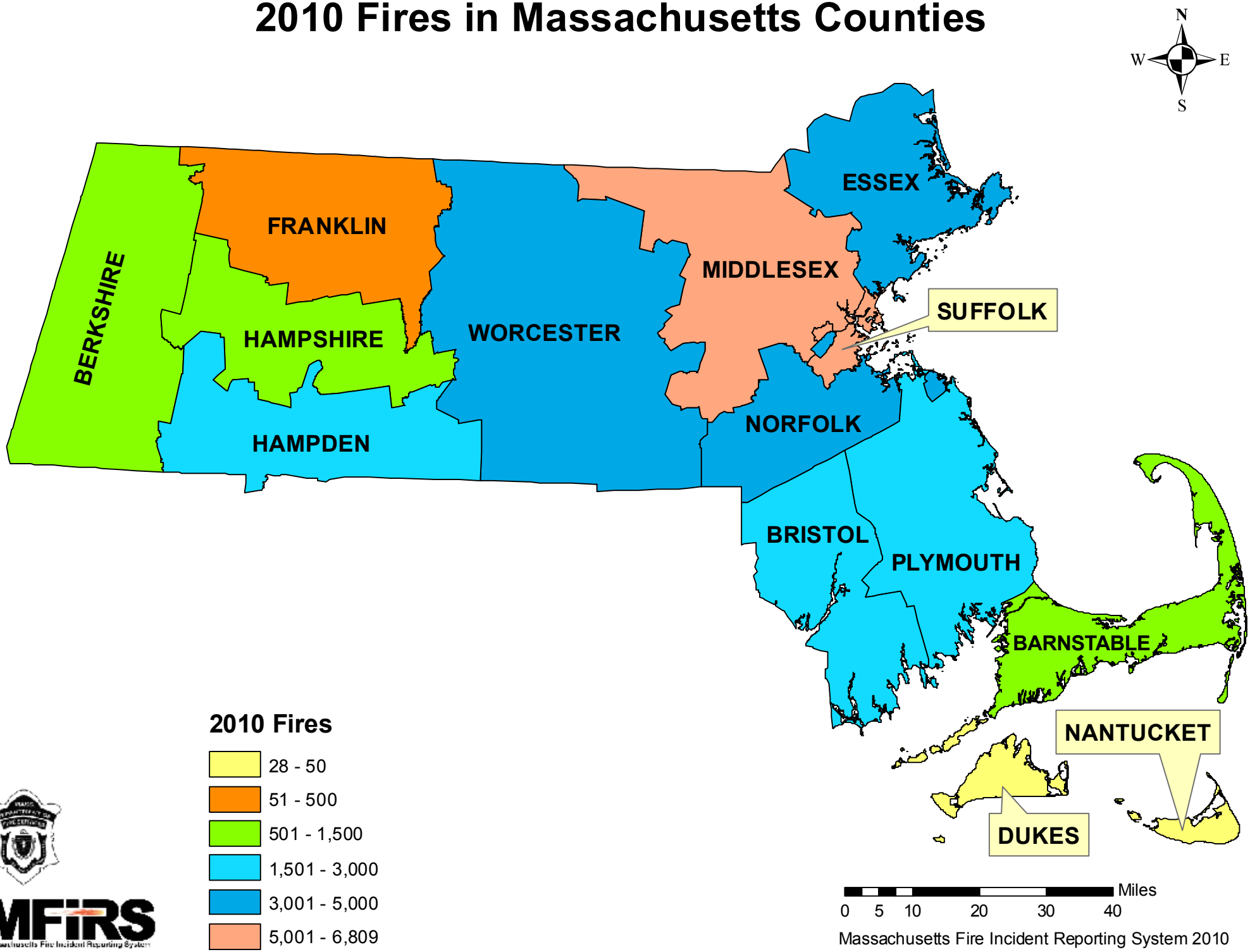
County Profiles
2010 Fire Data Analysis

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

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

2010 Fires in Massachusetts Counties



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2010 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	957	418	103	436	0	27	0	12	$6,393,211
Berkshire	609	356	47	206	0	10	0	11	5,756,399
Bristol	2,013	837	301	875	4	44	1	36	15,690,131
Dukes	28	15	5	8	2	0	0	0	25,050
Essex	3,574	1,977	295	1,302	3	21	0	46	24,267,771
Franklin	396	186	43	167	2	1	0	0	1,679,635
Hampden	2,323	1,173	286	864	2	33	1	57	12,940,237
Hampshire	560	236	59	265	1	9	0	2	3,185,806
Middlesex	5,760	3,405	506	1,849	8	81	0	127	42,087,422
Nantucket	46	29	3	14	0	0	0	0	5,000
Norfolk	3,420	2,020	284	1,116	5	27	0	43	13,876,684
Plymouth	1,903	798	219	886	1	40	0	29	13,112,509
Suffolk	6,809	4,861	421	1,527	3	20	0	63	34,433,633
Worcester	4,282	2,249	395	1,638	5	53	0	105	23,038,088
Total	**32,680**	**18,560**	**2,967**	**11,153**	**36**	**366**	**2**	**531**	**$196,491,576**

2010 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	66	7	7	52	0	2	0	0	$328,400
Berkshire	42	8	4	30	0	1	0	1	75,605
Bristol	116	43	13	60	0	2	0	0	1,926,450
Dukes	1	0	1	0	0	0	0	0	0
Essex	152	23	19	110	2	0	0	2	379,650
Franklin	27	8	1	18	0	0	0	0	154,600
Hampden	77	17	12	48	1	1	0	1	382,900
Hampshire	43	9	1	33	0	1	0	0	88,142
Middlesex	161	44	13	104	1	0	0	0	434,805
Nantucket	1	0	0	1	0	0	0	0	0
Norfolk	80	14	4	62	1	0	0	2	424,300
Plymouth	93	18	12	63	0	1	0	0	1,133,610
Suffolk	145	39	18	88	1	2	0	8	1,175,887
Worcester	165	38	10	117	2	3	0	3	626,776
Total	**1,169**	**268**	**115**	**786**	**8**	**13**	**0**	**17**	**$7,131,125**

*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.

2010 Fires, Arsons and Deaths By County and By Population*

County	Population	Total Fires	Fires per 1,000 Pop.	Fire Deaths	Deaths per 1,000 Fires	Deaths per 10,000 Pop.	Total Arsons	Arsons per 1,000 Pop.
Barnstable	215,888	957	4.4	0	0.0	0.00	66	0.3
Berkshire	131,219	609	4.6	0	0.0	0.00	42	0.3
Bristol	548,285	2,013	3.7	4	2.0	0.07	116	0.2
Dukes	16,535	28	1.7	2	71.4	1.21	1	0.1
Essex	743,159	3,574	4.8	3	0.8	0.04	152	0.2
Franklin	71,372	396	5.5	2	5.1	0.28	27	0.4
Hampden	463,490	2,323	5.0	2	0.9	0.04	77	0.2
Hampshire	158,080	560	3.5	1	1.8	0.06	43	0.3
Middlesex	1,503,085	5,760	3.8	8	1.4	0.05	161	0.1
Nantucket	10,172	46	4.5	0	0.0	0.00	1	0.1
Norfolk	670,850	3,420	5.1	5	1.5	0.07	80	0.1
Plymouth	494,919	1,903	3.8	1	0.5	0.02	93	0.2
Suffolk	722,023	6,809	9.4	3	0.4	0.04	145	0.2
Worcester	798,552	4,282	5.4	5	1.2	0.06	165	0.2
Massachusetts	**6,547,629**	**32,680**	**5.0**	**36**	**1.1**	**0.05**	**1,169**	**0.2**

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

2010 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	32,575	30	23,053	1,877	2,502	1,320	3,641	44	108
Berkshire	10,757	13	6,234	768	1,370	537	1,738	44	53
Bristol	47,821	58	29,243	2,504	4,452	3,232	7,944	108	280
Dukes[2]	128	3	9	6	2	1	107	0	0
Essex	81,292	98	44,025	4,459	11,638	5,636	14,505	242	689
Franklin	6,195	12	3,140	599	1,015	455	693	98	183
Hampden	39,720	73	24,059	1,953	3,001	3,799	6,597	66	172
Hampshire	12,821	57	8,155	904	838	613	2,067	36	151
Middlesex	154,353	158	84,625	10,596	19,842	8,980	24,932	585	4,635
Nantucket	2,165	2	1,013	191	147	92	710	9	1
Norfolk	82,969	150	49,798	5,618	9,615	4,338	11,770	115	1,565
Plymouth	56,559	102	34,748	4,306	6,331	3,761	6,819	214	278
Suffolk	85,966	74	46,116	5,228	11,641	7,257	15,223	48	379
Worcester	78,501	120	51,302	4,087	7,115	4,199	10,791	148	739
Massachusetts	**691,822**	**950**	**405,520**	**43,096**	**79,509**	**44,220**	**107,537**	**1,757**	**9,233**

[1] WX is the abbreviation for Weather.

[2] Tisbury is the only department to send us non-fire calls.

Barnstable County

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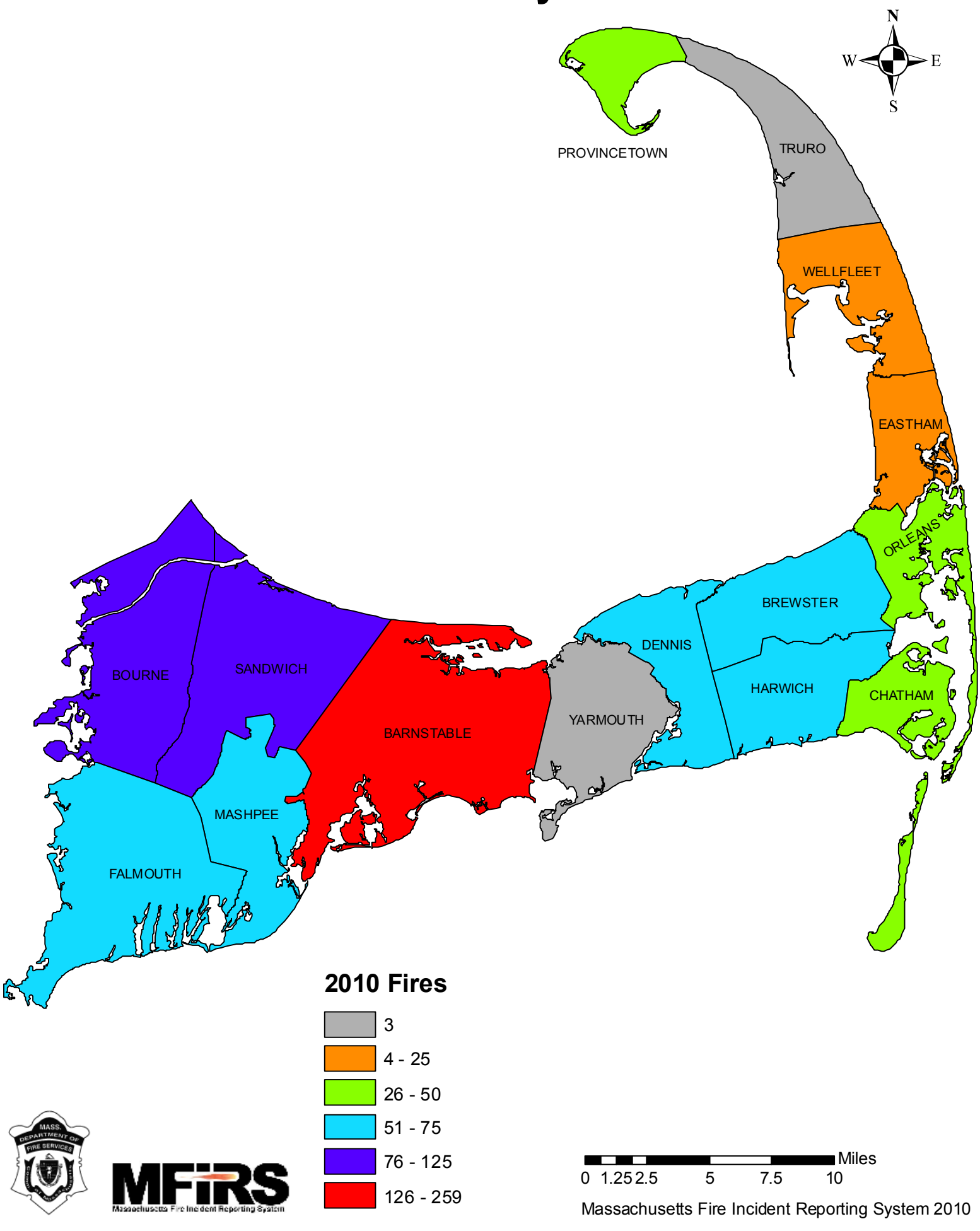
Barnstable County Fires 2010



Massachusetts Fire Incident Reporting System 2010

Barnstable County Fires in 2010

957 Total Fires — 418 Structures, 103 Vehicles & 436 Other Fires
Barnstable County ranked ninth out of the 14 Massachusetts counties in total reported fires. Barnstable County fire departments reported 957 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 418 structure fires, 103 motor vehicle fires, 290 brush, tree, or lawn fires, 71 outside rubbish fires, 46 special outside fires, three cultivated vegetation or crop fires and 26 unclassified fires caused 27 civilian injuries, 12 fire service injuries and an estimated dollar loss of $6.4 million. Barnstable County's fires accounted for 3% of the 32,680 Massachusetts fires reported in 2010.

Nineteen (19) of Barnstable County's 20 fire departments either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2010.

No Fire Deaths in 2010
Barnstable County did not have any reported fire deaths in 2010.

Structure & Motor Vehicle Fires Down
The total number of reported fire incidents increased by 69 from the 888 reported in 2009. Reported structure fires decreased by 41 from the 459 reported during the previous year. Motor vehicle fires decreased by 37 from the 140 reported during 2009. Outside and other fires increased by 147 from the 289 reported the year before.

Brush Fires Rise Dramatically
Barnstable County had a large increase in brush fires in 2010. Brush fires increased by 144, or 99%, from the 146 reported in 2009. This is the main reason for the 8% rise in overall fires in Barnstable County especially after decreases in both structure and motor vehicle fires.

BARNSTABLE COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	1,110	460	131	519	67	14	8	45
2007	1,060	460	119	481	83	16	7	60
2008	1,082	480	124	478	93	12	7	74
2009	888	459	140	289	66	16	3	47
2010	957	418	103	436	66	7	7	52

Fire and Fire Death Rates
Barnstable County had 4.4 fires per 1,000 population. That figure ranks Barnstable County ninth in the state and below the state rate of 5.0 fires per 1,000 population. Barnstable County also had 0 fire deaths per 10,000 population, tying it for twelfth with three other Massachusetts counties and below the state rate of 0.05 fire deaths per 10,000 population.

Sandwich Has Barnstable County's Largest Loss Fire

- On May 31, 2010, at 12:36 p.m., the Sandwich Fire Department responded to a fire of undetermined cause in a single-family home. The fire originated in the first floor exterior balcony area. Five (5) firefighters were injured battling this fire. Detectors were present and operated. The building was not equipped with sprinklers. Damages were estimated to be $675,000.

STRUCTURE FIRES

Reported Structure Fires Up

The 418 structure fires caused 23 civilian injuries, 11 fire service injuries and an estimated dollar loss of $5.4 million. These incidents represented 44% of Barnstable County's reported fires in 2010. The average estimated dollar loss per structure fire was $12,905. The total number of reported structure fires decreased by 41, or 9%, from the 459 reported in 2009.

Arson Caused 2% of Structure Fires

The seven structure arsons caused two civilian injuries and an estimated dollar loss of $282,000. Arson was indicated as the cause of 2% of the structure fires and 5% of Barnstable County's structure fire dollar loss. The seven structure arsons accounted for 11% of the Barnstable County arson fires reported in 2010. The total number of reported structure arsons fell by nine from 16 in 2009.

86% of Structure Arsons Occurred in Residences

Eighty-six percent (86%) of Barnstable County's seven structure arsons occurred in residential occupancies, and 14% occurred in mercantile or business properties.

BUILDING FIRES

There were 409 building fires of different types in Barnstable County in 2010. These 409 building fires accounted for 97.8% of all building fires in Barnstable County.

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

Three hundred and thirty-eight (338), or 83%, of Barnstable County's 409 building fires occurred in residential occupancies. Mercantile and business properties had 19 fires. Fifteen (15) fires took place in public assembly properties, including restaurants and churches. Special properties had 12 fires. Thirteen (13) fires took place in storage properties. Educational facilities experienced nine fires. Hospitals, prisons, and other institutional buildings experienced seven fires. Three (3) fires occurred in industrial, utility, defense, agricultural or mining facilities. One (1) fire took place in a manufacturing or processing facility in Barnstable County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Are Down

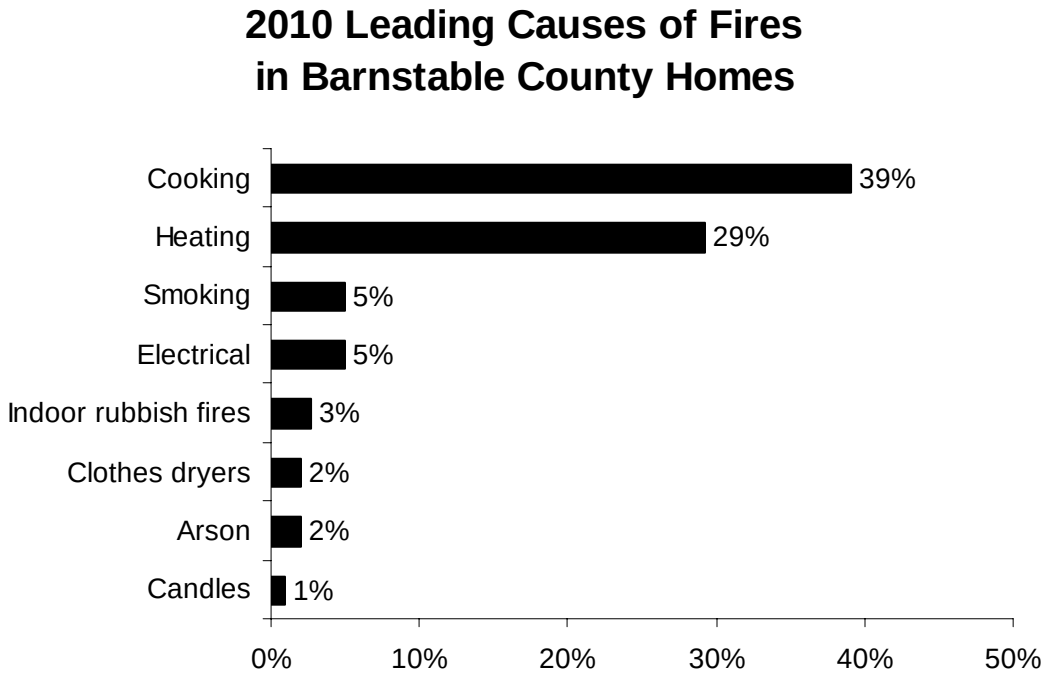
There were 338 reported residential building fires in Barnstable County in 2010. These 338 fires are a decrease of 33, or 9%, from the 371 residential building fires reported in 2009.

1- & 2-Family Homes Accounted for 83% of Residential Building Fires

The peak fixed property uses for residential building fires were one- or two-family homes, accounting for 83% of the building fires in Barnstable County; 9% occurred in apartments; 3% happened in hotels or motels; 2% happened in dormitories; 1% occurred in rooming houses; and less than 1% happened in residential board and care facilities. Four (4), or 1%, of the building fires in Barnstable County occurred in unclassified residential buildings.

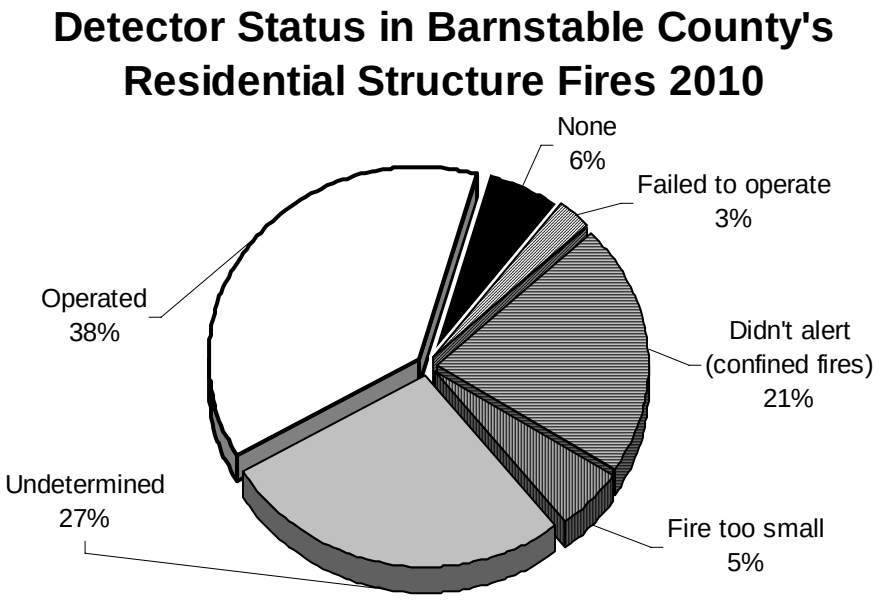
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Barnstable County was unattended cooking and other unsafe cooking practices, accounting for 39% of the fires. Heating fires accounted for 29% of the fires in people's homes in 2010; 54% involved a fuel burner or boiler, and 48% involved a chimney or flue. Smoking and electrical problems each caused 5% of fires in residential buildings. Indoor rubbish fires accounted for 3%. Clothes dryers and arson each caused 2% of these fires. Candles caused 1% of the fires in residential occupancies in Barnstable County in 2010.



62% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Two hundred and eight (208), or 62%, of all residential building fires were reported as confined to non-combustible containers in 2010. One hundred and eleven (111), or 33%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Forty-eight (48) of the reported fires were confined to a chimney, accounting for 14% of residential building fires. Forty-two (42), or 12%, were fires confined to a fuel burner or boiler malfunction. Seven (7), or 2%, of these fires were rubbish fires contained to a non-combustible container in Barnstable County in 2010.

Detectors Alerted Occupants in Only 38% of Fires
Smoke or heat detectors operated and alerted the occupants in 128, or 38%, of the residential building fires. In 21% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 6% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 5% of the residential fires. Smoke detector performance was undetermined in 91 incidents, or 27%, of Barnstable County's residential building fires.



30% of Detectors Failed From Power Failures, Shutoffs or Disconnects
Of the 10 fires where smoke detectors were present but failed to operate, three, or 30%, failed because the power was shut-off or disconnected. In two fires, or 20%, the batteries

[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.

were either missing or disconnected. One (1), or 10%, failed because of a dead battery. It was undetermined in four cases, or 40%, why the detector failed.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Barnstable County reported seven fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 409 building fires reported to MFIRS in 2010. Four (4) one- or two-family homes, a restaurant, a parking garage, and a clubhouse were reported as vacant building fire incidents.

Two (2), or 10%, of the vacant building fires in Barnstable County in 2010 were determined to be intentionally set. Both of these fires occurred in a one- or two-family home.

JUVENILE-SET FIRES

8 Juvenile-set Fires

There were eight reported juvenile-set fires in Barnstable County in 2010. The one structure fire, six brush fires, and one outside mailbox fire caused $250 in estimated damages.

ARSONS

66 Total Arsons[4] — 7 Structures, 7 Vehicles & 52 Other Arsons

Sixty-six (66), or 7%, of Barnstable County's 957 fires were considered intentionally set, or, for purposes of this analysis, arson. The seven structure arsons, seven motor vehicle arsons and 52 outside and other arsons caused two civilian injuries and an estimated dollar loss of $328,400.

Motor Vehicle & Outside Arson Up in 2010

The total number of reported arson fires remained the same with 66 reported in both 2009 and 2010. Reported structure arsons decreased by nine from the 16 reported the previous year. Motor vehicle arsons increased by four from the three reported in 2009. Reported outside and other arsons increased by five from the 47 reported in 2009.

ALL INCIDENTS

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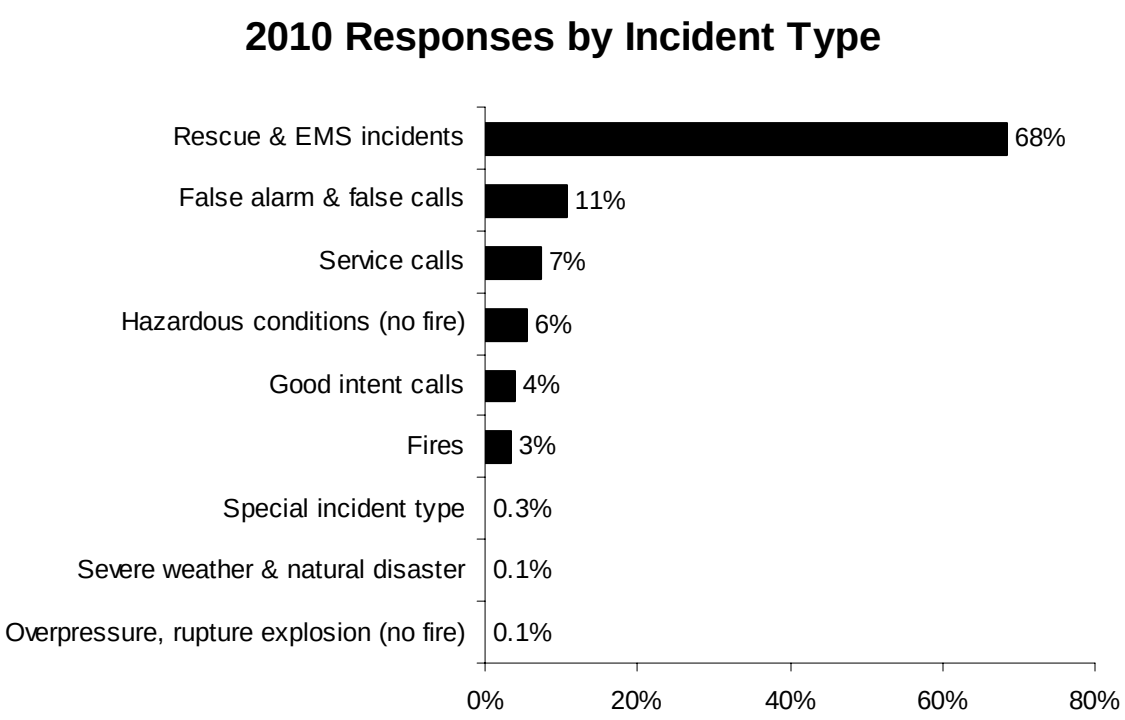
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is 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 Over 2/3 of All Reported Incidents[5]
In 2010, Barnstable County fire departments reported 33,716 responses[6] to MFIRS. Of these 33,716 incidents, 32,575 non-fire calls were voluntarily reported.

Of these 32,575 non-fire calls, 23,053, or 68% of all of the responses reported in 2010, were reported rescue and emergency medical services (EMS) calls; 3,641, or 11%, were reported false alarm or false calls; 2,502, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,877, or 6%, were reported hazardous condition calls with no fire; 1,320, or 4%, reported good intent calls; 108, or 0.3%, were special incident type calls such as citizen complaints; 44, or 0.1%, were severe weather responses; and 30, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

One thousand one hundred and forty-one (1,141), or 3%, of the total responses submitted by Barnstable County fire departments were fires.



[5] The reason for the large decrease from the 39,254 responses reported in 2009, is because of computer problems the Yarmouth Fire Department was only able to report 347 incidents. In 2009 Yarmouth reported 6,205 total incidents.
[6] These figures include responses in which Barnstable County fire departments gave mutual aid to other fire departments.

Barnstable County Departments Gave Aid 1,208 Times

In 2010, Barnstable County fire departments reported coming to the aid of other fire departments 1,208 times. Of these 1,208 responses, 723, or 60%, were for rescue or EMS incidents; 176, or 15%, were for fires; 166, or 14%, were for service calls such as cover assignments; 91, or 8%, were for good intent calls; 34, or 3%, were for hazardous conditions calls with no fire; 16, or 1%, were for false alarms or false calls; and two, or 0.2%, were special incident types.

Barnstable County Received Mutual Aid in 786 Incidents

In 2010, Barnstable County fire departments received aid from surrounding departments in 786 incidents. Of these 786 incidents, 573, or 73%, were rescue and emergency medical services calls; 131, or 17%, were for fires; 25, or 3%, were good intent calls; 23, or 3%, were false alarms or false calls; 22, or 3%, were hazardous conditions calls with no fire; eight, or 1%, were service calls; two, or 0.3%, were severe weather or natural disaster calls; one, or 0.11%, was an overpressure, rupture, explosion or overheat call with no fire; and one, or 0.1%, was a special incident type.

Barnstable County Population: 215,888

4.4 Fires/1,000 Population

Total Fires:	**957**		**$6,393,211**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	418	44%	$5,394,180
Vehicle Fires	103	11%	980,101
Other Fires	436	46%	18,930

27 Civilian Injuries 12 Fire Service Injuries

Building Fires: 409

Residential Structure Fires: 338

Residential Structure Fires Confined to Non-Combustible Containers: 208

Unconfined Residential Structure Fires: 130

22 Civilian Injuries 11 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	280	83%
Apartments	32	9%
Hotels, motels	11	3%
Dormitories	7	2%
Rooming houses	3	1%

Detector Status	**Fires**	**%**
Operated	128	38%
Didn't operate	10	3%
None	19	6%
Fire too small	18	5%
Didn't Alert (confined)	71	21%
Undetermined	92	27%

Area of Origin[7]	**%**
Kitchen	41%
Chimney or flue	14%
Heating room or area	14%
Bedroom	4%
Wall surface, exterior	3%

Heat Source	**%**	**%Unconfined**[8]
Heat from operating eq.	6%	15%
Arcing	5%	13%
Radiated heat/oper. eq.	4%	12%
Hot or smoldering object	4%	9%
Cigarette	2%	6%
Hot ember or ash	2%	5%

[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]
Food, cooking materials	35%	Failure to clean	4%	11%
Film, residue (creosote)	14%	Abandoned materials	4%	10%
Flammable or comb. liquid	12%	Too close to combustibles	2%	6%
Rubbish, trash, waste	4%	Electrical failure, malfunct.	2%	5%
Exterior sidewall covering	3%	Equipment unattended	2%	5%
Electrical wire, cable insulation	2%	Arc from faulty contact	1%	4%

Equipment[11]	**%**	**Cause of Ignition**	**%**	**%Unconfined**[12]
Cooking equipment	36%	Unintentional	24%	62%
None	27%	Failure of eq. or heat source	6%	15%
Chimney or flue	14%	Intentional	1%	4%
Boiler, furnace, cent. heat unit	12%	Act of nature	2%	5%
Clothes dryer	2%	Undetermined	2%	5%
		Cause Under Investigation	3%	8%

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

Alerted Occupants	32%
Didn't Alert Occupants	34%
Undetermined	34%

[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	44	32	7	5
February	57	37	6	14
March	68	32	11	25
April	88	35	4	49
May	123	38	12	73
June	74	31	8	35
July	150	45	16	89
August	117	38	12	67
September	46	19	4	23
October	59	33	9	17
November	58	37	4	17
December	73	41	10	22

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	132	56	11	65
Monday	153	62	14	77
Tuesday	139	63	10	66
Wednesday	119	47	13	59
Thursday	137	61	20	56
Friday	128	60	18	50
Saturday	149	69	17	63

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	48	20	7	21
04:01 - 08:00	56	37	5	14
08:01 - 12:00	174	80	18	76
12:01 - 16:00	271	96	26	149
16:01 - 20:00	270	126	28	116
20:01 - 24:00	138	59	19	60

Motor Vehicle Fires

Total: 103
Automobiles: 78 (76%)
6 (8%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 66 **Dollar loss: $328,400**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	7	2%	11%	$282,000
Vehicle Arsons	7	7%	11%	45,900
Other Arsons	52	12%	79%	500

0.03 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.24 Other arsons/1,000 population

2 Civilian Injuries

Peak Times of Day for:

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

Other Arsons	#	%
16:01 - 20:00	16	31%
08:01 - 12:00	11	21%
20:01 - 00:00	11	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	6	86%

Town of Barnstable Fire Districts **Population: 45,193**

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

	Total	Structure	Vehicle	Other	Total	Structure	Vehicle	Other
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
2009	19	3	9	7	0	0	0	0
2010	35	12	4	19	8	2	0	6

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	69	39	10	20	3	0	0	3
2010	85	49	12	24	9	2	1	5

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	1	0	0	0	0	0	0
2010	Non-reporting department							

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	118	55	14	49	19	6	1	12
2010	125	42	14	69	1	0	0	1

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	12	8	3	1	0	0	0	0
2010	14	10	0	4	1	0	0	1

Bourne **Population: 19,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	104	43	21	40	17	2	0	15
2010	104	33	16	55	14	0	0	14

Brewster **Population: 9,820**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	53	32	2	19	5	0	1	4
2010	60	23	6	31	4	0	0	4

Chatham **Population: 6,125**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	22	11	4	7	1	0	0	1
2010	23	12	2	12	0	0	0	0

Dennis **Population: 14,207**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	56	24	7	25	1	0	0	1
2010	62	19	5	38	1	0	0	1

Eastham **Population: 4,956**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	14	0	7	0	0	0	0
2010	25	11	1	13	0	0	0	0

Falmouth **Population: 31,531**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	52	20	14	18	2	2	0	0
2010	69	38	8	23	7	0	1	6

Harwich **Population: 12,243**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	44	25	5	14	1	1	0	0
2010	58	26	7	25	1	1	0	0

MA Military Reservation **Population: 0**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Federal Fire Department - Did Not Report to the State.							
2007	Federal Fire Department - Did Not Report to the State.							
2008[13]	0	0	0	0	0	0	0	0
2009	7	1	2	4	2	0	0	2
2010	12	3	1	8	4	0	0	4

Mashpee **Population: 14,006**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	42	23	7	12	0	0	0	0
2010	68	25	9	34	5	0	2	3

Orleans **Population: 5,890**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	29	14	5	10	1	0	0	1
2010	48	16	1	31	0	0	0	0

Provincetown **Population: 2,942**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	28	21	3	4	0	0	0	0
2010	39	25	2	12	0	0	0	0

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

Sandwich **Population: 20,675**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	110	81	17	12	4	3	0	1
2010	100	59	11	30	5	2	2	1

Truro **Population: 2,003**

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

Wellfleet **Population: 2,750**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	11	5	1	5	0	0	0	0
2010	20	11	2	7	0	0	0	0

Yarmouth **Population: 23,793**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	81	32	15	34	10	2	1	7
2010	3	2	1	0	1	0	1	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
01919	Barnstable	926	40	1	581	51	92	44	114	0	3
01036	Bourne	3,721	125	5	2,849	128	145	86	366	0	17
01041	Brewster	2,661	81	2	2,047	93	109	90	228	5	6
01920	C.O.M.M.	3,760	103	3	2,667	129	252	109	451	16	30
01055	Chatham	2,286	31	0	1,459	136	207	138	307	4	4
01921	Cotuit	0	0	0	0	0	0	0	0	0	0
01075	Dennis	4,368	80	11	3,071	263	351	169	409	2	12
01086	Eastham	162	29	0	2	45	28	7	47	2	2
01096	Falmouth	163	72	0	0	40	15	2	34	0	0
01126	Harwich	3,901	88	2	2,578	207	442	182	397	4	1
01922	Hyannis	214	128	0	0	36	0	4	46	0	0
01936	MA Military Res.	833	22	0	101	337	162	19	192	0	0
01172	Mashpee	2,814	81	1	1,919	104	260	163	284	0	2
01224	Orleans	2,314	64	2	1,824	81	73	72	183	1	14
01242	Provincetown	172	41	0	10	22	9	14	76	0	0
01261	Sandwich	3,538	106	1	2,560	137	238	132	338	9	17
01300	Truro	3	3	0	0	0	0	0	0	0	0
01318	Wellfleet	1,023	21	1	724	42	71	58	106	0	0
01923	West Barnstable	510	21	1	341	22	44	26	54	1	0
01351	Yarmouth	347	5	0	320	4	4	5	9	0	0
Total	**Barnstable County**	**33,716**	**1,141**	**30**	**23,053**	**1,877**	**2,502**	**1,320**	**3,641**	**44**	**108**

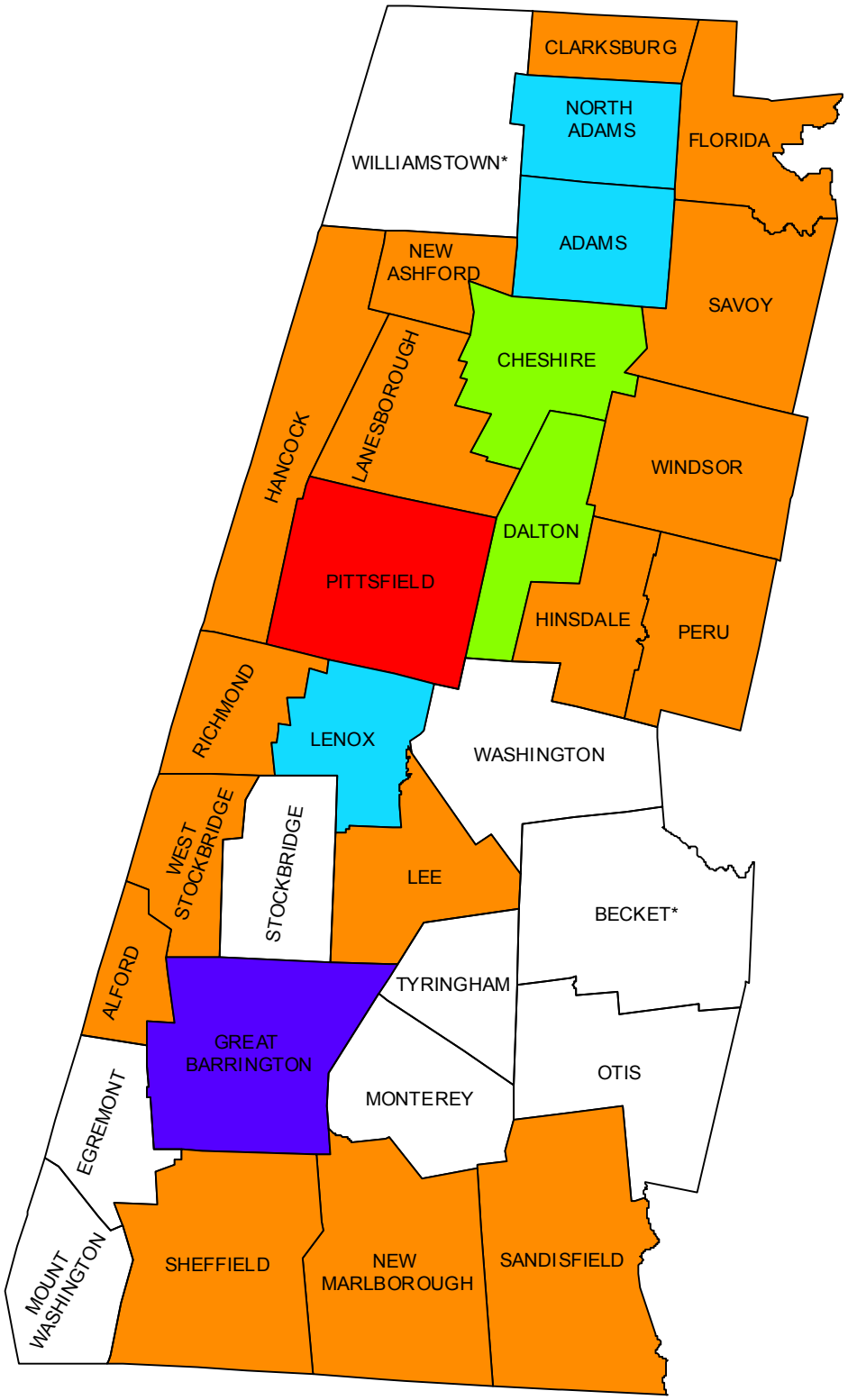
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Berkshire County
2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Berkshire County Fires 2010



2010 Fires

- 0
- 1 - 10
- 11 - 25
- 26 - 50
- 51 - 100
- 101 - 307

*Non-reporting fire department

Miles
0 1.5 3 6 9 12

Massachusetts Fire Incident Reporting System 2010

Berkshire County Fires in 2010

609 Total Fires — 356 Structures, 47 Vehicles & 206 Outside and Other Fires
Berkshire County ranked tenth out of the fourteen Massachusetts counties in total reported fires. Berkshire County fire departments reported 609 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 356 structure fires, 47 motor vehicle fires, 106 brush, tree or lawn fires, 52 outside rubbish fires, 22 special outside fires, one cultivated crop or vegetation fire, and 25 other fires caused 10 civilian injuries, 11 fire service injuries and an estimated dollar loss of $5.8 million. Berkshire County's fires accounted for 2% of the 32,680 Massachusetts fires reported in 2010.

Twenty-nine (29) of Berkshire County's 31 fire departments either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2010.

Structure & Motor Vehicle Fires Down
The total number of reported fire incidents decreased by 59 from the 668 reported in 2009. Reported structure fires decreased by 56 from the 412 reported during the previous year. Motor vehicle fires decreased by 13 from the 60 reported the year before. Outside and other fires increased by 10 from the 196 reported in 2009.

BERKSHIRE COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	736	392	47	297	46	10	7	30
2007	673	375	62	236	30	12	1	17
2008	714	431	46	237	42	8	1	33
2009	668	412	60	196	44	18	6	20
2010	609	356	47	206	42	8	4	30

Fire and Fire Death Rates
Berkshire County had 4.6 fires per 1,000 population. That figure ranks Berkshire County seventh in the state and below the state rate of 5.0 fires per 1,000 population. Berkshire County also had 0 fire deaths per 10,000 populations ranking it tied for twelfth among Massachusetts counties and below the state rate of 0.05 fire deaths per 10,000 population.

Lenox Had Berkshire County's Largest Loss Fire
- On December 22, 2010, at 2:16 p.m., the Lenox Fire Department was called to a fire at an historic inn. The cause of the fire was undetermined after the investigation was completed. 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 $2.25 million.

STRUCTURE FIRES

Reported Structure Fires Down

The 356 structure fires caused nine civilian injuries, 11 fire service injuries and an estimated dollar loss of $5.5 million. These incidents represented 58% of Berkshire County's reported fires in 2010. The average estimated dollar loss per structure fire was $15,333. The total number of reported structure fires decreased by 56, or 14%, from the 412 reported in 2009.

Arson Caused 2% of Structure Fires

The eight structure arsons caused one fire service injury and an estimated dollar loss of $55,800. Arson was indicated as the cause of 2% of the structure fires and 1% of Berkshire County's structure fire dollar loss. The eight structure arsons accounted for 19% of the Berkshire County arson fires reported in 2010. The total number of reported structure arsons increased by 10 from 10 in 2009.

38% of Structure Arsons Occurred in Residences

Three (3), or 38%, of Berkshire County's eight structure arsons occurred in residential occupancies. Businesses and storage facilities each had two structure arsons; and an additional structure arson occurred in an educational facility in 2010.

BUILDING FIRES

There were 350 building fires of different types in Berkshire County in 2010. These 350 building fires accounted for 98.3% of all structure fires in Berkshire County.

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

Two hundred and fifty-six (256), or 73%, of Berkshire County's 350 building fires occurred in residential occupancies. Special properties, such as outbuildings or sheds, had 22 fires. Twenty (20) fires took place in public assembly properties, including restaurants and churches. Fifteen (15) fires occurred at educational facilities. Mercantile and business properties had 14 fires. Storage facilities had 12 fires. Hospitals, prisons, and other institutional buildings experienced seven fires. One (1) fire occurred at a manufacturing facility in Berkshire County in 2010. There were also three fires at unclassified buildings in Berkshire County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Down

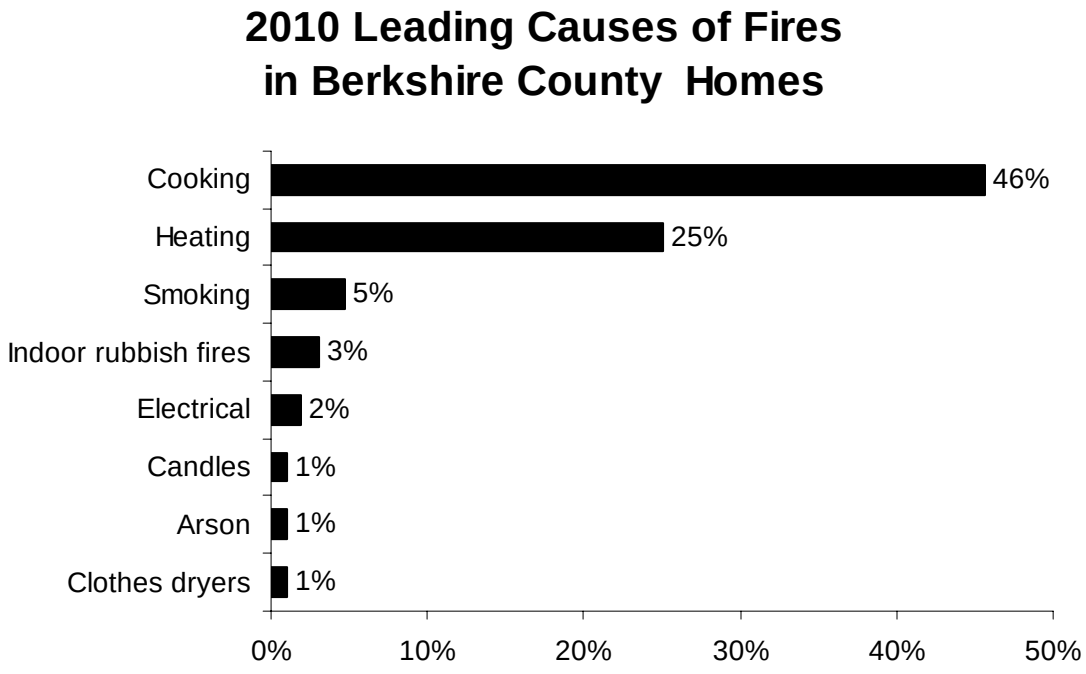
There were 256 reported residential building fires in Berkshire County in 2010. These 256 fires are a decrease of 58, or 18%, from the 314 residential building fires reported in 2009.

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

The peak fixed property uses for residential building fires were one- or two-family homes, accounting for 62% of the building fires in Berkshire County; 32% occurred in apartments; 4% happened in hotels or motels; 1% occurred in rooming houses; and less than 1% occurred in residential board and care facilities. Four (4), or 2%, of the building fires in Berkshire County occurred in unclassified residential buildings.

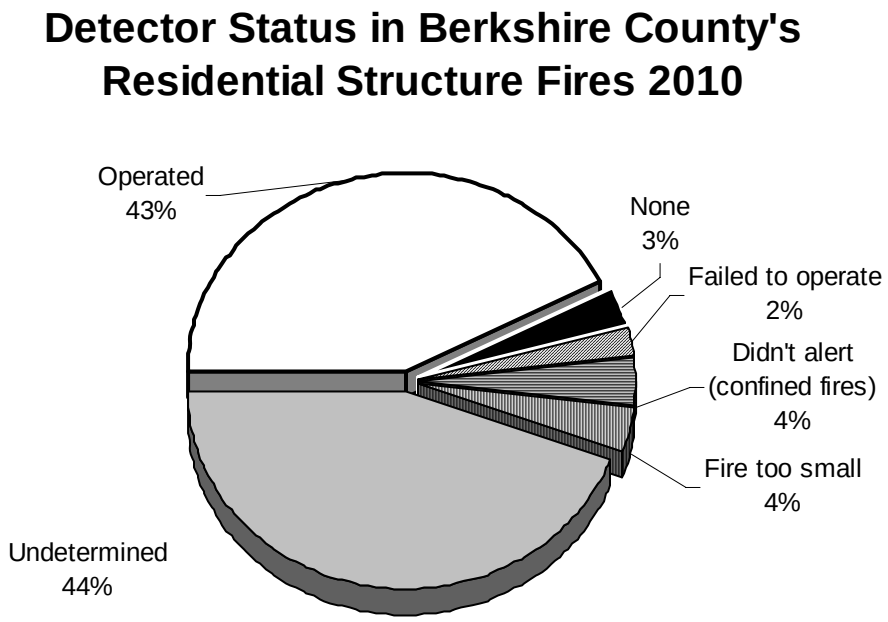
Unattended Cooking Causes 46% of Residential Fires

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 25% of the residential building fires; of which 25, or 39%, were caused by chimney, fireplace or flue fires. Smoking caused 5% of the fires. Indoor rubbish fires caused 3% of these fires. Electrical problems caused 2%. Candles, arson and clothes dryers were each responsible for 1% of Berkshire County's residential building fires in 2010.



68% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and seventy-three (173), or 68%, of these fires were confined to a non-combustible container. One hundred and seven (107), or 42%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Fires confined to a fuel burner or boiler malfunction accounted for 34, or 13%. Twenty-four (24) of the reported fires were confined to a chimney accounting for 9% of residential building fires. Eight (8), or 3%, of these fires in Berkshire County in 2010 were indoor rubbish fires.

Detectors Alerted Occupants in 41% of Fires
Smoke or heat detectors operated and alerted the occupants in 109, or 43%, of the residential building fires. In 4% 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 4% of the residential fires. Smoke detector performance was undetermined in 114 incidents, or 44%, of Berkshire 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.

1 Failed Detector Had Missing or Disconnected Batteries

Of the nine fires where smoke detectors were present but failed to operate, one, or 17%, failed because the battery was either missing or disconnected. One (1) other detector failed because of a lack of maintenance, causing 17% of the failed detectors in Berkshire County in 2010. It was undetermined why the other six detectors, or 67%, failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Berkshire County reported 11 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 350 building fires reported to MFIRS in 2010. Six (6) one- or two-family homes, two outbuildings or sheds, one business office; one unclassified storage facility, and one railroad right of way were reported as vacant building fire incidents.

Two (2), or 18%, of the vacant building fires in Berkshire County in 2010 were determined to be intentionally set. One (1) of these fires was in a one- or two-family home while the other fire occurred in an unclassified storage facility.

JUVENILE-SET FIRES

0 Juvenile-set Fires

There were no reported juvenile-set fires in Berkshire County in 2010.

ARSONS

42 Total Arsons — 8 Structure, 4 Vehicle & 30 Other Arsons

Forty-two (42), or 7%, of Berkshire County's 609 fires were intentionally set, or, for purposes of this analysis, arson[4]. The eight structure arsons, four motor vehicle arsons and 30 outside and other arsons caused one civilian injury, one fire service injury and an estimated dollar loss of $75,605.

[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 & Motor Vehicle Arsons Down

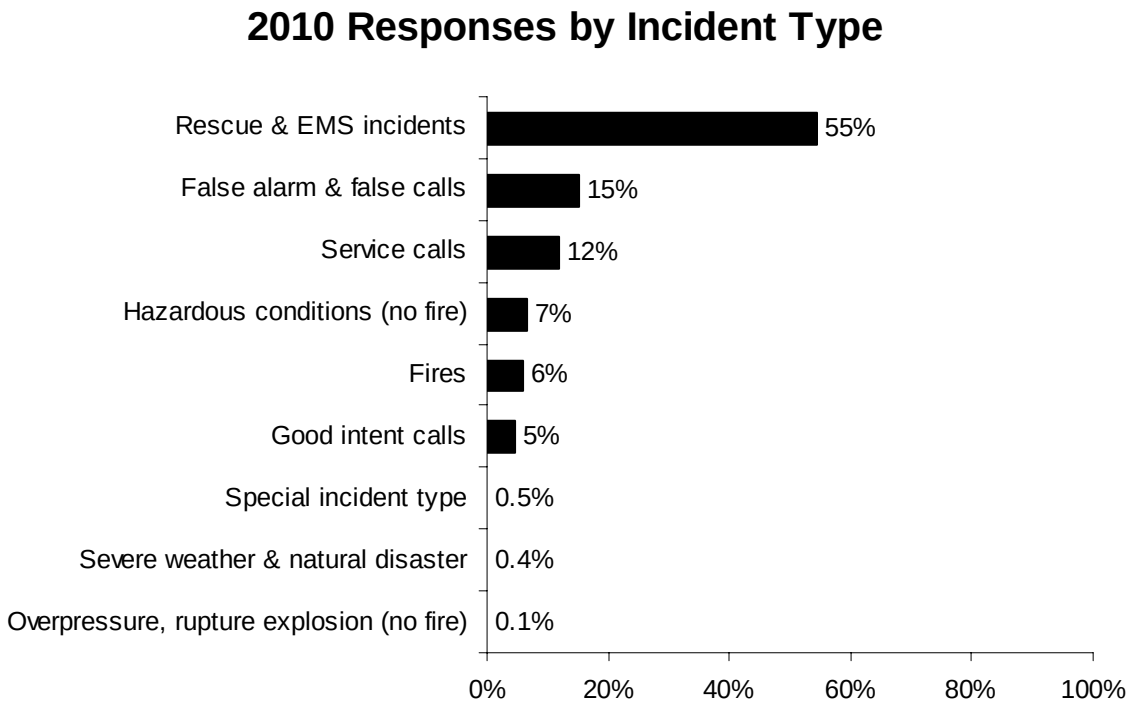
The total number of reported arson fires decreased by two from the 44 reported in 2009. Reported structure arsons decreased by 10 from 18 in 2009. Motor vehicle arsons decreased by two from the six reported the previous year. Reported outside and other arsons increased by 10 from the 20 reported in 2009.

ALL INCIDENTS

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

In 2010, Berkshire County fire departments reported 11,419 responses[5] to MFIRS. Of these 11,419 incidents, 10,757 non-fire incidents were voluntarily reported.

Of these 10,757 non-fire responses, 6,234, or 55% of all the responses reported in 2010, were reported rescue and emergency medical services (EMS) calls; 1,738, or 15%, were reported false alarm or false calls; 1,370, or 12%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 768, or 7%, were reported hazardous condition calls with no fire; 537, or 5%, were reported good intent calls; 53, or 0.5%, were special incident type calls such as citizen complaints; 44, or 0.4%, were severe weather responses; and 13, or 0.1%, 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.

Six hundred and sixty-two (662), or 6%, of the total responses submitted by Berkshire County fire departments were fires.

Berkshire County Departments Reported Giving Mutual Aid 154 Times

In 2010, Berkshire County fire departments reported coming to the aid of other fire departments 154 times. Of these 154 responses, 52, or 34%, were for fires; 51, or 33%, were for rescue or EMS calls; 29, or 19%, were for service calls such as cover assignments; five, or 3%, were for false alarms; four, or 3%, were good intent calls; two, or 1%, were special incident types; and one, or 1%, was for a severe weather call.

Berkshire County Received Mutual Aid in 232 Incidents

In 2010, Berkshire County fire departments reported receiving aid from surrounding departments in 232 incidents. Of these 232 incidents, 242, or 79%, were rescue and emergency medical services calls; 28, or 9%, were for fires; 11, or 4%, were hazardous conditions calls with no fire; 10, or 3%, were false alarms or false calls; four, or 1%, were service calls; three calls, or 1%, were severe weather calls; and one call, or less than 1%, was an overpressure, rupture explosion with no after fire call.

Berkshire County Population: 131,219

4.6 Fires/1,000 Population

Total Fires:	**609**		**$5,756,399**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	356	58%	$5,458,674
Vehicle Fires	47	8%	276,105
Other Fires	206	34%	21,620

10 Civilian Injuries 11 Fire Service Injuries

Building Fires: 350

Residential Structure Fires: 256

Residential Structure Fires Confined to Non-Combustible Containers: 173

Unconfined Residential Structure Fires: 83

8 Civilian Injuries 10 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	158	62%
Apartments	82	32%
Hotels or motels	9	4%
Residential board & care	2	1%
Rooming houses	1	0.4%
Residential, other	4	1%

Detector Status	**Fires**	**%**
Operated	109	43%
Didn't operate	6	2%
None	8	3%
Fire too small	9	4%
Didn’t alert (confined)	10	4%
Undetermined	114	44%

Area of Origin[6]	**%**	**Heat Source**	**%**	**%Unconfined**[7]
Kitchen	49%	Radiated heat from op. eq.	5%	14%
Heating equipment room	13%	Heat from operating equip.	4%	12%
Chimney or flue	9%	Arcing	4%	11%
Living room	4%	Hot ember or ash	2%	7%
Wall surface, exterior	4%	Cigarette	2%	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]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[9]**
Food, cooking materials	45%	Too close to combustibles	3%	10%
Flammable, combustible liquid	13%	Abandoned materials	2%	8%
Film, residue (creosote)	9%	Failure to clean	2%	6%
Rubbish, trash, waste	3%	Mechanical failure/malfunc.	2%	5%
Electrical wire, cable insulation	3%	Electrical failure/malfunc.	1%	4%

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Cooking equipment	45%	Unintentional	18%	54%
None	26%	Failure of eq. or heat source	5%	17%
Boiler, furnace, cent. heat unit	13%	Intentional	1%	2%
Chimney or flue	9%	Cause under investigation	3%	10%
Stove, heating	2%	Undetermined	5%	16%

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

Alerted occupants	43%
Didn't alert occupants	6%
Undetermined	51%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	48	39	2	7
February	44	31	4	9
March	52	32	5	15
April	92	32	5	55
May	45	22	0	23
June	47	29	5	13
July	53	24	4	25
August	45	24	3	18
September	48	29	7	12
October	44	29	3	12
November	43	26	3	14
December	48	39	6	3

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	86	52	4	30
Monday	83	52	8	23
Tuesday	81	53	2	26
Wednesday	91	55	6	30
Thursday	81	45	6	30
Friday	99	52	13	34
Saturday	88	47	8	33

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	55	31	6	18
04:01 - 08:00	42	28	1	13
08:01 - 12:00	89	60	11	18
12:01 - 16:00	145	70	12	63
16:01 - 20:00	172	103	11	58
20:01 - 00:00	106	64	6	36

Motor Vehicle Fires

Total: 47
Automobiles: 34 (72%)
4, or (12%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 42 **Dollar loss: $75,605**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	$ Loss
Structure Arsons	8	2%	19%	$55,800
Vehicle Arsons	4	9%	10%	15,705
Other Arsons	30	9%	71%	4,100

0.06 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.23 Other arsons/1,000 population

1 Civilian Injury 1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	3	38%	08:01 - 12:00	2	50%
00:01 - 04:00	2	25%	00:01 – 04:00	1	25%
20:01 - 00:00	2	25%	20:01 – 00:00	1	25%

Other Arsons	#	%
12:01 - 16:00	10	33%
16:01 - 20:00	9	30%

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

Adams **Population: 8,405**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	44	35	1	8	4	2	0	2
2010	36	22	6	8	3	0	1	2

Alford **Population: 494**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	1	1	0	0	0	0	0	0
2010	1	1	0	0	0	0	0	0

Becket **Population: 1,779**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	2	1	1	0	1	0	1	0
2010	Non-Reporting Community							

Cheshire **Population: 3,235**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	3	0	1	2	1	0	0	1
2010	12	5	2	5	0	0	0	0

Clarksburg **Population: 1,702**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	4	1	0	0	0	0	0
2010	4	4	0	0	0	0	0	0

Dalton **Population: 6,756**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	25	23	2	0	0	0	0	0
2010	20	17	0	3	1	0	0	1

Egremont **Population: 1,225**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	10	3	0	7	1	0	0	1
2007	10	8	2	0	0	0	0	0
2008	Non-Reporting Community							
2009	1	1	0	0	0	0	0	0
2010	Fire Department in Good Standing, Certified No Reportable Fires							

Florida **Population: 752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	5	1	4	0	0	0	0
2010	3	1	1	1	0	0	0	0

Great Barrington **Population: 7,104**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	87	74	3	10	2	1	1	0
2010	80	62	3	15	0	0	0	0

Hancock **Population: 717**

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

Hinsdale **Population: 2,032**

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

Lanesborough **Population: 3,091**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	3	1	5	0	0	0	0
2010	9	4	0	5	0	0	0	0

Lee **Population: 5,943**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	6	2	4	0	0	0	0	0
2010	5	4	1	0	0	0	0	0

Lenox **Population: 5,025**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	55	33	2	20	1	0	0	1
2010	44	27	1	16	1	1	0	0

Monterey **Population: 961**

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

New Ashford **Population: 228**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	2	2	0	0	0	0	0	0

New Marlborough **Population: 1,509**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	16	5	3	8	0	0	0	0
2010	6	2	0	4	0	0	0	0

North Adams **Population: 13,708**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	52	20	9	23	6	0	2	4
2010	48	18	12	18	8	2	1	5

Otis **Population: 1,612**

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

Peru **Population: 847**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	2	0	0	2	1	0	0	1
2010	4	2	0	2	1	0	0	1

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

Pittsfield **Population: 44,737**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	275	157	23	95	25	14	2	9
2010	307	170	19	118	25	5	2	18

Richmond **Population: 1,475**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	16	8	0	8	0	0	0	0
2010	8	4	0	4	2	0	0	2

Sandisfield **Population: 915**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	15	10	1	4	0	0	0	0
2010	9	3	1	5	1	0	0	1

Savoy **Population: 692**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	2	2	0	0	0	0	0	0
2010	2	2	0	0	0	0	0	0

Sheffield **Population: 3,257**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	2	1	0	1	1	1	0	0
2010	2	0	0	2	0	0	0	0

Stockbridge **Population: 1,947**

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

Tyringham **Population: 327**

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

West Stockbridge **Population: 1,306**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	4	2	0	2	1	0	0	1
2010	1	1	0	0	0	0	0	0

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

Williamstown **Population: 7,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	16	10	5	1	1	0	0	1
2010	Non-Reporting Community							

Windsor **Population: 899**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	2	0	0	2	0	0	0	0
2010	1	1	0	0	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
03004	Adams	273	41	0	70	40	21	23	74	0	4
03006	Alford	1	1	0	0	0	0	0	0	0	0
03022	Becket	0	0	0	0	0	0	0	0	0	0
03058	Cheshire	12	12	0	0	0	0	0	0	0	0
03063	Clarksburg	13	12	0	0	1	0	0	0	0	0
03070	Dalton	687	20	0	500	28	56	19	64	0	0
03090	Egremont	1	1	0	0	0	0	0	0	0	0
03098	Florida	55	7	0	31	10	4	3	0	0	0
03113	Great Barrington	472	85	1	163	30	22	11	159	0	1
03121	Hancock	2	2	0	0	0	0	0	0	0	0
03132	Hinsdale	4	3	0	0	1	0	0	0	0	0
03148	Lanesborough	378	17	2	263	16	13	11	52	1	3
03150	Lee	5	5	0	0	0	0	0	0	0	0
03152	Lenox	543	45	0	112	33	88	20	224	19	2
03193	Monterey	0	0	0	0	0	0	0	0	0	0
03200	New Ashford	2	2	0	0	0	0	0	0	0	0

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
03203	New Marlborough	146	8	0	94	19	0	1	24	0	0
03209	North Adams	1,203	48	1	274	140	275	107	344	7	7
03225	Otis	1	1	0	0	0	0	0	0	0	0
03233	Peru	57	7	0	34	4	3	0	9	0	0
03236	Pittsfield	7,223	308	7	4,511	413	860	336	739	15	34
03249	Richmond	87	14	1	13	16	21	6	15	1	0
03260	Sandisfield	154	13	0	109	17	5	0	9	1	0
03263	Savoy	2	2	0	0	0	0	0	0	0	0
03267	Sheffield	2	2	0	0	0	0	0	0	0	0
03283	Stockbridge	0	0	0	0	0	0	0	0	0	0
03302	Tyringham	0	0	0	0	0	0	0	0	0	0
03326	West Stockbridge	94	5	0	60	0	2	0	25	0	2
03341	Williamstown	0	0	0	0	0	0	0	0	0	0
03345	Windsor	2	1	1	0	0	0	0	0	0	0
Total	**Berkshire County**	**11,419**	**662**	**13**	**6,234**	**768**	**1,370**	**537**	**1,738**	**44**	**53**

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 2010

307 Total Fires — 170 Structures, 19 Vehicles & 118 Other Fires
The Pittsfield Fire Department reported 307 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 170 structure fires, 19 motor vehicle fires, 50 brush fires, 39 outside rubbish fires, 15 special outside fires; one cultivated crop or vegetation fire; and 13 unclassified fires caused three civilian injuries, nine firefighter injuries and an estimated dollar loss of $2 million. There were no fatal fires in Pittsfield in 2010.

Structure Fires Up Slightly
Total fires increased by 32 from the 275 incidents reported in 2009. Reported structure fires increased by 13 from the 157 reported during the previous year. Motor vehicle fires decreased by four from 23 the year before. Outside and other fires increased by 23 from the 95 reported in 2009.

PITTSFIELD FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	275	157	23	95	25	14	2	9
2010	307	170	19	118	25	5	2	18

BUILDING FIRES

There were 167 building fires of different types in Pittsfield in 2010. These 167 building fires accounted for 98.2% of all structure fires in Pittsfield.

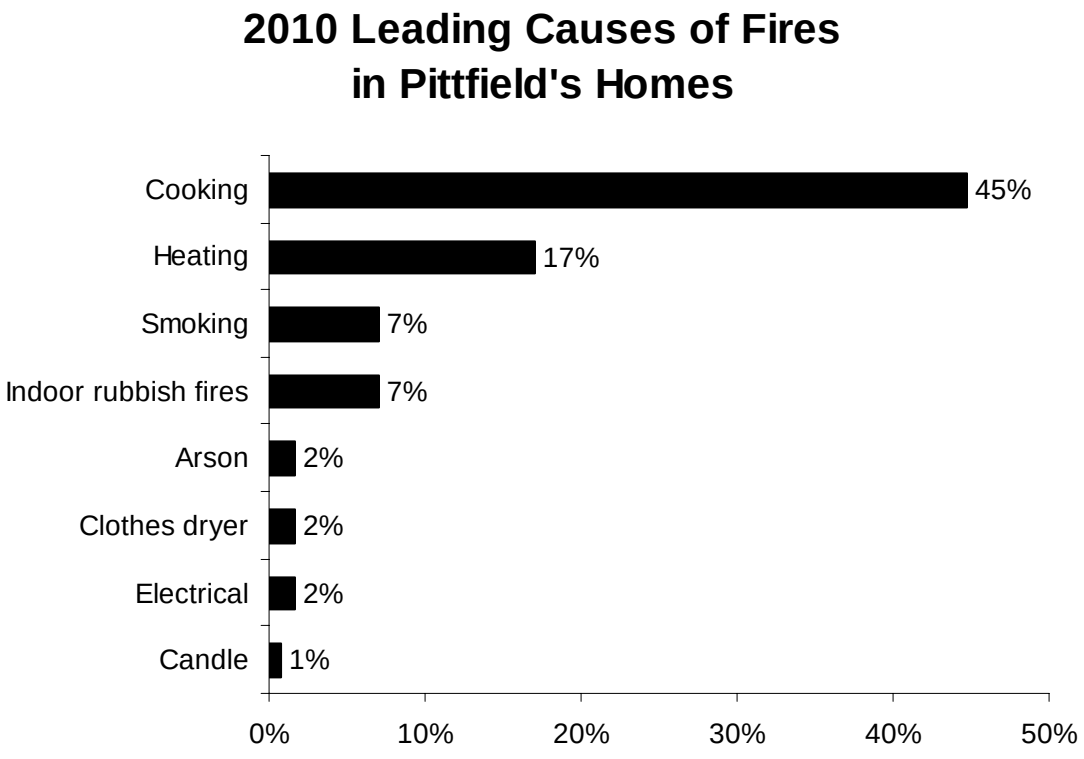
Almost 3/4 of Building Fires in Homes
The 167 building fires that occurred in Pittsfield in 2010 can be broken down by fixed property use as follows: 123, or 74% of all building fires, were in residential properties; 21 fires occurred in special properties; eight happened in mercantile or business properties; six fires occurred in public assembly properties; five fires happened in storage facilities; two fires occurred in institutional facilities; one fire occurred in an educational facility; and another fire happened at a manufacturing or processing facility.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly
There were 123 reported residential building fires in Pittsfield in 2010. These 123 fires are an increase of six from the 117 reported residential building fires reported in 2009.

1- or 2-Family Homes Accounted for 59% of Residential Building Fires
The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 59% of the building fires in Pittsfield; 39% occurred in apartments; 1% happened in rooming houses; and another 1% occurred in residential board and care facilities.

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 45% of these fires. Heating fires caused 17% of these fires. Smoking and indoor rubbish fires were each the cause of 7% of the fires. Arsons, clothes dryers and electrical problems each caused 2%. Candles caused 1% of the fires in Pittsfield's residential occupancies in 2010.



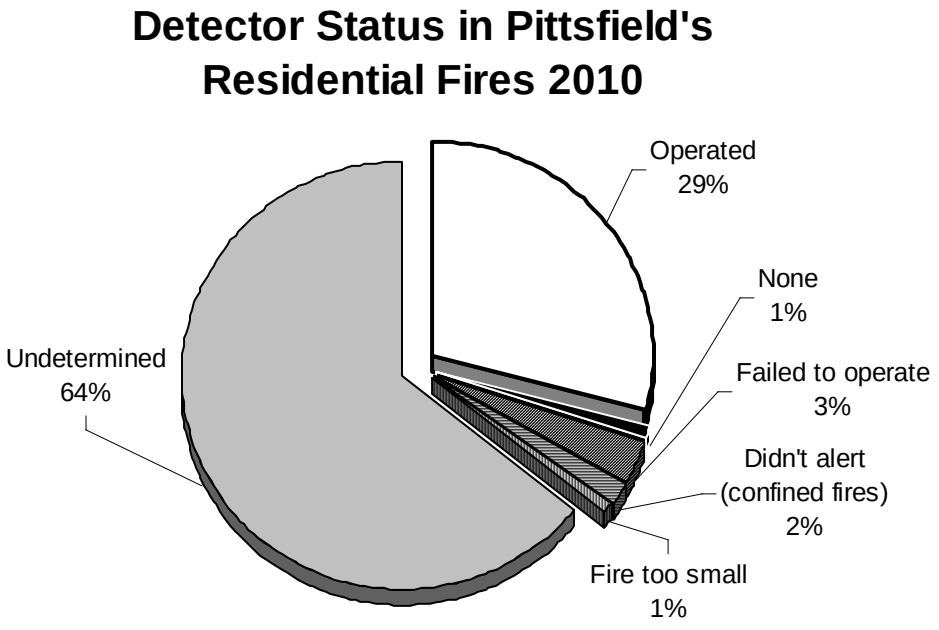
63% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Seventy-seven (77), or 63% of all residential building fires were confined to non-combustible containers in 2010. Forty-eight (48), or 39%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Eighteen (18), or 15%, were fires confined to a fuel burner or boiler malfunction. Eight (8), or 7%,

[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.

of these fires, were rubbish fires contained to a non-combustible container. Three (3) fires, or 2%, were reported to have been contained to a chimney or flue.

Detectors Worked in Only 29% of Fires

Smoke or heat detectors operated and alerted the occupants in 36, or 29%, of the residential building fires. In 2% of these fires[2], the detectors did not alert the occupants. There were no detectors in 1% 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 1% of these fires. Smoke detector performance was undetermined in 79 incidents, or 64% 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 of 4 Detectors Failed Detectors From a Missing Battery

Of the four fires where smoke detectors were present but failed to operate, one, or 25%, failed because of a missing battery. Another detector, or 25%, failed from a lack of maintenance. It was undetermined why the other two detectors, or 50%, 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

Pittsfield reported four fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 167 building fires reported to MFIRS in 2010. Two (2) 1- or 2-family homes, a business office and a railroad right of way were reported as vacant building fire incidents.

JUVENILE-SET FIRES

0 Juvenile-set Fires

There were no reported juvenile-set fires in Pittsfield in 2010.

ARSONS

25 Arsons[4] - 5 Structure, 2 Motor Vehicle and 18 Outside & Other

Twenty-five (25), or 8%, of Pittsfield's 307 fires were considered intentionally set, or, for purposes of this analysis, arson. There were five structure arsons, two motor vehicle arsons and 18 outside and other arsons.

Structure Arsons Down

The total number of arsons remained the same with 25 reported in both 2010 and 2009. Reported structure arsons decreased by nine from the 14 reported in 2009. Reported motor vehicle arsons remained the same with two reported in both 2010 and 2009. Outside and other arsons increased by nine from the nine reported the year before.

76 Fires Reported as Undetermined or Still Under Investigation

In 2010, Pittsfield reported 76 fires under investigation or cause undetermined after investigation. Sixty-six (66), or 87%, of these fires were reported to be undetermined after investigation. The other five, or 13%, were still under investigation.

Thirty-four (34), or 45%, of these 76 fires were structure fires. Six (6), or 8% were motor vehicle fires; and 36, or 47%, 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 2010.

