

2 Fires in a Vacant Building

Framingham reported two fires that occurred in a building that was vacant, under construction or demolition[3]. This represented 1% of the total 304 building fires reported to MFIRS in 2008. Both fires occurred in vacant single-family homes.

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[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-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

JUVENILE-SET FIRES

1 Juvenile-set Fire

There was one juvenile-set fire in Quincy in 2008. The one structure fire caused $100 in estimated damages.

ARSONS

8 Total Arsons[4] — 3 Structures, 2 Motor Vehicles & 3 Other

Eight (8), or 2%, of Framingham's 420 fires were considered intentionally set, or, for purposes of this analysis, arson. The three structure arsons, two motor vehicle arsons and three outside and other arsons caused one fire service injury and an estimated dollar loss of $292,001.

All Arsons Up Slightly

The total number of arsons increased by one from the seven reported in 2007. Reported structure arsons decreased by two from the five reported in 2007. Motor vehicle arsons increased by one from one reported in 2007. Outside and other arsons increased by one from the one reported outside and other arsons last year.

ALL INCIDENTS

Rescue & EMS Calls Are 61% of All Reported Incidents

In 2008, Framingham voluntarily reported 9,273 incidents to MFIRS. Of these 9,273 incidents, 8,852, or 95%, were non-fire incidents.

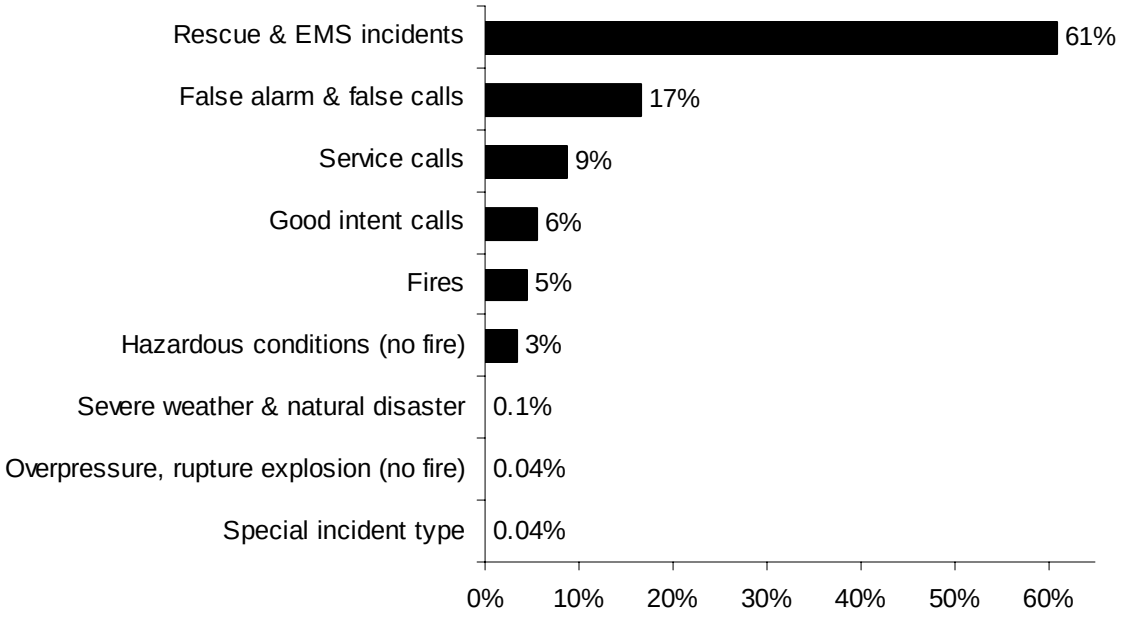
Of these 8,852 non-fire incidents 5,651, or 61% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 1,547, or 17%, were reported false alarm or false calls; 806, or 9%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 512, or 6%, were reported good intent calls; 321, or 3%, were reported hazardous condition calls with no fire; seven, or 0.1%, were severe weather calls; four, or 0.04%, were reported overpressure, rupture, explosion or overheat calls with no fire and another four, or 0.04% were special incident type calls.

In 2008, Framingham reported 421 fires[5], accounting for 5% of all reported incidents.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

[5] This includes the fires that Framingham went to outside of their jurisdiction.

2008 Incidents by Incident Type

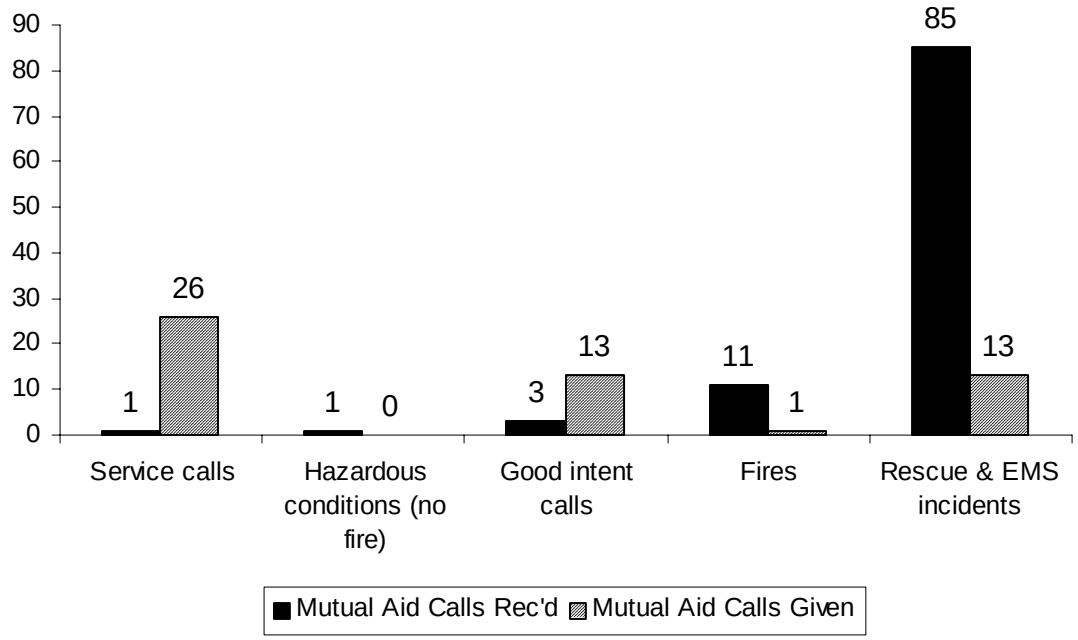


Framingham Gave Mutual Aid in 53 Reported Incidents
In 2008, Framingham reported coming to the aid of other fire departments 53 times. Of these 53 incidents, 26, or 49%, were for cover assignments (service calls); 13, or 25%, were for good intent calls; another 13, or 25%, were for rescue or EMS calls; three, or 13%, were for false alarms or false calls; and one, or 2%, was for a fire.

Framingham Received Mutual Aid in 101 Incidents
In 2008, surrounding fire departments gave aid to Framingham in 101 incidents. Of these 101 incidents, 85, or 84% were rescue and emergency medical services calls; 11, or 11% were for fires; three, or 3%, were good intent calls; one, or 1%, was a service call; and one, or 1% was for a hazardous condition call with no fire.

The following chart compares the number of calls that the Framingham Fire Department gave mutual aid to a neighboring community compared to the number of calls it received mutual aid. In 2008 Framingham received aid from other fire departments 1.9 times more than they gave it. The overwhelming majority of these calls were for EMS calls.

Framingham's Mutual Aid Calls in 2008



Framingham Population: 66,910

6.3 Fires/1,000 Population

Total Fires:	**420**		**$4,929,668**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	305	73%	$4,669,857
Vehicle Fires	39	9%	253,800
Other Fires	76	18%	6,011

5 Civilian Injuries 20 Fire Service Injuries

Building Fires: 304

Residential Structure Fires: 264

Residential Structure Fires Confined to Non-Combustible Containers: 228

Unconfined Residential Structure Fires: 36

4 Civilian Injuries 21 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	165	63%
1- & 2-Family homes	57	22%
Boarding house	26	10%
Residential board & care	11	4%
Dormitories	2	1%

Detector Status	**Fires**	**%**
Operated	222	85%
Didn't operate	3	1%
None	3	1%
Didn’t Alert (confined)	17	6%
Fire too small	8	3%
Undetermined	11	4%

Area of Origin[6]	**%**
Kitchen	85%
Chimney or flue	2%
Heating room or area	2%
Living room	1%
Wall surface, exterior	1%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat/oper. equip.	2%	17%
Spark/ember/flame op. eq.	2%	14%
Heat from oper. equip.	2%	14%
Cigarette	2%	11%
Hot or smoldering object	1%	8%
Arcing	1%	8%

[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 Ignited[8]	**%**
Cooking materials	82%
Film, residue (creosote)	2%
Flammable/combustible liquid	2%
Rubbish, trash, waste	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Equipment unattended	3%	25%
Misuse of materials, other	2%	17%
Abandoned materials	2%	17%
Too close to combustibles	2%	11%

Equipment[10]	**%**
Cooking equipment	81%
None	11%
Chimney or flue	2%
Boiler, furnace, central heat unit	2%
Electrical equipment	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	9%	69%
Failure of eq./heat source	3%	19%
Intentional	1%	8%
Undetermined	0.4%	3%

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

Alerted Occupants	90%
Didn't Alert Occupants	7%
Undetermined	3%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	5,651	61%
False alarms & false calls	1,547	17%
Service calls	806	9%
Good intent calls	512	6%
Fires[12]	421	5%
Hazardous conditions (no fire)	321	3%
Severe weather & natural disaster	7	0.1%
Special incident type	4	0.04%
Overpressure rupture, explosion or overheat calls (no fire)	4	0.04%

[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.

[12] This figure includes the 1 fire that Framingham reported giving mutual aid to.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	40	34	4	2
February	30	26	3	1
March	33	25	4	4
April	56	32	4	20
May	51	27	9	15
June	30	23	1	6
July	24	14	1	9
August	24	21	1	2
September	27	19	2	6
October	35	28	2	5
November	32	25	4	3
December	38	31	4	3

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	57	45	5	7
Monday	49	34	7	8
Tuesday	60	43	5	12
Wednesday	58	46	2	10
Thursday	61	39	4	18
Friday	68	48	8	12
Saturday	67	50	8	9

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	22	12	6	4
04:01 - 08:00	31	19	6	6
08:01 - 12:00	63	45	9	9
12:01 - 16:00	109	79	5	25
16:01 - 20:00	137	103	9	25
20:01 - 00:00	58	47	4	7

Motor Vehicle Fires

Total: 39
Automobiles: 34 (87%)
2 (6%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 8 **Dollar loss: $292,001**

0.12 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	3	1%	38%	$275,000
Vehicle Arsons	2	5%	25%	17,000
Other Arsons	3	4%	38%	1

0.04 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.04 Other arsons/1,000 population

Peak Times of Day for:

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

Vehicle Arsons	#	%
00:01 - 04:00	1	50%
20:01 - 00:00	1	50%

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

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	3	100%

Lowell Fires in 2008

573 Total Fires — 403 Structures, 43 Vehicles & 127 Other Fires
The Lowell Fire Department reported 573 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 403 structure fires, 43 motor vehicle fires, 77 outside rubbish fires, 37 brush fires, three special outside fires; and 10 unclassified fires caused one civilian death, two civilian injuries, one firefighter injury and an estimated dollar loss of $17,600.

Woman Dies in Nursing Home Clothes Dryer Fire

- On February 21, 2008, at 12:33 a.m., the Lowell Fire Department was called to a fatal clothes dryer fire at a nursing home. The fire started in the laundry room and three sprinkler heads suppressed it. The 51-year old female victim was an employee. After she helped evacuate some of the nursing home's residents she collapsed. She was transported to a local hospital where she died from cardiac arrest. Detectors were present and alerted the occupants. No one else was injured in this fire, and damages were not estimated.

Structure Fires Up in 2008
Total fires decreased by 57 from the 688 incidents reported in 2007. Reported structure fires increased by 31 from the 372 reported during the previous year. Motor vehicle fires decreased by three from 46 the year before. Outside and other fires decreased by 85 from the 212 reported in 2007.

LOWELL FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	59	58	0	1	2	1	0	1
2005	393	227	49	117	3	0	3	0
2006[1]	688	443	53	192	13	6	1	6
2007	630	372	46	212	12	6	2	4
2008	573	403	43	127	23	5	12	6

BUILDING FIRES

There were 400 building fires of different types in Lowell in 2008. These 400 building fires accounted for 99.3% of all structure fires in Lowell.

80% of Building Fires in Homes
The 400 building fires that occurred in Lowell in 2008 can be broken down by fixed property use as follows: 321, or 80% of all building fires, were in residential properties;

[1] The large increase in fires from 2005 to 2006 is because from Jan - May of 2005, Lowell only reported the mandated fires. In 2006 Lowell reported all of their fires for the entire year. Most of these fires fall into the confined fires category that Lowell may not have reported in the past.

24 fires occurred in public assembly properties; 22 fires occurred in special properties; 15 happened in mercantile or business properties; seven fires occurred in educational facilities; another seven fires occurred in institutional facilities; three fires occurred in manufacturing or processing facilities; and one fire happened in a storage facility.

RESIDENTIAL FIRES

Residential Building Fires Were Up

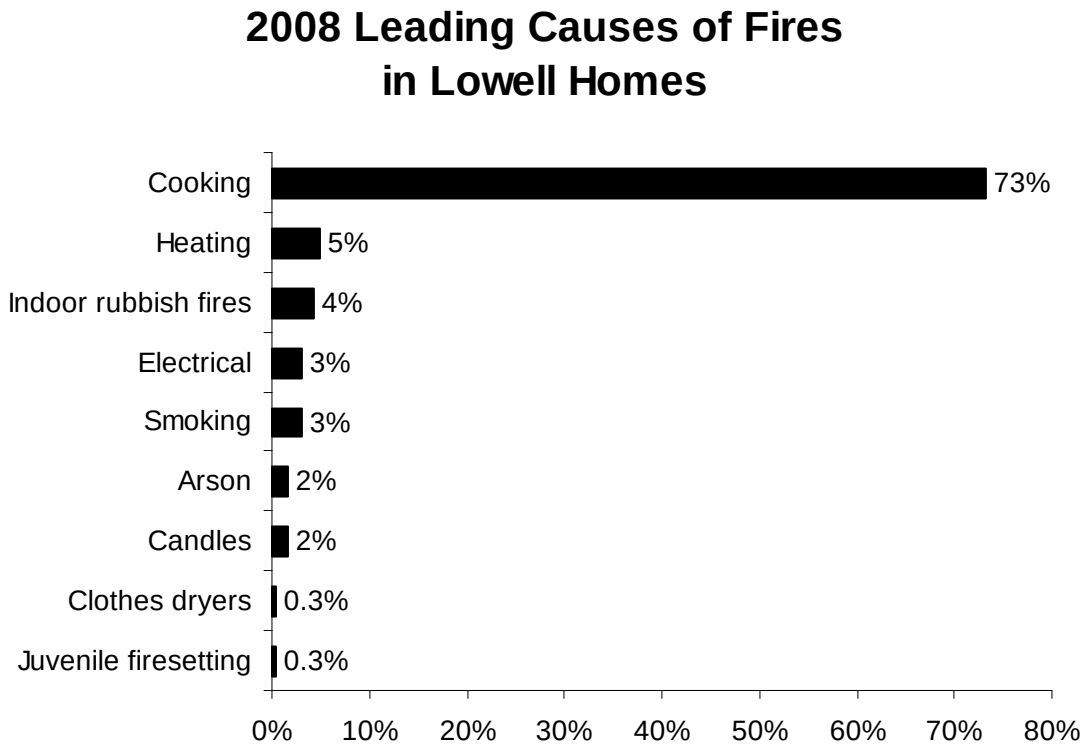
There were 321 reported residential building fires in Lowell in 2008. These 321 fires are an increase of 16 from the 305 reported residential building fires reported in 2007.

Apartments Accounted for Over 2/3 of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 69% of the building fires in Lowell; 23% occurred in 1- or 2-family homes; 3% happened in rooming houses; 2% happened in residential board and care facilities; another 2% occurred in dormitories; 1% occurred in hotels and motels; and less than 1% occurred in unclassified residences.

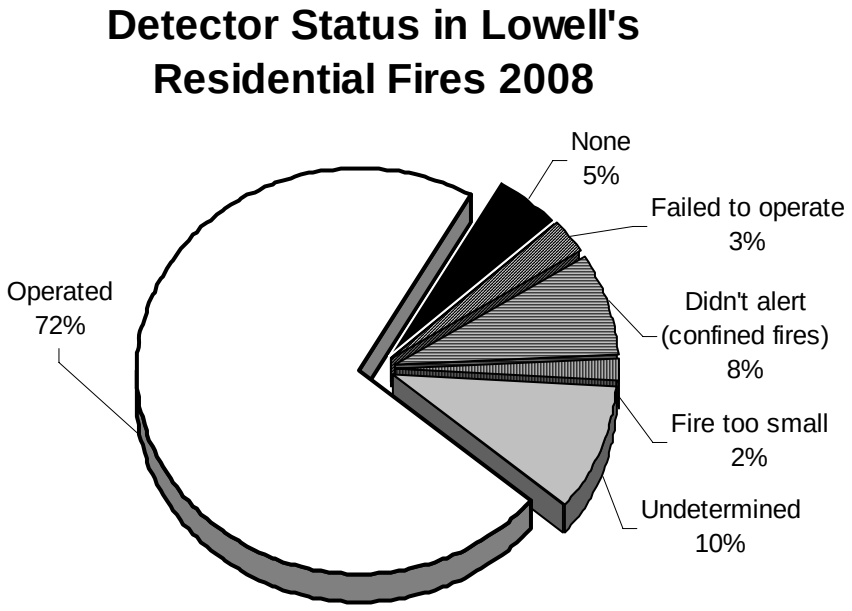
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Lowell was unattended cooking and other unsafe cooking practices, accounting for two-thirds, or 73%, of these fires. Heating fires caused 5% of these fires. Indoor rubbish fires were the cause of 4% of Lowell's residential fires. Electrical problems caused 3% of the fires. Smoking fires were also responsible for 3% of these fires. Arson and candles each caused 2% of these fires. Clothes dryers and juvenile-set fires were the cause of less than 1% of the fires in Lowell's residential occupancies in 2008.



78% of Residential Building Fires Are Confined to Non-Combustible Containers[2]
Two hundred and fifty-one (251), or 78% of all residential building fires were confined to non-combustible containers in 2008. Two hundred and twenty-three (223), or 69%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Fourteen (14), or 5%, of these fires were rubbish fires contained to a non-combustible container. Twelve (12), or 4%, were fires confined to a fuel burner or boiler malfunction. One fires, or less than 1%, was reported to have been contained to a chimney or flue. There was another fire (0.3%) reported to have been contained to a commercial compactor.

Detectors Worked in Almost 3/4 of Fires
Smoke or heat detectors operated and alerted the occupants in 232, or 72%, of the residential building fires. In 8% of these fires[3], the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 5% 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 33 incidents, or 10% of Lowell'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.

22% of Detectors Failed Detectors From Missing Batteries

Of the nine fires where smoke detectors were present but failed to operate, two, or 22%, failed because they had a missing or disconnected batteries. Another two, or 22%, failed because of a power failure, shut-off or disconnect. It was undetermined in five cases, or 55%, why the detector failed to operate.

VACANT BUILDINGS

3 Building Fires in Vacant Buildings

Lowell reported 3 fires that occurred in buildings that were vacant, under construction or demolition[4]. This represented 1% of the total 403 building fires reported to MFIRS in 2008. Two (2) one- or two-family homes, four apartment buildings, and one railroad yard facility were reported as vacant building fire incidents.

JUVENILE-SET FIRES

5 Juvenile-set Fires

There were five juvenile-set fires in Lowell in 2008. There were three structure fires, one outside rubbish fire and one unclassified fire.

ARSONS

23 Arsons[5] - 5 Structure, 12 Motor Vehicle and 6 Outside & Other

Twenty-three (23), or 4%, of Lowell's 573 fires were considered intentionally set, or, for purposes of this analysis, arson. There were five structure arsons, 12 motor vehicle arsons and six outside and other arsons.

All Arsons Up in 2008

The total number of arsons increased by 11 from the 12 reported in 2007. Reported structure arsons dropped by one from the six reported in 2008. Motor vehicle arsons increased by 10 from the two reported in 2007. Outside and other arsons increased by two from four reported the year before.

26 Fires Reported as Undetermined

In 2008, Lowell reported 26 fires under investigation or cause undetermined after investigation. Eighteen (18), or 69%, of these 26 fires were structure fires. Three (3), or 12% were motor vehicle fires; and five, or 19%, were outside or other fires.

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[4] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[5] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

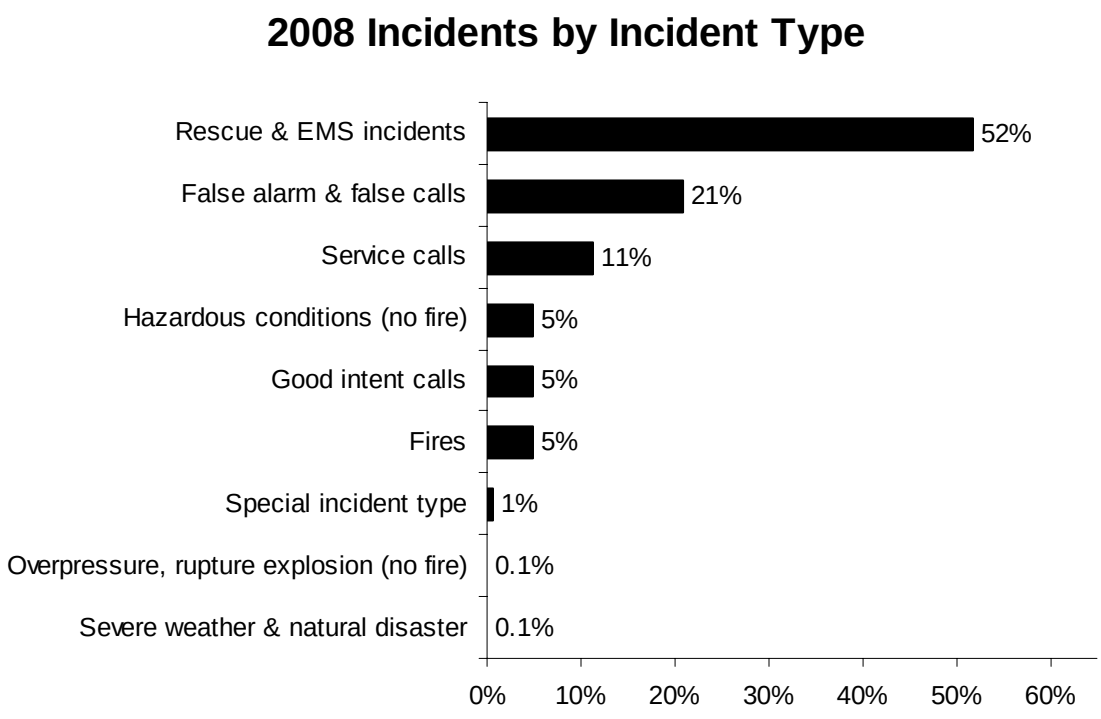
ALL INCIDENTS

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

In 2008, Lowell voluntarily reported 12,616 incidents to MFIRS. Of these 12,616 incidents, 12,040, or 95% were non-fire incidents.

Of these 12,040 non-fire incidents 6,542, or 52% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 2,645, or 21%, were reported false alarm or false calls; 1,416, or 11%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 672, or 5%, were reported hazardous condition calls with no fire; 666, or 5%, were reported good intent calls; 73, or 1%, were special incident types; 16, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 10, or 0.1%, was a severe weather calls.

In 2008, Lowell reported 576 fires[6], accounting for 5% of all reported incidents.



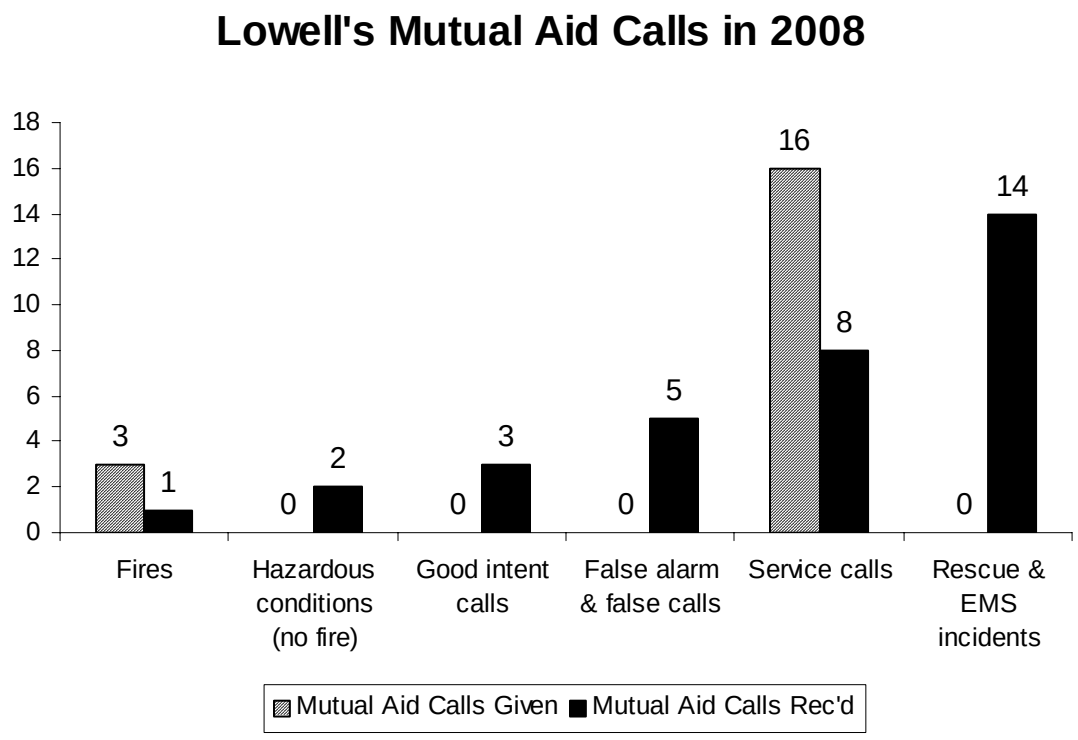
Lowell Gave Mutual Aid in 19 Reported Incidents

In 2008, Lowell reported coming to the aid of other fire departments 19 times. Of these 19 incidents, 16, or 84%, were for cover assignments or other service calls, and three, or 16%, were for fires.

[6] This includes the fires that Lowell responded to as mutual aid calls outside of their jurisdiction.

Lowell Received Mutual Aid in 33 Incidents
In 2008, surrounding fire departments gave aid to Lowell during 33 incidents. Of these 33 incidents, 14, or 42%, were rescue or EMS calls, eight, or 24%, were service calls; five, or 15%, were false alarms or false calls; three, or 9%, were for good intent calls; two, or 6% were hazardous condition calls with no fire; and one, or 3%, was a fire.

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 2008 Lowell received aid 1.7 times more than they gave it.