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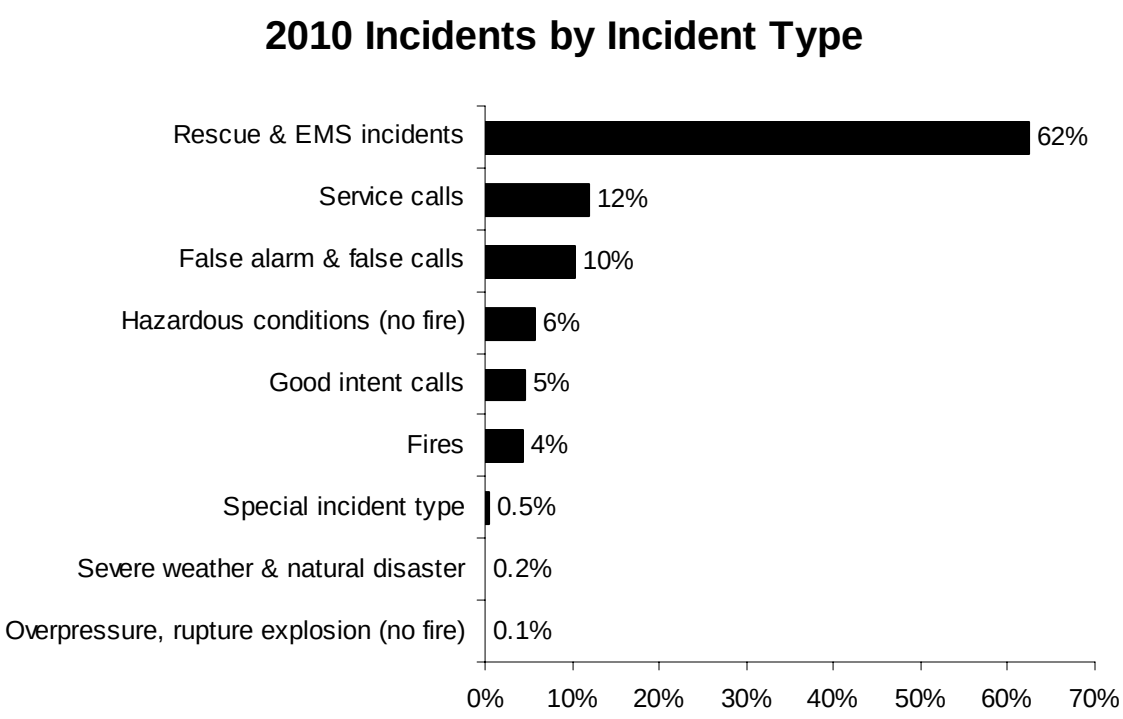
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is 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 62% of All Reported Incidents
In 2010, Pittsfield voluntarily reported 7,102 incidents to MFIRS. Of these 7,223 incidents, 6,915, or 96%, were non-fire incidents.

Of these 6,915 non-fire incidents 4,511, or 62% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 860, or 12%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 739, or 10%, were reported false alarm or false calls; 413, or 6%, were reported hazardous condition calls with no fire; 336, or 5%, were reported good intent calls; 34, or 0.5%, were special type incidents; 15, or 0.2%, were severe weather calls; and seven, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2010, Pittsfield reported 308 fires, accounting for 4% of all reported incidents.



Pittsfield Gave Mutual Aid in 5 Incidents
In 2010, Pittsfield reported giving mutual aid to other surrounding fire departments in five incidents. Two were for hazardous condition calls with no fire; one was a good intent call; one was a service call and the other was a rescue or EMS call.

Pittsfield Received Mutual Aid in 3 Incidents
In 2010, surrounding fire departments gave aid to Pittsfield at three incidents. Two (2) were for fires, and the other incident was a service call.

Pittsfield Population: 44,737

6.9 Fires/1,000 Population

Total Fires:	**307**		**$2,067,376**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	170	55%	$2,013,166
Vehicle Fires	19	6%	48,700
Other Fires	118	38%	5,510

3 Civilian Injuries 9 Fire Service Injuries

Building Fires: 167

Residential Structure Fires: 123

Residential Structure Fires Confined to Non-Combustible Containers: 77

Unconfined Residential Structure Fires: 46

3 Civilian Injuries 8 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	73	59%
Apartments	48	39%
Boarding houses	1	1%
Residential board & care	1	1%

Detector Status	**Fires**	**%**
Operated	36	29%
Didn't operate	4	3%
None	1	1%
Fire too small	1	1%
Didn't Alert (confined)	2	2%
Undetermined	79	64%

Area of Origin[5]	**%**
Kitchen	49%
Heating room or area	15%
Bedroom	4%
Wall surface, exterior	4%

Heat Source	**%**	**%Unconfined**[6]
Heat from operating equip.	7%	20%
Cigarette	4%	11%
Arcing	4%	11%
Radiated heat from op. eq.	3%	9%

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

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

Item First Ignited[7]	**%**	**Factor Contrib. to Ignition**	**%**	**%Unconfined**[8]
Cooking materials	43%	Abandoned materials	3%	9%
Flammable or combustible liq.	15%	Misuse of materials or prod.	2%	4%
Rubbish, trash, waste	7%	Elec. failure/malfunction	2%	4%
Exterior sidewall covering	3%	Failure to clean	2%	4%

Equipment[9]	**%**	**Cause of Ignition**	**%**	**%Unconfined**[10]
Cooking equipment	42%	Unintentional	16%	43%
None	32%	Intentional	1%	2%
Boiler, furnace, cent. heat. unit	15%	Failure of eq./heat source	5%	13%
Chimney or flue	2%	Cause Under Investigation	4%	11%
Clothes dryer	2%	Undetermined	11%	28%

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

Alerted Occupants	16%
Didn't Alert Occupants	3%
Undetermined	82%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	4,511	62%
Service calls	860	12%
False alarms & false calls	739	10%
Hazardous conditions (no fire)	413	6%
Good intent calls	336	5%
Fires[11]	308	4%
Special Incident Types	34	0.5%
Severe weather & natural disaster	15	0.2%
Overpressure rupture, explosion or overheat calls (no fire)	7	0.1%

[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	21	18	0	3
February	12	6	1	5
March	25	19	0	6
April	48	13	2	33
May	23	11	0	12
June	37	24	3	10
July	28	12	2	14
August	30	13	0	17
September	26	17	5	4
October	22	13	1	8
November	15	9	1	5
December	20	15	4	1

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	46	24	3	19
Monday	43	25	4	14
Tuesday	51	31	1	19
Wednesday	44	22	4	18
Thursday	37	19	1	17
Friday	41	21	2	18
Saturday	45	28	4	13

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	33	16	4	13
04:01 - 08:00	20	12	0	8
08:01 - 12:00	38	26	7	5
12:01 - 16:00	74	37	5	32
16:01 - 20:00	87	45	3	39
20:01 - 24:00	55	34	0	21

Motor Vehicle Fires

Total: 19
Automobiles: 18 (95%)
2 (11%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 25 **Dollar loss: $61,700**

0.6 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	5	3%	20%	$55,500
Vehicle Arsons	2	11%	8%	5,700
Other Arsons	18	15%	72%	500

0.11 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.40 Other arsons/1,000 population

Peak Times of Day for:

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

Vehicle Arsons	#	%
00:01 - 04:00	1	50%
08:01 - 12:00	1	50%

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

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	2	40%
Parking garage (detached residential)	1	20%
High/junior high/middle school	1	20%
Household goods, sales, repairs	1	20%

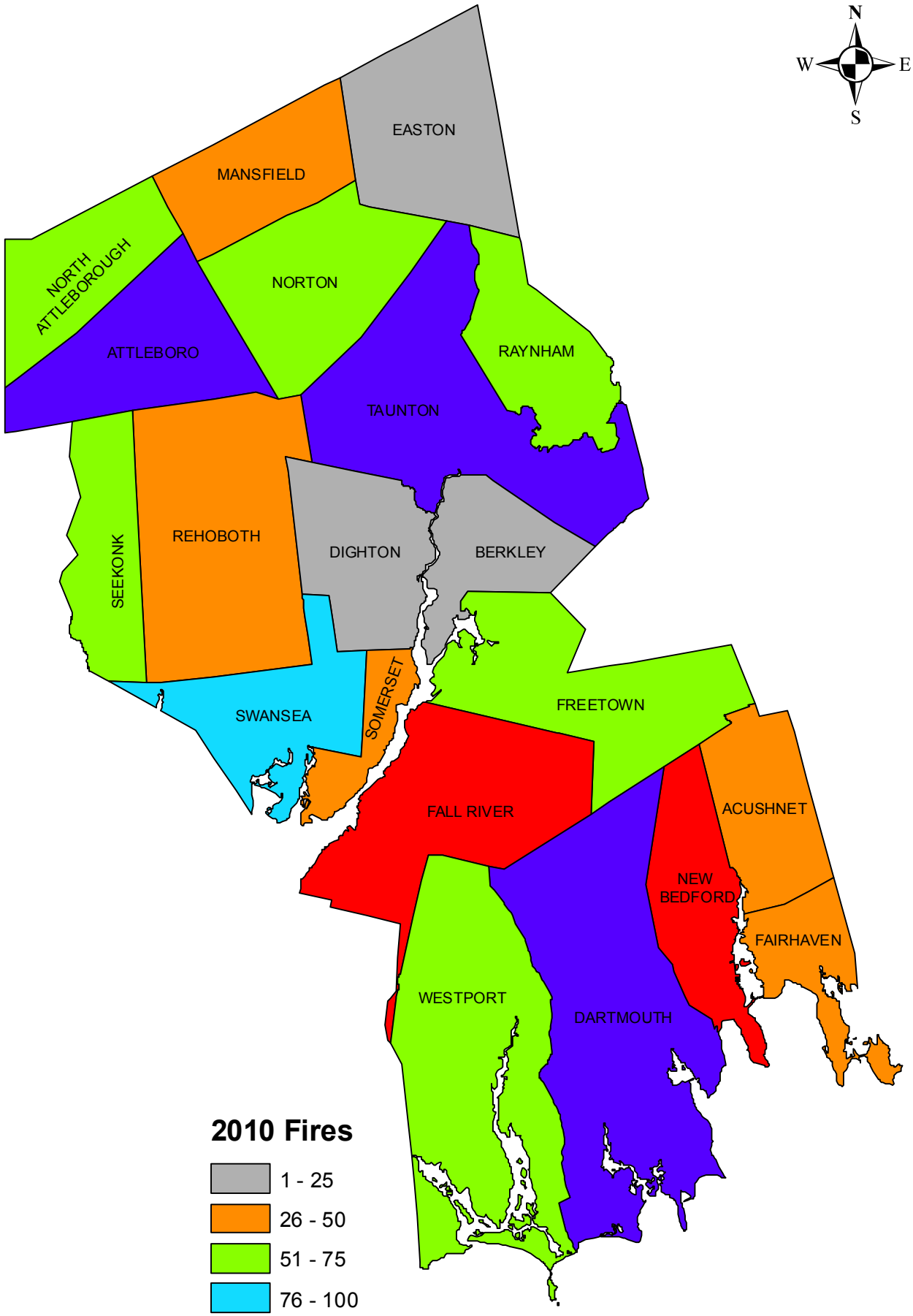
Bristol County

2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Bristol County Fires 2010



MFIRS Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2010

Bristol County Fires in 2010

2,013 Total Fires — 837 Structures, 301 Vehicles & 875 Other Fires
Bristol County ranked seventh out of the fourteen Massachusetts counties in total reported fires. The county reported 2,013 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 837 structure fires, 301 motor vehicle fires, 421 brush, tree or lawn fires, 278 outside rubbish fires, 60 special outside fires, three cultivated vegetation or crop fires, and 113 other fires caused four civilian deaths, one fire service death, 44 civilian injuries, 36 fire service injuries and an estimated dollar loss of $15.7 million. Bristol County's fires accounted for 6% of the 32,680 Massachusetts fires reported in 2010.

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

Structure & Outside Fires Up
The total number of reported fire incidents increased by 219 from the 1,794 reported in 2009. Reported structure fires increased by 48 from the 789 reported during the previous year. The total number of reported motor vehicle fires dropped by eight from the 309 incidents reported during 2009. Reported outside and other fires increased by 179 from the 696 reported the year before.

Outside Fires Increase
Bristol County had a large increase in brush fires in 2010. Brush fires increased by 115, or 38%, from the 306 reported in 2009.

BRISTOL COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1,794	789	309	696	140	55	19	66
2010	2,013	837	301	875	116	43	13	60

Fire and Fire Death Rates
Bristol County had 3.7 fires per 1,000 population. That figure ranks Bristol County twelfth in the state and below the state rate of 5.0 fires per 1,000 population. Bristol County also had 0.07 fire deaths per 10,000 populations ranking it tied for third among Massachusetts counties and above the state rate of 0.05 fire deaths per 10,000 population.

4 Fires Kill 4 Bristol County Residents
- On April 16, 2010, at 3:49 a.m., the Fall River Fire Department was called to a fatal cooking fire in a three-unit apartment building. Radiated heat from the stovetop

ignited the cooking liquids, starting the fire. The victim, a 4-year old girl, was asleep at the time of the fire. The victim's 23-year old mother received life-threatening injuries. Smoke detectors were present, but it was undetermined if they operated. The building was not sprinklered. Damages from this fire were estimated to be $280,100.

- On June 14, 2010, at 4:07 a.m., the Taunton Fire Department was called to a fatal smoking fire in a single-family home. The victim, a 51-year old woman, fell asleep while smoking in bed. No one else was injured by this fire. Detectors were not present and the building was not sprinklered. Damages from the blaze were not estimated.

- On December 4, 2010, at 1:14 a.m., the Acushnet Fire Department was called to a motor vehicle accident with ensuing fire. The victim, a 46-year old male driver, was trapped inside the vehicle and had to be extricated. Two other civilian passengers were helped out of the vehicle by police and good samaritans. Damages were estimated to be $40,500.

- On December 12, 2010, at 1:56 a.m., the Fall River Fire Department was called to a fatal fire smoking fire in a six-unit apartment building. The victim, an 80-year old woman, ignited her bedding after falling asleep while smoking. She was overcome by the heat and smoke of the fire while escaping. She was transported to a Rhode Island hospital where she later succumbed to her injuries. There were three other civilian injuries associated with this fire. It was undetermined if detectors were present in the building and there were no sprinklers. Damages from this fire were estimated to be $170,000.

L.O.D.D. Rehoboth 11/25/10 - FF Kenneth Marshall Jr.

- On Thanksgiving Day, November 25, 2010, at 9:31 p.m., the Rehoboth Fire Department was dispatched to a cooking fire in a single-family home. FF Marshall while driving the engine that was responding, slumped over the wheel as he pulled out of the station. The other firefighters stopped the truck, pulled FF Marshall out of it and initiated emergency medical procedures in an attempt to revive him. He was transported to Sturdy Memorial Hospital where he was pronounced dead.

New Bedford Has Bristol County's Largest Loss Fire

- On June 6, 2010, at 6:32 p.m., the New Bedford Fire Department responded to a fire at a fisheries facility. Investigators were unable to determine the cause of the fire. No one was injured by this fire. Detectors were present and alerted the occupants. Sprinklers were not present. Damages were estimated to be $1.3 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 837 structure fires caused three civilian deaths, one fire service death, 36 civilian injuries, 33 fire service injuries and an estimated dollar loss of $13.3 million. These

incidents represented 42% of Bristol County's reported fires in 2010. The average estimated dollar loss per structure fire was $15,872. The total number of reported structure fires increased by 48, or 6%, from the 789 reported in 2009.

Structure Arsons Down
The 43 structure arsons caused two civilian injuries and an estimated dollar loss of $1.9 million. Arson was indicated as the cause of 5% of the structure fires and 14% of Bristol County's structure fire dollar loss. The 43 structure arsons accounted for 37% of the Bristol County arson fires reported in 2010. The total number of reported structure arsons decreased by 12, or 22%, from 55 in 2009.

Almost 2/3 of Structure Arsons Occurred in Residences
Sixty-two percent (62%) of Bristol County's 43 structure arsons occurred in residential occupancies. Public assembly facilities and special properties each had 10% of these fires; 7% each happened in storage facilities and educational properties; and 2% each occurred in mercantile or business properties and manufacturing or processing facilities.

BUILDING FIRES

There were 827 building fires of different types in Bristol County in 2010. These 827 building fires accounted for 98.8% of all building fires in Bristol County.

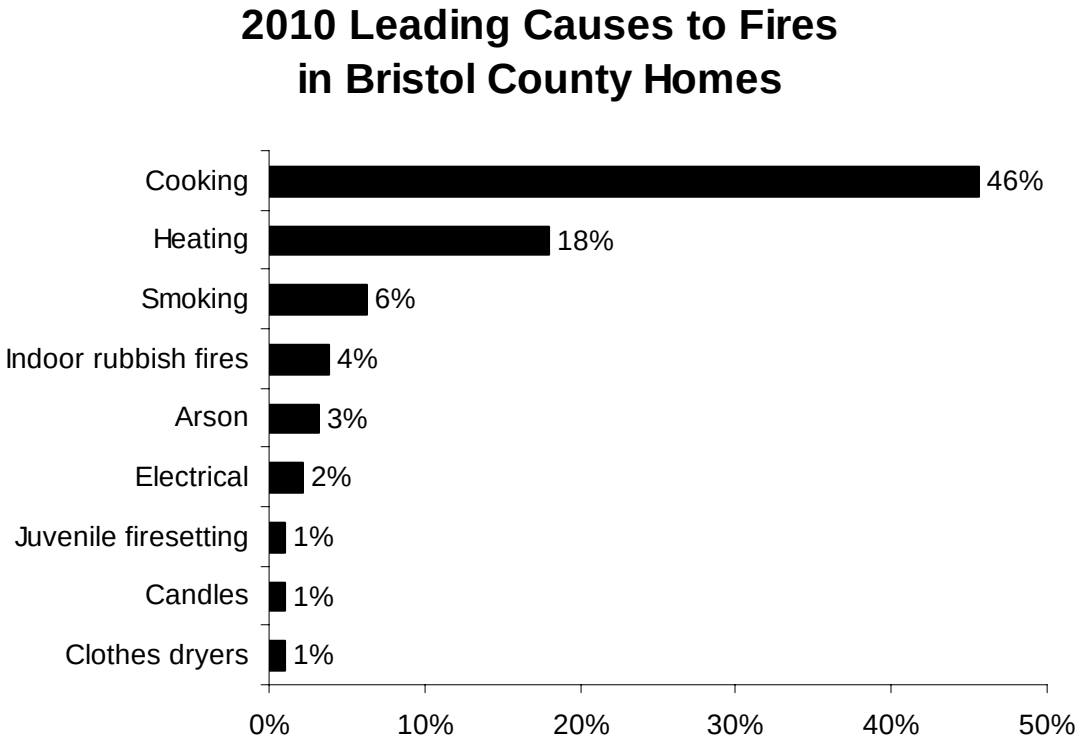
Over 3/4 of Bristol Building Fires Occurred in People's Homes
Six hundred and forty-eight (648), or 78%, of Bristol County's 827 building fires occurred in residential occupancies. Forty-five (45) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 36 fires. Special properties had 24 fires. Twenty-four (24) fires took place in storage properties. Hospitals, prisons, and other institutional buildings experienced 19 fires. Eighteen (18) fires took place in manufacturing and processing facilities. Educational facilities had 11 fires. Two (2) fires occurred in industrial, utility, defense, agricultural or mining facilities in Bristol County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly
There were 648 reported residential building fires in Bristol County in 2010. These 648 fires are an increase of 28, or 5%, from the 620 residential building fires reported in 2009.

1- & 2-Family Homes Accounted for 1/2 of Residential Building Fires
The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 50% of the building fires in Bristol County; 44% occurred in apartments; 3% happened in rooming houses; 1% occurred in residential board and care facilities, 1% occurred in dormitories and another 1% happened in hotels or motels. Six (6), or 1% of the residential building fires in Bristol County occurred in unclassified residential buildings.

Unsafe Cooking Leading Cause of Residential Fires
The leading cause of residential building fires in Bristol County was unattended cooking and other unsafe cooking practices, accounting for 46% of these fires. The second leading cause of residential building fires was heating equipment, accounting for 18%. Smoking caused 6% of the fires in people's homes. Indoor rubbish fires accounted for 4% of fires in residences. Arson was responsible for 3% of these fires. Electrical problems caused 2%; and juvenile-set fires, candles and clothes dryers each accounted for 1% of Bristol County's residential building fires in 2010.



59% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Three hundred and eighty (380), or 59%, of all residential building fires were reported as confined to non-combustible containers in 2010. Two hundred and fifty (250), or 39%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Sixty-three (63), or 10%, were fires confined to a fuel burner or boiler malfunction. Forty-five (45) of the reported fires were confined to a chimney,

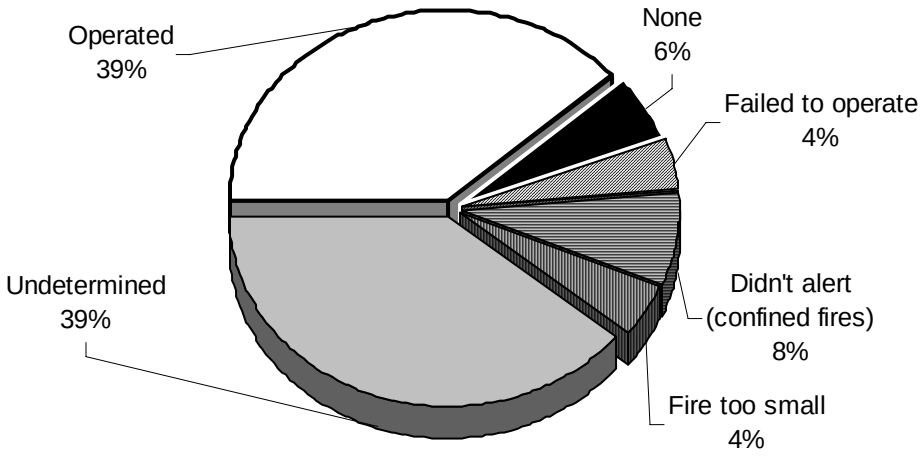
[1] In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing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

accounting for 7% of residential building fires. Twenty-two (22), or 3%, of these fires were rubbish fires contained to a non-combustible container in Bristol County in 2010.

Detectors Alerted Occupants in Over 1/3 of Fires

Smoke or heat detectors operated and alerted the occupants in 250, or 39%, 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 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 4% of the residential fires. Smoke detector performance was undetermined in 254 incidents, or 39%, of Bristol County's residential building fires.

Detector Status in Bristol County's Residential Structure Fires 2010



41% of Failed Detectors Had Dead or Missing Batteries

Of the 12 fires where smoke detectors were present but failed to operate, 10, or 34%, failed because the batteries were either missing or disconnected and two, or 7%, failed because of dead batteries. Five (5), or 17%, failed because of a power failure, shutoff or disconnect; and a lack of maintenance and a defective detector each caused one, or 3%, of the detectors that failed to operate. It was undetermined or unclassified in 10 cases, or 34%, 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

5% of Building Fires Occurred in Vacant Buildings

Bristol County reported 43 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 5% of the total 827 building fires reported to MFIRS in 2010. Twenty-two (22) fires occurred in vacant residential properties. Eight (8) vacant building fires occurred in storage facilities. Five (5) of these fires happened in public assembly properties. Mercantile and business properties had four of these fires, and special properties accounted for three vacant building fires. An educational facility had one vacant building fire incident in Bristol County in 2010.

Thirteen (13), or 30%, of the vacant building fires in Bristol County in 2010 were determined to be intentionally set. Five (5) occurred in apartment buildings and two occurred in warehouses. One (1) each occurred at a unclassified public assembly facility, a church, an unclassified place of worship, a clothing store, an unclassified special property and an unclassified property.

JUVENILE-SET FIRES

12 Juvenile-set Fires

There were 12 reported juvenile-set fires in Bristol County in 2010. The seven structure fires, three brush fires and two unclassified fires caused one civilian injury and $257,500 in estimated damages.

ARSONS

116 Total Arsons[4] — 43 Structures, 13 Vehicles & 60 Other Arsons

Bristol County fire departments reported that 116, or 6%, of Bristol County's 2,013 fires were considered intentionally set, or, for purposes of this analysis, arson. The 43 structure arsons, 13 motor vehicle arsons and 60 outside and other arsons caused two civilian injuries and an estimated dollar loss of $1.9 million.

All Arsons Down

The total number of reported arson fires decreased by 24 from the 140 reported in 2009. Structure arsons increased by 12, or 22%, from the 55 reported in 2009. Motor vehicle arsons decreased by six from the 19 reported last year. Outside and other arsons dropped by six from the 66 reported in 2009.

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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.

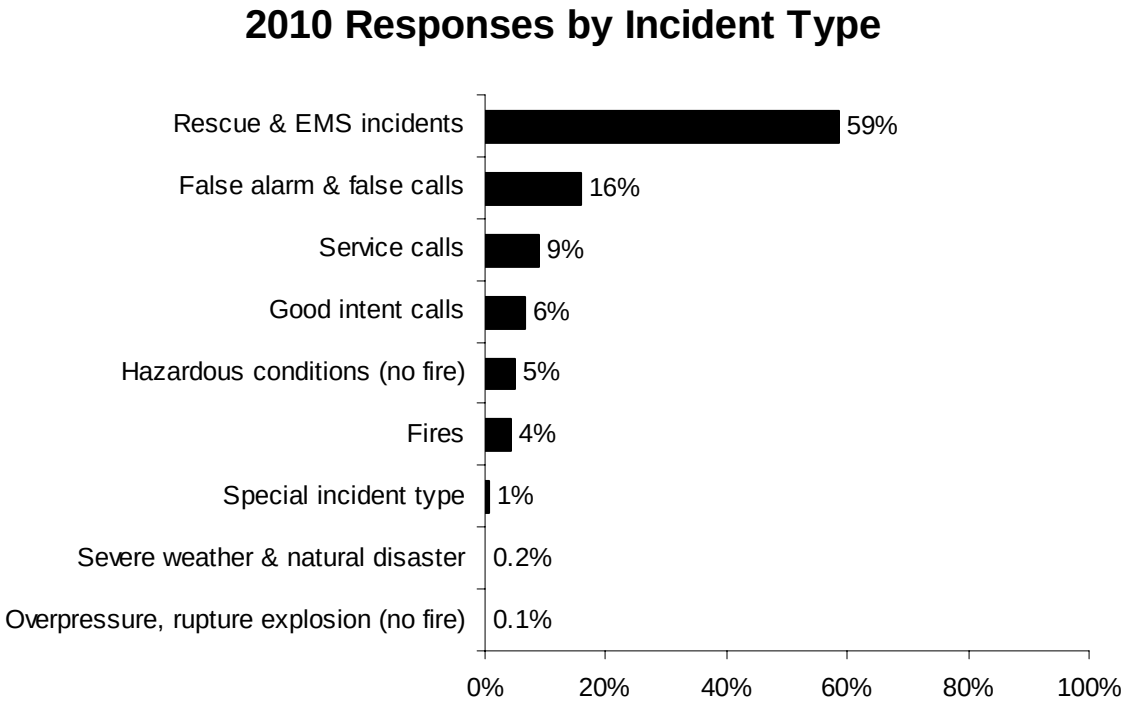
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

ALL INCIDENTS

Rescue & EMS Calls Are 59% of All Reported Responses
In 2010, fire departments in Bristol County reported 49,946 responses[5] to MFIRS. Of these 49,946 incidents, 47,821 non-fire calls were voluntarily reported.

Of these 47,821 non-fire calls, 29,243, or 59% of all the reported responses, were reported rescue and emergency medical services (EMS) calls; 7,944, or 16%, were reported false alarm or false calls; 4,452, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,232, or 6%, were reported good intent calls; 2,504, or 5%, were reported hazardous condition calls with no fire; 280, or 1%, were special incident type calls such as citizen complaints; 108, or 0.2%, were severe weather responses; and 58, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand one hundred and twenty-five (2,125), or 4%, of the total responses submitted by Bristol County fire departments were fires.



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

Bristol County Fire Departments Gave Mutual Aid 1,267 Times

In 2010, Bristol County fire departments reported coming to the aid of other fire departments 1,267 times. Of these 1,267 responses, 993, or 78%, were for rescue or EMS calls; 105, or 8%, were for service calls such as cover assignments; 83, or 7%, were for good intent calls; 55, or 4%, were for fires; 13, or 1%, were for false alarms or false calls; 10, or 1%, were for hazardous conditions calls with no fire; and eight, or 1%, were special incident types.

Bristol County Received Mutual Aid in 948 Incidents

In 2010, Bristol County fire departments reported receiving aid from surrounding departments in 948 incidents. Of these 948 incidents, 818, or 86%, were rescue and emergency medical services calls; 66, or 7%, were for fires; 19, or 2%, were false alarms or false calls; 15, or 2%, were hazardous conditions calls with no fire; 14, or 1%, were good intent calls; 12, or 1%, were service calls; two, or 0.2%, were severe weather calls; and overpressure, rupture, explosion or overheat calls, and special incident types each reported one, or 0.1%, of the mutual aid given calls.

Bristol County Population: 548,285

3.7 Fires/1,000 Population

Total Fires:	**2,013**		**$15,690,131**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	837	42%	$13,284,526
Vehicle Fires	301	15%	2,292,980
Other Fires	875	43%	112,625

5 Fatal Fires 1.99 Civilian Deaths/1,000 Fires
4 Civilian Deaths 0.07 Civilian Deaths/10,000 Population
1 Fire Service Death 44 Civilian Injuries 36 Fire Service Injuries

Building Fires: 827

Residential Structure Fires: 648

Residential Structure Fires Confined to Non-Combustible Containers: 360

Unconfined Residential Structure Fires: 268

3 Civilian Deaths 1 Fire Service Death 34 Civilian Injuries 23 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	324	50%
Apartments	284	44%
Rooming houses	18	2%
Dormitories	8	1%
Residential board & care	4	0.5%
Hotels or motels	4	0.5%

Detector Status	**Fires**	**%**
Operated	250	36%
Didn't operate	19	3%
None	36	4%
Fire too small	29	5%
Didn’t alert (confined)	50	7%
Undetermined	254	36%

Area of Origin[6]	**%**	**Heat Source**	**%**	**%Unconfined**[7]
Kitchen	50%	Residential board & care	5%	13%
Heating room or area	10%	Heat from operating eq.	5%	11%
Chimney or flue	7%	Cigarettes	4%	19%
Bedroom	3%	Arcing	4%	9%
Living room	3%	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	44%	Abandoned materials	2%	5%
Flammable or combust. liquid	10%	Too close to combustibles	2%	5%
Film or residue (creosote)	7%	Misuse of mater. or product	2%	4%
Rubbish, trash, waste	5%	Electrical failure, malfunc.	1%	3%
Structural member, framing	4%	Failure to clean	1%	3%
Electrical wire, cable insulation	3%	Equipment unattended	1%	2%

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined**[11]
Cooking equipment	43%	Unintentional	24%	57%
None	32%	Failure of eq. or heat source	6%	13%
Boiler, furnace, cent. heat unit	10%	Intentional	3%	8%
Chimney or flue	7%	Cause under investigation	4%	9%
Clothes dryer	1%	Undetermined	4%	10%
		Act of Nature	0.5%	1%

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

Alerted Occupants	33%
Didn't Alert Occupants	13%
Undetermined	54%

[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	101	56	26	19
February	141	76	25	40
March	154	72	16	66
April	234	90	21	123
May	196	71	21	104
June	157	61	29	67
July	204	53	24	127
August	190	64	31	95
September	163	50	37	76
October	129	61	25	43
November	170	82	18	70
December	174	101	28	45

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	259	1007	38	114
Monday	295	116	45	134
Tuesday	264	115	54	95
Wednesday	308	124	44	140
Thursday	294	124	35	135
Friday	281	124	44	113
Saturday	312	127	41	144

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	191	89	52	50
04:01 - 08:00	128	62	25	41
08:01 - 12:00	316	136	50	130
12:01 - 16:00	521	197	56	268
16:01 - 20:00	550	224	60	266
20:01 - 24:00	307	129	58	120

Motor Vehicle Fires

Total: 301
Automobiles: 266 (88%)
11, or 4%, of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 116 **Dollar loss: $1,926,450**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	43	5%	37%	$1,872,500
Vehicle Arsons	13	4%	11%	50,800
Other Arsons	60	7%	52%	3,150

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

2 Civilian Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
16:01 - 20:00	15	35%	20:01 - 00:00	5	38%
00:01 - 04:00	12	28%	00:01 - 04:00	4	31%
20:01 - 00:00	10	23%	04:01 - 08:00	3	23%

Other Arsons	#	%
16:01 - 20:00	20	33%
20:01 - 00:00	15	25%
08:01 - 12:00	10	17%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	11	26%
1- and 2-Family homes	10	23%
Dormitory type residences, other	4	9%
Warehouses	2	5%

Acushnet **Population: 10,303**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	10	4	7	1	1	0	0
2010	28	17	5	6	0	0	0	0

Attleboro **Population: 43,593**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	130	61	19	50	9	2	0	7
2010	134	56	27	51	6	3	0	3

Berkley **Population: 6,411**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	27	17	1	9	0	0	0	0
2010	21	9	4	8	0	0	0	0

Dartmouth Fire Districts[12] **Population: 34,032**

Dartmouth District # 1 *Est Pop. Protected: 13,272*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	30	11	4	15	6	1	0	5
2010	21	13	0	8	2	0	0	2

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

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	6	2	3	1	0	0	0	0
2010[13]	Fire Department in Good Standing							

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	49	8	7	34	5	2	2	1
2010	104	22	10	72	13	5	0	8

Dighton **Population: 7,086**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	14	3	4	1	1	0	0
2010	20	7	4	9	1	0	0	1

Easton **Population: 23,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	19	11	4	4	1	1	0	0
2010	1	1	0	0	0	0	0	0

[13] In 2010, Dartmouth District #2 reported 1 service call.

Fairhaven **Population: 15,873**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	48	24	11	13	7	2	2	3
2010	46	17	4	25	1	0	0	1

Fall River **Population: 88,857**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	369	206	54	109	29	16	1	12
2010	508	273	59	176	35	17	2	16

Freetown **Population: 8,870**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	64	37	14	13	13	5	2	6
2010	56	27	16	13	4	2	1	1

Mansfield **Population: 23,184**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	56	20	11	25	2	0	0	2
2010	49	14	10	25	1	0	0	1

New Bedford **Population: 95,072**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	343	172	65	106	32	14	9	9
2010	386	156	76	154	27	11	9	7

North Attleboro **Population: 28,712**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	56	20	16	20	3	0	1	2
2010	56	16	12	28	1	0	0	1

Norton **Population: 19,031**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	37	14	4	19	0	0	0	0
2010	53	16	13	24	1	0	0	1

Raynham **Population: 13,383**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	70	23	15	32	1	0	0	1
2010	59	25	8	26	0	0	0	0

Rehoboth **Population: 11,608**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	55	23	6	26	2	1	1	0
2010	50	37	2	11	0	0	0	0

Seekonk **Population: 13,722**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	59	28	9	22	2	2	0	0
2010	71	27	12	32	5	3	0	2

Somerset **Population: 18,165**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	32	14	2	16	3	1	0	2
2010	43	17	4	22	0	0	0	0

Swansea **Population: 15,865**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	87	34	20	33	3	2	0	1
2010	86	32	11	43	3	1	0	2

Taunton **Population: 55,874**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	143	32	25	86	11	2	0	9
2010	166	34	15	117	13	1	1	11

Westport **Population: 15,532**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	52	15	9	28	5	0	0	5
2010	55	21	9	25	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	369	28	0	82	71	98	12	66	1	11
05016	Attleboro	6,016	142	4	4,203	172	334	457	684	4	16
05027	Berkley	474	23	0	315	11	70	31	24	0	0
05972	Dartmouth #1	361	21	0	30	49	60	45	152	4	0
05973	Dartmouth #2	1	0	0	0	0	1	0	0	0	0
05974	Dartmouth #3	715	111	0	19	135	86	83	280	0	1
05076	Dighton	1,128	20	0	626	37	364	5	71	4	1
05088	Easton	1	1	0	0	0	0	0	0	0	0
05094	Fairhaven	2,538	50	4	1,862	161	153	68	236	0	4
05095	Fall River	4,757	532	3	1,240	458	234	485	1,772	5	28
05102	Freetown	1,494	60	12	805	51	348	121	84	2	11
05167	Mansfield	2,528	51	2	1,636	107	208	101	385	10	28
05201	New Bedford	10,420	412	10	7,093	316	310	757	1,510	3	9
05211	North Attleboro	3,742	64	3	2,384	216	417	205	442	10	1
05218	Norton	2,853	58	1	1,668	134	490	30	393	3	76
05245	Raynham	1,026	63	10	242	65	179	72	365	19	11

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
05247	Rehoboth	456	50	1	7	122	83	59	132	2	0
05265	Seekonk	2,408	73	1	1,625	81	237	89	290	7	5
05273	Somerset	2,460	44	1	1,959	56	220	42	113	0	25
05292	Swansea	488	92	2	42	84	97	50	118	1	2
05293	Taunton	5,304	167	1	3,361	135	368	473	732	28	39
05334	Westport	407	63	3	44	43	95	47	95	5	12
Total	**Bristol County**	**49,946**	**2,125**	**58**	**29,243**	**2,504**	**4,452**	**3,232**	**7,944**	**108**	**280**

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

Fall River Fires in 2010

508 Total Fires — 273 Structures, 59 Vehicles & 176 Other Fires
The Fall River Fire Department reported 508 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 273 structure fires, 59 motor vehicle fires, 69 brush fires, 68 trash fires, 12 special outside fires, one cultivated crop or orchard fire, and 26 unclassified fires caused two civilian deaths, 18 civilian injuries, 11 fire service injuries and an estimated dollar loss of $5.5 million.

2 Fall River Residents Killed in 2 Fatal Fires

- On April 16, 2010, at 3:49 a.m., the Fall River Fire Department was called to a fatal cooking fire in a three-unit apartment building. Radiated heat from the stovetop ignited the cooking liquids, starting the fire. The victim, a 4-year old girl was asleep at the time of the fire. The victim's 23-year old mother received life-threatening injuries. Smoke detectors were present but it was undetermined if they operated. The building was not sprinklered. Damages from this fire were estimated to be $280,100.

- On December 12, 2010, at 1:56 a.m., the Fall River Fire Department was called to a fatal fire smoking fire in a six-unit apartment building. The victim, an 80-year old woman, ignited her bedding after falling asleep while smoking. She was overcome by the heat and smoke of the fire while escaping. She was transported to a Rhode Island hospital where she later succumbed to her injuries. There were three other civilian injuries associated with this fire. It was undetermined if detectors were present in the building and there were no sprinklers. Damages from this fire were estimated to be $170,000.

All Fires Up
Total fires increased by 119, or 37%, from the 389 fires reported in 2009. Reported structure fires increased by 74 from the 199 reported during the previous year. Motor vehicle fires increased by two from 57 the year before. Outside and other fires increased by 43 from 133 the year before.

FALL RIVER FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	389	199	57	133	33	18	2	13
2010	508	273	59	176	35	17	2	16

BUILDING FIRES

There were 269 building fires of different types in Fall River in 2010. These 269 building fires accounted for 98.5% of all structure fires in Fall River.

81% of Building Fires in Homes

The 269 building fires that occurred in Fall River in 2010 can be broken down by fixed property use as follows: 217, or 81% of all structure fires, were in residential properties; 12 happened in each at public assembly properties; nine occurred in institutional facilities; nine fires took place in a special properties; seven fires happened in storage facilities; six occurred in mercantile or business properties; another six fires occurred in manufacturing or processing facilities; two fires happened in educational facilities; and one fire occurred in an industrial facility.

RESIDENTIAL FIRES

Residential Building Fires Are Up

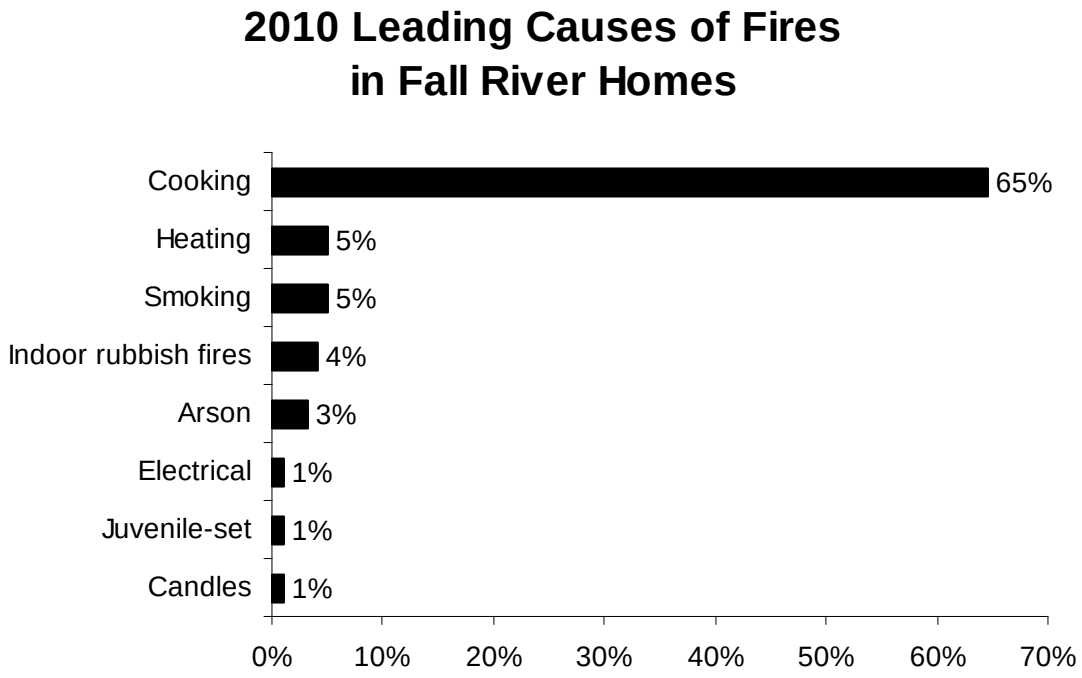
There were 217 reported residential building fires in Fall River in 2010. These 217 residential building fires are an increase of 61, or 39%, from the 156 reported in 2009.

Apartments Accounted for Almost 3/4 of Residential Building Fires

The peak fixed property uses for residential building fires in Fall River were apartments, accounting for 71% of the residential building fires. Twenty-two percent (22%) occurred in 1- or 2-family homes; 4% occurred in rooming houses; 1% happened in residential board and care facilities; and less than 1% occurred each in dormitories, hotels or motels. Less than 1% of these fires also occurred in unclassified residential properties.

Unattended Cooking Leading Cause of Residential Fires

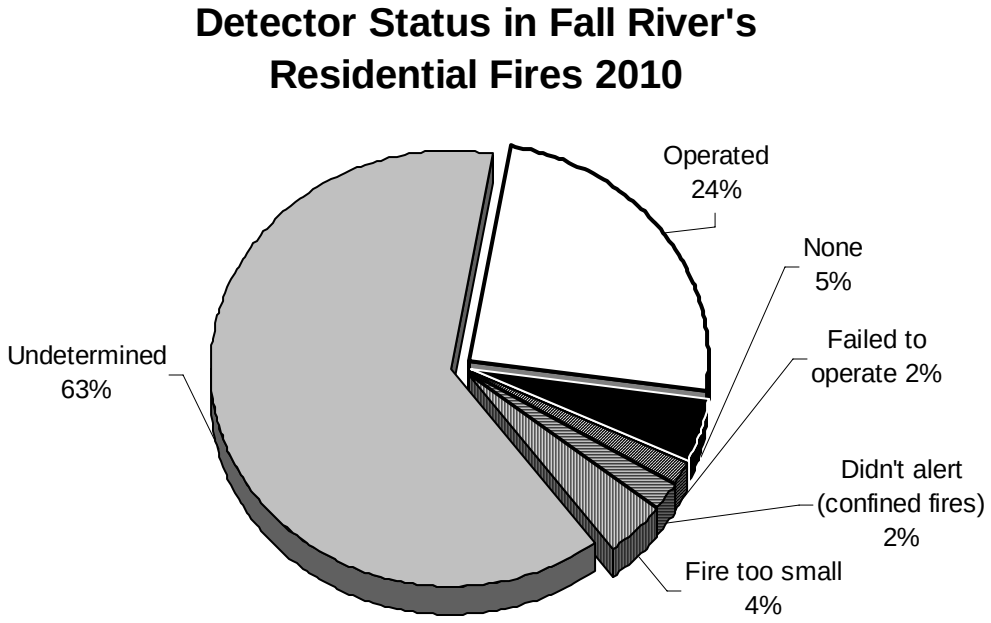
The leading cause of residential building fires in Fall River was unattended cooking and other unsafe cooking practices, accounting for 65% of these fires. Heating equipment fires and smoking each caused 5% of these fires. Indoor rubbish fires accounted for 4% of residential fires. Arson accounted for 3% of fires in residential occupancies. Electrical



problems, juvenile-set fires and candles each accounted for 1% of the fires in people's homes in Fall River in 2010.

65% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and forty-one (141), or 65% of all residential building fires were confined to non-combustible containers in 2010. One hundred and twenty-seven (127), or 59%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Seven (7), or 3%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 2%, of these fires were rubbish fires contained to a non-combustible container. There were two reported fires confined to a chimney or flue, accounting for 1% of the residential building fires in Fall River in 2010.

Detectors Operation Undetermined in Almost 2/3 of Fires
Smoke or heat detectors operated and alerted the occupants in 53, or 24%, of the residential building fires. In 2% 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 137 incidents, or 63% of Fall River'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.

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.

2 of 4 Detectors Failed Because of Missing Batteries

Two of the four detectors that were reported to have failed, didn't work because the battery was missing. Another detector failed because of a power failure, shut-off or disconnect. It was undetermined why the other detector was reported to have failed.

VACANT BUILDING FIRES

4% 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 4% of the total 269 building fires reported to MFIRS in 2010. Three (3) single-family homes, three warehouses and a motor vehicle or boat sales or service facility, an unclassified public assembly structure, and two unclassified properties were reported as vacant building fire incidents.

JUVENILE-SET FIRES

There were three reported juvenile-set fires in Fall River in 2010. All three fires were building fires.

ARSONS

35 Total Arsons[4] — 16 Structures, 1 Motor Vehicle, & 12 Other

Thirty-five (35), or 6%, of Fall River's 508 fires were considered intentionally set, or, for purposes of this analysis, arson. The 17 structure arsons, two motor vehicle arsons and 16 outside and other arsons caused two fire service injuries and an estimated dollar loss of $1.8 million.

All Arsons Up Slightly

The total number of arsons increased by two from 33 in 2009. Reported structure arsons decreased by one from the 18 reported the year before. Motor vehicle arsons remained the same with two reported in both 2010 as well as in 2009. Outside and other arsons increased by three from the 13 reported in 2009.

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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.

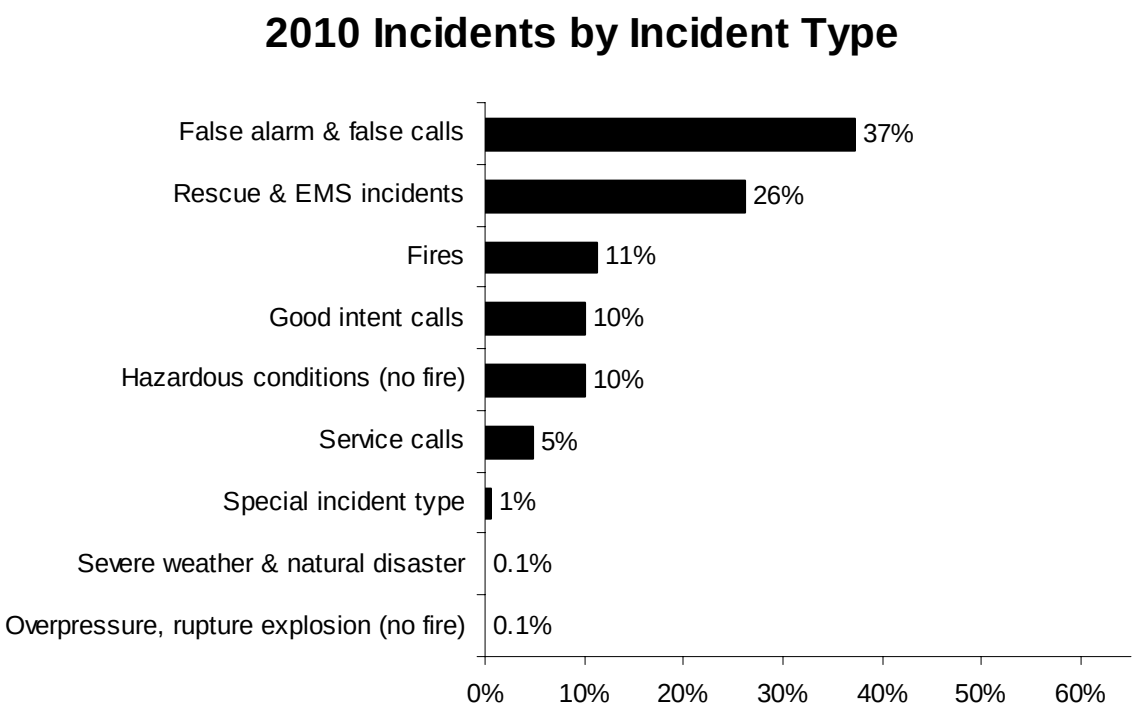
ALL INCIDENTS

False Alarm & False Calls Are 37% of All Reported Incidents

In 2010, Fall River voluntarily reported 4,757 incidents to MFIRS. Of these 4,757 incidents, 4,225, or 89%, were non-fire incidents.

Of these 4,225 non-fire incidents 1,772, or 37% of all reported incidents in 2010, were reported false alarm or false calls; 1,240, or 26%, were reported rescue and emergency medical services (EMS) calls; 485, or 10%, were reported good intent calls; 458, or 10%, were reported hazardous condition calls with no fire; 234, or 5%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 28, or 1%, were special incident type calls; five, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and three, or 0.1% were severe weather or natural disaster calls.

In 2010, Fall River reported 532 fires[5], accounting for 11% of all reported incidents.



Fall River Gave Mutual Aid in 10 Reported Incidents

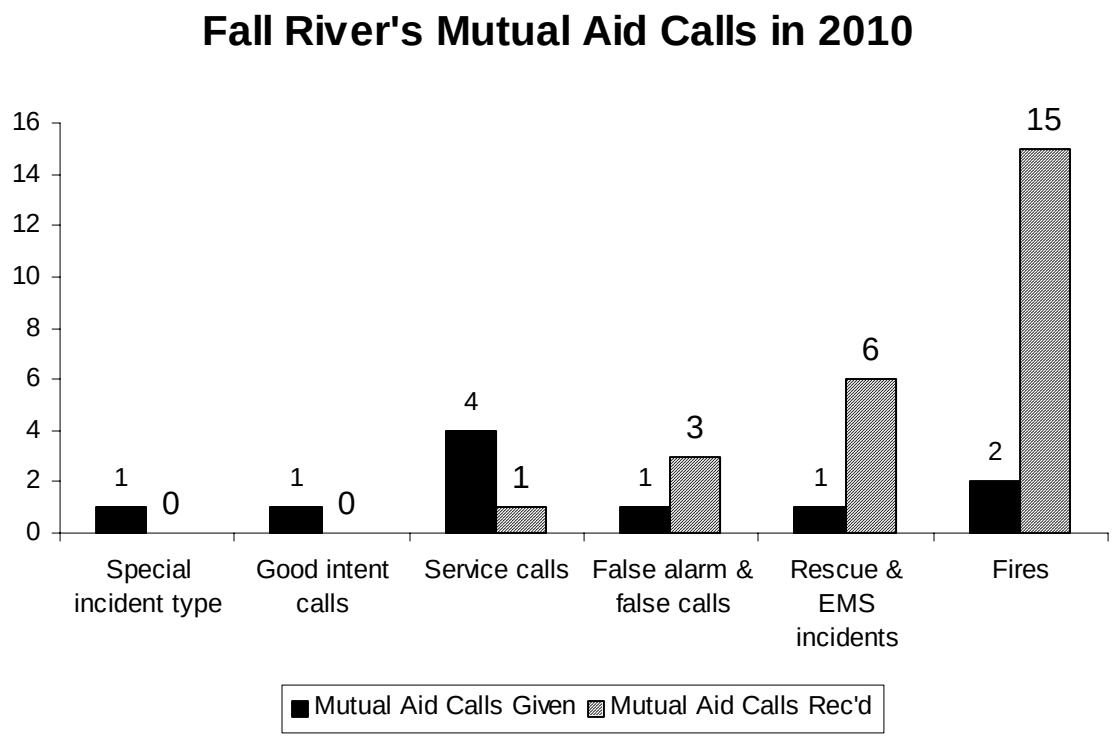
In 2010, Fall River reported coming to the aid of other fire departments 10 times. Four (4) were for cover assignments; two were for fires; and one each were rescue or EMS call, false alarm or false call, good intent call and a special incident type.

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

Fall River Received Mutual Aid 25 Times

In 2010, Fall River reported receiving mutual aid from surrounding fire departments 25 times. Fifteen (15) were for fires. Six (6) were for medical assists; three were for false alarms; and one was for a service call.

The following chart compares the number of calls that the Fall River Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Lynn. In 2010 Fall River received aid from other fire departments two and a half times as much as they gave it.



Fall River Population: 88,857

5.7 Fires/1,000 Population

Total Fires:	**508**		**$5,504,424**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	273	54%	$4,780,734
Vehicle Fires	59	12%	697,750
Other Fires	176	35%	25,940

2 Civilian Deaths — 3.94 Civilian Deaths/1,000 Fires
2 Fatal Fires — 0.23 Civilian Deaths/10,000 Population
18 Civilian Injuries — 11 Fire Service Injuries

Building Fires: 269

Residential Structure Fires: 217

Residential Structure Fires Confined to Non-Combustible Containers: 141

Unconfined Residential Structure Fires: 76

2 Civilian Deaths 16 Civilian Injuries 9 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	155	71%
1- & 2-Family homes	48	22%
Rooming houses	9	4%
Residential board & care	2	1%

Detector Status	**Fires**	**%**
Operated	53	24%
Didn't operate	4	2%
None	10	5%
Fire too small	9	4%
Didn’t Alert (confined)	4	2%
Undetermined	137	63%

Area of Origin[6]	**%**
Kitchen	68%
Living room	4%
Bedroom	2%
Heating room or area	2%

Heat Source	**%**	**%Unconfined**[7]
Heat from operating eq.	6%	18%
Radiated heat from op. eq.	5%	14%
Cigarette	4%	12%
Arcing	4%	11%

[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	65%
Rubbish, trash, waste	5%
Electrical wire, cable insulation	4%
Structural member, framing	4%
Flammable or combustible liq.	2%
Structural comp./finish, other	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Electrical failure, malfunc	2%	3%
Equipment unattended	2%	2%
Misuse of materials	1%	2%
Too close to combustibles	1%	2%
Accident. turned on/not off	1%	2%

Equipment[10]	**%**
Cooking Equipment	61%
None	29%
Boiler, furnace, cent. heat unit	2%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	23%	64%
Intentional	4%	11%
Failure of eq. or heat source	4%	11%
Undetermined	4%	11%
Cause under investigation	1%	4%

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

Alerted Occupants	9%
Didn't Alert Occupants	3%
Undetermined	88%

All Reported Incidents	**# of Incidents**	**% of Incidents**
False alarms & false calls	1,772	37%
Rescue & EMS incidents	1,240	26%
Fires[12]	532	11%
Good intent calls	485	10%
Hazardous conditions (no fire)	458	10%
Service calls	234	5%
Special incident type	28	1%
Overpressure rupture, explosion or overheat calls (no fire)	5	0.1%
Severe weather & natural disaster	3	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 fires that Fall River responded to outside of their jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	21	14	5	2
February	32	22	4	6
March	42	28	6	8
April	63	36	3	24
May	55	21	4	30
June	42	21	5	16
July	46	12	5	29
August	43	20	5	18
September	41	19	7	15
October	37	18	5	14
November	41	25	4	12
December	45	37	6	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	59	35	5	19
Monday	79	39	8	32
Tuesday	73	40	14	19
Wednesday	74	34	10	30
Thursday	80	44	10	26
Friday	72	43	5	24
Saturday	71	38	7	26

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	57	31	13	13
04:01 - 08:00	39	21	8	10
08:01 - 12:00	64	37	11	16
12:01 - 16:00	112	67	7	38
16:01 - 20:00	141	69	7	65
20:01 - 24:00	95	48	13	34

Motor Vehicle Fires

Total: 59
Automobiles: 51 (86%)
1 (2%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 35 **Dollar loss: $1,820,800**

0.4 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	17	7%	49%	$1,794,150
Vehicle Arsons	2	2%	6%	25,000
Other Arsons	16	6%	46%	1,650

0.19 Structure arsons/1,000 population
0.02 Vehicle arsons/1,000 population
0.18 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
00:01 - 04:00	6	35%
20:01 - 00:00	5	29%
16:01 - 20:00	4	24%

Vehicle Arsons	#	%
04:01 - 08:00	1	50%
20:01 - 00:00	1	50%

Other Arsons	#	%
16:01 - 20:00	7	44%
08:01 - 12:00	3	19%
20:01 - 00:00	3	19%

Peak Fixed Property Uses for Structure Arsons	#	%
Multi-family dwellings	5	29%
1 & 2 - Family homes	2	12%
Warehouse	2	12%

New Bedford Fires in 2010

386 Total Fires —156 Structures, 76 Vehicles & 154 Other Fires
The New Bedford Fire Department reported 386 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 156 structure fires, 76 motor vehicle fires, 85 outside trash fires, 40 brush fires, 11 special outside fires, and 18 unclassified fires caused 12 civilian injuries, 17 fire service injuries, and an estimated dollar loss of $3.6 million. There were no fire deaths in New Bedford in 2010

Motor Vehicle & Outside & Other Fires Up
Total fires increased by 43 from the 343 reported in 2009. Reported structure fires decreased by 16 from the 172 reported during the previous year. Motor vehicle fires increased by 11 from the 65 fires reported in 2009. Outside and other fires increased by 48 from 106 the previous year.

NEW BEDFORD FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	343	172	65	106	32	14	9	9
2010	386	156	76	154	27	11	9	7

BUILDING FIRES

There were 155 building fires of different types in New Bedford in 2010. These 155 building fires accounted for 99.4% of all structure fires in New Bedford.

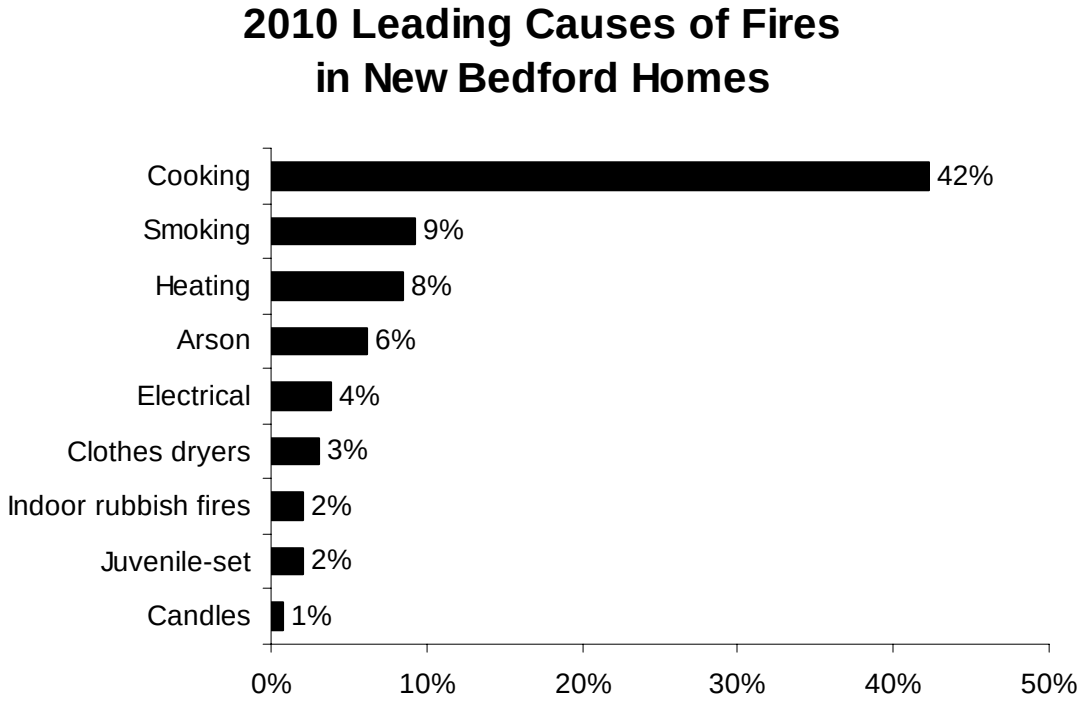
84% of Building Fires in Homes
The 155 building fires that occurred in New Bedford in 2010 can be broken down by fixed property use as follows: 130, or 84% of all building fires, were in residential properties; eight fires took place in mercantile or business properties; six fires occurred in public assembly properties; five fires occurred in special properties; four fires happened in manufacturing and processing facilities; one fire occurred in an institutional property; and one fire happened in an educational facility in 2010.

RESIDENTIAL FIRES

Apartments Accounted for 62% of Residential Building Fires
The peak fixed property uses for residential building fires were apartments, accounting for 62% of the building fires in New Bedford; 31% occurred in 1- or 2-family homes; 4%, happened in rooming houses; 2% occurred in residential board and care facilities; 1% happened in dormitories; and another 1% occurred in hotels or motels.

Residential Building Fires Are Down Slightly
There were 130 reported residential building fires in New Bedford in 2010. These 130 fires are a decrease of five, or 4%, from the 135 residential building fires reported in 2009.

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 42% of these fires. Smoking caused 9% and heating problems accounted for 8% of residential fires. Arson caused 8% of the fires in New Bedford homes. Electrical problems accounted for 4% of these fires. Clothes dryers caused 3% of these fires. Indoor rubbish fires and juvenile-set fires each accounted for 2%; and candles caused 1% of the residential building fires in New Bedford in 2010.



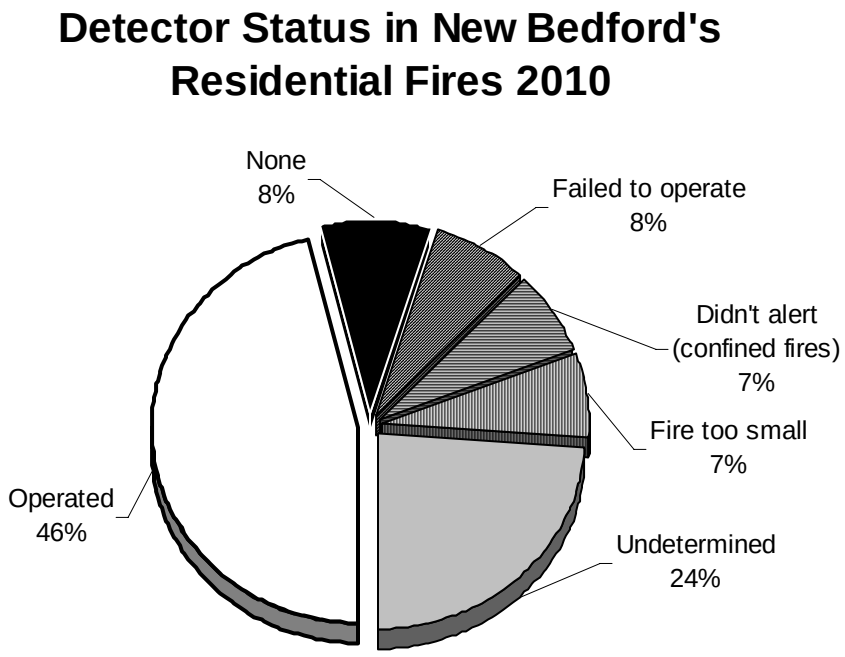
38% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Fifty (50), or 38% of all residential building fires were confined to non-combustible containers in 2010. Thirty-eight (38), or 29%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Eight (8) of the reported fires were fuel burner or boiler malfunctions, accounting for 6% of residential

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

building fires in New Bedford in 2010. Two (2) of the reported fires were confined to a chimney or flue, accounting for 2% of residential building fires in New Bedford in 2010. Another two, or 2%, of these fires were rubbish fires contained to a non-combustible container.

Detectors Alerted Occupants in Almost 1/2 of Fires

Smoke or heat detectors operated and alerted the occupants in 60, or 46%, 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 8% of these incidents. In 8% 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 31 incidents, or 24% of New Bedford's residential building fires.



3 of 10 Detectors Failed Detectors From a Missing or Disconnected Battery

Of the 10 fires where smoke detectors were present but failed to operate, three, or 30%, of these detectors failed because they were missing or had a disconnected battery. Another three detectors, or 30%, failed because of a power failure, shut-off or disconnect. A dead battery, a defective detector, and a lack of maintenance each caused one detector, or 10%, to fail. It was undetermined in the one case, or 10%, 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

8% of Building Fires Occurred in Vacant Buildings

New Bedford reported 12 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 8% of the total 155 building fires reported to MFIRS in 2010. Four (4) fires in one- or two-family homes; two fires in apartment buildings; and one fire each in a clothing store, a church, a commercial hotel or motel, a restaurant, a bar, and an unclassified business occurred in vacant buildings.

JUVENILE-SET FIRES

2 Juvenile-set Fires

There were two reported juvenile-set fires in New Bedford in 2010. The two structure fires caused $50,500 in estimated damages.

ARSONS

27 Total Arsons[4] — 11 Structures, 9 Motor Vehicles & 7 Other

Twenty-seven (27), or 7%, of New Bedford's 386 fires were intentional, or for purposes of this analysis, arson. The 11 structure arsons, nine motor vehicle arsons and seven outside and other arsons caused an estimated dollar loss of $86,100.

All Arsons Down

The total number of arsons decreased by five from the 32 reported in 2009. Reported structure arsons decreased by three from 14 the year before. Motor vehicle arsons remained the same with nine reported in both 2010 and 2009. Outside and other arsons decreased by two from the nine reported last year.

ALL INCIDENTS

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

In 2010, New Bedford voluntarily reported 10,420 incidents to MFIRS. Of these 10,420 incidents, 10,008, or 96%, were non-fire incidents.

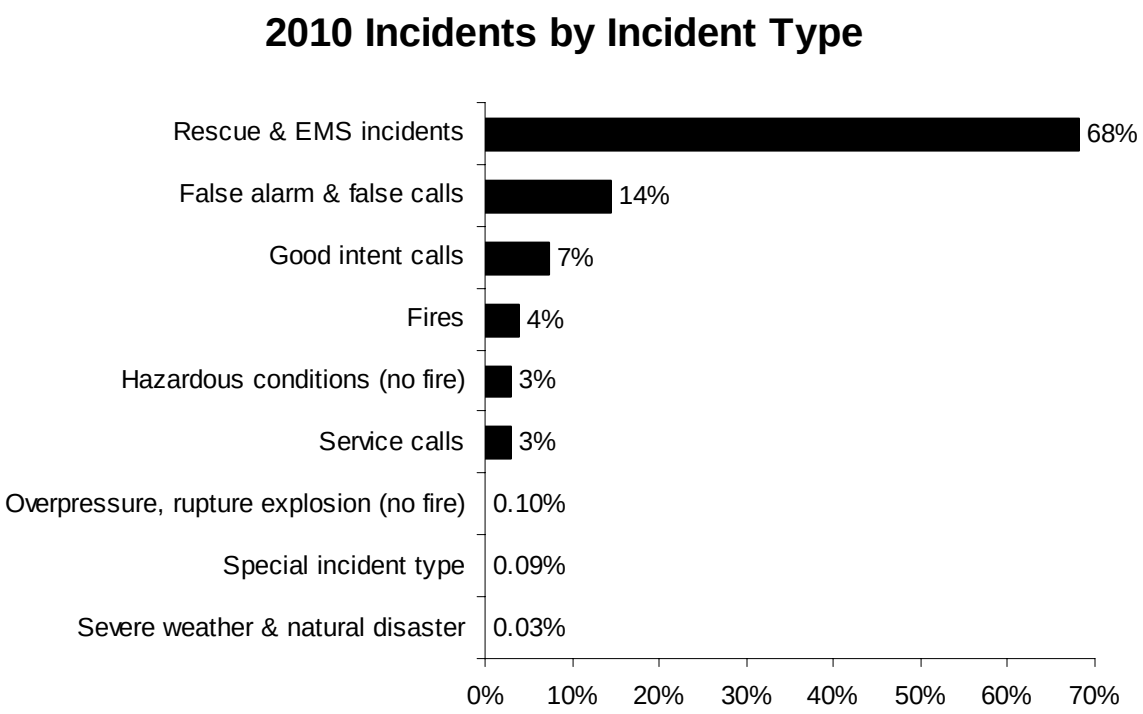
Of these 10,008 non-fire incidents 7,093, or 68% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 1,510, or 14%, were reported false alarm or false calls; 757, or 7%, were reported good intent calls; 316, or 3%, were reported hazardous condition calls with no fire; 310, or 3%, were reported

[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 calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 10, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; nine, or 0.09%, were special incident type calls such as citizen complaints; and three, or 0.03%, were severe weather calls.

In 2010, New Bedford reported 412 fires[5], accounting for 4% of all reported incidents.

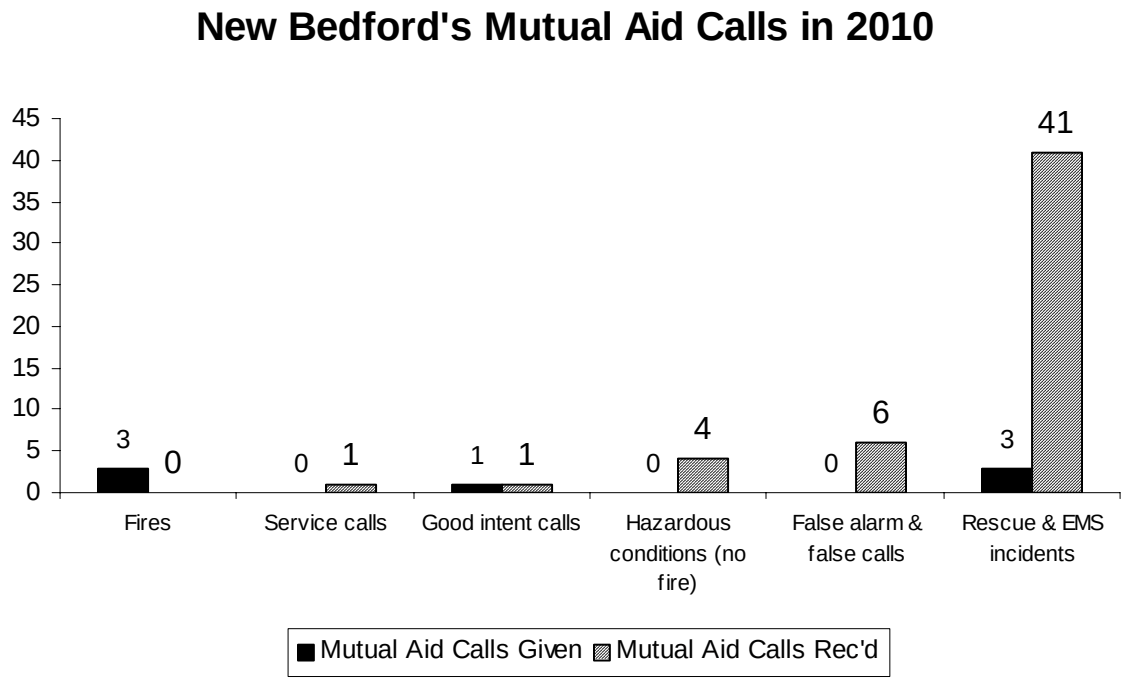


New Bedford Gave Mutual Aid in 7 Reported Incidents
In 2010, New Bedford reported coming to the aid of other fire departments seven times. Three (3), or 43%, were for fires. Another three, or 43%, were rescue or EMS calls; and one, or 14%, was for a station coverage call.

New Bedford Received Mutual Aid in 53 Incidents
In 2010, New Bedford reported receiving aid from surrounding fire departments 53 incidents. Forty-one (41), or 77%, of these incidents were rescue or EMS calls; six, or 11%, were false alarm or false calls; four, or 8%, were for hazardous condition calls with no fire; one, or 2%, was a service call; and one, or 2%, was a good intent call.

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

The following chart compares the number of calls that the New Bedford Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted New Bedford. In 2010 New Bedford received aid from other fire departments over seven and a half times as much as they were gave it.



New Bedford Population: 95,072

4.1 Fires/1,000 Population

Total Fires:	**386**		**$3,624,340**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	156	40%	$2,998,130
Vehicle Fires	76	20%	583,750
Other Fires	154	40%	42,460

12 Civilian Injuries 17 Fire Service Injuries

Building Fires: 155

Residential Building Fires: 130

Residential Building Fires Confined to Non-Combustible Containers: 50

Unconfined Residential Building Fires: 80

8 Civilian Injuries 4 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	81	62%
1- & 2-Family homes	40	31%
Boarding houses	5	4%
Residential board & care	2	2%
Dormitories	1	1%
Hotels or motels	1	1%

Detector Status	**Fires**	**%**
Operated	60	46%
Didn't operate	10	8%
None	11	8%
Fire too small	9	7%
Didn’t Alert (confined)	9	7%
Undetermined	31	24%

Area of Origin[6]	**%**
Kitchen	47%
Heating room or area	6%
Living room	5%
Exterior balcony, unencl. porch	5%
Substructure area, crawl space	4%
Wall assembly	4%

Heat Source	**%**	**%Unconfined**[7]
Hot ember or ash	8%	13%
Cigarettes	8%	13%
Radiated heat from oper. eq.	7%	11%
Heat from operating equip.	5%	8%
Hot or smoldering obj., other	5%	8%
Heat open flame/smok. mat.	5%	8%
Spark/ember/flame op. eq.	5%	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	35%
Flammable or combustible liquid	6%
Structural member, framing	5%
Rubbish, trash, waste	4%
Floor covering, rug/carpet/mat	4%
Upholstered sofa, chair	3%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Misuse of material/products	3%	5%
Abandoned materials	2%	4%
Too close to combustibles	2%	4%
Playing with heat source	2%	3%
Operational deficiency	2%	3%

Equipment[10]	**%**
Cooking equipment	42%
None	41%
Boiler, furnace, cent. heat unit	6%
Clothes dryer	3%
Chimney or flue	2%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	33%	54%
Intentional	6%	10%
Failure of eq. or heat source	6%	10%
Act of nature	0%	0%
Undetermined	8%	14%
Cause under investigation	7%	11%

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

Alerted Occupants	54%
Didn't Alert Occupants	18%
Undetermined	28%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	7,093	68%
False alarms & false calls	1,510	14%
Good intent calls	757	7%
Fires[12]	412	4%
Hazardous conditions (no fire)	316	3%
Service calls	310	3%
Overpressure rupture, explosion or overheat calls (no fire)	10	0.1%
Special incident type	9	0.09%
Severe weather & natural disaster	3	0.03%

[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.

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[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	17	10	3	4
February	25	13	4	8
March	24	10	4	10
April	42	16	7	19
May	32	15	7	10
June	40	15	12	13
July	43	15	5	23
August	46	14	10	22
September	29	8	10	11
October	30	11	5	14
November	27	12	4	11
December	31	17	5	9

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	53	17	11	25
Monday	58	20	14	24
Tuesday	48	20	12	16
Wednesday	57	22	11	24
Thursday	49	22	5	22
Friday	45	18	10	17
Saturday	76	37	13	26

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	60	23	19	18
04:01 - 08:00	30	14	8	8
08:01 - 12:00	50	24	6	20
12:01 - 16:00	75	31	7	37
16:01 - 20:00	113	43	19	51
20:01 - 24:00	58	21	17	20

Motor Vehicle Fires

Total: 76
Automobiles: 68 (89%)
9 (13%) of the automobile fires considered intentional.

Arson Fires

Total Arsons: 27 **Dollar loss: $86,100**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	11	7%	41%	$63,000
Vehicle Arsons	9	12%	33%	22,200
Other Arsons	7	5%	26%	900

0.12 Structure arsons/1,000 population
0.09 Vehicle arsons/1,000 population
0.07 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
00:01 - 04:00	5	45%	00:01 - 04:00	4	44%
16:01 - 20:00	3	27%	20:01 - 00:00	3	33%

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

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	5	45%
Apartments	2	18%
Textile, wearing apparel sales	1	9%
Places of worship, funeral parlors	1	9%
Boarding or rooming house	1	9%

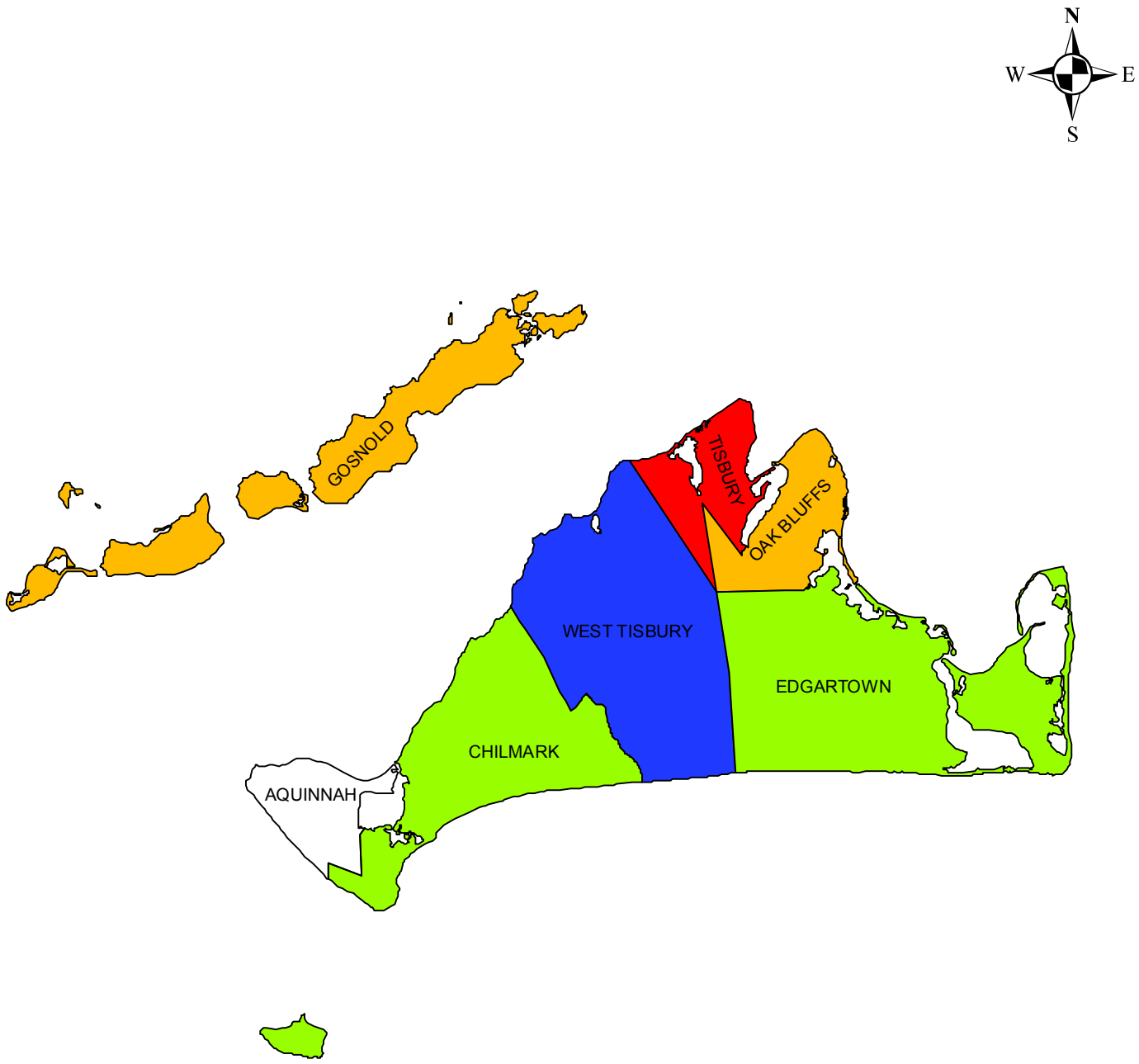
Dukes County

2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Dukes County Fires 2010



2010 Fires

- 0
- 1
- 2
- 3
- 4 - 19

MFIRS Massachusetts Fire Incident Reporting System

0 1 2 4 6 8 Miles

Massachusetts Fire Incident Reporting System 2010

Dukes County Fires in 2010

28 Total Fires — 15 Structures, 5 Vehicles Fires & 8 Outside &Other Fires
Dukes County ranked last out of the fourteen Massachusetts counties in total fires. Dukes County fire departments reported 28 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 15 structure fires, five motor vehicle fires, one brush, tree or lawn fire, four outside rubbish fires, and three unclassified fires caused two civilian deaths and an estimated dollar loss of $25,050. Dukes County's fires accounted for 0.1% of the 32,680 Massachusetts fires reported in 2010.

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 2010.

All Fires Up
The total number of reported fire incidents increased by nine from the 19 reported in 2009. Reported structure fires increased by seven from the eight reported in 2009. Motor vehicle fires remained the same with five reported in both 2009 and 2010. Outside and other fires increased by two from the six reported in 2009.

DUKES COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	19	8	5	6	0	0	0	0
2010	28	15	5	8	1	0	1	0

Fire and Fire Death Rates
Dukes County had 1.7 fires per 1,000 population. That figure ranks Dukes County last in the state and below the state rate of 5.0 fires per 1,000 population. Dukes County also had 1.21 fire deaths per 10,000 population ranking it first among Massachusetts counties and above the state rate of 0.06 fire deaths per 10,000 population.

2 Residents Died in 2 Dukes County Fires
- On January 30, 2010, at 5:05 a.m., the West Tisbury Fire Department responded to a heating equipment fire at a single-family home. The fire was caused by the boiler. The victim was a 63-year old man who was also a call firefighter on the department. It was undetermined if there were detectors and the home was not sprinklered. No estimation was made for damages from this fire.

- On February 1, 2010, at 5:44 p.m., the Oak Bluffs Fire Department was dispatched to a single car motor vehicle accident with ensuing fire. The vehicle left the road and

continued into a patch of woods near the entrance to the Martha's Vineyard Hospital's emergency department. The victim, a 37-year old woman, was trapped inside the vehicle and unable to extricate herself. No one else was injured in this fire. Damages from this fire were not estimated.

Gosnold Had Dukes County Largest Loss Fire

- On April 9, 2010, at 8:45 p.m., the Gosnold Fire Department discovered one of its older fire trucks on fire at the fire station. No one was injured at this fire and damages were estimated to be $14,500.

STRUCTURE FIRES

Reported Structure Fires Up

There were 15 reported structure fires in Dukes County in 2010. These incidents represented 54% of Dukes County's reported fires in 2010 and 42% of the county's reported dollar loss. The total number of reported structure fires increased by seven, or 88%, from the eight reported in 2009.

No Reported Structure Arsons in 2010

There were no reported structure arsons in Dukes County in 2010. The last reported structure arson in Dukes County occurred in 2003.

BUILDING FIRES

There were 14 building fires of different types in Dukes County in 2010. These 14 building fires accounted for 93.3% of the structure fires in Dukes County.

86% of Dukes Building Fires Occurred in People's Homes

Twelve (12), or 86%, of Dukes County's 14 building fires occurred in residential occupancies. One fire occurred in a business and another fire occurred in a storage facility.

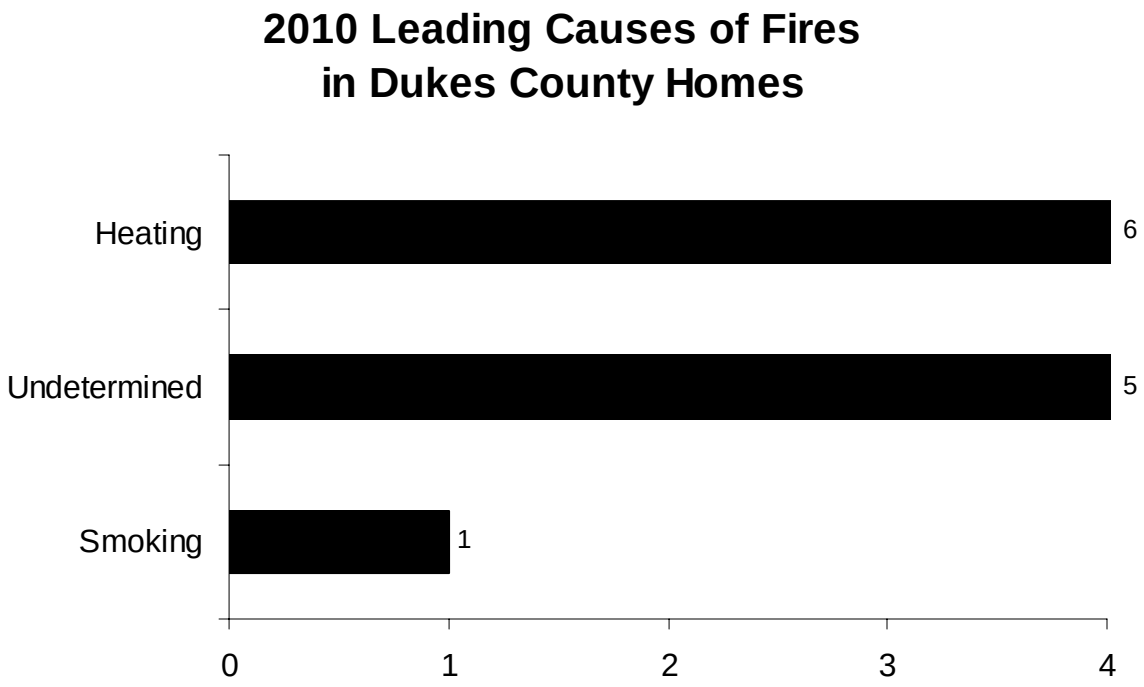
RESIDENTIAL FIRES

Residential Building Fires Up

There were 12 reported residential building fires in Dukes County in 2010. These 12 fires are an increase of five, or 71%, from the seven residential building fires reported in 2009.

Heating Was the Leading Cause of Residential Fires

Heating was the leading cause of residential building fires in Dukes County, accounting for six, or 50%, of these fires. Smoking caused one of the residential building fires in Dukes County in 2010, accounting for 8% of the fires. The cause was undetermined for five, or 42%, of the fires in Dukes County in 2010.

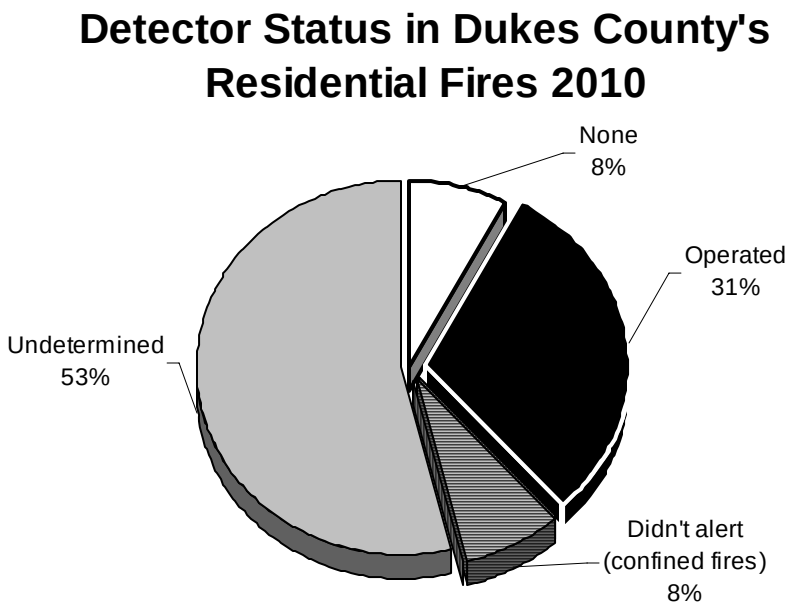


5 Residential Building Fires Are Confined to Non-Combustible Containers[1]
Five (5), or 42%, of the reported fires in Dukes County were confined to a non-combustible container. All five of these fires, or 100%, were confined to a chimney or flue.

Detectors Status Undetermined in Over 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in four, or 31%, of the residential building fires. In one, or 8%, of these fires[2], the detectors did not alert the occupants. In another fire, or 8%, there were no smoke detectors present. Smoke detector performance was undetermined in seven incidents, or 53%, 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.

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



VACANT BUILDINGS

1 Vacant Building Fire

One (1) of Dukes County reported fires occurred in a building that was vacant. It was in a single-family home.

JUVENILE-SET FIRES

No Juvenile-set Fires

There were no reported juvenile-set fires in Dukes County in 2010.

ARSONS

1 Arson

For the first time in four years, there was a reportable arson in Dukes County. There was one motor vehicle arson reported in 2010. This was an increase of one over none reported the previous year.

ALL INCIDENTS

False Alarms 2/3 of All Reported Responses

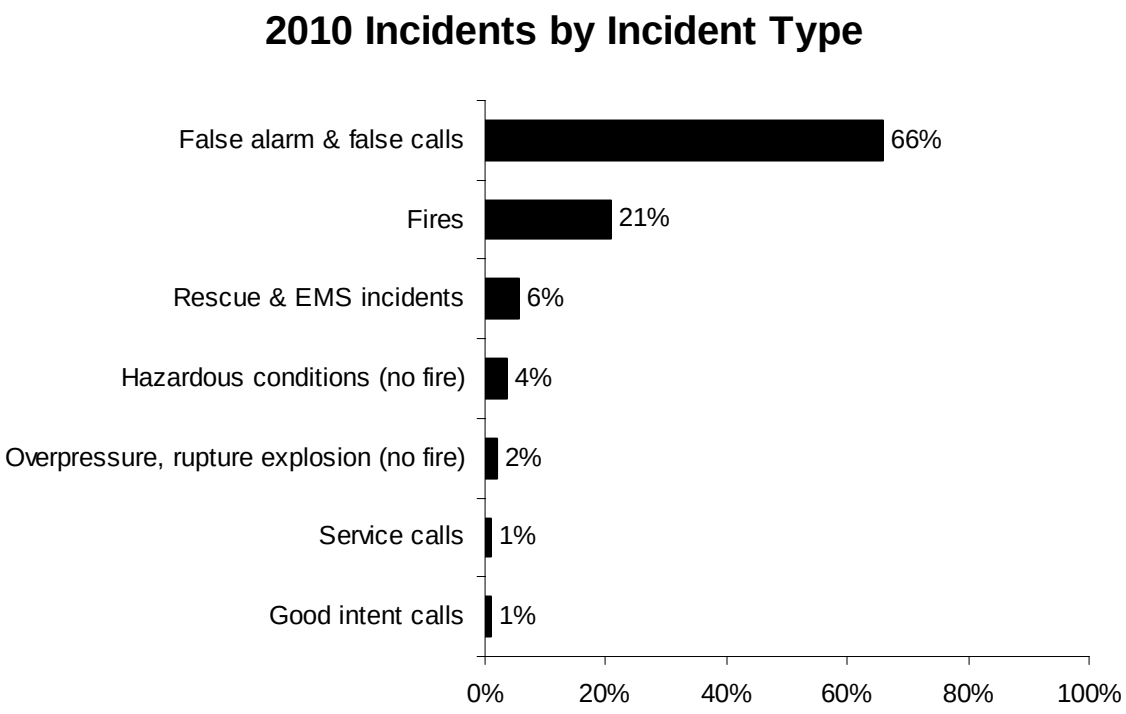
In 2010, Dukes County fire departments reported 162 responses[3] to MFIRS. Of these 162 incidents, 128 non-fire calls[4] were voluntarily reported.

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

[4] Tisbury is the only department in Dukes County that reports non-fire calls.

Of these 128 non-fire calls, 107, or 66%, were reported false alarm or false calls; nine, or 6% of all of the responses reported in 2010, were reported rescue and emergency medical services (EMS) calls; six, or 4%, were reported hazardous condition calls with no fire; three, or 2%, were reported overpressure, rupture, explosion or overheat calls with no fire; two, or 1%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; and one, or 1%, was a reported good intent call.

Thirty-four (34), or 21%, of the total incidents submitted by Dukes County fire departments were fires.



Dukes County Fire Departments Gave Mutual Aid 14 Times
In 2010, Dukes County fire departments reported coming to the aid of other fire departments 14 times. Of these 14 responses, six, or 43%, were for fires; six, or 43%, were for false alarms or false calls; one, or 7%, was for a rescue or EMS call; and one, or 7%, was for a service call.

Dukes County Fire Departments Received Mutual Aid in 5 Incidents
In 2010, Dukes County fire departments reported receiving aid from surrounding departments in five incidents. All five of these incidents were for fires.

Dukes County Population: 16,535

1.7 Fires/1,000 Population

Total Fires:	**28**		**$25,050**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	15	42%	$10,550
Vehicle Fires	5	26%	14,500
Other Fires	8	32%	0

2 Fatal Fires
2 Civilian Deaths
No Injuries

71.43 Civilian Deaths/1,000 Fires
1.21 Civilian Deaths/10,000 Population

Building Fires: 14

Residential Structure Fires: 12

Residential Structure Fires Confined to Non-Combustible Containers: 5

Unconfined Residential Structure Fires: 7

1 Civilian Death

Occupancy	**Fires**	**%**
1- & 2-Family homes	8	57%
Apartments	1	7%
Residential, other	3	25%

Detector Status	**Fires**	**%**
Operated	4	31%
Didn't operate	0	0%
None	1	8%
Fire too small	0	8%
Didn’t alert (confined)	1	0%
Undetermined	7	53%

Area of Origin[5]	**%**
Chimney or flue	42%
Outside area, other	17%
Ceiling & floor assembly	8%
Wall assembly, concealed space	8%
Exterior balcony, unencl. Porch	8%
Closet	8%

Heat Source	**%**	**%Unconfined**[6]
Lightning	8%	14%
Arcing	8%	14%
Chemical, natural source	8%	14%
Other open flame/smok. mat.	8%	14%
Hot ember or ash	8%	14%

[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]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined**[8]
Film, residue (creosote)	42%	Abandoned materials	8%	14%
Ext. sidewall covering	25%	Leak or break	8%	14%
Structural member, framing	8%	Electrical failure, malfunc.	8%	14%

Equipment[9]	**%**	**Cause of Ignition**	**%**	**%Unconfined**[10]
Chimney or flue	42%	Unintentional	17%	29%
None	42%	Failure of eq. or heat source	17%	29%
Furnace, cent. heat. unit	8%	Undetermined	17%	29%
		Act of nature	8%	14%

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

Alerted occupants	20%
Didn't alert occupants	20%
Undetermined	60%

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

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

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

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

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

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

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

Motor Vehicle Fires

Total: 5
Automobiles: 4 (80%)
1 (25%) of the automobile fires were incendiary in 2010.

Arson Fires

Total Arsons: 1 **Dollar loss: $0**

0.06 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	$0
Vehicle Arsons	1	20%	100%	0
Other Arsons	0	0%	0%	0

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

No Injuries

Aquinnah **Population: 311**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Fire Department in Good Standing, Certified No Reportable Fires							

Chilmark **Population: 866**

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

Edgartown **Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	2	2	0	0	0	0	0	0

Gosnold (Cuttyhunk) **Population: 75**

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

Oak Bluffs **Population: 4,067**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	1	0	0	0	0	0	0
2010	1	0	1	0	0	0	0	0

Tisbury **Population: 3,959**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	14	4	5	5	0	0	0	0
2010	19	8	3	8	1	0	1	0

West Tisbury **Population: 2,740**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	1	1	0	0	0	0	0	0
2010	3	3	0	0	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
07062	Chilmark	2	2	0	0	0	0	0	0	0	0
07089	Edgartown	2	2	0	0	0	0	0	0	0	0
07109	Gosnold	1	1	0	0	0	0	0	0	0	0
07221	Oak Bluffs	1	1	0	0	0	0	0	0	0	0
07296	Tisbury	153	25	3	9	6	2	1	107	0	0
07327	West Tisbury	3	3	0	0	0	0	0	0	0	0
Total	**Dukes County**	**162**	**34**	**3**	**9**	**6**	**2**	**1**	**107**	**0**	**0**

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

Essex County

2010 Fire Data Analysis

Massachusetts
Fire
Incident
Reporting
System

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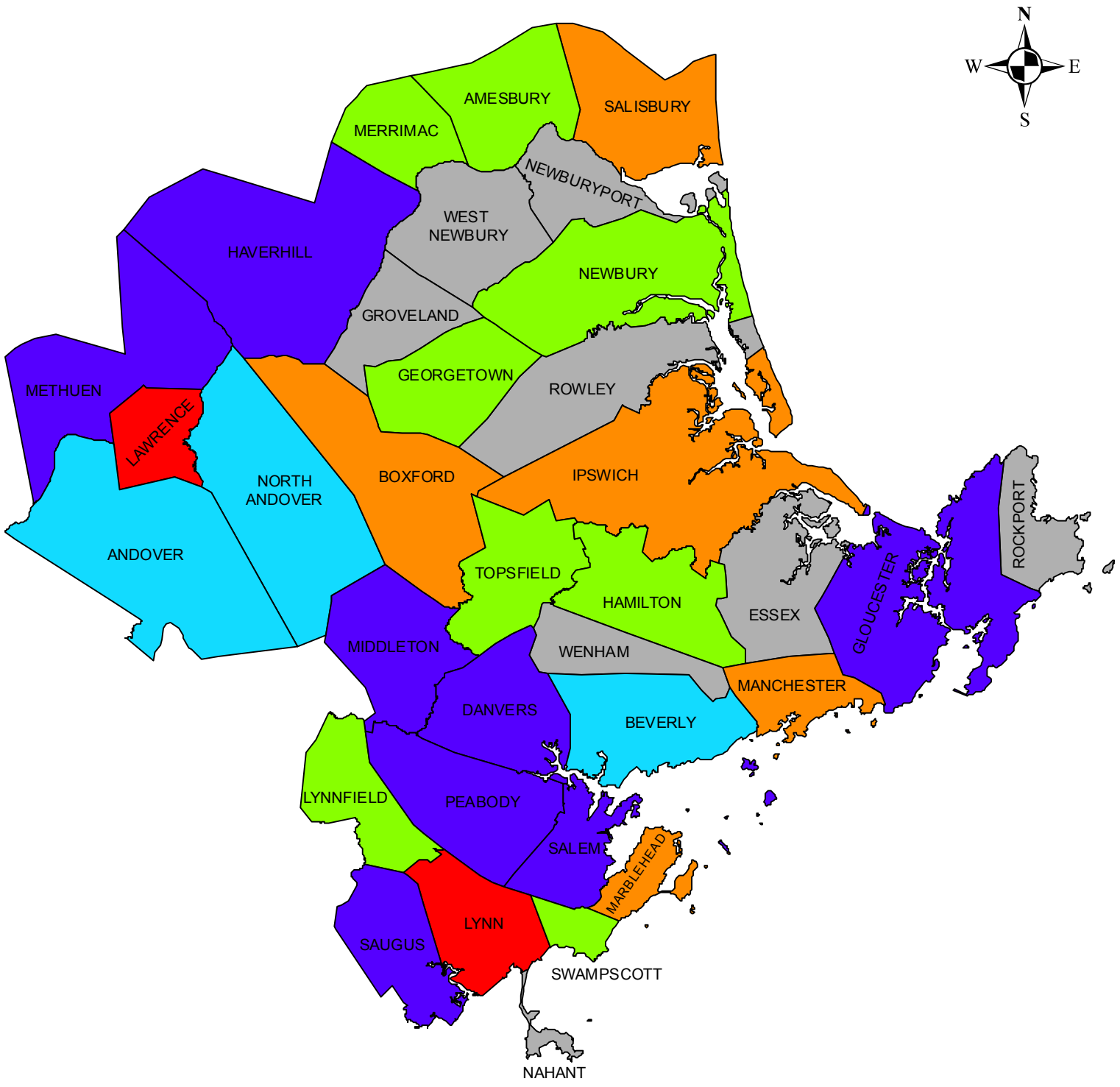
Essex County Fires 2010



2010 Fires

- 3 - 25
- 26 - 50
- 51 - 100
- 101 - 150
- 151 - 250
- 251 - 482

MFIRS Massachusetts Fire Incident Reporting System

0 1 2 4 6 8 Miles

Massachusetts Fire Incident Reporting System 2010

Essex County Fires in 2010

3,574 Total Fires — 1,977 Structures, 295 Vehicles & 1,302 Other Fires
Essex County ranked fourth out of the fourteen Massachusetts counties in total reported fires. The county reported 3,574 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 1,977 structure fires, 295 motor vehicle fires, 833 brush, tree or lawn fires, 279 outside rubbish fires, 96 special outside fires, five cultivated crop or vegetation fires, and 89 other fires caused three civilian deaths, 21 civilian injuries, 46 fire service injuries and an estimated dollar loss of $24.3 million. Essex County's fires accounted for 11% of the 32,680 Massachusetts fires reported in 2010.

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 2010.

Structure & Outside Fires Up
The total number of reported fire incidents increased by 794 incidents from the 2,780 that were reported in 2009. Reported structure fires increased by 335 from the 1,642 reported during the previous year. The total number of motor vehicle fires decreased by 38 from the 333 incidents reported during 2009. Reported outside and other fires increased by 497 from the 805 reported the year before.

Brush Fires Up by 96%
After a large increase in brush fires in 2007, they decreased by 376, or 39%, in 2008 and by another 161, or 27%, in 2009. In 2010, brush fires increased by 408, or 96%. This is a major increase and the main reason for the rise in all Essex County fires.

ESSEX COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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	2,886	1,629	326	931	132	19	17	96
2009	2,780	1,642	333	805	186	32	19	134
2010	3,574	1,977	295	1,302	152	23	19	110

Fire and Fire Death Rates
Essex County had 4.8 fires per 1,000 population. That figure ranks Essex County sixth in the state and below the state rate of 5.0 fires per 1,000 population. Essex County had 0.04 fire deaths per 10,000 population tying it for eighth among Massachusetts counties and just below the state rate of 0.05 deaths per 10,000 population.

3 Residents Died in 3 Essex County Fires

- On February 7, 2010, at 9:17 a.m., the Methuen Fire Department responded to an outside fire behind a single-family home. A partly burned body was found beside a fire pit. The victim was a 43-year old man. No one else was injured at this fire. No estimation was made for damages from this fire.

- On February 13, 2010, at 11:44 a.m., the Lynn Fire Department was dispatched to a fatal smoking fire in a 99-unit apartment building. The victim, a 68-year old man, was smoking while using home oxygen. The victim's clothes ignited and the sprinklers activated, suppressing the fire. He was transported to a local hospital where he later succumbed to his injuries. There were no other injuries associated with this fire. Detectors were present and they alerted the other occupants of the building. No estimation of damages was made for this incident.

- On November 11, 2010, at 6:08 p.m., the Andover Fire Department was called to an arson in a single-family home. The home had been foreclosed upon and was going up for auction in the near future. The victim, a 53-year old man, ignited the fire in various parts of the home. He even left a note on the door warning of booby traps and explosions. No one else was injured at this fire. Detectors were not present and the home was not sprinklered. Damages were estimated to be $350,000.

Peabody Has Essex County's Largest Loss Fire in 2010

- On June 20, 2010, at 3:29 p.m., the Peabody Fire Department was called to a fire at the J.D. Raymond Company mulch yard. The fire began in one of the large piles of mulch. The fire was started by a natural chemical reaction inside the mulch pile. One (1) firefighter was injured at this fire. The fire also spread to equipment that was used to handle the mulch. The last units cleared two days later. Damages were estimated to be $1.2 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 1,977 structure fires caused two civilian deaths, 17 civilian injuries, 38 fire service injuries and an estimated dollar loss of $21.7 million. These incidents represented 55% of Essex County's reported fires in 2010. The average estimated dollar loss per structure fire was $10,985. The total number of reported structure fires increased by 335, or 20%, from the 1,642 reported in 2009.

Arson Caused 1% of Structure Fires

The 23 structure arsons caused one civilian fire death, two fire service injuries and an estimated dollar loss of $369,050. Arson was indicated as the cause of 1% of the structure fires and 2% of Essex County's structure fire dollar loss. The 23 structure arsons accounted for 15% of the Essex County arson fires reported in 2010. The total number of reported structure arsons decreased by nine, or 28%, from 32 in 2009.

61% of Structure Arsons Occurred in Residences

Sixty-one percent (61%) of Essex County's 23 structure arsons occurred in residential occupancies. Public assembly facilities, institutional facilities and storage facilities were each responsible for 9% of the structure arsons. Educational facilities, mercantile or business facilities and special properties were each responsible for 4% of Essex County's structure arsons in 2010.

BUILDING FIRES

There were 1,964 building fires of different types in Essex County in 2010. These 1,964 building fires accounted for 99.3% of all structure fires in Essex County.

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

One thousand six hundred and fifty-six (1,656), or 84%, of Essex County's 1,964 building fires occurred in residential occupancies. Mercantile and business properties had 68 fires. Sixty-five (65) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 49 fires. Forty-eight (48) building fires in Essex County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Thirty (30) fires took place in storage properties. Another 30 fires took place in manufacturing and processing facilities. Fourteen (14) building fires took place on educational properties. Three (3) fires happened in industrial facilities, and one fire occurred in an unclassified property in Essex County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Up in 2010

There were 1,656 reported residential building fires in Essex County in 2010. These 1,656 fires are an increase of 287, or 21%, from the 1,369 residential building fires reported in 2009.

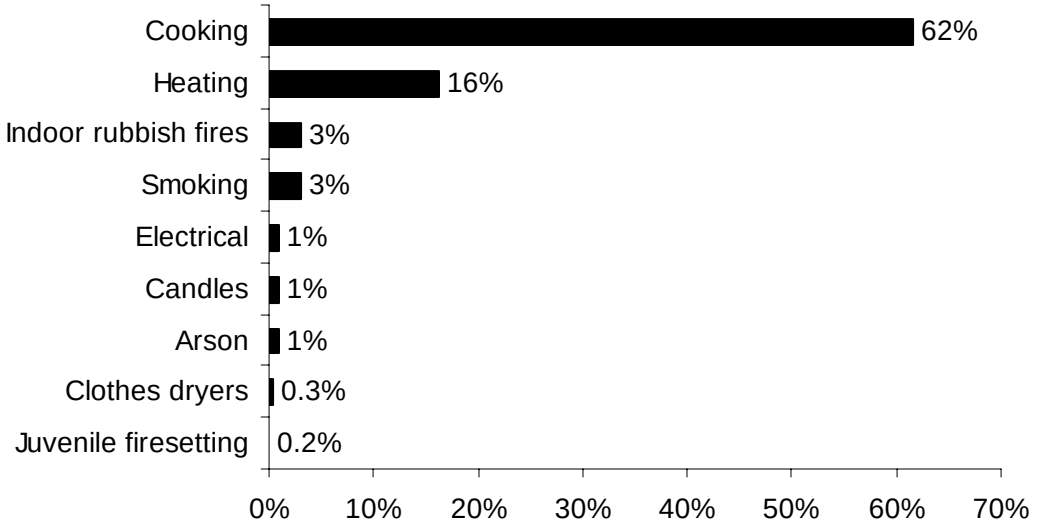
1- & 2-Family Homes Accounted for Almost 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- and 2-family homes, accounting for almost half, or 46%, of the building fires in Essex County; 43% occurred in apartments; 3% happened in rooming houses; and 1% each took place in dormitories, residential board and care facilities, and hotels or motels. Sixty-six (66), 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 62% of these fires. Heating was the second leading cause, accounting for 16% of these fires. Indoor rubbish fires and smoking each caused 3% of these fires. Electrical problems, arson and candles each caused 1% of these fires; and clothes dryers and juvenile-set fires each caused less than 1% of the fires in people's homes in Essex County in 2010.

2010 Leading Causes of Fires in Essex County Homes



78% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One thousand two hundred and eighty-five (1,285), or 78%, of all residential building fires were reported as confined to non-combustible containers in 2010. Nine hundred and seventy-seven (977), or 59%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. One hundred and sixty-five (165), or 10%, were fires confined to a fuel burner or boiler malfunction. Ninety-one (91) of the reported fires were confined to a chimney accounting for 5% of residential building fires. Forty-nine (49), or 3%, of these fires were rubbish fires contained to a non-combustible container. There were two reported incinerator overload or malfunctions and one confined commercial compactor fire, each representing less than 1% of the residential fires in Essex County in 2010.

Detectors Operated in 57% of Fires
Smoke or heat detectors operated and alerted the occupants in 957, or 57%, 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 2% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 430 incidents, or 26%, of Essex County's residential building fires.

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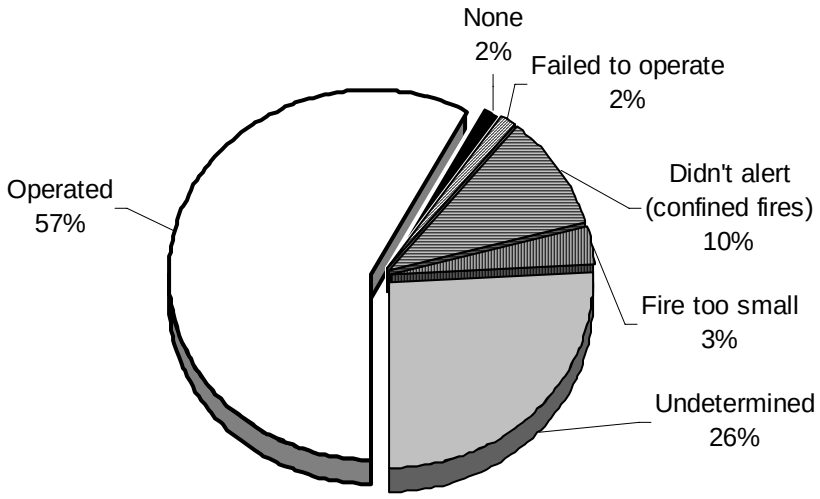
[1] In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing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

Detector Status in Essex County's Residential Structure Fires 2010



Over 1/4 of Failed Detectors Had Missing or Disconnected Batteries
Of the 25 fires where smoke detectors were present but failed to operate, seven, or 28%, failed because the batteries were either missing or disconnected. Four (4), or 16%, did not operate because of dead batteries. One (1), or 4%, failed because of a power failure, shutoff or disconnect. Another detector, or 4%, failed from a lack of maintenance; and one detector, or 4%, failed because of improper installation or placement. It was undetermined or unclassified in 11 cases, or 44%, why the detectors failed to operate.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings
Essex County reported 33 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 1,964 building fires reported to MFIRS in 2010. Seventeen (17) fires occurred in vacant residential properties. Storage facilities accounted for nine vacant building fire incidents. Manufacturing or processing facilities accounted for four of these fires. Public assembly facilities, institutional facilities and mercantile or business properties each accounted for one vacant building fire in Essex County in 2010.

[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.

Five (5) of the vacant building fires in Essex County in 2010 were determined to be intentionally set. Three (3) single-family homes, one bar or nightclub, and one warehouse were vacant building arsons.

JUVENILE-SET FIRES

15 Juvenile-set Fires

There were 15 reported juvenile-set fires in Essex County in 2010. The four structure fires, nine brush fires, one special outside fire, and one unclassified fire caused one fire service injury and $307,000 in estimated damages.

ARSONS

152 Total Arsons[4] — 23 Structures, 19 Vehicles & 110 Other Arsons

One hundred and fifty-two (152), or 4%, of Essex County's 3,574 fires were considered intentionally set, or, for purposes of this analysis, arson. The 23 structure arsons, 19 motor vehicle arsons and 110 outside and other arsons caused two civilian deaths, two fire service injuries and an estimated dollar loss of $379,650.

All Arsons Down

The total number of reported arson fires decreased by 33 from the 185 reported in 2009. Reported structure arsons decreased by nine from the 32 reported the previous year. Motor vehicle arsons remained the same with 19 reported in both 2009 and 2010. Outside and other arsons decreased by 24 from 134 reported the year before.

ALL INCIDENTS

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

In 2010, fire departments in Essex County reported 85,039 responses[5] to MFIRS. Of these 85,039 incidents, 81,292 non-fire calls were voluntarily reported.

Of these 81,292 non-fire calls, 44,025, or 52%, of all the reported responses in 2010, were reported rescue and emergency medical services (EMS) calls; 14,505, or 17%, were reported false alarm or false calls; 11,638, or 14%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,636, or 7%, were reported good intent calls; 4,459, or 5%, were reported hazardous condition calls with no fire; 689, or 1%, were special incident type calls such as citizen complaints; 242, or 0.3%, were severe weather responses; and 98, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

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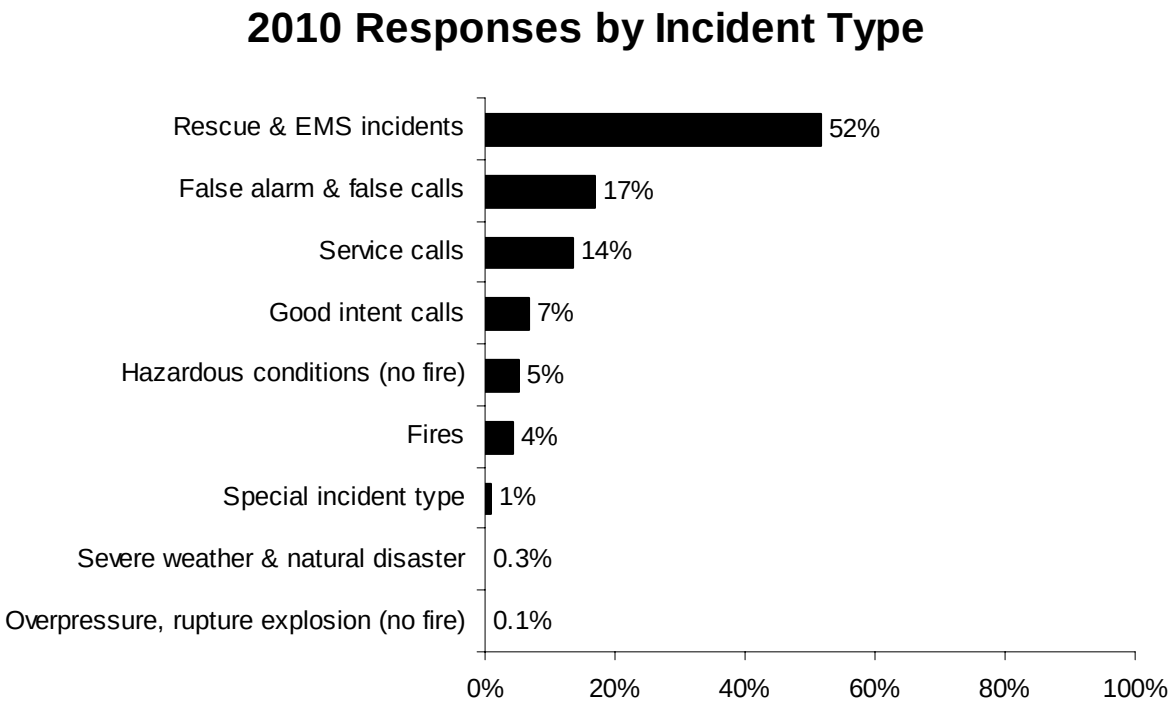
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

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

Three thousand seven hundred and forty-seven (3,747), or 4%, of the total incidents submitted by Essex County fire departments were fires.



Essex County Fire Departments Reported Giving Mutual Aid 1,249 Times

In 2010, Essex County fire departments reported coming to the aid of other fire departments 1,249 times. Of these 1,249 responses, 491, or 39%, were for service calls such as cover assignments; 350, or 28%, were for rescue or EMS calls; 165, or 13%, were for good intent calls; 143, or 11%, were for fires; 82, or 7%, were for false alarms or false calls; 13, or 1%, were for hazardous conditions calls with no fire; four, or 0.3%, were special incident types; and one, or 0.1%, was a reported overpressure, rupture, explosion or overheat call with no fire.

Essex County Received Mutual Aid in 1,413 Incidents

In 2010, Essex County fire departments reported receiving aid from surrounding departments in 1,413 incidents. Of these 1,413 incidents, 947, or 67%, were rescue and emergency medical services calls; 203, or 14%, were for fires; 144, or 10%, were false alarms or false calls; 43, or 3%, were good intent calls; 40, or 3%, were hazardous conditions calls with no fire; 28, or 2%, were service calls; five, or 0.4%, were reported overpressure, rupture, explosion or overheat calls with no fire; two, or 0.1%, were for severe weather or natural disaster calls; and one, or 0.1%, was a special incident type.

Essex County Population: 743,159

4.8 Fires/1,000 Population

Total Fires:	**3,574**		**$24,267,771**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	1,977	55%	$21,716,531
Vehicle Fires	295	8%	1,237,684
Other Fires	1,302	36%	1,313,556

3 Fatal Fires	0.84 Civilian Deaths/1,000 Fires
3 Civilian Deaths	0.04 Civilian Deaths/10,000 Population
21 Civilian Injuries	46 Fire Service Injuries

Building Fires: 1,964

Residential Structure Fires: 1,656

Residential Structure Fires Confined to Non-Combustible Containers: 1,285

Unconfined Residential Structure Fires: 371

2 Civilian Deaths 14 Civilian Injuries 18 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	764	46%
Apartments	720	43%
Rooming houses	54	3%
Dormitories	24	1%
Residential board & care	17	1%
Hotels/motels	11	1%

Detector Status	**Fires**	**%**
Operated	957	57%
Didn't operate	25	2%
None	26	2%
Fire too small	52	3%
Didn’t alert (confined)	166	10%
Undetermined	430	26%

Area of Origin[6]	**%**
Kitchen	64%
Heating equipment room	10%
Chimney or flue	5%
Bedroom	2%
Living room	1%
Ext. balcony, unenclosed porch	1%

Heat Source	**%**	**%Unconfined[7]**
Radiated heat from oper. eq.	3%	14%
Arcing	3%	12%
Heat from operating equip.	3%	12%
Cigarettes	2%	8%
Candle	2%	5%
Hot ember or ash	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]	**%**
Food, cooking materials	61%
Flammable/comb. liquid	10%
Film, residue (creosote)	5%
Rubbish, trash, waste	4%
Structural member, framing	3%

Factor Contrib. to Ignit.	**%**	**%Unconfined**[9]
Too close to combustibles	2%	10%
Abandoned materials	2%	6%
Misuse of materials	2%	5%
Electrical failure, malfunc.	1%	5%
Equipment unattended	1%	4%

Equipment[10]	
Kitchen & cooking equipment	60%
None	18%
Boiler, furnace, cent. heat. unit	10%
Chimney, flue	5%
Fan	0.4%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	13%	57%
Failure of eq. or heat source	4%	18%
Intentional	1%	4%
Undetermined	1%	5%
Cause under investigation	3%	14%
Act of Nature	0.2%	1%

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

Alerted occupants	61%
Didn't alert occupants	13%
Undetermined	26%

[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	229	180	21	28
February	226	172	14	40
March	300	178	32	90
April	326	160	26	140
May	362	144	30	188
June	256	133	25	98
July	407	131	25	251
August	348	134	29	185
September	249	142	19	88
October	252	166	23	63
November	336	226	23	87
December	283	211	28	4

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	598	323	44	231
Monday	494	280	52	162
Tuesday	475	293	28	154
Wednesday	474	270	48	156
Thursday	510	284	37	189
Friday	470	245	43	182
Saturday	553	282	43	228

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	232	132	36	64
04:01 - 08:00	227	121	33	73
08:01 - 12:00	585	340	48	197
12:01 - 16:00	875	428	68	379
16:01 - 20:00	1,113	649	69	395
20:01 - 00:00	542	307	41	194

Motor Vehicle Fires

Total: 295
Automobiles: 262 (89%)
18, or (7%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 152 **Dollar loss: $379,650**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	23	1%	15%	$369,050
Vehicle Arsons	19	6%	13%	10,600
Other Arsons	110	8%	72%	0

0.03 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.15 Other arsons/1,000 population

2 Civilian Deaths 2 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	7	30%	00:01 - 04:00	6	32%
16:01 - 20:00	7	30%	20:01 - 00:00	5	26%

Other Arsons	#	%
20:01 - 00:00	31	28%
16:01 - 20:00	29	26%
08:01 - 12:00	22	20%
12:01 - 16:00	20	18%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	8	35%
Apartment buildings	4	17%

Amesbury **Population: 16,283**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	52	35	8	9	1	0	0	1
2010	51	26	4	21	0	0	0	0

Andover **Population: 33,201**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	127	75	22	30	4	1	1	2
2010	130	59	24	47	1	1	0	0

Beverly **Population: 39,502**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	128	66	17	45	5	0	2	3
2010	118	51	13	54	2	1	0	1

Boxford **Population: 7,965**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	25	12	5	8	1	0	0	1
2010	30	9	9	12	0	0	0	0

Danvers **Population: 26,493**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	90	31	13	46	1	0	1	0
2010	188	52	13	123	9	1	0	8

Essex **Population: 3,504**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	27	11	5	11	1	0	0	1
2010	15	7	2	6	0	0	0	0

Georgetown **Population: 8,183**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	70	59	5	6	0	0	0	0
2010	71	58	2	11	0	0	0	0

Gloucester **Population: 28,789**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	124	65	20	39	7	1	1	5
2010	164	91	9	64	7	1	1	5

Groveland **Population: 6,459**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	6	4	2	0	0	0	0	0
2010	3	2	1	0	0	0	0	0

Hamilton **Population: 7,764**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	16	2	3	0	0	0	0
2010	56	36	2	18	0	0	0	0

Haverhill **Population: 60,879**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	305	182	21	102	69	1	1	65
2010	227	158	10	59	36	2	0	34

Ipswich **Population: 13,175**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	24	13	7	4	2	0	0	2
2010	30	9	2	19	3	0	0	3

Lawrence **Population: 76,377**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	219	114	45	62	43	17	6	20
2010	412	208	45	159	25	6	9	10

Lynn **Population: 90,329**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	257	199	19	39	4	3	1	0
2010	482	378	20	84	5	2	2	1

Lynnfield **Population: 11,596**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	83	54	10	19	1	0	0	1
2010	94	50	7	37	2	1	0	1

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	27	16	5	6	0	0	0	0
2010	29	14	5	10	1	0	0	1

Marblehead **Population: 19,808**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	39	25	3	11	2	0	0	2
2010	43	20	2	21	1	1	0	0

Merrimac **Population: 6,338**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	62	35	4	23	9	0	0	9
2010	63	28	10	25	12	0	1	11

Methuen **Population: 47,255**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	150	86	23	41	4	1	1	2
2010	189	105	25	59	12	3	2	7

Middleton **Population: 8,987**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	56	25	5	26	1	1	0	0
2007[12]	212	160	6	46	0	0	0	0
2008	169	137	1	31	3	1	0	2
2009	125	113	2	10	1	0	0	1
2010	187	146	5	36	0	0	0	0

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

Nahant **Population: 3,410**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	7	3	1	3	0	0	0	0
2010	9	4	0	5	0	0	0	0

Newbury **Population: 6,666**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	13	1	7	1	1	0	0
2010	53	30	2	21	4	0	0	4

Newburyport **Population: 17,416**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	13	6	1	6	0	0	0	0
2010	18	13	4	1	0	0	0	0

North Andover **Population: 28,352**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	135	104	8	23	1	0	0	1
2010	145	84	12	49	12	3	2	7

Peabody **Population: 51,251**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	127	61	21	45	2	0	0	2
2010	193	79	19	95	2	0	0	2

Rockport **Population: 6,952**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	7	1	2	0	0	0	0
2010	12	9	0	3	0	0	0	0

Rowley **Population: 5,856**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	27	20	5	2	0	0	0	0
2010	20	7	2	11	0	0	0	0

Salem **Population: 41,340**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	171	59	25	87	10	1	3	6
2010	174	73	9	92	3	0	2	1

Salisbury **Population: 8,283**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	3	5	2	0	0	0	0
2010	29	12	7	10	1	0	0	1

Saugus **Population: 26,628**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	166	68	14	84	7	1	1	5
2010	170	57	20	93	8	0	0	8

Swampscott **Population: 13,787**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	40	23	4	13	8	4	0	4
2010	63	27	4	32	1	0	0	1

Topsfield **Population: 6,085**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	70	55	5	10	2	0	0	2
2010	80	63	3	14	4	0	0	4

Wenham **Population: 4,875**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	16	9	4	3	0	0	0	0
2010	19	11	2	6	1	1	0	0

West Newbury **Population: 4,235**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	1	0	0	0	0	0	0
2010	7	1	1	5	0	0	0	0

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
09007	Amesbury	3,542	66	2	2,146	186	692	168	261	18	3
09009	Andover	2,832	130	11	994	229	317	146	710	7	288
09030	Beverly	4,228	124	11	2,257	272	308	212	1,000	15	29
09038	Boxford	896	40	3	351	67	210	57	154	13	1
09071	Danvers	6,990	189	6	2,581	191	2,933	170	798	22	100
09092	Essex	257	26	1	32	34	81	9	64	9	1
09105	Georgetown	1,297	75	1	527	55	422	67	142	7	1
09107	Gloucester	4,525	165	1	2,748	219	374	469	530	15	4
09116	Groveland	3	3	0	0	0	0	0	0	0	0
09119	Hamilton	649	56	0	49	65	229	46	189	15	0
09128	Haverhill	228	227	0	0	1	0	0	0	0	0
09144	Ipswich	1,330	30	1	662	120	159	121	233	3	1
09149	Lawrence	6,423	415	2	3,287	239	346	171	1,918	1	44
09163	Lynn	10,047	504	12	5,631	360	932	466	2,114	6	22
09164	Lynnfield	1,666	99	1	890	89	318	62	202	4	1
09166	Manchester	938	41	2	405	94	146	74	169	5	2
09168	Marblehead	2,551	46	1	878	229	376	594	410	8	9

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
09180	Merrimac	790	74	0	474	37	78	68	56	1	2
09181	Methuen	6,039	189	3	4,156	212	477	347	634	9	12
09184	Middleton	1,837	208	1	711	76	372	120	333	9	7
09196	Nahant	456	10	1	252	32	63	28	62	1	7
09205	Newbury	926	58	3	472	64	117	46	153	9	4
09206	Newburyport	24	23	0	0	1	0	0	0	0	0
09210	North Andover	3,705	150	6	2,337	185	329	158	475	5	60
09229	Peabody	7,830	193	13	4,559	434	502	913	1,175	28	13
09252	Rockport	243	12	0	11	66	35	4	110	5	0
09254	Rowley	639	22	0	317	38	99	72	89	2	0
09258	Salem	6,235	174	3	3,366	425	477	398	1,383	5	4
09259	Salisbury	32	29	0	0	2	1	0	0	0	0
09262	Saugus	3,876	186	0	2,074	190	357	438	551	15	65
09291	Swampscott	1,843	73	9	1,015	145	198	92	304	3	4
09298	Topsfield	1,426	82	2	541	56	556	51	132	2	4
09320	Wenham	682	20	2	301	45	127	64	122	0	1
09324	West Newbury	54	8	0	1	1	7	5	32	0	0
Total	**Essex County**	**85,039**	**3,747**	**98**	**44,025**	**4,459**	**11,638**	**5,636**	**14,505**	**242**	**689**

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

Lawrence Fires in 2010

412 Total Fires — 208 Structures, 45 Vehicles & 159 Other Fires
The Lawrence Fire Department reported 412 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 208 structure fires, 45 motor vehicle fires, 117 brush fires, 30 outside rubbish fires, and nine unclassified fires caused two civilian injuries, 11 fire service injuries and an estimated dollar loss of $6 million.

Structure & Outside Fires Up
Total fires increased by 193 from the 219 incidents reported in 2009. Reported structure fires increased by 96 from the 112 reported during the previous year. Motor vehicle fires remained the same with 45 reported in both 2010 as well as 2009. Outside and other fires increased by 97 from 62 in 2009.

The increase in structure fires is mainly due to the change in how Lawrence started to report certain types of cooking fires. Up until last year many incidents were being reported as smoke scares or smoke detector activations instead of confined cooking fires. Quality control in incident report writing has corrected this issue.

LAWRENCE FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	219	112	45	62	43	17	6	20
2010	412	208	45	159	25	6	9	10

BUILDING FIRES

There were 206 building fires of different types in Lawrence in 2010. These 206 building fires accounted for 99% of all structure fires in Lawrence.

3/4 of Building Fires in Homes
The 206 building fires that occurred in Lawrence in 2010 can be broken down by fixed property use as follows: 165, or 75% of all building fires, were in residential properties; 20 fires happened in special properties; five fires occurred in mercantile or business properties; another five fires occurred in manufacturing or processing facilities, three fires occurred in public assembly properties; and three more occurred in institutional facilities.

RESIDENTIAL FIRES

Residential Building Fires Up

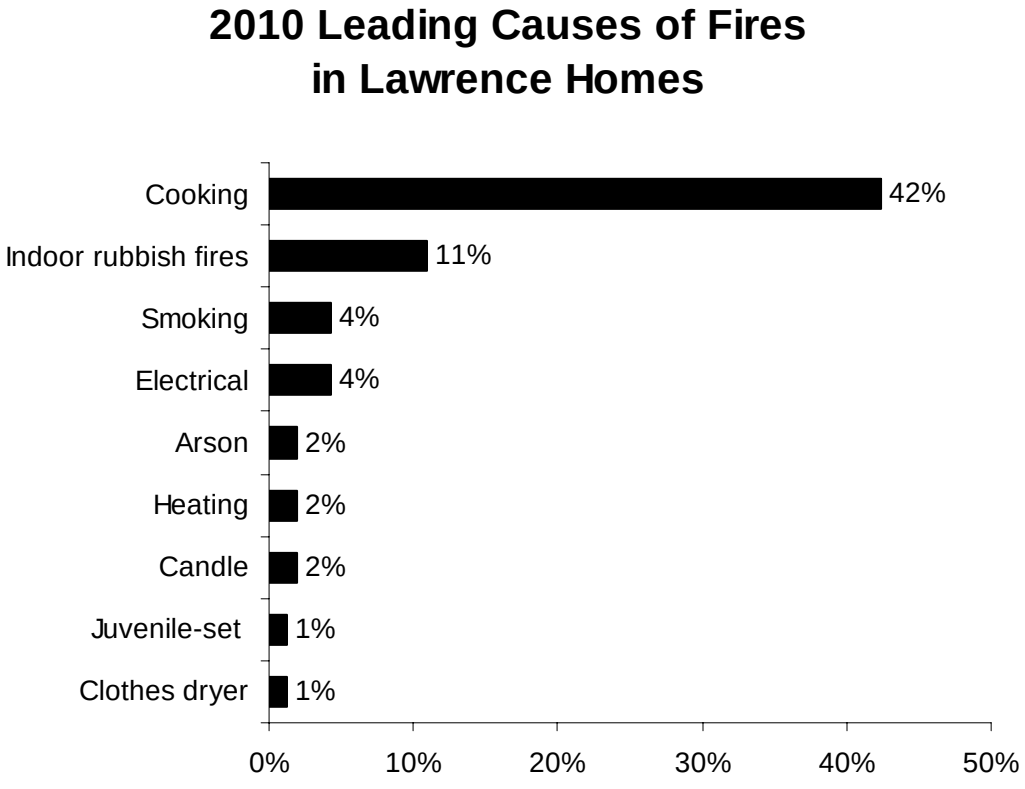
There were 165 reported residential building fires in Lawrence in 2010. These 165 fires are an increase of 83, or 101%, from the 82 residential building fires reported in 2009.

Apartments Accounted for Almost 2/3 of Residential Building Fires

The peak fixed property uses for residential building fires in Lawrence were apartments, accounting for 63% of the residential building fires. Twenty-four percent (24%) occurred in 1- or 2-family homes; 9% occurred in rooming houses; and 1% occurred in dormitories. Three percent (3%) of these fires happened in unclassified residential properties.

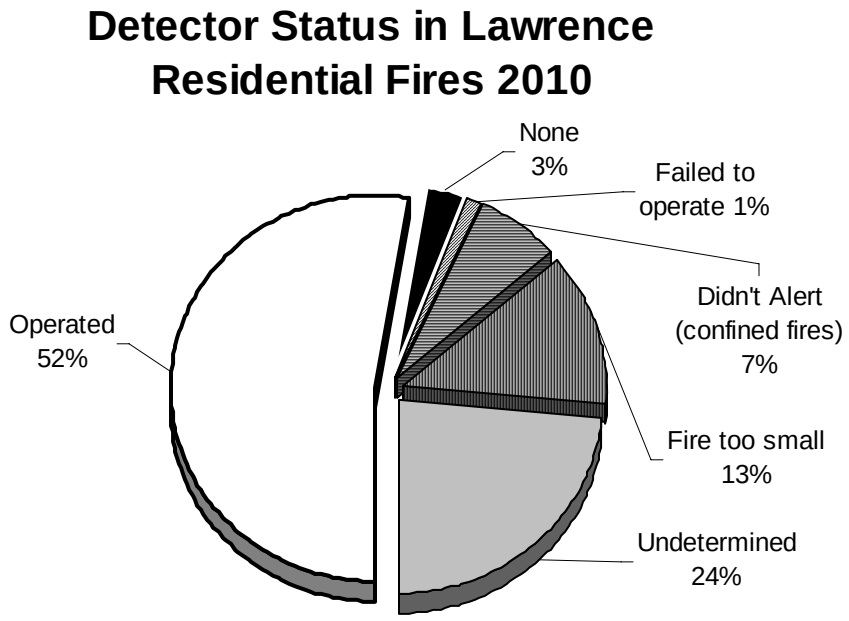
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Lawrence was unattended cooking and other unsafe cooking practices, accounting for 42% of these fires. Eleven percent (11%) of were indoor rubbish fires. Smoking and electrical problems each accounted for 4% of the fires in residential occupancies. Arson, heating equipment and candles each caused 2% of the residential fires in Lawrence in 2010. Juvenile-set fires and clothes dryers each accounted for 1% of Lawrence's residential fires in 2010.



52% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Eighty-five (85), or 52% of all residential building fires were confined to non-combustible containers in 2010. Sixty-three (63), or 38% of all residential building fires reported in 2010, were cooking fires contained to a non-combustible container. Eighteen (18), or 21%, of these fires were rubbish fires contained to a non-combustible container. Three (3), or 2%, of all residential building fires were fuel burner or boiler malfunctions; and one, or 1%, was an incinerator overload.

Detectors Alerted Occupants in Over 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 87, or 52%, 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 1% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 13% of the residential fires. Smoke detector performance was undetermined in 39 incidents, or 24% of Lawrence's residential building fires.



Both Fires Were Undetermined Why the Detectors Failed
It was undetermined in both cases why the detectors failed to operate.

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

VACANT BUILDINGS

6% of Building Fires Occurred in Vacant Buildings

Lawrence reported 12 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 6% of the total 206 building fires reported to MFIRS in 2010. Four (4) one- or two-family homes, three manufacturing facilities, three warehouses, one apartment building, and one unclassified business were reported as vacant building fire incidents.

JUVENILE-SET FIRES

2 Juvenile-set Fires

There were two juvenile-set fires in Lawrence in 2010. Both of these fires were structure fires causing one fire service injury and an estimated $301,000 in damages.

ARSONS

25 Total Arsons[4] - 6 Structures, 9 Motor Vehicles & 10 Other

Twenty-five (25), or 6%, of Lawrence's 412 fires were considered intentionally set, or, for purposes of this analysis, arson. The six structure arsons, nine motor vehicle arsons and 10 outside and other arson caused an estimated dollar loss of $14,500.

Structure & Outside Arson Is Down

The total number of arsons decreased by 18 from the 43 reported in 2009. Reported structure arsons decreased by 11 from the 17 reported in 2009. Motor vehicle arsons increased by three from six in 2009. Outside and other arsons decreased by 10 from the 20 reported last year.

ALL INCIDENTS

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

In 2010, Lawrence voluntarily reported 6,423 incidents to MFIRS. Of these 6,423 incidents, 6,008, or 94%, were non-fire incidents.

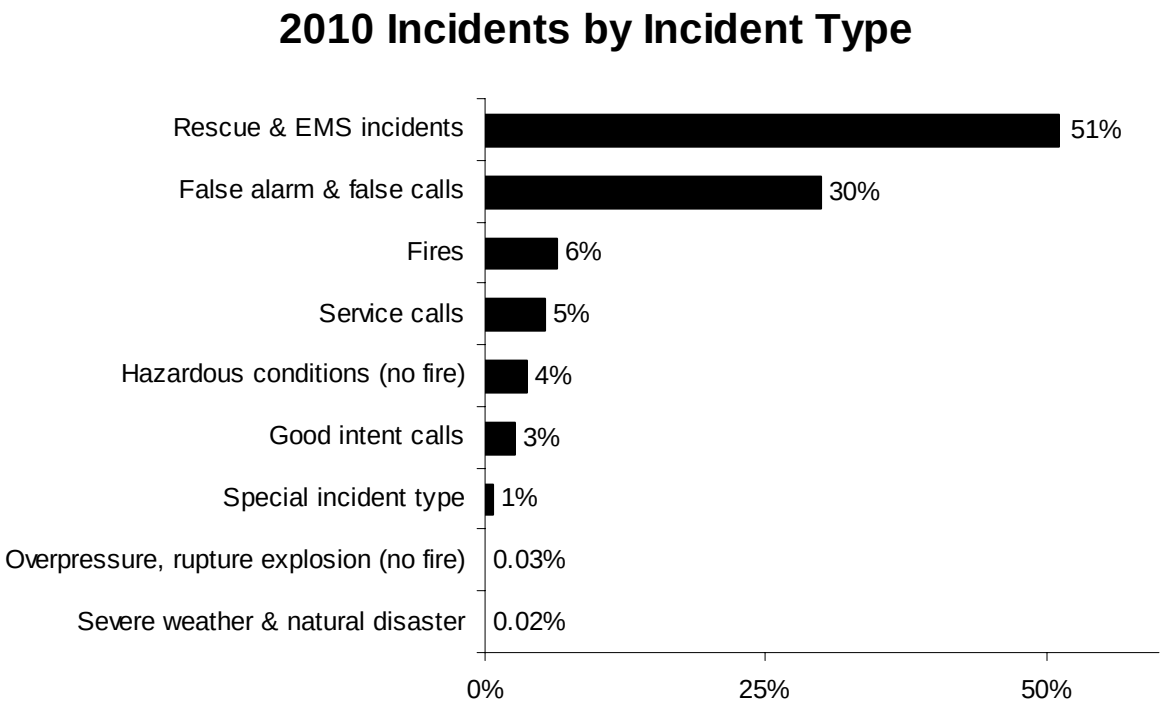
Of these 6,008 non-fire incidents 3,287, or 51% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 1,918, or 30%, were reported false alarm or false calls; 346, or 5%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 239, 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.

4%, were reported hazardous condition calls with no fire; 171, or 3%, were reported good intent calls; 44, or 1%, were special incident types; two, or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.02% were severe weather calls;.

In 2010, Lawrence reported 415 fires[5], accounting for 6% of all reported incidents.



Lawrence Gave Mutual Aid in 21 Reported Incidents
In 2010, Lawrence reported coming to the aid of other fire departments 21 times. Nineteen (19), or 90%, of these incidents were service calls such as station coverage; one, or 5%, was for a fire; and the other aid given call, or 5%, was a rescue or EMS incident.

Lawrence Received Aid in 18 Reported Incidents
In 2010, Lawrence reported receiving mutual aid at 18 incidents. Twelve (12), or 67, of these incidents were fires; one, or 17% was for a false alarm; and one, or 17%, was for a rescue or EMS call.

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

Lawrence Population: 76,377

5.2 Fires/1,000 Population

Total Fires:	**412**		**$6,086,372**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	208	50%	$5,911,222
Vehicle Fires	45	11%	162,300
Other Fires	159	39%	12,850

2 Civilian Injuries 11 Fire Service Injuries

Building Fires: 206

Residential Building Fires: 165

Residential Building Fires Confined to Non-Combustible Containers: 85

Unconfined Residential Building Fires: 80

2 Civilian Injuries 9 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	104	63%
1- & 2-Family homes	40	24%
Rooming houses	15	9%
Residential, other	1	1%
Residential, other	5	3%

Detector Status	**Fires**	**%**
Operated	87	52%
Didn't operate	2	1%
None	5	3%
Fire too small	21	13%
Didn’t Alert (confined)	11	7%
Undetermined	39	24%

Area of Origin[6]	**%**
Kitchen	45%
Bedroom	6%
Bathroom	4%
Ceiling/floor assembly	4%
Exterior balcony/unencl. porch	4%
Attic	2%
Courtyard, patio, terrace	2%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat from op. eq.	8%	18%
Arcing.	5%	11%
Cigarette	4%	9%
Candle	2%	4%
Heat from operating equip.	2%	4%
Hot ember or ash	1%	3%

[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	42%
Rubbish, trash, waste	13%
Structural member, framing	4%
Therm/acoust. insul. w/in wall	3%
Electrical wire/cable insulation	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Too close to combustibles	7%	14%
Elec. failure/malfunction	3%	6%
Abandoned materials	2%	5%
Arc from faulty contact	2%	4%

Equipment[10]	**%**
Cooking equipment	42%
None	37%
Electrical branch circuit	2%
Boiler, furnace, cent. heating unit	2%
Fan	2%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	26%	54%
Failure of eq./heat source	5%	11%
Cause under investigation	10%	20%
Intentional	2%	5%
Undetermined	4%	8%

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

Alerted Occupants	65%
Didn't Alert Occupants	13%
Undetermined	22%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	3,287	51%
False alarms & false calls	1,918	30%
Fires[12]	415	6%
Service calls	346	5%
Hazardous conditions (no fire)	239	4%
Good intent calls	171	3%
Special incident type	44	1%
Overpressure rupture, explosion or overheat calls (no fire)	2	0.03%
Severe weather & natural disaster	1	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 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	20	16	3	1
February	21	15	3	3
March	35	23	5	7
April	28	13	1	14
May	42	14	6	22
June	33	11	5	17
July	54	21	3	30
August	70	29	7	34
September	17	14	0	3
October	35	20	5	10
November	41	21	4	16
December	16	11	3	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	73	39	7	27
Monday	50	31	5	14
Tuesday	47	23	9	15
Wednesday	68	35	6	27
Thursday	52	24	4	24
Friday	59	26	5	28
Saturday	63	30	9	24

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	44	19	10	11
04:01 - 08:00	29	16	5	9
08:01 - 12:00	51	23	6	19
12:01 - 16:00	99	56	5	41
16:01 - 20:00	122	58	11	50
20:01 - 24:00	67	36	14	29

Motor Vehicle Fires

Total: 45
Automobiles: 43 (96%)
9 (21%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 25 **Dollar loss: $14,500**

0.33 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	6	3%	24%	$8,500
Vehicle Arsons	9	20%	36%	6,000
Other Arsons	10	6%	40%	0

No Injuries

0.08 Structure arsons/1,000 population
0.12 Vehicle arsons/1,000 population
0.13 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
12:01 - 16:00	3	50%	00:01 - 04:00	5	56%
00:01 - 04:00	1	17%	16:01 - 20:00	2	22%
16:01 - 20:00	1	17%	04:01 - 08:00	1	11%
20:01 - 00:00	1	17%	20:01 - 00:00	1	11%

Outside & Other Arsons

20:01 - 00:00	5	50%
12:01 - 16:00	2	20%
04:01 - 08:00	1	10%
08:01 - 12:00	1	10%
16:01 - 20:00	1	10%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	2	33%
Apartments	1	17%
Boarding house	1	17%
Fixed use recreation place, other	1	17%
Warehouse	1	17%

Lynn Fires in 2010

482 Total Fires — 378 Structures, 20 Vehicles & 84 Other Fires
The Lynn Fire Department reported 482 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 378 structure fires, 20 motor vehicle fires, 53 outside rubbish fires, 24 brush fires, four special outside fires; and three unclassified fires caused one civilian death, one civilian injury, four firefighter injuries and an estimated dollar loss of $56,500.

1 Resident Killed While Smoking on Home O_2

- On February 13, 2010, at 11:44 a.m., the Lynn Fire Department was dispatched to a fatal smoking fire in a 99-unit apartment building. The victim, a 68-year old man, was smoking while using home oxygen. The victim's clothes ignited and the sprinklers activated, suppressing the fire. He was transported to a local hospital where he later succumbed to his injuries. There were no other injuries associated with this fire. Detectors were present and they alerted the other occupants of the building. No estimation of damages was made for this incident.

All Fires Up in 2010
Total fires increased by 225, or 88%, from the 257 incidents reported in 2009. Reported structure fires increased by 179 from the 199 reported during the previous year. Motor vehicle fires increased by one from 19 the year before. Outside and other fires increased by 45 from the 39 reported in 2009.

The increase in structure fires is mainly due to the change in how Lynn started to report certain types of cooking fires. Up until last year many incidents were being reported as smoke scares or smoke detector activations instead of confined cooking fires. Quality control in incident report writing has corrected this issue.

LYNN FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	95	65	29	1	8	6	2	0
2007	128	87	38	3	4	4	0	0
2008	126	83	42	1	8	2	6	0
2009[1]	257	199	19	39	4	3	1	0
2010	482	378	20	84	5	2	2	1

BUILDING FIRES

There were 378 building fires of different types in Lynn in 2010. These 378 building fires accounted for all structure fires in Lynn.

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

87% of Building Fires in Homes

The 378 building fires that occurred in Lynn in 2010 can be broken down by fixed property use as follows: 330, or 87% of all building fires, were in residential properties; 17 fires occurred in institutional facilities; 14 fires occurred in special properties; nine fires occurred in public assembly properties; three happened in mercantile or business properties; another three occurred in manufacturing or processing facilities; one fire occurred in educational facility; and one fire was reported to have occurred at a storage facility.