Lowell Population: 105,167

5.5 Fires/1,000 Population

Total Fires:	**573**		**$17,600**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	403	70%	$17,600
Vehicle Fires	43	8%	0
Other Fires	127	22%	0

1 Civilian Death	1.75 Civilian Deaths/1,000 Fires
1 Fatal Fire	0.10 Civilian Deaths/10,000 Population
2 Civilian Injuries	1 Fire Service Injury

Building Fires: 400

Residential Structure Fires: 321

Residential Structure Fires Confined to Non-Combustible Containers: 251

Unconfined Residential Structure Fires: 70

2 Civilian Injuries 4 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	223	69%
1- & 2-Family homes	75	23%
Boarding houses	9	3%
Residential board & care	6	2%
Dormitories	5	2%

Detector Status	**Fires**	**%**
Operated	232	72%
Didn't operate	9	3%
None	16	5%
Fire too small	5	2%
Didn’t Alert (confined)	26	8%
Undetermined	33	10%

Area of Origin[7]	**%**
Kitchen	75%
Bedroom	5%
Heating room or area	4%
Exterior balcony/unencl. porch	2%

Heat Source	**%**	**%Unconfined**[8]
Heat from operating equip.	2%	11%
Arcing	2%	10%
Radiated heat from op. eq.	2%	9%
Candles	2%	7%
Spark/ember/flame op eq.	2%	7%

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

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

Item First Ignited[9]	**%**
Cooking materials	71%
Rubbish, trash, waste	6%
Flammable or combustible liq.	4%
Exterior sidewall covering	2%
Structural member, framing	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[10]
Too close to combustibles	3%	14%
Electrical failure, malfunct.	3%	13%
Abandoned materials	2%	11%
Misuse of materials or prod.	2%	7%
Equipment unattended	2%	7%

Equipment[11]	**%**
Cooking equipment	72%
None	15%
Boiler, furnace, cent. heat. unit	4%
Electrical wiring	3%
Stove, heating	2%

Cause of Ignition	**%**	**%Unconfined**[12]
Unintentional	14%	64%
Intentional	2%	7%
Failure of eq./heat source	2%	9%
Cause Under Investigation	0%	0%
Undetermined	4%	19%

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

Alerted Occupants	83%
Didn't Alert Occupants	10%
Undetermined	7%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	6,542	52%
False alarms & false calls	2,645	21%
Service calls	1,416	11%
Hazardous conditions (no fire)	576	5%
Good intent calls	666	5%
Fires[13]	672	5%
Special incident type	73	1%
Overpressure rupture, explosion or overheat calls (no fire)	16	0.1%
Severe weather & natural disaster	10	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 fires that Lowell gave mutual aid to in another jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	32	27	3	2
February	42	34	4	4
March	51	37	4	10
April	63	36	3	24
May	58	31	4	23
June	35	32	2	1
July	32	20	6	6
August	51	36	3	12
September	59	42	6	11
October	53	35	4	14
November	46	31	1	14
December	51	42	3	6

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	95	75	4	16
Monday	71	50	8	13
Tuesday	86	60	8	18
Wednesday	90	59	5	26
Thursday	74	53	4	17
Friday	71	54	3	14
Saturday	86	52	11	23

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	59	28	11	20
04:01 - 08:00	29	22	3	4
08:01 - 12:00	80	56	6	18
12:01 - 16:00	143	113	5	25
16:01 - 20:00	163	121	8	34
20:01 - 24:00	99	63	10	26

Motor Vehicle Fires

Total: 43
Automobiles: 38 (88%)
10 (26%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 23 **Dollar loss: $0**

0.11 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	5	1%	22%	$0
Vehicle Arsons	12	28%	52%	0
Other Arsons	6	5%	26%	0

0.05 Structure arsons/1,000 population
0.11 Vehicle arsons/1,000 population
0.06 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
20:01 - 00:00	2	40%
00:01 - 04:00	1	20%
08:01 - 12:00	1	20%
16:01 - 20:00	1	20%

Vehicle Arsons	#	%
20:01 - 00:00	5	42%
00:01 - 04:00	4	33%
04:01 - 08:00	2	17%

Other Arsons	#	%
00:01 - 04:00	2	29%
04:01 - 08:00	1	14%
08:01 - 12:00	1	14%
12:01 - 16:00	1	14%
16:01 - 20:00	1	14%
20:01 - 00:00	1	14%

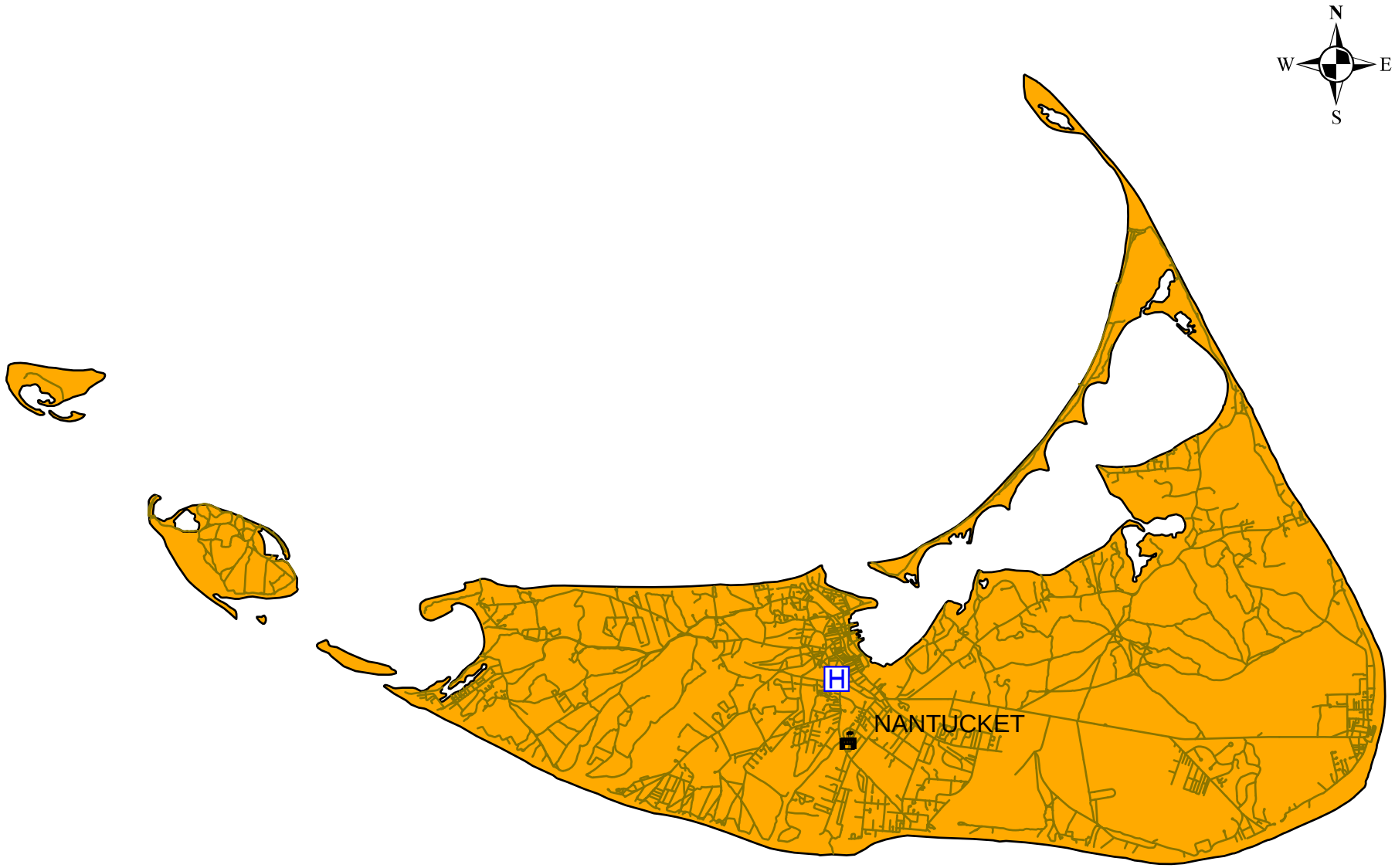
Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	4	80%
1- or 2-Family homes	1	20%

Nantucket County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Nantucket County Fires 2008



2008 Fires

- 24
- ROADS5K_ARC
- HOSPITALS_PT
- SCHOOLS_PT

0 0.5 1 2 3 4 Miles

Massachusetts Fire Incident Reporting System 2008

Nantucket County Fires in 2008

24 Total Fires — 13 Structures, 3 Vehicles & 25 Outside and Other Fires
Nantucket County ranked thirteenth out of the fourteen Massachusetts counties in total reported fires. The Nantucket Fire Department reported 24 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 13 structure fires, five motor vehicle fires, three brush fires, and three unclassified fires caused an estimated dollar loss of $3,320. Nantucket County's fires accounted for 0.1% of the 30,136 Massachusetts fires reported in 2008.

All Fires Down
The total number of reported fire incidents decreased by 39 from the 63 fires reported in 2007. Structure fires decreased by 11 fro the 24 reported in 2007. Motor vehicle fires increased by two from three the year before. Reported outside and other fires decreased by 30 from the 36 reported in 2007.

Nantucket is an island community with a small year round population. During the summer months, the population increases immensely. Consequently, two-thirds of Nantucket's fires occurred during the months May to September.

NANTUCKET FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004[1]	138	95	15	28	3	0	3	0
2005[2]	115	66	17	32	0	0	0	0
2006[3]	113	66	9	38	2	0	2	0
2007	63	24	3	36	0	0	0	0
2008	24	13	5	6	0	0	0	0

Fire and Fire Death Rates
Nantucket County had 2.5 fires per 1,000 population. That figure ranks Nantucket County thirteenth in the state and below the state rate of 4.8 fires per 1,000 population. Nantucket County also had 0 fire deaths per 10,000 population tying it ranked for twelfth among Massachusetts counties and below the state rate of 0.08 fire deaths per 10,000 population.

[1] The large increase in reported fires in 2004 is due to Nantucket's reporting of all of their incidents to MFIRS not just the mandated fires.
[2] In 2005, Nantucket had problems submitting their incidents for October – December. They were only able to submit fires, and only the very basic information for these incidents.
[3] In 2006, Nantucket had problems submitting their non-fire incidents for January - June. They were only able to submit fires, and only the very basic information for these incidents.

Fireworks Caused Nantucket's Largest Loss Fire

- On July 30, 2008, at 6:02 p.m., the Nantucket Fire Department was called to a fireworks fire in a single-family home. The fireworks ignited the exterior wall and some light vegetation. No one was injured at this fire, and damages were estimated to be $3,000. Smoke detectors were present but the fire was too small to activate them. The building was not sprinklered.

STRUCTURE FIRES

Reported Structure Fires Drop

The 13 structure fires caused an estimated dollar loss of $3,320. These incidents represented 54% of Nantucket County's reported fires in 2008. The average estimated dollar loss per structure fire was $255. The total number of reported structure fires decreased by 11 from the 24 reported in 2007.

No Reported Structure Arsons

Nantucket County did not report any structure arsons in 2008. The last year that Nantucket reported a structure arson was in 2003.

BUILDING FIRES

There were 13 building fires of different types in Nantucket County in 2008. These 13 building fires accounted for all of the structure fires in Nantucket County.

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

Eleven (11), or 85%, of Nantucket County's 13 building fires occurred in residential occupancies. One (1) fire took place in a public assembly property. Another fire took place in a mercantile or business property.

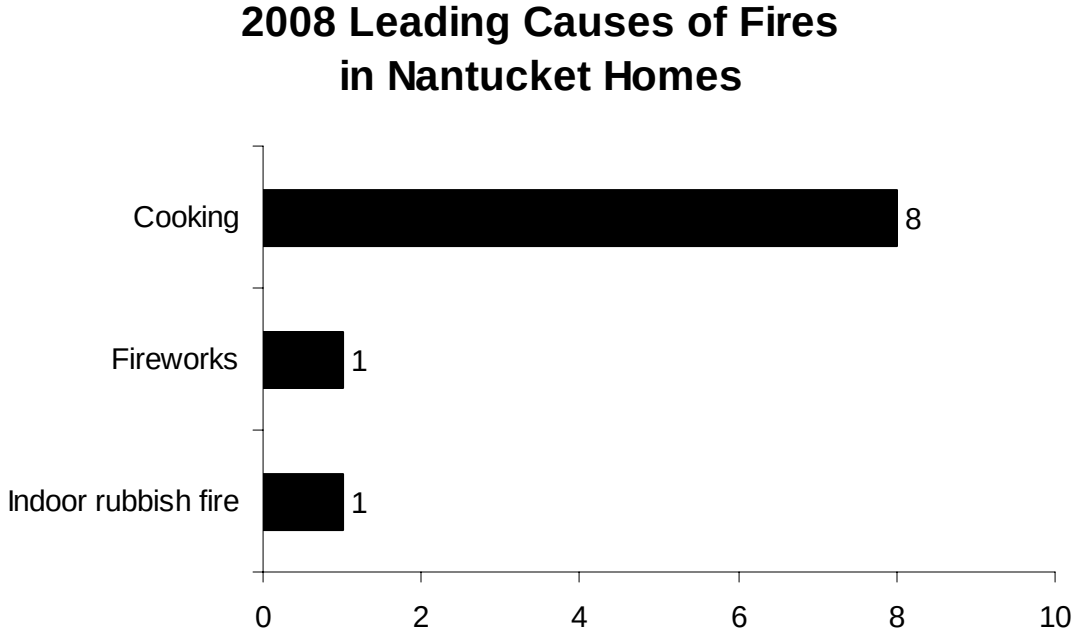
RESIDENTIAL FIRES

Residential Building Fires Down

There were 11 reported residential building fires in Nantucket County in 2008. These 11 fires are a decrease of eight, or 42%, from the 19 residential building fires reported in 2007.

Cooking Fires Cause 8 of 11 Residential Fires

The leading cause of residential building fires in Nantucket County was unattended cooking and other unsafe cooking practices, accounting for eight, or 73% of these fires. Fireworks caused one, or 9%, of these fires. An indoor rubbish fire also caused 9% of Nantucket's 2008 residential fires.

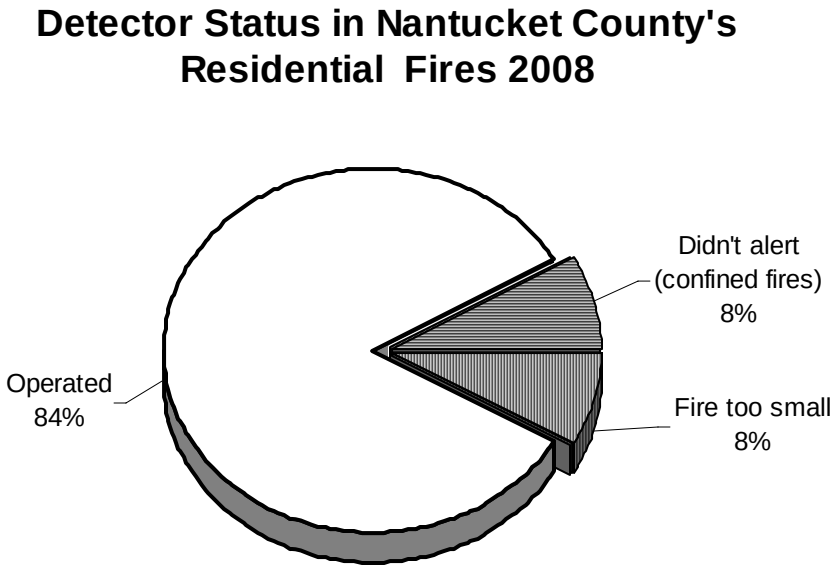


9 Residential Building Fires Are Confined to Non-Combustible Containers[4]
Nine (9), or 73% of all residential building fires, were reported as confined to non-combustible containers in 2008. Eight (8) of the reported fires were cooking fires contained to a non-combustible container accounting for 73% of the residential fires. An indoor rubbish fire accounted for one, or 9%, of Nantucket's residential fires.

Detectors Alerted Occupants in 84% of Fires
Smoke or heat detectors operated and alerted the occupants in 10, or 84%, of the residential building fires. In one, or 8% of these fires[5], the detectors did not alert the occupants. Detectors were present but the fire was too small to activate them in one, or 8%, of these incidents.

[4] 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.

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



VACANT BUILDING FIRES

1 Vacant Building Fire

In 2008, there was one reported fire in a building that was vacant, under construction or demolition[6]. This fire occurred at a coffee shop.

JUVENILE-SET FIRES

No Juvenile-set Fires

There were no reported juvenile-set fires in Nantucket County in 2008.

ARSONS

No Arsons

For the second consecutive year there were no reportable arsons in Nantucket County.

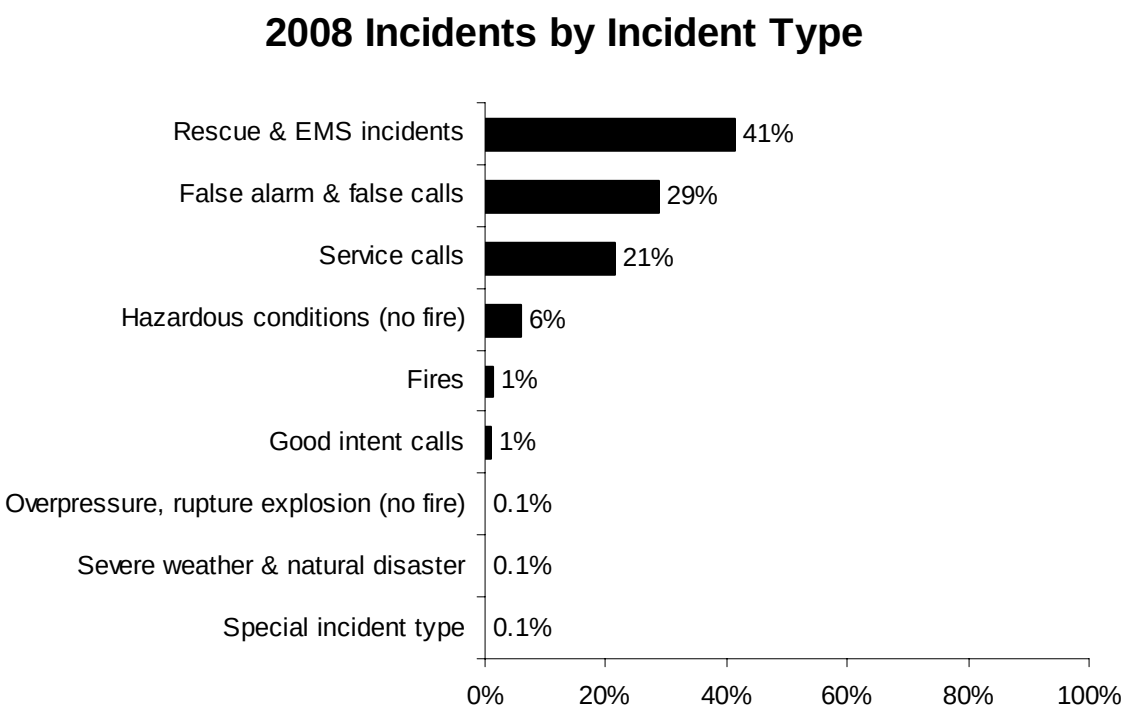
[6] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

ALL INCIDENTS

Rescue & EMS Calls Are 41% of All Reported Incidents
In 2008, Nantucket County reported 1,935 responses to MFIRS. Of these 1,935 incidents, 1,911 non-fire calls were voluntarily reported.

Of these 1,911 non-fire calls 798, or 41% of the total responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 560, or 29%, were reported false alarm or false calls; 414, or 21%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 115, or 6%, were reported hazardous condition calls with no fire; 21, or 1%, reported good intent calls; one, or 0.1%, was a reported overpressure, rupture, explosion or overheat call with no fire; another one, or 0.1%, was a severe weather call; and one, or 0.1%, was a special incident type call.

Twenty-four (24), or 1%, of the total responses submitted by the Nantucket Fire Department were fires.



Nantucket County Population: 9,520

2.5 Fires/1,000 Population

Total Fires:	**24**		**$3,320**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	13	54%	$3,320
Vehicle Fires	5	21%	0
Other Fires	6	25%	0

No Injuries

Building Fires: 13

Residential Structure Fires: 11

Residential Structure Fires Confined to Non-Combustible Containers: 8

Unconfined Residential Structure Fires: 3

No Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	5	45%
Dormitories	3	27%
Hotels or motels	2	18%
Apartments	1	9%

Detector Status	**Fires**	**%**
Operated	10	84%
Didn't operate	1	8%
None	0	0%
Fire too small	0	0%
Didn't alert (confined)	1	8%
Undetermined	0	0%

Area of Origin[7]	**%**
Kitchen	73%
Exterior stairway	9%
Outside area, other	9%

Heat Source	**%**	**%Unconfined**[8]
Fireworks	9%	50%
Hot or smoldering object	9%	50%

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

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

Item First Ignited[9]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined**[10]
Cooking materials	73%			
Rubbish, trash, waste	9%			
Light vegetation	9%			
Organic materials, other	9%			

Equipment[11]	**%**	**Cause of Ignition**	**%**	**%Unconfined**[12]
Cooking equipment	73%	Unintentional	9%	50%
None	17%	Cause under investigation	9%	50%

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

Alerted Occupants	90%
Didn't Alert Occupants	10%
Undetermined	0%

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

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

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

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

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

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

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	1	1	0	0
04:01 - 08:00	1	1	0	0
08:01 - 12:00	2	1	1	0
12:01 - 16:00	7	3	2	2
16:01 - 20:00	9	5	2	2
20:01 - 00:00	4	2	0	2

Motor Vehicle Fires

Total: 5
Automobiles: 1 (20%)
0, or (0%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 0 **Dollar loss: $0**

0.0 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	0	0%	0%	0

0.00 Structure arsons/1,000 population
0.00 Vehicle arsons/1,000 population
0.00 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Vehicle Arsons	#	%

Responses Reported to MFIRS by Month

Incident Type	# of Incidents	January	February	March	April	May	June	July	August	September	October	November	December
Fires	24	0	0	0	1	1	2	9	1	5	1	3	1
Overpressure, rupture explosion (no fire)	1	0	0	0	0	0	0	1	0	0	0	0	0
Rescue & EMS incidents	798	72	1	71	84	69	69	162	3	102	7	56	102
Hazardous conditions (no fire)	115	17	0	5	13	13	4	24	1	19	2	7	10
Service calls	414	72	1	51	44	75	48	55	0	30	3	16	19
Good intent calls	21	1	0	0	1	3	2	7	1	2	1		3
False alarm & false calls	560	58	1	40	71	64	57	104	2	58	16	35	54
Severe weather & natural disaster	1	0	0	0	0	0	1	0	0	0	0	0	0
Special incident type	1	0	0	0	0	0	0	0	0	0	0	1	0
Total	**1,935**	**220**	**3**	**167**	**214**	**225**	**183**	**362**	**8**	**216**	**30**	**118**	**189**

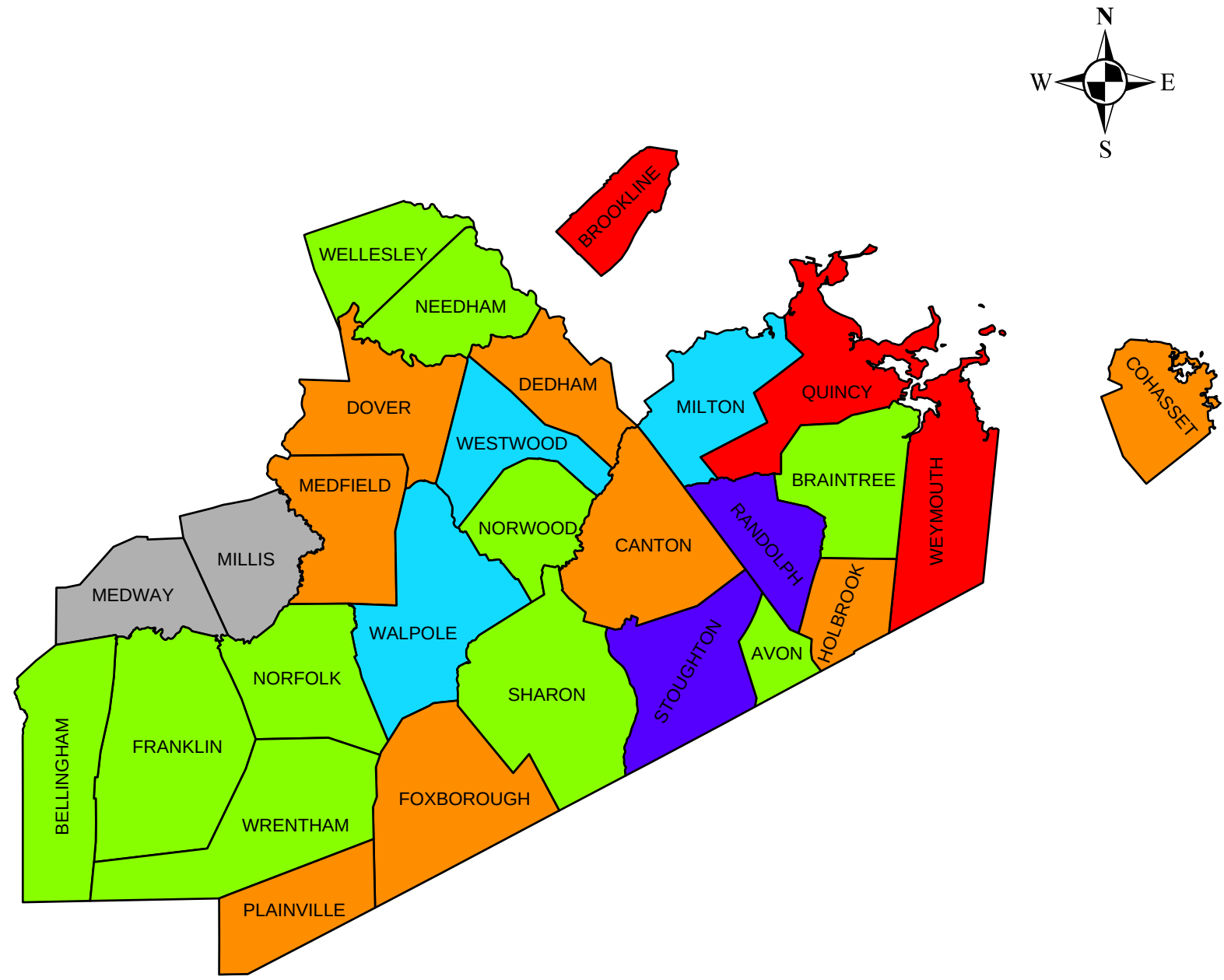
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

Norfolk County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Norfolk County Fires 2008



2008 Fires

- 1
- 2 - 50
- 51 - 100
- 101 - 200
- 201 - 300
- 301 - 550

0 2.5 5 10 15 20 Miles

Massachusetts Fire Incident Reporting System 2008

Norfolk County Fires in 2008

3,067 Total Fires — 1,830 Structures, 290 Vehicles & 947 Other Fires
Norfolk County ranked fourth out of the fourteen Massachusetts counties in total reported fires. Norfolk County fire departments reported 3,067 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 1,830 structure fires, 290 motor vehicle fires, 581 brush, tree or lawn fires, 213 outside rubbish fires, 62 special outside fires, nine cultivated vegetation or crop fires, and 82 other fires caused five civilian deaths, 26 civilian injuries, 99 fire service injuries and an estimated dollar loss of $26.5 million. Norfolk County's fires accounted for 10% of the 30,136 Massachusetts fires reported in 2008.

All 28 of the 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 2008.

Structure Fires Up
The total number of reported fire incidents decreased by 683 from the 3,750 reported in 2007. Reported structure fires increased 144 from the 1,686 reported during the previous year. Motor vehicle fires decreased 18 from the 308 reported the year before. Reported outside and other fires decreased by 809 from the 1,756 reported a year earlier.

Brush Fires Down by 48%
Brush fires decreased by 531, or 48%, from the 1,112 reported in 2008. This is a major decrease and the main reason for the drop in all Norfolk County fires.

NORFOLK COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2,995	1,564	342	1,089	116	26	10	80
2005	2,998	1,562	345	1,091	100	20	17	63
2006	3,010	1,644	280	1,086	88	24	7	57
2007	3,750	1,686	308	1,756	94	21	4	69
2008	3,067	1,830	290	947	86	17	6	63

Fire and Fire Death Rates
Norfolk County had 4.7 fires per 1,000 population. That figure ranks Norfolk County sixth in the state and lower than the state rate of 4.8 fires per 1,000 population. Norfolk County also had 0.08 fire deaths per 10,000 populations ranking it sixth among Massachusetts counties and tied with the state rate of 0.08 fire deaths per 10,000 population.

5 Norfolk Fires Kill 5 Residents

- On January 25, 2008 at 7:41 p.m., the Wellesley Fire Department was called to a fatal electric space heater fire in a single-family home. The space heater was too close to some bedding in the living room, igniting it. The victim, a 55-year old physically disabled woman was unable to act. She was overcome by the heat and smoke. One other civilian and a firefighter were injured at this fire. Detectors were present but it was undetermined if they operated. Sprinklers were not present. Damages were estimated to be $100,000.

- On February 3, 2008, at 7:37 p.m., the Milton Fire Department was called to a fatal electrical fire in a single-family home. A lamp was too close to an upholstered chair and the heat from the light bulb ignited the chair. The victim, a 59-year old man, was trapped on the second floor and overcome by the heat and smoke. Twelve (12) firefighters were injured at this fire. Smoke detectors and sprinklers were not present. No estimation of the damages was made for this fire.

- On April 14, 2008, at 12:03 p.m., the Milton Fire Department was called to a fatal clothes dryer fire in a two-family home. Heat from the clothes dryer ignited the lint that had accumulated in the long vent pipe. This in turn ignited a structural member in the wall. The victim, a 43-year old man, was asleep at the time of the fire and was overcome by the smoke. He was transported to a local hospital where he later died from smoke inhalation. It was undetermined if smoke detectors were present. There were no sprinklers. No estimation of the damages was made for this fire.

- On May 26, 2008 at 6:58 p.m. the Norwood Fire Department was called to a fatal fire in a single-family home of undetermined cause. The fire began in a first floor hallway. The victim, a 34-year old physically disabled woman, was in her bedroom and unable to act at the time of the fire and died from burns and smoke inhalation. No one else was injured at this fire. Detectors were present and operated. The building had no sprinklers. Damages from this fire were estimated to be $430,000.

- On December 12, 2008 at 11:12 p.m., the Franklin Fire Department was called to a fatal heating fire in a single-family home. The fire began in the kitchen when a space heater was on and too close to combustibles. The 61-year old male victim was overcome by the heat and smoke. No one else was injured at this fire. It was undetermined if detectors were present, but sprinklers were not. Damages were estimated to be $296,000.

Avon Has Norfolk County's Largest Loss Fire in 2008

- On October 13, 2008, at 4:07 p.m., the Avon Fire Department responded to a smoking fire at a refrigerated storage facility. There were no reported injuries at this fire. Smoke detectors were present and alerted the occupants. Sprinklers were present and operated but did not discharge enough water because the fire originated in an area not protected by the system. Damages from this fire were estimated to be $7.25 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 1,830 structure fires caused all five of Norfolk County's civilian deaths, 21 civilian injuries, 88 fire service injuries and an estimated dollar loss of $25.6 million. These incidents represented 60% of Norfolk County's reported fires in 2008. The average estimated dollar loss per structure fire was $14,006. The total number of reported structure fires increased by 144, or 9%, from the 1,686 reported in 2007.

Arson Caused of 1% of Structure Fires

The 17 structure arsons caused an estimated dollar loss of $843,100. Arson was indicated as the cause of 1% of the structure fires and 3% of Norfolk County's structure fire dollar loss. The 17 structure arsons accounted for 20% of the Norfolk County arson fires reported in 2008. The total number of reported structure arsons decreased by four, or 19%, from 21 in 2007.

29% of Structure Arsons Occur in Residential Properties

Twenty-nine percent (29%) of Norfolk County's 17 structure arsons occurred in residential occupancies; 24% occurred in jails or prisons[1]; 12% each happened in mercantile or business properties, and educational facilities; and 6% occurred each in manufacturing or processing facilities, storage facilities, and special properties.

BUILDING FIRES

There were 1,816 building fires of different types in Norfolk County in 2008. These 1,816 building fires accounted for 99.1% of all structure fires in Norfolk County.

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

One thousand five hundred and twenty (1,520), or 84%, of Norfolk County's 1,816 building fires occurred in residential occupancies. Mercantile and business properties had 79 fires. Sixty-five (65) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings also experienced 65 fires. Thirty (30) building fires took place on educational properties. Twenty-two (22) building fires in Norfolk County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Nineteen (19) fires took place in storage properties. Eleven (11) fires took place in manufacturing and processing facilities, and two fires occurred in industrial facilities in Norfolk County in 2008.

RESIDENTIAL FIRES

Apartments Accounted for Almost 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were apartments accounting for 48% of the residential building fires in Norfolk County; 45% occurred in 1- or 2-family homes; 3% occurred in dormitories; 2% happened in rooming houses; 1% occurred in

[1] All 4 of these arsons happened at MCI-Cedar Junction in Walpole or MCI-Norfolk.

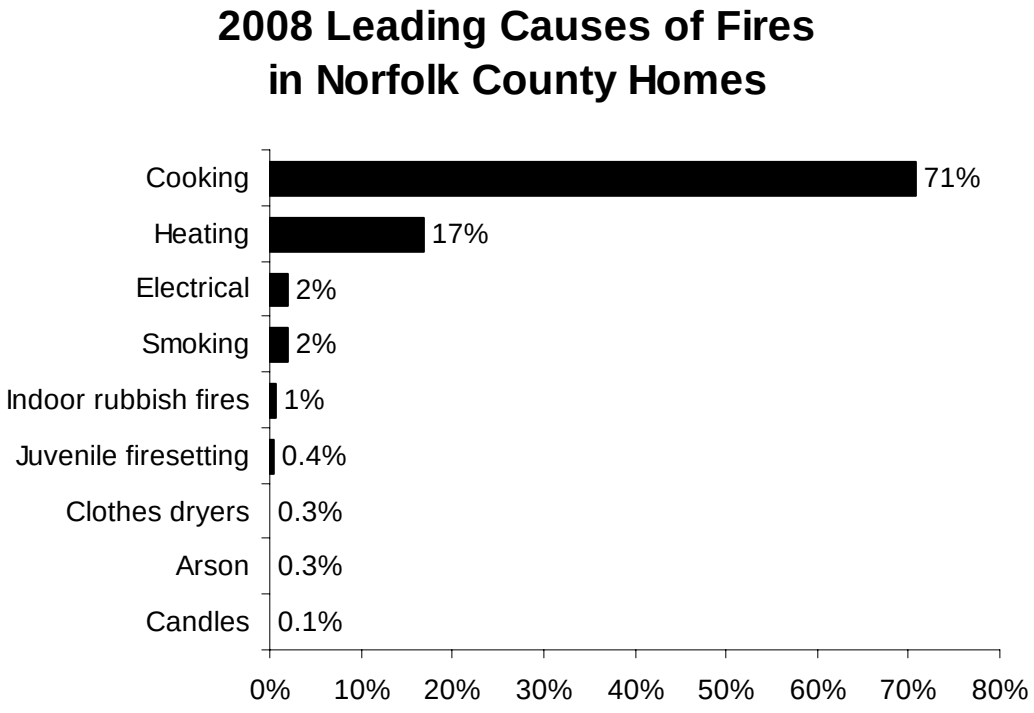
residential board and care facilities; and less than 1% happened in hotels or motels. Sixteen (16), or 1% of the residential building fires in Norfolk County occurred in unclassified residential buildings.

Residential Building Fires Are Up

There were 1,351 reported residential building fires in Norfolk County in 2008. These 1,351 fires are an increase of 170, or 13%, from the 1,351 residential building fires reported in 2007. This increase was due in large part to the 21% increase in fires in apartments between 2007 and 2008.

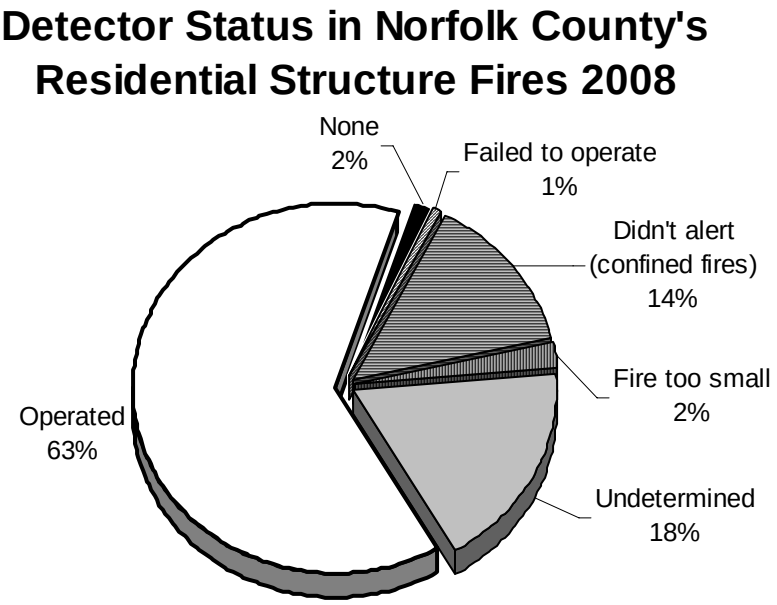
Cooking Causes Almost 71% of Residential Fires

The leading cause of residential building fires in Norfolk County was unattended cooking and other unsafe cooking practices, accounting for 71% of the fires. Heating caused 17% of fires in people's homes. Electrical problems and smoking each caused 2% of these fires. Indoor rubbish fires caused 1% of these fires. Juvenile-set fires (0.4%), clothes dryers (0.3%), arson (0.3%), and candles (0.1%) each caused less than 1%, of the residential building fires in Norfolk County in 2008.



87% of Residential Building Fires Are Confined to Non-Combustible Containers[2]
One thousand and three hundred and sixteen (1,316), or 87% of all residential building fires, were reported as confined to non-combustible containers in 2008. One thousand and fifty-three (1,053) of the reported fires were cooking fires contained to a non-combustible container accounting for 69% of residential building fires. One hundred and seventy-one (171), or 13%, were fires confined to a fuel burner or boiler malfunction. Seventy-seven (77), or 6%, of all residential building fires reported in 2008 were fires confined to a chimney. Fifteen (15), or 1%, of Norfolk County's residential fires were contained rubbish fires.

Detectors Alerted Occupants in Just Almost 2/3 of Fires
Smoke or heat detectors operated and alerted the occupants in 964, or 63%, of the residential building fires. In 14% of these fires[3], 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 276 incidents, or 18% of Norfolk County's residential building fires.



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

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

Almost 1/2 of Failed Detectors Had Missing or Disconnected Batteries

Of the 15 fires where smoke detectors were present but failed to operate, seven, or 47%, failed because the batteries were either missing or disconnected. Two detectors, or 13%, failed because the power was shut-off or disconnected. One (1), or 7%, did not operate because of dead batteries. It was undetermined or unclassified in five cases, or 33%, why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Norfolk County reported 23 fires that occurred in buildings that were vacant, under construction or demolition[4]. This represented 1% of the total 1,816 building fires reported to MFIRS in 2008. Eleven (11) fires occurred in vacant residential properties. Three (3) fires each in public assembly properties and manufacturing or processing facilities were reported as vacant building fires. Two vacant building fires occurred in outbuildings or shelters. Storage facilities, institutional facilities, mercantile and business properties and educational facilities all reported one vacant building fire.

Seven (7), or 30%, of the vacant building fires in Norfolk County in 2008 were determined to be intentionally set. A vacant building arson occurred each at a swimming facility, a place of worship, a high school, or single-family home, a manufacturing facility, a shed and an outbuilding or shelter.

JUVENILE-SET FIRES

18 Juvenile-set Fires

There were 18 reported juvenile-set fires in Norfolk County in 2008. The 10 structure fires, one motor vehicle fire, five brush fires, one outside rubbish fire, and one unclassified fire caused one fire service injury and $144,300 in estimated damages.

ARSONS

86 Total Arsons — 17 Structures, 6 Vehicles & 63 Other Arsons

Eighty-six (86), or 3% of Norfolk County's 3,067 fires were intentionally set, or, for purposes of this analysis, arson[5]. The 17 structure arsons, six motor vehicle arsons and 63 outside and other arsons caused an estimated loss of $855,325.

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[4] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[5] 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.

Structure and Outside & Other Arsons Down

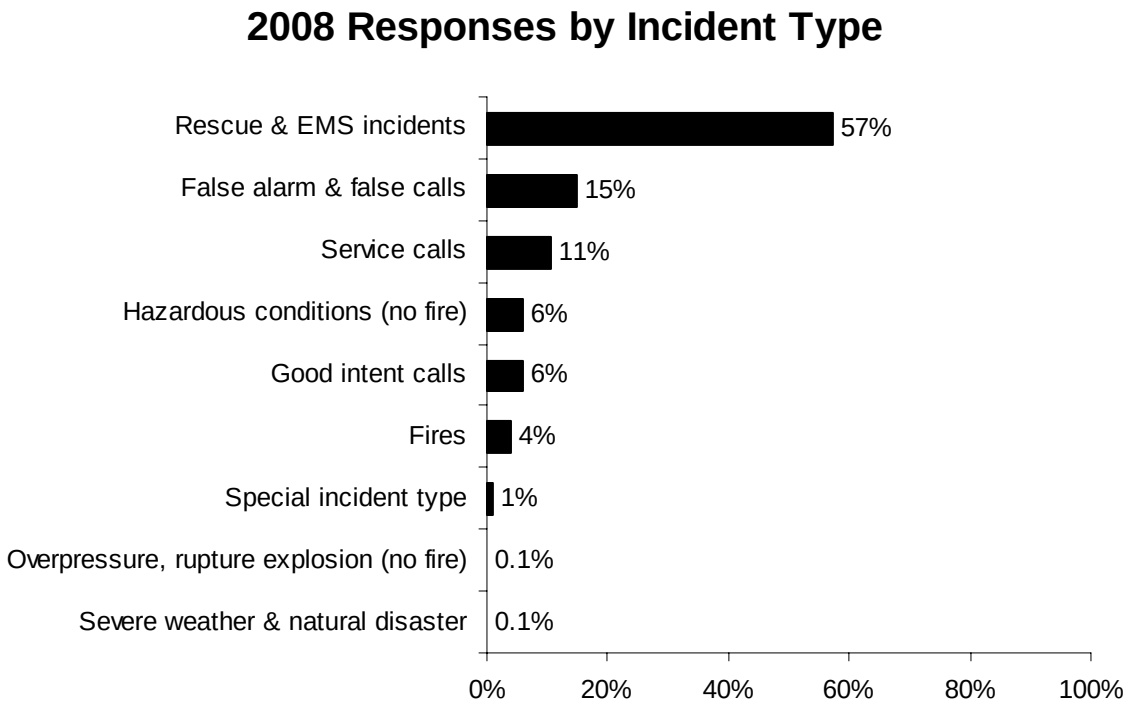
The total number of reported arson fires decreased by eight from the 94 reported in 2007. Reported structure arsons decreased by four from the 21 reported the previous year. Motor vehicle arsons increased by two from the four reported in 2007. Reported outside and other arsons decreased by six from 69 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 57% of All Reported Incidents

In 2008, fire departments in Norfolk County reported 80,716 responses[6] to MFIRS. Of these 80,716 incidents, 77,473 non-fire calls were voluntarily reported.

Of these 77,473 non-fire incidents, 46,214, or 57% of all the incidents reported in 2008, were reported rescue and emergency medical services (EMS) calls; 11,928, or 15%, were reported false alarm or false calls; 8,671, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,189, or 6%, reported hazardous condition calls with no fire; 4,542, or 6%, were reported good intent calls; 779, 1%, were special incident type calls such as citizen complaints; 93, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 57, or 0.1%, were severe weather responses.



[6] These figures include responses in which Norfolk County fire departments gave mutual aid to other fire departments.

Three thousand two hundred and forty-three (3,243), or 4%, of the total responses submitted by Norfolk County fire departments were fires.

Norfolk County Fire Departments Gave Mutual Aid 3,216 Times

In 2008, Norfolk County fire departments reported coming to the aid of other fire departments 3,216 times. Of these 3,216 responses, 1,836, or 57%, were for rescue or EMS calls; 642, or 20%, were for service calls such as cover assignments; 313, or 10%, were for good intent calls; 183, or 6%, were for false alarms or false calls; 175, or 65%, were for fires; 58, or 2%, were for hazardous conditions calls with no fire; five, or 02%, were special incident types; three, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.03%, was a severe weather call.

Norfolk County Received Mutual Aid in 1,965 Incidents

In 2008, Norfolk County fire departments reported receiving aid from surrounding departments in 1,965 incidents. Of these 1,965 incidents, 1,413, or 72%, were rescue and emergency medical services calls; 205, or 10%, were for fires; 199, or 10%, were false alarms or false calls; 58, or 3% were good intent calls; 48, or 2% were service calls; 40, or 2% were hazardous conditions calls with no fire; and two, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Norfolk County Population: 650,308

4.7 Fires/1,000 Population

Total Fires:	**3,067**		**$26,505,096**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	1,830	60%	$25,630,385
Vehicle Fires	290	9%	717,676
Other Fires	947	31%	157,035

5 Fatal Fires	1.63 Civilian Deaths/1,000 Fires
5 Civilian Deaths	0.08 Civilian Deaths/10,000 Population
26 Civilian Injuries	99 Fire Service Injuries

Building Fires: 1,816

Residential Structure Fires: 1,520

Residential Structure Fires Confined to Non-Combustible Containers: 1,316

Unconfined Residential Structure Fires: 205

5 Civilian Deaths 17 Civilian Injuries 81 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	730	48%
1- & 2-Family homes	688	45%
Dormitories	42	3%
Rooming houses	24	2%
Residential board & care	14	1%

Detector Status	**Fires**	**%**
Operated	964	63%
Didn't operate	15	1%
None	23	2%
Fire too small	31	2%
Didn’t alert (confined)	212	14%
Undetermined	276	18%

Area of Origin[7]	**%**
Kitchen	72%
Heating equipment room	12%
Chimney or flue	5%
Bedroom	2%
Living room	1%

Heat Source	**%**	**%Unconfined**[8]
Arcing	2%	13%
Radiated heat from oper. eq.	2%	11%
Hot or smoldering object	1%	10%
Heat from operating equip.	1%	10%
Hot ember or ash	1%	9%

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

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

Item First Ignited[9]	**%**
Food, cooking materials	70%
Flammable/comb. liquid	11%
Film, residue (creosote)	5%
Rubbish, trash, waste	1%
Structural member, framing	1%
Electrical wire, cable insulation	1%

Factor Contrib. to Ignit.	**%**	**%Unconfined[10]**
Abandoned materials	1%	10%
Too close to combustibles	1%	8%
Equipment unattended	1%	7%
Misuse of materials or prod.	1%	6%
Electrical failure, malfunc.	1%	6%

Equipment[11]	**%**
Kitchen & cooking equipment	70%
None	11%
Boiler, furnace, cent. heat. unit	11%
Chimney, flue	5%

Cause of Ignition	**%**	**%Unconfined[12]**
Unintentional	8%	63%
Failure of eq. or heat source	2%	11%
Intentional	0.4%	3%
Act of nature	0.5%	3%
Cause under investigation	1%	8%
Undetermined	1%	7%

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

Alerted occupants	67%
Didn't alert occupants	16%
Undetermined	17%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	220	162	22	36
February	194	149	14	31
March	274	181	16	77
April	440	169	31	240
May	322	154	27	141
June	245	127	28	90
July	241	110	33	98
August	201	123	23	55
September	201	133	23	45
October	236	154	27	55
November	253	177	18	58
December	240	191	28	21

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	462	290	32	140
Monday	390	237	44	109
Tuesday	416	245	44	127
Wednesday	430	275	39	116
Thursday	473	250	41	182
Friday	447	273	51	123
Saturday	449	260	39	150

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	165	96	23	46
04:01 - 08:00	185	118	26	41
08:01 - 12:00	504	321	56	127
12:01 - 16:00	827	423	71	329
16:01 - 20:00	971	620	71	280
20:01 - 00:00	419	252	43	124

Motor Vehicle Fires
Total: 290
Automobiles: 247 (85%)
5, or (2%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 86 **Dollar loss: $855,325**

0.13 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	17	1%	20%	$843,100
Vehicle Arsons	6	2%	7%	12,000
Other Arsons	63	7%	73%	225

0.03 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.10 Other arsons/1,000 population

No Injuries

Peak Times of Day for

Structure Arsons	#	%
12:01 - 16:00	6	35%
04:01 - 08:00	3	18%
16:01 - 20:00	3	18%

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

Other Arsons	#	%
16:01 - 20:00	20	32%
12:01 - 16:00	17	27%
20:01 - 00:00	15	24%

Peak Fixed Property Uses for Structure Arsons	#	%
Jail, prison (not juvenile)[13]	4	24%
1- and 2-Family homes	4	24%

[13] All 4 occurred at MCI-Cedar Junction in Walpole or MCI-Norfolk.

Avon **Population: 4,443**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	47	8	21	18	2	0	0	2
2005	48	11	13	24	5	0	2	3
2006	28	10	7	11	1	1	0	0
2007	58	10	14	34	1	0	1	0
2008	55	17	14	24	0	0	0	0

Bellingham **Population: 15,314**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	51	19	6	26	1	0	1	0
2005	82	38	10	34	0	0	0	0
2006	80	43	12	25	3	3	0	0
2007	83	33	12	38	0	0	0	0
2008	55	33	7	15	3	2	0	1

Braintree **Population: 33,828**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	122	20	23	79	5	0	0	5
2005	141	26	31	84	11	0	3	8
2006	101	21	28	52	7	1	2	4
2007	143	31	23	89	8	0	0	8
2008	100	18	21	61	5	0	0	5

Brookline **Population: 57,107**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	18	13	4	1	0	0	0	0
2005	42	32	10	0	3	2	1	0
2006	37	27	6	4	1	1	0	0
2007	29	27	1	1	0	0	0	0
2008[14]	372	322	11	39	1	0	1	0

[14] In 2008 Brookline aoutomated its fire incident reporting and began reporting all incidents toMFIRS, not just the mandated fires and explosions that resulted in a dollar loss or human casualty.

Canton **Population: 20,775**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	54	22	25	7	2	0	0	2
2005	52	30	18	4	1	1	0	0
2006	44	23	10	11	3	2	1	0
2007	39	18	10	11	1	1	0	0
2008	45	21	15	9	1	0	0	1

Cohasset **Population: 7,261**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	2	0	1	0	0	0	0
2005	27	13	1	13	1	0	0	1
2006	34	13	2	19	0	0	0	0
2007	68	24	2	42	2	0	0	2
2008	37	12	3	22	4	0	0	4

Dedham **Population: 23,464**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	1	2	0	0	0	0	0
2005	3	3	0	0	0	0	0	0
2006	5	5	0	0	0	0	0	0
2007	8	7	0	1	0	0	0	0
2008	17	14	3	0	0	0	0	0

Dover **Population: 5,558**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	2	1	1	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	4	4	0	0	0	0	0	0
2007	4	4	0	0	0	0	0	0
2008	2	2	0	0	0	0	0	0

Foxborough **Population: 16,246**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	56	22	18	16	1	0	0	1
2005	47	18	14	15	1	0	0	1
2006	79	34	19	26	2	1	0	1
2007	56	16	11	29	3	0	1	2
2008	50	16	13	21	3	1	1	1

Franklin **Population: 29,560**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	14	14	0	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	18	18	0	0	1	1	0	0
2007	89	24	6	59	0	0	0	0
2008	64	22	9	33	2	2	0	0

Holbrook **Population: 10,785**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	54	33	5	16	1	0	1	0
2005	45	17	5	23	1	0	0	1
2006	61	35	1	25	3	2	0	1
2007	94	28	4	62	5	1	1	3
2008	46	23	3	20	0	0	0	0

Medfield **Population: 12,273**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	36	16	2	18	7	0	0	7
2005	48	21	0	27	3	0	0	3
2006	34	10	2	22	5	0	1	4
2007	45	20	4	21	10	0	1	9
2008	31	13	3	15	13	0	2	11

Medway **Population: 12,448**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	9	1	0	0	0	0	0
2005	21	9	0	12	0	0	0	0
2006	7	4	3	0	0	0	0	0
2007	9	6	1	2	0	0	0	0
2008	1	0	0	1	0	0	0	0

Millis **Population: 7,902**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	5	4	1	0	0	0	0	0
2005	7	4	3	0	0	0	0	0
2006	4	3	1	0	0	0	0	0
2007	2	1	0	1	0	0	0	0
2008	1	1	0	0	0	0	0	0

Milton **Population: 26,062**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	204	137	18	49	6	1	0	5
2005	209	148	19	42	11	1	2	8
2006	183	103	17	63	11	0	0	11
2007	225	137	16	72	13	0	0	13
2008	187	129	15	43	5	0	0	5

Needham **Population: 28,911**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	67	20	14	33	4	0	0	4
2005	74	40	14	20	1	0	1	0
2006	74	41	8	25	3	0	0	3
2007	82	36	11	35	5	1	0	4
2008	78	35	14	29	6	0	0	6

Norfolk **Population: 10,460**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	54	34	3	17	2	1	0	1
2005	44	31	6	7	1	0	0	1
2006	46	28	2	16	4	1	0	3
2007	51	39	2	10	0	0	0	0
2008	57	43	3	11	3	3	0	0

Norwood **Population: 28,587**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	87	37	14	36	3	0	2	1
2005	110	40	23	47	4	0	2	2
2006	124	43	16	65	4	0	0	4
2007	142	48	16	78	3	0	0	3
2008	91	34	9	48	0	0	0	0

Plainville **Population: 7,683**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	146	17	3	126	0	0	0	0
2005	80	5	4	71	1	0	0	1
2006	61	11	3	47	0	0	0	0
2007	51	19	4	28	2	1	0	1
2008	36	17	4	15	5	1	0	4

Quincy **Population: 88,025**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	669	387	56	226	26	5	2	19
2005	663	355	59	249	17	2	1	14
2006	670	367	54	249	1	0	0	1
2007	861	293	51	517	15	1	0	14
2008	532	282	45	205	15	2	0	13

Randolph **Population: 30,963**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	76	36	26	16	2	1	0	1
2005	107	51	17	39	6	1	3	2
2006	215	135	18	62	2	1	1	0
2007	249	140	24	85	1	1	0	0
2008	214	141	17	56	0	0	0	0

Sharon **Population: 17,408**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	69	31	15	23	3	0	0	3
2005	53	27	9	17	3	1	0	2
2006	53	25	8	20	4	0	0	4
2007	61	31	8	22	1	0	0	1
2008	51	22	11	18	0	0	0	0

Stoughton **Population: 27,149**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	253	191	15	47	5	2	0	3
2005	273	206	25	42	7	1	0	6
2006	292	239	14	39	3	0	0	3
2007	287	230	18	39	4	2	1	1
2008	266	219	24	23	4	0	2	2

Walpole **Population: 22,824**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	101	60	6	35	11	11	0	0
2005	99	56	8	35	8	8	0	0
2006	103	64	8	31	8	6	0	2
2007[15]	134	82	8	44	10	9	0	1
2008	105	69	8	28	7	4	0	3

[15] 7 of the 10 arsons occurred at MCI – Cedar Junction maximum security state penitentiary.

Wellesley **Population: 26,613**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	128	93	11	24	0	0	0	0
2005	110	93	7	10	1	1	0	0
2006	108	77	5	26	0	0	0	0
2007	135	90	13	32	2	1	0	1
2008	94	75	6	13	1	1	0	0

Westwood **Population: 14,117**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	65	42	4	19	5	0	0	5
2005	75	54	7	14	1	1	0	0
2006	62	38	5	19	6	1	1	4
2007	133	70	10	53	2	0	0	2
2008	110	56	9	45	2	1	0	1

Weymouth **Population: 53,988**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	432	243	33	156	22	4	2	16
2005	379	215	32	132	9	1	1	7
2006	341	209	28	104	16	3	1	12
2007	470	209	31	230	11	3	0	8
2008	307	188	17	102	6	0	0	6

Wrentham **Population: 10,554**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	99	9	8	82	4	0	0	4
2005	158	15	10	133	4	0	1	3
2006	142	10	3	129	1	0	0	1
2007	142	14	8	120	1	0	0	1
2008	63	6	6	51	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
21018	Avon	1,502	72	0	885	55	172	138	177	1	2
21025	Bellingham	1,601	55	3	1,187	54	100	68	127	5	2
21040	Braintree	5,146	101	31	2,845	359	591	324	851	3	41
21046	Brookline	6,757	372	7	3,512	399	630	486	1,348	2	1
21050	Canton	55	46	1	0	7	0	0	1	0	0
21065	Cohasset	2,383	43	6	971	173	729	102	255	2	102
21073	Dedham	24	17	0	2	5	0	0	0	0	0
21078	Dover	5	2	0	0	0	1	0	0	2	0
21099	Foxborough	569	62	3	32	101	73	33	262	1	2
21101	Franklin	3,320	76	1	2,313	98	196	231	401	1	3
21133	Holbrook	2,761	50	2	1,370	129	690	280	237	2	1
21175	Medfield	1,030	35	0	536	91	176	22	160	4	6
21177	Medway	1	1	0	0	0	0	0	0	0	0
21187	Millis	3	1	0	0	2	0	0	0	0	0
21189	Milton	3,749	194	6	1,773	224	446	138	542	4	422

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
21199	Needham	3,430	78	5	1,805	227	567	224	523	0	1
21208	Norfolk	1,489	74	0	813	279	72	14	237	0	0
21220	Norwood	5,370	94	5	3,596	303	476	166	722	1	7
21238	Plainville	1,644	41	0	1,021	93	161	69	253	2	4
21243	Quincy	8,819	533	10	4,814	538	665	456	1,794	1	8
21244	Randolph	4,915	220	2	3,040	484	408	208	543	8	2
21266	Sharon	2,021	68	1	1,143	149	205	225	224	3	3
21285	Stoughton	5,323	285	2	3,064	214	564	354	691	3	146
21307	Walpole	3,034	119	0	2,046	192	204	149	312	6	6
21317	Wellesley	4,089	94	4	1,771	311	676	207	1,017	3	6
21335	Westwood	2,799	135	1	1,685	205	258	144	367	2	2
21336	Weymouth	6,963	308	0	4,737	390	356	451	712	1	8
21350	Wrentham	1,914	67	3	1,253	107	255	53	172	0	4
	Norfolk County	80,716	3,243	93	46,214	5,189	8,671	4,542	11,928	57	779

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.

Quincy Fires in 2008

532 Total Fires — 282 Structures, 45 Vehicles & 205 Other Fires
The Quincy Fire Department reported 532 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 282 structure fires, 45 motor vehicle fires, 128 brush fires, 60 outside rubbish fires, 13 special outside fires, two cultivated crop or vegetation fires and four unclassified fires caused three civilian injuries, 22 fire service injuries and an estimated dollar loss of $525,000.

All Fires Down
Total fires decreased by 329 from the 861 incidents reported in 2007. Reported structure fires decreased by 11 from the 293 reported during the previous year. Motor vehicle fires decreased by six from 51 the year before. Outside and other fires decreased by 312 from the 517 fires reported in 2007.

QUINCY FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	669	387	56	226	26	5	2	19
2005	662	354	59	249	17	2	1	14
2006	670	367	54	249	1	0	0	1
2007	861	293	51	517	15	1	0	14
2008	532	282	45	205	15	2	0	13

Brush Fires Fall Dramatically
Quincy had a large decrease in brush fires in 2008. Brush fires decreased by 252, or 66%, from the 380 reported in 2007. This was a return towards the average amount of brush fires that Quincy has reported over the past 10 years, 171 brush fires. 2007 was an unusually bad year for brush fires in Quincy. It was the third highest number of brush fires in the last 20 years only being eclipsed in 1990 with 409 and 381 in 1991.

BUILDING FIRES

There were 279 building fires of different types in Quincy in 2008. These 279 building fires accounted for 98.9% of all structure fires in Quincy.

87% of Building Fires in Homes
The 279 building fires that occurred in Quincy in 2008 can be broken down by fixed property use as follows: 242, or 87% of all structure fires, were in residential properties; 12 fires took place in mercantile or business properties; seven fires occurred in institutional properties; six fires occurred in public assembly properties; another six fires happened in educational facilities; two fires happened in storage facilities; two fires occurred in manufacturing or processing facilities; and two fires occurred in special properties.

RESIDENTIAL FIRES

Residential Building Fires Down

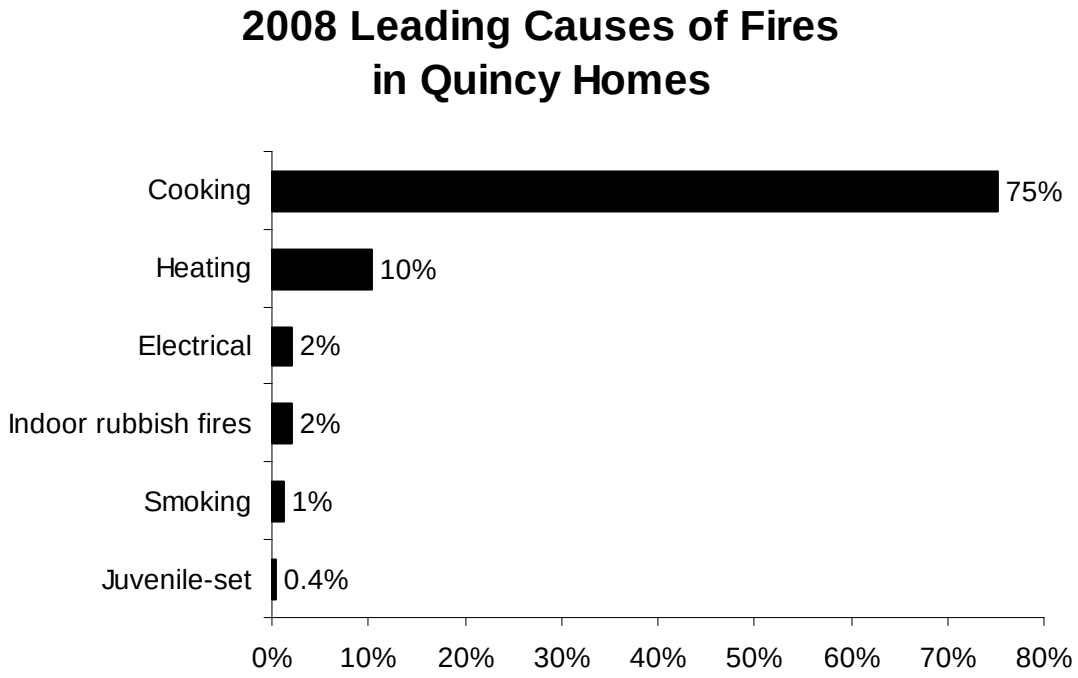
There were 242 reported residential building fires in Quincy in 2008. These 242 fires are a decrease of 10, or 4%, from the 252 residential building fires reported in 2007.