RESIDENTIAL FIRES

Residential Building Fires Up

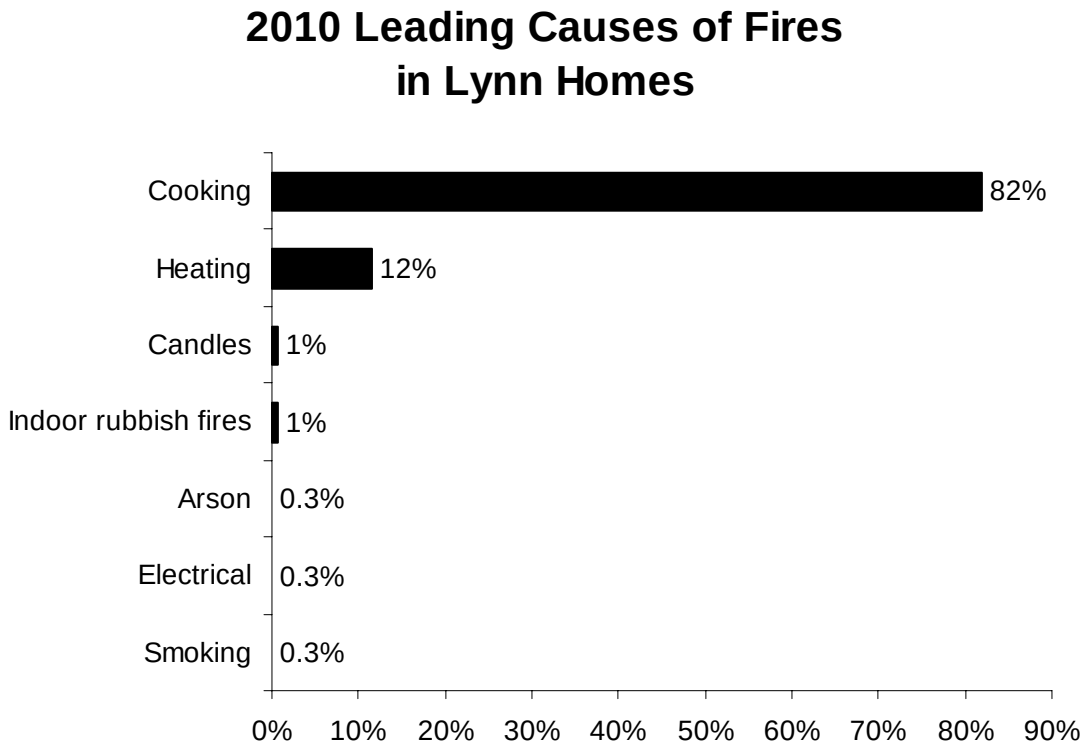
There were 330 reported residential building fires in Lynn in 2010. These 330 fires are an increase of 157 from the 173 reported residential building fires reported in 2009.

Apartments Accounted for 72% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 72% of the building fires in Lynn; 24% occurred in 1- or 2-family homes; and 5% happened in rooming houses.

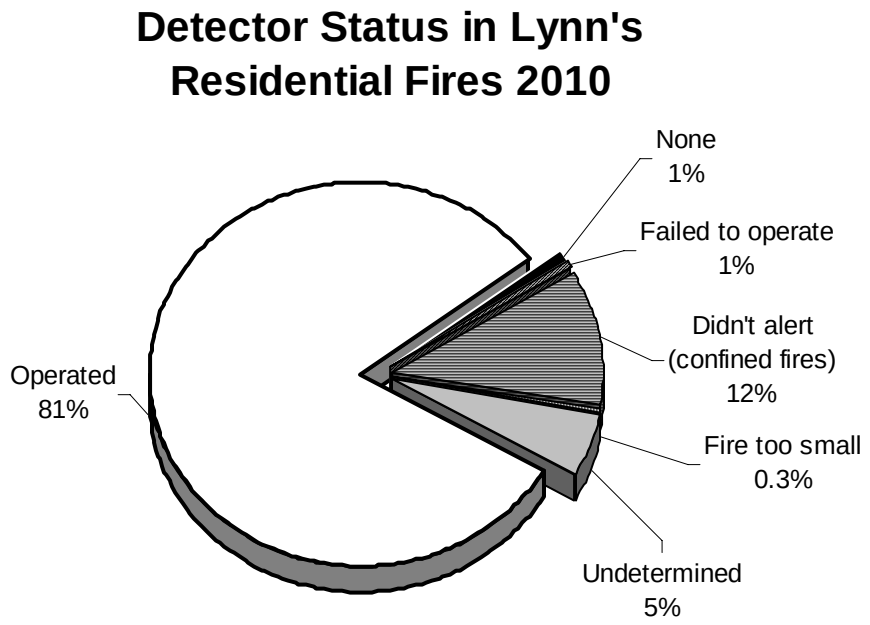
Unattended Cooking Caused 82% of Residential Fires

The leading cause of residential building fires in Lynn was unattended cooking and other unsafe cooking practices, accounting for 82% of these fires. Heating fires caused 12% of these fires. Candles and indoor rubbish fires each caused 1% of the fires. Arsons, electrical problems and smoking fires were each the cause of less than 1% of the fires in Lynn's residential occupancies in 2010.



90% of Residential Building Fires Are Confined to Non-Combustible Containers[2]
Two hundred and ninety-six (296), or 90% of all residential building fires were confined to non-combustible containers in 2010. Two hundred and fifty-eight (258), or 78%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Thirty-one (31), or 9%, were fires confined to a fuel burner or boiler malfunction. Four (4) fires, or 1%, were reported to have been contained to a chimney or flue. Two (2) fires, or 1%, were rubbish fires contained to a non-combustible container; and one fire, or less than 1%, was confined to a commercial compactor.

Detector Operated in 81% of Fires
Smoke or heat detectors operated and alerted the occupants in 269, or 81%, of the residential building fires. In 12% of these fires[3], the detectors did not alert the occupants. There were no detectors in 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 less than 1% of these fires. Smoke detector performance was undetermined in 17 incidents, or 5% of Lynn'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.

Unknown Why Both Detectors Failed

It was undetermined in both fires where the detectors were reported to have failed.

VACANT BUILDINGS

Less Than 1% of Building Fires Occurred in Vacant Buildings

Lynn reported one fire that occurred in buildings that were vacant, under construction or demolition[4]. This represented less than 1% of the total 378 building fires reported to MFIRS in 2010. One (1) fire in a manufacturing or processing facility was reported as a vacant building fire incident.

JUVENILE-SET FIRES

0 Juvenile-set Fires

Lynn did not report any juvenile-set fires in 2010.

ARSONS

5 Arsons[5] - 2 Structure, 2 Motor Vehicle and 1 Outside & Other

Five (5), or 1%, of Lynn's 482 fires were considered intentionally set, or, for purposes of this analysis, arson. There were two structure arsons, two motor vehicle arsons and one outside and other arson.

All Arsons Up Slightly in 2010

The total number of arsons increased slightly in 2010 with five reported in 2010 and four in 2009. Reported structure arsons decreased by one from the three reported in 2009. Reported motor vehicle arsons increased by one from the one arson reported in 2009. Outside and other arsons also increased by one from one reported the year before.

33 Fires Reported as Undetermined or Still Under Investigation

In 2010, Lynn reported 33 fires under investigation or cause undetermined after investigation. Ten (10), or 30%, of these fires were reported to be undetermined after investigation. The other 23, or 70%, were still under investigation.

Ten (10), or 30%, of these 33 fires were structure fires. Eight (8), or 24% were motor vehicle fires; and 15, or 45%, were outside or other fires. Because so many fires are under investigation or undetermined after investigation, the true arson number might be actually higher in Lynn in 2010.

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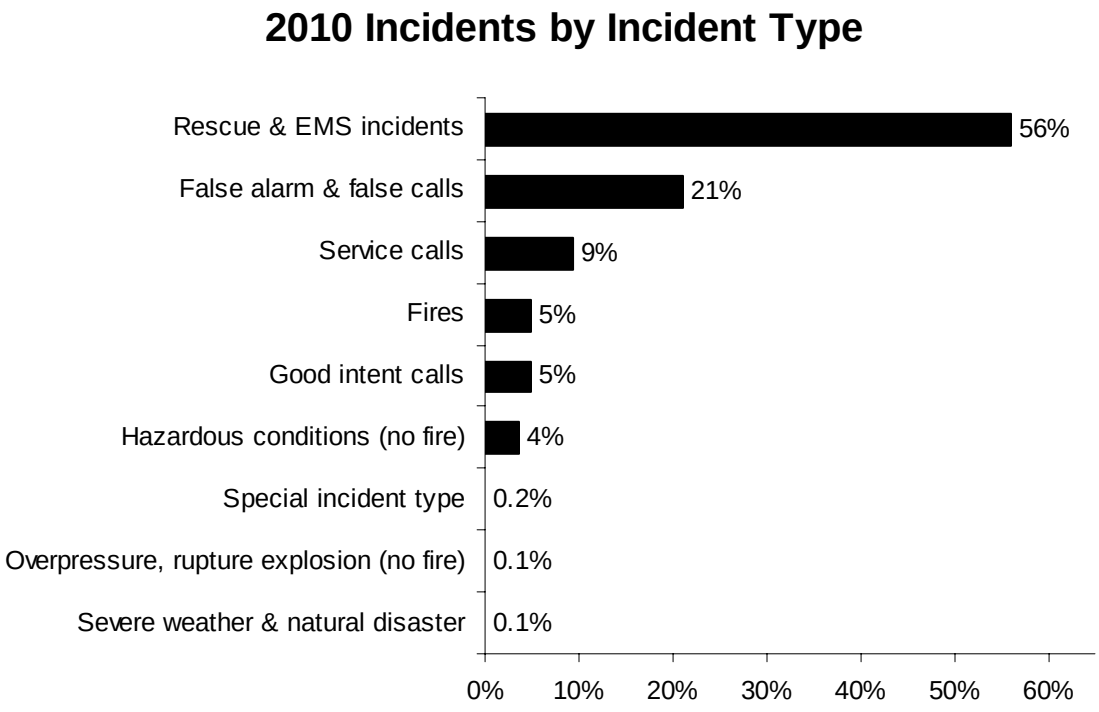
[4] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is 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.

Rescue & EMS Calls Are 56% of All Reported Incidents
In 2010, Lynn voluntarily reported 10,047 incidents to MFIRS. Of these 10,047 incidents, 6,543, or 95%, were non-fire incidents.

Of these 6,543 non-fire incidents 5,631, or 56% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 2,114, or 21%, were reported false alarm or false calls; 932, or 9%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 466, or 5%, were reported good intent calls; 360, or 4%, were reported hazardous condition calls with no fire; 22, or 0.2%, were special type incidents; 12, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and six, or 0.1%, were responses to incidents caused by severe weather.

In 2010, Lynn reported 504 fires, accounting for 5% of all reported incidents.

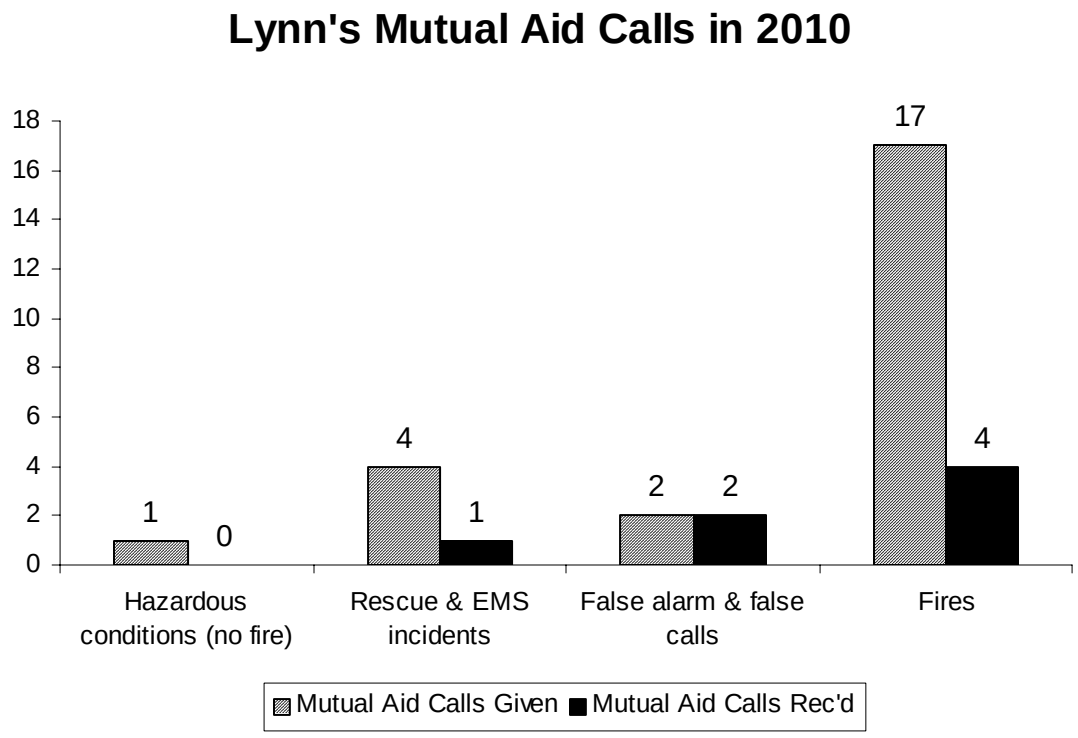


Lynn Gave Mutual Aid in 24 Incidents
In 2010, Lynn reported giving mutual aid to other surrounding fire departments in 24 incidents. Seventeen (17), or 71%, were for fires; four (4), or 17%, were for rescue or EMS calls; two, or 8%, were for false alarm or false calls; and one, or 4%, was for a hazardous condition call with no fire.

Lynn Received Mutual Aid in 7 Incidents

In 2010, surrounding fire departments gave aid to Lynn in seven incidents. Of these seven incidents, four, or 57%, were fires; two, or 29%, were false alarm or false calls; and one, or 14%, was a rescue or EMS call.

The following chart compares the number of calls that the Lynn Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Lynn. In 2010 Lynn gave aid to other fire departments almost three and a half times as much as they were asked for it.



Lynn Population: 90,329

5.3 Fires/1,000 Population

Total Fires:	**482**		**$56,500**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	378	78%	$55,500
Vehicle Fires	20	4%	1,000
Other Fires	84	17%	0

1 Civilian Death	2.07 Civilian Deaths/1,000 Fires
1 Fatal Fire	0.11 Civilian Deaths/10,000 Population
1 Civilian Injury	4 Fire Service Injuries

Building Fires: 378

Residential Structure Fires: 330

Residential Structure Fires Confined to Non-Combustible Containers: 296

Unconfined Residential Structure Fires: 34

1 Civilian Death 1 Civilian Injury 1 Fire Service Injury

Occupancy	**Fires**	**%**
Apartments	236	72%
1- & 2-Family homes	79	24%
Boarding houses	15	5%

Detector Status	**Fires**	**%**
Operated	269	81%
Didn't operate	2	1%
None	3	1%
Fire too small	1	0.3%
Didn’t Alert (confined)	38	12%
Undetermined	17	5%

Area of Origin[6]	**%**
Kitchen	83%
Heating room or area	9%
Living room	2%
Bedroom	1%
Chimney or flue	1%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat from op. eq.	4%	35%
Arcing	1%	12%
Heat from operating equip.	1%	9%
Candles	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	82%
Flammable or combustible liq.	9%
Film, residue (creosote)	1%
Electrical wire, cable insulation	1%
Rubbish, trash, waste	1%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Too close to combustibles	2%	15%
Equipment unattended	1%	6%

Equipment[10]	**%**
Cooking equipment	78%
Boiler, furnace, cent. heat. unit	9%
None	8%
Chimney, flue	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	6%	62%
Intentional	0.3%	3%
Undetermined	0%	0%
Cause Under Investigation	2%	21%

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

Alerted Occupants	82%
Didn't Alert Occupants	13%
Undetermined	5%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	5,631	56%
False alarms & false calls	2,114	21%
Service calls	932	9%
Fires[12]	504	5%
Good intent calls	466	5%
Hazardous conditions (no fire)	360	4%
Special Incident Types	22	0.2%
Overpressure rupture, explosion or overheat calls (no fire)	12	0.1%
Severe weather & natural disaster	6	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 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	38	36	1	1
February	42	39	1	2
March	41	28	5	8
April	38	26	5	7
May	50	33	2	15
June	29	23	0	6
July	54	30	2	22
August	32	23	1	8
September	30	25	0	5
October	36	32	0	4
November	50	44	2	4
December	42	39	1	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	78	53	4	21
Monday	59	51	1	7
Tuesday	65	55	3	7
Wednesday	63	54	5	4
Thursday	74	57	1	16
Friday	67	52	3	12
Saturday	76	56	3	17

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	35	28	3	4
04:01 - 08:00	27	18	3	6
08:01 - 12:00	84	67	2	15
12:01 - 16:00	105	84	3	18
16:01 - 20:00	138	116	3	19
20:01 - 24:00	93	65	6	22

Motor Vehicle Fires

Total: 20
Automobiles: 19 (95%)
1 (5%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 5 **Dollar loss: $0**

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	2	1%	40%	$190,000
Vehicle Arsons	2	10%	40%	8,450
Other Arsons	1	1%	20%	0

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

Peak Times of Day for:

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

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

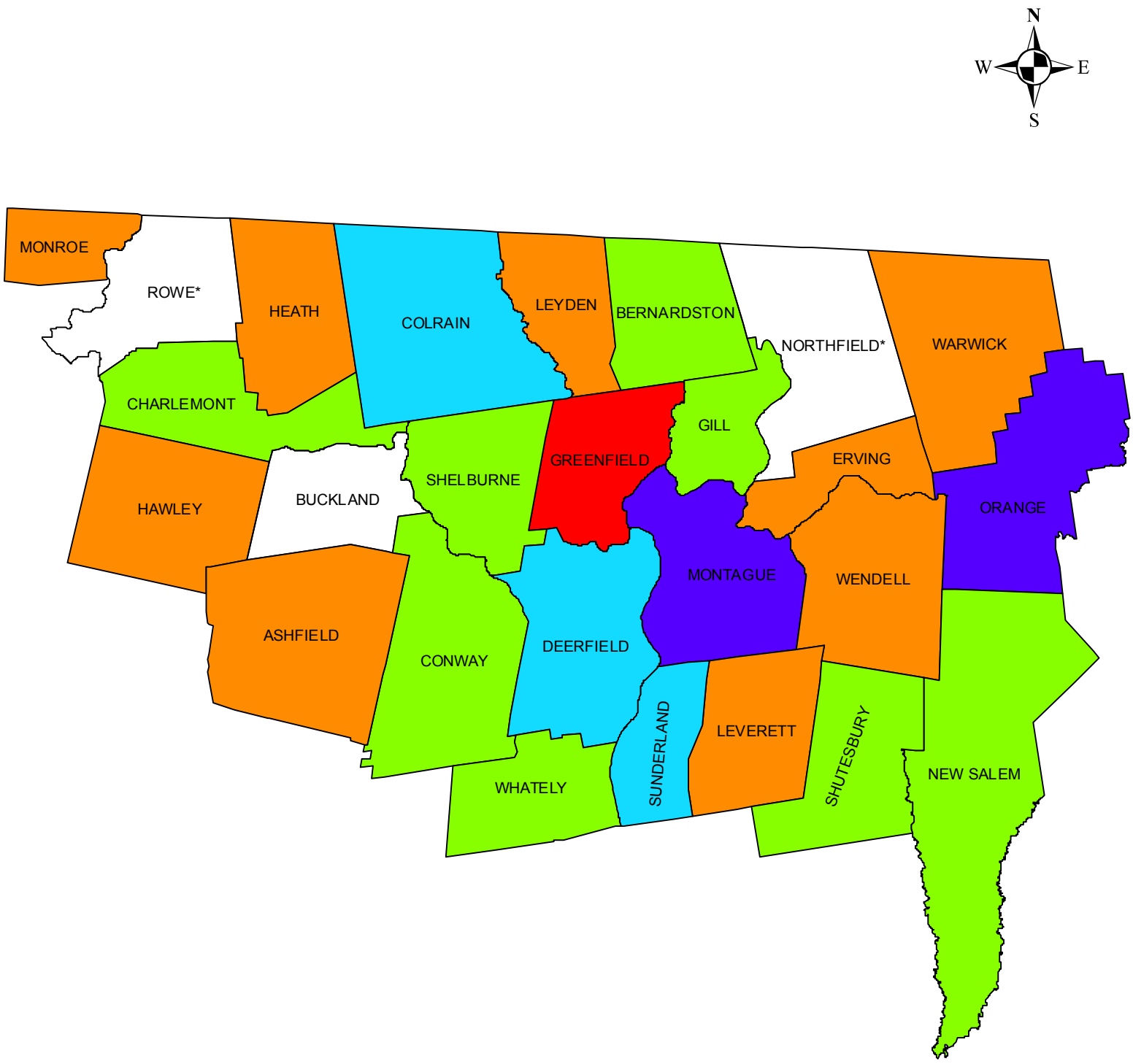
Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	1	50%
Alcohol or substance abuse recovery center	1	50%

Franklin County
2010 Fire Data Analysis

Massachusetts
Fire
Incident
Reporting
System

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

Franklin County Fires 2010



*Non-reporting fire department

2010 Fires

- 0
- 1 - 5
- 6 - 15
- 16 - 25
- 26 - 75
- 76 - 100

MFIRS Massachusetts Fire Incident Reporting System

0 1.5 3 6 9 12 Miles

Massachusetts Fire Incident Reporting System 2010

Franklin County Fires in 2010

396 Total Fires — 186 Structures, 43 Motor Vehicles & 167 Outside or Other Fires
Franklin County ranked twelfth out of the fourteen Massachusetts counties in total fires. Franklin County fire departments reported 396 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 186 structure fires, 43 motor vehicle fires, 100 brush, tree or lawn fires, 32 outside rubbish fires, 18 special outside fires, one cultivated crop or vegetation fire and 16 unclassified fires caused two civilian deaths, one fire service death, one civilian injury and an estimated dollar loss of $1.7 million. Franklin County's fires accounted for 1% of the 32,680 Massachusetts fires reported in 2010.

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 2010.

2 Civilian Fire Deaths in Franklin County in 2010
In 2010, Franklin County had two civilian fire deaths.

- On January 9, 2010, at 7:44 p.m., the Shelburne Fire Department responded to an EMS call for a patient with severe burns at a single-family home. The victim, a 52-year old man, was loading wood into a wood stove when his pants caught fire. He was transported to a local hospital and then transferred to a Boston hospital where he succumbed to his injuries two weeks later. No one else was injured at this fire. It was undetermined if detectors were present, and the building was not sprinklered. Damages from this fire were not estimated.

- On October 11, 2010, at 11:54 a.m., the Heath Fire Department responded to a brush fire underneath some power lines. The body of the victim, a 55-year old man from Missouri, was found at the base of one of the towers. There was charring up the tower to 80 feet. It is believed that he climbed the tower and somehow caused arcing from the power lines. No one else was injured at this fire. Damages from this fire were not estimated.

1 Fire Service Fire-Related Death in 2010 - Otis FF David Sullivan

- On July 24, 2010, at 3:37 p.m., the Otis Fire Department responded to a mutual aid call to the Town of Tolland for an electrical fire in a single-family home. FF Sullivan and the rest of his crew worked at the scene of the fire, cleared the scene and returned home. The following day, he complained that he was not feeling well and went back to his home, where he died from an apparent heart attack. He was 70 years old.

All Fires Up
The total number of reported fire incidents increased by 89, or 22%, from the 307 reported in 2009. Reported structure fires increased by 22 from the 164 reported during the previous year. Motor vehicle fires increased by 16 from 27 in 2009. Outside and other fires increased by 51 from the 116 reported the year before. This was a statewide trend.

FRANKLIN COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	383	175	35	173	14	3	3	8
2007	329	127	36	166	18	5	1	12
2008	306	160	32	114	14	1	1	12
2009	307	164	27	116	17	2	1	14
2010	396	186	43	167	27	8	1	18

Fire and Fire Death Rates

Franklin County had 5.5 fires per 1,000 population. That figure ranks Franklin County second in the state and above the state rate of 5.0 fires per 1,000 population. Franklin County also had 0.28 fire deaths per 10,000 population ranking it second among Massachusetts counties and above the state rate of 0.05 fire deaths per 10,000 population.

Charlemont Has Franklin County's Largest Loss Fire

- On February 11, 2010, at 6:42 p.m., the Charlemont Fire Department was called to an electrical fire in a two-family home. The fire began in the ceiling and floor assembly between the basement and the first floor. No one was injured at this fire. Detectors were present and operated. There were no sprinklers. Damages from this fire were estimated to be $554,000.

STRUCTURE FIRES

Reported Structure Fires Up

The 186 structure fires caused one civilian death, one fire service death, one civilian injury, and an estimated dollar loss of $1.6 million. These incidents represented 47% of Franklin County's reported fires in 2010. The average estimated dollar loss per structure fire was $8,376. The total number of reported structure fires increased by 22, or 13%, from the 164 reported in 2009.

Arson Caused 4% of Structure Fires

The eight structure arsons caused an estimated dollar loss of $154,600. Arson was indicated as the cause of 4% of the structure fires and 10% of Franklin County's structure fire dollar loss. The eight structure arsons accounted for 30% of the Franklin County arson fires reported in 2010. The total number of reported structure arsons increased by six, or 300%, from the two reported in 2009.

Over 1/3 of Structure Arsons Occurred in Residences

Three (3), or 38%, of Franklin County's structure arsons occurred in residential properties. Two (2) of these arsons occurred in special properties; a public assembly facility, an educational facility and a storage facility each had one structure arson in 2010.

BUILDING FIRES

There were 183 building fires of different types in Franklin County in 2010. These 183 building fires accounted for 98.4% of all structure fires in Franklin County.

86% of Franklin Building Fires Occurred in People's Homes

One hundred and fifty-eight (158), or 86%, of Franklin County's 183 building fires occurred in residential occupancies. Mercantile or business properties had seven fires. Five (5) fires occurred at educational facilities. Four (4) fires occurred in special properties such as outbuildings or sheds. Public assembly properties, institutional facilities, manufacturing or processing facilities and storage facilities each had two fires. Two (2) fires took place in public assembly properties, including restaurants and churches. One (1) fire occurred in an industrial facility in Franklin County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Up

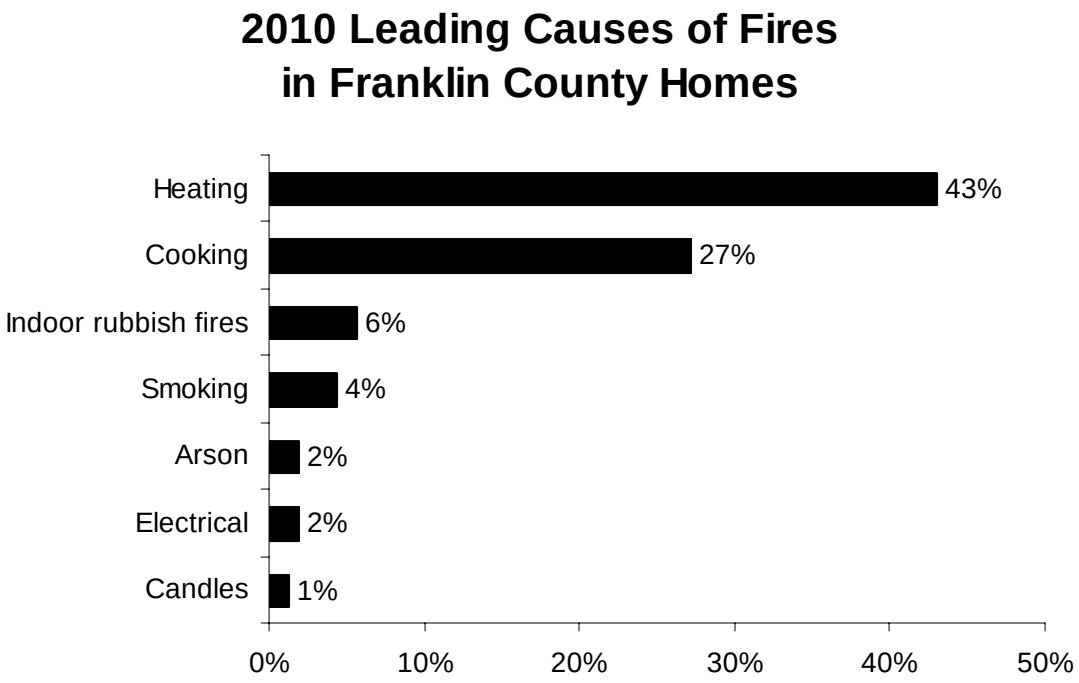
There were 158 reported residential building fires in Franklin County in 2010. These 158 fires are an increase of 27, or 21%, from the 131 residential building fires reported in 2009.

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

The peak fixed property uses for residential building fires were one- & two-family homes, accounting for 78% of the building fires in Franklin County; 15% occurred in apartments; 1% each happened in rooming houses and residential board and care facilities. Eight (8), or 5%, 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 2010. Forty-three percent (43%) of the residential fires were caused by heating. Eighty-eight percent (88%) of these heating fires involved solid fueled equipment such as wood or coal stoves. Franklin County was the only county where cooking was not the leading cause of residential fires in 2010. Unattended cooking and other unsafe cooking practices accounted for 27% of the fires in people's homes. Indoor rubbish fires caused 6% of these fires. Smoking accounted for 4% of the residential building fires. Arson and electrical problems each caused 2% of these fires, and candles caused 1% of the fires in people's homes in Franklin County in 2010.



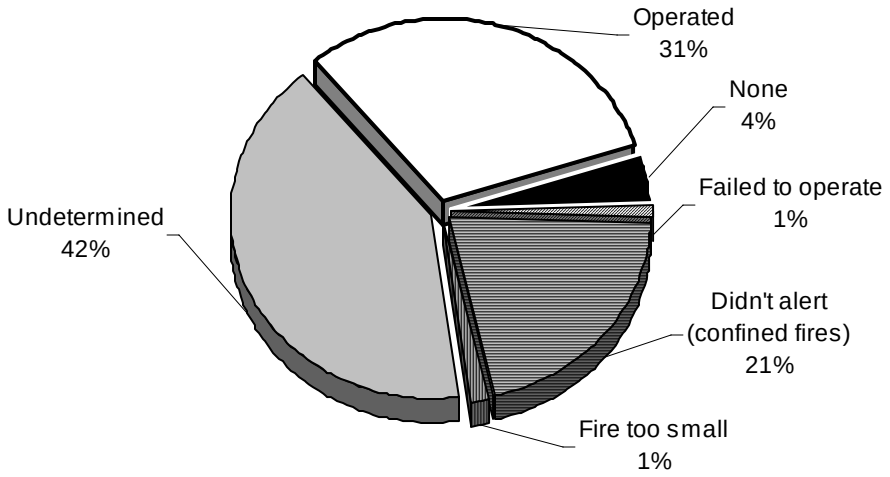
72% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and fourteen (114), or 72%, of these fires were confined to a non-combustible container. Fifty-eight (58), or 37%, of all residential building fires reported in 2010 were fires confined to a chimney or flue. Forty (40) of the reported fires were cooking fires contained to a non-combustible container accounting for 25% of residential building fires. Nine (9), or 6%, of these fires were indoor rubbish fires contained to a non-combustible container. Seven (7), or 4%, were fires confined to a fuel burner or boiler malfunction in Franklin County in 2010.

Detectors Operation Undetermined in 42% of Fires
Smoke or heat detectors operated and alerted the occupants in 49, or 31%, of the residential building fires. In 21% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 1% of the residential fires. Smoke detector performance was undetermined in 65 incidents, or 42%, of Franklin County's residential building fires.

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

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

Detector Status in Franklin County's Residential Structure Fires 2010



2 Detectors Failed
In the two fires where smoke detectors were present but failed to operate, one failed because its battery was dead, and it was undetermined why the other detector failed.

VACANT BUILDINGS

4% of Building Fires Occurred in Vacant Buildings
Franklin County reported eight fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 4% of the total 183 building fires reported to MFIRS in 2010. Four (4) fires occurred at vacant residences; two occurred at educational facilities, one vacant building fire occurred at an institutional facility and another occurred at a business in Franklin County in 2010.

One of the vacant building fires in Franklin County in 2010 was determined to be intentionally set and that occurred at an elementary school.

[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

4 Juvenile-set Fires Caused $150,100 in Damages

There were four reported juvenile-set fires in Franklin County in 2010. The two structure fires and two brush fires caused $150,100 in estimated damages.

ARSONS

27 Total Arsons — 8 Structure, 1 Motor Vehicle & 18 Other Arsons

Eighteen (18), or 7%, of Franklin County's 396 fires were intentionally set, or, for purposes of this analysis, arson[4]. The eight structure arsons, one motor vehicle arson and 18 outside and other arsons caused an estimated dollar loss of $154,600.

Structure Arson Up

The number of arsons increased by 10, or 59%, from the 17 reported in 2009. Structure arsons increased by six from two reported in 2009. Motor vehicle arsons remained the same with one reported in both 2009 and 2010. Outside and other arsons rose by four from the 14 reported in 2009.

ALL INCIDENTS

Rescue & EMS Calls Are 46% of All Reported Responses

In 2010, Franklin County fire departments reported 6,834 responses[5] to MFIRS. Of these 6,834 incidents, 6,235 non-fire calls were voluntarily reported.

Of these 6,235 non-fire calls, 3,140, or 46%, of all of the responses reported in 2010 were reported rescue and emergency medical services (EMS) calls; 1,015, or 15%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 693, or 14%, were reported false alarm or false calls; 599 or 9%, were reported hazardous condition calls with no fire; 455, or 7%, were reported good intent calls; 183, or 3%, were special incident type calls such as citizen complaints; 98, or 1%, were severe weather responses; and 12, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Six hundred and thirty-nine (639), or 9%, of the total incidents submitted by Franklin County fire departments were fires.

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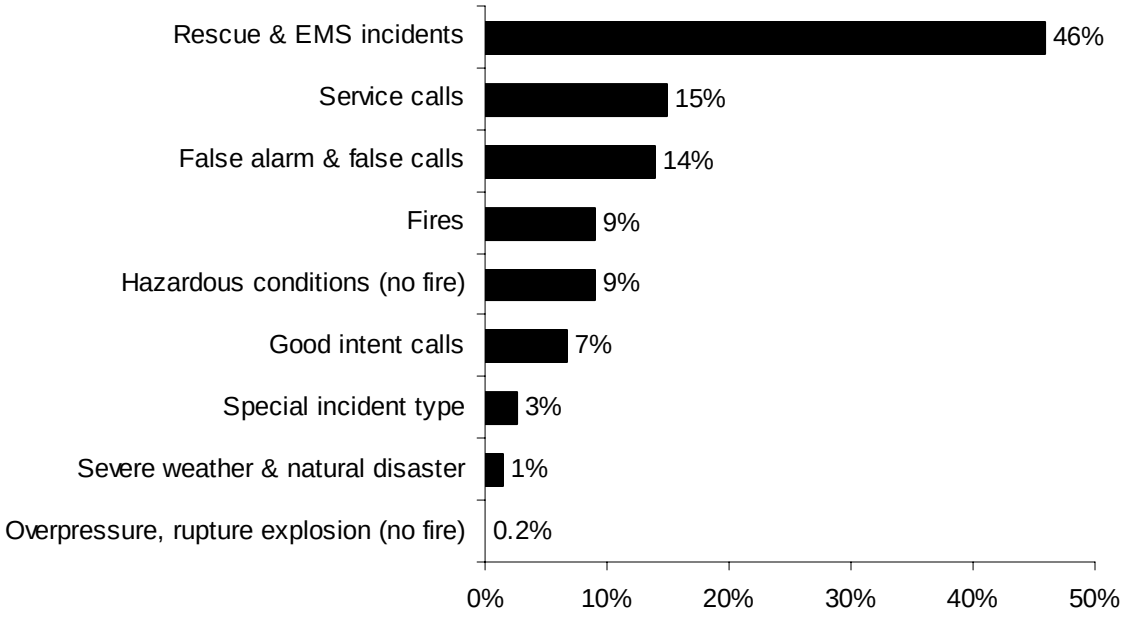
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

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

2010 Responses by Incident Type



Franklin County Fire Departments Gave Mutual Aid 547 Times

In 2010, Franklin County fire departments reported coming to the aid of other fire departments 547 times. Of these 547 responses, 242, or 44%, were for fires; 192, or 35%, were for rescue or EMS calls; 72, or 13%, were for service calls such as cover assignments; 23, or 4%, were for good intent calls; 10, or 2%, were for hazardous conditions calls with no fire; three, or 1%, were for false alarms or false calls; another three, or 1%, were special incident types; one, or 0.2%, was for an overpressure, rupture explosion with no fire; and another one, or 0.2%, was a severe weather call.

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 309 Incidents

In 2010, Franklin County fire departments reported receiving aid from surrounding departments in 309 incidents. Of these 309 incidents, 213, or 69%, were rescue and emergency medical services calls; 67, or 22%, were for fires; nine, or 3%, were hazardous conditions calls with no fire; seven, or 2%, were good intent calls; six, or 2%, were service calls; five, or 2%, were false alarm or false calls; one, or 0.3% was for a severe weather call; and another one, or 0.3%, was for an overpressure, rupture explosion with no fire call.

Franklin County Population: 71,372

5.6 Fires/1,000 Population

Total Fires: 396 **$1,679,635**

Situation	Fires	% of Fires	Dollar Loss
Structure Fires	186	47%	$1,557,875
Vehicle Fires	43	11%	99,960
Other Fires	167	42%	21,800

2 Civilian Deaths 5.05 Civilian Deaths/1,000 Fires
2 Fatal Fires 0.28 Civilian Deaths/10,000 Population
1 Fire Service Deaths 3 Civilian Injuries 5 Fire Service Injuries

Building Fires: 183

Residential Structure Fires: 158

Residential Structure Fires Confined to Non-Combustible Containers: 114

Unconfined Residential Structure Fires: 44

1 Civilian Death 1 Fire Service Death 1 Civilian Injury

Occupancy	Fires	%
1- & 2-Family homes	124	78%
Apartments	24	15%
Rooming houses	1	1%
Residential boar & care	1	1%
Residential, unclassified		5%

Detector Status	Fires	%
Operated	49	12%
Didn't operate	2	1%
None	7	4%
Fire too small	2	1%
Didn’t Alert (confined)	33	21%
Undetermined	65	42%

Area of Origin[6]	%	Heat Source	%	%Unconfined[7]
Chimney or flue	37%	Heat from oper. equipment	4%	16%
Kitchen	28%	Hot ember or ash	3%	9%
Heating room or area	4%	Radiated heat from oper. eq.	2%	7%
Function room, unclassified	3%	Candles	1%	5%
Bedroom	3%	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]	**%**	**Factor Contrib. to Ignit.**	**%**	**%Unconfined[9]**
Film, residue (creosote)	37%	Improper container/storage	2%	7%
Cooking materials	26%	Too close to combustibles	1%	5%
Rubbish, trash, waste	6%	Electrical failure/malfunc.	1%	5%
Structural member, framing	5%	Equipment unattended	1%	5%
Flamm. or combustible liquid	4%			

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Chimney or flue	37%	Unintentional	15%	55%
Cooking equipment	27%	Failure of eq. or heat source	3%	9%
None	23%	Intentional	1%	5%
Boiler, furnace, cent. heat. unit	4%	Cause under investigation	6%	20%
		Undetermined	3%	11%

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

Alerted occupants	29%
Didn't alert occupants	29%
Undetermined	42%

[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	32	22	4	6
February	49	35	4	10
March	35	14	6	15
April	58	17	5	36
May	38	12	6	20
June	24	8	4	12
July	34	9	6	19
August	28	13	2	13
September	24	8	3	13
October	19	7	0	12
November	29	21	3	5
December	26	20	0	6

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	60	26	3	31
Monday	62	28	9	25
Tuesday	48	26	7	15
Wednesday	52	25	9	18
Thursday	51	20	5	26
Friday	61	30	5	26
Saturday	62	31	5	26

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	29	18	4	7
04:01 - 08:00	27	14	5	8
08:01 - 12:00	71	32	6	33
12:01 - 16:00	108	39	9	60
16:01 - 20:00	107	57	13	37
20:01 - 00:00	54	26	6	22

Motor Vehicle Fires

Total: 43
Automobiles: 33 (77%)
1, or 3%, of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 27 **Dollar loss: $154,600**

0.4 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	8	4%	30%	$154,600
Vehicle Arsons	1	2%	4%	0
Other Arsons	18	11%	67%	0

0.11 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.25 Other arsons/1,000 population

No Injuries

Peak Times of Day for:

Structure Arsons	#	%
08:01 - 12:00	1	25%
16:01 - 20:00	1	25%

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

Other Arsons	#	%
12:01 - 16:00	7	39%
20:01 - 00:00	5	28%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	3	38%

Ashfield **Population: 1,737**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	2	2	0	0	0	0	0	0
2010	3	3	0	0	0	0	0	0

Bernardston **Population: 2,129**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	16	4	3	9	2	0	0	2
2010	15	6	1	8	2	0	0	2

Buckland **Population: 1,902**

Buckland Fire District ***Est. Pop. Protected: 951***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Fire Department in Good Standing, Certified No Reportable Fires							

Charlemont **Population: 1,266**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	6	3	0	3	2	0	0	2
2010	6	4	0	2	0	0	0	0

Colrain **Population: 1,671**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	9	7	1	1	0	0	0	0
2007	16	10	1	5	1	1	0	0
2008	Non-Reporting Community							
2009	9	5	1	3	0	0	0	0
2010	23	12	2	9	3	0	0	3

Conway **Population: 1,897**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	12	8	0	4	0	0	0	0
2010	12	7	0	5	2	1	0	1

DEERFIELD FIRE DISTRICTS **Population: 5,125**

Deerfield ***Est. Pop. Protected: 2,819***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Non-Reporting Community							
2007	3	1	0	2	0	0	0	0
2008	7	2	0	5	0	0	0	0
2009	10	2	1	7	1	0	0	1
2010	5	1	0	4	0	0	0	0

South Deerfield ***Est. Pop. Protected: 2,306***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	12	5	1	6	0	0	0	0
2010	17	7	6	4	0	0	0	0

Erving **Population: 1,800**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	6	3	0	3	0	0	0	0
2007[12]	Non-Reporting Community							
2008	6	1	1	4	0	0	0	0
2009	4	3	1	0	0	0	0	0
2010	1	1	0	0	1	1	0	0

Gill **Population: 1,500**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	6	3	0	3	2	0	0	2
2010	10	5	1	4	1	0	0	1

Greenfield **Population: 187,456**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	100	62	7	31	7	2	0	5
2010	98	43	13	42	9	2	0	7

Hawley **Population: 337**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	0	1	0	0	0	0	0
2010	1	1	0	0	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: 706**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	2	0	3	0	0	0	0
2010	5	30	2	0	0	0	0	0

Leverett **Population: 1,851**

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

Leyden **Population: 711**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	3	0	0	3	2	0	0	2
2008	Non-Reporting Community							
2009	Non-Reporting Community							
2010	4	4	0	0	0	0	0	0

Monroe **Population: 121**

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

MONTAGUE FIRE DISTRICTS **Population: 8,437**

Montague Center ***Est. Pop. Protected: 2,109***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	22	11	0	11	0	0	0	0
2010	21	7	0	14	0	0	0	0

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	30	22	1	7	1	0	0	1
2010	51	26	3	22	3	2	0	1

New Salem **Population: 990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	2	1	6	1	0	1	0
2010	14	1	3	10	1	0	0	1

Northfield **Population: 3,032**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Non-Reporting Community							
2007	Non-Reporting Community							
2008	10	3	2	5	1	0	0	1
2009	6	3	2	1	0	0	0	0
2010	Non-Reporting Community							

Orange **Population: 7,839**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	32	14	5	13	0	0	0	0
2010	48	25	3	20	0	0	0	0

Rowe **Population: 393**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Non-Reporting Community							

SHELBURNE FIRE DISTRICTS **Population: 1,893**

Shelburne Center ***Est. Pop. Protected: 965***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	2	1	0	1	0	0	0	0
2010	5	4	0	1	0	0	0	0

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	4	1	1	2	0	0	0	0
2010	7	5	1	1	0	0	0	0

Shutesbury **Population: 1,771**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	3	0	2	0	0	0	0
2010	8	2	4	2	0	0	0	0

Sunderland **Population: 3,684**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	3	2	0	1	0	0	0	0
2010	22	11	3	8	3	2	0	1

Warwick **Population: 780**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	1	0	0	0	0	0	0
2010	2	1	0	1	0	0	0	0

Wendell **Population: 848**

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

Whately **Population: 1,496**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	2	2	1	0	0	0	0
2010	10	1	2	7	2	0	1	1

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11013	Ashfield	3	3	0	0	0	0	0	0	0	0
11029	Bernardston	245	38	1	117	35	26	10	10	8	0
11053	Charlemont	17	8	0	2	0	5	0	2	0	0
11066	Colrain	114	31	2	33	15	17	2	5	6	3
11068	Conway	74	22	0	4	34	2	3	8	1	0
11975	Deerfield	109	21	0	10	9	31	1	35	0	2
11091	Erving	1	1	0	0	0	0	0	0	0	0
11106	Gill	98	25	0	10	24	12	9	12	2	4
11114	Greenfield	2,114	109	5	881	227	314	255	312	6	5
11129	Hawley	31	5	0	16	5	2	1	2	0	0
11130	Heath	41	12	0	22	2	3	1	1	0	0
11154	Leverett	8	4	1	2	0	0	1	0	0	0
11156	Leyden	8	6	0	0	0	0	2	0	0	0
11190	Monroe	1	1	0	0	0	0	0	0	0	0
11192	Montague Center	192	38	0	69	29	14	9	11	22	0
11204	New Salem	122	29	0	64	9	5	3	6	4	2
11223	Orange	2,046	59	1	1,262	56	357	66	71	25	149

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
11990	Shelburne Ctr	131	12	0	73	14	12	8	11	0	1
11989	Shelburne Falls	94	16	0	10	10	14	9	32	3	0
11272	Shutesbury	23	23	0	0	0	0	0	0	0	0
11976	South Deerfield	181	34	0	13	29	23	11	63	2	6
11289	Sunderland	193	38	0	87	11	8	24	21	4	0
11984	Turners Falls	897	85	1	430	76	161	37	85	11	11
11312	Warwick	2	2	0	0	0	0	0	0	0	0
11319	Wendell	47	6	1	24	8	3		4	1	0
11337	Whately	42	11	0	11	6	6	3	2	3	0
Total	**Franklin County**	**6,789**	**625**	**12**	**3,129**	**593**	**1,009**	**452**	**691**	**95**	**183**

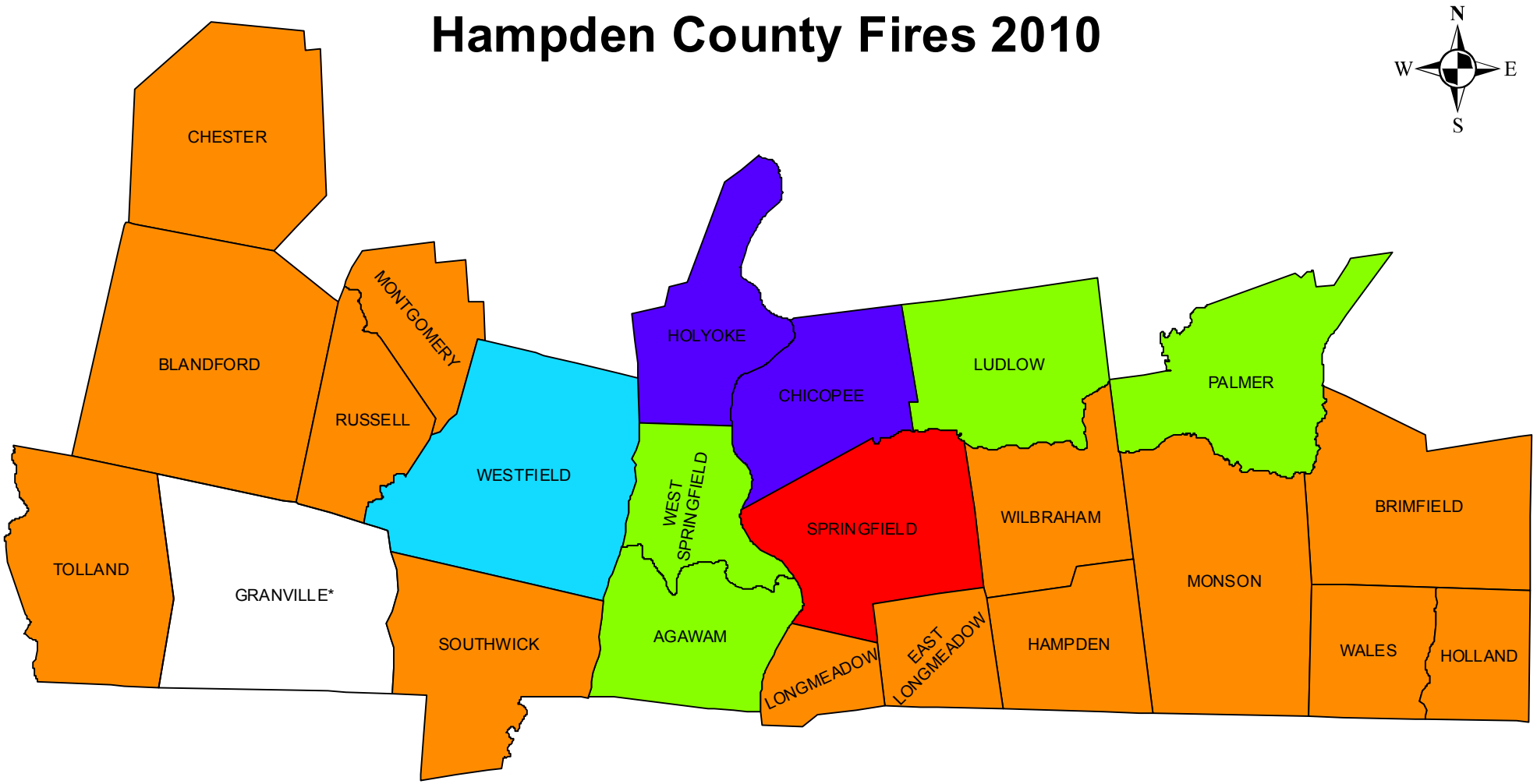
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that want to send all of their responses to do so.

Hampden County
2010 Fire Data Analysis

Massachusetts
Fire
Incident
Reporting
System

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

Hampden County Fires 2010



2010 Fires

- 0
- 1 - 50
- 51 - 100
- 101 - 200
- 201 - 300
- 301 - 1053

*Non-reporting fire department

MFIRS
Massachusetts Fire Incident Reporting System

Miles
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Massachusetts Fire Incident Reporting System 2010

Hampden County Fires in 2010

2,323 Total Fires — 1,173 Structures, 286 Vehicles & 864 Other Fires
Hampden County ranked sixth out of the fourteen Massachusetts counties in total reported fires. Hampden County fire departments reported 2,323 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 1,173 structure fires, 286 motor vehicle fires, 433 brush, tree or lawn fires, 287 outside rubbish fires, 57 special outside fires, four cultivated vegetation or crop fires, and 83 other fires caused two civilian fire deaths, 33 civilian injuries, 57 fire service injuries and an estimated dollar loss of $12.9 million. Hampden County's 2,323 fires accounted for 7% of the 32,680 fire incidents reported to MFIRS in 2010.

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 2010.

All Fires Up
The total number of reported fire incidents increased by 272 from the 2,051 reported in 2009. Reported structure fires increased by 15 from the 1,158 reported during the previous year. Motor vehicle fires increased by 31 from the 255 reported during 2009. Outside and other fires increased by 226 from the 638 reported the year before.

HAMPDEN COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	2,480	1,257	290	933	70	21	6	43
2007	2,775	1,436	312	1,027	83	22	13	48
2008	2,489	1,398	270	821	97	33	15	49
2009	2,051	1,158	255	638	70	16	12	42
2010	2,323	1,173	286	864	77	17	12	48

Fire and Fire Death Rates
Hampden County had 5.0 fires per 1,000 population. That figure ranks Hampden County fifth in the state and tied with the state rate of 5.0 fires per 1,000 population. Hampden County also had 0.04 fire deaths per 10,000 population ranking it tied for eighth among Massachusetts counties and below the state rate of 0.05 fire deaths per 10,000 population.

2 Residents Died in 2 Hampden County Fires
- On June 23, 2010, at 9:38 p.m., the West Springfield Fire Department was called to a fatal arson fire in a shed. The fire was a suicide by self-immolation. The victim, a 47-year old man, doused himself and the shed with gasoline and ignited it. No one else was injured at this fire. Damages from the fire were not estimated.

- On October 19, 2010, at 5:54 p.m., the Springfield Fire Department was called to a fatal smoking fire in a single-family home. The victim, a 56-year old terminally ill woman, was smoking while using home oxygen. She was unable to attempt an escape and was overcome by the heat and smoke of the fire. She was transported to a local hospital where she later died from her injuries. Damages from the fire were estimated to be $55,000.

Agawam Had Largest Loss Fire in Hampden County

- On November 21, 2010, at 3:47 a.m., the Agawam Fire Department responded to a fire at a 36-unit apartment building of undetermined cause. The fire began in the kitchen of a first floor unit. One firefighter was injured battling this fire. It was undetermined if detectors were present and the building was not sprinklered. Damages were estimated to be $1.55 million.

STRUCTURE FIRES

Reported Structure Fires Up Slightly

The 1,173 structure fires caused both civilian deaths, 28 civilian injuries, 51 fire service injuries and an estimated dollar loss of $10.7 million. These incidents represented 50% of Hampden County's reported fires in 2010. The average estimated dollar loss per structure fire was $9,113. The total number of reported structure fires increased by 15, or 1%, from the 1,158 reported in 2009.

Arson Caused 1% of Structure Fires

The 17 structure arsons caused one civilian death, one civilian injury and an estimated dollar loss of $83,225. Arson was indicated as the cause of 1% of the structure fires and 1% of Hampden County's structure fire dollar loss. The 17 structure arsons accounted for 22% of the Hampden County arson fires reported in 2010. The total number of reported structure arsons increased by one, or 6%, from 16 in 2009.

Almost 1/2 of Structure Arsons Occurred in Residences

Forty-seven percent (47%) of Hampden County's 17 structure arsons occurred in residential occupancies. Thirty-five percent (35%) occurred in educational facilities; 12% happened in storage facilities; and 6% occurred in special properties.

BUILDING FIRES

There were 1,166 building fires of different types in Hampden County in 2010. These 1,166 building fires accounted for 99.3% of all structure fires in Hampden County.

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

Nine hundred and sixty-five (965), or 83%, of Hampden County's 1,166 building fires occurred in residential occupancies. Forty-four (44) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties experienced 34 fires. Hospitals, prisons, and other institutional buildings experienced 29 fires. Special properties also had 29 fires. Twenty-seven (27) building fires took place on

educational properties. Twenty-five (25) fires took place in storage properties. Nine (9) fires took place in manufacturing and processing facilities. Three (3) fires occurred in industrial, utility, defense, agricultural or mining facilities in Hampden County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Down Slightly

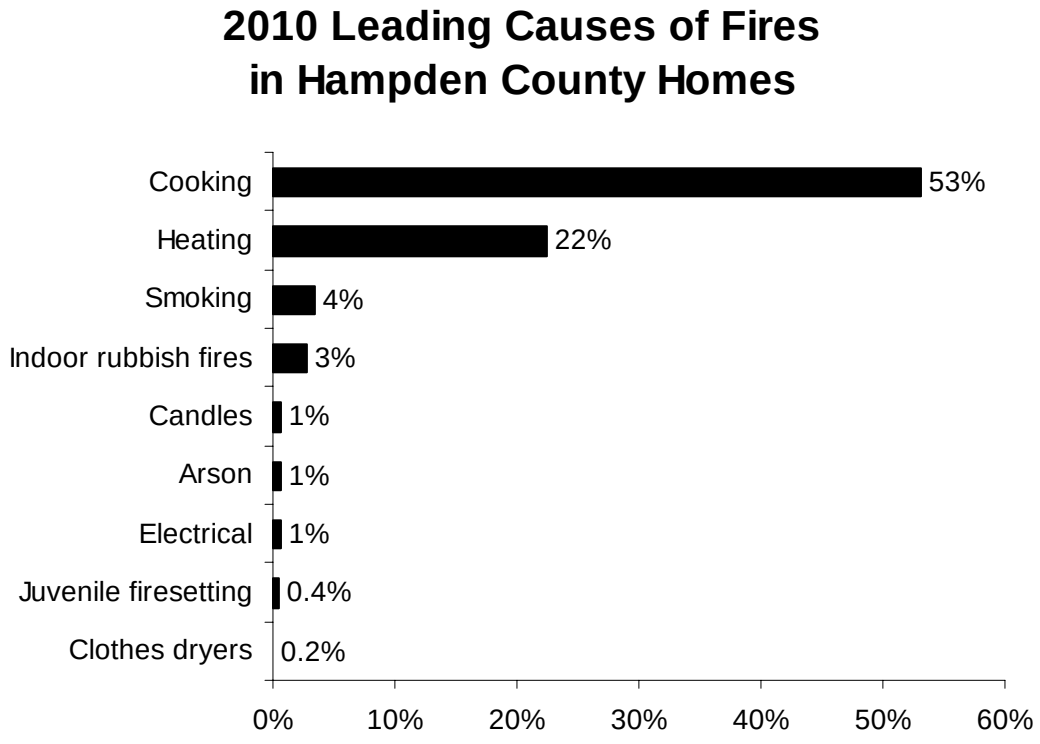
There were 965 reported residential building fires in Hampden County in 2010. These 965 fires are a decrease of 11, or 1%, from the 976 residential building fires reported in 2009.

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

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for half, or 50%, of the building fires in Hampden County; 43% occurred in apartments; 2% happened in dormitories; 1% happened in residential board and care facilities; another 1% happened in hotels or motels; and 1% occurred in rooming houses. Eleven (11), or 1%, of the residential building fires in Hampden County occurred in unclassified residential buildings.

Cooking Causes 59% of Residential Fires

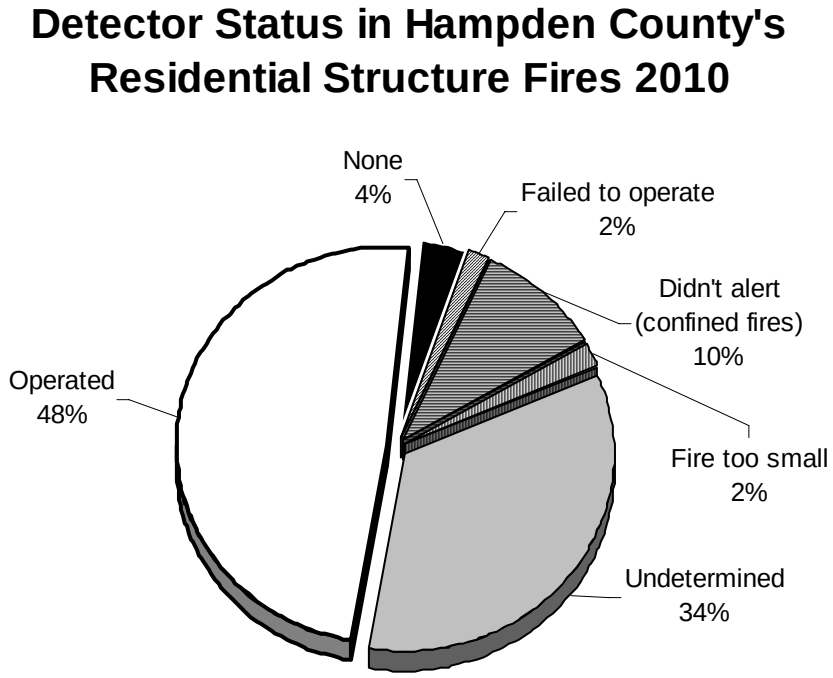
The leading cause of residential building fires in Hampden County was unattended cooking and other unsafe cooking practices, accounting for 53% of these fires. Heating was the second leading cause of fires in people's homes, accounting for 22% of these fires. Smoking caused 4% of these fires and indoor rubbish fires caused 3%. Candles,



arsons and electrical problems each caused 1% of these residential fires. Juvenile-set fires and clothes dryers each caused less than 1% of the fires in Hampden County in 2010.

76% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Seven hundred and twenty-nine (729), or 76% of all residential building fires, were reported as confined to non-combustible containers in 2010. Four hundred and eighty-four (484) of the reported fires were cooking fires contained to a non-combustible container accounting for half of residential building fires. One hundred and forty-two (142), or 15%, were fires confined to a fuel burner or boiler malfunction. Seventy-one (71), or 7%, of all residential building fires reported in 2010 were fires confined to a chimney. Twenty-six (26), or 3%, of these fires were contained rubbish fires. Five (5), or 1% of confined fires, occurred in incinerators; and one, or less than 1%, was confined to a commercial compactor.

Detectors Alerted Occupants in Almost 1/2 of Fires
Smoke or heat detectors operated and alerted the occupants in 471, or 48%, 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 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 2% of the



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

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

residential fires. Smoke detector performance was undetermined in 330 incidents, or 34%, of Hampden County's residential building fires.

1/2 of Failed Detectors Had Dead, Missing or Disconnected Batteries

Of the 16 fires where smoke detectors were present but failed to operate, six, or 38%, failed because the batteries were either missing or disconnected. In two incidents, or 13%, the detectors failed because the batteries were dead. In one fire, or 6%, the detector failed because it was defective. Another detector, or 6%, failed from a lack of maintenance. Six (6), or 38%, of the detectors failed for unclassified or undetermined reasons.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Hampden County reported 38 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 1,166 building fires reported to MFIRS in 2010. Twenty-eight (28) fires occurred in vacant residential properties. Five (5) fires in storage facilities were reported as vacant building fires. Mercantile and business properties accounted for two vacant building fires. Public assembly facilities, institutional facilities and an unclassified property each accounted for one vacant building fire in Hampden County in 2010.

None of the vacant building fires in Hampden County in 2010 were determined to be intentionally set.

JUVENILE-SET FIRES

16 Juvenile-set Fires Caused 1 Civilian Injury

There were 16 reported juvenile-set fires in Hampden County in 2010. The four structure fires, seven brush fires, one outside rubbish fire and one special outside fire caused one civilian injury and $163,500 in estimated damages.

ARSONS

77 Total Arsons — 17 Structures, 12 Vehicles & 48 Other Arsons

Seventy-seven (77), or 3%, of Hampden County's 2,323 fires were considered intentionally set, or, for purposes of this analysis, arson[4]. The 17 structure arsons, 12

[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.

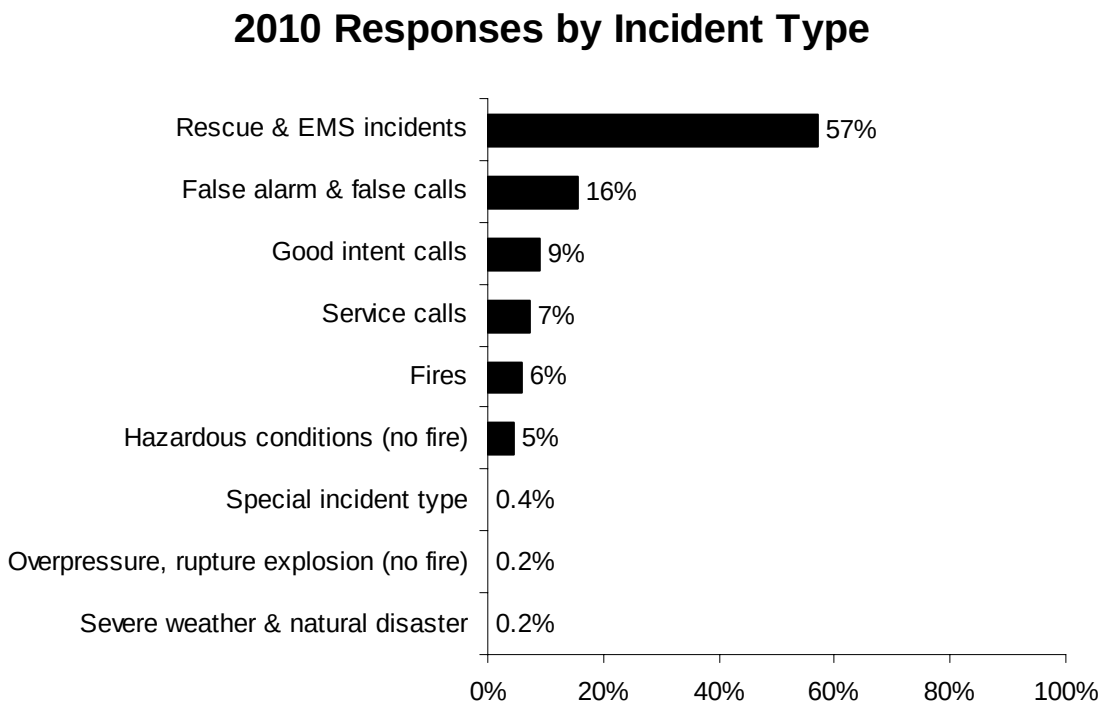
motor vehicle arsons and 48 outside and other arsons caused one civilian death[5], one civilian injury, one fire service injury and an estimated dollar loss of $382,900.

All Arson Up Slightly
The total number of reported arson fires increased by seven from the 70 reported in 2010. Structure arsons increased by one from the 16 reported in 2010. Motor vehicle arsons remained the same with 12 reported in both 2009 and 2010. Outside and other fires increased by six from the 42 reported the year before.

ALL INCIDENTS

Rescue & EMS Calls Are 57% of All Reported Responses
In 2010, fire departments in Hampden County reported 42,140 responses[6] to MFIRS. Of these 42,140 incidents, 39,720 non-fire calls were voluntarily reported.

Of these 39,720 non-fire calls 24,059, or 57% of all reported responses in 2010, were reported rescue and emergency medical services (EMS) calls; 6,597, or 16%, were reported false alarm or false calls; 3,799, or 9%, were reported good intent calls; 3,001, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,953, or 5%, were reported hazardous



[5] This death was a suicide.
[6] These figures include responses in which Hampden County fire departments gave mutual aid to other fire departments.

condition calls with no fire; 172, or 0.4%, were special incident type calls such as citizen complaints; 73, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 66, or 0.02%, were severe weather responses.

Two thousand four hundred and twenty (2,420), or 6%, of the total responses submitted by Hampden County fire departments were fires.

Hampden County Fire Departments Gave Mutual Aid 735 Times

In 2010, Hampden County fire departments reported coming to the aid of other fire departments 735 times. Of these 735 responses, 468, or 64%, were for rescue or EMS calls; 95, or 13%, were for service calls such as cover assignments; 77, or 10%, were for fires; 39, or 5%, were for good intent calls; 37, or 5%, were for hazardous conditions calls with no fire; 18, or 2%, were for false alarms or false calls; and one, or less than 1%, was a severe weather or natural disaster call.

Hampden County Received Mutual Aid in 792 Incidents

In 2010, Hampden County fire departments reported receiving aid from surrounding departments in 792 incidents. Of these 792 incidents, 687, or 87%, were rescue and emergency medical services calls; 63, or 8%, were for fires; 13, or 2%, were false alarms or false calls; 11, or 1%, were service calls; nine, or 1%, were good intent calls; and another nine, or 1%, were hazardous conditions calls with no fire.

Hampden County Population: 463,490

5.01 Fires/1,000 Population

Total Fires:	**2,323**		**$12,940,237**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	1,173	50%	$10,689,794
Vehicle Fires	286	12%	1,300,560
Other Fires	864	37%	949,883

2 Fatal Fires	0.86 Civilian Deaths/1,000 Fires
2 Civilian Deaths	0.04 Civilian Deaths/10,000 Population
33 Civilian Injuries	57 Fire Service Injuries

Building Fires: 1,166

Residential Structure Fires: 965

Residential Structure Fires Confined to Non-Combustible Containers: 729

Unconfined Residential Structure Fires: 236

1 Civilian Death 28 Civilian Injuries 40 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	487	50%
Apartments	417	43%
Dormitories	15	2%
Rooming houses	13	1%
Residential board & care	12	1%
Hotels or motels	10	1%

Detector Status	**Fires**	**%**
Operated	471	48%
Didn't operate	16	2%
None	36	4%
Fire too small	19	2%
Didn’t alert (confined)	93	10%
Undetermined	330	34%

Area of Origin[7]	**%**
Kitchen	56%
Heating room or area	15%
Chimney, flue	7%
Bedroom	3%
Living room	2%

Heat Source	**%**	**%Unconfined**[8]
Heat from operating equip.	5%	19%
Radiated heat/oper. eq.	2%	9%
Cigarettes	1%	6%
Arcing	1%	6%
Hot or smoldering object	1%	6%

[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]**
Food, cooking materials	53%	Too close to combustibles	2%	10%
Flammable or combust. liquid	15%	Abandoned materials	2%	7%
Film, residue (creosote)	7%	Equipment unattended	1%	6%
Rubbish, trash, waste	4%	Electrical failure, malfunc.	1%	6%
Structural member, framing	2%	Misuse of materials or prod.	1%	3%

Equipment[11]	**%**	**Cause of Ignition**	**%**	**%Unconfined[12]**
Cooking equipment	51%	Unintentional	12%	50%
None	22%	Failure of eq./heat source	2%	10%
Boiler, furnace, cent. heat unit	15%	Intentional	1%	4%
Chimney or flue	7%	Act of Nature	0.1%	0.4%
		Undetermined	2%	7%
		Cause under investigation	7%	28%

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

Alerted occupants	51%
Didn't alert occupants	13%
Undetermined	36%

[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	186	140	19	27
February	140	97	18	25
March	223	104	28	91
April	297	101	24	172
May	228	106	32	90
June	164	91	27	46
July	235	89	31	115
August	175	73	31	71
September	196	73	23	100
October	144	94	17	33
November	174	93	20	61
December	161	112	16	33

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	372	174	60	138
Monday	290	141	38	111
Tuesday	320	172	41	107
Wednesday	338	165	47	126
Thursday	303	170	28	105
Friday	346	174	40	132
Saturday	354	177	32	145

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	186	103	39	44
04:01 – 08:00	152	85	15	52
08:01 – 12:00	331	196	46	89
12:01 – 16:00	597	267	65	265
16:01 – 20:00	686	335	69	282
20:01 – 00:00	371	187	52	132

Motor Vehicle Fires
Total: 286
Automobiles: 235 (82%)
10, or (4%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 77 **Dollar loss: $382,900**

0.46 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	17	1%	22%	$83,225
Vehicle Arsons	12	4%	16%	99,000
Other Arsons	48	6%	62%	200,675

0.04 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.10 Other arsons/1,000 population

1 Civilian Deaths 1 Civilian Injury 1 Fire Service Injury

Peak Times of Day for:

Structure Arsons	#	%
12:01 - 06:00	5	29%
16:01 - 20:00	5	29%
20:01 - 00:00	4	24%

Vehicle Arsons	#	%
00:01 - 04:00	3	25%
20:01 - 20:00	3	25%

Other Arsons	#	%
16:01 - 20:00	19	40%
12:00 - 16:00	15	31%
20:01 - 00:00	5	10%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	5	29%
Apartment buildings	3	18%
Elementary schools	3	18%

Agawam **Population: 28,438**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	76	36	14	26	2	0	2	0
2010	94	38	13	43	6	2	0	4

Blandford **Population: 1,233**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	4	3	2	0	0	0	0
2010	7	3	3	1	0	0	0	0

Brimfield **Population: 3,609**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	6	3	2	1	0	0	0	0
2010	26	11	4	11	0	0	0	0

Chester **Population: 1,337**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	2	2	0	0	1	1	0	0
2010	11	6	0	5	0	0	0	0

Chicopee **Population: 55,298**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	224	131	26	67	11	4	1	6
2010	246	121	24	101	17	5	2	10

East Longmeadow **Population: 15,720**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	28	10	6	12	1	0	0	1
2010	37	12	2	23	0	0	0	0

Granville **Population: 1,566**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	5	3	0	2	0	0	0	0
2007	Non-Reporting Community							
2008	Non-Reporting Community							
2009	Non-Reporting Community							
2010	Non-Reporting Community							

Hampden **Population: 5,139**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	4	3	1	0	1	1	0	0
2010	35	20	5	10	2	0	2	0

Holland **Population: 2,481**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	3	0	7	3	0	0	3
2010	17	3	1	13	0	0	0	0

Holyoke **Population: 39,880**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	244	147	24	73	11	1	1	9
2010	262	123	38	101	10	4	1	5

Longmeadow **Population: 15,784**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	42	16	6	20	1	0	0	1
2010	37	12	4	21	5	0	0	5

Ludlow **Population: 21,103**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	53	25	11	17	3	0	0	3
2010	76	31	13	3	2	1	0	3

Monson **Population: 8,560**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	37	16	5	16	0	0	0	0
2010	49	23	7	19	2	1	1	0

Montgomery **Population: 838**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Non-Reporting Community							
2007	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	6	0	3	3	2	0	1	1
2010	4	1	1	2	0	0	0	0

Town of Palmer Fire Districts **Population: 12,140**

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	44	29	5	10	1	1	0	0
2010	40	15	6	19	0	0	0	0

Bondsville ***Est. Pop. Protected: 2,792***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	15	2	2	11	5	0	0	5
2010	12	3	0	9	7	0	0	7

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	2	1	2	0	0	0	0
2010	10	7	1	2	0	0	0	0

Russell **Population: 1,775**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	1	2	6	0	0	0	0
2010	19	9	3	7	0	0	0	0

Southwick **Population: 9,502**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	11	1	9	1	0	0	1
2010	50	28	4	18	4	0	1	3

Springfield **Population: 153,060**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	960	583	109	268	16	7	6	3
2010	1,053	613	108	332	10	2	3	5

Tolland **Population: 485**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	0	1	4	0	0	0	0
2010	8	4	1	3	0	0	0	0

Wales **Population: 1,838**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	3	0	0	3	0	0	0	0
2010	1	0	1	0	0	0	0	0

West Springfield **Population: 28,391**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	65	22	13	30	4	0	0	4
2010	74	28	17	29	2	1	0	1

Westfield **Population: 41,094**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	123	72	17	34	2	1	1	0
2010	123	52	23	15	4	1	0	3

Wilbraham **Population: 14,219**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	46	32	3	11	2	0	0	2
2010	32	10	7	15	4	0	2	2

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
13005	Agawam	2,289	94	0	1,469	94	262	102	253	7	8
13033	Blandford	70	8	1	42	4	1	3	9	0	2
13987	Bondsville	86	14	0	7	20	16	9	16	0	4
13043	Brimfield	338	32	0	201	15	21	19	47	3	0
13059	Chester	44	14	0	12	7	2	0	9	0	0
13061	Chicopee	4,005	252	4	2,055	183	481	324	669		37
13085	East Longmeadow	486	37	1	21	88	43	66	226	2	2
13120	Hampden	105	38	3	5	22	7	2	24		4
13135	Holland	150	18	0	107	5	6	4	2	4	4
13137	Holyoke	4,138	262	3	2,586	154	155	140	814	8	16
13159	Longmeadow	2,119	40	2	1,389	92	189	98	296	6	7
13161	Ludlow	770	78	3	213	82	84	79	197	3	31
13191	Monson	1,077	57	0	859	51	32	28	48	2	0
13194	Montgomery	23	4	0	13	4	2	0	0	0	0
13986	Palmer #1	365	40	1	13	83	108	58	56	3	3

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
13256	Russell	172	36	0	96	11	7	2	20	0	0
13279	Southwick	272	57	0	31	45	48	25	63	3	0
13281	Springfield	14,737	1,071	46	7,323	598	776	2,321	2,569	11	22
13988	Three Rivers	119	15	2	6	18	20	18	40	0	0
13297	Tolland	60	14	0	30	7	2	4	2	1	0
13306	Wales	1	1	0	0	0	0	0	0	0	0
13325	West Springfield	6,083	74	4	5,031	131	232	184	418	0	9
13329	Westfield	2,315	129	3	959	137	312	202	555	8	10
13339	Wilbraham	2,316	35	0	1,591	102	195	111	264	5	13
Total	**Hampden County**	**42,140**	**2,420**	**73**	**24,059**	**1,953**	**3,001**	**3,799**	**6,597**	**66**	**172**

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

Chicopee Fires in 2010

246 Total Fires — 121 Structures, 24 Vehicles & 101 Other Fires
The Chicopee Fire Department reported 246 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 121 structure fires, 24 motor vehicle fires, 60 brush fires, 25 outside rubbish fires, six special outside fires; and 10 unclassified fires caused nine civilian injuries, three firefighter injuries and an estimated dollar loss of $540,585. There were no fire deaths in Chicopee in 2010.

Structure & Motor Vehicle Fires Up in 2010
Total fires increased by 22, or 10%, from the 224 incidents reported in 2009. Reported structure fires decreased by 10 from the 131 reported during the previous year. Motor vehicle fires decreased by two from 26 the year before. Outside and other fires increased by 34 from the 67 reported in 2009.

CHICOPEE FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	229	113	32	84	11	5	0	6
2007	264	153	26	85	14	5	0	9
2008	245	135	33	77	21	11	0	10
2009	224	131	26	67	11	4	1	6
2010	246	121	24	101	17	5	2	10

BUILDING FIRES

There were 121 building fires of different types in Chicopee in 2010. These 121 building fires accounted for all structure fires in Chicopee.

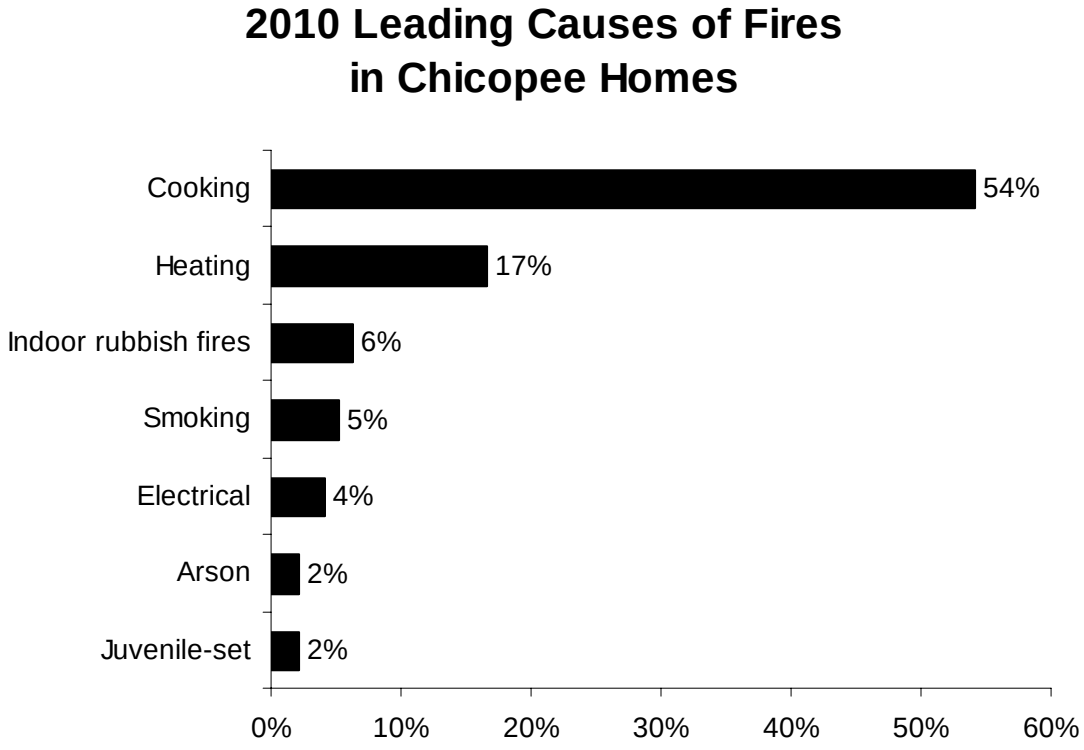
79% of Building Fires in Homes
The 121 building fires that occurred in Chicopee in 2010 can be broken down by fixed property use as follows: 96, or 79% of all building fires, were in residential properties; eight fires occurred in educational facilities; seven fires occurred in public assembly properties; three occurred in manufacturing or processing facilities; another three fires were reported to have occurred at storage facilities; three fires happened at industrial facilities; and one fire occurred in an institutional facility.

RESIDENTIAL FIRES

Residential Building Fires Down
There were 96 reported residential building fires in Chicopee in 2010. These 96 fires are a decrease of seven from the 103 reported residential building fires reported in 2009.

Apartments Accounted for Over 1/2 of Residential Building Fires
The peak fixed property uses for residential building fires were apartments, accounting for 51% of the building fires in Chicopee; 41% occurred in 1- or 2-family homes; 6% happened in hotels or motels; 1% happened in rooming houses; and another 1% occurred in residential board and care facilities.

Unattended Cooking Caused Over 1/2 of Residential Fires
The leading cause of residential building fires in Chicopee was unattended cooking and other unsafe cooking practices, accounting for 54% of these fires. Heating fires caused 17% of these fires. Indoor rubbish fires caused 6% of the fires. Smoking fires cause 5% and electrical problems were responsible for 4% of Chicopee's residential fires. Arsons, and juvenile-set fires were each the cause of 2% of the fires in Chicopee's residential occupancies in 2010.



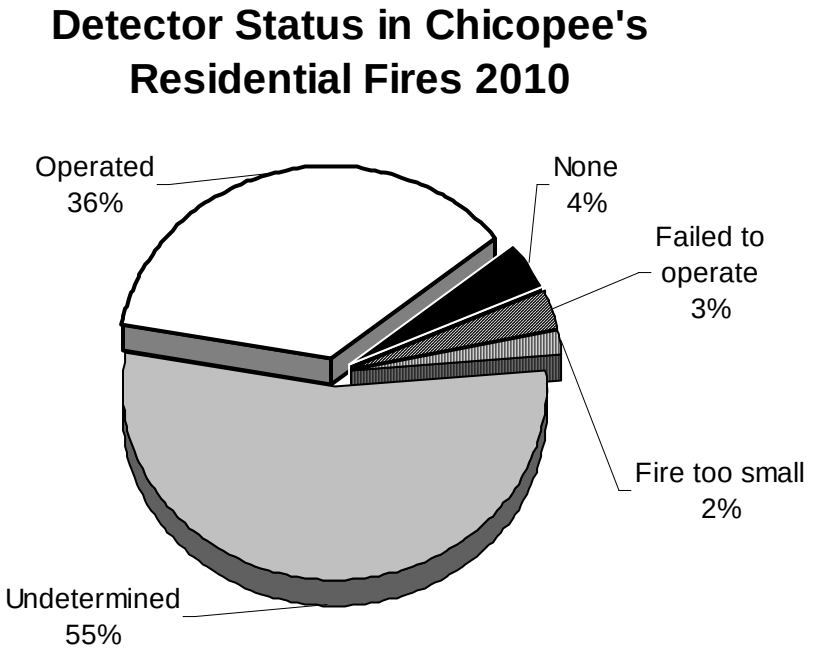
70% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Sixty-seven (67), or 70% of all residential building fires were confined to non-combustible containers in 2010. Forty-seven (47), or 49%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Ten (10),

[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.

or 10%, were fires confined to a fuel burner or boiler malfunction. Six (6) fires, or 6%, were rubbish fires contained to a non-combustible container. Four (4) fires, or 4%, were reported to have been contained to a chimney or flue.

Detector Operation Undetermined in Over 1/2 of Fires

Smoke or heat detectors operated and alerted the occupants in 35, or 36%, of the residential building fires. There were no reported fires[2], where 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 52 incidents, or 55% of Chicopee's residential building fires.



1 of 3 Detectors Failed From Missing Battery

Three (3) detectors failed in residential fires in Chicopee in 2010. One detector failed because it was missing a battery. Another detector failed because it was deemed defective. It was undetermined why the detector failed in the last fire.

[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

Chicopee reported three fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 121 building fires reported to MFIRS in 2010. Two (2) fires in one or two-family homes and one fire in an apartment building were reported as a vacant building fire incidents.

JUVENILE-SET FIRES

3 Juvenile-set Fires

Chicopee reported three juvenile-set fires in 2010. The two structure fires and one unclassified fire caused an estimated dollar loss of $65,500.

ARSONS

17 Arsons[4] - 5 Structure, 2 Motor Vehicle and 10 Outside & Other

Seventeen (17), or 7%, of Chicopee's 246 fires were considered intentionally set, or, for purposes of this analysis, arson. The five structure arsons, two motor vehicle arsons and 10 outside and other arsons caused an estimated dollar loss of $36,250.

All Arsons Up in 2010

The total number of arsons increased by nine in 2010 from the eight reported arsons in 2009. Reported structure arsons increased by two from the three reported in 2009. Reported motor vehicle arsons increased by one from the one arson reported in 2009. Outside and other arsons increased by six from four reported the year before.

81 Fires Reported as Undetermined or Still Under Investigation

In 2010, Chicopee reported 81 fires under investigation or cause undetermined after investigation. Sixty-two (62), or 77%, of these fires were reported to be undetermined after investigation. The other 19, or 23%, were still under investigation.

Eighteen (18), or 22%, of these 81 fires were structure fires. Thirteen (13), or 16% were motor vehicle fires; and 50, or 62%, 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 Chicopee in 2010.

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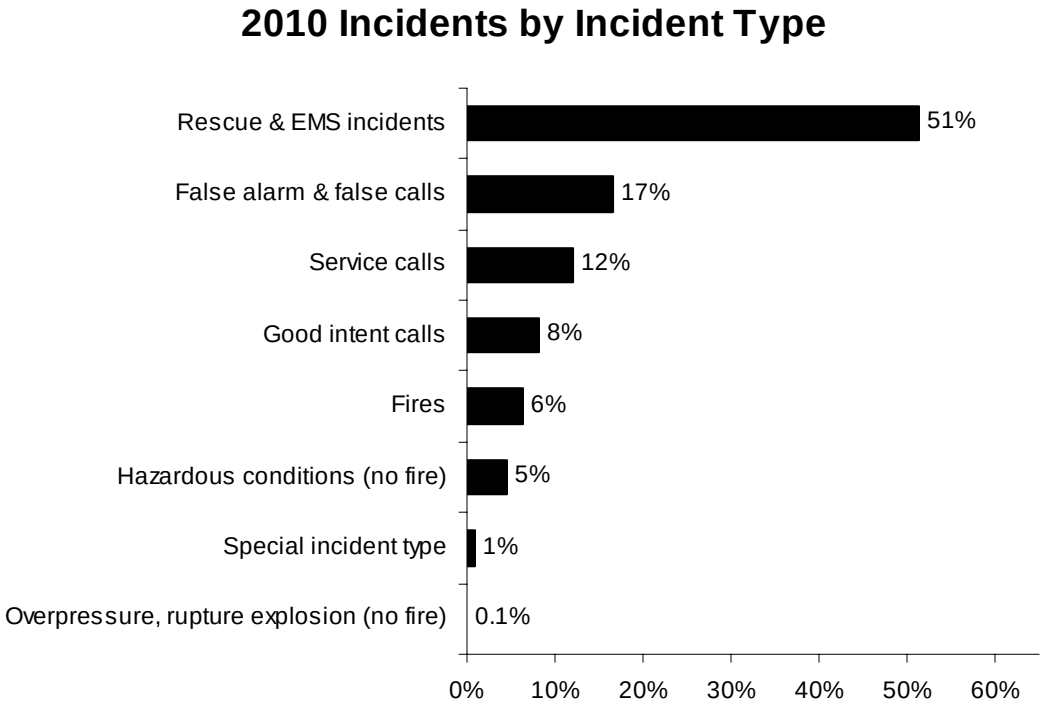
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is 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 1/2 of All Reported Incidents
In 2010, Chicopee voluntarily reported 4,005 incidents to MFIRS. Of these 4,005 incidents, 3,753, or 94%, were non-fire incidents.

Of these 3,753 non-fire incidents 2,055, or 51% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 669, or 17%, were reported false alarm or false calls; 481, or 12%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 324, or 8%, were reported good intent calls; 183, or 5%, were reported hazardous condition calls with no fire; 37, or 1%, were special type incidents; and four, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

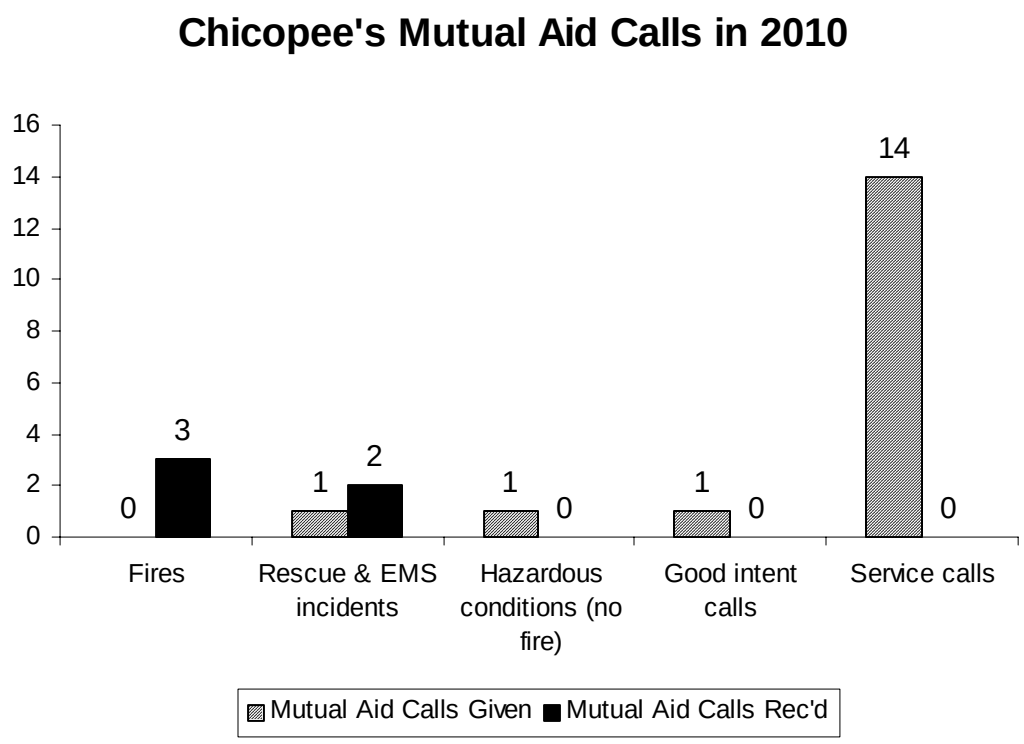
In 2010, Chicopee reported 252 fires, accounting for 6% of all reported incidents.



Chicopee Gave Mutual Aid in 17 Incidents
In 2010, Chicopee reported giving mutual aid to other surrounding fire departments in 17 incidents. Fourteen (14), or 82%, were for service calls such as station coverage; and one each, or 6% were a rescue or EMS call, a good intent call and a hazardous condition call with no fire.

Chicopee Received Mutual Aid in 5 Incidents
In 2010, surrounding fire departments gave aid to Chicopee in five incidents. Of these five incidents, three, or 60%, were fires; two, or 40%, were a rescue or EMS calls.

The following chart compares the number of calls that the Chicopee Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Chicopee. In 2010 Chicopee gave aid to other fire departments almost three and a half times as much as they were asked for it.



Chicopee Population: 55,298

4.5 Fires/1,000 Population

Total Fires:	**246**		**$540,585**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	121	49%	$450,705
Vehicle Fires	24	10%	69,880
Other Fires	101	41%	20,000

9 Civilian Injuries 3 Fire Service Injuries

Building Fires: 121

Residential Structure Fires: 96

Residential Structure Fires Confined to Non-Combustible Containers: 67

Unconfined Residential Structure Fires: 29

9 Civilian Injuries 1 Fire Service Injury

Occupancy	**Fires**	**%**
Apartments	49	51%
1- & 2-Family homes	39	41%
Hotels or motels	6	5%
Boarding houses	1	1%
Residential board & care	1	1%

Detector Status	**Fires**	**%**
Operated	35	36%
Didn't operate	3	3%
None	4	4%
Fire too small	2	2%
Didn’t Alert (confined)	0	0%
Undetermined	52	55%

Area of Origin[5]	**%**
Kitchen	55%
Heating room or area	10%
Chimney or flue	4%
Bedroom	2%
Living room	2%
Laundry room	2%

Heat Source	**%**	**%Unconfined**[6]
Arcing	5%	17%
Radiated heat from op. eq.	4%	14%
Heat from operating equip.	3%	10%
Cigarette	3%	10%
Lighter	2%	7%
Hot or smoldering object	2%	7%
Heat/open flam or smok mat.	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	53%
Flammable or combustible liq.	10%
Rubbish, trash, waste	7%
Film, residue (creosote)	5%
Upholstered sofa, chair	3%
Thermal, acoustical insulation	3%

Factor Contrib. to Ignition	**%**	**%Unconfined**[8]
Misuse of mater. or product	4%	14%
Equipment unattended	2%	7%
Accident. turned on/not off	2%	7%

Equipment[9]	**%**
Cooking equipment	54%
None	17%
Boiler, furnace, cent. heat. unit	10%
Chimney, flue	4%

Cause of Ignition	**%**	**%Unconfined**[10]
Unintentional	15%	48%
Intentional	4%	14%
Failure of eq. or heat source	4%	14%
Cause Under Investigation	4%	14%
Undetermined	3%	10%

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

Alerted Occupants	28%
Didn't Alert Occupants	0%
Undetermined	72%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	2,055	51%
False alarms & false calls	669	17%
Service calls	481	12%
Good intent calls	324	8%
Fires[11]	252	6%
Hazardous conditions (no fire)	183	5%
Special Incident Types	37	1%
Overpressure rupture, explosion or overheat calls (no fire)	4	0.1%
Severe weather & natural disaster	0	0%

[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	22	18	1	3
February	14	9	2	3
March	26	12	2	12
April	33	16	2	15
May	24	6	5	13
June	19	11	2	6
July	24	8	2	14
August	16	10	2	4
September	23	5	2	16
October	11	5	2	4
November	21	10	2	9
December	13	11	0	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	32	9	4	19
Monday	18	12	1	5
Tuesday	28	18	4	6
Wednesday	40	22	2	16
Thursday	41	19	5	17
Friday	37	20	4	13
Saturday	50	21	4	25

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	14	7	2	5
04:01 - 08:00	16	7	1	8
08:01 - 12:00	38	28	2	8
12:01 - 16:00	65	23	7	35
16:01 - 20:00	67	33	4	30
20:01 - 24:00	46	23	8	15

Motor Vehicle Fires

Total: 24
Automobiles: 20 (83%)
1 (5%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 17 **Dollar loss: $36,250**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	5	4%	29%	$32,725
Vehicle Arsons	2	8%	12%	3,000
Other Arsons	10	10%	59%	525

0.09 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.18 Other arsons/1,000 population

Peak Times of Day for:

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

Other Arsons	#	%
16:01 - 20:00	5	50%
12:01 - 16:00	2	20%
20:01 - 00:00	2	20%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	2	40%
Schools, non-adult	1	20%
Elementary school	1	20%
Education, other	1	20%

Springfield Fires in 2010

1,053 Total Fires — 613 Structures, 108 Vehicles & 332 Other Fires
The Springfield Fire Department reported 1,053 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 613 structure fires, 108 motor vehicle fires, 155 outside trash fires, 127 brush fires, 19 special outside fires, four cultivated vegetation or crop fires, and 27unclassified fires caused one civilian death, 15 civilian injuries, 46 fire service injuries and an estimated dollar loss of $5.6 million.

1 Killed in 1 Fatal Fire in Springfield

- On October 19, 2010, at 5:54 p.m., the Springfield Fire Department was called to a fatal smoking fire in a single-family home. The victim, a 56-year old terminally ill woman was smoking while using home oxygen. She was unable to attempt an escape and was overcome by the heat and smoke of the fire. She was transported to a local hospital where she later died from her injuries. Damages from the fire were estimated to be $55,000.

Structure & Outside Fires Up in 2010
Total fires increased by 93 from 960 incidents in 2009. Reported structure fires were up 30 from the 583 reported during the previous year. Motor vehicle fires decreased by one from 109 the year before. Outside and other fires increased by 64 from the 268 reported in 2009.

SPRINGFIELD FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	960	583	109	268	15	7	6	2
2010	1,053	613	108	332	10	2	3	5

BUILDING FIRES

There were 608 building fires of different types in Springfield in 2010. These 608 building fires accounted for 99% of all structure fires in Springfield.

88% of Building Fires in Homes
The 608 building fires that occurred in Springfield in 2010 can be broken down by fixed property use as follows: 536, or 88% of all building fires, were in residential properties; 18 fires happened in mercantile or business properties; 16 fires occurred in institutional properties; 11 fires took place in public assembly properties; nine fires occurred in educational properties; eight fires occurred in storage properties; another eight fires occurred in special properties; one fire happened in a manufacturing or processing facility; and another fire occurred at an unclassified property use.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

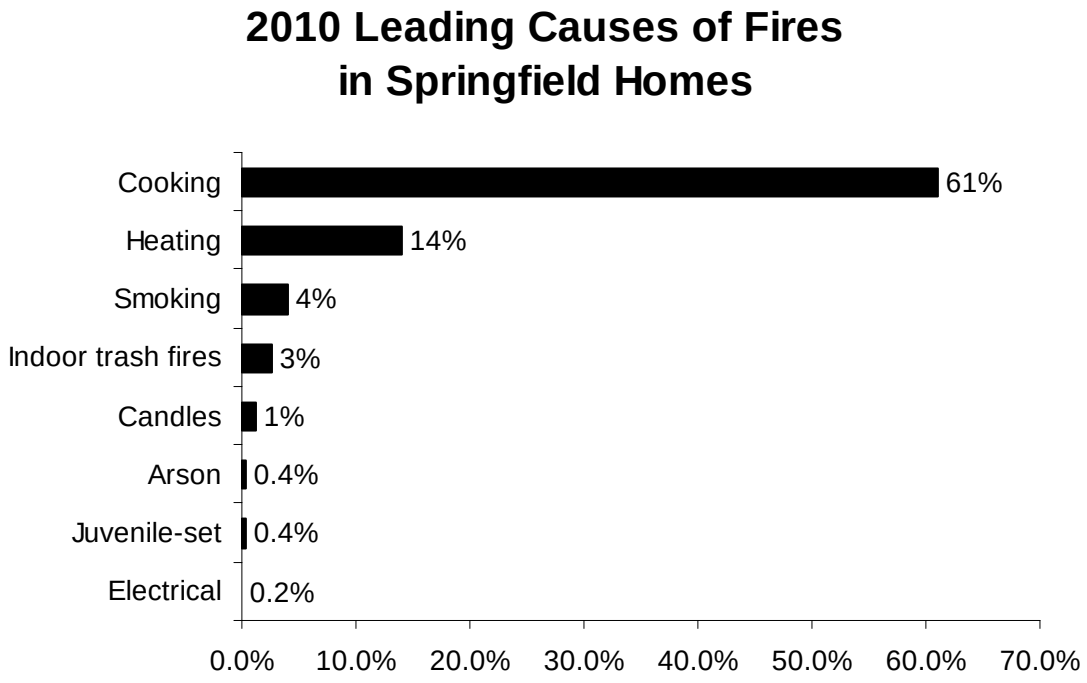
There were 536 reported residential building fires in Springfield in 2010. These 536 fires are an increase of 18, or 3%, over the 518 residential building fires reported in 2009.

Apartments Accounted for 53% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 53% of these building fires in Springfield; 40% occurred in 1- or 2-family homes; 2% occurred in residential board and care facilities; another 2% occurred in dormitories, 2% occurred in rooming houses; and less than 1% occurred in hotels or motels. Two percent (2%) occurred in unclassified residential buildings.

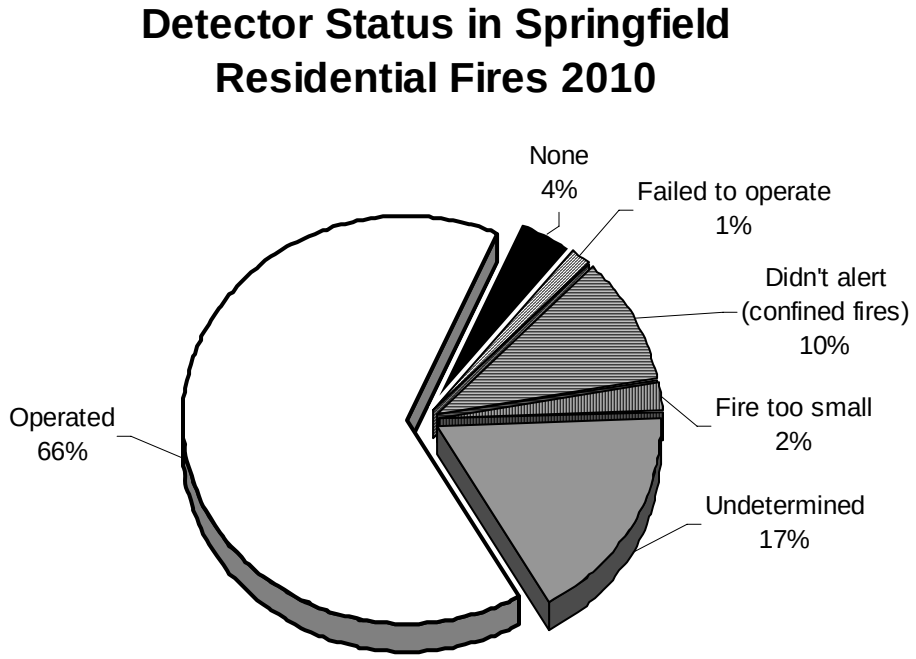
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Springfield was unattended cooking and other unsafe cooking practices, accounting for 61% of these fires. Heating equipment accounted for 14% of the residential building fires in 2010. Smoking caused 4% of these fires. Indoor rubbish fires were responsible for 3%, and candles caused 1% of these fires. Arsons, juvenile-set fires and electrical problems each caused less than 1% of the fires in people's homes in Springfield in 2010.



76% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Four hundred and six (406), or 76% of all residential building fires were confined to non-combustible containers in 2010. Three hundred and twelve (312), or 58% of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Seventy-two (72), or 13% 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. Five (5) incinerator overloads or malfunctions, accounted for 1% of these fires. Three (3) fires were confined to chimneys, which accounted for 1% of residential building fires, and one commercial compactor fire caused less than 1% of residential building fires in 2010.

Detectors Alerted Occupants in 2/3 of Fires
Smoke or heat detectors operated and alerted the occupants in 349, or 66%, 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 1% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 1% of the residential fires. Smoke detector performance was undetermined in 93 incidents, or 17% 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.

Nearly 40% of Failed Detectors Had Missing Batteries

Of the eight fires where smoke detectors were present but failed to operate, three, or 38%, failed because the batteries were either missing or disconnected. One (1), or 13%, was due to a dead battery. In another incident, or 13%, a lack of maintenance accounted for the failure. It was undetermined in the other five, or 51%, cases why the detectors failed to operate.

VACANT BUILDINGS

25 Building Fires in Vacant Buildings

Springfield reported 25 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 4% of the total 608 building fires reported to MFIRS in 2010. Sixteen (16) one- or two-family homes, three apartment buildings, two detached residential garages, one convenience store, one shed, one unclassified business and an unclassified structure were reported as vacant building fire incidents.

JUVENILE-SET FIRES

3 Juvenile-set Fires

There were three juvenile-set fires in Springfield in 2010. The two structure fires, and one unclassified fire caused $98,000 in estimated damages.

ARSONS

10 Total Arsons[4] — 2 Structures, 3 Motor Vehicles, & 5 Other

Ten (10), or 1%, of Springfield's 1,053 fires were intentionally set, or, for purposes of this analysis, arson. The two structure arsons, three motor vehicle arsons and five outside and other arsons caused an estimated dollar loss of $17,150.

Structure & MV Arsons Down Slightly

The total number of arsons reported, 10, decreased by five from the 15 reported in 2009. Reported structure arsons decreased five from seven the year before. Motor vehicle arsons dropped by three from the six reported in 2009. Outside and other arsons increased one from the two reported last year.

Springfield reported 160, or 15%, of all fires are still under investigation or undetermined after investigation. This high number of fires with these classifications is one possible reason for the unusually low number of reported arsons in Springfield in 2010.

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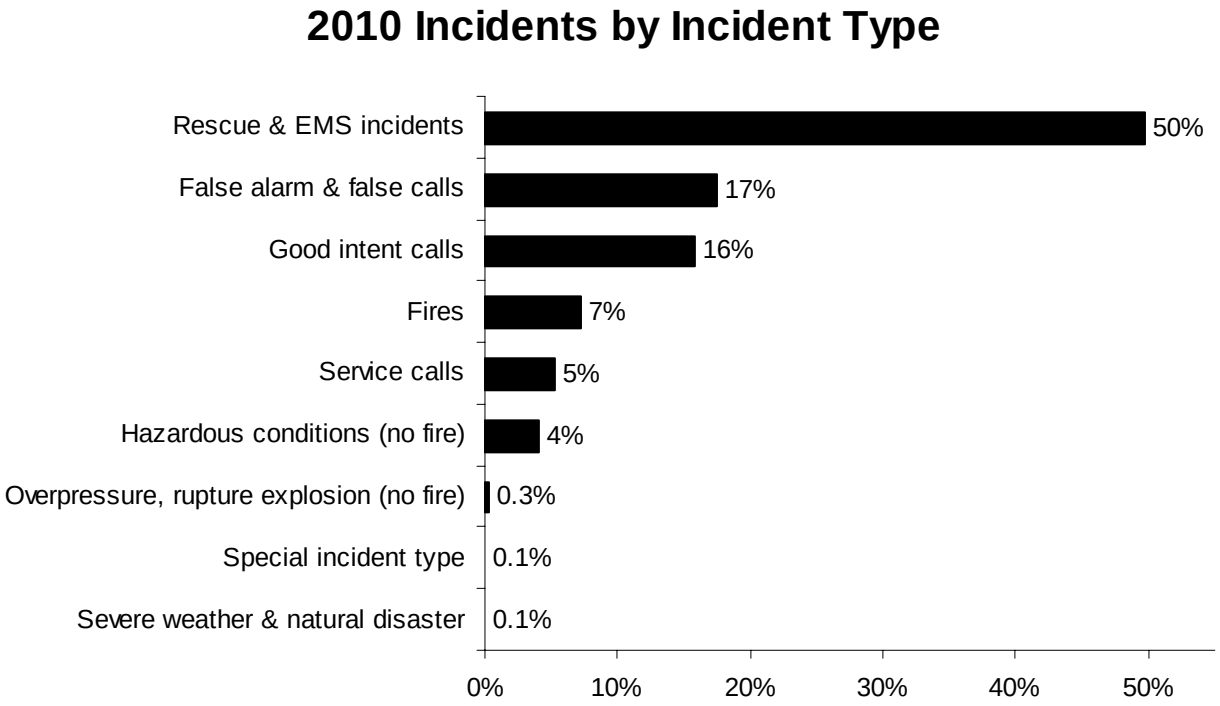
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is 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 1/2 of All Reported Incidents
In 2010, Springfield voluntarily reported 14,737 incidents to MFIRS. Of these 14,737 incidents, 13,666, or 93% were non-fire incidents.

Of these 13,666 non-fire incidents 7,323, or 50%, were reported rescue and emergency medical services (EMS) calls; 2,569, or 17%, were reported false alarm or false calls; 2,321, or 16%, were reported good intent calls; 776, or 5%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 598, or 4%, were reported hazardous condition calls with no fire; 46,or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire; 22, or 0.1%, were special incident type calls, such as citizen complaints; and 11, or 0.1%, were responses to severe weather.



In 2010, Springfield reported 1,071 fires[5] to MFIRS, accounting for 7% of all reported incidents.

Springfield Gave Mutual Aid in 88 Reported Incidents
In 2010, Springfield reported giving mutual aid 88 times. Of these 88 incidents, 58, or 66%, were rescue or EMS incidents; eight, or 9%, were for cover assignments (service calls); seven, or 8% were false alarms; six, or 7%, were five, or 6%, were for fires; and four or 5% were good intent calls.

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

Springfield Received Mutual Aid in 17 Incidents

In 2010, Springfield reported receiving mutual aid from surrounding fire departments in 17 incidents. Of these 17 incidents, seven, or 41%, were for rescue or EMS incidents; three, or 18%, were for good intent calls; another three, or 18%, were for fires; two, or 12%, were hazardous condition calls without fire; one, or 6%, was a service call; and one, or 6%, was for a false alarm.

Springfield Population: 153,060

6.9 Fires/1,000 Population

Total Fires:	**1,053**		**$5,589,062**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	613	58%	$5,054,484
Vehicle Fires	108	10%	377,150
Other Fires	332	32%	157,428

1 Civilian Death	0.9 Civilian Deaths/1,000 Fires
1 Fatal Fire	0.07 Civilian Deaths/10,000 Population
15 Civilian Injuries	46 Fire Service Injuries

Building Fires: 608

Residential Structure Fires: 536

Residential Structure Fires Confined to Non-Combustible Containers: 406

Unconfined Residential Structure Fires: 130

1 Civilian Death 13 Civilian Injuries 34 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	282	53%
1- & 2-Family homes	214	40%
Dormitories	12	2%
Residential board & care	9	2%
Boarding house	9	2%
Hotel, motel	1	0.2%

Detector Status	**Fires**	**%**
Operated	349	66%
Didn't operate	9	1%
None	21	4%
Fire too small	11	2%
Didn’t Alert (confined)	54	10%
Undetermined	93	17%

Area of Origin[6]	**%**
Kitchen	65%
Heating room or area	13%
Bedroom	4%
Function room, other	2%
Ceiling & floor assembly	1%
Exterior balcony/unencl. porch	1%

Heat Source	**%**	**%Unconfined**[7]
Heat from operating eq.	6%	25%
Hot or smoldering object	2%	8%
Radiated heat from oper. eq.	2%	7%
Cigarette	1%	5%
Candle	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	61%
Flammable or combust. liquid	13%
Rubbish, trash, waste	4%
Structural member/framing	3%
Film or residue (creosote)	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Combustibles too close	3%	13%
Abandoned materials	3%	11%
Electrical failure/malfunc.	1%	8%
Equipment unattended	1%	6%
Misuse of material or prod.	1%	3%

Equipment[10]	**%**
Cooking equipment	59%
None	24%
Boiler, furnace, cent. heat. unit	13%
Incinerator	1%
Chimney or flue	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	12%	48%
Failure of eq. or heat source	1%	2%
Intentional	1%	5%
Act of Nature	0.2%	1%
Undetermined	1%	3%
Cause Under Investigation	10%	40%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	7,323	50%
False alarms & false calls	2,569	17%
Good intent calls	2,321	16%
Fires[12]	1,071	7%
Service calls	776	5%
Hazardous conditions (no fire)	598	4%
Overpressure rupture, explosion or overheat calls (no fire)	46	0.3%
Special incident type	22	0.1%
Severe weather & natural disaster	11	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	97	72	9	16
February	59	44	7	8
March	73	49	9	15
April	118	51	9	58
May	115	59	11	45
June	78	48	11	19
July	106	49	13	44
August	83	36	13	34
September	78	37	9	32
October	72	47	7	18
November	93	57	8	28
December	81	64	2	15

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	166	94	23	49
Monday	144	73	16	55
Tuesday	154	90	17	47
Wednesday	158	90	20	48
Thursday	119	76	7	36
Friday	153	90	15	48
Saturday	159	100	10	49

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	102	58	20	24
04:01 - 08:00	66	45	6	15
08:01 - 12:00	136	93	17	26
12:01 - 16:00	257	149	20	88
16:01 - 20:00	311	166	24	121
20:01 - 24:00	181	102	21	58

Motor Vehicle Fires

Total: 108
Automobiles: 94 (87%)
3 (3%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 10 **Dollar loss: $17,150**

0.1 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	2	0.3%	20%	$500
Vehicle Arsons	3	3%	30%	16,500
Other Arsons	5	2%	50%	50

No Deaths or Injuries

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

Peak Times of Day for:

Structure Arsons	#	%
12:01 - 16:00	2	100%

Vehicle Arsons	#	%
00:01 - 04:00	2	67%
20:01 - 00:00	1	33%

Other Arsons	#	%
01:01 - 04:00	1	20%
04:01 - 08:00	1	20%
08:01 - 12:00	1	20%
12:01 - 16:00	1	20%
16:01 - 20:00	1	20%

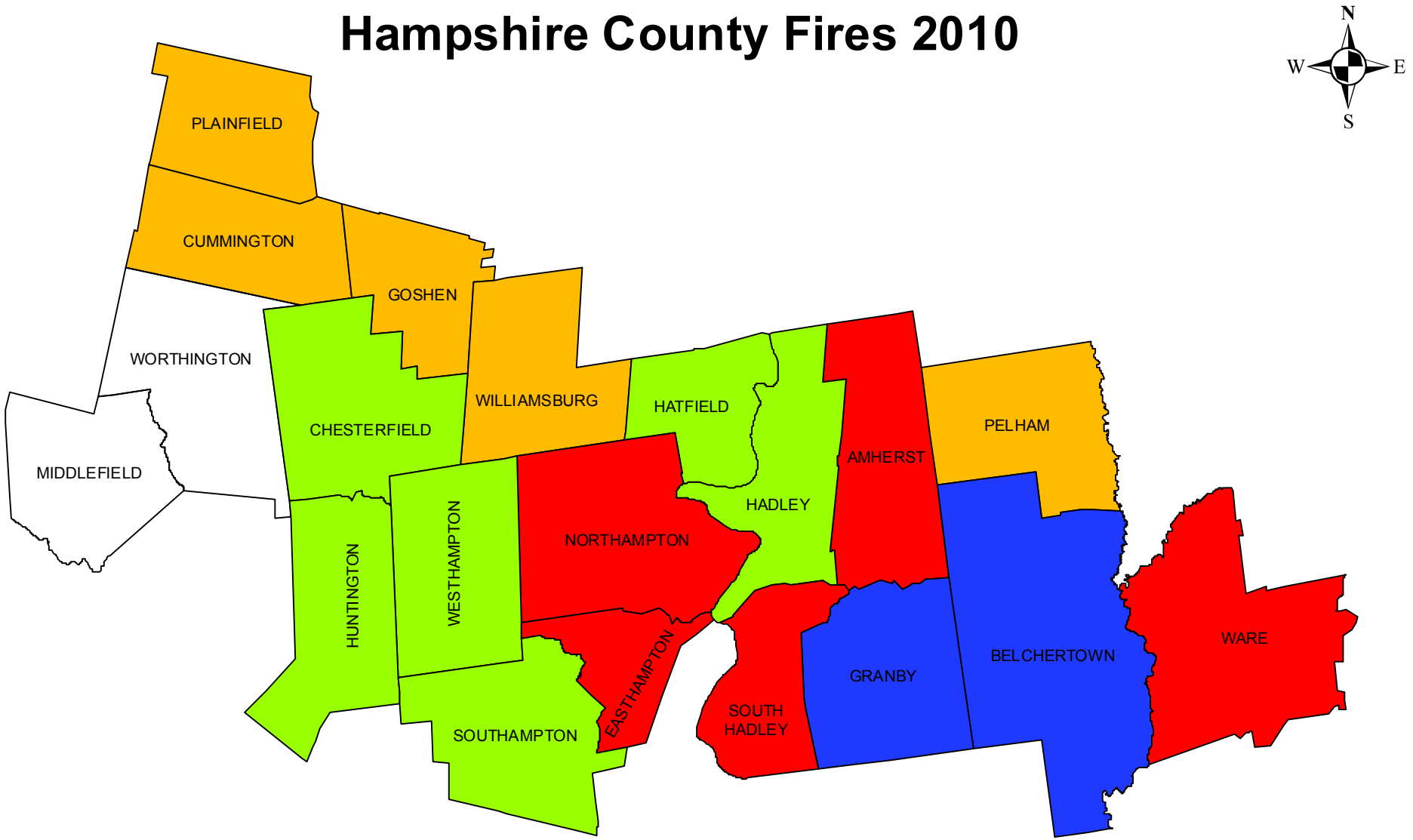
Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	1	50%
Apartments	1	50%

Hampshire County
2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Hampshire County Fires 2010



2010 Fires

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

MFIRS
Massachusetts Fire Incident Reporting System

Miles
0 1.5 3 6 9 12

Massachusetts Fire Incident Reporting System 2010

Hampshire County Fires in 2010

560 Total Fires — 236 Structures, 59 Vehicles & 265 Other Fires
Hampshire County ranked eleventh out of the fourteen Massachusetts counties in total reported fires. Hampshire County fire departments reported 560 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 236 structure fires, 59 motor vehicle fires, 143 brush, tree or lawn fires, 70 outside rubbish fires, 18 special outside fires, one cultivated vegetation or crop fire and 33 other fires caused one civilian death, nine civilian injuries, two fire service injuries and an estimated dollar loss of $3.2 million. Hampshire County's 560 total reported fires accounted for 2% of the 32,680 fires reported to MFIRS in 2010.

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 2010.

Structure Fires Down Slightly
The total number of reported fire incidents increased by 25 from the 535 reported in 2009. Reported structure fires decreased by 10 from the 246 reported during the previous year. Motor vehicle fires increased by one from 58 the year before. The number of outside and other fires increased by 34 from 231 in 2009.

HAMPSHIRE COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	664	224	67	373	82	5	3	74
2007	635	287	54	294	34	7	0	27
2008	537	233	45	259	54	1	2	51
2009	535	246	58	231	45	7	8	30
2010	560	236	59	265	43	9	1	33

Fire and Fire Death Rates
Hampshire County had 3.5 fires per 1,000 population. That figure ranks Hampshire County thirteenth in the state and below the state rate of 5.0 fires per 1,000 population. Hampshire County also had 0.06 fire deaths per 10,000 population, ranking it tied for fifth among Massachusetts counties and just above the state rate of 0.05 fire deaths per 10,000 population.

1 Hampshire County Resident Killed in 1 Fire
- On July 11, 2010, at 12:19 p.m., the Chesterfield Fire Department was called to a fatal fire in an orchard structure. The victim, a 91-year old man, was working on pipes in the building with a propane torch when he accidentally ignited his clothing. He had burns over his entire body. He died enroute while being airlifted to a Boston hospital. No one else was injured at this fire. Detectors were not present and the building did not have any sprinklers. Damages from the blaze were not estimated.

Hadley Has Hampshire County's Largest Loss Fire

- On February 4, 2010, at 6:37 a.m., the Hadley Fire Department was called to an electrical fire at a livestock production facility. The fire began on the first floor. One firefighter was injured at this fire. Detectors were not present and the building was not sprinklered. The fire spread to two other buildings nearby. Damages from the blaze and the two exposure fires were estimated to be $860,000.

STRUCTURE FIRES

Reported Structure Fires Down Slightly

The 236 structure fires caused one civilian death, seven civilian injuries, two fire service injuries and an estimated dollar loss of $3 million. These incidents represented 42% of Hampshire County's reported fires in 2010. The average estimated dollar loss per structure fire was $12,743. The total number of reported structure fires increased by 10, or 4%, from the 246 reported in 2009.

9 Structure Arsons

The nine structure arsons caused one civilian injury and an estimated dollar loss of $88,000. Arson was indicated as the cause of 4% of the structure fires and 3% of Hampshire County's structure fire dollar loss. The nine structure arsons accounted for 21% of the Hampshire County arson fires reported in 2010. The total number of reported structure arsons increased by two, or 29%, from seven in 2009.

2/3 of Structure Arsons Occurred in Residences

Sixty-seven percent (67%) of Hampshire County's nine structure arsons occurred in residential occupancies. Two (2) storage facilities accounted for 22% and one adult education facility was responsible for 11% of the structure arsons in Hampshire County in 2010.

BUILDING FIRES

There were 229 building fires of different types in Hampshire County in 2010. These 229 building fires accounted for 97% of all structure fires in Hampshire County.

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

One hundred and eighty-six (186), or 81%, of Hampshire County's 229 building fires occurred in residential occupancies. Nine (9) fires took place in public assembly properties, including restaurants and churches, and another nine in educational facilities. Hospitals, prisons, and other institutional buildings and storage facilities each experienced six fires. Mercantile and business properties, industrial facilities, and special properties such as outbuildings or sheds each had four fires. One fire in Hampshire County in 2010 occurred in a manufacturing or processing facility and another building fire happened in an industrial facility.

RESIDENTIAL FIRES

Residential Building Fires Down

There were 186 reported residential building fires in Hampshire County in 2010. This is a decrease of 13 fires, or 7%, from the 199 residential fires Hampshire County fire departments reported to MFIRS in 2009.

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

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 62% of the residential building fires in Hampshire County; 19% occurred in apartments; 14% occurred in dormitories; 2% each occurred in rooming houses and hotels or motels; and 1% happened in residential board and care facilities. One percent (1%) of the residential building fires in Hampshire County occurred in unclassified residential buildings.

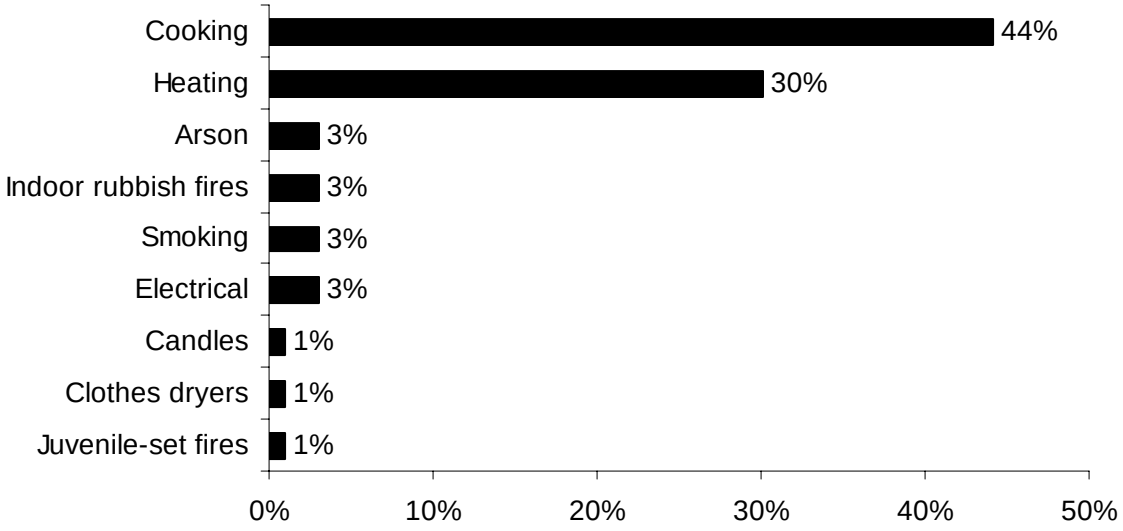
Although much of Hampshire County is rural, the county is home to several colleges and the main campus of the University of Massachusetts. Twenty-six (26), or 14%, of Hampshire County's residential fires occurred in dormitories. Dormitory fires make up smaller percentages of the other counties' fires. In 2010, one of the structure arsons in Hampshire County occurred in a dormitory.

Cooking Causes 44% of Residential Fires

Unattended cooking and other unsafe cooking practices was the leading cause of the 186 residential building fires in Hampshire County, accounting for 44% of these fires. Heating equipment fires accounted for 30% of home fires. Arson, smoking, indoor rubbish fires, and electrical problems each caused 3% of the residential fires. Candles, clothes dyers and juvenile-set fires each accounted for 1% of the fires in Hampshire County in 2010.

During the past five years, cooking and heating equipment have both been the leading cause of Hampshire County's residential fires. In 2008 and in 2007 heating was the leading cause of residential fires in Hampshire and cooking was the second leading cause. In 2006, 2009 and 2010 cooking fires were the leading cause of residential fires and heating fires were the second leading cause.

2010 Leading Causes of Fires in Hampshire County Homes

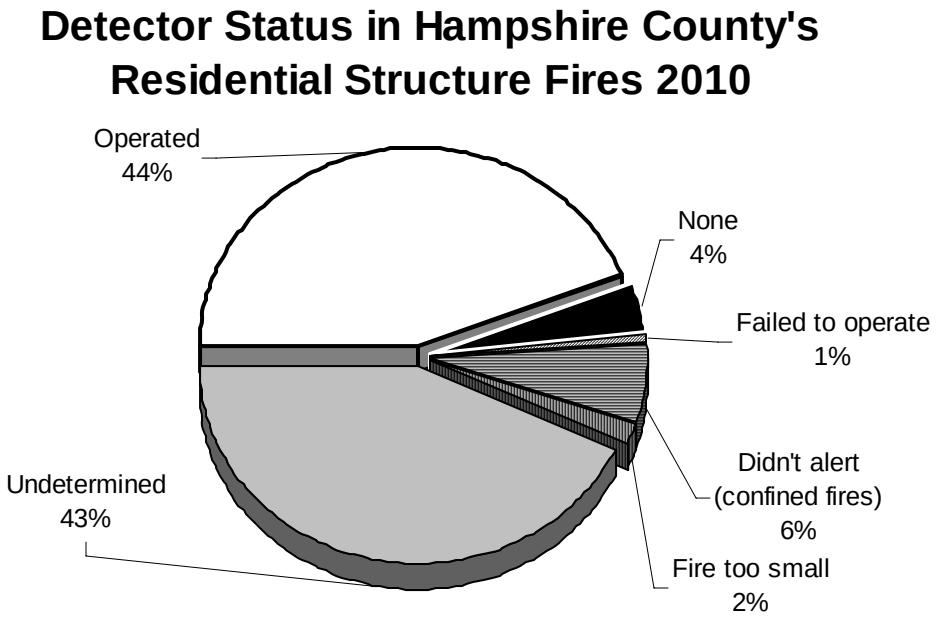


70% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and thirty-one (131), or 70%, of all residential building fires were reported as confined to non-combustible containers in 2010. Seventy-five (75) of the reported fires were cooking fires contained to a non-combustible container, accounting for 40% of residential building fires. Thirty-eight (38), or 20%, of all residential building fires reported in 2010 were fires confined to a chimney. Thirteen (13), or 7%, 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 2010.

Undetermined if Detectors Operated in 43% of Fires
Smoke or heat detectors operated and alerted the occupants in 82, or 44%, 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 4% 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 80 incidents, or 43%, 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.



Both Failed Detectors Were Installed Incorrectly
In both of the fires where smoke detectors were present but failed to operate, they failed because of improper installation or placement.

VACANT BUILDINGS

5% of Building Fires Occurred in Vacant Buildings
Hampshire County reported four fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 5% of the total 229 building fires reported to MFIRS in 2010. Five (5) of these vacant building fires occurred in residential occupancies. Three (3) occurred in storage facilities. A public assembly facility, an educational facility and a special property each had one vacant building fire in Hampshire County in 2010.

Two (2), or 18%, of the vacant building fires in Hampshire County in 2010 were determined to be intentionally set. One (1) of these occurred in an adult education center while the other one occurred in a warehouse.

[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

2 Juvenile-set Fires

There were two reported juvenile-set fires in Hampshire County in 2010. The two structure fires caused $10,000 in estimated damages.

ARSONS

43 Total Arsons — 9 Structures, 1 Motor Vehicle & 33 Other Arsons

Forty-three (43), or 8%, of Hampshire County's 560 fires were intentionally set, or, for purposes of this analysis, arson[4]. The nine structure arsons, one motor vehicle arson and 33 outside and other arsons caused one civilian injury and an estimated dollar loss of $88,142.

Motor Vehicle Arsons Down

The total number of reported arson fires decreased by two from the 43 reported in 2009. Structure arsons increased by two from the seven reported the previous year. Motor vehicle arsons decreased by seven from eight in 2009. Reported outside and other arsons increased by three from the 30 reported in 2009.

ALL INCIDENTS

Rescue & EMS Calls Are 60% of All Reported Responses

In 2010, Hampshire County fire departments reported 13,492 responses[5] to MFIRS. Of these 13,492 incidents, 12,821 non-fire calls were voluntarily reported.

Of these 12,821 non-fire calls, 8,155, or 60% of all the responses reported in 2010, were reported rescue and emergency medical services (EMS) calls; 2,067, or 15%, were reported false alarm or false calls; 904, or 7%, were reported hazardous condition calls with no fire; 838, or 6%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 613, or 5%, were reported good intent calls; 151, or 1%, were special incident type calls such as citizen complaints; 57, or 0.4%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 36, or 0.3%, were severe weather responses.

Six hundred and seventy-one (671), or 5%, of the total responses submitted by Hampshire County fire departments were fires.

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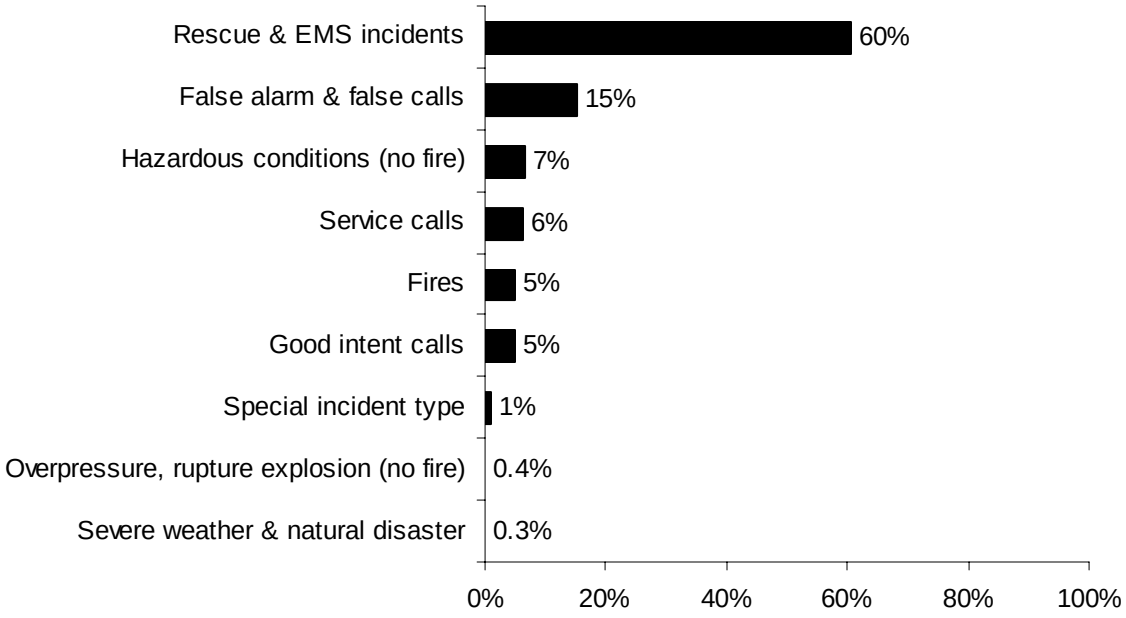
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

2010 Responses by Incident Type



Hampshire County Fire Departments Gave Mutual Aid 385 Times

In 2010, Hampshire County fire departments reported coming to the aid of other fire departments 385 times. Of these 385 responses, 167, or 43%, were for rescue or EMS calls; 107, or 28%, were for fires; 40, or 10%, were for service calls such as cover assignments; 26, or 4%, were for good intent calls; 22, or 6%, were for false alarms or false calls; 20, or 5%, were hazardous conditions calls with no fire; two calls, or 1%, were for special incident types; and one, or 0.3%, was a severe weather call.

Hampshire County Received Mutual Aid in 197 Incidents

In 2010, Hampshire County fire departments received aid from surrounding departments in 197 incidents. Of these 197 incidents, 119, or 60%, were rescue and emergency medical services calls; 60, or 30%, were for fires; nine, or 5%, were hazardous conditions calls with no fire; five, or 3%, were false alarm or false calls; four, or 2%, were service calls; and one was a good intent call accounting for 1% of the mutual aid calls received in Hampshire County in 2010.

Hampshire County Population: 158,080

3.5 Fires/1,000 Population

Total Fires:	**560**		**$3,185,806**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	236	42%	$3,007,242
Vehicle Fires	42	11%	164,302
Other Fires	265	47%	14,262

1 Fatal Fire	1.79 Civilian Deaths/1,000 Fires
1 Civilian Death	0.06 Civilian Deaths/10,000 Population
9 Civilian Injuries	2 Fire Service Injuries

Building Fires: 229

Residential Structure Fires: 186

Residential Structure Fires Confined to Non-Combustible Containers: 131

Unconfined Residential Structure Fires: 55

5 Civilian Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	116	62%
Apartments	35	19%
Dormitories	26	14%
Hotels or motels	4	2%
Rooming houses	3	2%

Detector Status	**Fires**	**%**
Operated	82	44%
Didn't operate	1	1%
None	8	4%
Fire too small	3	2%
Didn’t alert (confined)	12	6%
Undetermined	80	43%

Area of Origin[6]	**%**
Kitchen	49%
Chimney or flue	20%
Heating room or area	7%
Bedroom	3%
Laundry room	2%

Heat Source	**%**	**%Unconfined**[7]
Heat from operating eq.	5%	16%
Hot or smoldering object	4%	13%
Arcing	4%	13%
Radiated, con. Heat op. eq.	2%	5%
Hot ember or ash	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]	**%**
Food, cooking materials	41%
Film, residue (creosote)	20%
Flamm. or combustible liquid	7%
Rubbish, trash, waste	3%
Electrical wire, cable insulation	3%
Structural member, framing	2%

Factor Contrib. to Ignit.	**%**	**%Unconfined[9]**
Abandoned materials	3%	9%
Equipment unattended	2%	7%
Failure to clean	2%	7%
Too close to combustibles	2%	5%

Equipment[10]	**%**
Cooking equipment	43%
None	22%
Chimney or flue	20%
Boiler, furnace, cent. heat unit	7%

Cause of Ignition	**%**	**%Unconfined[11]**
Unintentional	14%	47%
Failure of eq. or heat source	5%	18%
Intentional	2%	7%
Cause under investigation	3%	11%
Undetermined	3%	9%
Act of nature	2%	5%

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

Alerted occupants	43%
Didn't alert occupants	9%
Undetermined	48%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	44	30	6	8
February	27	19	3	5
March	46	22	2	22
April	94	28	7	59
May	74	22	8	44
June	29	12	5	12
July	29	10	4	15
August	43	11	5	27
September	54	19	2	33
October	42	20	6	16
November	46	24	4	18
December	32	19	7	6

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	94	42	10	42
Monday	69	33	7	29
Tuesday	75	36	7	32
Wednesday	84	37	11	36
Thursday	64	25	8	31
Friday	73	27	11	35
Saturday	101	36	5	60

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	41	14	6	21
04:01 - 08:00	43	19	5	19
08:01 - 12:00	83	35	7	41
12:01 - 16:00	160	53	22	85
16:01 - 20:00	148	72	11	65
20:01 - 00:00	85	43	8	34

Motor Vehicle Fires

Total: 59
Automobiles: 44 (75%)
0, or (0%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 43 **Dollar loss: $88,142**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	9	4%	21%	$88,000
Vehicle Arsons	1	2%	2%	0
Other Arsons	33	12%	77%	142

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

1 Civilian Injury

Peak Times of Day for:

Structure Arsons	#	%
12:01 - 16:00	4	44%
16:01 - 20:00	2	22%

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

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

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	4	44%

Amherst **Population: 37,819**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	98	44	8	46	16	2	0	14
2010	119	46	6	67	21	4	0	17

Belchertown **Population: 14,649**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	33	16	4	13	2	0	0	2
2010	50	21	4	25	0	0	0	0

Chesterfield **Population: 1,222**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	9	2	0	7	1	0	0	1
2007	10	4	0	6	0	0	0	0
2008	8	4	1	3	0	0	0	0
2009	13	6	1	6	0	0	0	0
2010	8	3	0	5	1	0	0	1

Cummington **Population: 872**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	5	5	0	0	0	0	0	0
2008	1	0	1	0	0	0	0	0
2009	1	1	0	0	0	0	0	0
2010	5	4	1	0	0	0	0	0

Easthampton **Population: 16,053**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	48	30	3	15	2	0	0	2
2010	52	29	5	18	3	2	0	1

Goshen **Population: 1,054**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	4	1	0	3	0	0	0	0
2010	5	2	1	2	0	0	0	0

Granby **Population: 6,240**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	41	19	2	20	1	0	0	1
2010	35	14	9	12	1	0	0	1

Hadley **Population: 5,250**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	4	2	3	0	0	0	0
2010	7	7	0	0	0	0	0	0

Hatfield **Population: 3,279**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	11	7	2	2	0	0	0	0
2010	8	0	3	5	0	0	0	0

Huntington **Population: 2,180**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	11	6	0	5	0	0	0	0
2010	14	7	2	5	1	0	0	1

Middlefield **Population: 521**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Fire Department in Good Standing, Certified No Reportable Fires							
2007	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	Fire Department in Good Standing, Certified No Reportable Fires							
2010	Fire Department in Good Standing, Certified No Reportable Fires							

Northampton **Population: 28,549**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	89	34	23	32	15	5	7	3
2010	93	33	16	44	0	0	0	0

Pelham **Population: 1,321**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	1	1	0	0	0	0	0	0
2007[12]	Non-Reporting Community							
2008	Fire Department in Good Standing, Certified No Reportable Fires							
2009	1	1	0	0	0	0	0	0
2010	3	1	2	0	0	0	0	0

Plainfield **Population: 648**

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

SOUTH HADLEY FIRE DISTRICTS **Population: 17,514**

South Hadley District # 1 ***Est. Pop. Protected: 11,734***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	46	9	7	30	4	0	1	3
2010	50	17	2	31	9	2	0	1

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

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	44	42	0	2	0	0	0	0
2010	44	38	2	4	1	0	0	1

[12] Pelham did report 1 severe weather response in 2007.

Southampton **Population: 5,792**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	11	1	0	10	3	0	0	3
2010	11	0	2	9	3	0	1	2

Ware **Population: 9,872**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	51	16	4	31	0	0	0	0
2010	56	14	1	41	4	1	0	3

Westhampton **Population: 1,607**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	13	6	2	5	0	0	0	0
2010	11	3	2	6	0	0	0	0

Williamsburg **Population: 2,482**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	6	0	4	2	0	0	2
2010	1	1	0	0	0	0	0	0

Worthington **Population: 1,156**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	1	1	0	0	0	0	0	0
2010	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	1,293	133	3	169	103	56	94	713	9	13
15024	Belchertown	334	55	1	11	63	66	19	116	3	0
15060	Chesterfield	108	15	0	57	17	4	9	6	0	0
15069	Cummington	5	5	0	0	0	0	0	0	0	0
15087	Easthampton	2,317	63	3	1,822	68	122	56	154	6	23
15108	Goshen	94	13	0	48	5	4	10	14	0	0
15111	Granby	167	39	1	15	31	34	15	32	0	0
15117	Hadley	9	9	0	0	0	0	0	0	0	0
15127	Hatfield	133	8	0	13	42	26	13	24	2	5
15143	Huntington	273	45	0	151	32	14	6	24	0	1
15214	Northampton	6,914	94	43	5,028	342	330	262	717	11	87
15230	Pelham	3	3	0	0	0	0	0	0	0	0
15237	Plainfield	2	2	0	0	0	0	0	0	0	0
15978	South Hadley #1	181	40	2	4	26	24	27	56	0	2
15979	South Hadley #2	623	54	1	427	27	28	28	57	1	0

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
15276	Southampton	574	12	0	330	95	70	16	48	1	2
15309	Ware	299	62	2	7	32	48	42	87	1	18
15331	Westhampton	162	18	1	73	21	12	16	19	2	0
15340	Williamsburg	1	1	0	0	0	0	0	0	0	0
Total	**Hampshire County**	**13,492**	**671**	**57**	**8,155**	**904**	**838**	**613**	**2,067**	**36**	**151**

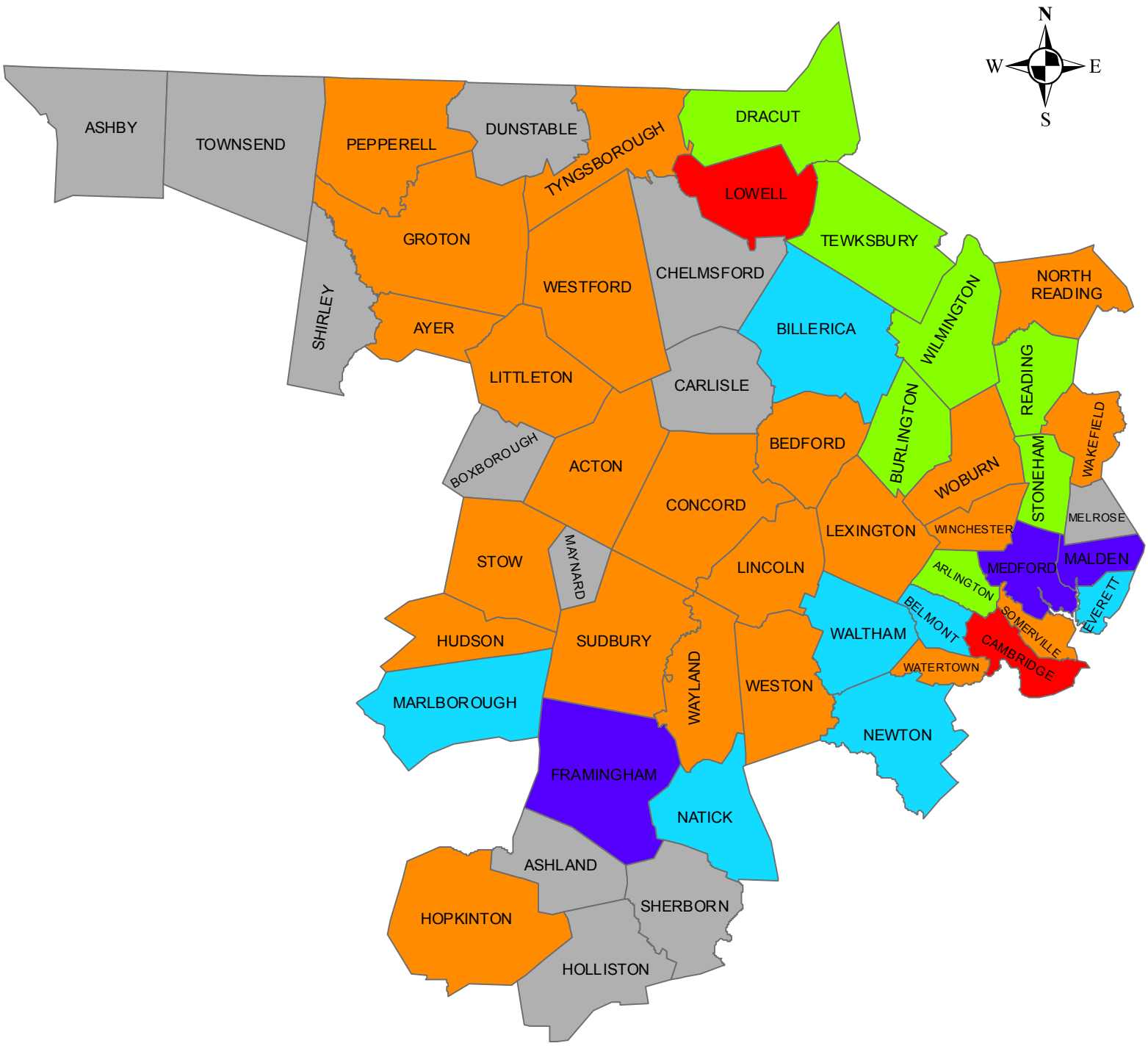
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any department that wants to send all of their responses to do so.

Middlesex County
2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Middlesex County Fires 2010



2010 Fires

- 3 - 25
- 26 - 75
- 76 - 125
- 126 - 200
- 201 - 440
- 441 - 901

MFIRS Massachusetts Fire Incident Reporting System

0 1.5 3 6 9 12 Miles

Massachusetts Fire Incident Reporting System 2010

Middlesex County Fires in 2010

5,760 Total Fires — 3,405 Structures, 506 Vehicles & 1,849 Other Fires
Middlesex County ranked second out of the fourteen Massachusetts counties in total reported fires. Middlesex County fire departments reported 5,760 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 3,405 structure fires, 506 motor vehicle fires, 1,022 brush fires, 465 outside rubbish fires, 150 special outside fires, three cultivated vegetation or crop fires, and 209 unclassified fires caused eight civilian deaths, 81 civilian injuries, 127 fire service injuries and an estimated dollar loss of $42 million. Middlesex County's fires accounted for 18% of the 32,680 Massachusetts fires reported in 2010.

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 2010.

All Fires Up
The total number of reported fire incidents increased by 599 from the 5,161 reported in 2009. Reported structure fires increased slightly by 16 from 3,389 in the previous year. Motor vehicle fires increased by three from the 503 reported during 2009. Reported outside and other fires increased by 580 from 1,269 the year before.

MIDDLESEX COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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	5,323	3,447	512	1,364	168	40	27	101
2009	5,161	3,389	503	1,269	167	39	28	100
2010	5,760	3,405	506	1,849	161	44	13	104

Fire and Fire Death Rates
Middlesex County had 3.8 fires per 1,000 population. That figure ranks Middlesex County eleventh in the state and below the state rate of 5.0 fires per 1,000 population. Middlesex County also had 0.05 fire deaths per 10,000 population ranking it seventh among Massachusetts counties and tied with the state rate of 0.05 fire deaths per 10,000 population.

6 Fatal Fires Killed 8 Middlesex County Residents
- On March 10, 2010, at 9:18 p.m., the Everett Fire Department was called to a fatal smoking fire in a two-family home. The victims were an 80-year old physically disabled woman, and her 76-year old physically disabled brother. The fire was started by someone carelessly disposing of a cigarette on the first floor front porch. Home oxygen was present and may have contributed to the fire spreading so quickly. A

state police sergeant tried to get the brother to escape the fire, but he wouldn't leave his sister. She died in the fire and he was transported to a local hospital where he later died from smoke inhalation. There were no detectors present and the building was not sprinklered. No one else was injured in this fire. Damages were estimated to be $250,000.