Apartments Accounted for 65% of Residential building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 65% of the building fires in Quincy; 28% occurred in 1- or 2-family homes; 5% occurred in rooming houses; 1% occurred in residential board and care facilities; 1% occurred in dormitories; and 1% also occurred in hotels or motels.

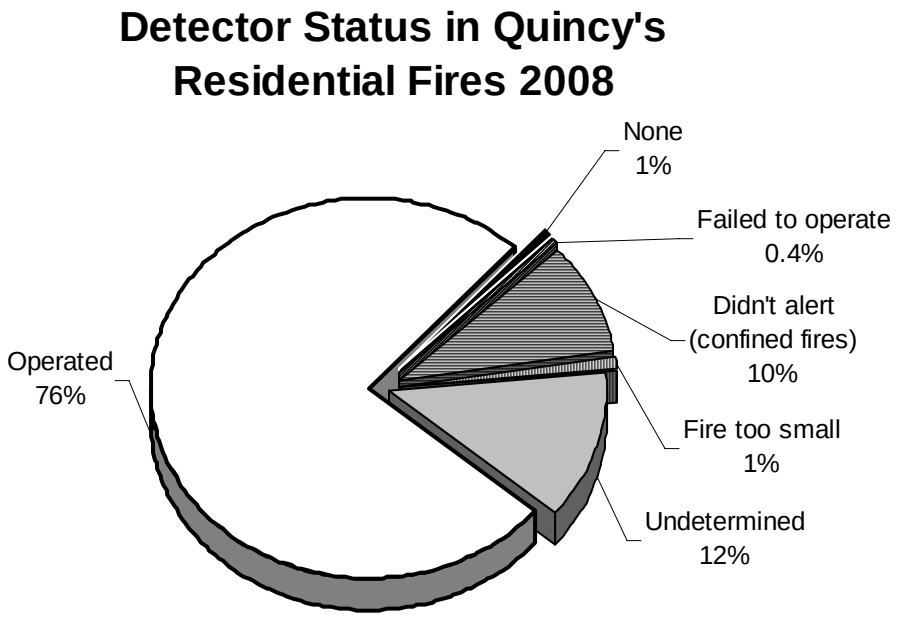
Unattended Cooking Leading Caused 3/4 Residential Fires

The leading cause of residential building fires in Quincy was unattended cooking and other unsafe cooking practices, accounting for 75% of these fires. Heating caused 10% of fires in people's homes. Electrical problems and indoor rubbish fires each caused 2% of these fires. Smoking started 1% and juvenile-set fires were responsible for less than 1% of Quincy's residential building fires in 2008.



86% of Residential Building Fires Confined to Non-Combustible Containers[1]
Two hundred and eight (208), or 86% of all residential building fires were confined to non-combustible containers in 2008. One hundred and seventy-nine (179), or 74%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Nineteen (19), or 8%, were fires confined to a fuel burner or boiler malfunction. Six (6) of the reported fires were confined to a chimney accounting for 2% of these fires. Four (4), or 2%, of these fires were rubbish fires contained to a non-combustible container in Quincy in 2008.

Detectors Alerted Occupants in Over 3/4 of Fires
Smoke or heat detectors operated and alerted the occupants in 183, or 76%, of the residential building fires. In 10% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in less than 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 1% of the residential fires. Smoke detector performance was undetermined in 30 incidents, or 12% of Quincy's residential building fires.



1 Detector Failed
There was one incident where the detectors were reported to have failed to operate. It was undetermined why it failed.

[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

4 Building Fires Occurred in Vacant Buildings

Quincy reported four fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 1% of the total 279 building fires reported to MFIRS in 2008. Two (2) one- or two-family homes, a nursing home, a high, junior high or middle school, and a shed were reported as vacant building fire incidents.

JUVENILE-SET FIRES

4 Juvenile-set Fires

There were four juvenile-set fires in Quincy in 2008. The two structure fires, one brush fire and one unclassified fire caused one fire service injury.

ARSONS

15 Total Arson[4] — 2 Structure Arsons & 13 Special Outside Arsons

Fifteen (15), or 3%, of Quincy's 532 fires were considered intentionally set, or, for purposes of this analysis, arson. There were two structure arsons and 13 outside and other intentionally set fires.

All Arsons Remains the Same

The total number of arsons remained the same with 15 incidents reported in both 2007. and 2008. Reported structure arsons increased by one from one reported the year before. For the third year in a row, there were no reported motor vehicle arsons. Outside and other arsons decreased by one from the 13 reported outside and other arsons last year.

ALL INCIDENTS

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

In 2008, Quincy voluntarily reported 8,819 incidents to MFIRS. Of these 8,819 incidents, 8,286, or 94%, were non-fire incidents.

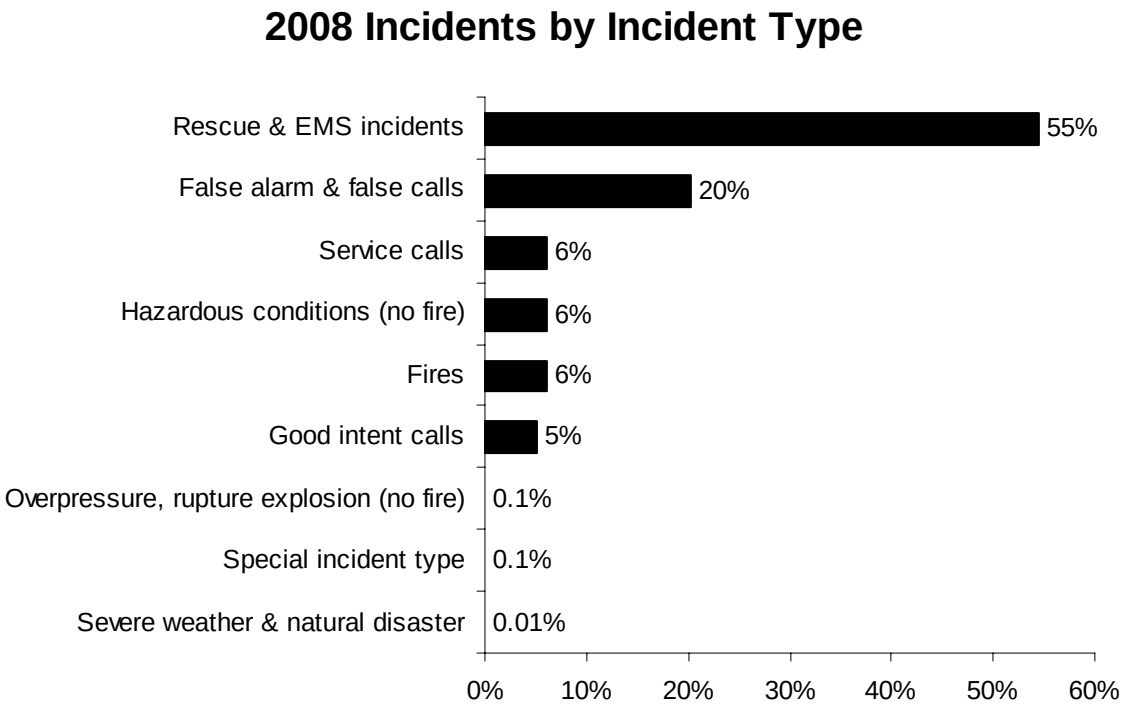
Of these 8,286 non-fire incidents 4,814, or 55% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 1,794, or 20%, were reported false alarm or false calls; 665, or 6%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 538, or

[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

6%, were reported hazardous condition calls with no fire; 456, or 5%, were reported good intent calls; 10, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; eight, or 0.1%, were special incident type calls such as citizen complaints; and one, or 0.01%, was a severe weather or natural disaster call.

In 2008, Quincy reported 533 fires[5], accounting for 6% of all reported incidents.



Quincy Gave Mutual Aid in 11 Reported Incidents
In 2008, Quincy reported coming to the aid of other fire departments 11 times. Of these 11 incidents, eight, or 73%, were for cover assignments (service calls); one, or 9% was for a fire; one, or 9%, was a rescue or EMS call; and one, or 9% was for a special incident type.

Quincy Received Mutual Aid in 3 Incidents
In 2008, surrounding fire departments gave aid to Quincy in three incidents. Two (2), or 67%, were rescue or EMS calls; and one, or 33%, was a fire.

[5] This figure includes the fires that Quincy gave mutual aid to other towns outside their jurisdiction.

Quincy Population: 88,025

6.0 Fires/1,000 Population

Total Fires:	**532**		**$525,000**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	282	53%	$525,000
Vehicle Fires	45	8%	0
Other Fires	205	39%	0

No Deaths
3 Civilian Injuries 22 Fire Service Injuries

Building Fires: 279

Residential Building Fires: 242

Residential Building Fires Confined to Non-Combustible Containers: 208

Unconfined Residential Building Fires: 34

2 Civilian Injuries 13 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	157	56%
1- & 2-Family homes	68	28%
Boarding house	11	5%
Residential board & care	2	1%
Dormitories	2	1%

Detector Status	**Fires**	**%**
Operated	183	76%
Didn't operate	1	0.4%
None	2	1%
Fire too small	2	1%
Didn't Alert (confined)	23	10%
Undetermined	30	12%

Area of Origin[6]	**%**
Kitchen	76%
Heating room or area	8%
Chimney or flue	2%
Bedroom	2%
Substructure area, crawl space	2%
Storage area, other	1%

Heat Source	**%**	**%Unconfined**[7]
Hot or smoldering object	2%	15%
Arcing	2%	15%
Spon. comb/chem. reaction	1%	6%
Lighter	1%	6%
Hot ember or ash	1%	6%
Rad., conducted heat op. eq.	1%	6%

[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 Ignited[8]	**%**
Cooking materials	75%
Flammable/combustible liquid	8%
Film, residue (creosote)	2%
Rubbish, trash, waste	2%
Structural member, framing	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Improper contain. or storage	2%	12%
Abandoned materials	1%	9%
Equipment unattneded	1%	9%
Misuse of material/products	1%	6%
Electrical failure, malfunc.	1%	6%

Equipment[10]	**%**
Cooking equipment[12]	74%
None	14%
Boiler, furnace, cent. heat unit	8%
Chimney or flue	2%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	7%	50%
Failure of eq. or heat source	3%	21%
Cause under investigation	1%	9%
Act of nature	0.4%	1%
Intentional[13]	0.4%	1%

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

Alerted Occupants	80%
Didn't Alert Occupants	11%
Undetermined	9%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	4,814	55%
False alarms & false calls	1,794	20%
Service calls	665	6%
Hazardous conditions (no fire)	538	6%
Fires[14]	533	6%
Good intent calls	456	5%
Overpressure rupture, explosion or overheat calls (no fire)	10	0.1%
Special incident type	8	0.1%
Severe weather & natural disaster	1	0.01%

[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.
[12] All of the equipment involved is derived from the confined fires. Quincy did not report any equipment involved in ignition in any of its non-confined fires.
[13] This was a 9-year old child playing with a lighter, i.e. a juvenile-set fire, not an arson.
[14] This figure includes the mutual aid fires that Quincy went out of their jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	47	35	3	9
February	32	23	3	6
March	38	22	3	13
April	87	24	6	57
May	46	19	2	25
June	40	20	4	16
July	46	19	11	16
August	32	17	3	12
September	43	22	3	18
October	32	21	1	10
November	48	31	3	14
December	41	29	3	9

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	81	43	5	33
Monday	76	42	12	22
Tuesday	60	34	7	19
Wednesday	63	31	6	26
Thursday	101	50	5	46
Friday	85	44	5	36
Saturday	66	38	5	23

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	39	14	7	18
04:01 - 08:00	32	18	1	13
08:01 - 12:00	89	53	11	25
12:01 - 16:00	135	66	8	61
16:01 - 20:00	151	89	12	50
20:01 - 00:00	86	42	6	38

Motor Vehicle Fires

Total: 45
Automobiles: 37 (82%)
None of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 15 **Dollar loss: $0**

0.17 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	2	1%	13%	$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	13	6%	87%	0

0.02 Structure arsons/1,000 population
0.00 Vehicle arsons/1,000 population
0.15 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
12:01 - 16:00	2	100%

Other Arsons	#	%
16:01 - 20:00	6	46%
00:01 - 04:00	2	15%
20:01 - 00:00	2	15%

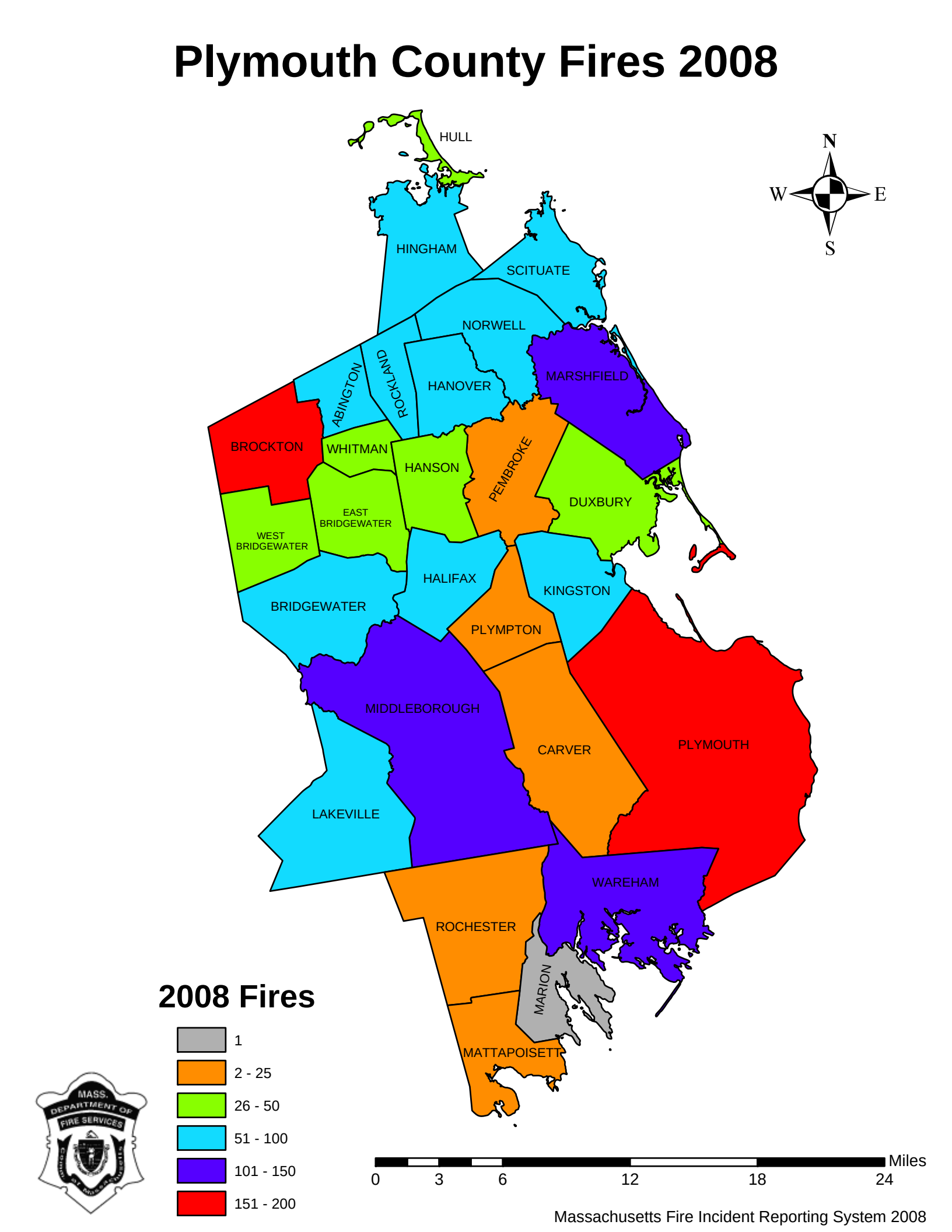
Peak Fixed Property Uses for Structure Arsons	#	%
High/junior high/middle school	1	50%
Outbuilding or shed	1	50%

Plymouth County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Plymouth County Fires 2008



Massachusetts Fire Incident Reporting System 2008

Plymouth County Fires in 2008

1,773 Total Fires — 774 Structures, 232 Vehicles & 767 Other Fires
Plymouth County ranked eighth out of the fourteen Massachusetts counties in total reported fires. Plymouth County fire departments reported 1,773 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 774 structure fires, 232 motor vehicle fires, 467 brush, tree or lawn fires, 142 outside rubbish fires, 88 special outside fires, four cultivated vegetation or crop fire and 66 other fires caused five civilian deaths, 28 civilian injuries, 48 fire service injuries and an estimated dollar loss of $17.4 million. Plymouth County's fires accounted for 6% of the 30,136 Massachusetts fires reported in 2008.

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 2008.

All Fires Down
The total number of reported fire incidents decreased by 237, from the 2,010 reported in 2007. Reported structure fires decreased by 110, from 884 the year before. Motor vehicle fires decreased by 36 from 268 the previous year. Reported outside and other fires decreased by 91 from 858 in 2007.

PLYMOUTH COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1,676	723	290	663	107	27	8	72
2005	1,682	694	285	703	103	17	17	69
2006	1,929	733	238	958	114	22	5	87
2007	2,010	884	268	858	91	28	12	51
2008	1,773	774	232	767	99	34	9	56

Fire and Fire Death Rates
Plymouth County had 3.7 fires per 1,000 population. That figure ranks Plymouth County tenth in the state and below the state rate of 4.8 fires per 1,000 population. Plymouth 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.

5 Plymouth County Fatal Fires Killed 5 Residents in 2008
- On January 23, 2008, at 4:22 p.m. the Rockland Fire Department was called to a fatal arson fire in a single-family home. The 42-year old woman successfully committed self-immolation. The victim placed a 20 pound LP-gas tank in the kitchen and started the fire. She then went upstairs to her bedroom. Three firefighters were injured at this fire. Smoke detectors were present and operated. Sprinklers were not present. Damages from this fire were estimated to be $50,000.

- On February 3, 2008 at 12:47 p.m., the Mattapoisett Fire Department was called to a fatal electrical fire in a single-family home. The fire was caused by an electrical failure in the wiring. The victim, a 71-year old man, was trapped by the fire. One firefighter was injured at this fire. It was undetermined if smoke detectors were present. Sprinklers were not present. Damages from this fire were estimated to be $500,000.

- On March 15, 2008, at 3:34 a.m., the Hanover Fire Department was called to a fatal car fire. The vehicle was first involved in a single car motor vehicle accident with the collision starting the fire. The 24-year old male driver was trapped in the vehicle and died from smoke inhalation and burns. No one else was injured in this fire.

- On November 18, 2008, at 1:47 a.m., the Plymouth Fire Department was called to a fatal single-car accident and ensuing fire. The 49-year old female driver was trapped in her car after the accident on Route 3. Her body was not found until the fire was out and firefighters were performing overhaul of the vehicle. She died from burns and smoke inhalation. No one else was injured in this fire.

- On December 17, 2008 at 2:26 p.m., the Scituate Fire Department was called to a successful attempt at self-immolation in a single-family home. The victim, a 45-year old man, removed the 'drip cap' on the natural gas line, and poured gasoline throughout the basement of his girlfriend's house and ignited it. He died in the resulting explosion that leveled the house and damaged seven neighboring homes. It was undetermined if detectors were present. One firefighter was injured at this fire. Damages from this fire were estimated to be $450,000.

Brockton Has Plymouth County's Largest Loss Fires in 2008

- On April 8, 2008, at 6:27 a.m., the Brockton Fire Department responded to an electrical fire in a business office. The fire was started by the malfunction of an old electrical meter. Seven firefighters were injured battling this fire. Detectors were not present; and the building was not sprinklered. Damages from this fire were estimated to be $1.8 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 774 structure fires caused three civilian deaths, 16 civilian injuries, 44 fire service injuries and an estimated dollar loss of $16.3 million. These incidents represented 44% of Plymouth County's reported fires in 2008. The average estimated dollar loss per structure fire was $21,087. The total number of reported structure fires decreased by 110, or 12%, from the 884 reported in 2007.

Arson Caused of 4% of Structure Fires

The 34 structure arsons caused two civilian deaths, five fire service injuries and an estimated dollar loss of $1.2 million. Arson was indicated as the cause of 4% of the structure fires and 7% of Plymouth County's structure fire dollar loss. The 34 structure

arsons accounted for 34% of the Plymouth County arson fires reported in 2008. The total number of reported structure arsons increased by six, or 21%, from 28 in 2007.

Over 2/3 of Structure Arsons Occurred in Residences
Sixty-eight percent (68%) of Plymouth County's 34 structure arsons occurred in residential occupancies; 12% occurred each in storage facilities and special properties; and 3% each occurred in public assembly properties, educational facilities and institutional facilities.

BUILDING FIRES

There were 753 building fires of different types in Plymouth County in 2008. These 753 building fires accounted for 97.3% of all building fires in Plymouth County.

78% of Plymouth Building Fires Occurred in People's Homes
Five hundred and eighty-nine (589), or 78%, of Plymouth County's 589 building fires occurred in residential occupancies. Forty-one (41) building fires in Plymouth County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Mercantile and business properties had 38 fires. Twenty-seven (27) fires took place in public assembly properties, including restaurants and churches. Twenty (20) fires took place in storage facilities. Thirteen (13) building fires took place in educational facilities. Hospitals, prisons, and other institutional buildings experienced 12 fires. Nine (9) fires took place in manufacturing and processing facilities. Four (4) fires occurred in industrial, utility, defense, agricultural or mining facilities in Plymouth County in 2008.

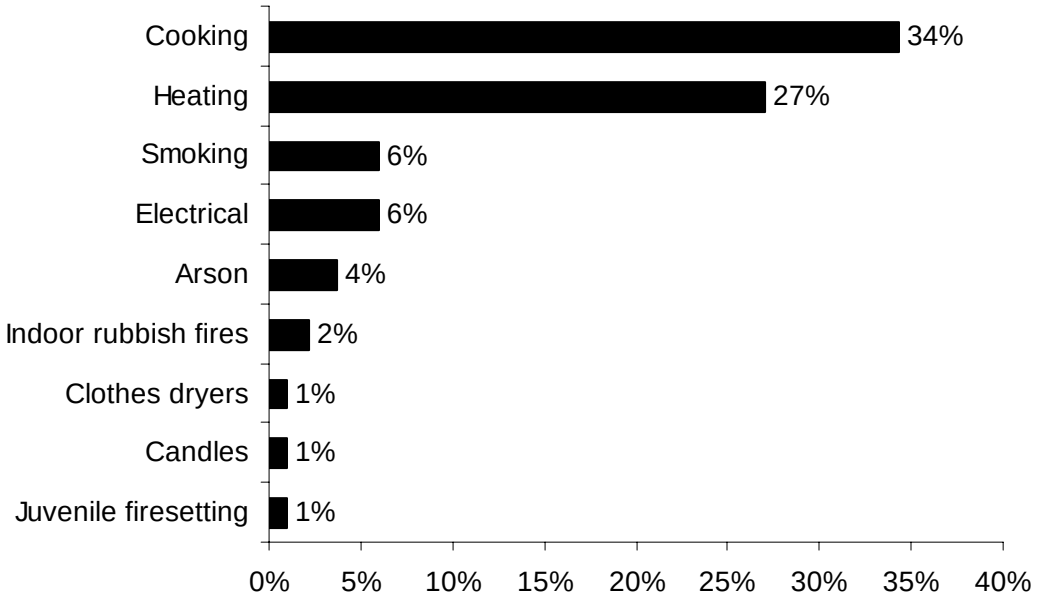
RESIDENTIAL FIRES

Residential Building Fires Up 26%
There were 589 reported residential building fires in Plymouth County in 2008. These 589 fires are a decrease of 110, or 66%, from the 699 residential building fires reported in 2007.

1- & 2-Family Homes Accounted for 70% of Residential Building Fires
The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 70% of the residential building fires in Plymouth County; 24% occurred in apartments. Two percent (2%) occurred in rooming houses, and 1% occurred each in hotels or motels and residential board and care facilities. Less than 1% occurred in barracks or dormitories. Thirteen (13), or 2% of the residential building fires in Plymouth County occurred in unclassified residential buildings.

Cooking & Heating Leading Causes of Residential Fires
The leading cause of the 589 residential building fires in Plymouth County was unattended cooking and other unsafe cooking practices, accounting for 34% of these fires. Heating problems caused 27% of the fires in people's homes. Smoking and electrical problems each caused 6% of these fires. Arson caused 4% of residential fires. Indoor rubbish fires caused 2% of these fires. Clothes dryers, candles and juvenile-set fires each caused 1% of the residential fires in Plymouth County in 2008.

2008 Leading Causes of Fires in Plymouth County Homes



56% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Three hundred and thirty-six (336), or 57% of all residential building fires, were reported as confined to non-combustible containers in 2008. One hundred and seventy- nine (179) of the reported fires were cooking fires contained to a non-combustible container accounting for 30% of residential building fires. Eighty-one (81), or 14%, of all residential building fires reported in 2008 were fires confined to a chimney. Sixty-three (63), or 11%, were fires confined to a fuel burner or boiler malfunction. Thirteen (13), or 2%, of these fires were contained rubbish fires.

Detectors Alerted Occupants in 42% of Fires
Smoke or heat detectors operated and alerted the occupants in 243, or 42%, of the residential building fires. In 17% of these fires[2], 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 6% of the residential fires. Smoke detector performance was undetermined in 146 incidents, or 25% of Plymouth County's residential building fires.

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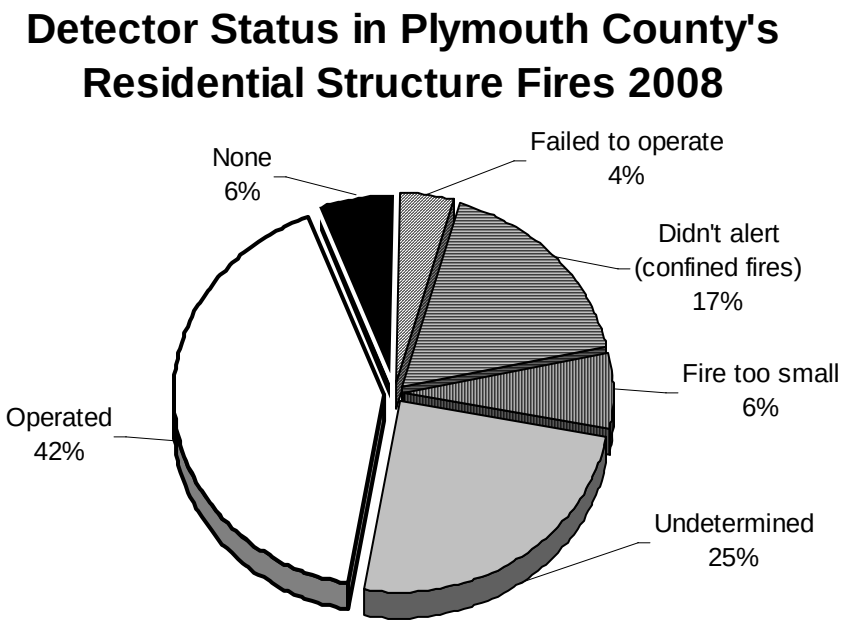
[1] In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing 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.



Almost 1/2 of Failed Detectors Had Missing or Disconnected Batteries
Of the 25 fires where smoke detectors were present but failed to operate, 12, or 48%, failed because the batteries were either missing or disconnected. Three (3), or 12%, did not operate because of dead batteries. Two (2), or 8%, failed because of a power failure, shutoff or disconnect. One (1) detector, or 4%, failed from a lack of maintenance or cleaning. It was undetermined or unclassified in seven cases, or 28%, why the detectors failed to operate.

VACANT BUILDINGS

4% of Building Fires Occurred in Vacant Buildings
Plymouth County reported 31 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 4% of the total 753 building fires reported to MFIRS in 2008. Twenty (20) fires occurred in vacant residential properties. Eight (8) vacant building fires occurred in storage facilities. Three (3) of these fires happened at mercantile and business properties.

Seven (7), or 22%, of the vacant building fires in Plymouth County in 2008 were determined to be intentionally set. Three (3) of these fires occurred in single-family homes. One (1) each happened in an apartment building, an unclassified residence, a shed, and a detached residential parking garage.

[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

JUVENILE-SET FIRES

14 Juvenile-set Fires

There were 14 reported juvenile-set fires in Plymouth County in 2008. The three structure fires, five brush fires, four special outside fire, and two unclassified fires caused one civilian injury and $23,030 in estimated damages.

ARSONS

99 Total Arsons — 34 Structures, 9 Vehicles & 56 Other Arsons

Ninety-nine (99), or 6%, of Plymouth County's 1,773 fires were considered intentionally set, or, for purposes of this analysis, arson[4]. The 34 structure arsons, nine motor vehicle arsons and 56 outside and other arsons caused two civilian deaths, one civilian injury, five fire service injuries and an estimated dollar loss of $1.3 million.

Structure & Outside & Other Arson Up

The total number of reported arson fires increased by eight from the 91 reported in 2007. Reported structure arsons increased by six from 28 the previous year. Motor vehicle arsons decreased three from 12 in 2007. Reported outside and other arsons increased by five from 51 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 59% of All Reported Responses

In 2008, Plymouth County fire departments reported 47,054 responses[5] to MFIRS. Of these 47,054 incidents, 45,174 non-fire calls were voluntarily reported.

Of these 45,174 non-fire calls 27,643, or 59% of the total responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 5,601, or 12%, were reported false alarm or false calls; 4,886, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,635, or 8%, were reported hazardous condition calls with no fire; 2,869, or 6%, were reported good intent calls; 301, or 1%, were special incident type calls such as citizen complaints; 145, or 0.3%, were severe weather responses; and 94, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand eight hundred and eighty (1,880), or 4%, of the total responses submitted by Plymouth County fire departments were fires.