- On April 13, 2010, at 4:47 a.m. the Woburn Fire Department was called to a fatal smoking fire in a 98-unit apartment building. The 61-year old male victim was asleep at the time of the fire. He was transported to a local hospital where he succumbed to his injuries. No one else was injured at this fire. Detectors were present and alerted the other occupants of the building. There were no sprinklers. Damages from this fire were estimated to be $60,000.

- On May 10, 2010, at 11:05 a.m., the Medford Fire Department was called to a fatal outside fire in a field. The fire was a suicide by self-immolation. The victim, a 47-year old man, poured gasoline on himself and ignited it. No one else was injured in this fire, and damages were not estimated.

- On October 10, 2010, at 4:00 a.m., the Lowell Fire Department was called to a fatal electrical fire at a 12-unit apartment building. The victims, a 23-year old man and a 47-year old man, were most likely sleeping at the time of the fire. No one else was injured at this fire. Detectors were present and alerted the other occupants to the fire. Sprinklers were not present. Damages were estimated to be $571,100.

- On October 22, 2010, at 12:46 a.m., the Lowell Fire Department was called to a fatal fire in a lean-to of undetermined cause. The body of the victim, a 42-year old homeless man was discovered during overhaul operations. No one else was injured at this fire. Damages were not estimated.

- On November 25, 2010, at 12:37 a.m., the Waltham Fire Department was called to a fatal motor vehicle fire. Upon arrival, firefighters found the SUV fully involved and on its side in a culvert. The body of the victim, a John Doe, was discovered during operations. No one else was injured at this fire. Damages were estimated at $20,000.

Largest Loss Fire in 2010

In 2010, Middlesex County fire departments reported five fires with a reported dollar loss of $1 million or greater. The combined dollar loss of these five fires totaled $9.3 million, or 22%, of the county's total dollar loss. Concord had two of these fires.

- On May 10, 2010, at 11:59 p.m., the Sudbury Fire Department was called to a fire of undetermined cause at a large greenhouse. The fire went to five alarms. No one was injured at this fire. Detectors and sprinklers were not present. Damages from this fire were estimated to be $4.5 million.

STRUCTURE FIRES

Reported Structure Fires Up Slightly

The 3,405 structure fires caused six civilian deaths, 71 civilian injuries, 124 fire service injuries and an estimated dollar loss of $39 million. These incidents represented 59% of Middlesex County's reported fires in 2010. The average estimated dollar loss per structure fire was $11,456. The total number of reported structure fires increased by 16, or less than 1%, from the 3,389 reported in 2009.

Arson Caused of 1% of Structure Fires

The 44 structure arsons caused an estimated dollar loss of $314,215. Arson was indicated as the cause of 1% of the structure fires and 1% of Middlesex County's structure fire dollar loss. The 44 structure arsons accounted for 27% of the Middlesex County arson fires reported in 2010. The total number of reported structure arsons increased by five, or 13%, from 39 in 2009.

Almost 1/2 of Structure Arsons Occurred in Residences

Forty-eight percent (48%) of Middlesex County's 44 structure arsons occurred in residential occupancies; public assembly facilities and educational facilities each accounted for 14% of these fires. Nine percent (9%) occurred in storage facilities; special properties were involved in 7%; and 2% happened in institution facilities. Mercantile or business facilities and industrial facilities each accounted for 2% of Middlesex County's structure arsons in 2010.

BUILDING FIRES

There were 3,381 building fires of different types in Middlesex County in 2010. These 3,381 building fires accounted for 99.3% of all structure fires in Middlesex County.

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

Two thousand seven hundred and eight-three (2,783), or 82%, of Middlesex County's 3,381 building fires occurred in residential occupancies. One hundred and thirty-six (136) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 132 fires. Hospitals, prisons, and other institutional buildings experienced 91 fires. Eighty-six (86) building fires in Middlesex County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Eighty (80) building fires took place in educational facilities. Forty-two (42) fires took place in storage properties. Eighteen (18) fires occurred in industrial, utility, defense, agricultural or mining facilities. Twelve (12) fires took place in manufacturing and processing facilities in Middlesex County in 2010.

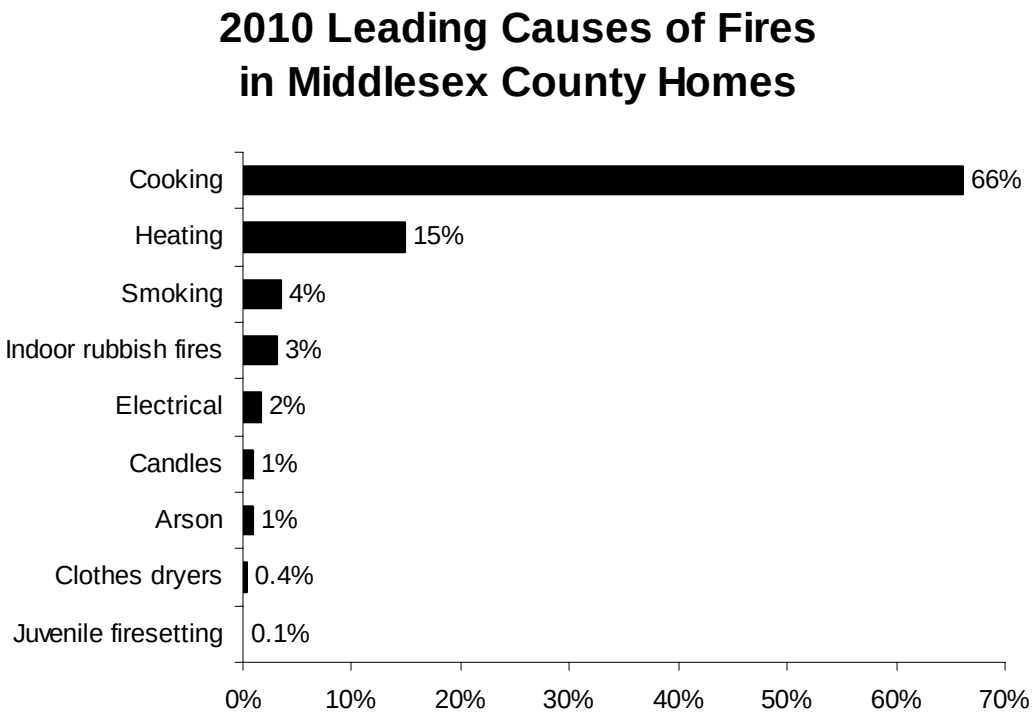
RESIDENTIAL FIRES

Residential Building Fires Are Up Slightly

There were 2,783 reported residential building fires in Middlesex County in 2010. These 2,783 fires are an increase of 28, or 1%, from the 2,755 residential building fires reported in 2009.

Unsafe Cooking Causes 2/3 of All Residential Fires

The leading cause of residential building fires in Middlesex County was unattended cooking and other unsafe cooking practices, accounting for 66% of these fires. Heating caused 15% of fires in people's homes. Smoking fires caused 4%. Indoor rubbish fires accounted for 3% of these fires. Electrical problems caused 2%. Candles and arsons each caused 1% of these fires, and clothes dryers and juvenile-set fires were each responsible for less than 1% of the residential fires in Middlesex County in 2010.



81% of Residential Building Fires Are Confined to Non-Combustible Containers[1]

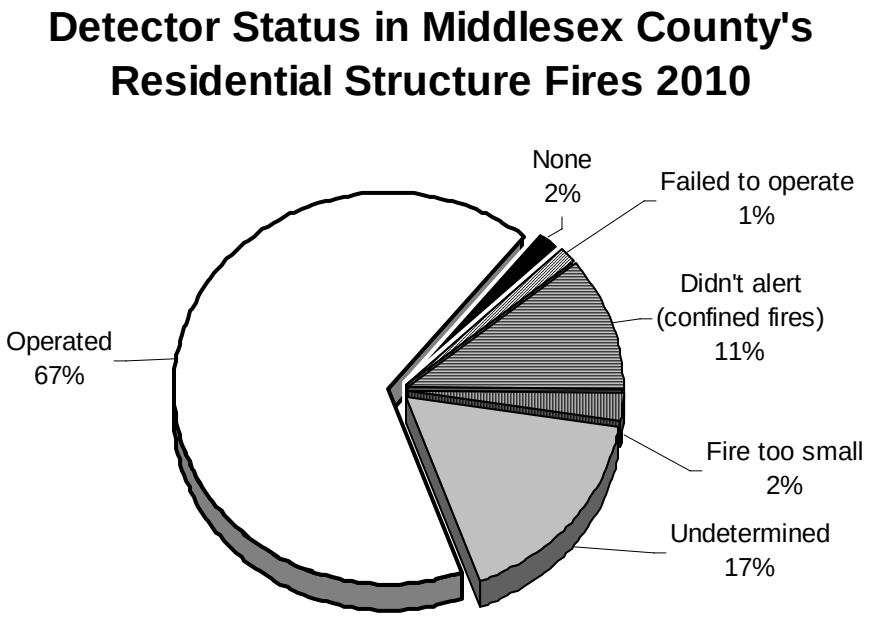
Two thousand two hundred and forty-four (2,244), or 81%, of all residential building fires were reported as confined to non-combustible containers in 2010. One thousand

[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.

seven hundred and seventy-five (1,775) of the reported fires were cooking fires contained to a non-combustible container accounting for 64% of residential building fires. Two hundred and eighty-three (283), or 10%, were fires confined to a fuel burner or boiler malfunction. One hundred and four (104), or 4%, of all residential building fires reported in 2010 were fires confined to a chimney. Eighty (80), or 3%, of these fires were rubbish fires contained to a non-combustible container. One commercial compactor fire and one incinerator overload each accounted for less than 1% of the residential fires in Middlesex County in 2010.

Detectors Alerted Occupants in 2/3 of Fires

Smoke or heat detectors operated and alerted the occupants in 1,847, or 67%, 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 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 474 incidents, or 17%, of Middlesex County's residential building fires.



25% of Failed Detectors Had Dead, Missing or Disconnected Batteries

Of the 40 fires where smoke detectors were present but failed to operate, nine, or 25%, failed because the batteries were either missing or disconnected. Seven (7), or 18%, failed because of a power failure, shutoff or disconnect. Two (2), or 5%, did not operate because of dead batteries. Two (2) detectors, or 5%, failed from a lack of maintenance. One (1) unit, or 2%, failed because it was defective. It was undetermined or unclassified

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

in 18 cases, or 45%, why the detectors failed to operate.

VACANT BUILDINGS

1% of Building Fires Occurred in Vacant Buildings

Middlesex County reported 36 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 1% of the total 3,381 building fires reported to MFIRS in 2010. Twenty-three (23) fires occurred in vacant residential properties. Six (6) vacant building fires occurred in storage facilities. Public assembly facilities, mercantile and business properties and special properties each accounted for two vacant building fire incidents. Educational facilities accounted for one vacant building fire in Middlesex County in 2010.

Four (4), or 11%, of the vacant building fires in Middlesex County in 2010 were determined to be intentionally set. Two (2) of these fires occurred in single-family homes. The other two vacant building fires occurred in outbuildings.

JUVENILE-SET FIRES

16 Juvenile-set Fires

There were 16 reported juvenile-set fires in Middlesex County in 2010. The four structure fires, five brush fires, five outside rubbish fires, and two special outside fires caused an estimated $135,120 in damages.

ARSONS

161 Total Arsons[4] — 44 Structures, 13 Vehicles & 104 Other Arsons

One hundred and sixty-one (161), or 3%, of Middlesex County's 5,760 fires were considered intentionally set, or, for purposes of this analysis, arson. The 44 structure arsons, 13 motor vehicle arsons and 104 outside and other arsons caused one civilian death and an estimated dollar loss of $434,805.

Motor Vehicle Arson Down

The total number of reported arson fires decreased by six from the 167 reported in 2009. Reported structure arsons increased by five from the 39 reported in 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.

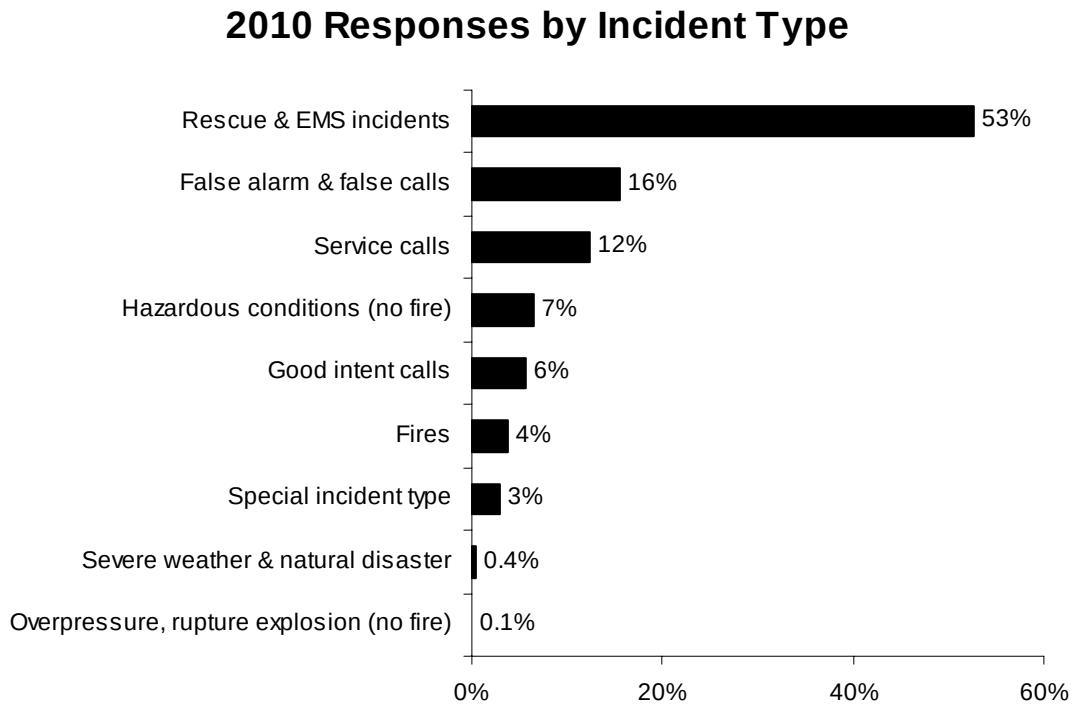
Motor vehicle arsons decreased by 15 from the 28 in 2009. Reported outside and other arsons increased by four from 100 the year before.

ALL INCIDENTS

Rescue & EMS Calls Are Over 1/2 of All Reported Responses
In 2010, fire departments in Middlesex County reported 160,439 responses[5] to MFIRS. This is a 5% increase over the 152,994 responses reported in 2009. Of these 160,439 incidents, 154,353 non-fire calls were voluntarily reported.

Of these 154,353 non-fire calls, 84,625, or 53%, of all the responses reported in 2010 were reported rescue and emergency medical services (EMS) calls; 24,932, or 16%, were reported false alarm or false calls; 19,842, or 12%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 10,596, or 7%, reported hazardous condition calls with no fire; 8,980, or 6%, were reported good intent calls; 4,635, 3%, were special incident type calls such as citizen complaints; 585, or 0.4%, were severe weather responses; and 158, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Six thousand and eighty-six (6,086), or 4%, of the total responses submitted by Middlesex County fire departments were fires.



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

Middlesex County Fire Departments Gave Mutual Aid 2,932 Times

In 2010, Middlesex County fire departments reported coming to the aid of other fire departments 2,932 times. Of these 2,932 responses, 1,351, or 46%, were for rescue or EMS calls; 733, or 25%, were for service calls such as cover assignments; 338, or 12%, were for good intent calls; 283, or 10%, were for fires; 119, or 4%, were for false alarms or false calls; 84, or 3%, were for hazardous conditions calls with no fire; 22, or 1%, were special incident types; one, or less than 1%, was for a reported overpressure, rupture, explosion or overheat call with no fire; and one, or less than 1%, was a severe weather call.

Middlesex County Received Mutual Aid in 1,972 Incidents

In 2010, Middlesex County fire departments reported receiving aid from surrounding departments in 1,917 incidents. Of these 1,917 incidents, 1,269, or 66%, were rescue and emergency medical services calls; 288, or 15%, were for fires; 200, or 10%, were false alarms or false calls; 55, or 3%, were hazardous conditions calls with no fire; 48, or 3%, were good intent calls; 46, or 2%, were service calls; six, or less than 1%, were severe weather calls; four, or less than 1%, were overpressure, rupture, explosion or overheat calls with no fire; and one, or less than 1%, was a special incident type.

Middlesex County Population: 1,503,085

3.8 Fires/1,000 Population

Total Fires:	**5,760**		**$42,087,422**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	3,405	59%	$39,008,981
Vehicle Fires	506	9%	2,101,761
Other Fires	1,849	32%	976,680

6 Fatal Fires	1.39 Civilian Deaths/1,000 Fires
8 Civilian Deaths	0.05 Civilian Deaths/10,000 Population
81 Civilian Injuries	127 Fire Service Injuries

Building Fires: 3,381

Residential Building Fires: 2,783

Residential Building Fires Confined to Non-Combustible Containers: 2,244

Unconfined Residential Building Fires: 539

5 Civilian Deaths 61 Civilian Injuries 106 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	1,247	45%
1- & 2-Family homes	1,141	41%
Dormitories	160	5%
Rooming houses	45	1%
Residential board & care	32	1%
Hotels or motels	24	1%

Detector Status	**Fires**	**%**
Operated	1,847	67%
Didn't operate	40	1%
None	55	2%
Fire too small	60	2%
Didn’t alert (confined)	307	11%
Undetermined	474	17%

Area of Origin[6]	**%**	**Heat Source**	**%**	**%Unconfined[7]**
Kitchen	68%	Radiated heat/oper. eq.	3%	14%
Heating equipment room	10%	Heat from operating eq.	3%	14%
Chimney or flue	4%	Cigarette	2%	12%
Bedroom	2%	Arcing	2%	9%
Exterior balcony/unencl. porch	1%	Candle	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]	**%**
Food, cooking materials	65%
Flammable, combustible liquid	10%
Film, residue (creosote)	4%
Rubbish, trash, waste	4%
Structural member, framing	2%
Ext. sidewall covering, surface	1%

Factor Contrib. to Ignit.	**%**	**%Unconfined[9]**
Abandoned materials	2%	12%
Too close to combustibles	2%	12%
Misuse of material or prod.	1%	7%
Equipment unattended	1%	7%
Elec. failure or malfunction	1%	4%

Equipment[10]	**%**
Cooking equipment	66%
None	15%
Boiler, furnace, cent. heat unit	10%
Chimney or flue	5%
Clothes dryer	0.4%

Cause of Ignition	**%**	**%Unconfined[11]**
Unintentional	13%	66%
Failure of eq. or heat source	2%	12%
Intentional	1%	3%
Act of nature	0.5%	2%
Undetermined	2%	9%
Cause under investigation	1%	7%

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

Alerted occupants	69%
Didn't alert occupants	14%
Undetermined	17%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	411	342	36	33
February	393	292	40	61
March	493	327	50	116
April	588	287	34	267
May	585	299	49	237
June	423	238	51	134
July	560	220	53	287
August	554	201	59	294
September	451	261	38	152
October	415	300	28	87
November	432	287	33	112
December	455	351	35	69

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	905	533	67	305
Monday	786	469	70	247
Tuesday	744	461	69	214
Wednesday	833	504	86	243
Thursday	757	433	75	249
Friday	803	477	80	246
Saturday	932	528	59	345

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	344	193	38	113
04:01 - 08:00	380	219	38	123
08:01 - 12:00	933	554	94	285
12:01 - 16:00	1,474	774	138	562
16:01 - 20:00	1,657	1,051	118	488
20:01 - 00:00	972	614	80	278

Motor Vehicle Fires

Total: 506
Automobiles: 413 (82%)
12, or (3%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 161 **Dollar loss: $434,805**

0.11 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	44	1%	27%	$314,215
Vehicle Arsons	13	3%	8%	114,490
Other Arsons	104	6%	65%	6,100

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

1 Civilian Death

Peak Times of Day for:

Structure Arsons	#	%
20:01 - 00:00	12	27%
16:01 - 20:00	9	20%
08:01 - 12:00	8	18%
12:01 - 16:00	8	18%

Vehicle Arsons	#	%
00:01 - 04:00	5	38%
20:01 - 00:00	9	31%

Other Arsons	#	%
16:01 - 20:00	32	31%
20:01 - 00:00	23	22%
12:01 - 16:00	19	18%

Peak Fixed Property Uses for Structure Arsons	#	%
1- & 2-Family homes	14	32%
Apartment buildings	5	11%
High/junior high/middle school	4	9%

Acton **Population: 21,924**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	58	43	4	11	0	0	0	0
2010	73	40	1	32	8	0	0	8

Arlington **Population: 42,844**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	72	41	5	26	5	0	0	5
2010	114	43	8	63	2	0	0	2

Ashby **Population: 3,074**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	3	2	1	0	0	0	0	0
2010	8	7	1	0	0	0	0	0

Ashland **Population: 16,593**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	8	0	2	1	1	0	0
2010	22	10	1	11	0	0	0	0

Ayer **Population: 7,427**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	31	22	2	7	0	0	0	0
2010	39	12	6	21	0	0	0	0

Bedford **Population: 13,320**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	33	18	6	9	1	0	1	0
2010	34	10	2	22	2	0	0	2

Belmont **Population: 24,729**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	148	118	4	26	6	0	0	6
2010	157	123	2	32	12	2	0	10

Billerica **Population: 40,243**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	150	71	20	59	1	0	0	1
2010	153	55	14	84	6	3	0	3

Boxborough **Population: 4,996**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	11	1	3	7	0	0	0	0
2010	17	2	8	7	1	0	0	1

Burlington **Population: 24,498**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	68	34	8	26	5	1	0	4
2010	93	36	12	45	4	0	0	4

Cambridge **Population: 105,162**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	874	775	17	82	4	0	0	4
2010	901	782	16	103	7	2	1	4

Carlisle **Population: 4,852**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	0	0	1	0	0	0	0
2010	3	1	1	1	0	0	0	0

Chelmsford **Population: 33,802**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	36	13	16	7	2	0	1	1
2010	23	9	7	7	0	0	0	0

Concord **Population: 17,668**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	38	14	4	20	3	1	1	1
2010	52	24	8	20	2	0	0	2

Devens **Population: 3,290**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	16	2	1	13	0	0	0	0
2010	11	2	1	8	0	0	0	0

Dracut **Population: 29,457**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	87	45	14	28	11	2	2	7
2010	95	36	7	52	12	1	0	10

Dunstable **Population: 3,179**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	3	3	0	0	0	0	0	0
2010	24	5	2	17	1	0	0	1

Everett **Population: 41,667**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	152	90	27	35	12	7	3	2
2010	173	91	20	62	8	4	0	4

Framingham **Population: 68,318**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	385	313	19	53	4	2	2	0
2010	440	326	29	85	0	0	0	0

Groton **Population: 10,646**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	6	4	0	1	1	0	0
2010	32	6	3	23	1	0	0	1

Holliston **Population: 13,547**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	7	7	0	0	0	0	0	0
2010	4	3	1	0	0	0	0	0

Hopkinton **Population: 14,925**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	50	23	11	16	0	0	0	0
2010	60	29	7	24	1	0	0	1

Hudson **Population: 19,063**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	59	24	7	28	5	1	1	3
2010	60	22	5	33	0	0	0	0

Lexington **Population: 31,394**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	47	28	8	11	2	0	1	1
2010	73	39	12	22	1	0	0	1

Lincoln **Population: 6,362**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	35	23	3	9	1	0	0	1
2010	44	28	4	12	0	0	0	0

Littleton **Population: 8,924**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	48	32	6	10	0	0	0	0
2010	48	23	7	18	1	0	0	1

Lowell **Population: 106,519**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	506	324	45	137	24	8	6	10
2010	662	392	45	225	20	7	8	5

Malden **Population: 59,450**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	355	267	25	63	9	0	4	5
2010	344	248	14	82	7	1	0	6

Marlborough **Population: 38,499**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	120	52	18	50	2	1	1	0
2010	133	54	14	65	9	2	1	6

Maynard **Population: 10,106**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	3	1	2	0	0	0	0	0
2010	9	5	1	3	0	0	0	0

Medford **Population: 56,173**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	367	217	34	116	18	1	1	16
2010	288	148	30	110	4	1	1	2

Melrose **Population: 26,983**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	25	13	7	5	0	0	0	0
2010	25	23	1	1	0	0	0	0

Natick **Population: 33,006**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	94	58	8	28	4	1	0	3
2010	131	61	17	53	3	2	0	1

Newton **Population: 85,146**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	111	66	16	29	5	1	0	4
2010	145	74	22	49	3	0	1	2

North Reading **Population: 14,892**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	49	26	2	21	4	0	0	4
2010	50	23	4	23	0	0	0	0

Pepperell **Population: 11,497**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	38	21	2	15	0	0	0	0
2010	37	19	1	17	0	0	0	0

Reading **Population: 24,747**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	71	32	9	30	6	0	0	6
2010	89	49	5	35	5	0	0	5

Sherborn **Population: 4,119**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	26	10	3	13	5	1	1	3
2010	21	7	3	11	4	0	0	4

Shirley **Population: 7,211**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	23	23	0	0	1	1	0	0
2010	7	6	1	0	0	0	0	0

Somerville **Population: 75,754**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	49	32	16	1	2	2	0	0
2010	43	29	13	1	1	1	0	0

Stoneham **Population: 21,437**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	87	72	6	9	1	1	0	0
2010	78	58	14	6	1	1	0	0

Stow **Population: 6,590**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	18	5	3	10	2	0	0	2
2010	26	13	2	11	2	0	0	0

Sudbury **Population: 17,659**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	32	13	4	15	1	0	1	0
2010	61	21	3	37	0	0	0	0

Tewksbury **Population: 28,961**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	92	44	15	33	2	1	0	1
2010	105	41	11	53	7	5	0	2

Townsend **Population: 8,926**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	8	6	2	0	0	0	0	0
2010	3	2	1	0	1	1	0	0

Tyngsborough **Population: 11,292**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	19	7	4	8	0	0	0	0
2010	43	7	12	24	0	0	0	0

Wakefield **Population: 24,932**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	54	38	13	3	1	0	1	0
2010	59	52	6	1	1	1	0	0

Waltham **Population: 60,632**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	148	74	13	61	6	1	0	5
2010	185	76	26	83	6	3	0	3

Watertown **Population: 31,915**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	50	24	7	19	0	0	0	0
2010	63	34	5	24	3	2	0	1

Wayland **Population: 12,994**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	25	15	3	7	0	0	0	0
2010	47	26	5	16	1	1	0	0

Westford **Population: 21,951**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	68	22	8	38	1	0	0	1
2010	74	24	12	38	7	2	0	5

Weston **Population: 11,261**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	56	32	10	14	2	0	0	2
2010	39	22	8	9	1	1	0	0

Wilmington **Population: 22,325**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	92	51	14	27	4	2	1	1
2010	118	58	20	40	4	1	0	3

Winchester **Population: 21,374**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	64	42	7	15	3	2	0	13
2010	53	23	7	23	2	0	0	2

Woburn **Population: 38,120**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	70	42	17	11	0	0	0	0
2010	71	47	18	6	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
17002	Acton	4,347	73	4	1,501	194	377	109	331	12	1,746
17010	Arlington	4,860	123	5	2,810	357	546	240	708	46	25
17012	Ashby	22	12	0	0	0	9	0	0	1	0
17014	Ashland	28	23	0	0	2	2	1	0	0	0
17019	Ayer	715	45	0	127	91	294	32	121	2	3
17023	Bedford	2,858	51	3	1,273	148	422	94	365	4	498
17026	Belmont	3,396	163	2	1,749	197	449	267	456	111	2
17031	Billerica	3,313	169	9	1,964	273	406	79	366	21	26
17037	Boxborough	504	17	1	185	35	112	23	119	3	9
17048	Burlington	3,800	93	1	2,203	167	652	172	510	0	2
17049	Cambridge	13,426	905	10	6,272	896	721	1,654	2,958	2	8
17051	Carlisle	3	3	0	0	0	0	0	0	0	0
17056	Chelmsford	23	23	0	0	0	0	0	0	0	0
17067	Concord	3,192	56	1	1,510	210	631	163	601	5	15
17919	Devens	772	17	2	217	74	314	10	136	0	2
17079	Dracut	2,999	103	5	1,796	145	391	62	487	5	5
17081	Dunstable	279	26	1	117	12	71	20	31	1	0
17093	Everett	5,158	187	1	3,134	194	371	356	909	2	4
17100	Framingham	9,649	442	3	6,083	301	1,013	483	1,319	3	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
17115	Groton	487	36	10	88	80	120	10	139	3	1
17139	Hopkinton	1,802	76	6	1,063	156	146	107	223	6	19
17141	Hudson	3,431	67	4	1,533	393	508	110	474	6	336
17155	Lexington	100	73	0	0	22	0	0	5	0	0
17157	Lincoln	1,217	66	10	495	64	186	116	268	9	3
17158	Littleton	1,443	61	1	861	112	165	75	153	2	13
17160	Lowell	13,214	674	13	6,975	690	1,465	979	2,290	7	121
17165	Malden	8,317	344	3	5,614	263	671	297	1,099	2	24
17170	Marlborough	6,014	141	8	3,263	353	489	441	1,245	4	70
17174	Maynard	11	9	0	0	2	0	0	0	0	0
17176	Medford	9,016	300	10	5,011	924	1,051	386	1,245	23	66
17178	Melrose	31	30	0	0	1	0	0	0	0	0
17198	Natick	4,640	137	5	2,746	337	608	213	556	16	22
17207	Newton	8,603	147	8	3,887	677	1,418	513	1,945	6	2
17213	North Reading	2,039	63	1	1,057	111	389	145	252	6	15
17232	Pepperell	427	37	0	28	81	146	37	96	2	0
17246	Reading	2,676	125	0	1,545	134	175	0	194	0	503
17269	Sherborn	330	22	1	27	39	142	17	78	1	3
17270	Shirley	7	7	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	54	54	0	0	0	0	0	0	0	0
17284	Stoneham	2,813	78	0	1,719	405	168	156	285	0	2
17286	Stow	860	34	1	503	37	134	23	122	0	6
17288	Sudbury	2,333	65	5	1,204	130	323	142	313	105	46
17295	Tewksbury	3,731	105	7	2,288	131	669	108	390	19	14
17299	Townsend	3	3	0	0	0	0	0	0	0	0
17301	Tyngsborough	1,206	44	0	520	135	218	89	200	0	0
17305	Wakefield	138	59	0	0	7	0	0	72	0	0
17308	Waltham	8,505	188	7	4,072	695	1,500	501	1,476	14	52
17314	Watertown	4,457	63	3	2,645	262	637	125	678	27	17
17315	Wayland	3,283	52	3	1,160	265	553	136	179	3	932
17330	Westford	2,396	91	0	1,393	98	321	49	435	2	7
17333	Weston	2,442	50	3	1,128	199	501	76	465	20	0
17342	Wilmington	2,827	119	0	1,801	139	139	245	293	82	9
17344	Winchester	2,110	60	0	1,049	342	214	116	323	2	4
17347	Woburn	128	71	1	9	16	5	3	22	0	1
	Middlesex County	**160,439**	**6,086**	**158**	**84,625**	**10,596**	**19,842**	**8,980**	**24,932**	**585**	**4,635**

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 2010

901 Total Fires — 782 Structures, 16 Vehicles & 103 Other Fires
The Cambridge Fire Department reported 901 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 782 structure fires, 16 motor vehicle fires, 59 outside rubbish fires, 32 brush fires, 11 special outside fires, and one unclassified fire caused seven civilian injuries, 11 fire service injuries and an estimated dollar loss of $1 million. There were no fire deaths in Cambridge in 2010.

Structure Fires Increased in 2010
Total fires increased by 27, or 3%, from 901 incidents reported in 2009. Reported structure fires increased by seven, or 1%, from the 775 reported during the previous year. Motor vehicle fires decreased one, or 6%, from 17 the year before. Outside and other fires increased by 21 from the 82 reported the year before; this is a decrease of 26%.

CAMBRIDGE FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	874	775	17	82	4	0	0	4
2010	901	782	16	103	7	2	1	4

BUILDING FIRES

There were 782 building fires of different types in Cambridge in 2010. These 782 building fires accounted for all structure fires in Cambridge.

82% of Building Fires in Homes
The 782 building fires that occurred in Cambridge in 2010 can be broken down by fixed property use as follows: 641, or 82% of all structure fires, were in residential properties; 33 occurred in public assembly properties; 32 fires occurred in mercantile or business properties; 31 fires happened in educational facilities; 23 occurred in special properties; 16 fires took place in institutional properties; four occurred in industrial, utility, defense, agricultural or mining facilities; one occurred in a storage facility; and one fire happened at a manufacturing facility.

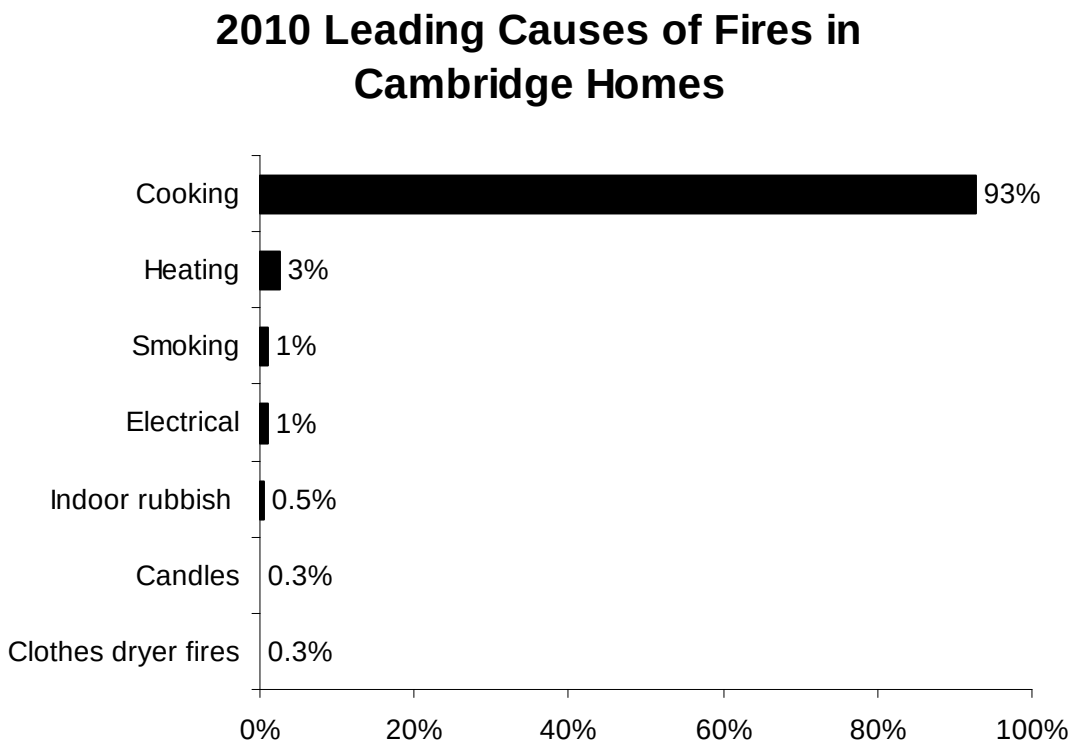
RESIDENTIAL FIRES

Residential Building Fires Are Up
There were 641 reported residential building fires in Cambridge in 2010. These 641 fires are an increase of five, or 1%, from the 636 residential building fires reported in 2009.

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; 20% occurred in dormitories; 12% occurred in 1- or 2-family homes; 2% happened in rooming houses; another 2% occurred in hotels or motels; less than 1% happened in residential board and care facilities; and 8% occurred in unclassified residences.

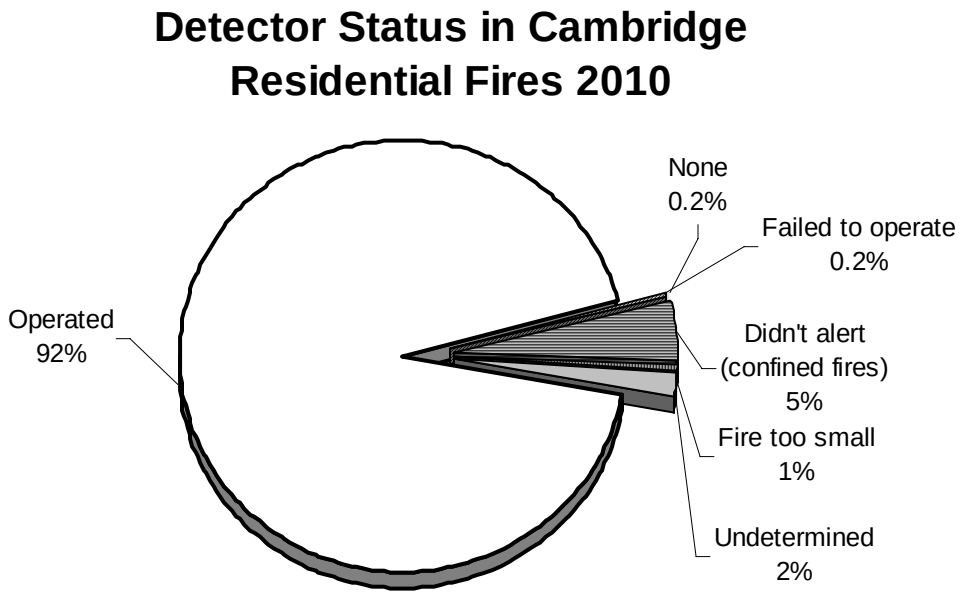
Cambridge is home to several colleges and universities, Massachusetts Institute of Technology and Harvard University among them. This is the main reason dormitory fires make up such a high percentage of Cambridge's residential fires.

Unattended Cooking Caused 93% of Residential Fires
The leading cause of residential building fires in Cambridge was unattended cooking and other unsafe cooking practices, accounting for 93% of these fires. Heating equipment caused 3% of the residential fires in Cambridge. Smoking and electrical fires each caused 1% of these fires. Indoor rubbish fires, candles and clothes dryers each caused less than 1% of the fires in Cambridge homes in 2010.



95% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Six hundred and eight (608), or 95% of all residential building fires were confined to non-combustible containers in 2010. Five hundred and eighty-nine (589), or 92%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Fifteen (15), or 2%, were fires confined to a fuel burner or boiler malfunction. Three (3), or less than 1%, of these fires were rubbish fires contained to a non-combustible container. One (1) fire, or less than 1%, was confined to a chimney or flue in Cambridge in 2010.

Detectors Alerted Occupants in 92% of Fires
Smoke or heat detectors operated and alerted the occupants in 596, or 92%, of the residential building fires. In 5% 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 1% of the residential fires. Smoke detector performance was undetermined in 10 incidents, or 2% of Cambridge's residential building fires.



1 Failed Detector
It was undetermined 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

No Building Fires Occurred in Vacant Buildings

Cambridge did not report any fires that occurred in buildings that were vacant, under construction or demolition[3].

JUVENILE-SET FIRES

0 Juvenile-set Fires

In 2010, Cambridge did not report any juvenile-set fires.

ARSONS

7 Total Arsons[4] — 4 Other or Outside Arsons

Seven (7), or 1%, of Cambridge's 901 fires were considered intentionally set, or, for purposes of this analysis, arson. The two structure fires, two special outside fires, one motor vehicle fire, one brush fire, and one outside rubbish fire caused an estimated dollar loss of $12,055.

Structure & Motor Vehicle Arsons Rise Slightly

The total number of arsons increased by three from the four arsons that were reported in 2009. Reported structure arsons increased by two from none the year before. Motor vehicle arsons increased by one from none in 2009. Outside and other arsons remained the same with four reported in both 2010 and 2009.

Rescue & EMS Calls Are 48% of All Reported Incidents

In 2010, Cambridge voluntarily reported 13,426 incidents to MFIRS. Of these 13,426 incidents, 12,521, or 93%, were non-fire incidents.

Of these 12,521 non-fire incidents 6,272, or 47% of all the incidents reported in 2010, were reported rescue and emergency medical services (EMS) calls; 2,958, or 22%, were reported false alarm or false calls; 1,654, or 12%, were reported good intent calls; 896, or 7%, were reported hazardous condition calls with no fire; 721, or 5%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 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 two, or 0.01%, were responses to severe weather.

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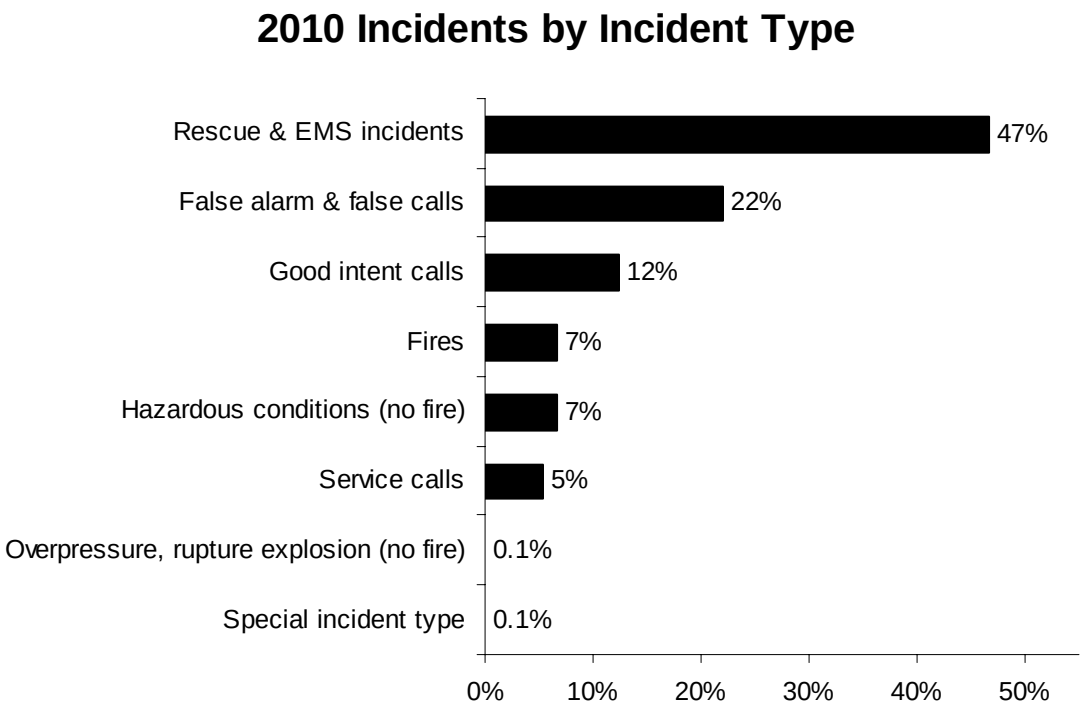
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is 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.

In 2010, Cambridge reported 905 fires[5], accounting for 7% of all reported incidents.



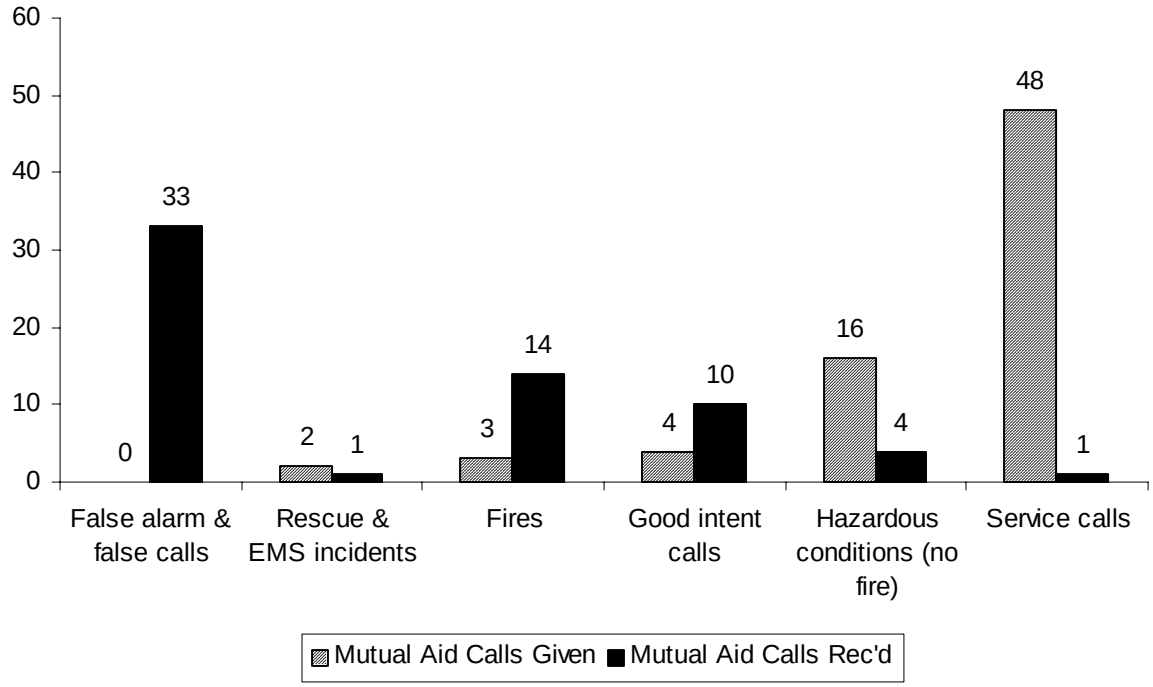
Cambridge Gave Mutual Aid in 73 Reported Incidents
In 2010, Cambridge reported coming to the aid of other fire departments 73 times. Of these 73 incidents, 48, or 66%, were for cover assignments (service calls); 16, or 22%, were for hazardous conditions calls with no fire; four, or 5%, were for good intent calls; three, or 4%, were for fires; and two, or 3% were for rescue or EMS calls.

Cambridge Received Mutual Aid in 63 Incidents
In 2010, surrounding fire departments gave aid to Cambridge in 63 incidents. Of these 63 incidents, 33, or 52%, were false alarms or false calls; 14, or 22%, were fires; 10, or 16%, were good intent calls; four, or 6%, were hazardous conditions calls with no fire; one, or 2% was a rescue or EMS call; and one, or 2%, was for a service call.

The following chart compares the number of calls that the Cambridge Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Cambridge. In 2010 Cambridge was asked to send an apparatus outside of Cambridge 1.2 times more than they asked neighboring fire departments for help.

[5] These fire calls include mutual aid call outside of Cambridge's jurisdiction.

Cambridge's Mutual Aid Calls in 2010



Cambridge Population: 105,162

8.6 Fires/1,000 Population

Total Fires:	**901**		**$1,042,606**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	782	87%	$996,831
Vehicle Fires	16	2%	44,300
Other Fires	103	11%	1,475

7 Civilian Injuries 11 Fire Service Injuries

Building Fires: 782

Residential Structure Fires: 641

Residential Structure Fires Confined to Non-Combustible Containers: 608

Unconfined Residential Structure Fires: 33

2 Civilian Injuries 11 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	359	56%
Dormitories	125	20%
1- & 2-Family homes	80	12%
Rooming houses	13	2%
Hotels, motels	11	2%
Residential board & care	2	0.3%

Detector Status	**Fires**	**%**
Operated	596	92%
Didn't operate	1	0.2%
None	1	0.2%
Fire too small	4	1%
Didn’t Alert (confined)	29	5%
Undetermined	10	2%

Area of Origin[6]	**%**
Kitchen	93%
Heating room or area	1%
Bedroom	1%
Laundry room	1%

Heat Source	**%**	**%Unconfined**[7]
Rad., conduct./heat-op. eq.	1%	21%
Cigarette	1%	18%
Arcing	1%	12%
Heat from operating. eq.	1%	12%

[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	93%
Flammable or combustible liq.	2%
Rubbish, trash, waste	1%
Structural member, framing	1%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Misuse of material or prod.	0.5%	8%
Abandoned materials	0.5%	8%
Too close to combustibles	0.5%	8%

Equipment[10]	**%**
Cooking equipment	92%
None	3%
Boiler, furnace, cent. heat unit	2%
Clothes dryer	0.3%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	4%	76%
Failure of eq./heat source	0.5%	9%
Intentional	0%	0%
Act of nature	0%	0%
Undetermined	0%	0%
Cause under investigation	1%	15%

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

Alerted Occupants	94%
Didn't Alert Occupants	5%
Undetermined	1%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	6,272	47%
False alarms & false calls	2,958	22%
Good intent calls	1,654	12%
Fires	905[12]	7%
Hazardous conditions (no fire)	896	7%
Service calls	721	5%
Overpressure rupture, explosion or overheat calls (no fire)	10	0.1%
Special incident type	8	0.1%
Severe weather & natural disaster	2	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] This includes the mutual aid fire calls outside of Cambridge's city limits.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	83	82	0	1
February	79	74	2	3
March	93	85	2	6
April	76	68	1	7
May	89	63	2	24
June	52	38	2	12
July	56	41	1	14
August	59	44	2	13
September	72	65	2	5
October	72	68	0	4
November	82	73	2	7
December	88	81	0	7

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	122	114	1	7
Monday	118	110	2	16
Tuesday	109	96	3	10
Wednesday	135	118	2	15
Thursday	141	124	2	15
Friday	138	112	4	22
Saturday	138	118	2	18

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	50	41	2	7
04:01 - 08:00	48	45	0	3
08:01 - 12:00	112	98	5	9
12:01 - 16:00	212	174	4	34
16:01 - 20:00	285	254	4	27
20:01 - 24:00	194	170	1	23

Motor Vehicle Fires

Total: 16
Automobiles: 14 (88%)
1 (7%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 7 **Dollar loss: $12,055**

0.07 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	2	0.3%	23%	$1,555
Motor Vehicle Arsons	1	6%	14%	10,000
Other Arsons	4	4%	57%	5000

No Injuries

0.02 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.04 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
08:01 - 12:00	1	50%
12:01 - 16:00	1	50%

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

Other Arsons	#	%
16:01 - 20:00	2	50%
20:01 - 00:00	2	50%

Lowell Fires in 2010

662 Total Fires — 392 Structures, 45 Vehicles & 225 Other Fires
The Lowell Fire Department reported 662 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 392 structure fires, 45 motor vehicle fires, 115 outside rubbish fires, 97 brush fires, six special outside fires; and seven unclassified fires caused three civilian deaths, one civilian injury, three firefighter injuries and an estimated dollar loss of $2.2 million.

3 Lowell Residents Killed in 2 Fatal Fires

- On October 10, 2010, at 4:00 a.m., the Lowell Fire Department was called to a fatal electrical fire in a 12-unit apartment building. The fire started by arcing in a fourth floor bedroom. The victims, a 23-year old man and 47-year man were unable to act because they were both overcome by the heat and smoke of the fire as they slept. There were no other injuries associated with this fire. Smoke detectors were present and alerted the other occupants of the building. The building was not sprinklered. Damages from this fire were estimated to be $571,100.

- On October 22, 2010, at 12:46 a.m., the Lowell Fire Department was called to a fatal fire in a lean-to of undetermined cause. The body of the victim, a 42-year old homeless man was discovered by firefighters while overhauling the scene. There were no other injuries associated with this fire. There was no estimate of damages from this fire.

Structure & Outside Fires Up in 2010
Total fires increased by 156 from the 506 incidents reported in 2009. Reported structure fires increased by 68 from the 324 reported during the previous year. Motor vehicle fires remained the same with 45 reported in both 2009 and 2010. Outside and other fires increased by 88 from the 137 reported in 2009.

LOWELL FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	506	324	45	137	24	8	6	10
2010	662	392	45	225	20	7	8	5

BUILDING FIRES

There were 387 building fires of different types in Lowell in 2010. These 387 building fires accounted for 98.7% of all structure fires in Lowell.

86% of Building Fires in Homes

The 387 building fires that occurred in Lowell in 2010 can be broken down by fixed property use as follows: 331, or 86% of all building fires, were in residential properties; 19 fires occurred in public assembly properties; 11 fires occurred in special properties; 10 happened in mercantile or business properties; four fires occurred in educational facilities; and another four fires happened in storage facilities; three fires occurred in institutional facilities; three fires happened at industrial facilities; and two fires occurred in manufacturing or processing facilities.

RESIDENTIAL FIRES

Residential Building Fires Were Up

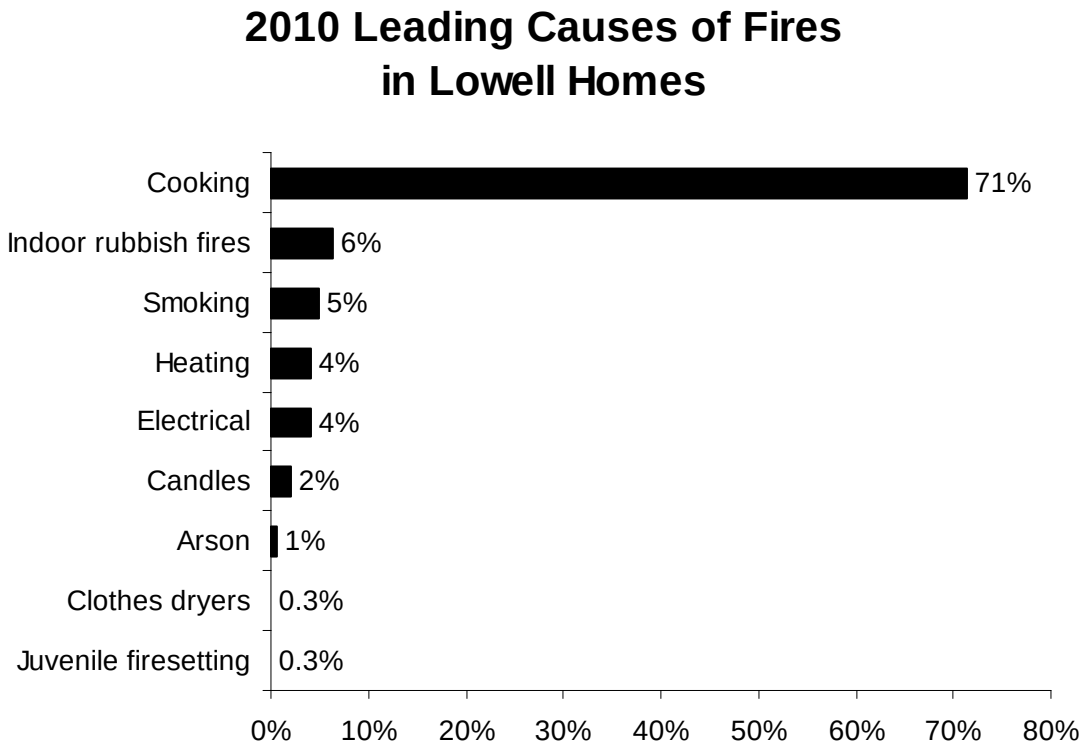
There were 331 reported residential building fires in Lowell in 2010, a decrease of 55 from the 276 reported residential building fires reported in 2009.

Apartments Accounted for Almost 3/4 of Residential Building Fires

Apartments, accounting for 73% of the building fires in Lowell where the peak fixed property use for residential building fires in 2010. Twenty-two percent (22%) of residential fires occurred in 1- or 2-family homes; 3% happened in rooming houses; 1% occurred in dormitories; and another 1% happened in residential board and care facilities.

Unattended Cooking Leading Cause of Residential Fires

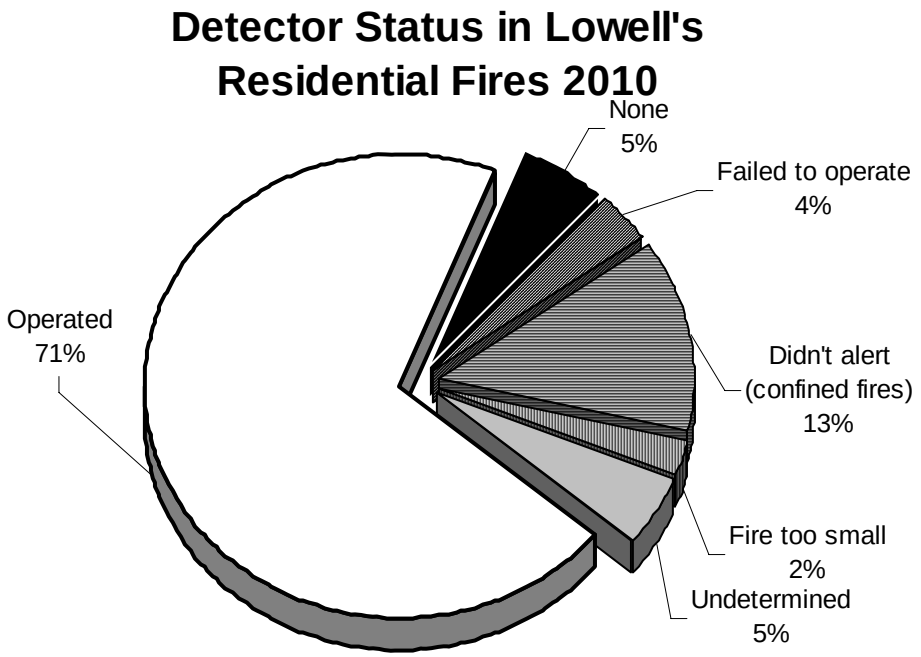
The leading cause of residential building fires in Lowell was unattended cooking and other unsafe cooking practices, nearly three-quarters, or 71%, of these fires. Indoor rubbish fires caused 6% of these fires. Smoking caused 5% while electrical problems and



heating fires were each the cause of 4% of Lowell's residential fires. Candles caused 2% and arson caused 1% of these fires. Clothes dryers and juvenile-set fires were each the cause of less than 1% of the fires in Lowell's residential occupancies in 2010.

77% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Two hundred and fifty-four (254), or 77% of all residential building fires were confined to non-combustible containers in 2010. Two hundred and twenty-four (224), or 68%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Nineteen (19), or 6%, of these fires were rubbish fires contained to a non-combustible container. Eight (8), or 2%, were fires confined to a fuel burner or boiler malfunction. Two (2) fires, or 1%, were reported to have been contained to a chimney or flue, and one fire, or less than 1% was confined to a commercial compactor.

Detectors Worked in 71% of Fires
Smoke or heat detectors operated and alerted the occupants in 232, or 71%, of the residential building fires. In 13% 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 2% of these fires. Smoke detector performance was undetermined in 17 incidents, or 5% of Lowell'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.

1/4 of Failed Detectors Had Missing or Disconnected Batteries

Of the 12 fires where smoke detectors were present but failed to operate, three, or 25%, failed because the batteries were either missing or disconnected. A power failure, shutoff or disconnect caused two, or 17%, of the detectors to fail. A dead battery was also responsible for one, or 8%, of the smoke detectors that failed to operate. It was undetermined in the other six cases why the detectors failed to operate.

VACANT BUILDINGS

5 Building Fires in Vacant Buildings

Lowell reported five fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 1% of the total 387 building fires reported to MFIRS in 2010. Two (2) one- or two-family homes, two apartment buildings, and one outbuilding were reported as vacant building fire incidents.

JUVENILE-SET FIRES

4 Juvenile-set Fires

There were four juvenile-set fires in Lowell in 2010. There were one structure fire, two brush fires and one outside rubbish fire.

ARSONS

20 Arsons[4] - 7 Structure, 8 Motor Vehicle and 5 Outside & Other

Twenty (20), or 3%, of Lowell's 662 fires were considered intentionally set, or, for purposes of this analysis, arson. There were seven structure arsons, eight motor vehicle arsons and five outside and other arsons.

Motor Vehicle Arsons Up Slightly in 2010

The total number of arsons decreased by four from the 24 total arsons reported in 2009. Reported structure arsons decreased by one from the eight reported in 2010. Motor vehicle arsons increased by two from the six reported in 2009. Outside and other arsons decreased by five from 10 reported the year before.

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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.

[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.

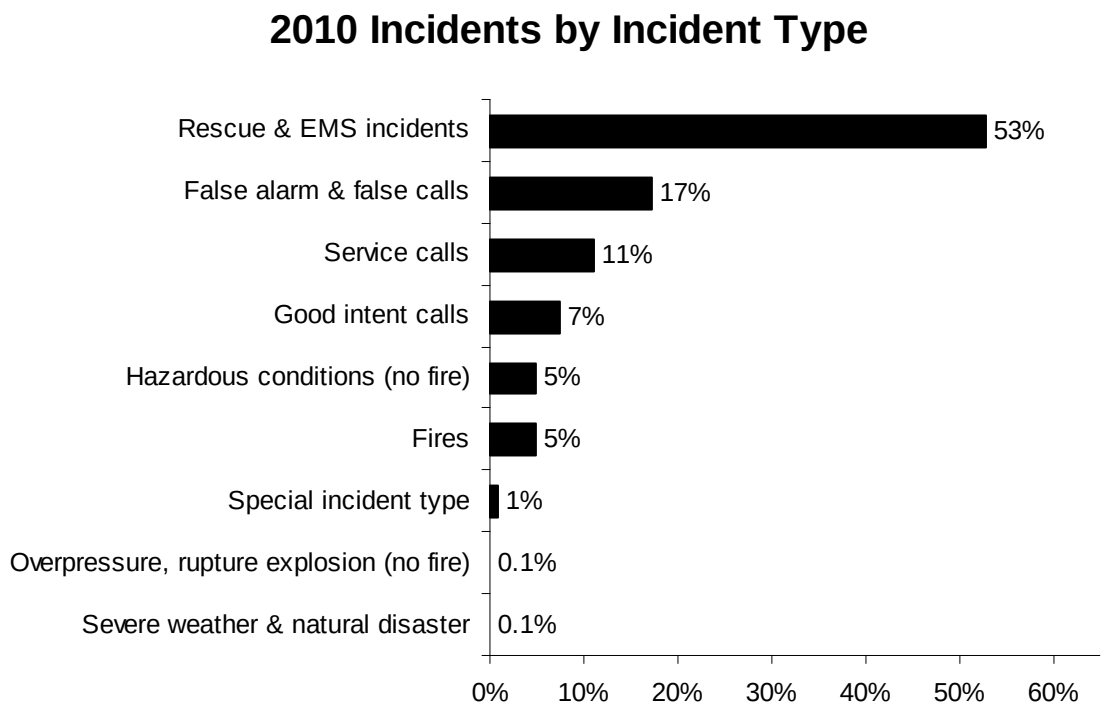
27 Fires Reported as Undetermined
In 2010, Lowell reported 27 fires with an undetermined cause after investigation. Eight (8), or 30%, of these 27 fires were structure fires. Nine (9), or 33% were motor vehicle fires; and ten, or 37%, were outside or other fires.

ALL INCIDENTS

Rescue & EMS Calls Are Over 1/2 of All Reported Incidents
In 2010, Lowell voluntarily reported 13,214 incidents to MFIRS. Of these 13,214 incidents, 12,540, or 95% were non-fire incidents.

Of these 12,540 non-fire incidents 6,975, or 53% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 2,290, or 17%, were reported false alarm or false calls; 1,465, or 11%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 979, or 7%, were reported good intent calls; 595, or 5%, were reported hazardous condition calls with no fire; 121, or 1%, were special incident types; 13, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and seven or 0.1%, were severe weather calls.

In 2010, Lowell reported 674 fires[5], accounting for 5% of all reported incidents.

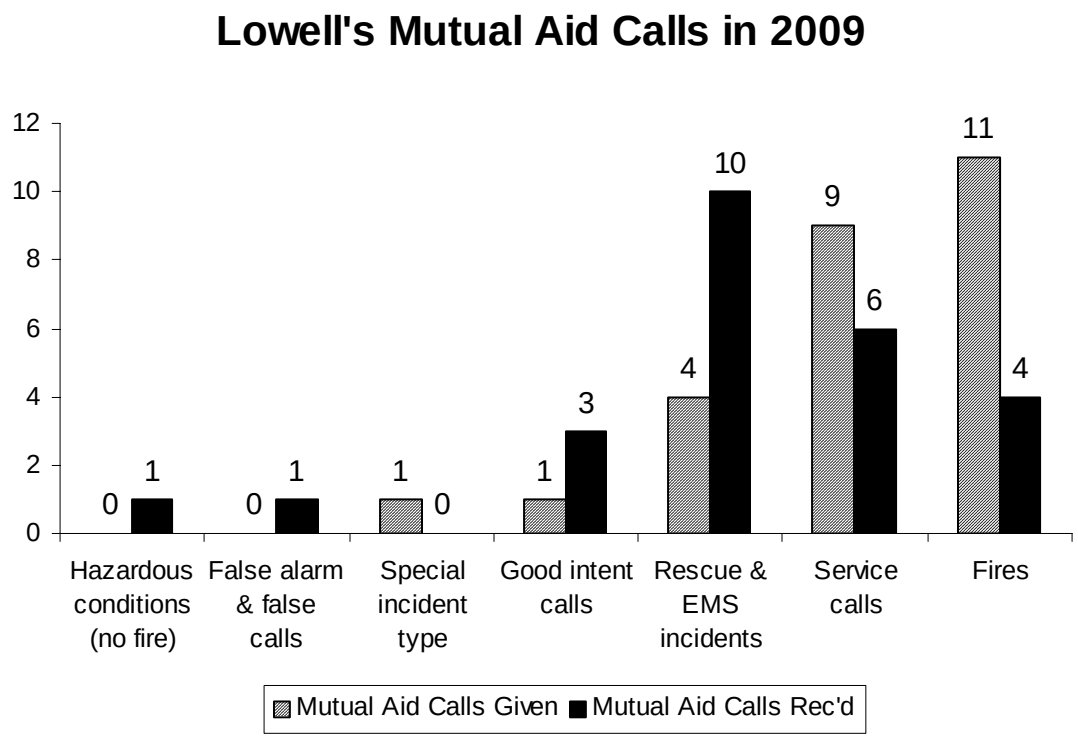


[5] This includes the fires that Lowell responded to as mutual aid calls outside of their jurisdiction.

Lowell Gave Mutual Aid in 26 Reported Incidents
In 2010, Lowell reported coming to the aid of other fire departments 26 times. Of these 26 incidents, 11, or 42%, were for fires; nine, or 35%, were for cover assignments or other service calls; four, or 15%, were for rescue or EMS calls, one, or 4% was a good intent call, and one, or 4%, was a special incident type.

Lowell Received Mutual Aid in 25 Incidents
In 2010, surrounding fire departments gave aid to Lowell during 25 incidents. Of these 25 incidents, 10, or 40%, were rescue or EMS calls, six, or 24%, were service calls; four, or 16%, were for fires; three, or 12%, were good intent calls; one, or 4%, were false alarms or false calls; and another call, or 4% was a hazardous condition call with no 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 2010 Lowell received aid as much as they gave it.



Lowell Population: 106,519

6.2 Fires/1,000 Population

Total Fires:	**662**		**$2,226,205**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	392	59%	$2,013,595
Vehicle Fires	45	7%	102,086
Other Fires	225	34%	110,524

3 Civilian Deaths	4.53 Civilian Deaths/1,000 Fires
2 Fatal Fires	0.28 Civilian Deaths/10,000 Population
1 Civilian Injury	3 Fire Service Injuries

Building Fires: 387

Residential Structure Fires: 331

Residential Structure Fires Confined to Non-Combustible Containers: 254

Unconfined Residential Structure Fires: 77

2 Civilian Deaths 1 Civilian Injury 3 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	243	73%
1- & 2-Family homes	73	22%
Boarding houses	9	3%
Dormitories	4	1%
Residential board & care	2	1%

Detector Status	**Fires**	**%**
Operated	232	71%
Didn't operate	12	4%
None	18	5%
Fire too small	8	2%
Didn’t Alert (confined)	44	13%
Undetermined	17	5%

Area of Origin[6]	**%**
Kitchen	74%
Bedroom	3%
Heating room or area	2%
Exterior stairway	2%
Wall surface, exterior	2%
Living room	2%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat from op. eq.	5%	19%
Heat from operating equip.	3%	14%
Cigarette	3%	13%
Arcing	3%	12%
Candles	2%	9%
Hot ember or ash	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	70%
Rubbish, trash, waste	8%
Structural component, other	3%
Flammable or combustible liq.	2%
Exterior sidewall covering	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[9]
Abandoned materials	4%	17%
Too close to combustibles	4%	17%
Equipment unattended	2%	10%
Electrical fail./malf., other	2%	10%
Misuse of materials or prod.	1%	5%

Equipment[10]	**%**
Cooking equipment	71%
None	14%
Boiler, furnace, cent. heat. unit	2%
Electrical power, other	1%
Stove, heating	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	18%	78%
Intentional	1%	3%
Failure of eq./heat source	2%	10%
Cause Under Investigation	0%	0%
Undetermined	2%	9%

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

Alerted Occupants	78%
Didn't Alert Occupants	17%
Undetermined	5%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	6,975	53%
False alarms & false calls	2,290	17%
Service calls	1,465	11%
Good intent calls	979	7%
Hazardous conditions (no fire)	690	5%
Fires[12]	674	5%
Special incident type	121	1%
Overpressure rupture, explosion or overheat calls (no fire)	13	0.1%
Severe weather & natural disaster	7	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.

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[12] This figure contains the fires that Lowell gave mutual aid to in another jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	34	28	3	3
February	51	36	5	10
March	58	39	3	16
April	77	37	2	38
May	69	39	1	29
June	51	33	4	14
July	67	33	5	29
August	67	25	10	32
September	55	28	1	26
October	47	33	6	8
November	45	26	1	18
December	41	35	4	2

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	114	62	6	46
Monday	86	44	5	37
Tuesday	97	68	4	25
Wednesday	87	48	11	28
Thursday	69	42	6	21
Friday	87	60	3	24
Saturday	122	68	10	44

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	56	27	10	19
04:01 - 08:00	48	28	7	13
08:01 - 12:00	96	61	5	30
12:01 - 16:00	146	90	5	51
16:01 - 20:00	187	111	10	66
20:01 - 24:00	129	75	8	46

Motor Vehicle Fires

Total: 45
Automobiles: 42 (93%)
8 (19%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 20 **Dollar loss: $215,780**

0.19 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	7	2%	35%	$201,725
Vehicle Arsons	8	18%	40%	13,555
Other Arsons	5	2%	25%	500

0.07 Structure arsons/1,000 population
0.08 Vehicle arsons/1,000 population
0.05 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
16:01 - 20:00	5	71%
00:01 - 04:00	1	14%
20:01 - 00:00	1	14%

Vehicle Arsons	#	%
00:01 - 04:00	4	50%
20:01 - 00:00	2	25%

Other Arsons	#	%
12:01 - 16:00	2	40%
00:01 - 04:00	1	20%
16:01 - 20:00	1	20%
20:01 - 00:00	1	20%

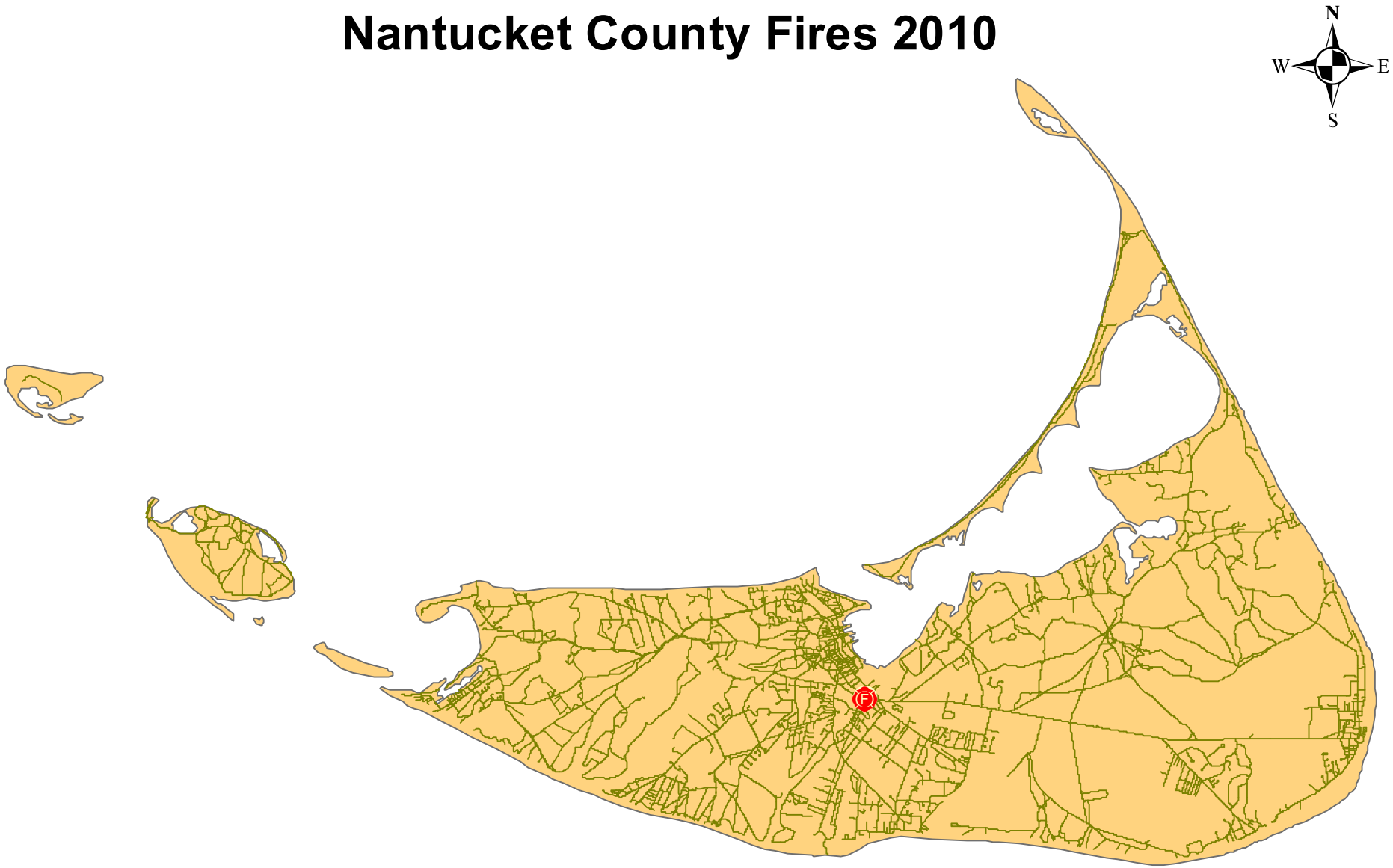
Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	2	29%

Nantucket County
2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Nantucket County Fires 2010



MFIRS
Massachusetts Fire Incident Reporting System

2010 Fires

Fire Stations

46

0 0.5 1 2 3 4 Miles

Massachusetts Fire Incident Reporting System 2010

Nantucket County Fires in 2010

46 Total Fires — 29 Structures, 3 Vehicles & 9 Outside and Other Fires
Nantucket County ranked thirteenth out of the fourteen Massachusetts counties in total reported fires. The Nantucket Fire Department reported 46 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 29 structure fires, three motor vehicle fires, seven brush fires, three outside rubbish fires, one special outside fire and three unclassified fires caused an estimated dollar loss of $5,000. Nantucket County's fires accounted for 0.1% of the 32,680 Massachusetts fires reported in 2010.