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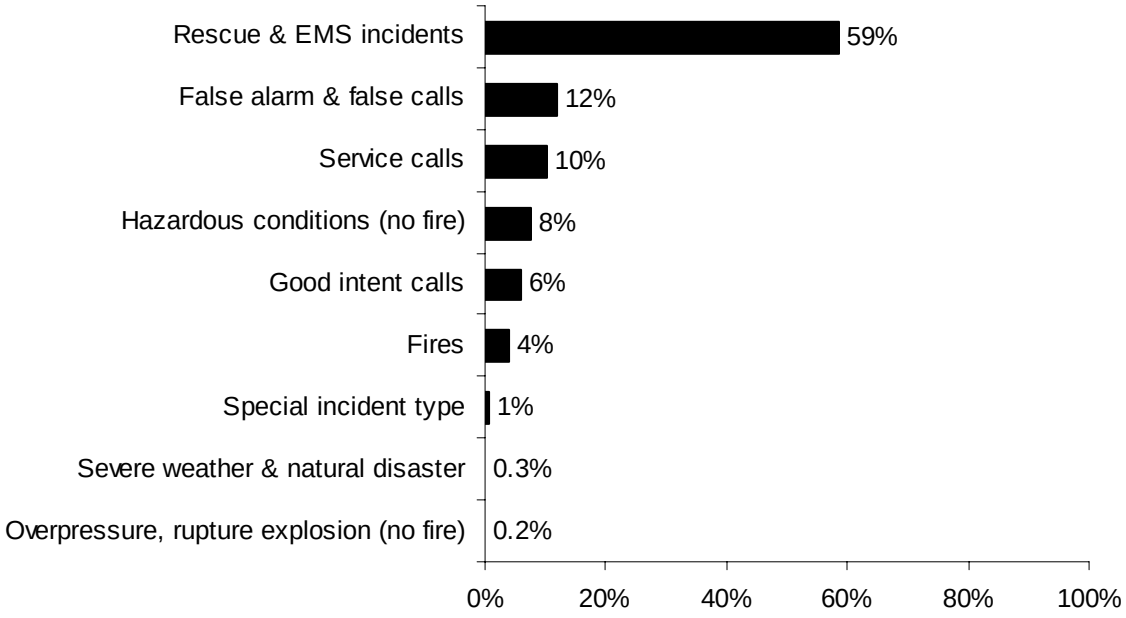
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

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

2008 Responses by Incident Type



Plymouth County Fire Departments Gave Mutual Aid 1,838 Times

In 2008, Plymouth County fire departments reported coming to the aid of other fire departments 1,838 times. Of these 1,838 responses, 1,346, or 73%, were for rescue or EMS calls; 234, or 13%, were for service calls such as cover assignments; 107, or 6%, were for fires; 97, or 5%, were for good intent calls; 29, or 2%, were for hazardous conditions calls with no fire; 15, or 1%, were for false alarms or false calls; five, or 0.3%, were for severe weather responses; four, or 0.2%, were special incident type calls; and one, or 0.1%, was a reported overpressure, rupture, explosion or overheat call with no fire.

Plymouth County Received Mutual Aid in 1,965 Incidents

In 2008, Plymouth County fire departments received aid from surrounding departments in 1,965 incidents. Of these 1,965incidents, 1,662, or 85%, were rescue and emergency medical services calls; 138, or 7%, were for fires; 78, or 4%, were hazardous conditions calls with no fire; 44, or 2%, were false alarms or false calls; 26, or 1%, were good intent calls; 15, or 1%, were service calls; and one each, or 0.1%, was for a reported overpressure, rupture, explosion or overheat call with no fire, one for a severe weather response and one for a special incident type call,

Plymouth County Population: 472,822

3.8 Fires/1,000 Population

Total Fires:	**1,773**		**$17,351,650**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	774	44%	$16,321,666
Vehicle Fires	232	13%	751,065
Other Fires	767	43%	278,919

5 Fatal Fires — 2.82 Civilian Deaths/1,000 Fires
5 Civilian Deaths — 0.11 Civilian Deaths/10,000 Population
28 Civilian Injuries — 48 Fire Service Injuries

Building Fires: 753

Residential Building Fires: 589

Residential Building Fires Confined to Non-Combustible Containers: 336

Unconfined Residential Building Fires: 253

3 Civilian Deaths 12 Civilian Injuries 28 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	414	70%
Apartments	141	24%
Rooming houses	9	2%
Hotels or motels	7	1%

Detector Status	**Fires**	**%**
Operated	243	42%
Didn't operate	25	4%
None	37	6%
Fire too small	38	6%
Didn't Alert (confined)	100	17%
Undetermined	146	25%

Area of Origin[6]	**%**
Kitchen	37%
Chimney or flue	14%
Heating room or area	12%
Bedroom	5%
Living room	4%

Heat Source	**%**	**%Unconfined**[7]
Radiated, cond./heat op. eq.	7%	17%
Arcing	6%	13%
Heat from operating eq.	5%	11%
Cigarette	3%	8%
Spark/ember/flame op. eq.	3%	7%

[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 Ignited[8]	**%**
Food, cooking materials	33%
Film, residue (creosote)	14%
Flammable or combust. liquid	11%
Electrical wire, cable insulation	5%
Structural member, framing	4%

Factor Contrib. to Ignit.	**%**	**%Unconfined**[9]
Abandoned materials	4%	9%
Too close to combustibles	4%	8%
Misuse of materials	2%	4%
Electrical failure, malfunc.	2%	4%
Failure to clean	1%	3%

Equipment[10]	**%**
Cooking equipment	33%
None	33%
Chimney or flue	14%
Boiler, furnace, cent. heat. unit	11%
Clothes dryer	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	23%	53%
Failure of eq. or heat source	10%	24%
Intentional	4%	9%
Act of Nature	1%	2%
Cause under investigation	3%	8%
Undetermined	2%	4%

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

Alerted Occupants	39%
Didn't Alert Occupants	30%
Undetermined	31%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	119	71	20	28
February	83	49	11	23
March	136	64	14	58
April	272	69	23	180
May	190	55	27	108
June	163	71	18	74
July	217	54	35	128
August	171	52	20	45
September	114	60	17	37
October	110	63	16	31
November	122	66	16	40
December	130	100	15	15

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	239	104	32	103
Monday	231	107	32	92
Tuesday	241	101	38	102
Wednesday	254	120	35	99
Thursday	291	113	36	142
Friday	257	115	34	108
Saturday	260	114	25	121

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	113	58	26	29
04:01 - 08:00	119	70	21	28
08:01 - 12:00	277	116	45	116
12:01 - 16:00	509	168	50	291
16:01 - 20:00	513	245	48	220
20:01 - 00:00	242	117	42	83

Motor Vehicle Fires

Total: 232
Automobiles: 188 (81%)
8, or (4%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 99 **Dollar loss: $1,275,930**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	34	4%	34%	$1,202,810
Vehicle Arsons	9	4%	9%	70,000
Other Arsons	56	7%	57%	3,120

0.07 Structure arsons/1,000 population
0.02 Vehicle arsons/1,000 population
0.12 Other arsons/1,000 population

2 Deaths 1 Civilian Injury 5 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 – 16:00	10	29%	20:01 – 00:00	3	33%
16:01 – 20:00	7	21%	00:01 – 04:00	2	22%
20:01 – 00:00	6	18%	08:01 – 12:00	2	22%

Other Arsons	#	%
16:01 – 20:00	21	38%
12:01 – 16:00	14	25%
20:01 – 00:00	13	23%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	17	50%
Apartments	5	15%
Outbuilding or shed	3	9%

Abington **Population: 14,605**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	102	56	14	32	3	2	0	1
2005	91	44	10	37	3	0	0	3
2006	100	64	8	28	2	0	0	2
2007	106	49	12	45	4	0	0	4
2008	82	42	6	34	4	0	0	4

Bridgewater **Population: 25,185**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	11	3	2	6	0	0	0	0
2005	2	0	1	1	0	0	0	0
2006[12]	347	29	15	303	2	1	0	1
2007	120	46	12	62	3	2	0	1
2008	95	26	22	47	2	1	1	0

Brockton **Population: 94,304**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	194	113	55	26	8	6	2	0
2005	182	108	58	16	10	4	4	2
2006	148	87	35	26	6	6	0	0
2007	311	211	59	41	18	13	4	1
2008	197	142	36	19	13	9	1	3

Carver **Population: 11,163**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	5	3	2	0	0	0	0	0
2005	6	4	2	0	0	0	0	0
2006	9	6	3	0	1	0	1	0
2007	11	4	7	0	0	0	0	0
2008	9	2	7	0	1	0	1	0

[12] In 2006, the Bridgewater Fire Department was able to begin reporting all of their incidents.

Duxbury **Population: 14,248**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	56	27	7	22	2	0	0	2
2005	40	21	5	14	0	0	0	0
2006	39	13	5	21	2	1	0	1
2007	61	25	10	26	0	0	0	0
2008	38	14	20	1	0	0	0	1

East Bridgewater **Population: 12,974**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	65	30	9	26	6	3	1	2
2005	64	33	8	23	0	0	0	0
2006	52	25	6	21	1	0	0	1
2007	61	33	5	23	1	1	0	0
2008	44	25	4	15	0	0	0	0

Halifax **Population: 7,500**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	6	1	1	0	0	0	0
2005	1	0	1	0	0	0	0	0
2006	5	5	0	0	0	0	0	0
2007	30	24	3	3	2	1	1	0
2008	65	29	3	33	6	2	0	4

Hanover **Population: 13,164**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	61	19	17	25	4	0	3	1
2005	56	21	14	21	2	0	0	2
2006	40	15	4	21	2	1	0	1
2007	91	18	11	62	1	0	1	0
2008	59	15	4	40	4	0	0	4

Hanson **Population: 9,495**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	25	10	4	11	4	1	0	3
2005	35	13	5	17	1	0	0	1
2006	1	0	0	1	0	0	0	0
2007	33	9	2	22	4	2	0	2
2008	38	12	1	25	2	1	0	1

Hingham **Population: 19,882**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	51	22	6	23	6	1	0	5
2005	64	31	13	20	1	0	0	1
2006	67	38	10	19	5	2	1	2
2007	120	69	6	45	1	0	0	1
2008	75	35	11	29	3	1	1	1

Hull **Population: 11,050**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	65	20	2	43	6	1	0	5
2005	53	27	6	20	0	0	0	0
2006	33	16	3	14	1	0	1	0
2007	33	20	2	11	2	0	2	0
2008	26	19	2	5	1	1	0	0

Kingston **Population: 11,780**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	67	26	9	32	13	1	0	12
2005	84	28	10	46	8	2	1	5
2006	88	26	14	48	13	1	0	12
2007	87	22	17	48	10	0	0	10
2008	62	23	10	29	4	1	2	1

Lakeville **Population: 9,821**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	40	12	6	22	2	1	1	0
2005	26	4	0	22	2	1	0	1
2006	45	11	2	32	3	0	1	2
2007	40	12	3	25	3	2	0	1
2008	52	6	6	40	0	0	0	0

Marion **Population: 5,123**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	5	1	0	0	0	0	0
2005	8	6	2	0	0	0	0	0
2006	5	2	3	0	1	1	0	0
2007	4	3	1	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

Marshfield **Population: 24,324**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	125	49	14	62	9	0	0	9
2005	139	54	9	76	9	0	0	9
2006	109	62	6	41	3	0	0	3
2007	135	57	6	72	12	1	0	11
2008	129	59	5	65	8	0	0	8

Mattapoisett **Population: 6,268**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	22	5	5	12	0	0	0	0
2005	27	6	4	17	1	0	0	1
2006	22	2	2	18	0	0	0	0
2007	14	4	3	7	0	0	0	0
2008	25	14	2	9	1	0	0	1

Middleborough **Population: 19,941**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	129	31	27	71	5	2	0	3
2005	111	27	27	57	8	2	4	2
2006	62	21	9	32	3	0	0	3
2007	95	40	15	40	7	0	4	3
2008	101	35	15	51	3	0	0	3

Norwell **Population: 9,765**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	62	27	10	25	7	0	1	6
2005	66	27	12	27	5	1	0	4
2006	71	33	7	31	11	1	0	10
2007	63	27	9	27	2	0	0	2
2008	54	20	8	26	4	1	0	3

Pembroke **Population: 16,927**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	24	16	8	0	0	0	0	0
2005	17	9	6	2	2	1	1	0
2006	22	13	6	3	0	0	0	0
2007	25	15	7	3	3	2	0	1
2008	22	15	5	2	0	0	0	0

Plymouth **Population: 51,701**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	190	66	35	89	8	4	0	4
2005	224	66	31	127	7	3	2	3
2006	200	60	41	99	14	2	0	12
2007	222	65	33	124	6	2	0	4
2008	200	68	29	103	12	5	0	7

Plympton **Population: 2,637**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	27	7	2	18	12	0	0	12
2005	6	2	0	4	1	0	0	1
2006	10	5	0	5	3	0	0	3
2007	18	5	3	10	3	0	0	3
2008	21	8	0	13	2	0	0	2

Rochester **Population: 4,581**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	6	2	2	0	0	0	0
2005	4	1	3	0	0	0	0	0
2006	4	3	0	1	0	0	0	0
2007	7	6	1	0	0	0	0	0
2008	12	9	3	0	1	0	1	0

Rockland **Population: 17,670**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	23	14	4	5	1	1	0	0
2005	11	9	1	1	0	0	0	0
2006	54	33	6	15	3	0	0	3
2007	18	14	1	3	0	0	0	0
2008	59	25	3	31	2	0	0	0

Scituate **Population: 17,683**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	74	39	4	31	1	0	0	1
2005	114	48	9	57	4	1	1	2
2006	88	34	9	45	4	2	0	2
2007	74	26	3	45	1	0	0	1
2008	72	36	8	28	4	3	0	1

WAREHAM FIRE DISTRICTS **Population: 20,335**

Onset ***Est. Pop. Protected: 4,314***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004[13]	0	0	0	0	0	0	0	0
2005	54	32	5	17	4	0	2	2
2006	54	30	7	17	1	0	0	1
2007	6	5	1	0	0	0	0	0
2008	39	15	6	18	5	3	1	1

Wareham District *Est. Pop. Protected: 15,562*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	125	43	24	58	2	2	0	0
2005	119	38	25	56	25	0	1	24
2006	138	48	17	73	29	2	1	26
2007	126	37	22	67	3	0	0	3
2008	118	52	21	45	11	3	1	7

West Bridgewater **Population: 6,634**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	39	21	15	3	1	1	0	0
2005	19	12	7	0	2	1	1	0
2006	18	6	8	4	0	0	0	0
2007	45	15	8	22	3	0	0	3
2008	38	14	8	16	0	0	0	0

Whitman **Population: 13,882**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	59	42	3	14	3	1	0	2
2005	48	22	2	24	8	1	0	7
2006	44	19	6	19	0	0	0	0
2007	53	23	6	24	2	2	0	0
2008	40	13	3	24	5	1	0	4

[13] Onset reported 3 incidents to MFIRS in 2004. None of these incidents were fires or explosions. They reported 2 false alarms and 1 EMS call.

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	3,323	86	4	1,932	382	413	93	405	3	5
23042	Bridgewater	2,857	107	4	1,722	174	157	105	540	8	40
23044	Brockton	261	198	0	1	30	0	1	30	1	0
23052	Carver	9	9	0	0	0	0	0	0	0	0
23082	Duxbury	2,040	45	4	1,377	78	155	79	282	8	12
23083	East Bridgewater	2,247	63	0	1,549	264	138	52	173	2	6
23118	Halifax	151	65	2	3	61	15	2	2	0	1
23122	Hanover	2,253	60	8	1,487	168	233	76	210	3	8
23123	Hanson	1,449	44	6	922	106	197	70	93	8	3
23131	Hingham	79	75	3	1	0	0	0	0	0	0
23142	Hull	2,190	28	3	1,428	131	282	67	242	4	5
23145	Kingston	2,223	62	4	1,566	128	136	83	236	0	8
23146	Lakeville	915	61	1	591	52	64	28	107	1	10
23169	Marion	4	1	2	0	1	0	0	0	0	0
23171	Marshfield	3,410	129	5	2,150	226	363	135	391	3	8

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
23173	Mattapoisett	432	25	0	31	107	74	24	108	43	20
23182	Middleborough	2,413	105	14	414	204	167	1,064	408	7	30
23219	Norwell	2,094	59	1	1,134	306	227	105	258	3	1
23993	Onset	1,064	46	5	457	103	325	40	85	2	1
23231	Pembroke	22	22	0	0	0	0	0	0	0	0
23239	Plymouth	5,220	204	8	3,042	301	416	288	938	13	10
23240	Plympton	357	21		248	32	16	10	28	2	0
23250	Rochester	13	12	0	0	1	0	0	0	0	0
23251	Rockland	2,702	59	4	2,051	110	101	125	240	5	7
23264	Scituate	2,702	76	4	1,935	155	177	100	246	7	2
23992	Wareham	1,975	120	8	881	320	197	149	281	8	11
23322	West Bridgewater	2,094	55	2	1,005	70	719	15	112	9	107
23338	Whitman	2,555	43	2	1,716	125	314	158	186	5	6
Total	**Plymouth County**	**47,054**	**1,880**	**94**	**27,643**	**3,635**	**4,886**	**2,869**	**5,601**	**145**	**301**

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.

Brockton Fires in 2008

197 Total Fires — 142 Structures, 36 Vehicles & 19 Other Fires
The Brockton Fire Department reported 197 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 142 structure fires, 36 motor vehicle fires, seven outside rubbish fires, six brush fires, four special outside fires; and two unclassified fires caused six civilian injuries, 15 firefighter injuries and an estimated dollar loss of $4.6 million.

All Fires Down in 2008
Total fires decreased by 114 from the 311 incidents reported in 2007. Reported structure fires were down 69 from the 211 reported during the previous year. Motor vehicle fires decreased by 23 from 59 the year before. Outside and other fires decreased by 22 from the 41 reported in 2007.

BROCKTON FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	194	113	55	26	0	6	2	0
2005	182	108	58	16	10	4	4	2
2006	163	124	24	15	12	7	4	1
2007	311	211	59	41	18	13	4	1
2008	197	142	36	19	13	9	1	3

BUILDING FIRES

There were 139 building fires of different types in Brockton in 2008. These 139 building fires accounted for 97.9% of all structure fires in Brockton.

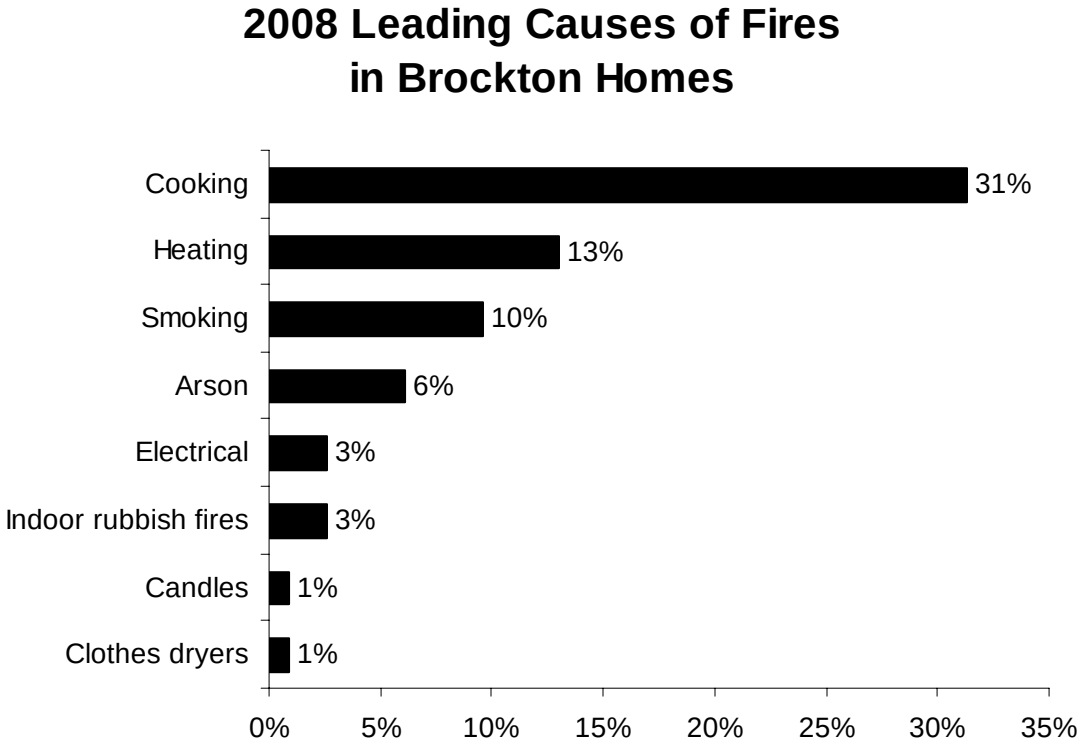
83% of Building Fires in Homes
The 139 building fires that occurred in Brockton in 2008 can be broken down by fixed property use as follows: 115, or 83% of all building fires, were in residential properties; seven fires happened in storage facilities; five happened in mercantile or business properties; four fires occurred in institutional facilities; another four fires occurred in a manufacturing or processing facilities; two fires occurred in educational facilities; and another two fires occurred in public assembly properties.

RESIDENTIAL FIRES

Residential Building Fires Down
There were 115 reported residential building fires in Brockton in 2008. These 115 fires are a decrease of 62 from the 177 reported residential building fires reported in 2007.

Apartments Accounted for Over 1/2 of Residential Building Fires
The peak fixed property uses for residential building fires were apartments, accounting for 53% of the building fires in Brockton; 41% occurred in 1- or 2-family homes; 2% each happened in rooming houses and hotels or motels; 1% each occurred in dormitories and residential board and care facilities; and 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 31% of these fires. Heating fires caused 13% of these fires. Smoking was the cause of 10% of Brockton's residential fires. Arsons caused 6% of these fires. Electrical problems and indoor rubbish fires each caused 3% of the fires. Candles and clothes dryers each caused 1% of the fires in Brockton's residential occupancies in 2008.



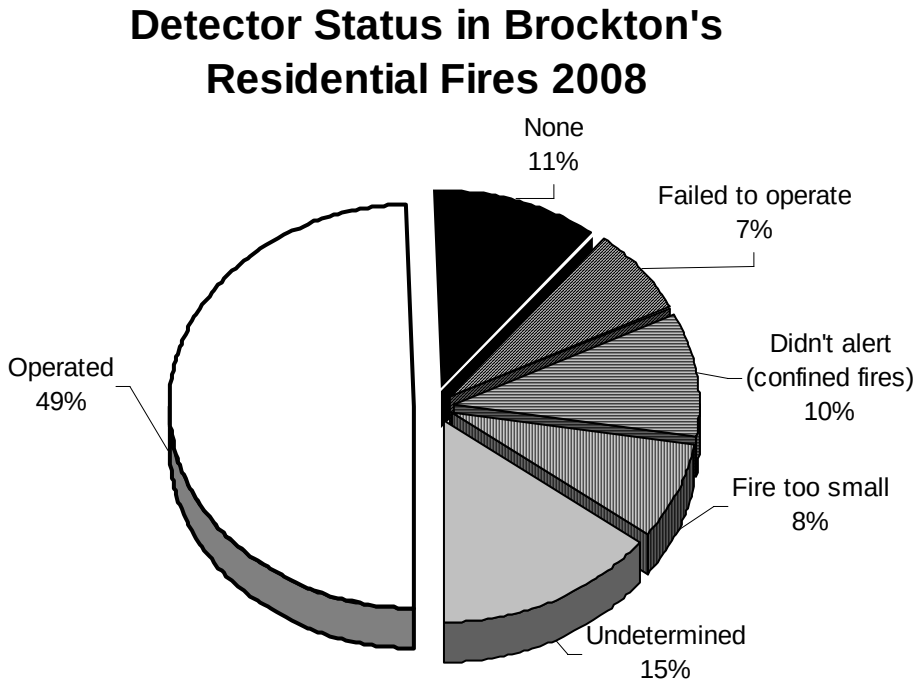
37% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Forty-three (43), or 37% of all residential building fires were confined to non-combustible containers in 2008. Twenty-nine (29), or 25%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Ten

[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.

(10), or 9%, were fires confined to a fuel burner or boiler malfunction. Two (2), or 2%, of these fires were rubbish fires contained to a non-combustible container. Another two fires, or 1%, were reported to have been contained to a chimney or flue.

Detectors Worked in Almost 1/2 of Fires

Smoke or heat detectors operated and alerted the occupants in 57, or 49%, of the residential building fires. In 10% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 7% of these incidents. In 11% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 8% of these fires. Smoke detector performance was undetermined in 17 incidents, or 15% of Brockton's residential building fires.



Almost 2/3 of Detectors Failed Detectors From Missing or Dead Batteries

Of the eight fires where smoke detectors were present but failed to operate, three, or 38%, failed because they had a missing or disconnected batteries. Two (2), or 25%, failed because they had dead batteries. It was undetermined in three cases, or 38%, why the detector failed to operate.

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

VACANT BUILDINGS

8% of Building Fires Occurred in Vacant Buildings

Brockton reported 11 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 8% of the total 139 building fires reported to MFIRS in 2008. Four (4) 1- or 2-family homes, one apartment building, one business office, one detached residential garage, one storage facility and one outbuilding or shed were reported as vacant building fire incidents.

JUVENILE-SET FIRES

No Juvenile-set Fires in 2008

There were no reported juvenile-set fires in Brockton in 2008.

ARSONS

12 Arsons[4] - 9 Structure, 1 Motor Vehicle and 3 Outside & Other

Twelve (12), or 7%, of Brockton's 197 fires were considered intentionally set, or, for purposes of this analysis, arson. There were nine structure arsons, one motor vehicle arson and three outside and other arsons.

All Arsons Down in 2008

The total number of arsons decreased by five from the 18 reported in 2007. Reported structure arsons decreased by four from the 13 reported in 2007. Motor vehicle arsons decreased by three from the four reported in 2007. Outside and other arsons increased by two from one reported the year before.

63 Fires Reported as Undetermined or Still Under Investigation

In 2008, Brockton reported 63 fires under investigation or cause undetermined after investigation. Eleven (11), or 17%, of these fires were reported to be undetermined after investigation. The other 52, or 83%, were still under investigation.

Twenty-one (21), or 33%, of these 63 fires were structure fires. Nineteen (19), or 30% were motor vehicle fires; and 23, or 37%, 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 in 2008.

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[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

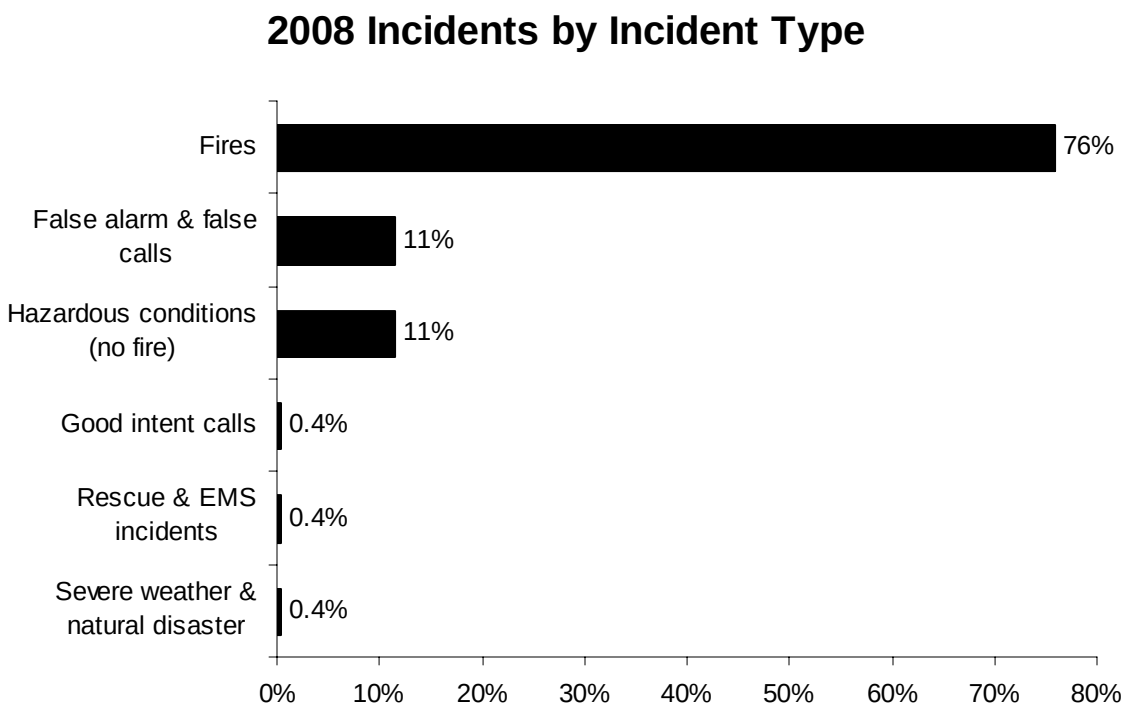
ALL INCIDENTS

Fire Are Over 3/4 of All Reported Incidents

In 2008, Brockton voluntarily reported 261 incidents to MFIRS. Of these 261 incidents, 63, or 24% were non-fire incidents. Brockton mainly reports only fires to MFIRS, and thus the other 63 non-fire incidents reported to MFIRS for 2008 is only a small fraction of the non-fire calls to which the Brockton Fire Department responds.

Of these 63 non-fire incidents 30, or 11%, were reported hazardous condition calls with no fire; another 30, or 11%, were reported false alarm or false calls; one, or less than 1% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; and one, or 0.4%, was a good intent call; and another incident, or less than 1%, was a severe weather call.

In 2008, Brockton reported 198 fires[5], accounting for 76% of all reported incidents.



Brockton Gave Mutual Aid in 1 Reported Incident

In 2008, Brockton reported coming to the aid of other fire departments once. This was for a fire in Bridgewater.

Brockton Received Mutual Aid in 14 Incidents

In 2008, surrounding fire departments gave aid to Brockton during 14 incidents. All of these 14 incidents were for fires.

[5] This includes fires that Brockton responded to as mutual aid calls outside of their jurisdiction.

Brockton Population: 94,304

2.1 Fires/1,000 Population

Total Fires:	**197**		**$4,564,000**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	142	72%	$4,494,325
Vehicle Fires	36	18%	66,600
Other Fires	19	10%	3,075

6 Civilian Injuries 15 Fire Service Injuries

Building Fires: 139

Residential Structure Fires: 115

Residential Structure Fires Confined to Non-Combustible Containers: 43

Unconfined Residential Structure Fires: 72

17 Civilian Injuries 11 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	61	53%
1- & 2-Family homes	47	41%
Hotel/motel	2	2%
Boarding houses	2	2%

Detector Status	**Fires**	**%**
Operated	57	49%
Didn't operate	8	7%
None	13	11%
Fire too small	9	8%
Didn't Alert (confined)	11	10%
Undetermined	17	15%

Area of Origin[6]	**%**
Kitchen	40%
Heating room or area	9%
Living room	7%
Exterior balcony/unencl. porch	6%
Bed room	6%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat from op. eq.	10%	17%
Cigarette	9%	14%
Spark/ember/flame op. eq.	7%	11%
Arcing	6%	10%
Heat from operating equip.	4%	7%

[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 Ignited[8]	**%**
Cooking materials	29%
Flammable or combustible liq.	9%
Structural member, framing	9%
Exterior sidewall covering	7%
Electrical wire, cable insulation	7%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
None	64%	%
Misuse of material	1%	1%
Worn out	1%	1%
Arc, spark from oper. equip.	1%	1%

Equipment[10]	**%**
None	47%
Cooking equipment	30%
Boiler, furnace, cent. heat. unit	9%
Personal/household eq., other	2%
Heater	2%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	31%	50%
Intentional	6%	10%
Failure of eq./heat source	15%	24%
Cause Under Investigation	10%	17%
Undetermined	0%	0%

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

Alerted Occupants	60%
Didn't Alert Occupants	26%
Undetermined	14%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Fires[12]	198	76%
Hazardous conditions (no fire)	30	11%
False alarms & false calls	30	11%
Rescue & EMS incidents	1	0.4%
Good intent calls	1	0.4%
Severe weather & natural disaster calls	1	0.4%

[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.
[12] This figure contains the fire that Brockton gave mutual aid to in another jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	1	1	0	0
February	0	0	0	0
March	14	9	2	3
April	26	16	6	4
May	26	18	4	4
June	25	17	6	2
July	18	12	4	2
August	16	12	1	3
September	17	14	3	0
October	16	12	4	0
November	12	10	1	1
December	26	21	5	0

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	27	19	5	3
Monday	27	18	5	4
Tuesday	23	12	7	4
Wednesday	32	23	6	3
Thursday	26	19	5	2
Friday	32	27	5	0
Saturday	30	24	3	3

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	20	9	8	3
04:01 - 08:00	21	19	2	0
08:01 - 12:00	26	20	5	1
12:01 - 16:00	39	30	5	4
16:01 - 20:00	49	36	7	6
20:01 - 24:00	42	28	9	5

Motor Vehicle Fires

Total: 36
Automobiles: 33 (92%)
1 (3%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 12 **Dollar loss: $583,700**

0.14 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	9	6%	69%	$581,700
Vehicle Arsons	1	3%	8%	0
Other Arsons	3	16%	23%	2,000

0.14 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.03 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
12:01 - 16:00	3	33%
20:01 - 00:00	3	33%

Vehicle Arsons	#	%
20:01 - 00:00	1	100%

Other Arsons	#	%
00:01 - 04:00	2	670%
12:01 - 16:00	1	33%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	5	56%
1- or 2-Family homes	2	22%
Parking garage, detached residential	1	11%
Outbuilding or shed	1	11%

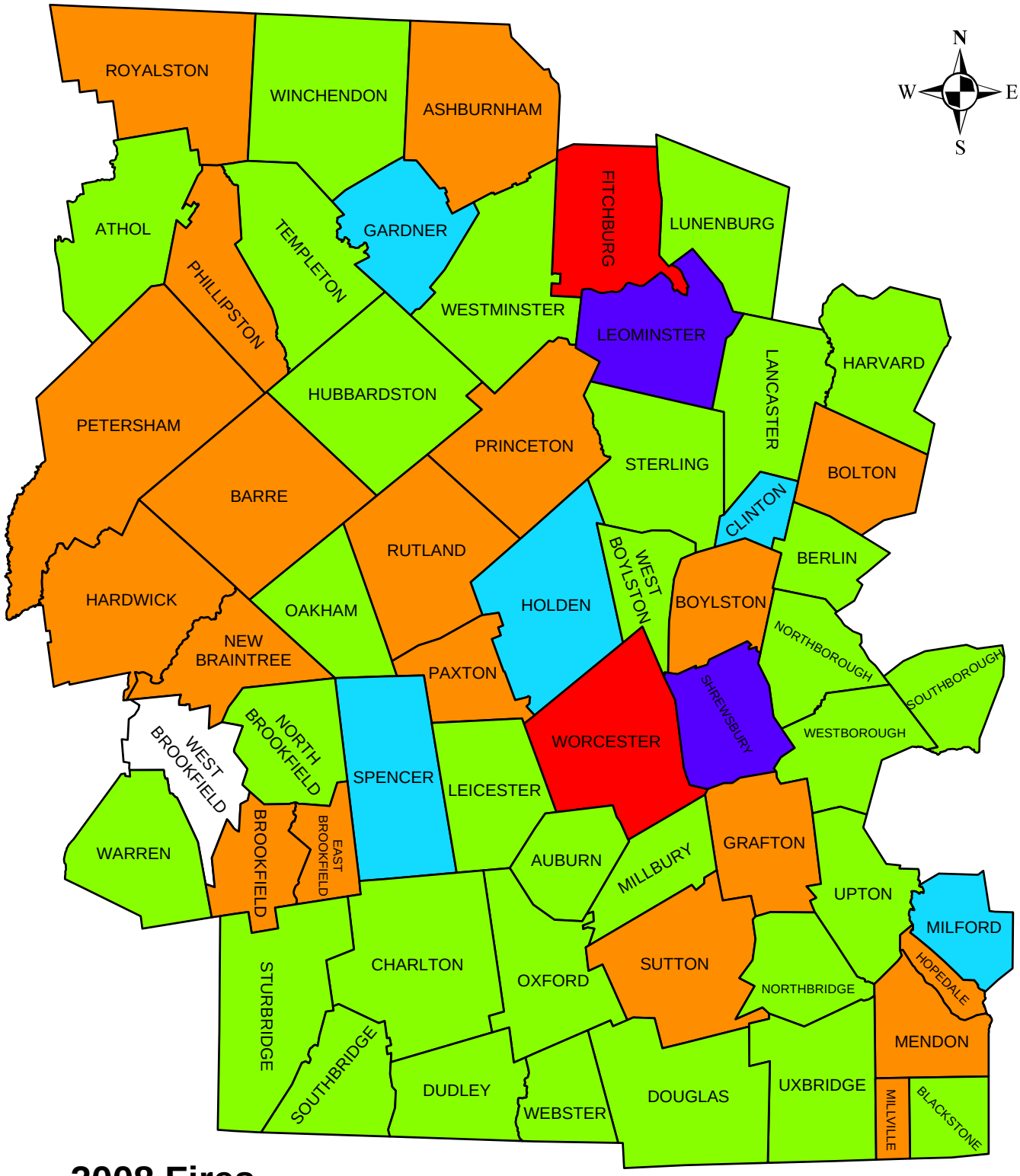
Suffolk County Has It's Own In-Depth Analysis Report Which Is Published Separately

Worcester County
2008 Fire Data Analysis

Massachusetts Fire Incident Reporting System

Stephen D. Coan, State Fire Marshal
Fire Data and Public Education Unit
Office of the State Fire Marshal
Department of Fire Services
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

Worcester County Fires 2008



2008 Fires

- 0
- 1 - 25
- 26 - 75
- 76 - 125
- 126 - 300
- 301 - 1,500

Miles

0 2 4 8 12 16

Massachusetts Fire Incident Reporting System 2008

Worcester County Fires in 2008

4,166 Total Fires — 2,202 Structures, 461 Vehicles & 1,503 Other Fires
Worcester County ranked third out of the fourteen Massachusetts counties in total reported fires. Worcester County fire departments reported 4,166 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 2,202 structure fires, 461 motor vehicle fires, 713 brush fires, 587 outside rubbish fires, 118 special outside fires; three cultivated vegetation or crop fires and 82 unclassified fires caused two civilian deaths, 35 civilian injuries[1], 97 fire service injuries and an estimated dollar loss of $25 million. Worcester County's fires accounted for 14% of the 30,136 Massachusetts fires reported in 2008.

All 60 fire departments in Worcester County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2008.

All Fires Down
Total fires decreased by 468, or 10%, from 4,634 incidents in 2007. Reported structure fires decreased by 73 from the 2,275 reported during the previous year. Motor vehicle fires decreased by 40 from 501 the year before. Outside and other fires decreased by 355 from 1,858 the year before.

Brush Fires Down by 22%
Brush fires decreased by 201, or 22%, from the 914 reported in 2008. This is a decrease and the main reason for the drop in all Worcester County fires.

WORCESTER COUNTY FIRES FROM 2004 TO 2008

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004[2]	5,728	1,656	554	3,518	258	32	44	182
2005	3,999	2,014	525	1,460	164	43	27	94
2006	4,398	2,117	461	1,820	195	37	17	141
2007	4,634	2,275	501	1,858	149	40	21	88
2008	4,166	2,202	461	1,503	143	36	24	83

[1] Worcester did not report any civilian fire injuries in 2008.

[2] The large drop in outside and other fires is mostly from the City of Worcester. 2003 was the first full year that the Worcester Fire Department used MFIRS version 5. In 2004 as in 2003, the Worcester Fire Department reported all of their incidents to MFIRS. In 2004 they reported 2,566 unclassified fires to MFIRS. In 2003 they reported 2,067 unclassified fires. This was a coding quality control issue with the Worcester data. The majority of these fires were misclassified.

Fire and Fire Death Rates

Worcester County had 5.5 fires per 1,000 population. That figure ranks Worcester County second in the state and above the state rate of 4.8 fires per 1,000 population. Worcester County also had 0.03 fire deaths per 10,000 populations ranking it eleventh among Massachusetts counties and below the state rate of 0.08 fire deaths per 10,000 population.

2 Residents Died in 2 Worcester County Fires

- On May 10, 2008, at 5:31 p.m., the Lunenburg Fire Department was called to a fatal smoking fire in an eight-unit apartment building. The victim, a 53-year old man was smoking near his home oxygen equipment in a second floor living room. The cigarette ignited the victim's clothes and the furniture he was sitting on. The victim was able to escape to an outside porch where his girlfriend who was in the back yard, dragged him down the stairs. He was transported to a local hospital where he later succumbed to his injuries. His girlfriend was also burned when she tried to rescue him. Detectors were present and operated. The building was not sprinklered. Damages from the fire were estimated to be $165,000.

- On December 13, 2008 at 8:10 a.m., the Worcester Fire Department was dispatched to an EMS call. The victim, a 91-year old male, was using a portable propane fueled space heater in the kitchen to keep warm in the aftermath of the severe ice storm that knocked out power, and subsequently his heating system, throughout central Massachusetts. The victim got too close to the space heater and his clothing ignited. He was transported to a local hospital where he succumbed to his injuries 10 days later. There were no other injuries associated with this fire. It was undetermined if detectors were present, but sprinklers were not.

Largest Loss Fire in 2008

- On March 25, 2008, at 4:14 a.m., the Northborough Fire Department was called to an intentionally set fire at stip mall. A molotv cocktail type device started the fire in one of the stores. The fire destroyed five businesses No one was injured at this fire. Detectors were not present, and the building was not sprinklered. Damages from this fire were estimated to be $2.5 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 2,202 structure fires caused two civilian deaths, 32 civilian injuries, 94 fire service injuries and an estimated dollar loss of $22.4 million. These incidents represented 53% of Worcester County's reported fires in 2008. The average estimated dollar loss per structure fire was $10,192. The total number of reported structure fires decreased by 73, or 3%, from the 2,275 reported in 2007.

Arson Caused 2% of Structure Fires

The 36 structure arsons caused 11 fire service injuries and an estimated dollar loss of $3.2 million. Arson was indicated as the cause of 2% of the structure fires and 14% of Worcester County's structure fire dollar loss. The 36 structure arsons accounted for 25% of the Worcester County arson fires reported in 2008. The total number of reported structure arsons decreased by four, or 10%, from 40 in 2007.

61% of Structure Arsons Occurred in Residences

Sixty-one percent (61%) of Worcester County's 36 structure arsons occurred in residential occupancies; 14% happened in mercantile and business properties; 8% occurred in happened in storage facilities; 6% each happened in public assembly and educational facilities; and 3% occurred each in institutional facilities and special properties in Worcester County in 2008.

BUILDING FIRES

There were 2,176 building fires of different types in Worcester County in 2008. These 2,176 building fires accounted for 98.8% of all structure fires in Worcester County.

86% of Worcester Building Fires Occurred in People's Homes

One thousand eight hundred and sixty-nine (1,869), or 86%, of Worcester County's 2,176 building fires occurred in residential occupancies. Mercantile and business properties had 93 fires. Fifty-six (56) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 36 fires. Thirty-five (35) fires took place in storage properties. Thirty-two (32) building fires took place on educational properties. Thirty-one (31) fires took place in manufacturing and processing facilities. Eighteen (18) building fires in Worcester County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Six (6) fires occurred in industrial, utility, defense, agricultural or mining facilities in Worcester County in 2008.

RESIDENTIAL FIRES

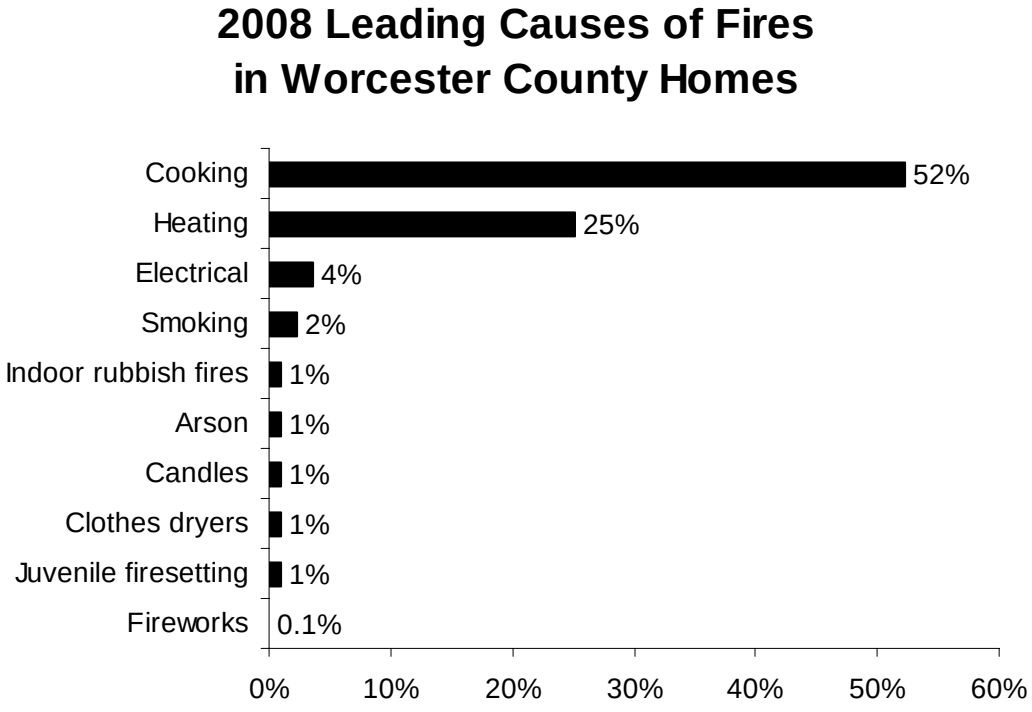
Residential Building Fires Are Down Slightly

There were 1,869 reported residential building fires in Worcester County in 2008. These 1,869 fires are a decrease of 20, or 1%, from the 1,889 residential building fires reported in 2007.

1- & 2-Family Homes Accounted for 47% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 47% of the residential building fires in Worcester County; 42% occurred in apartments; 5% happened in rooming houses; 4% occurred in dormitories; 1% each occurred residential board and care facilities and in hotels or motels. Eighteen (18), or 1%, of the residential building fires in Worcester County occurred in unclassified residential buildings.

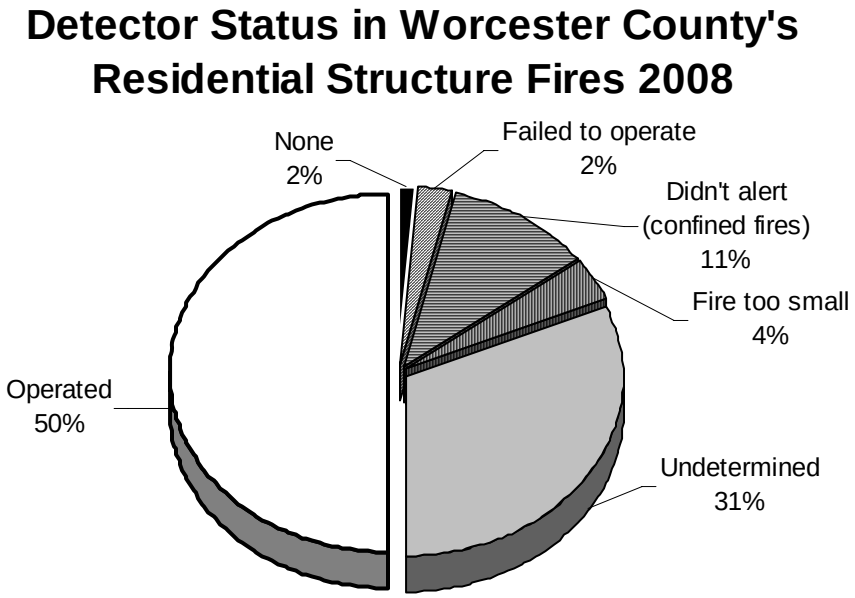
Unattended Cooking Caused Over 1/2 of Residential Fires
The leading cause of residential building fires in Worcester County was unattended cooking and other unsafe cooking practices accounting for 52% of these fires. Heating caused 25% of fires in people's homes. Electrical problems accounted for 4% of these fires. Smoking fires caused 2% of these fires. Indoor rubbish fires, arsons, candles, clothes dryers, and juvenile-set fires, each caused 1% of the fires in people's homes in Worcester County in 2008. Fireworks caused less than 1% of these fires in 2008.



73% of Residential Building Fires Are Confined to Non-Combustible Containers[3]
One thousand three hundred and seventy-two (1,372), or 73% of all residential building fires, were reported as confined to non-combustible containers in 2007. Nine hundred and six (906) of the reported fires were cooking fires contained to a non-combustible container accounting for 48% of residential building fires. Two hundred and forty-five (245), or 13%, were fires confined to a fuel burner or boiler malfunction. One hundred and ninety-three (193), or 10%, of all residential building fires reported in 2008 were confined to a chimney. Twenty-five (25), or 1%, of the residential building fires in Worcester County in 2008 were contained rubbish fires; and there were three fires, or less than 1%, that were confined to an incinerator.

[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.

Detectors Alerted Occupants in Just 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 932, or 50%, of the residential building fires. In 11% of these fires[4], 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 4% of the residential fires. Smoke detector performance was undetermined in 588 incidents, or 31% of Worcester County's residential building fires.



Almost 1/3 of Failed Detectors Had Missing or Disconnected Batteries
Of the 46 fires where smoke detectors were present but failed to operate, 14, or 30%, failed because the batteries were either missing or disconnected. Six (6), or 13%, failed because of a power failure, shutoff or disconnect. Three (3), or 7%, did not operate because they were defective. Three (3), or 7%, did not operate because of dead batteries. Two (2), or 4%, did not operate because of improper installation or placement. One (1) detector, or 2% did not work because of a lack of maintenance. It was undetermined or unclassified in 17 cases, or 37%, why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings
Worcester County reported 51 fires that occurred in buildings that were vacant, under construction or demolition[5]. This represented 2% of the total 2,176 building fires reported

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

[5] 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-

to MFIRS in 2008. Thirty-five (35) fires occurred in vacant residential properties. Six (6) vacant building fires occurred in storage facilities. Public assembly properties accounted for four vacant building fire incidents. Three (3) of these fires occurred in manufacturing or processing facilities. Two (2) of these fires occurred in mercantile and business properties; and special properties accounted for one vacant building fire in Worcester County in 2008.

Eight (8), or 16%, of the vacant building fires in Worcester County in 2008 were determined to be intentionally set. Three (3) of these fires occurred in single-family homes. Two happened in apartment buildings; and one each occurred in a bar, a shed and a detached residential parking garage.

JUVENILE-SET FIRES

34 Juvenile-set Fires

There were 34 reported juvenile-set fires in Worcester County in 2008. The 16 structure fires, one motor vehicle fire, 12 brush fires, three special outside fires, one outside rubbish fire, and one unclassified fire caused one civilian injury, one fire service injury and $88,500 in estimated damages.

ARSONS

143 Total Arsons[6] — 39 Structures, 21 Vehicles & 90 Other Arsons

One hundred and fifty (143), or 3%, of Worcester County's 4,166 fires were considered intentionally set, or, for purposes of this analysis, arson. The 36 structure arsons, 24 motor vehicle arsons and 83 outside and other arsons caused 11 fire service injuries and an estimated dollar loss of $3.3 million. Worcester County's arson fires accounted for 12% of the state's total arson fires, but only 28% of the state's total dollar losses from arsons.

All Arson Fires Down Slightly

The total number of arsons decreased by six from 149 in 2007. Reported structure arsons decreased by four from 40 the year before. Motor vehicle arsons increased three from 21 reported in 2007. Outside and other arsons decreased by five from the 88 reported last year.

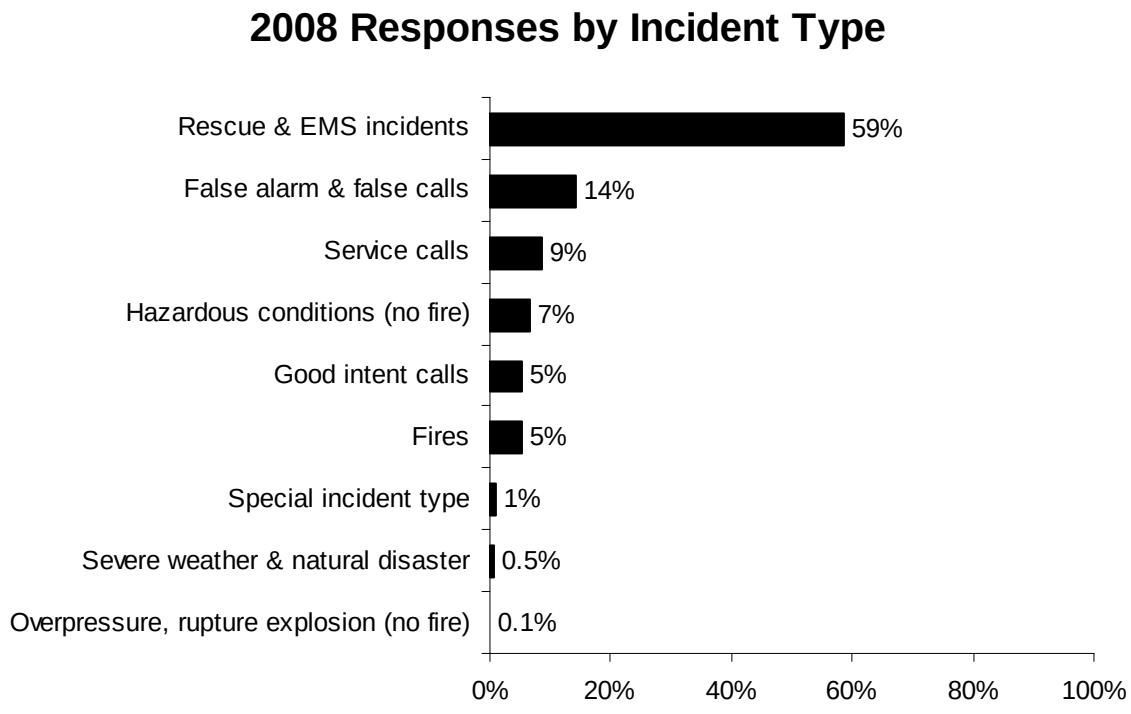
Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[6] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

ALL INCIDENTS

Rescue & EMS Calls Are 59% of All Reported Responses
In 2008, fire departments in Worcester County reported 86,742 responses[7] to MFIRS. This is an increase of 5,378 runs, or 7%, over the 81,364 reported in 2007. Of these 86,742 responses, 82,272 non-fire calls were voluntarily reported.

Of these 82,272 non-fire calls, 50,864, or 59% of all the responses reported in 2008, were reported rescue and emergency medical services (EMS) calls; 12,306, or 14%, were reported false alarm or false calls; 7,457, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,785, or 7%, reported hazardous condition calls with no fire; 4,534, or 5%, were reported good intent calls; 779, or 1%, were special incident type calls such as citizen complaints; 431, or 0.5%, were severe weather calls; and 116, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.



Four thousand four hundred and seventy (4,470), or 5%, of the total responses submitted by Worcester County fire departments were fires.

[7] These figures include responses in which Worcester County fire departments gave mutual aid to other fire departments.

Worcester County Fire Departments Reported Giving Mutual Aid 1,957 Times
In 2008, Worcester County fire departments reported coming to the aid of other fire departments 1,957 times. Of these 1,957 responses, 934, or 48%, were for rescue or EMS incidents; 505, or 26%, were for service calls such as cover assignments; 301, or 15%, were for fires; 95, or 5%, were for good intent calls; 58, or 3%, were for false alarms or false calls; 38, or 2%, were for hazardous conditions calls with no fire; 20, or 1%, were severe weather calls; four, or 0.2%, were special incident types; and two, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Worcester County Fire Departments Received Mutual Aid in 928 Incidents
In 2008, Worcester County fire departments reported receiving aid from surrounding departments in 928 incidents. Of these 928 incidents, 513, or 55%, were rescue and emergency medical services calls; 238, or 26%, were for fires; 74, or 8%, were false alarms or false calls; 50, or 5%, were hazardous conditions calls with no fire; 26 or 3% were good intent calls; 15, or 2%, were service calls; nine, or 1%, were severe weather calls; two, or 0.2%, were special incident type calls; and one, or 0.1%, was a reported overpressure, rupture, explosion or overheat call with no fire.

DECEMBER 11 - 12, 2008 ICE STORM

During the night of December 11, 2008 and morning of December 12, a severe ice storm crippled most of northern Worcester County. Many 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 northern Worcester County.

In 2008, Worcester County Fire Departments responded to an average number of 1,637 calls per week. During the week of the ice storm that began on a Thursday night, Worcester County fire departments responded to 3,897 calls. One thousand six hundred and eighty-four (1,684) of these calls occurred on Friday, December 12. The majority of these calls were rescue and EMS calls, as well as hazardous condition calls with no fire like downed power lines and electrical wiring and equipment problems. One of the two 2008 fire related deaths in Worcester County also occurred in the aftermath of this storm.