All Fires Up
The total number of reported fire incidents increased by seven from the 39 fires reported in 2009. Structure fires increased by two from the 27 reported in 2009. Motor vehicle fires remained the same with three reported in both 2009 and 2010. Reported outside and other fires increased by five from the nine reported in 2009.

Nantucket is an island community with a small year round population. During the summer months, the population increases immensely. Consequently, 43% of Nantucket's fires occurred between the months of May and September.

No Reported Fire Deaths
In 2010, Nantucket did not report any fire-related deaths.

NANTUCKET FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006[1]	113	66	9	38	2	0	2	0
2007	63	24	3	36	0	0	0	0
2008	25	14	5	6	0	0	0	0
2009	39	27	3	9	1	0	0	1
2010	46	29	3	14	1	0	0	1

Fire and Fire Death Rates
Nantucket County had 4.5 fires per 1,000 population. That figure ranks Nantucket County eighth in the state and below the state rate of 5.0 fires per 1,000 population. Nantucket County also had no fire deaths, tying it for twelfth among Massachusetts counties and below the state rate of 0.05 fire deaths per 10,000 population.

[1] 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.

Outside Rubbish Fire Was Nantucket's Largest Loss Fire

- On July 10, 2010, at 10:70 p.m., the Nantucket Fire Department was called to an outside rubbish fire near a single-family home. Witnesses had mentioned that sparklers were being used earlier in the evening, but due to the total destruction of the contents in the rubbish bin, the cause remained undetermined. No one was injured at this fire and damages were estimated to be $5,000.

STRUCTURE FIRES

Reported Structure Fires Up

There were 29 structure fires in Nantucket in 2010. These incidents represented 63% of Nantucket County's reported fires in 2010. No dollar loss was estimated for these 29 fires. The total number of reported structure fires increased by two from the 27 reported in 2009.

No Reported Structure Arsons

Nantucket County did not report any structure arsons in 2010. The last year that Nantucket reported a structure arson was 2003.

BUILDING FIRES

There were 29 building fires of different types in Nantucket County in 2010. These 29 building fires accounted for all of the structure fires in Nantucket County.

79% of Nantucket Building Fires Occurred in People's Homes

Twenty-three (23), or 79%, of Nantucket County's 29 building fires occurred in residential occupancies. Three (3) fires took place in public assembly properties, two fires occurred in storage facilities, and one fire occurred at a business.

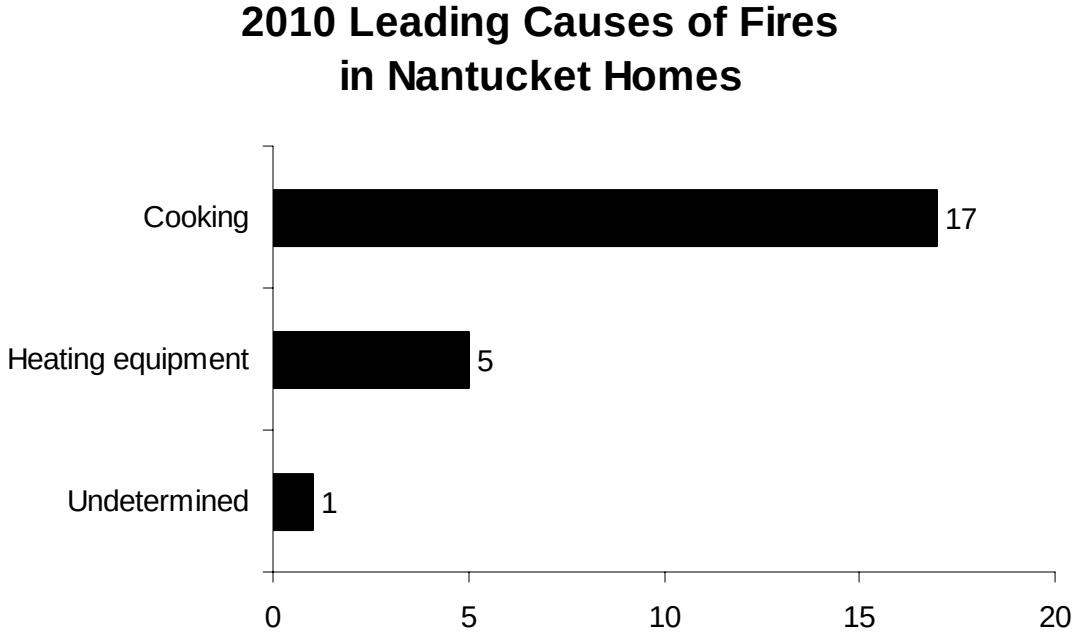
RESIDENTIAL FIRES

Residential Building Fires Down Slightly

There were 23 reported residential building fires in Nantucket County in 2010. These 23 fires are a decrease of one, or 4%, from the 24 residential building fires reported in 2009. Twenty-one (21), or 91%, occurred in one- or two-family homes; one, or 4%, happened in an apartment; and one, or 4%, occurred in a dormitory.

Cooking Fires Cause 17 of 23 Residential Fires

The leading cause of residential building fires in Nantucket County was unattended cooking and other unsafe cooking practices, accounting for 17, or 74%, of these fires. Heating equipment caused five, or 22%, of these fires. It was undetermined what caused one, or 4%, of Nantucket's 2010 residential fires.

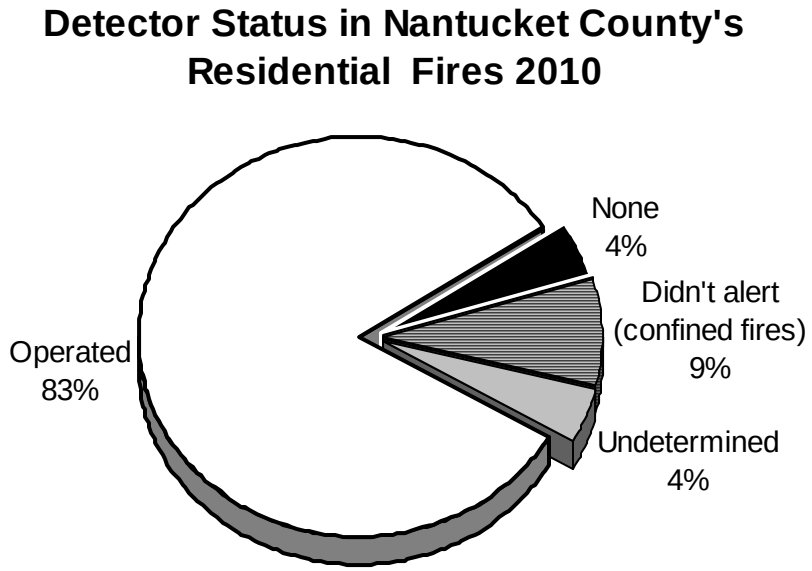


22 Residential Building Fires Are Confined to Non-Combustible Containers[2]
Twenty-two (22), or 96%, of all residential building fires were reported as confined to non-combustible containers in 2010. Seventeen (17) of the reported fires were cooking fires contained to a non-combustible container accounting for 74% of the residential fires. Three (3), or 13%, of Nantucket's residential fires were confined to chimneys or flues; and two, or 9%, were fires confined to a fuel burner or boiler malfunction.

Detectors Alerted Occupants in Over 83% of Fires
Smoke or heat detectors operated and alerted the occupants in 19, or 83%, of the residential building fires. In two, or 9%, of these fires[3] the detectors did not alert the occupants. In 4% of these fires, no detectors were present at all. Detector performance was undetermined in one, or 4%, of Nantucket's residential fires.

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

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



VACANT BUILDING FIRES

1 of Nantucket County Building Fires Occurred in Vacant Buildings
Nantucket County reported one fire that occurred in a building that were vacant, under construction or demolition[4]. This represented 5% of the total 29 building fires reported to MFIRS in 2010. This vacant building fire occurred in a single-family home.

None of the vacant building fires in Nantucket County in 2010 were determined to be intentionally set.

JUVENILE-SET FIRES

No Juvenile-set Fires
Nantucket County did not report any juvenile-set fires in 2010.

[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.

ARSONS

1 Total Arson[5] — 1 Outside Arson

One (1), or 2%, of Nantucket County's 46 fires was considered intentionally set, or, for purposes of this analysis, arson. The one brush arson accounted for all of the county's total arson fires, and none of the county's total dollar losses.

Outside Arson Fires Remain the Same

For the second year in a row Nantucket reported one arson. The total number of arsons remained the same with one reported in both 2009 and 2010. Reported structure and motor vehicle arsons remained the same with none reported in both 2009 and 2010. Outside and other arsons remained the same with one reported in both 2009 and 2010.

ALL INCIDENTS

Rescue & EMS Calls Are 46% of All Reported Incidents

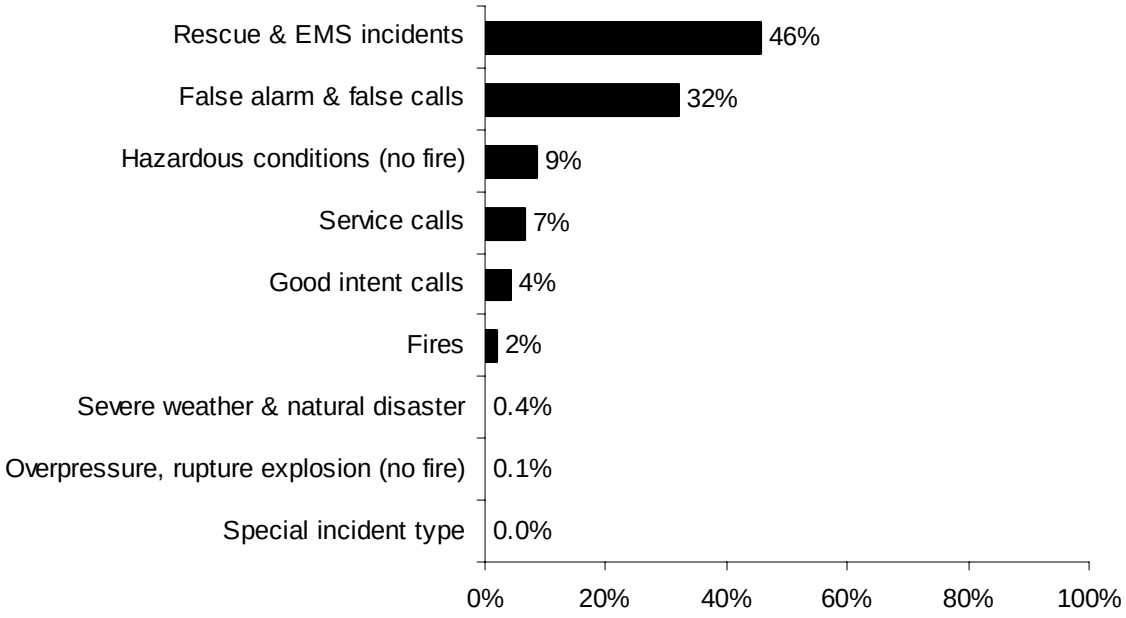
In 2010, Nantucket County reported 2,211 responses to MFIRS. Of these 2,211 incidents, 2,165 non-fire calls were voluntarily reported.

Of these 2,165 non-fire calls 1,013, or 46% of the total responses reported in 2010, were reported rescue and emergency medical services (EMS) calls; 710, or 32%, were reported false alarm or false calls; 191, or 9%, were reported hazardous condition calls with no fire; 147, or 7%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 92, or 4%, were reported good intent calls; nine, or 0.4%, were severe weather calls; two, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.05%, was a special incident type call.

Forty-six (46), or 2%, of the total responses submitted by the Nantucket Fire Department were fires.

[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.

2010 Incidents by Incident Type



Nantucket County Population: 10,172

4.5 Fires/1,000 Population

Total Fires:	**46**		**$5,000**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	29	63%	$0
Vehicle Fires	3	7%	0
Other Fires	14	30%	5,000

No Casualties

Building Fires: 29

Residential Structure Fires: 23

Residential Structure Fires Confined to Non-Combustible Containers: 22

Unconfined Residential Structure Fires: 1

No Casualties

Occupancy	**Fires**	**%**
1- & 2-Family homes	21	91%
Apartments	1	4%
Dormitories	1	4%

Detector Status	**Fires**	**%**
Operated	19	83%
Didn't operate	0	0%
None	1	0%
Fire too small	0	4%
Didn’t alert (confined)	2	9%
Undetermined	1	4%

Area of Origin[6]	**%**
Kitchen	74%
Chimney or flue	13%
Heating room or area	9%
Ceiling & floor assembly	4%

Heat Source	**%**	**%Unconfined**[7]
Heat open flame/smok. Mat.	4%	100%

[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]**
Cooking materials	74%	Equipment unattended	4%	100%
Film, residue (creosote)	13%			
Flammable, combustible liquid	9%			
Structural member, framing	4%			

Equipment[10]	**%**	**Cause of Ignition**	**%**	**%Unconfined[11]**
Cooking equipment	74%	Cause under investigation	4%	100%
Chimney or flue	13%			
Boiler, furnace, cent. heat. unit	9%			
None	4%			

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

Alerted Occupants	86%
Didn't Alert Occupants	9%
Undetermined	5%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	2	2	0	0
February	5	4	0	1
March	1	0	0	1
April	6	3	1	2
May	1	0	0	1
June	4	2	0	2
July	11	6	1	4
August	2	1	0	1
September	2	1	0	1
October	4	4	0	0
November	5	4	0	1
December	3	2	1	0

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	9	7	1	1
Monday	10	5	0	5
Tuesday	5	2	0	3
Wednesday	6	6	0	2
Thursday	7	4	0	3
Friday	6	4	2	0
Saturday	3	1	0	2

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	5	4	0	1
04:01 - 08:00	1	1	0	0
08:01 - 12:00	11	5	3	3
12:01 - 16:00	6	2	0	4
16:01 - 20:00	14	10	0	4
20:01 - 00:00	9	7	0	2

Motor Vehicle Fires

Total: 3
Automobiles: 3 (100%)
0, or (0%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 1 **Dollar loss: $0**

0.10 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	0	0%	0%	$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	1	7%	100%	0

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

No Injuries

Peak Times of Day for:

Other Arsons	#	%
12:01 – 16:00	1	100%

Responses Reported to MFIRS by Month

Incident Type	# of Incidents	January	February	March	April	May	June	July	August	September	October	November	December
Fires	**46**	2	5	1	6	1	4	11	2	2	4	5	3
Overpressure, rupture explosion (no fire)	**2**	0	0	0	0	0	0	0	0	1	1	0	0
Rescue & EMS incidents	**1,013**	77	60	65	36	86	95	196	118	91	69	56	64
Hazardous conditions (no fire)	**191**	8	11	5	14	22	15	25	38	12	19	6	16
Service calls	**147**	7	5	15	11	25	15	23	11	5	11	9	10
Good intent calls	**92**	5	6	4	6	7	4	22	18	8	2	4	6
False alarm & false calls	**710**	29	32	37	46	65	84	123	83	59	41	49	62
Severe weather & natural disaster	**9**	0	0	0	0	0	0	5	1	2	1	0	0
Special incident type	**1**	0	0	0	0	0	1	0	0	0	0	0	0
Total	**2,211**	**128**	**119**	**127**	**119**	**206**	**218**	**405**	**271**	**180**	**148**	**129**	**161**

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

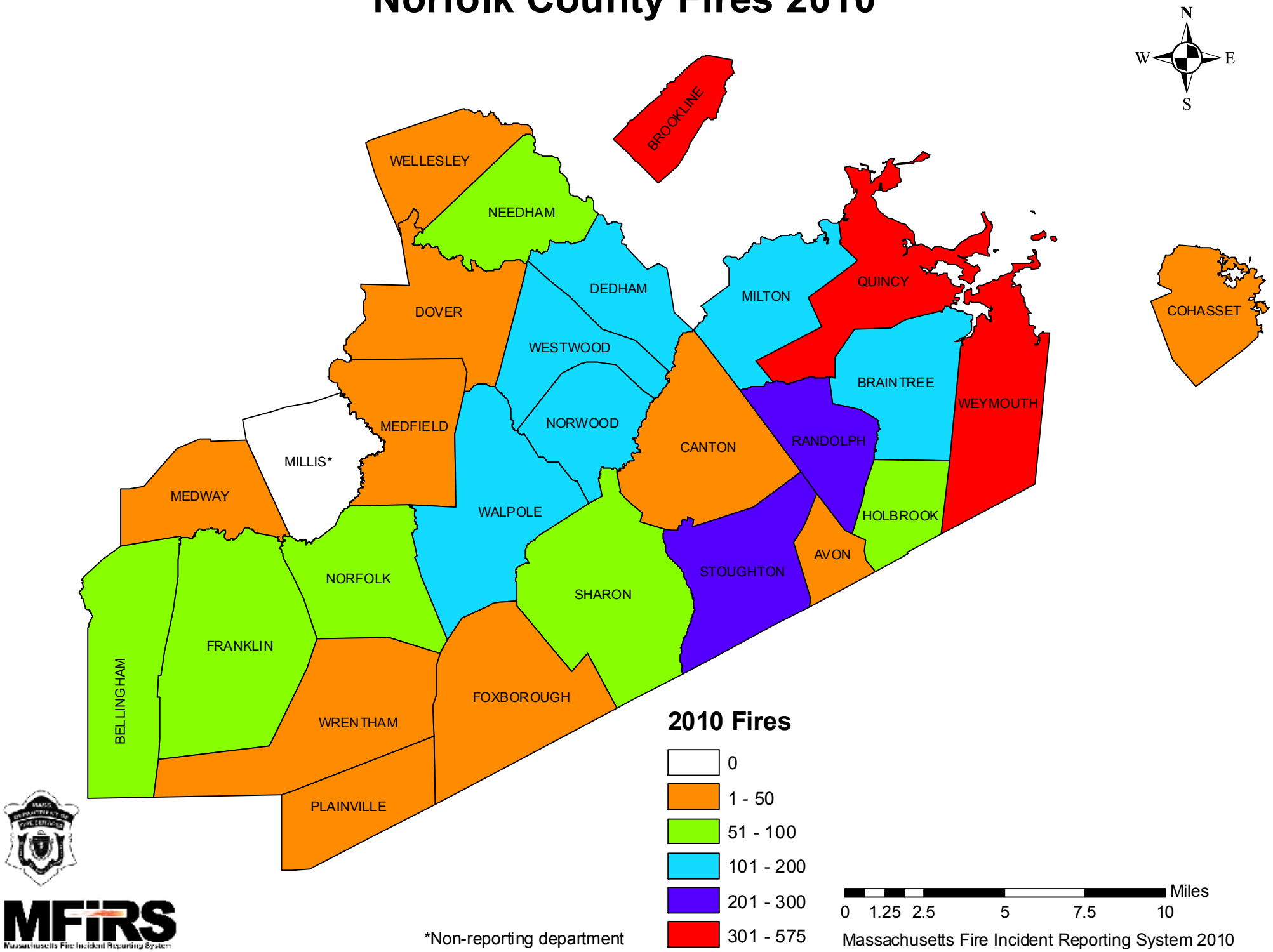
Norfolk County

2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Norfolk County Fires 2010



*Non-reporting department

Massachusetts Fire Incident Reporting System 2010

Norfolk County Fires in 2010

3,420 Total Fires — 2,020 Structures, 284 Vehicles & 1,116 Other Fires
Norfolk County ranked fifth out of the fourteen Massachusetts counties in total reported fires. Norfolk County fire departments reported 3,420 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 2,020 structure fires, 284 motor vehicle fires, 705 brush, tree or lawn fires, 209 outside rubbish fires, 110 special outside fires, eight cultivated vegetation or crop fires, and 84 other fires caused five civilian deaths, 27 civilian injuries, 43 fire service injuries and an estimated dollar loss of $13.9 million. Norfolk County's fires accounted for 10% of the 32,680 Massachusetts fires reported in 2010.

Twenty-seven (27) of the 28 fire departments in Norfolk County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2010.

All Fires Up
The total number of reported fire incidents increased by 634 from the 2,786 reported in 2009. Reported structure fires increased 170 from the 1,850 reported during the previous year. Motor vehicle fires increased by nine from the 275 reported the year before. Reported outside and other fires increased by 455 from the 661 reported a year earlier.

Brush Fires Up by 120%
Brush fires increased by 385, or 120%, from the 320 reported in 2010. This is a major increase and the main reason for the rise in all Norfolk County fires.

NORFOLK COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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	3,068	1,830	290	948	86	17	6	63
2009	2,786	1,850	275	661	59	9	5	45
2010	3,420	2,020	284	1,116	80	14	4	62

Fire and Fire Death Rates
Norfolk County had 5.1 fires per 1,000 population. That figure ranks Norfolk County fourth in the state and slightly higher than the state rate of 5.0 fires per 1,000 population. Norfolk County also had 0.07 fire deaths per 10,000 population ranking it tied for third among Massachusetts counties and above the state rate of 0.05 fire deaths per 10,000 population.

5 Norfolk Fires Kill 5 People

- On February 8, 2010 at 1:02 a.m., the Stoughton Fire Department was called to a fatal motor vehicle accident with ensuing fire. A pick-up truck crashed into a utility pole and the driver was trapped inside. The victim, a 21-year old man, was the only occupant of the truck. Damages from this fire were not estimated.

- On June 6, 2010, at 10:58 p.m., the Medway Fire Department was called to a fatal arson fire in a single-family home. The victim, a 41-year old man, successfully committed self-immolation by igniting combustibles in his bedroom. No one else was injured at this fire. The victim was transported to a local hospital where he later succumbed to his injuries. It was undetermined if smoke detectors were present and no sprinklers were present. Damages from this fire were not estimated.

- On June 12, 2010, at 11:43 a.m., the Wellesley Fire Department was called to a fatal smoking fire in a single-family home. The victim, an 81-year old woman was smoking when she accidentally ignited herself. She went to the bathroom to try and extinguish the flames. Her husband found her and extinguished the fire with a garden hose. No one else was injured at this fire. Smoke detectors were present but it was undetermined if they operated. No sprinklers were present. Damages from this fire were estimated to be $1,000.

- On July 13, 2010, at 10:07 a.m., the Medway Fire Department was called to a fatal clothes dryer fire in a single-family home. The victim, an 80-year old woman was found by the first arriving firefighters on the front lawn with burns over approximately 35% of her body surface area. She was transported to a local hospital where she succumbed to her injuries six days later. No one else was injured at this fire. Smoke detectors were present but it was undetermined if they operated. No sprinklers were present. Damages from this fire were not estimated.

- On July 30, 2010, at 12:32 p.m., the Norfolk Fire Department was called to a fatal propane explosion with ensuing fire in a two-family home. The victim, a 48-year old male construction worker, was working in the unoccupied unit when the explosion occurred. He was buried under debris as firefighters extinguished the fire and dug him out. He was transported to a Boston hospital where he later succumbed to his injuries. Five (5) other workers and two firefighters were also injured at this fire. Smoke detectors were present but it was undetermined if they operated. No sprinklers were present. Damages from this fire were estimated to be $820,000.

Norfolk Has Norfolk County's Largest Loss Fire in 2010

- The Norfolk fatal fire described above was also the county's largest loss fire.

STRUCTURE FIRES

Reported Structure Fires Up

The 2,020 structure fires caused four of Norfolk County's civilian deaths, 25 civilian injuries, 38 fire service injuries and an estimated dollar loss of $12.8 million. These incidents represented 59% of Norfolk County's reported fires in 2010. The average estimated dollar loss per structure fire was $6,361. The total number of reported structure fires increased by 170, or 9%, from the 1,850 reported in 2009.

Arson Caused 1% of Structure Fires

The 14 structure arsons caused one civilian death, two fire service injuries and an estimated dollar loss of $416,300. Arson was indicated as the cause of 1% of the structure fires and 3% of Norfolk County's structure fire dollar loss. The 14 structure arsons accounted for 18% of the Norfolk County arson fires reported in 2010. The total number of reported structure arsons increased by five, or 56%, from nine in 2009.

Over 1/2 of Structure Arsons Occur in Residential Properties

Over half, or 57%, of Norfolk County's 14 structure arsons occurred in residential occupancies; 14% each occurred in public assembly properties and special properties; and 7% each occurred in educational and institutional facilities.

BUILDING FIRES

There were 2,001 building fires of different types in Norfolk County in 2010. These 2,001 building fires accounted for 98.9% of all structure fires in Norfolk County.

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

One thousand six hundred and ninety-nine (1,699), or 85%, of Norfolk County's 2,001 building fires occurred in residential occupancies. Mercantile and business properties had 77 fires. Seventy-six (76) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings also experienced 61 fires. Thirty-four (34) building fires took place on educational properties. Twenty-one (21) fires took place in storage properties. Twenty (20) building fires in Norfolk County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Seven (7) fires took place in manufacturing and processing facilities, and three fires occurred in industrial facilities in Norfolk County in 2010.

RESIDENTIAL FIRES

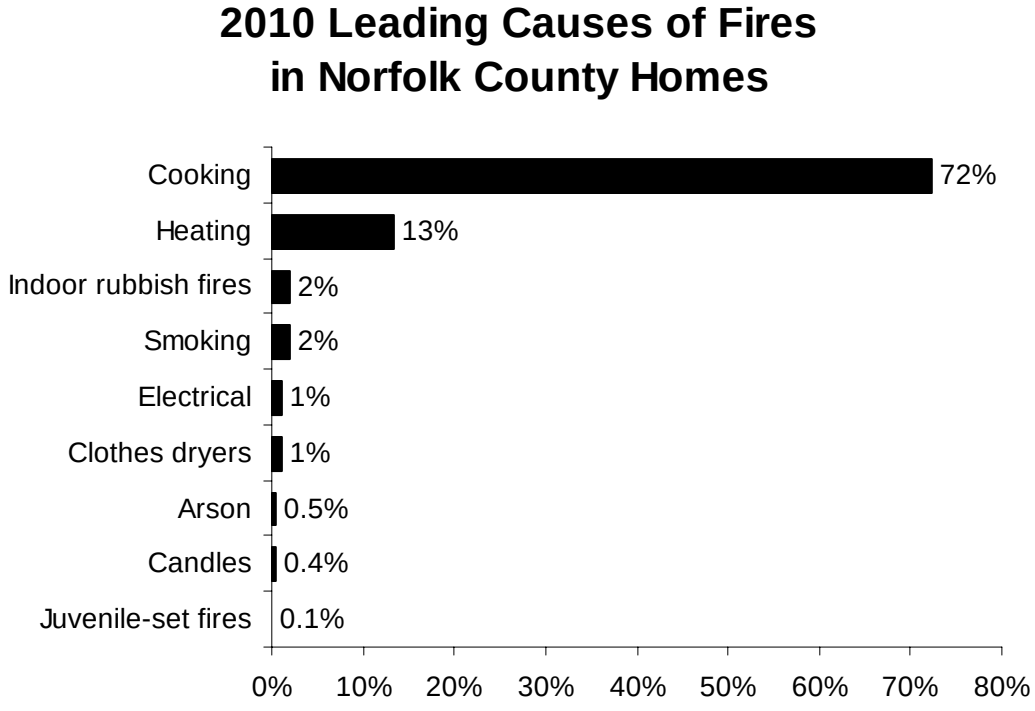
Apartments Accounted for Over 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were apartments accounting for 49% of the residential building fires in Norfolk County; 44% occurred in 1- or 2-family homes; 3% happened in rooming houses; 1% occurred in residential board and care facilities; 1% happened in hotels or motels; and 1% occurred in dormitories. Eighteen

(18), or 1%, of the residential building fires in Norfolk County occurred in unclassified residential buildings.

Residential Building Fires Are Up
There were 1,699 reported residential building fires in Norfolk County in 2010. These 1,699 fires are an increase of 110, or 7%, from the 1,589 residential building fires reported in 2009.

Cooking Caused Almost 3/4 of Residential Fires
The leading cause of residential building fires in Norfolk County was unattended cooking and other unsafe cooking practices, accounting for 72% of the fires. Heating caused 13% of fires in people's homes. Indoor rubbish fires and smoking each caused 2% of these fires. Electrical problems and clothes dryers each caused 1% of these fires. Arson (0.5%), candles (0.4%) and juvenile-set fires (0.1%) each caused less than 1% of the residential building fires in Norfolk County in 2010.



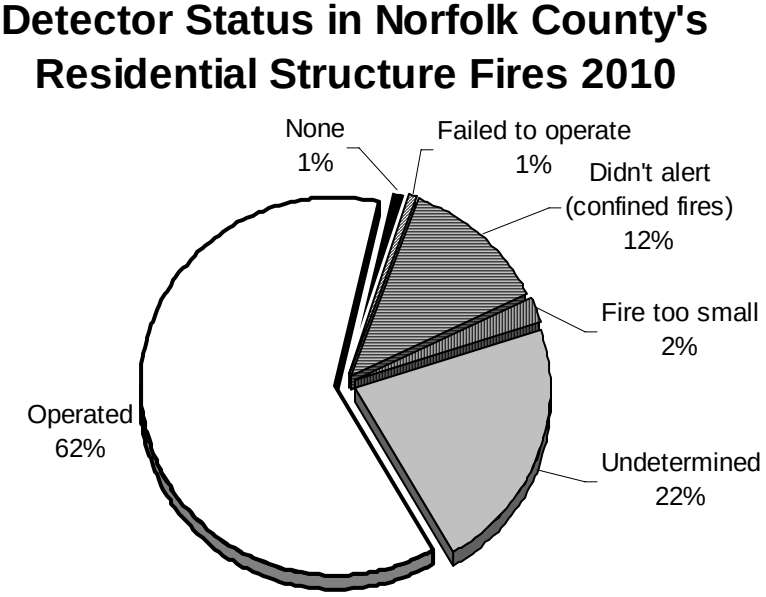
86% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One thousand four hundred and sixty-five (1,465), or 85%, of all residential building fires were reported as confined to non-combustible containers in 2010. One thousand two

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

hundred and seven (1,207) of the reported fires were cooking fires contained to a non-combustible container accounting for 71% of residential building fires. One hundred and fifty-seven (157), or 9%, were fires confined to a fuel burner or boiler malfunction. Sixty-two (62), or 4%, of all residential building fires reported in 2010 were fires confined to a chimney. Thirty-seven (37), or 2%, were contained rubbish fires. A confined incinerator overload and a confined commercial compactor fire each accounted for less than 1% of Norfolk County's residential fires in 2010.

Detectors Alerted Occupants in 62% of Fires

Smoke or heat detectors operated and alerted the occupants in 1,053, or 62%, of the residential building fires. In 12% 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 2% of the residential fires. Smoke detector performance was undetermined in 369 incidents, or 22%, of Norfolk County's residential building fires.



Almost 1/4 of Failed Detectors Had Missing or Disconnected Batteries

Of the 13 fires where smoke detectors were present but failed to operate, three, or 23%, failed because the batteries were either missing or disconnected. One detector, or 8%, each failed because the power was shut-off or disconnected, because of improper installation or placement, because of dead batteries, and because of a lack of maintenance. It was undetermined or unclassified in five cases, or 38%, 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

1% of Building Fires Occurred in Vacant Buildings

Norfolk County reported 24 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 1% of the total 2,001 building fires reported to MFIRS in 2010. Seventeen (17) fires occurred in vacant residential properties. Storage facilities and mercantile or business properties each reported three vacant building fires. One (1) vacant building fire occurred in a public assembly property.

Three (3), or 13%, of the vacant building fires in Norfolk County in 2010 were determined to be intentionally set. Two (2) vacant building arsons occurred in single-family homes and one happened in an apartment building.

JUVENILE-SET FIRES

19 Juvenile-set Fires

There were 19 reported juvenile-set fires in Norfolk County in 2010. The six structure fires, one motor vehicle fire, 11 brush fires, one outside rubbish fire, and one special outside fire caused one fire service injury and $8,000 in estimated damages.

ARSONS

80 Total Arsons - 14 Structures, 4 Vehicles & 62 Other Arsons

Eighty (80), or 2%, of Norfolk County's 3,420 fires were intentionally set, or, for purposes of this analysis, arson[4]. The 14 structure arsons, four motor vehicle arsons and 62 outside and other arsons caused one death, two fire service injuries and an estimated loss of $424,300.

Structure & Outside Arsons Up

The total number of reported arson fires increased by 21 from the 59 reported in 2009. Reported structure arsons increased by five from the nine reported the previous year. Motor vehicle arsons decreased by one from the five reported in 2009. Reported outside and other arsons increased by 17 from 45 the year before.

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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.

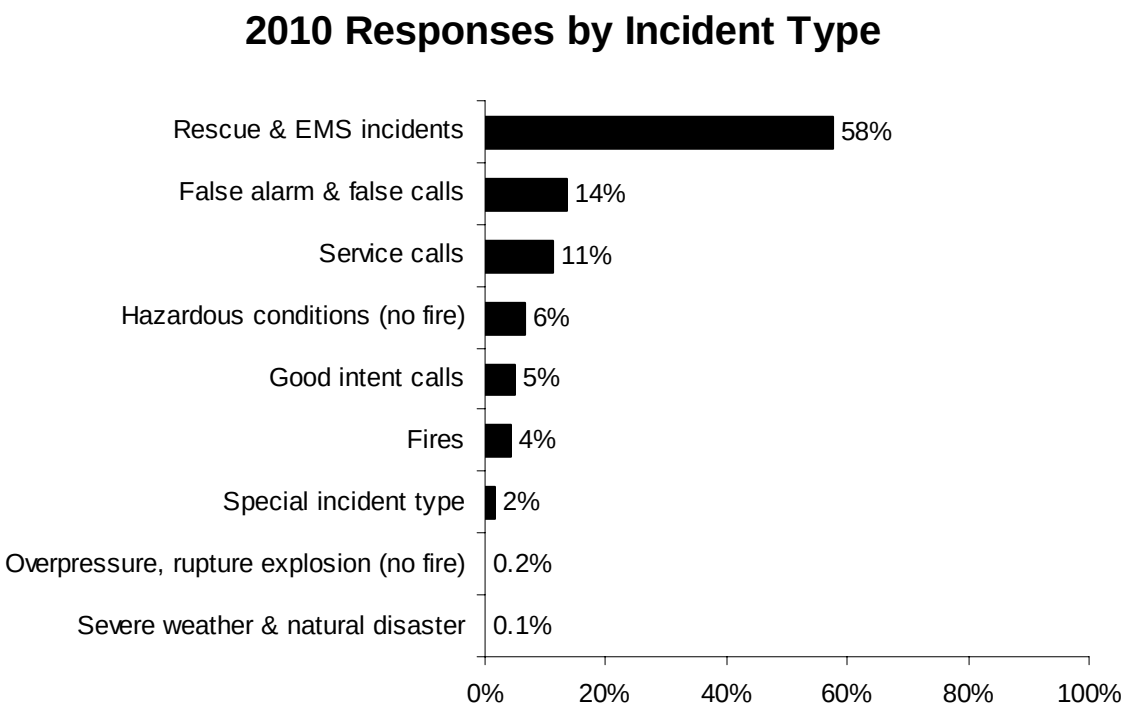
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

ALL INCIDENTS

Rescue & EMS Calls Are 58% of All Reported Incidents
In 2010, fire departments in Norfolk County reported 86,581 responses[5] to MFIRS. Of these 86,581 incidents, 82,966 non-fire calls were voluntarily reported.

Of these 82,966 non-fire incidents, 49,796, or 58%, of all the incidents reported in 2010, were reported rescue and emergency medical services (EMS) calls; 11,770, or 14%, were reported false alarm or false calls; 9,614, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,618, or 6%, were reported hazardous condition calls with no fire; 4,338, or 5%, were reported good intent calls; 1,545, 2%, were special incident type calls such as citizen complaints; 150, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 115, or 0.1%, were severe weather responses.

Three thousand six hundred and fifteen (3,615), or 4%, of the total responses submitted by Norfolk County fire departments were fires.



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

Norfolk County Fire Departments Gave Mutual Aid 2,858 Times

In 2010, Norfolk County fire departments reported coming to the aid of other fire departments 2,858 times. Of these 2,858 responses, 1,651, or 58%, were for rescue or EMS calls; 451, or 16%, were for service calls such as cover assignments; 333, or 12%, were for good intent calls; 178, or 6%, were for fires; 175, or 6%, were for false alarms or false calls; 44, or 2%, were for hazardous conditions calls with no fire; 12, or 0.4%, were special incident types; two, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and another two, or 0.1%, were severe weather calls.

Norfolk County Received Mutual Aid in 1,765 Incidents

In 2010, Norfolk County fire departments reported receiving aid from surrounding departments in 1,765 incidents. Of these 1,765 incidents, 1,289, or 73%, were rescue and emergency medical services calls; 198, or 11%, were false alarms or false calls; 164, or 9%, were for fires; 41, or 2%, were good intent calls; 39, or 2%, were hazardous conditions calls with no fire; 26, or 1%, were service calls; six, or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire, and two incidents, or 0.1%, were special incident type calls.

Norfolk County Population: 670,850

5.1 Fires/1,000 Population

Total Fires:	**3,420**		**$13,876,684**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	2,020	59%	$12,849,521
Vehicle Fires	284	8%	830,335
Other Fires	1,116	33%	196,828

5 Fatal Fires	1.46 Civilian Deaths/1,000 Fires
5 Civilian Deaths	0.07 Civilian Deaths/10,000 Population
27 Civilian Injuries	43 Fire Service Injuries

Building Fires: 2,001

Residential Structure Fires: 1,699

Residential Structure Fires Confined to Non-Combustible Containers: 1,465

Unconfined Residential Structure Fires: 234

4 Civilian Deaths 25 Civilian Injuries 34 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	839	49%
1- & 2-Family homes	753	44%
Rooming houses	43	3%
Hotels or motels	28	1%
Residential board & care	12	1%

Detector Status	**Fires**	**%**
Operated	1,053	62%
Didn't operate	13	1%
None	21	1%
Fire too small	39	2%
Didn’t alert (confined)	204	12%
Undetermined	369	22%

Area of Origin[6]	**%**
Kitchen	74%
Heating equipment room	10%
Chimney or flue	4%
Ext. balcony, unenclosed porch	1%
Bedroom	1%
Laundry room	1%

Heat Source	**%**	**%Unconfined**[7]
Radiated heat from oper. eq.	2%	14%
Heat from operating equip.	2%	12%
Arcing	2%	12%
Cigarette	1%	8%
Hot ember or ash	1%	7%
Hot or smoldering object	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]	**%**
Food, cooking materials	72%
Flammable/comb. liquid	9%
Film, residue (creosote)	4%
Rubbish, trash, waste	3%
Electrical wire, cable insulation	1%

Factor Contrib. to Ignit.	**%**	**%Unconfined[9]**
Too close to combustibles	2%	13%
Abandoned materials	2%	12%
Electrical failure, malfunc.	1%	6%
Misuse of materials or prod.	1%	5%
Failure to clean	1%	4%

Equipment[10]	**%**
Kitchen & cooking equipment	72%
None	12%
Boiler, furnace, cent. heat. unit	9%
Chimney, flue	4%
Clothes dryer	1%

Cause of Ignition	**%**	**%Unconfined[11]**
Unintentional	8%	60%
Failure of eq. or heat source	2%	17%
Intentional	0.2%	1%
Act of nature	0.2%	1%
Cause under investigation	1%	6%
Undetermined	2%	13%

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

Alerted occupants	65%
Didn't alert occupants	14%
Undetermined	21%

[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	271	220	25	26
February	238	190	16	32
March	246	163	26	57
April	317	160	26	131
May	333	169	20	144
June	242	128	27	87
July	388	131	22	235
August	290	115	23	152
September	221	124	16	81
October	245	172	31	42
November	334	227	28	79
December	295	221	24	50

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	522	339	29	154
Monday	463	296	30	137
Tuesday	476	275	42	159
Wednesday	465	256	42	167
Thursday	509	281	53	175
Friday	472	270	52	150
Saturday	513	303	36	174

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	181	104	27	50
04:01 - 08:00	216	135	15	66
08:01 - 12:00	566	355	61	150
12:01 - 16:00	861	436	69	356
16:01 - 20:00	1,086	674	61	351
20:01 - 00:00	510	316	51	143

Motor Vehicle Fires
Total: 284
Automobiles: 240 (85%)
4, or (2%), of the automobile fires were considered intentionally set.

Arson Fires

Total Arsons: 80 **Dollar loss: $424,300**

0.12 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Loss
Structure Arsons	14	1%	18%	$416,300
Vehicle Arsons	4	1%	5%	7,500
Other Arsons	62	6%	78%	500

0.02 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.09 Other arsons/1,000 population

1 Civilian Death 2 Civilian Injuries 1 Fire Service Injury

Peak Times of Day for

Structure Arsons	#	%
20:01 - 00:00	6	43%
04:01 - 08:00	2	14%
12:01 - 16:00	2	14%
16:01 - 20:00	2	14%

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

Other Arsons	#	%
12:01 - 16:00	20	32%
16:01 - 20:00	18	29%
20:01 - 00:00	11	18%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	8	57%
Bridge, trestle	1	7%
High/junior high/middle school	1	7%
Hospital – medical or psychiatric	1	7%
Public or government, other	1	7%
Rapid transit station	1	7%

Avon **Population: 4,356**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	30	8	11	11	0	0	0	0
2010	32	8	13	11	4	0	1	3

Bellingham **Population: 16,332**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	50	25	6	19	2	0	0	2
2010	59	26	6	27	1	1	0	0

Braintree **Population: 35,744**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	81	15	16	50	5	0	0	5
2010	114	24	19	71	5	0	0	5

Brookline **Population: 58,732**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	37	27	6	4	1	1	0	0
2007	29	27	1	1	0	0	0	0
2008[12]	372	322	11	39	1	0	1	0
2009	430	387	11	32	1	0	1	0
2010	464	423	13	28	1	1	0	0

[12] In 2008 Brookline automated its fire incident reporting and began reporting all incidents to MFIRS, not just the mandated fires and explosions that resulted in a dollar loss or human casualty.

Canton **Population: 21,561**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	31	10	17	4	3	1	0	2
2010	36	17	13	6	2	1	1	0

Cohasset **Population: 7,542**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	27	16	0	11	1	0	0	1
2010	41	15	2	24	7	1	0	6

Dedham **Population: 24,729**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	34	19	7	8	0	0	0	0
2010	192	119	10	63	9	0	0	9

Dover **Population: 5,589**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	7	4	1	2	0	0	0	0
2010	27	17	3	7	0	0	0	0

Foxborough **Population: 16,865**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	36	17	8	11	0	0	0	0
2010	35	14	6	15	4	0	1	3

Franklin **Population: 31,635**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	51	15	8	28	1	0	0	1
2010	74	24	8	42	1	0	0	1

Holbrook **Population: 10,791**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	36	18	7	11	2	0	2	0
2010	55	21	0	34	4	0	0	4

Medfield **Population: 12,024**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	19	9	3	7	6	1	0	5
2010	26	15	1	10	3	1	0	2

Medway **Population: 12,752**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	50	41	3	6	0	0	0	0
2010	44	28	4	12	1	1	0	0

Millis **Population: 7,891**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	1	0	0	0	0	0	0
2010	Non-Reporting Community							

Milton **Population: 27,003**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	160	111	17	32	8	0	0	8
2010	175	102	17	56	6	1	0	5

Needham **Population: 28,886**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	49	25	7	17	4	0	0	4
2010	84	34	13	37	0	0	0	0

Norfolk **Population: 11,227**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	62	50	1	11	0	0	0	0
2010	66	47	2	17	2	0	0	2

Norwood **Population: 28,602**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	75	33	9	33	1	1	0	0
2010	118	43	14	61	0	0	0	0

Plainville **Population: 8,264**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	29	9	8	12	1	0	0	1
2010	30	11	7	12	3	1	0	2

Quincy **Population: 92,271**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	531	308	44	179	7	0	1	6
2010	574	268	38	268	4	0	0	4

Randolph **Population: 32,112**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	187	136	22	29	1	0	0	1
2010	218	143	24	51	1	0	1	0

Sharon **Population: 17,612**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	38	23	12	3	0	0	0	0
2010	53	27	8	18	2	0	0	2

Stoughton **Population: 26,962**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	266	246	11	9	0	0	0	0
2010	266	238	11	17	1	0	0	1

Walpole **Population: 24,070**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	103	64	8	31	8	6	0	2
2007[13]	134	82	8	44	10	9	0	1
2008	105	69	8	28	7	4	0	3
2009	86	58	8	20	2	2	0	0
2010	114	77	6	31	1	0	0	1

[13] 7 of the 10 arsons occurred at MCI – Cedar Junction maximum security state penitentiary.

Wellesley **Population: 27,982**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	77	48	6	23	2	1	0	1
2010	48	16	10	23	0	0	0	0

Westwood **Population: 14,618**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	81	64	8	9	0	0	0	0
2010	121	81	11	29	1	0	0	1

Weymouth **Population: 53,743**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	220	137	21	62	8	3	1	4
2010	308	173	21	114	11	6	0	5

Wrentham **Population: 10,955**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	39	15	3	21	4	0	0	4
2010	46	9	4	33	6	0	0	6

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
21018	Avon	1,516	45	6	895	46	307	111	102	2	2
21025	Bellingham	1,813	62	1	1,268	64	153	74	178	1	12
21040	Braintree	5,324	117	44	3,107	281	695	334	674	7	65
21046	Brookline	7,415	472	7	4,272	435	649	277	1,294	8	1
21050	Canton	40	36	0	0	4	0	0	0	0	0
21065	Cohasset	2,020	44	2	954	165	499	103	226	4	23
21073	Dedham	4,360	206	22	2,827	353	290	108	540	2	12
21078	Dover	256	30	1	21	36	23	18	126	1	0
21099	Foxborough	341	43	2	27	59	31	17	160	2	0
21101	Franklin	3,310	85	2	2,213	107	236	184	475	6	2
21133	Holbrook	2,476	56	5	1,264	91	600	252	205	1	2
21175	Medfield	1,108	31	1	587	102	225	29	125	6	2
21177	Medway	252	46	0	11	40	44	13	96	0	2
21187	Millis	0	0	0	0	0	0	0	0	0	0
21189	Milton	4,013	180	3	1,917	197	516	120	562	2	516

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
21199	Needham	3,345	85	3	1,639	237	668	223	489	0	1
21208	Norfolk	1,660	85	0	845	361	35	17	315	2	0
21220	Norwood	5,379	123	0	3,797	257	380	251	560	6	5
21238	Plainville	2,336	35	4	932	74	225	107	210	11	738
21243	Quincy	9,005	575	22	5,067	529	703	460	1,619	16	14
21244	Randolph	4,780	219	1	3,044	318	527	173	493	1	4
21266	Sharon	1,957	65	4	1,122	136	232	190	193	12	3
21285	Stoughton	5,304	284	3	3,211	172	548	334	612	2	138
21307	Walpole	3,079	136	0	2,009	158	267	166	339	0	4
21317	Wellesley	4,088	49	4	1,669	372	698	218	1,053	20	5
21335	Westwood	2,846	140	7	1,664	154	345	129	403	1	3
21336	Weymouth	6,817	318	4	4,179	788	514	407	594	2	11
21350	Wrentham	1,741	48	2	1,255	82	204	23	127	0	0
Total	**Norfolk County**	**86,581**	**3,615**	**150**	**49,796**	**5,618**	**9,614**	**4,338**	**11,770**	**115**	**1,565**

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

Quincy Fires in 2010

574 Total Fires — 268 Structures, 38 Vehicles & 268 Other Fires
The Quincy Fire Department reported 574 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 268 structure fires, 38 motor vehicle fires, 185 brush fires, 53 outside rubbish fires, 16 special outside fires; and two unclassified fires caused four civilian injuries, nine firefighter injuries and an estimated dollar loss of $427,000.

Structure Fires Down in 2010
Total fires decreased by 43, or 8%, from the 531 incidents reported in 2009. Reported structure fires decreased by 40 from the 308 reported during the previous year. Motor vehicle fires decreased by six from 44 the year before. Outside and other fires increased by 89 from the 179 reported in 2009.

QUINCY FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	531	308	44	179	7	0	0	6
2010	574	268	38	268	4	0	0	4

BUILDING FIRES

There were 264 building fires of different types in Quincy in 2010. These 264 building fires accounted 98.5% of the structure fires in Quincy.

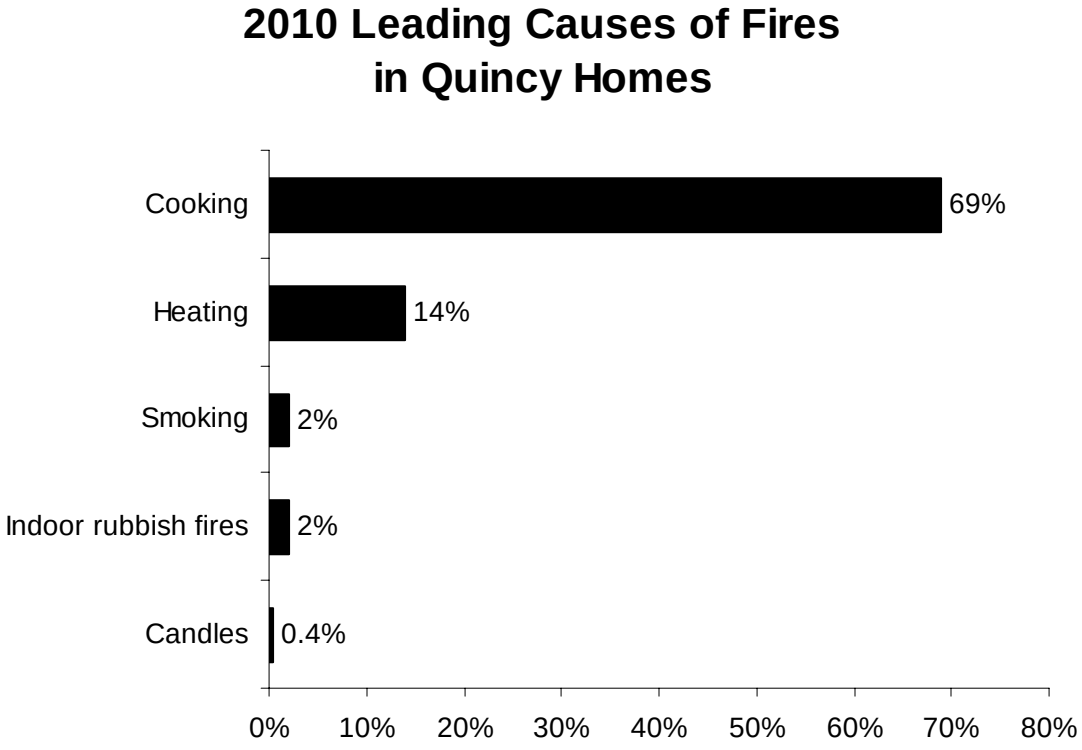
87% of Building Fires in Homes
The 264 building fires that occurred in Quincy in 2010 can be broken down by fixed property use as follows: 229, or 87% of all building fires, were in residential properties; 10 fires occurred in public assembly properties; nine fires occurred in institutional facilities; six happened in mercantile or business properties; another six occurred at storage facilities; two fires occurred in educational facilities; and another two fires occurred in special properties.

RESIDENTIAL FIRES

Residential Building Fires Down
There were 229 reported residential building fires in Quincy in 2010. These 229 fires are a decrease of 48 from the 277 reported residential building fires reported in 2009.

Apartments Accounted for Over 1/2 of Residential Building Fires
The peak fixed property uses for residential building fires in Quincy were apartments, accounting for 55% of the building fires; 33% occurred in 1- or 2-family homes; 8% happened in rooming houses; 1% occurred in residential board and care facilities; and less than 1% each happened in dormitories and hotels. Two percent (2%) of residential fires occurred in unclassified residential occupancies.

Unattended Cooking Caused Over 2/3 of Residential Fires
The leading cause of residential building fires in Quincy was unattended cooking and other unsafe cooking practices, accounting for 69% of these fires. Heating fires caused 14% of these fires. Smoking and indoor rubbish fires each caused 2% of the fires. Candles were the cause of less than 1% of the fires in Quincy's residential occupancies in 2010.



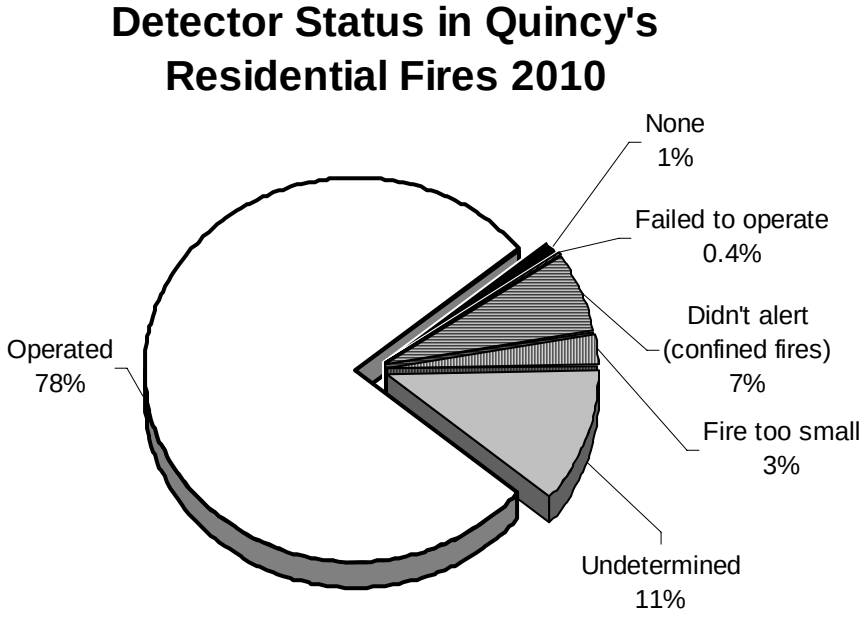
84% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
One hundred and ninety-three (193), or 84% of all residential building fires were confined to non-combustible containers in 2010. One hundred and fifty-seven (157), or 69%, of all residential building fires reported in 2010 were cooking fires 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.

non-combustible container. Twenty-six (26), or 11%, were fires confined to a fuel burner or boiler malfunction. Six (6) fires, or 3%, were reported to have been contained to a chimney or flue. Three (3) fires, or 1%, were rubbish fires contained to a non-combustible container; and one fire, or less than 1%, was confined to a commercial compactor.

Detector Operated in 81% of Fires

Smoke or heat detectors operated and alerted the occupants in 179, or 78%, of the residential building fires. In 7% of these fires[2], the detectors did not alert the occupants. There were no detectors in 1% of these fires. Detectors were present but did not operate in less than 1% of these incidents. The fire was too small to trigger the detector in 3% of these fires. Smoke detector performance was undetermined in 26 incidents, or 11% of Quincy's residential building fires.



Unknown Why Detector Failed

It was undetermined in the one fire where the detectors were reported to have failed.

VACANT BUILDINGS

2% of Building Fires Occurred in Vacant Buildings

Quincy reported five fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 264 building fires reported to MFIRS in

[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

2010. Three (3) fires in one- or two-family homes, one fire in a detached residential garage and one fire in an unclassified residence were reported as vacant building fire incidents.

JUVENILE-SET FIRES

2 Juvenile-set Fires

Quincy reported two juvenile-set fires in 2010. Both of these fires were brush fires.

ARSONS

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

Four (4), or 1%, of Quincy's 574 fires were considered intentionally set, or, for purposes of this analysis, arson. There were two brush arsons and two special outside arsons.

Total Arsons Drop Slightly

The total number of arsons decreased by three from the seven reported in 2009. Reported structure arsons remained the same with none reported in both 2010 and 2009. Reported motor vehicle arsons decreased by one from the one arson reported in 2009. Outside and other arsons decreased by two from six reported the year before.

125 Fires Reported as Undetermined or Still Under Investigation

In 2010, Quincy reported 125 fires under investigation or cause undetermined after investigation. All 125 were still under investigation.

Sixteen (16), or 13%, of these 125 fires were structure fires. Fourteen (14), or 11% were motor vehicle fires; and 95, or 76%, were outside or other fires. Because so many fires are under investigation the true arson number might be actually higher in Quincy in 2010.

Rescue & EMS Calls Are 56% of All Reported Incidents

In 2010, Quincy voluntarily reported 9,005 incidents to MFIRS. Of these 9,005 incidents, 8,430, or 94%, were non-fire incidents.

Of these 8,430 non-fire incidents 5,067, or 56% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 1,619, or 18%, were reported false alarm or false calls; 703, or 8%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 529, or 6%, were reported hazardous condition calls with no fire; 460, or 5%, were reported good intent calls; 22, or 0.2%, were reported overpressure, rupture, explosion or overheat calls

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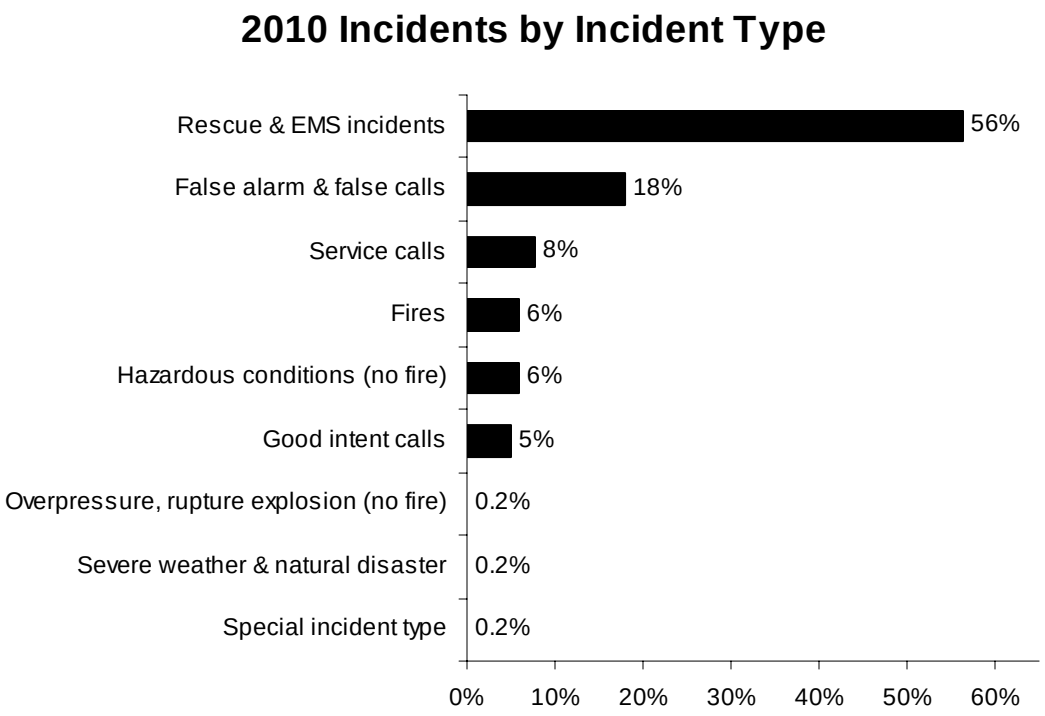
separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use 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.

with no fire; and 16, or 0.2%, were responses to incidents caused by severe weather; and 14, or 0.2%, were special type incidents;.

In 2010, Quincy reported 575 fires, accounting for 6% of all reported incidents.



Quincy Gave Mutual Aid in 9 Incidents
In 2010, Quincy reported coming to the aid of other fire departments nine times. Seven (7) were for cover assignments; one was for a fire; and one was rescue or EMS call.

Quincy Didn't Report Receiving Any Mutual Aid
In 2010, Quincy did not report any incident where surrounding fire departments provided them with aid.

Quincy Population: 92,271

6.2 Fires/1,000 Population

Total Fires:	**574**		**$427,000**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	268	47%	$427,0000
Vehicle Fires	38	7%	0
Other Fires	268	47%	0

No Deaths
4 Civilian Injuries 9 Fire Service Injuries

Building Fires: 264

Residential Structure Fires: 229

Residential Structure Fires Confined to Non-Combustible Containers: 193

Unconfined Residential Structure Fires: 36

4 Civilian Injuries 8 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	126	48%
1- & 2-Family homes	75	28%
Boarding houses	19	7%
Residential board & care	3	1%

Detector Status	**Fires**	**%**
Operated	179	78%
Didn't operate	1	0.4%
None	2	1%
Fire too small	6	3%
Didn't Alert (confined)	15	7%
Undetermined	26	11%

Area of Origin[5]	**%**
Kitchen	72%
Heating room or area	11%
Chimney or flue	3%
Bedroom	2%
Exterior balcony/unencl. porch	2%

Heat Source	**%**	**%Unconfined**[6]
Hot or smoldering object	2%	11%
Radiated heat from op. eq.	2%	11%
Heat from operating equip.	2%	11%
Cigarette	1%	6%
Arcing	1%	6%

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

Item First Ignited[7]	**%**
Cooking materials	69%
Flammable or combustible liq.	11%
Film, residue (creosote)	3%
Rubbish, trash, waste	2%
Interior ceiling covering/finish	2%

Factor Contrib. to Ignition	**%**	**%Unconfined**[8]
Too close to combustibles	2%	11%
Abandoned materials	1%	8%
Mechanical failure/malfunc.	1%	8%
Electrical failure/malfunc.	1%	5%

Equipment[9]	**%**
Cooking equipment	69%
None	17%
Boiler, furnace, cent. heat. unit	11%
Chimney, flue	3%

Cause of Ignition	**%**	**%Unconfined**[10]
Unintentional	7%	47%
Intentional	0%	0%
Undetermined	5%	31%
Failure equip./heat source	3%	22%

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

Alerted Occupants	85%
Didn't Alert Occupants	8%
Undetermined	7%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	5,067	56%
False alarms & false calls	1,619	18%
Service calls	703	8%
Fires[11]	575	6%
Hazardous conditions (no fire)	529	6%
Good intent calls	460	5%
Overpressure rupture, explosion or overheat calls (no fire)	22	0.2%
Severe weather & natural disaster	16	0.2%
Special Incident Types	14	0.2%

[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	41	30	6	5
February	37	30	2	5
March	42	24	4	14
April	53	17	6	30
May	76	22	4	50
June	46	19	2	25
July	66	13	3	50
August	54	19	1	34
September	47	17	4	26
October	40	24	3	13
November	40	30	2	8
December	32	23	1	8

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	84	44	2	38
Monday	76	41	3	32
Tuesday	76	34	6	36
Wednesday	74	32	7	35
Thursday	93	34	6	53
Friday	82	42	8	32
Saturday	89	41	6	42

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	35	17	6	12
04:01 - 08:00	43	19	2	22
08:01 - 12:00	76	44	9	23
12:01 - 16:00	130	52	8	70
16:01 - 20:00	187	86	6	95
20:01 - 24:00	103	50	7	46

Motor Vehicle Fires

Total: 38
Automobiles: 33 (87%)
0 (0%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 4 **Dollar loss: $0**

0.4 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	0	0%	0%	$0
Vehicle Arsons	0	0%	0%	0
Other Arsons	4	1%	100%	0

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

Peak Times of Day for:

Structure Arsons	#	%

Vehicle Arsons	#	%

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

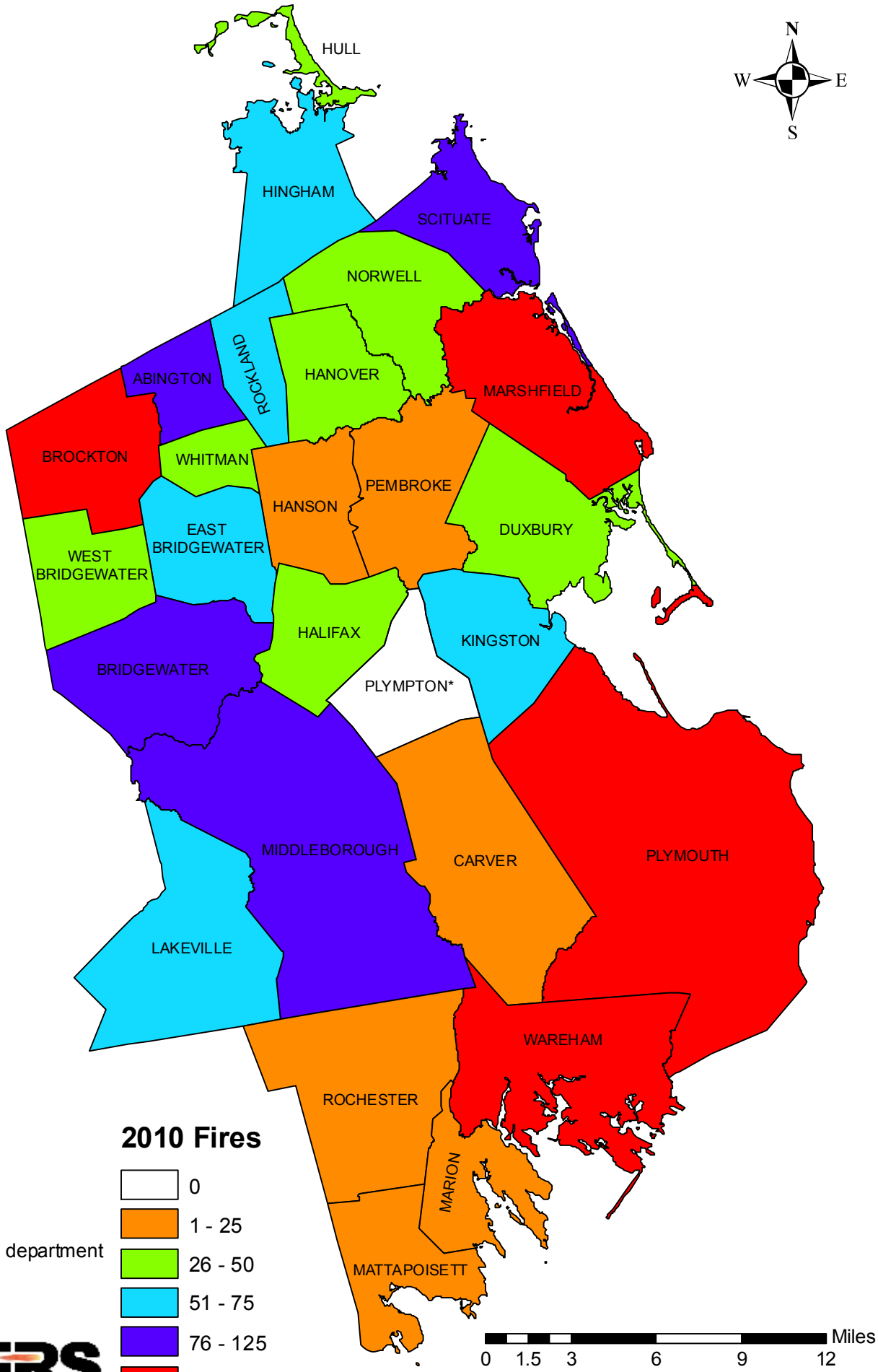
Peak Fixed Property Uses for Structure Arsons	#	%

Plymouth County
2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Plymouth County Fires 2010



*Non-reporting fire department

MFIRS Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2010

Plymouth County Fires in 2010

1,903 Total Fires — 798 Structures, 219 Vehicles & 886 Other Fires
Plymouth County ranked eighth out of the fourteen Massachusetts counties in total reported fires. Plymouth County fire departments reported 1,903 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 798 structure fires, 219 motor vehicle fires, 456 brush, tree or lawn fires, 197 outside rubbish fires, 134 special outside fires, seven cultivated vegetation or crop fires and 92 other fires caused one civilian death, 40 civilian injuries, 29 fire service injuries and an estimated dollar loss of $13.1 million. Plymouth County's fires accounted for 6% of the 32,680 Massachusetts fires reported in 2010.

Twenty-seven (27), or 96.4%, of the 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 2010.

Structure & Outside Fires Up
The total number of reported fire incidents increased by 417 from the 1,486 reported in 2009. Reported structure fires increased by 71 from 727 the year before. Motor vehicle fires decreased by 38 from 257 the previous year. Reported outside and other fires increased by 384 from 502 in 2009.

Brush Fires Rise Dramatically
Plymouth County had a large increase in brush fires in 2010. Brush fires increased by 232, or 104%, from the 224 reported in 2009. This is the main reason for the 28% rise in overall fires in Plymouth County.

PLYMOUTH COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	1,929	733	238	958	114	22	5	87
2007	2,010	884	268	858	91	28	12	51
2008	1,776	776	232	768	99	34	9	56
2009	1,486	727	257	502	75	25	23	30
2010	1,903	798	219	886	93	18	12	63

Fire and Fire Death Rates
Plymouth County had 3.8 fires per 1,000 population. That figure ranks Plymouth County tenth in the state and below the state rate of 5.0 fires per 1,000 population. Plymouth County also had 0.02 fire deaths per 10,000 population ranking it tied for eighth among Massachusetts counties and below the state rate of 0.05 fire deaths per 10,000 population.

1 Plymouth County Fatal Fire Killed 1 Civilian in 2010

- On December 17, 2010, at 8:24 p.m., the Marion Fire Department was dispatched to a fatal motor vehicle accident with ensuing fire. The victim, the 75-year old male driver, made the initial 911 call to report the accident. He was trapped in the vehicle as the car became fully involved. No one else was injured in this fire, and damages were not estimated.

Scituate Has Plymouth County's Largest Loss Fire in 2010

- On August 22, 2010, at 4:41 p.m., the Scituate Fire Department responded to a fire of undetermined cause in a single-family home. The fire started in the first floor living room. One (1) civilian was injured by this fire. Detectors were present and alerted the occupants. The building was not sprinklered. Damages from this fire were estimated to be $650,000.

STRUCTURE FIRES

Reported Structure Fires Up

The 798 structure fires caused 32 civilian injuries, 25 fire service injuries and an estimated dollar loss of $12.3 million. These incidents represented 42% of Plymouth County's reported fires in 2010. The average estimated dollar loss per structure fire was $15,358. The total number of reported structure fires increased by 71, or 10%, from the 727 reported in 2009.

Arson Caused 2% of Structure Fires

The 18 structure arsons caused an estimated dollar loss of $1.1 million. Arson was indicated as the cause of 2% of the structure fires and 9% of Plymouth County's structure fire dollar loss. The 18 structure arsons accounted for 19% of the Plymouth County arson fires reported in 2010. The total number of reported structure arsons decreased by 7, or 28%, from 25 in 2009.

44% of Structure Arsons Occurred in Residences

Forty-four percent (44%) of Plymouth County's 18 structure arsons occurred in residential occupancies; 28% happened in special properties; 11% occurred in storage facilities; and 6% each happened in mercantile or business properties, educational facilities and institutional facilities.

BUILDING FIRES

There were 789 building fires of different types in Plymouth County in 2010. These 789 building fires accounted for 98.9% of all structure fires in Plymouth County.

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

Six hundred and thirty-eight (638), or 88%, of Plymouth County's 789 building fires occurred in residential occupancies. Mercantile and business properties had 36 fires. Thirty-two (32) building fires in Plymouth County occurred in special properties such as outbuildings and sheds. Thirty-one (31) fires took place in storage facilities. Twenty-one (21) fires took place in public assembly properties, including restaurants and churches.