Worcester County Population: 750,963

5.6 Fires/1,000 Population

Total Fires:	**4,166**		**$25,067,689**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	2,202	53%	$22,443,358
Vehicle Fires	461	11%	2,416,043
Other Fires	1,503	36%	208,288

2 Fatal Fires	0.48 Civilian Deaths/1,000 Fires
2 Civilian Deaths	0.03 Civilian Deaths/10,000 Population
35 Civilian Injuries	97 Fire Service Injuries

Building Fires: 2,176

Residential Structure Fires: 1,869

Residential Structure Fires Confined to Non-Combustible Containers: 1,372

Unconfined Residential Structure Fires: 497

2 Civilian Deaths 29 Civilian Injuries 75 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	874	47%
Apartments	781	42%
Rooming houses	92	4%
Dormitories	72	3%

Detector Status	**Fires**	**%**
Operated	932	50%
Didn't operate	46	2%
None	31	2%
Fire too small	71	4%
Didn’t Alert (confined)	201	11%
Undetermined	588	31%

Area of Origin[8]	**%**
Kitchen	55%
Heating room or area	14%
Chimney or flue	10%
Bedroom	3%
Laundry room	1%
Living room	1%

Heat Source	**%**	**%Unconfined**[9]
Radiated heat from oper. eq.	5%	19%
Heat from operating eq.	3%	11%
Arcing	3%	11%
Hot ember or ash	2%	7%
Hot or smoldering object	2%	7%
Spark/ember/flame op. eq.	1%	5%

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

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

Item First Ignited[10]	**%**
Food, cooking materials	51%
Flammable, combustible liquid	13%
Film or residue (creosote)	10%
Structural member, framing	3%
Rubbish, trash, waste	2%

Factor Contrib. to Ignit.	**%**	**%Unconfined[11]**
Too close to combustibles	3%	11%
Abandoned materials	3%	10%
Misuse of materials	2%	9%
Elec. fail., malfunc., other	2%	6%
Equipment unattended	2%	6%
Failure to clean	1%	5%

Equipment[12]	**%**
Cooking equipment	50%
None	20%
Boiler, furnace, cent. heat. unit	13%
Chimney or flue	10%
Clothes dryer	1%

Cause of Ignition	**%**	**%Unconfined[13]**
Unintentional	15%	58%
Failure of eq. or heat source	4%	15%
Intentional	1%	5%
Act of Nature	1%	2%
Cause under investigation	3%	13%
Undetermined	4%	15%

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

Alerted Occupants	50%
Didn't Alert Occupants	15%
Undetermined	35%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	280	216	33	31
February	269	211	32	26
March	368	213	35	120
April	686	186	39	461
May	384	162	34	188
June	295	136	43	116
July	280	115	59	106
August	282	149	38	95
September	267	149	32	86
October	333	196	38	99
November	334	209	32	93
December	388	260	46	82

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	596	341	55	200
Monday	611	337	58	216
Tuesday	594	304	79	211
Wednesday	556	301	57	198
Thursday	552	279	66	207
Friday	578	305	72	201
Saturday	679	335	74	270

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	296	150	48	98
04:01 – 08:00	266	156	52	58
08:01 – 12:00	609	347	81	181
12:01 – 16:00	1,101	501	119	481
16:01 – 20:00	1,160	667	91	402
20:01 – 00:00	734	381	70	283

Motor Vehicle Fires

Total: 461
Automobiles: 401 (87%)
24, or (6%), of the automobile fires considered incendiary or suspicious

Arson Fires

Total Arsons: 143 **Dollar loss: $3,301,984**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	36	2%	25%	$3,229,822
Vehicle Arsons	24	5%	17%	71,100
Other Arsons	83	6%	58%	972

0.05 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.11 Other arsons/1,000 population

11 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 – 04:00	9	25%	04:01 – 08:00	9	38%
12:01 – 16:00	8	22%	00:01 – 01:00	6	25%
16:01 – 20:00	7	19%	20:01 – 00:00	6	25%

Other Arsons	#	%
16:01 – 20:00	27	33%
12:01 – 16:00	25	30%
20:01 – 00:00	17	20%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	15	42%
1- or 2-Family homes	7	19%

Ashburnham **Population: 5,546**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	33	21	2	10	0	0	0	0
2005	13	4	0	9	0	0	0	0
2006	7	2	1	4	0	0	0	0
2007	19	13	2	4	0	0	0	0
2008	16	5	4	7	0	0	0	0

Athol **Population: 11,299**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	99	44	7	48	9	1	0	8
2005	102	57	7	38	3	2	0	1
2006	105	44	13	48	3	0	0	3
2007	78	39	10	29	4	2	1	1
2008	63	24	8	31	0	0	0	0

Auburn **Population: 15,901**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	72	30	23	19	1	1	0	0
2005	64	30	7	27	4	0	1	3
2006	92	28	21	43	2	0	0	2
2007	80	29	21	30	1	0	0	1
2008	47	18	11	18	1	0	0	1

Barre **Population: 5,113**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	23	10	5	8	1	0	1	0
2005	27	18	2	7	1	1	0	0
2006	32	16	1	15	2	0	1	1
2007	28	13	4	11	1	0	0	1
2008	21	12	1	8	0	0	0	0

Berlin **Population: 2,380**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	30	14	9	7	3	1	1	1
2005	44	15	11	18	6	1	0	5
2006	38	12	7	19	3	0	2	1
2007	43	16	10	17	1	0	0	1
2008	34	14	6	14	0	0	0	0

Blackstone **Population: 8,804**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	47	17	4	26	6	0	0	6
2005	31	13	4	14	8	1	1	6
2006	62	27	2	33	8	0	0	8
2007	53	17	4	32	6	1	0	5
2008	37	13	2	22	8	1	1	6

Bolton **Population: 4,148**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3	1	1	1	0	0	0	0
2005	5	0	5	0	0	0	0	0
2006	3	2	1	0	0	0	0	0
2007	30	8	2	20	0	0	0	0
2008	21	8	8	5	1	1	0	0

Boylston **Population: 4,008**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	4	2	2	0	0	0	0
2005	8	3	1	4	0	0	0	0
2006	10	7	1	2	0	0	0	0
2007	3	1	1	1	0	0	0	0
2008	7	5	2	0	0	0	0	0

Brookfield **Population: 3,051**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	6	3	0	3	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	4	4	0	0	0	0	0	0
2007	1	1	0	0	0	0	0	0
2008	4	3	0	1	0	0	0	0

Charlton **Population: 11,263**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	55	35	12	8	1	0	0	1
2005	70	41	11	18	0	0	0	0
2006	69	29	15	25	0	0	0	0
2007	63	28	11	24	2	0	0	2
2008	67	36	15	16	2	0	0	2

Clinton **Population: 13,435**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	34	6	3	25	0	0	0	0
2005	149	15	3	131	1	0	0	1
2006	176	25	3	148	4	0	0	4
2007	184	110	2	72	5	0	0	5
2008	95	49	6	40	5	0	0	5

Douglas **Population: 7,045**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	33	14	6	13	2	0	1	1
2005	35	20	4	11	1	0	0	1
2006	38	21	4	13	3	0	1	2
2007	33	16	2	15	4	0	0	4
2008	33	24	1	8	3	0	0	3

Dudley **Population: 10,036**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	5	3	0	0	0	0	0
2005	52	16	10	26	8	1	0	7
2006	47	19	7	21	0	0	0	0
2007	46	22	2	22	3	0	1	2
2008	54	18	7	29	3	1	0	2

East Brookfield **Population: 2,097**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	13	1	0	12	0	0	0	0
2005	15	5	0	10	0	0	0	0
2006	13	3	0	10	0	0	0	0
2007	16	4	3	9	0	0	0	0
2008	9	6	0	3	1	0	0	1

Fitchburg **Population: 39,102**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	142	60	22	60	13	3	1	9
2005	220	129	26	65	14	6	1	7
2006	304	225	9	70	6	1	0	5
2007	336	216	30	90	16	5	1	10
2008	334	242	26	66	16	4	3	9

Gardner **Population: 20,770**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	85	38	9	38	10	3	3	4
2005	99	40	13	46	8	2	2	4
2006	113	40	16	57	11	4	1	6
2007	130	52	19	59	5	3	1	1
2008	91	40	12	39	0	0	0	0

Grafton **Population: 14,894**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	29	15	7	7	0	0	0	0
2005	57	27	7	23	3	0	0	3
2006	50	30	7	13	1	1	0	0
2007	62	29	12	21	1	0	0	1
2008	7	4	2	1	0	0	0	0

Hardwick **Population: 2,622**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	22	3	2	17	4	0	0	4
2005	10	2	3	5	1	0	0	1
2006	19	2	0	17	8	0	0	8
2007	33	4	2	27	2	0	0	2
2008	16	6	0	10	0	0	0	0

Harvard **Population: 5,981**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	13	3	1	9	0	0	0	0
2005	32	16	2	14	0	0	0	0
2006	33	9	1	23	3	0	0	3
2007	25	5	2	18	1	0	0	1
2008	26	9	4	13	1	0	0	1

Holden **Population: 15,621**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	54	19	8	27	6	0	0	6
2005	47	28	3	16	0	0	0	0
2006	46	25	5	16	3	1	0	2
2007	59	36	7	16	1	0	0	1
2008	79	45	14	20	1	0	0	1

Hopedale **Population: 5,907**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	7	6	0	1	0	0	0	0
2005	9	8	1	0	1	1	0	0
2006	35	33	2	0	0	0	0	0
2007	20	18	2	0	0	0	0	0
2008	13	9	2	2	2	1	0	1

Hubbardston **Population: 3,909**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	34	16	2	16	0	0	0	0
2005	30	7	4	19	2	0	1	1
2006	40	10	4	26	12	2	0	10
2007	25	12	2	11	3	0	0	3
2008	39	14	2	23	2	0	1	1

Lancaster **Population: 7,380**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	0	0	1	0	0	0	0
2005	19	7	7	5	0	0	0	0
2006	5	2	2	1	1	1	0	0
2007	23	9	5	9	0	0	0	0
2008	27	10	4	13	3	2	0	1

Leicester **Population: 10,471**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	42	26	4	12	0	0	0	0
2005	52	27	3	22	4	0	1	3
2006	47	22	4	21	1	0	0	1
2007	35	11	1	23	0	0	0	0
2008	37	12	4	21	1	0	1	0

Leominster **Population: 41,303**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	267	174	34	59	14	0	3	11
2005	196	137	14	45	1	1	0	0
2006	283	185	21	77	7	2	0	5
2007	290	180	27	83	4	2	0	2
2008	257	160	18	79	7	2	0	5

Lunenburg **Population: 9,401**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	26	15	2	9	0	0	0	0
2005	58	31	10	17	1	0	1	0
2006	66	27	7	32	4	1	0	3
2007	52	27	6	19	2	0	0	2
2008	60	34	6	20	0	0	0	0

Mendon **Population: 5,286**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	23	14	0	9	0	0	0	0
2005	11	5	0	6	0	0	0	0
2006	27	6	2	19	2	0	0	2
2007	24	8	3	13	0	0	0	0
2008	24	7	3	14	0	0	0	0

Milford **Population: 26,799**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	130	80	21	29	0	0	0	0
2005	159	82	23	54	4	1	1	2
2006	129	71	13	45	5	1	0	4
2007	162	82	16	64	3	0	1	2
2008	112	54	25	33	0	0	0	0

Millbury **Population: 12,784**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	52	32	14	6	0	0	0	0
2005	54	35	11	8	1	1	0	0
2006	58	32	11	15	2	2	0	0
2007	64	31	19	14	1	1	0	0
2008	33	22	6	5	0	0	0	0

Millville **Population: 2,724**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	18	8	0	10	0	0	0	0
2005	18	8	1	9	0	0	0	0
2006	13	1	1	11	3	0	0	3
2007	10	4	1	5	0	0	0	0
2008	14	10	0	4	0	0	0	0

New Braintree **Population: 927**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	5	0	5	1	0	0	1
2005	Non-Reporting Community							
2006	Non-Reporting Community							
2007	2	0	2	0	0	0	0	0
2008	1	1	0	0	0	0	0	0

North Brookfield **Population: 4,683**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	Fire Department in Good Standing, Certified No Reportable Fires							
2005	1	1	0	0	0	0	0	0
2006	3	3	0	0	0	0	0	0
2007	27	9	0	18	4	0	0	4
2008	27	9	2	16	1	0	0	1

Northborough **Population: 14,013**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	55	22	10	23	3	1	0	2
2005	41	13	5	23	3	2	0	1
2006	37	8	12	17	2	1	0	1
2007	51	18	6	27	3	0	3	0
2008	39	12	8	19	1	1	0	0

Northbridge **Population: 13,182**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	44	31	9	4	0	0	0	0
2005	63	38	10	15	1	0	0	1
2006	68	31	8	29	2	1	0	1
2007	64	29	6	29	1	0	0	1
2008	43	18	3	22	2	1	0	1

Oakham **Population: 1,673**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	15	8	0	7	0	0	0	0
2005	13	9	0	4	0	0	0	0
2006	12	8	0	4	0	0	0	0
2007	14	4	1	9	2	0	0	2
2008	12	6	0	6	0	0	0	0

Oxford **Population: 13,352**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	71	21	12	38	4	0	2	2
2005	54	11	15	28	1	0	1	0
2006	80	20	15	45	13	2	0	11
2007	82	27	16	39	7	2	3	2
2008	70	38	12	20	5	2	3	0

Paxton **Population: 4,386**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	9	5	4	0	0	0	0	0
2005	10	9	1	0	0	0	0	0
2006	8	5	1	2	0	0	0	0
2007	12	8	3	1	0	0	0	0
2008	9	8	1	0	0	0	0	0

Petersham **Population: 1,180**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	7	0	1	0	0	0	0
2005	7	6	1	0	0	0	0	0
2006	14	7	0	7	0	0	0	0
2007	12	7	0	5	0	0	0	0
2008	8	5	0	3	0	0	0	0

Phillipston **Population: 1,621**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	10	1	0	9	1	1	0	0
2005	15	1	0	14	0	0	0	0
2006	14	2	2	10	0	0	0	0
2007	Fire Department in Good Standing, Certified No Reportable Fires							
2008	10	1	1	8	0	0	0	0

Princeton **Population: 3,353**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	18	4	4	10	3	1	0	2
2005	22	9	2	11	5	3	0	2
2006	19	5	4	10	3	0	0	3
2007	8	3	0	5	1	0	0	1
2008	17	7	1	9	2	1	0	1

Royalston **Population: 1,254**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	1	1	0	0	0	0	0	0
2005	1	1	0	0	0	0	0	0
2006	Non-Reporting Community							
2007	Non-Reporting Community							
2008	1	1	0	0	0	0	0	0

Rutland **Population: 6,353**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	22	9	4	9	1	0	0	1
2005	24	8	3	13	1	0	0	1
2006	27	9	2	16	1	0	0	1
2007	26	8	1	17	2	0	0	2
2008	3	2	0	1	1	0	0	1

Shrewsbury **Population: 31,640**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	125	84	21	20	3	1	2	0
2005	117	67	13	37	5	0	0	5
2006	135	78	18	39	9	0	3	6
2007	134	69	15	50	3	0	1	2
2008	126	63	19	44	5	0	1	4

Southborough **Population: 8,781**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	36	19	5	12	0	0	0	0
2005	49	20	5	24	7	3	0	4
2006	37	19	6	12	0	0	0	0
2007	39	19	8	12	2	1	0	1
2008	33	20	3	10	1	0	0	1

Southbridge **Population: 17,214**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	97	71	7	19	2	0	0	2
2005	100	67	10	23	6	2	1	3
2006	77	59	5	13	4	0	1	3
2007	93	50	7	36	7	1	2	4
2008	74	43	10	21	1	0	1	0

Spencer **Population: 11,691**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	79	45	9	25	5	0	0	5
2005	53	29	10	14	0	0	0	0
2006	63	31	7	36	2	0	0	2
2007	81	54	2	25	3	0	0	3
2008	82	46	6	30	0	0	0	0

Sterling **Population: 7,257**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	39	23	8	8	2	1	0	1
2005	50	20	12	18	3	1	0	2
2006	53	10	7	36	2	0	0	2
2007	59	24	6	29	4	2	0	2
2008	45	17	5	23	0	0	0	0

Sturbridge **Population: 7,837**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	48	15	8	25	1	0	0	1
2005	57	14	18	25	2	0	0	2
2006	40	10	5	25	3	0	0	3
2007	47	16	7	24	2	0	0	2
2008	44	6	18	20	0	0	0	0

Sutton **Population: 8,250**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	32	15	5	12	0	0	0	0
2005	18	5	6	7	0	0	0	0
2006	21	6	5	10	0	0	0	0
2007	17	6	4	7	1	0	0	1
2008	10	2	3	5	0	0	0	0

Templeton **Population: 6,799**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	34	19	2	13	0	0	0	0
2005	36	22	5	9	1	1	0	0
2006	35	24	3	8	1	1	0	0
2007	35	18	5	12	1	1	0	0
2008	37	18	4	15	3	0	0	3

Upton **Population: 5,642**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	52	32	5	15	3	0	0	3
2005	41	20	3	18	3	0	0	3
2006	39	15	4	10	0	0	0	0
2007	42	12	5	25	1	0	1	0
2008	36	12	1	23	3	0	0	3

Uxbridge **Population: 11,156**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	75	45	6	24	5	1	1	3
2005	93	45	12	36	2	1	0	1
2006	89	47	14	28	4	2	0	2
2007	83	40	11	32	5	2	0	3
2008	57	27	9	21	3	0	1	2

Warren **Population: 4,776**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	24	6	5	13	1	0	0	1
2005	18	8	5	5	1	0	0	1
2006	29	6	6	17	2	0	0	2
2007	19	8	2	9	0	0	0	0
2008	26	13	2	11	1	0	0	1

Webster **Population: 16,415**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	52	18	17	17	0	0	0	0
2005	3	2	1	0	0	0	0	0
2006	30	9	7	14	2	0	0	2
2007	36	6	12	18	0	0	0	0
2008	69	31	9	29	0	0	0	0

West Boylston **Population: 7,481**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	8	3	2	3	1	0	0	1
2005	8	2	6	0	0	0	0	0
2006	3	1	0	2	1	0	0	1
2007	28	12	4	12	1	0	0	1
2008	28	4	6	18	0	0	0	0

West Brookfield **Population: 3,804**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	9	3	1	5	0	0	0	0
2005	12	3	2	7	0	0	0	0
2006	2	2	0	0	0	0	0	0
2007	3	3	0	0	0	0	0	0
2008	Fire Department in Good Standing, Certified No Reportable Fires							

Westborough **Population: 17,997**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	91	47	15	29	6	3	1	2
2005	69	37	8	24	4	0	0	4
2006	114	60	21	33	6	2	0	4
2007	97	40	17	40	1	1	0	0
2008	60	26	10	6	2	0	0	2

Westminster **Population: 6,907**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	13	7	6	0	0	0	0	0
2005	6	1	5	0	0	0	0	0
2006	27	11	7	9	0	0	0	0
2007	54	17	4	33	4	1	0	3
2008	32	16	10	6	1	1	0	0

Winchendon **Population: 9,611**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	12	8	2	2	0	0	0	0
2005	11	7	4	0	1	0	1	0
2006	51	34	3	14	0	0	0	0
2007	45	23	9	13	1	1	0	0
2008	40	26	1	13	1	0	0	0

Worcester **Population: 172,648**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004[14]	3,210	355	182	2,673	138	14	28	96
2005	1,192	670	157	365	35	8	12	15
2006	1,312	635	119	558	45	12	8	25
2007	1,389	700	120	569	28	13	6	9
2008	1,449	811	117	521	53	18	12	23

[14] 2004 was the second year that Worcester used MFIRS version 5. In 2003, for the first time, the Worcester Fire Department reported all of their incidents to MFIRS. In 2004 they reported 2,566 unclassified fires and in 2003 they reported 2,067 unclassified fires to MFIRS. As they became more familiar with the system, the number of unclassified fires decreases while there was a corresponding increase in other types of fires and other types of incidents.

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	125	18	0	4	15	30	14	43	1	0
27015	Athol	1,292	69	0	203	139	592	153	106	7	23
27017	Auburn	3,147	55	3	2,126	390	186	154	221	2	10
27021	Barre	324	21	1	108	70	32	20	66	0	6
27028	Berlin	459	44	3	51	39	38	16	90	0	178
27032	Blackstone	447	48	1	136	42	38	35	144	0	3
27034	Bolton	208	23	3	18	27	14	33	86	3	1
27039	Boylston	12	7	0	0	5	0	0	0	0	0
27045	Brookfield	5	4	0	0	1	0	0	0	0	0
27054	Charlton	2,157	74	0	1,341	367	117	93	152	11	2
27064	Clinton	1,539	103	8	848	92	85	42	335	2	24
27077	Douglas	224	42	1	14	64	25	29	45	3	1
27080	Dudley	529	61	1	118	85	34	48	145	10	27
27084	East Brookfield	111	18	2	15	10	18	21	17	3	7
27097	Fitchburg	4,096	340	8	1,484	401	548	260	1,048	1	6

All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send 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	3,629	91	4	1,649	137	576	63	768	14	327
27110	Grafton	21	8	0	3	6	1	1	2	0	0
27124	Hardwick	111	20	5	8	43	9	6	19	1	0
27125	Harvard	245	29	0	44	23	67	4	73	5	0
27134	Holden	1,900	83	0	1,211	87	213	122	172	12	0
27138	Hopedale	18	13	0	0	1	2	0	0	2	0
27140	Hubbardston	662	39	0	399	75	50	49	49	1	0
27147	Lancaster	379	27	0	137	26	57	42	80	2	8
27151	Leicester	192	43	1	10	16	30	17	66	2	7
27153	Leominster	6,826	265	1	4,231	436	773	203	880	5	32
27162	Lunenburg	500	68	1	40	118	112	37	107	8	9
27179	Mendon	1,064	25	0	810	40	82	43	60	2	2
27185	Milford	4,282	129	1	2,803	181	609	177	350	15	17
27186	Millbury	215	43	5	11	32	46	24	52	2	0
27188	Millville	400	24	1	251	24	24	33	41	2	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
27202	New Braintree	19	1	0	1	12	1	2	2	0	0
27212	North Brookfield	185	38	0	17	50	22	1	46	7	4
27215	Northborough	1,981	46	0	1,143	89	282	93	320	8	0
27216	Northbridge	836	56	0	241	118	151	40	226	1	3
27222	Oakham	61	17	1	20	6	5	0	6	5	1
27226	Oxford	471	70	0	55	49	108	42	129	17	1
27228	Paxton	10	9	0	0	1	0	0	0	0	0
27234	Petersham	79	13	0	34	5	8	2	9	7	1
27235	Phillipston	169	13	0	111	9	10	4	5	17	0
27241	Princeton	334	23	1	173	12	38	15	67	4	1
27255	Royalston	2	2	0	0	0	0	0	0	0	0
27257	Rutland	203	4	0	143	4	17	11	23	0	1
27271	Shrewsbury	3,352	130	4	2,147	261	159	162	468	3	18
27277	Southborough	1,339	43	3	757	112	124	54	242	3	1
27278	Southbridge	967	79	7	305	115	97	92	255	10	7
27280	Spencer	582	94	0	16	116	49	39	114	152	2
27282	Sterling	1,067	48	0	636	31	189	31	131	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
27287	Sturbridge	507	47	2	60	89	100	53	148	4	4
27290	Sutton	356	14	2	240	6	40	10	39	5	0
27294	Templeton	311	37	4	55	30	114	17	49	5	0
27303	Upton	300	46	0	26	57	56	12	88	11	4
27304	Uxbridge	1,949	61	0	1,392	82	136	103	166	7	2
27311	Warren	213	40	2	51	33	34	7	44	0	2
27316	Webster	638	79	1	11	131	140	49	214	4	9
27321	West Boylston	1,135	33	1	871	27	83	33	83	2	2
27328	Westborough	3,173	72	4	2,221	126	109	130	489	18	4
27332	Westminster	1,436	32	6	839	97	182	57	207	9	7
27343	Winchendon	1,475	40	0	941	52	260	88	89	5	0
27348	Worcester	28,473	1,449	28	20,285	1,073	535	1,648	3,430	10	15
Total	**Worcester County**	**86,742**	**4,470**	**116**	**50,864**	**5,785**	**7,457**	**4,534**	**12,306**	**431**	**779**

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 in all of their responses to do so.

Fitchburg Fires in 2008

334 Total Fires — 242 Structures, 26 Vehicles & 66 Other Fires
The Fitchburg Fire Department reported 334 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 242 structure fires, 26 motor vehicle fires, 43 brush fires, five special outside fires; and three unclassified fires caused three civilian injuries, seven firefighter injuries and an estimated dollar loss of $1.9 million.

Structure Fires Up in 2008
Total fires decreased by two, or 1%, from the 334 incidents reported in 2007. Reported structure fires increased by 26 from the 216 reported during the previous year. Motor vehicle fires decreased by four from 30 the year before. Outside and other fires decreased by 24 from the 90 reported in 2007.

FITCHBURG FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	142	60	22	60	13	9	1	9
2005	220	129	26	65	13	5	1	7
2006	304	225	9	70	6	1	0	5
2007	336	216	30	90	16	5	1	10
2008	334	242	26	66	16	4	3	9

BUILDING FIRES

There were 241 building fires of different types in Fitchburg in 2008. These 241 building fires accounted for 99.6% of all structure fires in Fitchburg.

87% of Building Fires in Homes
The 241 building fires that occurred in Fitchburg in 2008 can be broken down by fixed property use as follows: 210, or 87% of all building fires, were in residential properties; nine happened in mercantile or business properties; eight fires occurred in educational facilities; four fires occurred in public assembly properties; another four fires happened in storage facilities; three fires occurred in institutional facilities; and one fire occurred in a special property.

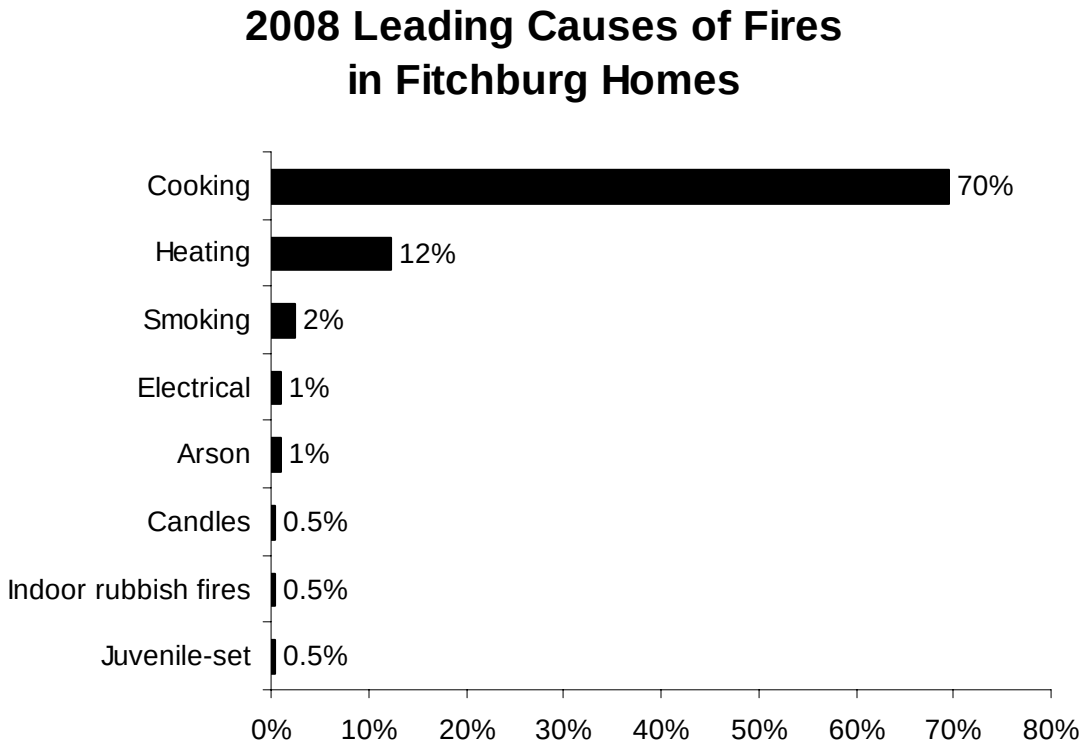
RESIDENTIAL FIRES

Residential Building Fires Up
There were 210 reported residential building fires in Fitchburg in 2008. These 210 fires are an increase of 37 from the 173 reported residential building fires reported in 2007.

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 Fitchburg; 25% occurred in 1- or 2-family homes; 7%

occurred in dormitories; 4% happened in residential board and care facilities; 3% happened in rooming houses; and less than 1% occurred in hotels and motels.

Unattended Cooking Leading Cause of Residential Fires
The leading cause of residential building fires in Fitchburg was unattended cooking and other unsafe cooking practices, accounting for 70% of these fires. Heating fires caused 12% of these fires. Smoking caused 2% of residential fires. Electrical problems and arsons each caused 2% of the fires. Candles, indoor rubbish fires and juvenile-set fires were each the cause of less than 1% of the fires in Fitchburg's residential occupancies in 2008.

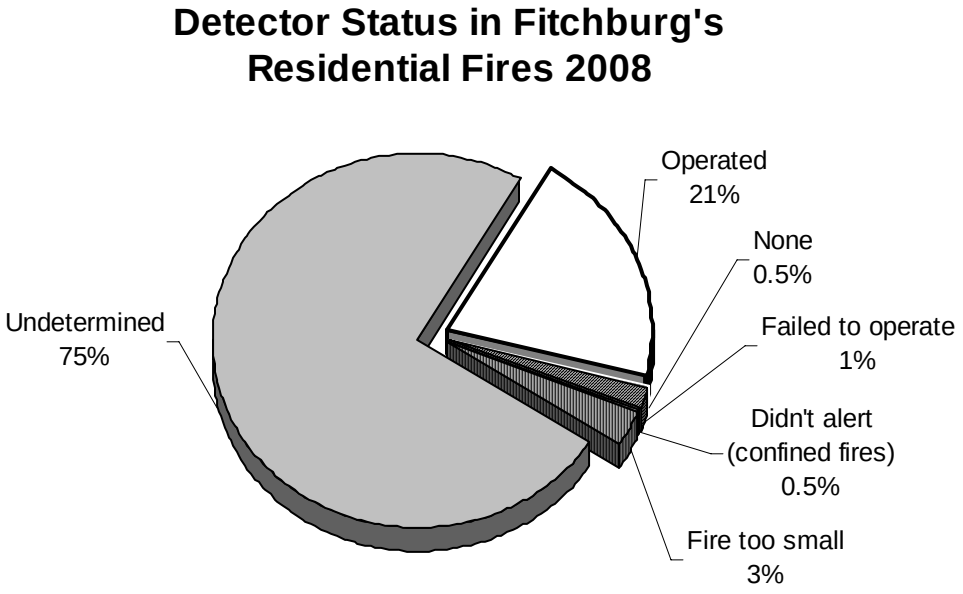


79% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and sixty-five (165), or 79% of all residential building fires were confined to non-combustible containers in 2008. One hundred and thirty-seven (137), or 65%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Twenty-three (23), or 11%, were fires confined to a fuel burner or boiler malfunction. Three (3) fires, or 1%, were reported to have been contained to a

[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.

chimney or flue. Two (2), or 1%, of these fires were rubbish fires contained to a non-combustible container.

Detectors Worked in Only 21% of Fires
Smoke or heat detectors operated and alerted the occupants in 43, or 21%, of the residential building fires. In less than 1% of these fires[2], the detectors did not alert the occupants. There were no detectors in less than 1% of these fires. Detectors were present but did not operate in 1% of these incidents. The fire was too small to trigger the detector in 3% of these fires. Smoke detector performance was undetermined in 156 incidents, or 75% of Fitchburg's residential building fires.



The lack of data on smoke detector performance in confined fires does not present a true picture of functioning smoke alarms in Fitchburg. 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 Power Shut-off, Failure or Disconnect
Of the three fires where smoke detectors were present but failed to operate, two, or 67%, failed because the power had been shut-off, failed or disconnected. It was undetermined in one case, or 33%, 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

Fitchburg reported six fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 241 building fires reported to MFIRS in 2008. Two (2) apartment buildings, one 1- or 2-family home, one bar or nightclub, one warehouse, and one unclassified vehicle storage facility were reported as vacant building fire incidents.

JUVENILE-SET FIRES

2 Juvenile-set Fires

There were two reported juvenile-set fires in Fitchburg in 2008. The one structure fire and one brush fire caused an estimated damage of $100.

ARSONS

16 Arsons[4] - 4 Structure, 3 Motor Vehicle and 9 Outside & Other

Sixteen (16), or 5%, of Fitchburg's 334 fires were considered intentionally set, or, for purposes of this analysis, arson. There were four structure arsons, three motor vehicle arsons and nine outside and other arsons.

All Arsons Remain the same in 2008

The total number of arsons remained the same with 16 reported in both 2008 and 2007. Reported structure arsons decreased by one from the five reported in 2007. Reported motor vehicle arsons increased by two from the one arson reported in 2007. Outside and other arsons decreased by one from the 10 reported the year before.

63 Fires Reported as Undetermined or Still Under Investigation

In 2008, Fitchburg reported 63 fires under investigation or cause undetermined after investigation. Fifty-two (52), or 83%, of these fires were reported to be undetermined after investigation. The other 11, or 17%, were still under investigation.

Twenty (20), or 32%, of these 63 fires were structure fires. Fourteen (14), or 22% were motor vehicle fires; and 29, or 46%, 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 Fitchburg in 2008.

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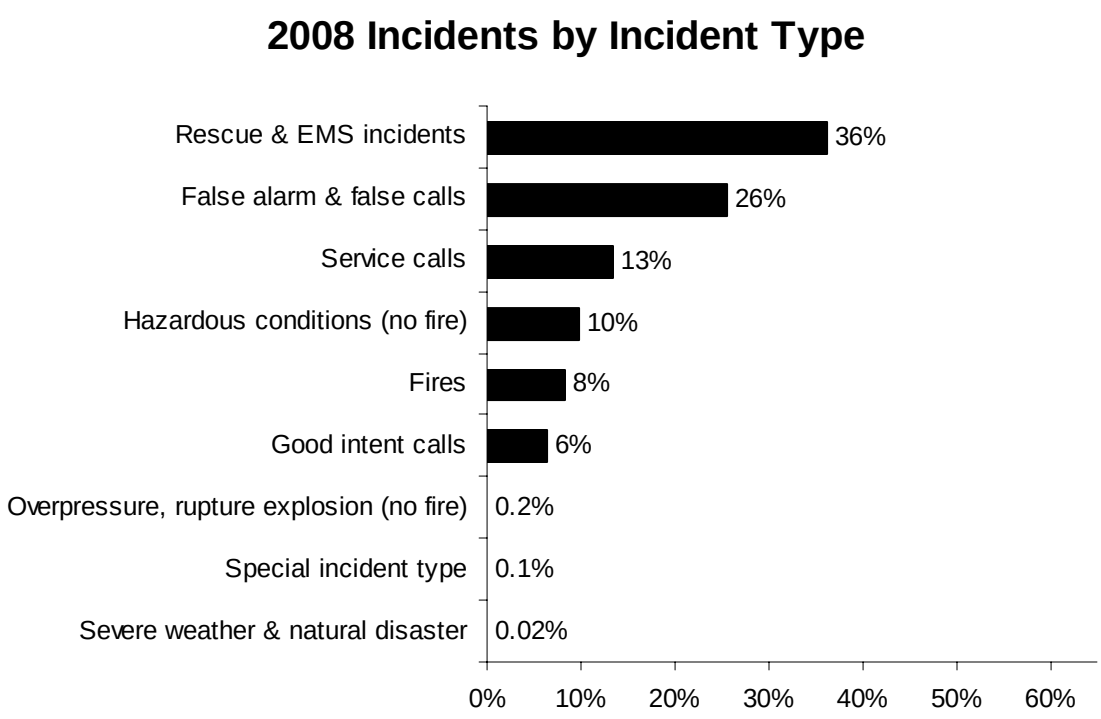
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater than 17 or if the field is left blank.

Rescue & EMS Calls Are 36% of All Reported Incidents
In 2008, Fitchburg voluntarily reported 4,096 incidents to MFIRS. Of these 4,096 incidents, 3,756, or 92%, were non-fire incidents.

Of these 3,756 non-fire incidents 1,484, or 36% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 1,048, or 26%, were reported false alarm or false calls; 548, or 13%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 401, or 10%, were reported hazardous condition calls with no fire; 260, or 6%, were reported good intent calls; eight, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; six, or 0.1%, were special type incidents; and one, or 0.02%, was a response to an incident caused by severe weather.

In 2008, Fitchburg reported 340 fires, accounting for 8% of all reported incidents.

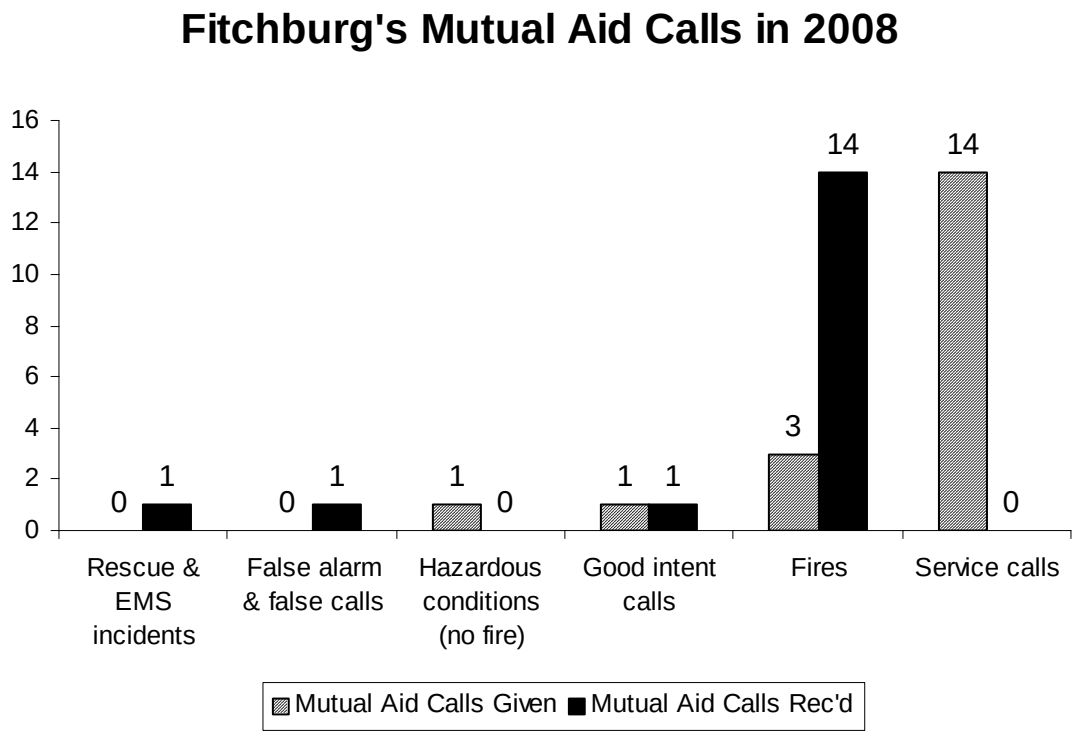


Fitchburg Gave Mutual Aid in 19 Incidents
In 2008, Fitchburg reported giving mutual aid to other surrounding fire departments in 19 incidents. Fourteen (14), or 74%, were for service calls; three, or 16%, were for fires; one, or 5%, was for a hazardous condition call with no fire; and another one, or 5% was for a good intent call.

Fitchburg Received Mutual Aid in 17 Incidents

In 2008, surrounding fire departments gave aid to Fitchburg in 17 incidents. Of these 17 incidents, 14, or 82%, were fires; one, or 6%, was a false alarm or false call; one, or 6%, was a good intent call; and one, or 6%, was a rescue or EMS call.

The following chart compares the number of calls that the Fitchburg Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Fitchburg. In 2008 Fitchburg was asked to send an apparatus outside of Fitchburg 1.1 times more than they asked neighboring fire departments for help.



DECEMBER 11 - 12, 2008 ICE STORM

During the night of December 11, 2008 and morning of December 12, a severe ice storm crippled most of northern Worcester County. Many 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 resources of fire departments in northern Worcester County. The City of Fitchburg was not spared.

In 2008, the Fitchburg Fire Department responded to an average number of 77 calls per week. During the week of the ice storm that began on a Thursday night, Fitchburg responded to 265 calls. One hundred and twenty-six (126) of these calls occurred on Friday, December 12. The majority of these calls were hazardous condition calls with no fire like downed power lines, shorted electrical equipment and water problems, EMS calls and false alarms.

Fitchburg Population: 39,102

8.5 Fires/1,000 Population

Total Fires:	**334**		**$1,937,822**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	242	72%	$1,645,252
Vehicle Fires	26	8%	281,850
Other Fires	66	20%	10,720

3 Civilian Injuries 7 Fire Service Injuries

Building Fires: 241

Residential Structure Fires: 210

Residential Structure Fires Confined to Non-Combustible Containers: 165

Unconfined Residential Structure Fires: 45

3 Civilian Injuries 5 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	118	56%
1- & 2-Family homes	61	29%
Dormitories	14	7%
Boarding houses	9	4%
Residential board & care	7	3%
Hotel/motel	1	0.5%

Detector Status	**Fires**	**%**
Operated	43	21%
Didn't operate	3	1%
None	1	0.5%
Fire too small	6	3%
Didn't Alert (confined)	1	0.5%
Undetermined	156	75%

Area of Origin[5]	**%**
Kitchen	69%
Heating room or area	11%
Laundry room	2%
Bedroom	2%
Attic	1%
Chimney or flue	1%

Heat Source	**%**	**%Unconfined**[6]
Radiated heat from op. eq.	5%	24%
Arcing	2%	11%
Cigarettes	2%	9%
Heat from operating equip.	2%	9%
Spark/ember/flame op. eq.	1%	7%
Hot ember or ash	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 Ignited[7]	**%**
Cooking materials	69%
Flammable or combustible liq.	11%
Structural member, framing	2%
Rubbish, trash, waste	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[8]
Too close to combustibles	1%	7%
Misuse of materials	1%	4%
Failure to clean	1%	4%

Equipment[9]	**%**
Cooking equipment	67%
None	18%
Boiler, furnace, cent. heat. unit	11%
Chimney or flue	1%

Cause of Ignition	**%**	**%Unconfined**[10]
Unintentional	12%	58%
Intentional	1%	4%
Failure of eq./heat source	2%	9%
Cause Under Investigation	3%	16%
Undetermined	2%	11%
Act of nature	0.5%	2%

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

Alerted Occupants	11%
Didn't Alert Occupants	1%
Undetermined	88%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	1,484	36%
False alarms & false calls	1,048	26%
Service calls	548	13%
Hazardous conditions (no fire)	1401	10%
Fires[11]	340	8%
Good intent calls	260	6%
Overpressure rupture, explosion or overheat calls (no fire)	8	0.2%
Special Incident Types	6	0.1%
Severe weather & natural disaster	1	0.02%

[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.

[11] 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	17	16	0	1
February	19	19	0	0
March	37	30	3	4
April	39	19	2	18
May	30	17	2	11
June	19	9	1	9
July	27	17	6	4
August	22	13	5	4
September	27	22	1	4
October	35	27	2	6
November	23	21	0	2
December	39	32	4	3

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	50	38	3	9
Monday	52	37	4	11
Tuesday	44	32	4	8
Wednesday	44	34	5	5
Thursday	49	35	2	12
Friday	46	27	5	14
Saturday	49	39	3	7

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	30	23	3	4
04:01 - 08:00	18	13	4	1
08:01 - 12:00	50	35	4	11
12:01 - 16:00	90	63	4	23
16:01 - 20:00	89	63	5	21
20:01 - 24:00	57	45	6	6

Motor Vehicle Fires

Total: 26
Automobiles: 23 (88%)
3 (13%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 16 **Dollar loss: $4,600**

0.4 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	4	2%	25%	$100
Vehicle Arsons	3	12%	19%	4,000
Other Arsons	9	14%	56%	500

0.10 Structure arsons/1,000 population
0.08 Vehicle arsons/1,000 population
0.23 Other arsons/1,000 population

Peak Times of Day for:

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

Vehicle Arsons	#	%
00:01 - 04:00	1	100%

Other Arsons	#	%
12:01 - 16:00	4	44%
08:01 - 12:00	2	22%
12:01 - 16:00	2	22%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	2	50%
High/junior high/middle school	1	25%
Specialty shop	1	25%

Worcester Fires in 2008

1,449 Total Fires — 811 Structures, 117 Vehicles & 521 Other Fires
The Worcester Fire Department reported 1,449 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2008. The 811 structure fires, 117 motor vehicle fires, 119 brush fires, 390 outside rubbish fires, and 12 special outside fires caused one civilian death, one civilian injury, 72 fire service injuries and an estimated dollar loss of $6.2 million.

Elderly Male Resident Killed in Ice Storm Related Heating Fire

- On December 13, 2008 at 8:10 a.m., the Worcester Fire Department was dispatched to an EMS call. The victim, a 91-year old male, was using a portable propane fueled space heater in the kitchen to keep warm in the aftermath of the severe ice storm that knocked out power, and subsequently his heating system, throughout central Massachusetts. The victim got too close to the space heater and his clothing ignited. He was transported to a local hospital where he succumbed to his injuries ten days later. There were no other injuries associated with this fire. It was undetermined if detectors were present, but sprinklers were not.

Structure Fires Up in 2008
Total fires increased by 59 from the 1,390 incidents reported in 2007. Reported structure fires increased by 110 from the 701 reported during the previous year. Motor vehicle fires declined by three from 120 the year before. Outside and other fires decreased by 48 from the 569 reported the year before[1].

WORCESTER FIRES FROM 2004 TO 2008

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2004	3,210	355	182	2,671	138	14	28	96
2005	1,239	690	166	383	35	11	15	19
2006	1,312	635	119	558	45	12	8	25
2007	1,390	701	120	569	29	14	6	9
2008	1,449	811	117	521	53	18	12	23

BUILDING FIRES

There were 804 building fires of different types in Worcester in 2008. These 804 building fires accounted for 99% of all structure fires in Worcester.

[1] The 2,403 unclassified fires in 2004 were a coding quality control issue with the Worcester data. The majority of these fires were misclassified. The sharp increase in structure fires is the misclassifying of incidents in 2004 as 'Fire, other'. Many of these incidents should have been coded as confined structure fires, or as 'non-fire' type incidents such as unauthorized burns, legitimate cooking fires or 'smoke scares'.

87% of Building Fires in Homes

The 804 building fires that occurred in Worcester in 2008 can be broken down by fixed property use as follows: 697, or 87% of all structure fires, were in residential properties; 37 fires occurred in mercantile or business properties; 27 fires took place in public assembly properties; 23 fires took place in institutional properties; 12 fires happened in educational properties; six fires occurred at manufacturing or processing facilities; one fire occurred in a storage facility; and one fire occurred in a laboratory.

RESIDENTIAL FIRES

Apartments Accounted for 58% of Residential Building Fires

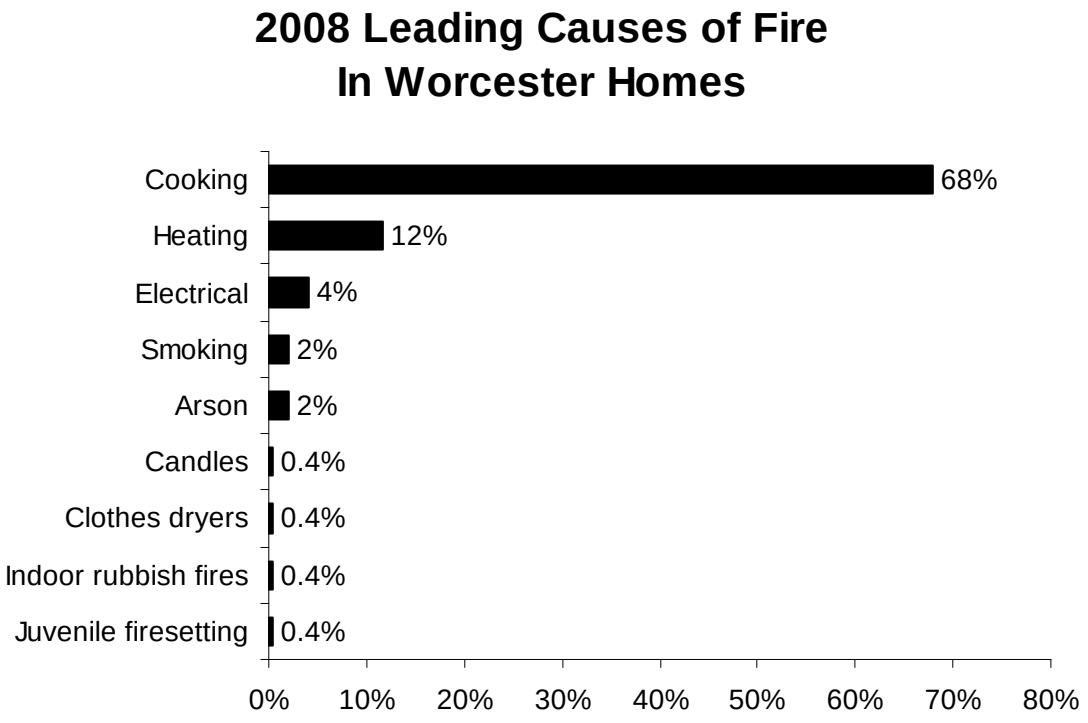
The peak fixed property uses for residential building fires were apartments, accounting for 58% of the building fires in Worcester; 20% occurred in one- or two-family homes; 12% occurred in rooming houses; 7% occurred in dormitories; 1% happened in residential board and care properties; another 1% occurred in hotels and motels; and 1% occurred in unclassified residential properties.

Residential Building Fires Are Up

There were 697 reported residential building fires in Worcester in 2008. These 697 fires are an increase of 100, or 17%, from the 597 residential building fires reported in 2007.

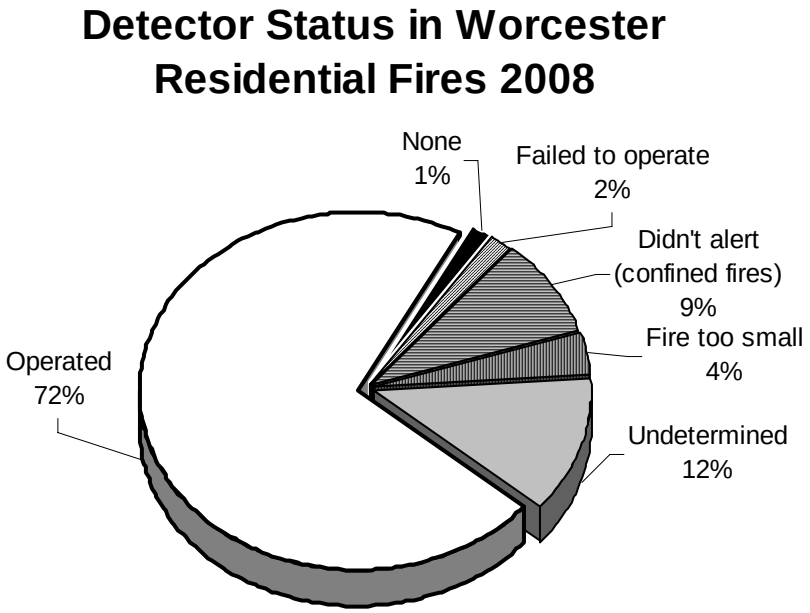
Unattended Cooking Causes Over 2/3 of All Residential Fires

The leading cause of residential building fires in Worcester was unattended cooking and other unsafe cooking practices, accounting for 68% of these fires. Heating fires accounted for 12% of these fires. Electrical fires caused 4% of the fires in Worcester homes. Smoking and arsons each caused 2% of these fires. Candles, clothes dryers, indoor rubbish fires and juvenile-set fires were each responsible for less than 1% of the residential building fires in Worcester in 2008.



3/4 of Residential Building Fires Are Confined to Non-Combustible Containers[2]
Five hundred and twenty-four (524), or 75% of all residential building fires were confined to non-combustible containers in 2008. Four hundred and forty-six (446), or 64%, of all residential building fires reported in 2008 were cooking fires contained to a non-combustible container. Sixty-five (65), or 9%, of all residential building fires were fuel burner or boiler malfunctions. Nine (9) of the reported fires were confined to a chimney, accounting for 2% of residential building fires in Worcester in 2008. Three (3) rubbish fires contained to a non-combustible container and one incinerator overload or malfunction each caused less than 1%, of these Worcester's residential fires.

Detectors Alerted Occupants in Almost 3/4 of Fires
Smoke or heat detectors operated and alerted the occupants in 496, or 72%, of the residential building fires. In 9% of these fires[3], 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 4% of the residential fires. Smoke detector performance was undetermined in 85 incidents, or 12% of Worcester'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.

38% of Failed Detectors Had Missing or Disconnected Batteries

Of the 13 fires where smoke detectors were present but failed to operate, five, or 38%, failed because the batteries were either missing or disconnected. A power failure, shutoff or disconnect caused one, or 8%, of the detectors to fail. A dead battery was responsible for one, or 8%, of the smoke detectors that failed to operate; and a lack of maintenance was the reason for another detector failing, or 8%. It was undetermined in the other five cases why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Worcester reported 17 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2.1% of the total 804 building fires reported to MFIRS in 2008. Eight apartment buildings, six (6) one- or two-family homes, one bar or nightclub, one unclassified business; and one manufacturing facility were reported as vacant building fire incidents.

These 17 vacant building fires caused 16 fire service injuries. That is 0.94, or almost one, firefighter injured per vacant building fire.

JUVENILE-SET FIRES

10 Juvenile-set Fires

There were 10 juvenile-set fires in Worcester in 2008. The seven structure fires, two brush fires and one outside rubbish fire caused $20,720 in estimated damages.

ARSONS

53 Total Arsons — 18 Structures, 12 Motor Vehicles, & 23 Other

Fifty-three (53), or 4%, of Worcester's 1,449 fires were considered intentionally set, or, for purposes of this analysis, arson. The 18 structure arsons, 12 motor vehicle arsons and 23 outside and other arsons caused 11 fire service injuries and an estimated dollar loss of $511,882.

All Arsons Increased

The total number of arsons increased by 29. This is an 83% increase from the 24 arsons reported in 2007. Reported structure arsons increased by four from 14 the year before. Motor vehicle arsons doubled from the six reported in 2007 to 12. Outside and other arsons increased by 14 from the nine reported the year before.

Worcester reported 166 fires that 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 Worcester.

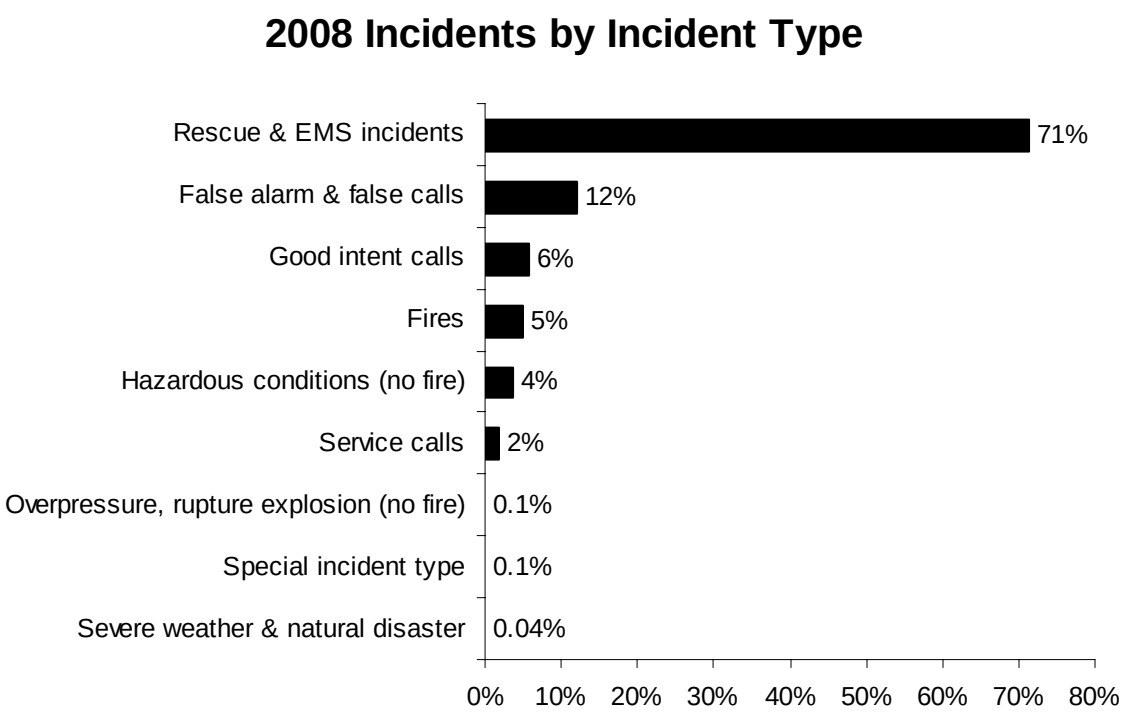
ALL INCIDENTS

Rescue & EMS Calls Are 71% of All Reported Incidents

In 2008, Worcester voluntarily reported 28,473 incidents to MFIRS. Of these 28,473 incidents, 27,024, or 95%, were non-fire incidents.

Of these 27,024 non-fire incidents 20,285, or 71% of all reported incidents in 2008, were reported rescue and emergency medical services (EMS) calls; 3,430, or 12%, were reported false alarm or false calls; 1,648, or 6%, were reported good intent calls; 1,073, or 4%, were reported hazardous condition calls with no fire; 535, or 2%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 28, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; 15, or 0.1%, were special type incidents; and 10, or 0.04%, were responses to incidents caused by severe weather.

In 2008, Worcester reported 1,449 fires, accounting for 5% of all reported incidents.



Worcester Gave Mutual Aid in 1 Incident

In 2008, Worcester reported giving mutual aid to other surrounding fire departments in one incident. This incident was coded as a special incident type, other.

Worcester Reported Receiving Mutual 2 Times in 2008

In 2008, Worcester reported two incidents in which they received mutual aid from another fire department. One was for a rescue or EMS incident. The other call for mutual aid was cancelled while the companies were en-route.

DECEMBER 11 - 12, 2008 ICE STORM

During the night of December 11, 2008 and morning of December 12, a severe ice storm crippled most of northern Worcester County. Many 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 the northern Worcester County. The northern part of the City of Worcester was not spared.

In 2008, the Worcester Fire Department responded to an average number of 537 calls per week. During the week of the ice storm that began on a Thursday night, Worcester responded to 925 calls. Three hundred and fifty-six (356) of these calls occurred on Friday, December 12. The majority of these calls were rescue and EMS calls, as well as hazardous condition calls with no fire like downed power lines and electrical wiring and equipment problems. The only 2008 fire related death in Worcester also occurred in the aftermath of this storm.

Worcester Population: 172,648

8.1 Fires/1,000 Population

Total Fires:	**1,449**		**$6,165,302**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	811	56%	$6,016,370
Vehicle Fires	117	8%	136,561
Other Fires	521	36%	12,371

1 Civilian Death — 0.69 Civilian Deaths/1,000 Fires
1 Fatal Fire — 0.06 Civilian Deaths/10,000 Population
1 Civilian Injury — 64 Fire Service Injuries

Building Fires: 804

Residential Structure Fires: 697

Residential Structure Fires Confined to Non-Combustible Containers: 524

Unconfined Residential Structure Fires: 173

1 Civilian Death 1 Civilian Injury 59 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	404	58%
1- & 2-Family homes	141	20%
Boarding house	81	12%
Dormitories	52	7%

Detector Status	**Fires**	**%**
Operated	496	72%
Didn't operate	13	2%
None	10	1%
Fire too small	27	4%
Didn't Alert (confined)	60	9%
Undetermined	85	12%

Area of Origin[4]	**%**
Kitchen	71%
Heating room or area	9%
Bedroom	4%
Chimney or flue	1%
Living room	1%

Heat Source	**%**	**%Unconfined**[5]
Radiated heat from op. eq.	4%	18%
Heat from operating eq.	4%	14%
Arcing	2%	8%
Hot ember or ash	1%	5%
Hot or smoldering obj. other	1%	5%
Cigarette	1%	3%

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

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

Item First Ignited[6]	**%**
Cooking materials	67%
Flammable or combust. liquid	9%
Structural member, framing	2%
Rubbish, trash, waste	1%
Film or residue (creosote)	1%

Factor Contrib. to Ignition	**%**	**%Unconfined**[7]
Too close to combustibles	4%	16%
Abandoned materials	3%	13%
Misuse of material or prod.	3%	12%
Electrical failure, malfunc.	2%	9%
Equipment unattended	2%	8%

Equipment[8]	**%**
Cooking equipment	66%
None	19%
Boiler, furnace, cent. heat. unit	9%
Chimney or flue	1%
Electrical wiring, other	1%

Cause of Ignition	**%**	**%Unconfined**[9]
Unintentional	14%	57%
Failure of eq./heat source	2%	7%
Intentional	2%	8%
Act of Nature	0.4%	2%
Undetermined	1%	3%
Cause under investigation	6%	23%

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

Alerted Occupants	77%
Didn't Alert Occupants	11%
Undetermined	11%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	20,285	71%
False alarms & false calls	3,430	12%
Good intent calls	1,648	6%
Fires	1,449	5%
Hazardous conditions (no fire)	1,073	4%
Service calls	535	2%
Overpressure rupture, explosion or overheat calls (no fire)	28	0.1%
Special Incident Types	15	0.1%
Severe weather & natural disaster	10	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.
[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	87	76	7	4
February	102	78	12	12
March	120	79	10	31
April	198	76	14	105
May	115	59	4	52
June	106	45	7	54
July	115	42	17	56
August	132	69	8	55
September	106	59	9	38
October	126	76	11	39
November	119	77	8	34
December	123	75	10	38

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	229	143	18	68
Monday	222	129	13	89
Tuesday	189	107	19	63
Wednesday	182	112	8	62
Thursday	183	99	15	69
Friday	214	111	19	84
Saturday	230	110	25	95

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	129	50	23	56
04:01 - 08:00	106	66	16	24
08:01 - 12:00	164	118	12	34
12:01 - 16:00	306	176	18	112
16:01 - 20:00	401	247	24	130
20:01 - 24:00	343	154	24	165

Motor Vehicle Fires

Total: 117
Automobiles: 117 (100%)
12 (10%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 53 **Dollar loss: $511,882**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	18	3%	34%	$489,612
Vehicle Arsons	12	8%	23%	22,000
Other Arsons	23	6%	43%	270

0.10 Structure arsons/1,000 population
0.07 Vehicle arsons/1,000 population
0.13 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
12:01 - 16:00	5	28%
16:01 - 20:00	4	22%
00:01 - 04:00	3	17%
20:01 - 00:00	3	17%

Vehicle Arsons	#	%
04:01 - 08:00	5	42%
20:01 - 00:00	3	25%
00:01 - 04:00	2	17%
12:01 - 16:00	2	17%

Other Arsons	#	%
16:01 - 20:00	9	39%
20:01 - 00:00	7	30%
12:01 - 16:00	4	17%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	10	56%
1- or 2-Family homes	3	17%