Hospitals, prisons, and other institutional buildings experienced 16 fires. Eight (8) building fires took place in educational facilities. Five (5) fires took place in manufacturing and processing facilities. Two (2) fires occurred in industrial, utility, defense, agricultural or mining facilities in Plymouth County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Up Slightly

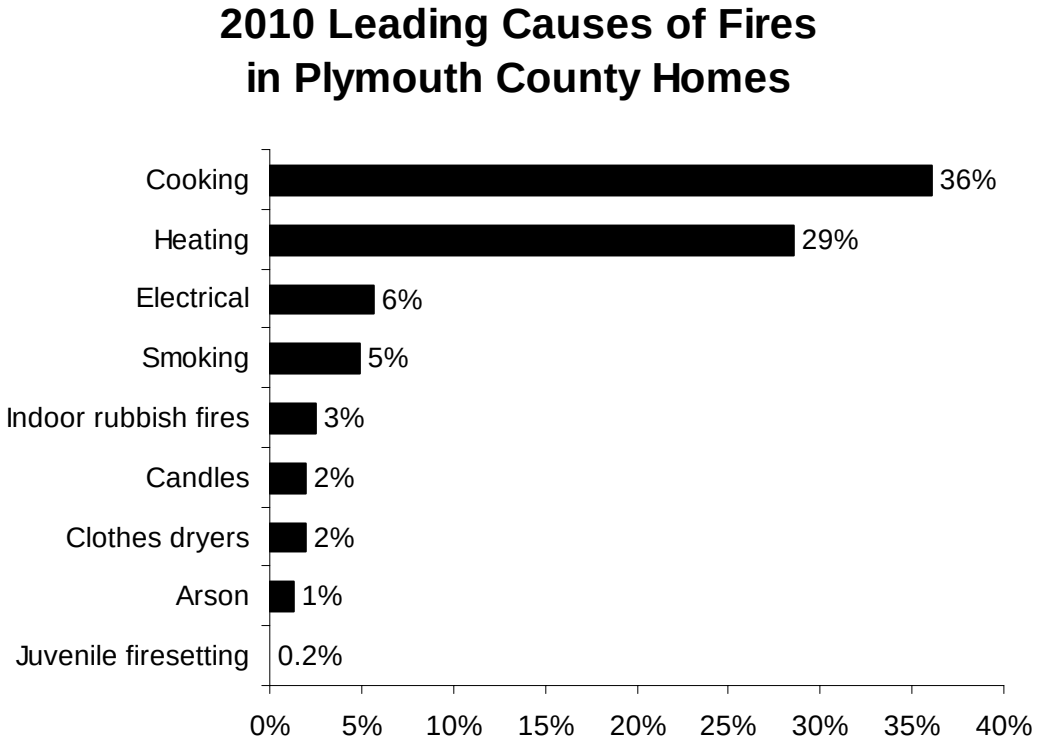
There were 638 reported residential building fires in Plymouth County in 2010. These 638 fires are an increase of 26, or 4%, from the 612 residential building fires reported in 2009.

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 76% of the residential building fires in Plymouth County; 22% occurred in apartments. Dormitories, rooming houses, hotels or motels, and residential board and care facilities each had less than 1% of these fires. Nine (9), or 1%, of the residential building fires in Plymouth County occurred in unclassified residential buildings.

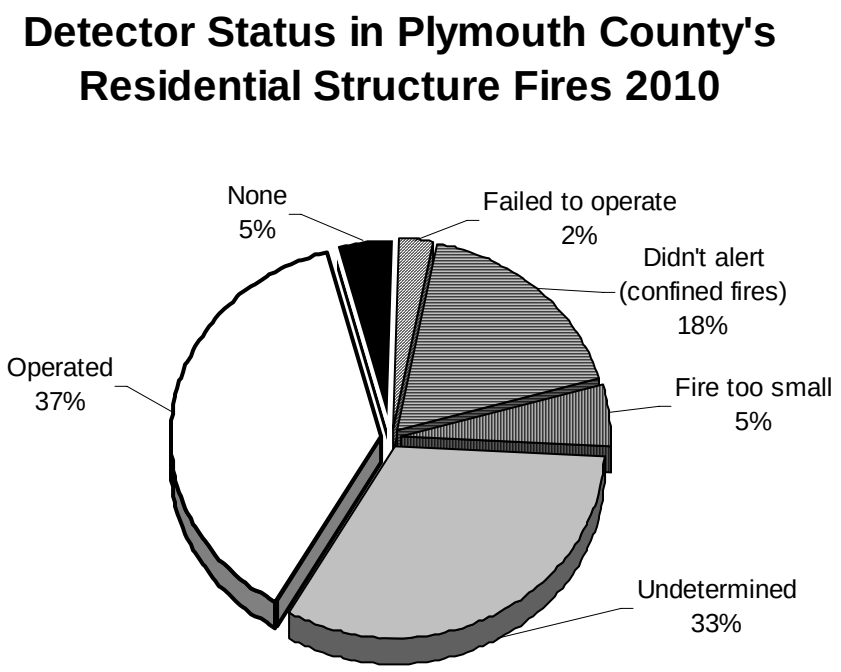
Cooking & Heating Leading Causes of Residential Fires

The leading cause of the 638 residential building fires in Plymouth County was unattended cooking and other unsafe cooking practices, accounting for 36% of these fires. Heating problems caused 29% of the fires in people's homes. Electrical problems caused 6% and smoking caused 5% of these fires. Indoor rubbish fires caused 3% of these fires. Candles and clothes dryers each caused 2% of residential fires. Arson caused 1%, and juvenile-set fires were responsible for less than 1% of the residential fires in Plymouth County in 2010.



58% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Three hundred and seventy-one (371), or 58% of all residential building fires, were reported as confined to non-combustible containers in 2010. One hundred and ninety-three (193) of the reported fires were cooking fires contained to a non-combustible container accounting for 30% of residential building fires. One hundred and four (104), or 16%, were fires confined to a fuel burner or boiler malfunction. Sixty (60), or 9%, of all residential building fires reported in 2010 were fires confined to a chimney. Thirteen (13), or 2%, of these fires were contained rubbish fires.

Detectors Alerted Occupants in 37% of Fires
Smoke or heat detectors operated and alerted the occupants in 240, or 37%, of the residential building fires. In 18% 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 5% of the residential fires. Smoke detector performance was undetermined in 208 incidents, or 33%, of Plymouth County's residential building fires.



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

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

33% of Failed Detectors Had Dead, Missing or Disconnected Batteries

Of the 15 fires where smoke detectors were present but failed to operate, three, or 20%, failed because the batteries were either missing or disconnected. Two (2), or 13%, did not operate because of dead batteries. Another two detectors, or 12%, failed from a power failure, shutoff or disconnect. One (1), or 4%, failed because of improper installation or placement. It was undetermined or unclassified in seven cases, or 47%, why the detectors failed to operate.

VACANT BUILDINGS

5% of Building Fires Occurred in Vacant Buildings

Plymouth County reported 38 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 5% of the total 789 building fires reported to MFIRS in 2010. Nineteen (19) fires occurred in vacant residential properties. Eleven (11) vacant building fires occurred in storage facilities. Three (3) of these fires happened in mercantile and business properties, and another three fires occurred in special properties.

Eight (8), or 21%, of the vacant building fires in Plymouth County in 2010 were determined to be intentionally set. Four (4) of these fires occurred in single-family homes. Two (2) occurred in apartments and one each happened in an outbuilding or shed and an unclassified special property.

JUVENILE-SET FIRES

15 Juvenile-set Fires

There were 15 reported juvenile-set fires in Plymouth County in 2010. The three structure fires, five brush fires, six special outside fires, and one cultivated vegetation or crop fire caused $40,800 in estimated damages.

ARSONS

93 Total Arsons — 18 Structures, 12 Vehicles & 63 Other Arsons

Ninety-three (93), or 5%, of Plymouth County's 1,903 fires were considered intentionally set, or, for purposes of this analysis, arson[4]. The 18 structure arsons, 12 motor vehicle arsons and 63 outside and other arsons caused an estimated dollar loss of $1.1 million.

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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.

Outside Arsons Up

The total number of reported arson fires increased by 15 from the 78 reported in 2009. Reported structure arsons decreased by seven from 25 the previous year. Motor vehicle arsons decreased by 11 from 23 in 2009. Reported outside and other arsons increased by 33 from 30 reported the year before.

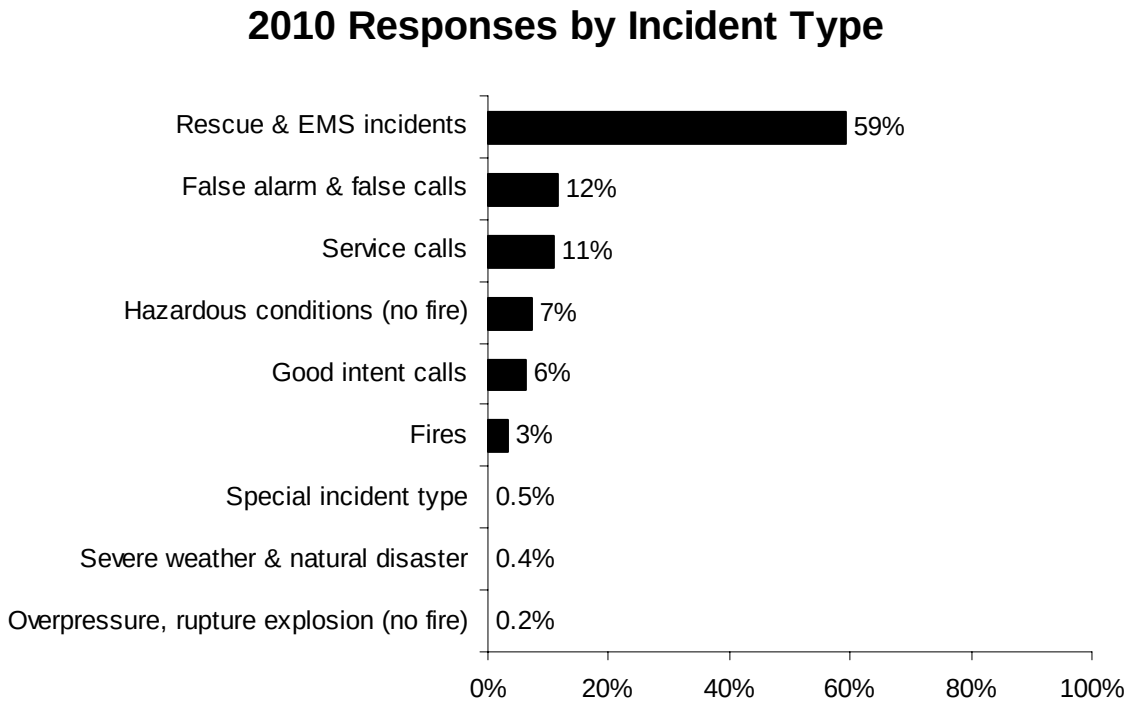
ALL INCIDENTS

Rescue & EMS Calls Are 59% of All Reported Responses

In 2010, Plymouth County fire departments reported 58,570 responses[5] to MFIRS. Of these 58,570 incidents, 56,559 non-fire calls were voluntarily reported.

Of these 56,559 non-fire calls, 34,748, or 59%, of the total responses reported in 2010, were reported rescue and emergency medical services (EMS) calls; 6,819, or 12%, were reported false alarm or false calls; 6,331, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 4,306, or 7%, were reported hazardous condition calls with no fire; 3,761, or 6%, were reported good intent calls; 278, or 0.5%, were special incident type calls such as citizen complaints; 214, or 0.4%, were severe weather responses; and 102, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Two thousand and eleven (2,011), or 3%, of the total responses submitted by Plymouth County fire departments were fires.



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

Plymouth County Fire Departments Gave Mutual Aid 1,843 Times

In 2010, Plymouth County fire departments reported coming to the aid of other fire departments 1,843 times. Of these 1,843 responses, 1,360, or 74%, were for rescue or EMS calls; 207, or 11%, were for service calls such as cover assignments; 133, or 7%, were for good intent calls; 93, or 5%, were for fires; 25, or 1%, were for hazardous conditions calls with no fire; 21, or 1%, were for false alarms or false calls; and four, or 0.2%, were for a special incident type call.

Plymouth County Received Mutual Aid in 1,922 Incidents

In 2010, Plymouth County fire departments received aid from surrounding departments in 1,922 incidents. Of these 1,922 incidents, 1,663, or 87%, were rescue and emergency medical services calls; 110, or 6%, were for fires; 71, or 4%, were hazardous conditions calls with no fire; 40, or 2%, were false alarms or false calls; 22, or 1%, were good intent calls; 13, or 1%, were service calls; and three, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Plymouth County Population: 494,919

3.8 Fires/1,000 Population

Total Fires:	**1,903**		**$13,112,509**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	798	42%	$12,255,450
Vehicle Fires	219	12%	644,523
Other Fires	886	47%	212,536

1 Fatal Fire	0.53 Civilian Deaths/1,000 Fires
1 Civilian Deaths	0.02 Civilian Deaths/10,000 Population
40 Civilian Injuries	29 Fire Service Injuries

Building Fires: 789

Residential Building Fires: 638

Residential Building Fires Confined to Non-Combustible Containers: 371

Unconfined Residential Building Fires: 267

32 Civilian Injuries 22 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	483	76%
Apartments	138	22%
Dormitories	3	0.4%
Hotels or motels	2	0.3%
Rooming houses	2	0.3%
Residential board & care	1	0.1%

Detector Status	**Fires**	**%**
Operated	240	37%
Didn't operate	15	2%
None	30	5%
Fire too small	33	5%
Didn’t Alert (confined)	112	18%
Undetermined	208	33%

Area of Origin[6]	**%**
Kitchen	38%
Heating room or area	18%
Chimney or flue	9%
Bedroom	3%
Wall assembly, concealed space	3%

Heat Source	**%**	**%Unconfined[7]**
Radiated, cond./heat op. eq.	8%	18%
Arcing	6%	15%
Heat from operating eq.	5%	12%
Cigarette	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]	**%**
Food, cooking materials	32%
Flammable or combust. liquid	16%
Film, residue (creosote)	9%
Structural member, framing	6%
Ext. sidewall covering, surface	4%

Factor Contrib. to Ignit.	**%**	**%Unconfined**[9]
Too close to combustibles	3%	7%
Electrical failure, malfunc.	3%	6%
Abandoned materials	3%	6%
Mechanical failure, malfunc.	2%	5%
Failure to clean	1%	3%
Equipment unattended	1%	3%

Equipment[10]	**%**
Cooking equipment	35%
None	27%
Boiler, furnace, cent. heat. unit	14%
Chimney or flue	10%
Clothes dryer	2%
Stove, heating	1%

Cause of Ignition	**%**	**%Unconfined**[11]
Unintentional	26%	61%
Failure of eq. or heat source	8%	19%
Intentional	1%	3%
Act of Nature	2%	4%
Cause under investigation	3%	7%
Undetermined	2%	5%

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

Alerted Occupants	34%
Didn't Alert Occupants	30%
Undetermined	36%

[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	132	97	16	19
February	112	63	19	30
March	151	73	17	61
April	197	67	19	111
May	174	62	18	94
June	148	53	16	79
July	242	56	30	156
August	184	58	9	117
September	159	53	24	82
October	133	59	25	49
November	133	74	9	50
December	138	83	17	38

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	297	128	30	139
Monday	283	118	42	123
Tuesday	244	114	24	106
Wednesday	269	116	30	123
Thursday	254	108	27	119
Friday	239	97	30	112
Saturday	317	117	36	164

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	135	56	32	47
04:01 - 08:00	152	64	20	68
08:01 - 12:00	310	133	41	136
12:01 - 16:00	506	172	48	286
16:01 - 20:00	492	233	47	212
20:01 - 00:00	308	140	31	137

Motor Vehicle Fires

Total: 219
Automobiles: 187 (85%)
10, or (5%), of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 93 **Dollar loss: $1,133,610**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	18	2%	19%	$1,073,812
Vehicle Arsons	12	5%	13%	58,698
Other Arsons	63	7%	68%	1,100

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

No Injuries

Peak Times of Day for:

Structure Arsons	#	%
00:01 – 04:00	5	28%
20:01 – 00:00	4	32%

Vehicle Arsons	#	%
00:01 – 04:00	4	33%

Other Arsons	#	%
12:01 – 16:00	23	37%
16:01 – 20:00	16	25%
08:01 – 12:00	9	14%

Peak Fixed Property Uses for Structure Arsons	#	%
1- and 2-Family homes	5	28%
Apartments	2	11%
Storage, other	2	11%

Abington **Population: 15,985**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	61	34	9	18	0	0	0	0
2010	78	47	3	28	3	1	0	2

Bridgewater **Population: 26,563**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	67	24	13	30	8	2	2	4
2010	87	31	14	42	15	4	2	9

Brockton **Population: 93,810**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009[13]	199	138	35	26	18	11	5	2
2010	375	181	41	153	25	8	3	14

Carver **Population: 11,509**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	10	6	4	0	0	0	0	0
2010	12	6	6	0	0	0	0	0

[12] In 2006, the Bridgewater Fire Department was able to begin reporting all of their incidents.

[13] In 2009, this does not include their July incidents. Because of computer problems the Brockton Fire Department was unable to submit them to MFIRS.

Duxbury **Population: 15,059**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	41	18	4	19	8	4	1	3
2010	45	23	5	17	4	2	1	1

East Bridgewater **Population: 13,794**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	51	34	5	12	1	1	0	0
2010	62	37	6	19	1	1	0	0

Halifax **Population: 7,518**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	20	9	4	7	1	0	1	0
2010	48	25	4	19	4	0	0	4

Hanover **Population: 13,879**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	47	25	7	15	0	0	0	0
2010	33	16	3	14	0	0	0	0

Hanson **Population: 10,209**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	14	2	5	1	0	0	1
2010	22	10	3	9	1	0	0	1

Hingham **Population: 22,157**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	69	33	8	28	2	0	1	1
2010	69	35	3	31	4	0	1	3

Hull **Population: 10,293**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	27	13	2	12	1	1	0	0
2010	31	20	3	8	0	0	0	0

Kingston **Population: 12,629**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	41	14	8	19	1	0	0	1
2010	52	21	5	26	5	0	0	5

Lakeville **Population: 10,602**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	39	7	4	28	5	1	1	3
2010	54	8	6	40	0	0	0	0

Marion **Population: 4,907**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	1	0	0	0	0	0	0
2010	19	11	1	7	0	0	0	0

Marshfield **Population: 25,132**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	127	63	11	53	6	0	2	4
2010	128	40	8	80	5	0	0	5

Mattapoisett **Population: 6,045**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	14	9	2	3	0	0	0	0
2010	17	6	1	10	2	0	0	2

Middleborough **Population: 23,116**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	73	26	17	30	3	0	1	2
2010	105	20	26	59	0	0	0	0

Norwell **Population: 10,506**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	36	20	6	10	0	0	0	0
2010	37	10	5	22	0	0	0	0

Pembroke **Population: 17,837**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	13	9	3	1	2	2	0	0
2010	22	16	4	2	0	0	0	0

Plymouth **Population: 56,468**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	167	66	37	64	6	1	3	2
2010	205	73	25	107	5	1	0	4

Plympton **Population: 2,820**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	12	6	3	3	0	0	0	0
2010[14]	Non-Reporting Community							

Rochester **Population: 5,232**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	6	3	0	0	0	0	0
2010	2	2	0	0	0	0	0	0

Rockland **Population: 17,489**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	58	23	12	23	2	0	1	1
2010	53	28	2	23	1	1	0	0

Scituate **Population: 18,133**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	55	25	5	25	2	0	0	2
2010	96	41	4	51	5	0	0	5

[14] In 2010 Plympton had some fires, but because of problems with their computer system were unable to report them to MFIRS.

WAREHAM FIRE DISTRICTS **Population: 21,822**

Onset ***Est. Pop. Protected: 4,801***

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	36	19	6	11	2	0	1	1
2010	35	14	5	16	3	0	2	1

Wareham District *Est. Pop. Protected: 17,021*

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	94	44	24	26	2	0	1	1
2010	136	52	22	62	5	0	1	4

West Bridgewater **Population: 6,916**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	34	6	16	12	2	0	2	0
2010	34	8	11	15	3	0	1	2

Whitman **Population: 14,489**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	42	20	3	19	3	0	0	3
2010	46	17	3	26	2	0	1	1

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
23001	Abington	3,196	83	6	1,849	380	401	121	349	0	7
23042	Bridgewater	3,113	90	8	1,748	175	359	119	494	9	111
23044	Brockton	8,189	385	17	5,691	344	411	212	1,109	5	15
23052	Carver	12	12	0	0	0	0	0	0	0	0
23082	Duxbury	1,988	49	7	1,305	106	182	40	285	12	2
23083	East Bridgewater	2,381	67	2	1,615	162	276	50	201	2	6
23118	Halifax	1,366	48	0	836	90	213	55	121	2	1
23122	Hanover	2,575	35	3	1,738	198	321	75	196	3	6
23123	Hanson	1,521	29	1	888	133	284	55	121	1	9
23131	Hingham	71	69	2	0	0	0	0	0	0	0
23142	Hull	2,492	33	2	1,550	217	325	102	248	10	5
23145	Kingston	1,913	54	1	1,396	80	123	58	192	4	5
23146	Lakeville	927	59	1	538	32	180	17	80	17	3
23169	Marion	22	20	0	0	2	0	0	0	0	0
23171	Marshfield	3,567	130	0	2,240	291	429	106	353	6	12

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
23173	Mattapoisett	517	18	0	11	150	106	10	198	14	10
23182	Middleborough	3,151	110	10	466	221	177	1,766	356	24	21
23219	Norwell	2,133	42	1	1,151	253	312	109	256	7	2
23993	Onset	1,066	44	2	375	117	418	50	57	1	2
23231	Pembroke	22	22	0	0	0	0	0	0	0	0
23239	Plymouth	5,947	220	10	3,570	311	429	366	1,020	9	12
23240	Plympton	0	0	0	0	0	0	0	0	0	0
23250	Rochester	2	2	0	0	0	0	0	0	0	0
23251	Rockland	2,851	54	9	2,094	156	180	78	256	2	22
23264	Scituate	2,845	104	5	1,927	224	198	92	290	4	1
23992	Wareham	2,347	142	7	1,051	385	318	165	265	9	5
23322	West Bridgewater	1,447	37	2	958	56	172	17	127	70	8
23338	Whitman	2,909	53	6	1,751	223	517	98	245	3	13
Total	**Plymouth County**	**58,570**	**2,011**	**102**	**34,748**	**4,306**	**6,331**	**3,761**	**6,819**	**214**	**278**

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

Brockton Fires in 2010

375 Total Fires — 181 Structures, 41 Vehicles & 153 Other Fires
The Brockton Fire Department reported 375 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 181 structure fires, 41 motor vehicle fires, 63 outside rubbish fires, 46 brush fires, 15 special outside fires; one cultivated crop or vegetation fire; and 28 unclassified fires caused eight civilian injuries, 11 firefighter injuries and an estimated dollar loss of $3.3 million.

All Fires Up in 2010
Total fires increased by 176 from the 199 incidents reported in 2009. Reported structure fires were up 43 from the 138 reported during the previous year. Motor vehicle fires increased by six from 35 the year before. Outside and other fires increased by 127 from the 26 reported in 2009.

The large increase in outside fires is mainly due to Brockton reporting for the first time, all of their incidents in 2010, not just the mandated fires that cause a dollar loss or human casualty.

BROCKTON FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	163	124	24	15	12	7	4	1
2007	311	211	59	41	18	13	4	1
2008	197	142	36	19	12	9	1	2
2009[1]	199	138	35	26	17	11	5	1
2010[2]	375	181	41	153	25	8	3	14

BUILDING FIRES

There were 181 building fires of different types in Brockton in 2010. These 181 building fires accounted for all of the structure fires in Brockton.

86% of Building Fires in Homes
The 181 building fires that occurred in Brockton in 2010 can be broken down by fixed property use as follows: 156, or 86% of all building fires, were in residential properties; eight happened in mercantile or business properties; seven fires happened in storage facilities; six fires happened in a public assembly buildings; two fires occurred in institutional facilities; and one fire each occurred at an industrial facility and a manufacturing facility.

[1] July 2009 fires not included.
[2] 2010 is the first year that Brockton reported all of their incident electronically in the version 5 format. This included all fires not just the fires mandated by statute. This is the main reason for the large increase in outside fires and subsequently total fires.

RESIDENTIAL FIRES

Residential Building Fires Up

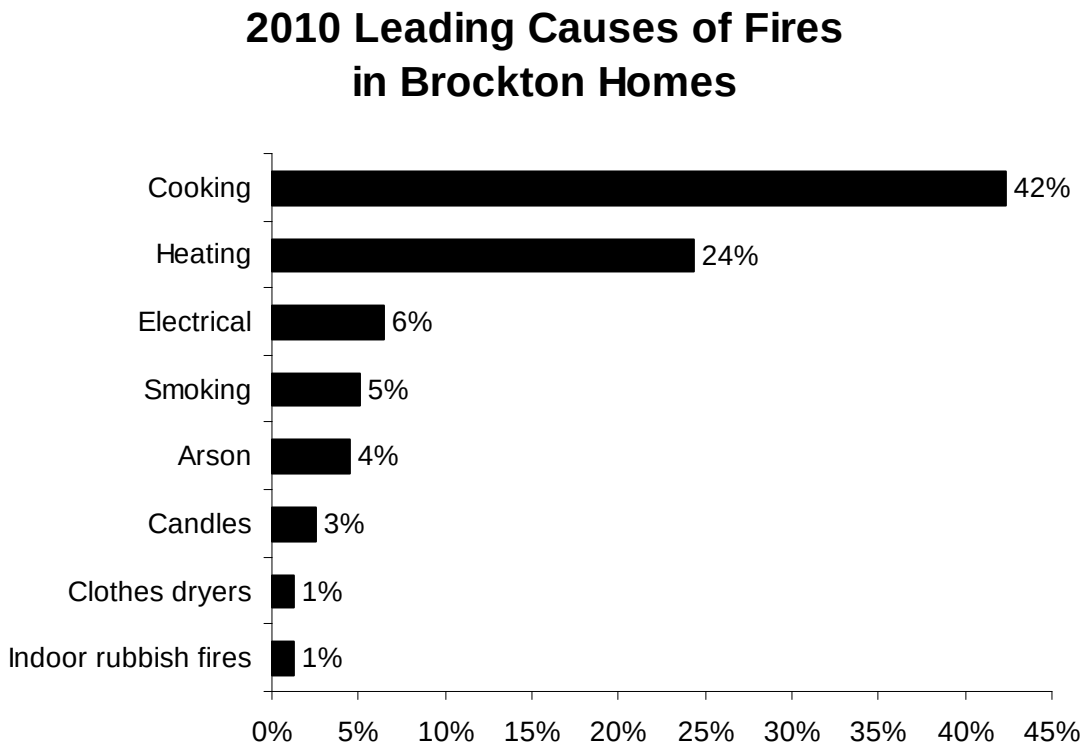
There were 156 reported residential building fires in Brockton in 2010. These 156 fires are an increase of 36 from the 120 reported residential building fires reported in 2009.

1- or 2-Family Homes Accounted for 49% of Residential Building Fires

The peak fixed property uses for residential building fires in Brockton were 1- or 2-family homes, accounting for 49% of the building fires; 46% occurred in apartments; and 1% each happened in hotels or motels, rooming houses and dormitories. Three percent (3%) occurred in unclassified residences.

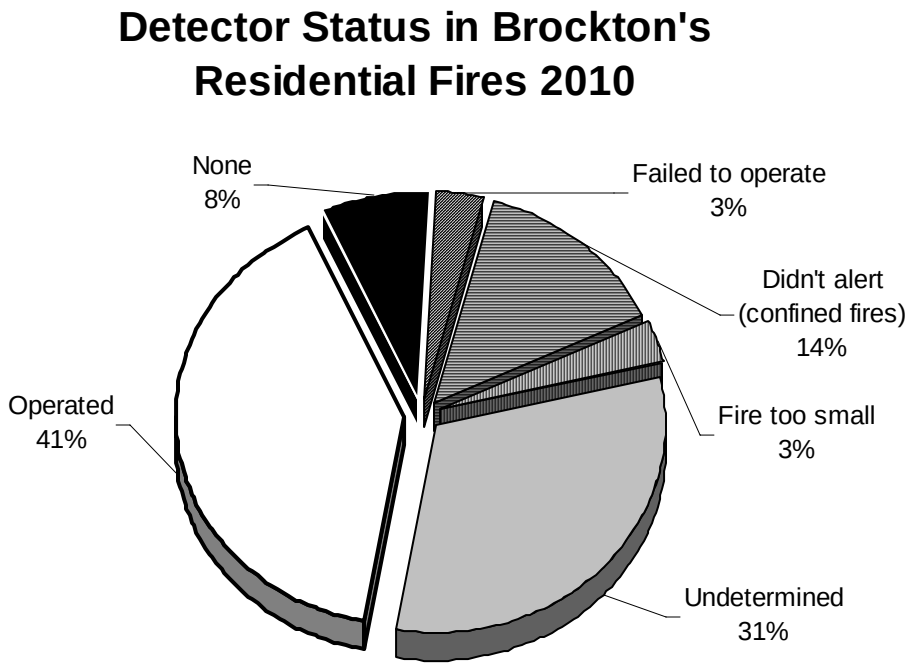
Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Brockton was unattended cooking and other unsafe cooking practices, accounting for 42% of these fires. Heating fires caused 24% of these fires. Electrical problems caused 6% of these fires. Smoking was the cause of 5% of Brockton's residential fires. Arsons caused 4% of these fires. Candles caused 3% of the fires. Clothes dryers and indoor rubbish fires each caused 1% of the fires in Brockton's residential occupancies in 2010.



1/2 of Residential Building Fires Are Confined to Non-Combustible Containers[3]
Seventy-eight (78), or 50% of all residential building fires were confined to non-combustible containers in 2010. Forty-seven (47), or 30%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Thirty (30), or 19%, were fires confined to a fuel burner or boiler malfunction. One (1) fire, or 1%, was reported to have been contained to a chimney or flue.

Detectors Worked in 60% of Fires
Smoke or heat detectors operated and alerted the occupants in 63, or 40%, of the residential building fires. In 14% of these fires[4], the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 8% 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 49 incidents, or 31% of Brockton's residential building fires.



Undetermined Why 4 Out of 5 Detectors Failed
It was undetermined in four of the five cases why the detector failed to operate. A dead battery was the reason the detector failed in one case.

[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.

VACANT BUILDINGS

7% of Building Fires Occurred in Vacant Buildings

Brockton reported 12 fires that occurred in buildings that were vacant, under construction or demolition[5]. This represented 7% of the total 181 building fires reported to MFIRS in 2010. Six (6) one- or two-family homes, three apartment buildings, one specialty shop, one outside material storage area; and one outbuilding or shed were reported as vacant building fire incidents.

JUVENILE-SET FIRES

No Juvenile-set Fires in 2010

Brockton did not report any juvenile-set fires in 2010.

ARSONS

25 Arsons[6] - 8 Structure, 3 Motor Vehicle and 14 Outside & Other

Twenty-five (25), or 7%, of Brockton's 375 fires were considered intentionally set, or, for purposes of this analysis, arson. There were eight structure arsons, three motor vehicle arsons and 14 outside and other arsons.

Outside Arsons Up in 2010

The total number of arsons increased by eight from the 17 reported in 2009. Reported structure arsons decreased by three from the 11 reported in 2009. Motor vehicle arsons decreased by two from the five reported in 2009. Outside and other arsons increased by 13 from the one reported the previous year.

58 Fires Reported as Undetermined or Still Under Investigation

In 2010, Brockton reported 58 fires under investigation or cause undetermined after investigation. Forty-seven (47), or 81%, of these fires were reported to be undetermined after investigation. The other 11, or 19%, were still under investigation.

Nine (9), or 16%, of these 47 fires were structure fires. Nineteen (19), or 33% were motor vehicle fires; and 30, or 52%, were outside or other fires. Because so many fires or under investigation or undetermined after investigation, the true arson number might be actually higher in Brockton for 2010.

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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.

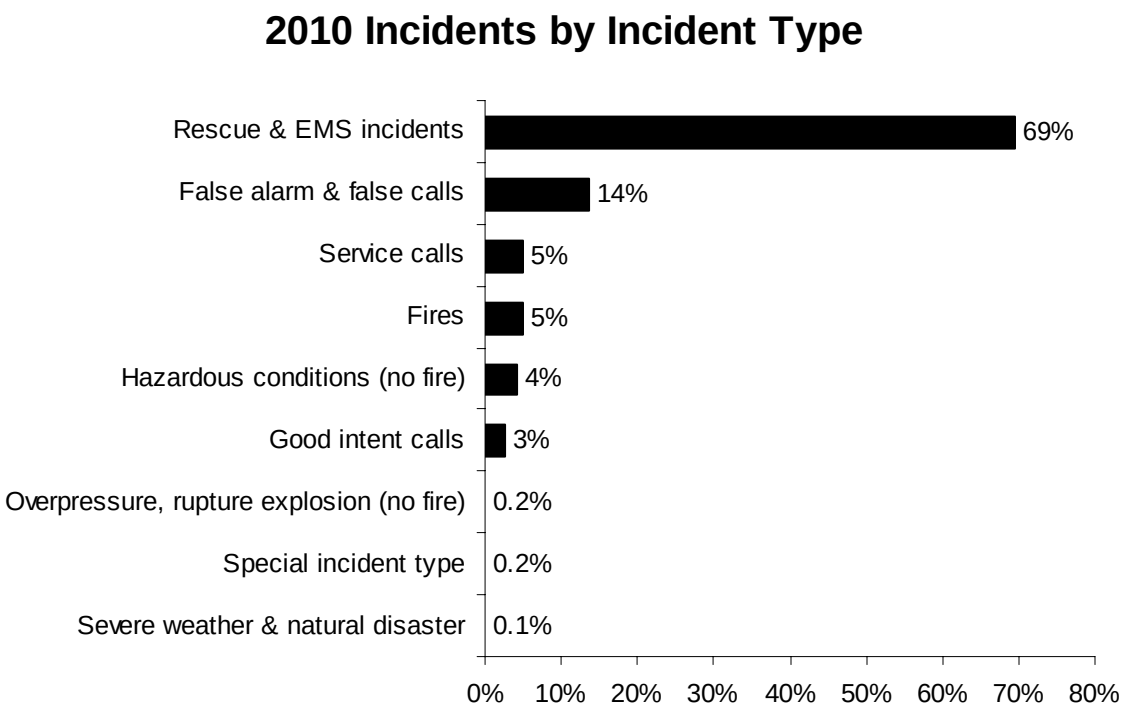
ALL INCIDENTS

Rescue & EMS Incidents Are Over 2/3 of All Reported Incidents

In 2010, Brockton voluntarily reported 8,189 incidents to MFIRS. Of these 8,819 incidents, 7,804, or 95% were non-fire incidents. For the first time since 2001, Brockton voluntarily reported all of their incidents to MFIRS.

Of these 7,804 non-fire incidents 5,691, or 69% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 1,109, or 14%, were reported false alarm or false calls; 411 incidents, or 5%, was a service calls; 344, or 4%, were reported hazardous condition calls with no fire; 212, or 3%, were good intent calls; 17, or 0.2%, were overpressure, rupture or explosions with no after fire calls; 15, or 0.2%, were special incident types; and five, or 0.1%, were severe weather or natural disaster calls.

In 2010, Brockton reported 385 fires[7], accounting for 5% of all reported incidents.



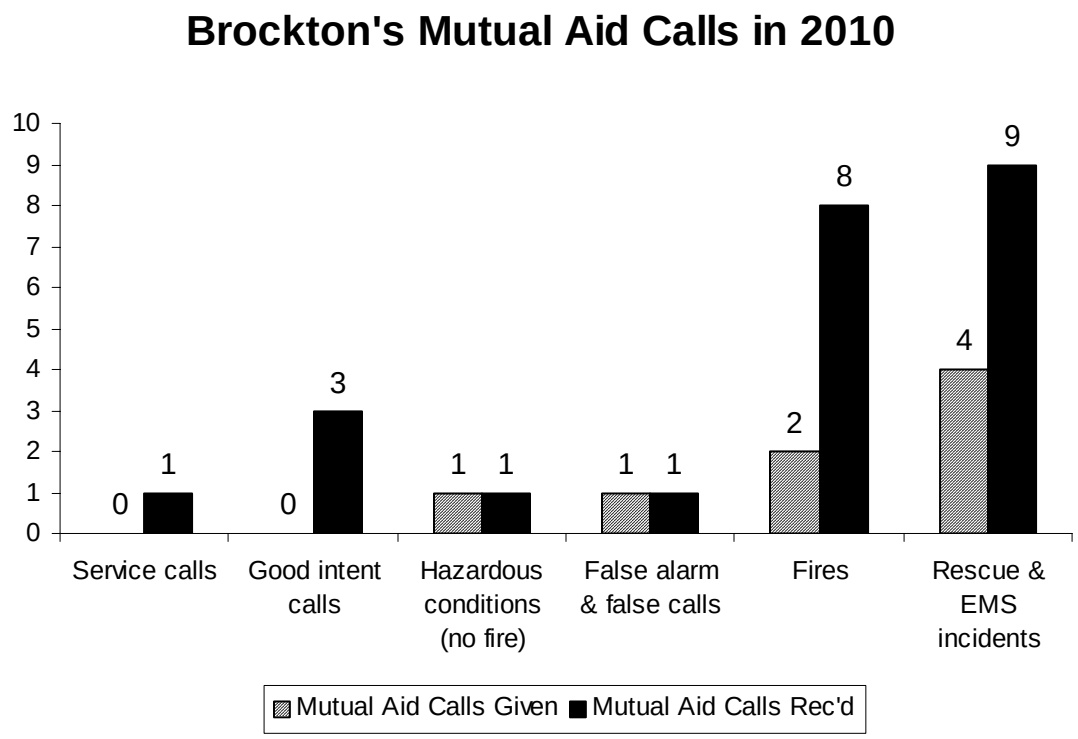
Brockton Gave Mutual Aid in 8 Reported Incidents

In 2010, Brockton reported coming to the aid of other fire departments eight times. Four, or 50%, of these calls were rescue or EMS calls; two, or 25%, were for fires; one, or 17% was for a false alarm or false call; and the other call, or 17%, was for a hazardous condition with no fire.

[7] This includes fires that Brockton responded to as mutual aid calls outside of their jurisdiction.

Brockton Received Mutual Aid in 23 Incidents
In 2010, surrounding fire departments gave aid to Brockton during 23 incidents. Nine, or 39%, were for rescue or EMS incidents, eight, or 35%, of these incidents were for fires, three, or 13% were good intent calls; one, or 4%, was for a false alarm or false call; another call, or 4%, was for a service call; and the last mutual aid received call, or 4%, was for a hazardous condition call with no fire.

The following chart compares the number of calls the Brockton Fire Department gave mutual aid to a neighboring community compared to the number of calls where a neighboring community assisted Brockton. In 2010 Brockton received aid from other fire departments almost three times as much as they were asked for it.



Brockton Population: 93,810

4.0 Fires/1,000 Population

Total Fires:	**375**		**$3,317,611**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	181	48%	$3,114,710
Vehicle Fires	41	11%	128,098
Other Fires	153	41%	74,803

8 Civilian Injuries 11 Fire Service Injuries

Building Fires: 181

Residential Structure Fires: 156

Residential Structure Fires Confined to Non-Combustible Containers: 78

Unconfined Residential Structure Fires: 78

6 Civilian Injuries 11 Fire Service Injuries

Occupancy	**Fires**	**%**
1- & 2-Family homes	77	49%
Apartments	72	46%
Hotel/motel	1	1%
Dormitories	1	1%
Boarding houses	1	1%

Detector Status	**Fires**	**%**
Operated	63	41%
Didn't operate	5	3%
None	12	8%
Fire too small	5	3%
Didn't Alert (confined)	22	14%
Undetermined	49	31%

Area of Origin[8]	**%**
Kitchen	42%
Heating room or area	19%
Bedroom	4%
Exterior balcony/unencl. porch	4%
Interior stairway	3%

Heat Source	**%**	**%Unconfined**[9]
Radiated heat from op. eq.	9%	18%
Arcing	8%	17%
Heat from operating equip.	6%	13%
Cigarette	4%	9%
Candles	3%	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]	**%**
Cooking materials	34%
Flammable or combustible liq.	19%
Structural member, framing	11%
Exterior sidewall covering	6%

Factor Contrib. to Ignition	**%**	**%Unconfined**[11]
Abandoned materials	1%	3%
Electrical failure/malfunction	1%	3%
Equipment unattended	1%	1%
Too close to combustibles	1%	1%

Equipment[12]	**%**
Cooking equipment	42%
None	24%
Boiler, furnace, cent. heat. unit	19%
Electrical branch circuit	3%

Cause of Ignition	**%**	**%Unconfined**[13]
Unintentional	32%	64%
Intentional	4%	9%
Failure of eq./heat source	8%	17%
Act of Nature	2%	4%
Undetermined	1%	3%
Cause Under Investigation	10%	15%

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

Alerted Occupants	46%
Didn't Alert Occupants	28%
Undetermined	26%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	5,691	69%
False alarms & false calls	1,109	14%
Service calls	411	5%
Fires[14]	385	5%
Hazardous conditions (no fire)	344	4%
Good intent calls	212	3%
Overpressure rupture, explosion or overheat calls (no fire)	17	0.2%
Special incident type calls	15	0.2%
Severe weather & natural disaster calls	5	0.1%

[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.

[14] This figure contains the fire that Brockton gave mutual aid to in another jurisdiction.

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	24	20	3	1
February	16	6	5	5
March	18	11	3	4
April	34	22	7	5
May	23	16	0	7
June	15	10	2	3
July	26	12	4	10
August	53	17	1	35
September	49	11	4	34
October	46	15	9	22
November	38	22	0	16
December	33	19	3	11

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	61	23	4	34
Monday	57	31	8	18
Tuesday	55	28	6	21
Wednesday	39	21	3	15
Thursday	57	31	6	20
Friday	52	24	7	21
Saturday	54	23	7	24

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	49	20	11	18
04:01 - 08:00	43	15	2	26
08:01 - 12:00	50	26	4	20
12:01 - 16:00	80	40	6	34
16:01 - 20:00	88	49	10	29
20:01 - 24:00	65	31	8	26

Motor Vehicle Fires

Total: 41
Automobiles: 39 (95%)
3 (8%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 25 **Dollar loss: $594,258**

0.27 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	8	4%	32%	$573,260
Vehicle Arsons	3	7%	12%	19,998
Other Arsons	14	9%	56%	1,000

0.09 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.15 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
00:01 - 04:00	5	63%
20:01 - 00:00	2	25%
16:01 - 20:00	1	13%

Vehicle Arsons	#	%
00:01 - 04:00	2	67%
16:01 - 20:00	1	33%

Other Arsons	#	%
12:01 - 16:00	4	29%
16:01 - 20:00	4	29%
08:01 - 12:00	3	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	4	50%
Apartments	2	25%
Dormitory	1	13%
Storage, other	1	13%

Suffolk County Has It's Own In-Depth Analysis Report Which Is Published Separately

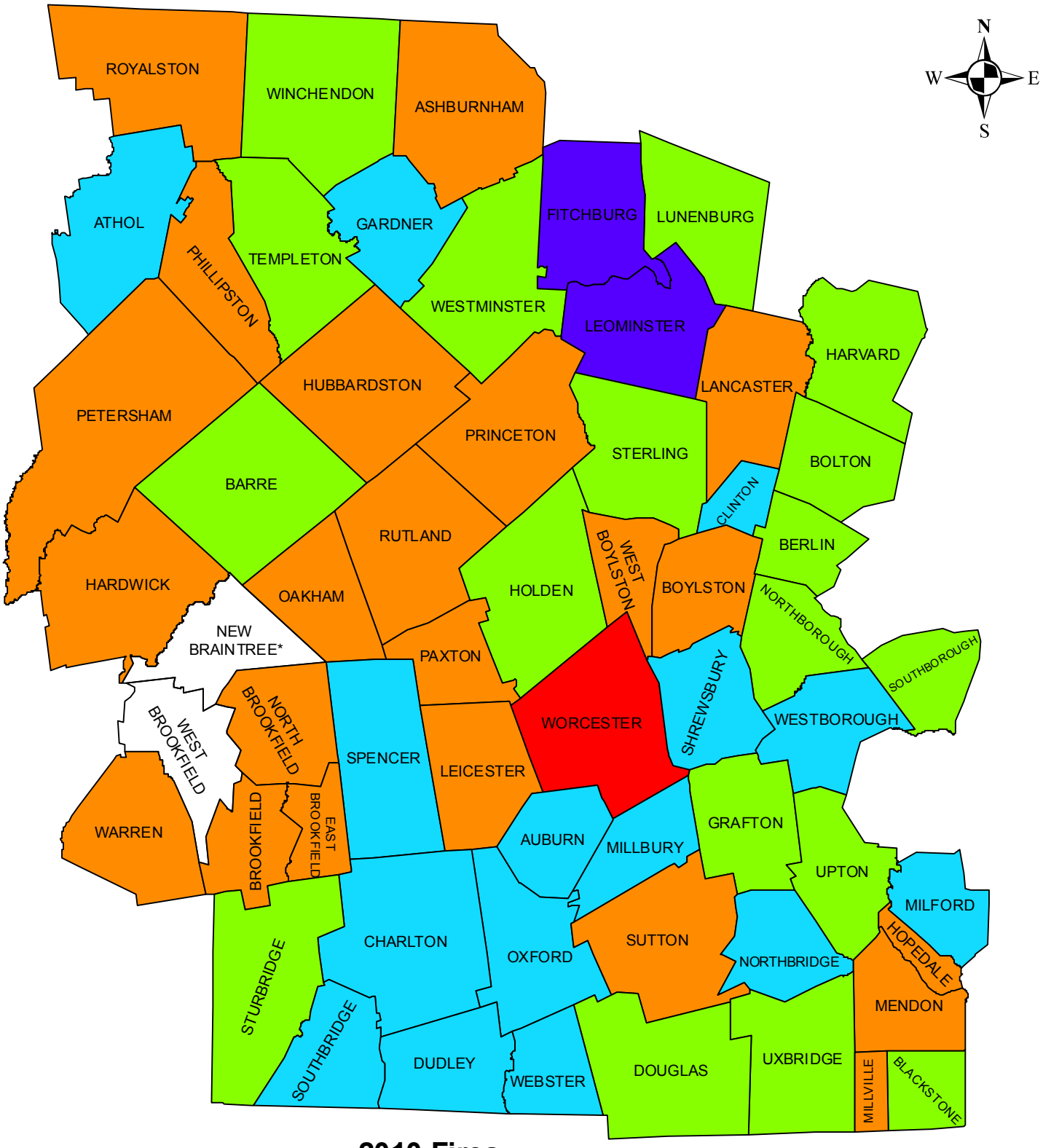
Worcester County

2010 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

Worcester County Fires 2010



2010 Fires

- 0
- 1 - 25
- 26 - 50
- 51 - 200
- 201 - 500
- 501 - 1430

*Non-reporting fire department

Miles

0 1.5 3 6 9 12

Massachusetts Fire Incident Reporting System 2010

MASS. DEPARTMENT OF FIRE SERVICES

MFIRS Massachusetts Fire Incident Reporting System

Worcester County Fires in 2010

4,282 Total Fires — 2,249 Structures, 395 Vehicles & 1,638 Other Fires
Worcester County ranked third out of the fourteen Massachusetts counties in total reported fires. Worcester County fire departments reported 4,282 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 2,249 structure fires, 395 motor vehicle fires, 809 brush fires, 656 outside rubbish fires, 104 special outside fires, five cultivated vegetation or crop fires and 64 unclassified fires caused five civilian deaths, 53 civilian injuries, 105 fire service injuries and an estimated dollar loss of $23 million. Worcester County's fires accounted for 13% of the 32,680 Massachusetts fires reported in 2010.

Fifty-nine (59), or 98.3%, of the 60 fire departments in Worcester County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2010.

All Fires Up
Total fires increased by 477, or 13%, from 3,805 incidents in 2009. Reported structure fires increased by 70 from the 2,179 reported during the previous year. Motor vehicle fires increased by 14 from 381 the year before. Outside and other fires increased by 393 from 1,245 the year before.

Brush Fires Up by 44%
Brush fires increased by 246, or 44%, from the 563 reported in 2010. This increase is the main reason for the rise in all Worcester County fires.

WORCESTER COUNTY FIRES FROM 2006 TO 2010

Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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	4,182	2,203	461	1,518	142	36	24	82
2009	3,805	2,179	381	1,245	185	40	29	116
2010	4,282	2,249	395	1,638	165	38	10	117

Fire and Fire Death Rates
Worcester County had 5.4 fires per 1,000 population. That figure ranks Worcester County third in the state and above the state rate of 5.0 fires per 1,000 population. Worcester County also had 0.06 fire deaths per 10,000 population ranking it tied for fifth among Massachusetts counties and slightly above the state rate of 0.05 fire deaths per 10,000 population.

5 Residents Died in 4 Worcester County Fires

- On January 14, 2010, at 6:18 a.m., the Spencer Fire Department responded to an arson fire at a single-family home. The fire was a murder-suicide event. The victim was a 66-year old woman. Her 69-year old husband set the fire, shot her, their horse, and then himself. He was transported to a local hospital where he later succumbed to his injuries. One (1) firefighter was injured at this fire. There were no detectors and the home was not sprinklered. No estimation was made for damages from this fire.

- On February 12, 2010, at 12:00 p.m., the Worcester Fire Department was dispatched to a smoking fire in a single-family home. The victim, an 83-year old man, was able to call 911 and tell them that he just ignited his cigarette while using oxygen and that his clothing had caught fire. He was transported to a local hospital where he succumbed to his injuries. There were no other injuries associated with this fire. Detectors were present, but it was undetermined if they operated. The home was not sprinklered. Damages from this fire were not estimated.

- On April 24, 2010, at 11:23 p.m., the Webster Fire Department was called to a smoking fire in a single-family home. The victim, a 46-year old man was smoking and possibly impaired by alcohol. Two (2) firefighters were injured at this fire. Detectors were present and operated. The home was not sprinklered. Damages were estimated to be $50,000.

- On November 6, 2010, at 10:27 a.m., the Holden Fire Department was dispatched for a burned patient with unknown fire spread in a single-family home. Upon arrival, firefighters discovered a 68-year old man with burns on his body. The victim had collapsed into his fireplace and his clothing ignited. He was transported to a local hospital where he succumbed to his injuries. The fire was contained to the fireplace and the victim. It was undetermined if smoke detectors were present and the home was not sprinklered. No estimation was made for damages from this fire.

Largest Loss Fire in 2010

- On March 5, 2010, at 10:55 a.m., the Worcester Fire Department was called to a fire of undetermined cause at a grocery store. The fire is believed to have started on the first floor. Two (2) firefighters were injured at this fire. Detectors were present and they alerted the occupants. The building was not sprinklered. Damages from this fire were estimated to be $1.5 million.

STRUCTURE FIRES

Reported Structure Fires Up

The 2,249 structure fires caused all five civilian deaths, 41 civilian injuries, 100 fire service injuries and an estimated dollar loss of $21.4 million. These incidents represented 53% of Worcester County's reported fires in 2010. The average estimated dollar loss per

structure fire was $9,528. The total number of reported structure fires increased by 70, or 3%, from the 2,179 reported in 2009.

Arson Caused 2% of Structure Fires

The 38 structure arsons caused two civilian deaths, two civilian injuries, three fire service injuries and an estimated dollar loss of $615,775. Arson was indicated as the cause of 2% of the structure fires and 3% of Worcester County's structure fire dollar loss. The 38 structure arsons accounted for 23% of the Worcester County arson fires reported in 2010. The total number of reported structure arsons decreased by two, or 5%, from 40 in 2009.

58% of Structure Arsons Occurred in Residences

Fifty-eight percent (58%) of Worcester County's 38 structure arsons occurred in residential occupancies; 11% happened in special properties; 8% occurred in storage facilities; 5% each happened in educational facilities, institutional facilities, and mercantile and business properties. Public assembly facilities, industrial facilities and manufacturing or processing facilities each had one structure arson in Worcester County in 2010.

BUILDING FIRES

There were 2,218 building fires of different types in Worcester County in 2010. These 2,218 building fires accounted for 98.6% of all structure fires in Worcester County.

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

One thousand eight hundred and eighty (1,880), or 85%, of Worcester County's 2,218 building fires occurred in residential occupancies. Mercantile and business properties had 70 fires. Sixty-nine (69) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 53 fires. Forty-two (42) building fires in Worcester County occurred in special properties such as outbuildings, bus stop shelters and tollbooths. Thirty-seven (37) building fires took place on educational properties. Thirty-four (34) fires took place in manufacturing and processing facilities. Twenty-nine (29) fires took place in storage properties. Three (3) fires occurred in industrial, utility, defense, agricultural or mining facilities, and one fire occurred in an unclassified building in Worcester County in 2010.

RESIDENTIAL FIRES

Residential Building Fires Are Up Slightly

There were 1,880 reported residential building fires in Worcester County in 2010. These 1,880 fires are an increase of 43, or 2%, from the 1,837 residential building fires reported in 2009.

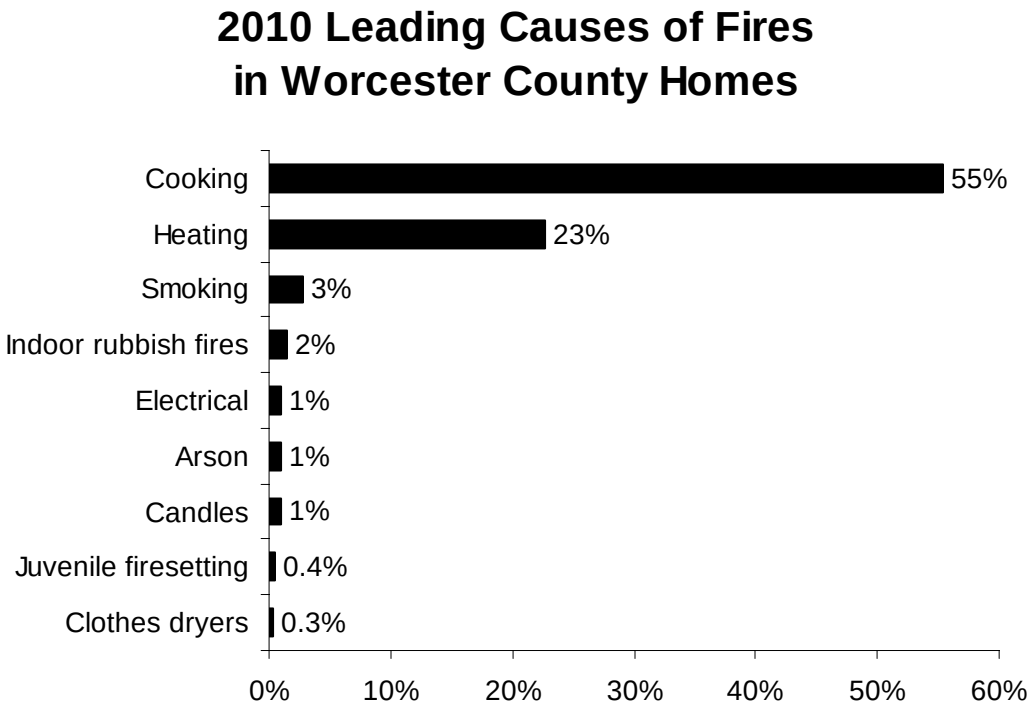
Apartments Accounted for 46% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 46% of the residential building fires in Worcester County; 43% occurred in one- or two-family homes; 4% happened in rooming houses; 3% occurred in dormitories; 1%

occurred in residential board and care facilities; and less than 1% happened in hotels or motels. Twenty-seven (27), or 1%, of the residential building fires in Worcester County occurred in unclassified residential buildings.

Unattended Cooking Caused 55% of Residential Fires

The leading cause of residential building fires in Worcester County was unattended cooking and other unsafe cooking practices accounting for 55% of these fires. Heating caused 23% of fires in people's homes. Smoking accounted for 3% of these fires. Indoor rubbish fires caused 2%. Arson, electrical problems and candles each caused 1% of the fires in people's homes in Worcester County in 2010. Juvenile-set fires and clothes dryers each caused less than 1% of these fires in 2010.



76% of Residential Building Fires Are Confined to Non-Combustible Containers[1]

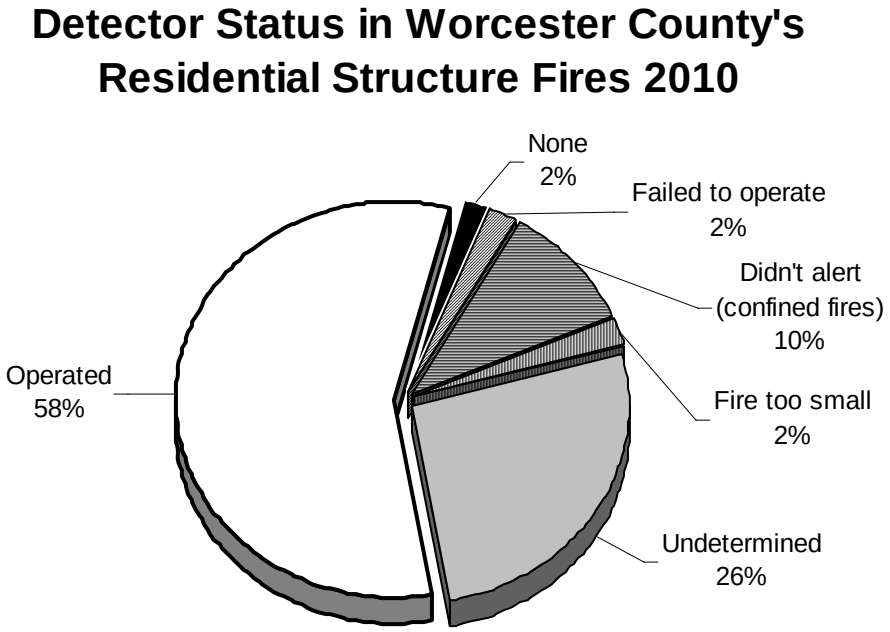
One thousand four hundred and twenty-one (1,421), or 76% of all residential building fires, were reported as confined to non-combustible containers in 2010. Nine hundred and eighty-four (984) of the reported fires were cooking fires contained to a non-combustible container accounting for 52% of residential building fires. Two hundred and thirty-two (232), or 12%, were fires confined to a fuel burner or boiler malfunction. One hundred and seventy-six (176), or 9%, of all residential building fires reported in 2010 were

[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.

confined to a chimney. Twenty-seven (27), or 1%, of the residential building fires in Worcester County in 2010 were contained rubbish fires. Two (2) fires, or less than 1%, were confined to commercial compactors.

Detectors Alerted Occupants in 58% of Fires

Smoke or heat detectors operated and alerted the occupants in 1,069, or 58%, 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 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 2% of the residential fires. Smoke detector performance was undetermined in 498 incidents, or 26%, of Worcester County's residential building fires.



32% of Failed Detectors Had Missing or Disconnected Batteries

Of the 38 fires where smoke detectors were present but failed to operate, 12, or 38%, failed because the batteries were either missing or disconnected. Five (5), or 13%, failed because of a power failure, shutoff or disconnect. Three (3) detectors, or 8%, were defective. One (1), or 3%, did not operate because of a dead battery. It was undetermined or unclassified in 17 cases, or 45%, 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

Worcester County reported 39 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 2,218 building fires reported to MFIRS in 2010. Twenty-four (24) fires occurred in vacant residential properties. Five (5) vacant building fires occurred in storage facilities. Three (3) of these fires occurred in mercantile and business properties. Two (2) of these fires occurred in manufacturing or processing facilities. Public assembly properties also accounted for two vacant building fire incidents; and two more occurred in special properties. One (1) vacant building fire occurred in an educational facility in Worcester County in 2010.

Seven (7), or 18%, of the vacant building fires in Worcester County in 2010 were determined to be intentionally set. Three (3) of these fires occurred in apartments. A single-family home, an unclassified residential building, an outbuilding or shed, and an unclassified special property each accounted for one vacant structure arson.

JUVENILE-SET FIRES

27 Juvenile-set Fires

There were 27 reported juvenile-set fires in Worcester County in 2010. The 10 structure fires, one motor vehicle fire, 12 brush fires, three special outside fires, and one outside rubbish fire caused two civilian injuries and $209,451 in estimated damages.

ARSONS

165 Total Arsons[4] — 38 Structures, 10 Vehicles & 117 Other Arsons

One hundred and sixty-five (165), or 4%, of Worcester County's 4,282 fires were considered intentionally set, or, for purposes of this analysis, arson. The 38 structure arsons, 10 motor vehicle arsons and 117 outside and other arsons caused two civilian deaths, three civilian injuries, three fire service injuries and an estimated dollar loss of $626,776. Worcester County's arson fires accounted for 14% of the state's total arson fires, but only 9% of the state's total dollar losses from arsons.

[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 & Motor Vehicle Arson Fires Down

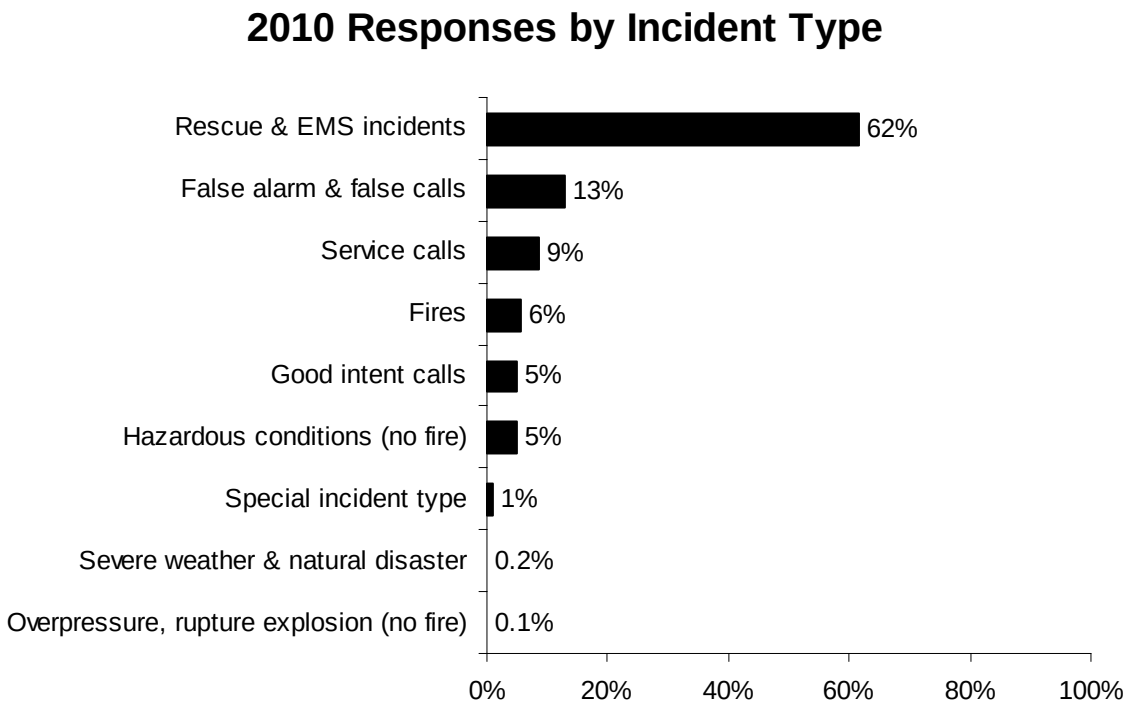
The total number of arsons decreased by 20 from 185 in 2009. Reported structure arsons decreased by two from 40 the year before. Motor vehicle arsons decreased 19 from 29 reported in 2009. Outside and other arsons increased by one from the 116 reported last year.

ALL INCIDENTS

Rescue & EMS Calls Are 62% of All Reported Responses

In 2010, fire departments in Worcester County reported 83,135 responses[5] to MFIRS. This is an increase of 1,457 runs, or 2%, over the 81,678 reported in 2009. Of these 83,135 responses, 78,505 non-fire calls were voluntarily reported.

Of these 78,505 non-fire calls, 51,302, or 62%, of all the responses reported in 2010, were reported rescue and emergency medical services (EMS) calls; 10,791, or 13%, were reported false alarm or false calls; 7,115, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 4,199, or 5%, were reported good intent calls; 4,087, or 5%, reported hazardous condition calls with no fire; 743, or 1%, were special incident type calls such as citizen complaints; 148, or 0.2%, were severe weather calls; and 120, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.



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

Four thousand and six hundred and thirty (4,630), or 6%, of the total responses submitted by Worcester County fire departments were fires.

Worcester County Fire Departments Reported Giving Mutual Aid 1,986 Times
In 2010, Worcester County fire departments reported coming to the aid of other fire departments 1,986 times. Of these 1,986 responses, 1,019, or 51%, were for rescue or EMS incidents; 458, or 23%, were for service calls such as cover assignments; 304, or 15%, were for fires; 101, or 5%, were for good intent calls; 71, or 4%, were for false alarms or false calls; 28, or 1%, were for hazardous conditions calls with no fire; four, or 0.2%, were special incident types; and one, or 0.1%, was a severe weather call.

Worcester County Fire Departments Received Mutual Aid in 895 Incidents
In 2010, Worcester County fire departments reported receiving aid from surrounding departments in 895 incidents. Of these 895 incidents, 520, or 58% were rescue and emergency medical services calls; 225, or 25%, were for fires; 63, or 7%, were false alarms or false calls; 40, or 4%, were hazardous conditions calls with no fire; 27, or 3%, were good intent calls; 15, or 2%, were service calls; two, or 0.2%, were severe weather calls; two, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.1%, were special incident type calls.

.

Worcester County Population: 798,552

5.4 Fires/1,000 Population

Total Fires:	**4,282**		**$23,038,088**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	2,249	53%	$21,428,791
Vehicle Fires	395	9%	1,385,790
Other Fires	1,638	38%	223,507

4 Fatal Fires	1.17 Civilian Deaths/1,000 Fires
5 Civilian Deaths	0.06 Civilian Deaths/10,000 Population
53 Civilian Injuries	105 Fire Service Injuries

Building Fires: 2,218

Residential Structure Fires: 1,880

Residential Structure Fires Confined to Non-Combustible Containers: 1,421

Unconfined Residential Structure Fires: 459

5 Civilian Deaths 39 Civilian Injuries 64 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	842	46%
1- & 2-Family homes	799	43%
Rooming houses	90	4%
Dormitories	63	3%
Residential board & care	23	1%
Hotels or motels	6	0.3%

Detector Status	**Fires**	**%**
Operated	1069	58%
Didn't operate	38	2%
None	40	2%
Fire too small	39	3%
Didn’t Alert (confined)	196	10%
Undetermined	498	26%

Area of Origin[6]	**%**
Kitchen	58%
Heating room or area	12%
Chimney or flue	9%
Bedroom	2%
Living room	1%

Heat Source	**%**	**%Unconfined[7]**
Radiated heat from oper. eq.	4%	16%
Heat from operating eq.	3%	12%
Arcing	2%	9%
Hot ember or ash	2%	7%
Hot or smoldering object	1%	6%
Cigarette	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]	**%**
Food, cooking materials	54%
Flammable, combustible liquid	12%
Film or residue (creosote)	9%
Rubbish, trash, waste	2%
Structural member, framing	2%

Factor Contrib. to Ignit.	**%**	**%Unconfined[9]**
Too close to combustibles	3%	11%
Abandoned materials	2%	9%
Misuse of materials	2%	7%
Elec. fail., malfunc., other	1%	5%
Equipment unattended	1%	4%
Failure to clean	1%	4%

Equipment[10]	**%**
Cooking equipment	54%
None	20%
Boiler, furnace, cent. heat. unit	12%
Chimney or flue	9%
Clothes dryer	0.3%

Cause of Ignition	**%**	**%Unconfined[11]**
Unintentional	13%	51%
Failure of eq. or heat source	3%	13%
Intentional	1%	5%
Act of Nature	1%	3%
Cause under investigation	4%	18%
Undetermined	2%	9%

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

Alerted Occupants	59%
Didn't Alert Occupants	14%
Undetermined	27%

[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	321	267	31	23
February	273	204	29	40
March	338	183	31	124
April	485	172	24	289
May	389	141	41	207
June	285	130	30	125
July	406	154	33	219
August	355	146	33	176
September	363	164	42	157
October	312	204	44	64
November	396	224	27	145
December	359	260	30	69

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	691	350	52	289
Monday	609	314	68	227
Tuesday	545	325	54	166
Wednesday	560	286	54	220
Thursday	578	297	51	230
Friday	603	334	50	219
Saturday	696	343	66	287

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 – 04:00	307	161	54	92
04:01 – 08:00	249	152	33	64
08:01 – 12:00	615	369	71	175
12:01 – 16:00	1,153	527	103	523
16:01 – 20:00	1,229	683	75	471
20:01 – 00:00	729	357	59	313

Motor Vehicle Fires

Total: 395
Automobiles: 329 (83%)
9, or (3%), of the automobile fires considered incendiary or suspicious

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Arson Fires

Total Arsons: 165 **Dollar loss: $626,776**

0.2 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	38	2%	23%	$615,775
Vehicle Arsons	10	3%	6%	9,000
Other Arsons	117	7%	71%	2,001

0.05 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.15 Other arsons/1,000 population

2 Civilian Deaths 3 Civilian Injuries 3 Fire Service Injuries

Peak Times of Day for:

Structure Arsons	#	%	Vehicle Arsons	#	%
20:01 – 00:00	10	26%	00:01 – 04:00	4	40%
00:01 – 04:00	8	21%	20:01 – 00:00	4	40%
08:01 – 12:00	7	18%	04:01 – 08:00	1	10%
12:01 – 16:00	5	13%	16:01 – 20:00	1	10%

Other Arsons	#	%
16:01 – 20:00	39	33%
20:01 – 00:00	25	21%

Peak Fixed Property Uses for Structure Arsons	#	%
1- or 2-Family homes	10	26%
Apartments	9	24%

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Ashburnham **Population: 6,081**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	13	7	3	3	1	1	0	0
2010	12	7	2	3	0	0	0	0

Athol **Population: 11,584**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	56	21	5	30	7	1	0	6
2010	58	20	7	31	0	0	0	0

Auburn **Population: 16,188**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	50	23	11	16	0	0	0	0
2010	67	20	20	27	2	1	0	1

Barre **Population: 5,398**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	26	11	2	13	0	0	0	0
2010	32	15	2	15	2	2	0	0

Berlin **Population: 2,886**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	16	5	2	9	0	0	0	0
2010	29	12	6	11	7	3	1	3

Blackstone **Population: 9,026**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	41	18	5	18	2	0	0	2
2010	35	13	2	20	0	0	0	0

Bolton **Population: 4,897**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	19	5	2	12	0	0	0	0
2010	29	7	10	12	0	0	0	0

Boylston **Population: 4,355**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	3	1	1	0	0	0	0
2010	5	1	3	1	0	0	0	0

Brookfield **Population: 3,390**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	3	3	0	0	0	0	0	0
2010	5	3	0	2	0	0	0	0

Charlton **Population: 12,981**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	59	37	6	16	2	1	0	1
2010	65	36	8	21	2	1	0	1

Clinton **Population: 13,606**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	149	127	0	22	1	0	0	1
2010	169	128	7	34	0	0	0	0

Douglas **Population: 8,471**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	33	22	3	8	0	0	0	0
2010	41	29	1	11	0	0	0	0

Dudley **Population: 11,390**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	80	24	7	49	7	0	1	6
2010	60	15	5	40	5	0	0	5

East Brookfield **Population: 2,183**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	6	1	0	5	1	0	0	1
2010	5	4	0	1	0	0	0	0

Fitchburg **Population: 40,318**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	366	293	19	54	14	5	2	7
2010	412	308	26	78	7	2	0	5

Gardner **Population: 20,228**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	89	41	10	38	3	1	0	2
2010	80	53	8	19	1	1	0	0

Grafton **Population: 17,765**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	37	17	7	13	2	0	0	2
2010	28	17	7	4	0	0	0	0

Hardwick **Population: 2,990**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	8	5	0	3	0	0	0	0
2010	6	3	0	3	1	0	0	1

Harvard **Population: 6,520**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	24	6	2	16	1	0	0	1
2010	32	11	1	20	2	0	0	2

Holden **Population: 17,346**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	34	24	3	7	0	0	0	0
2010	50	30	6	14	0	0	0	0

Hopedale **Population: 5,911**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	5	0	0	0	0	0	0
2010	9	8	0	1	0	0	0	0

Hubbardston **Population: 4,382**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	19	10	0	9	0	0	0	0
2010	21	9	2	10	0	0	0	0

Lancaster **Population: 8,055**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	19	10	3	6	3	0	0	3
2010	25	5	8	12	1	1	0	0

Leicester **Population: 10,970**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	29	6	9	14	1	1	0	0
2010	20	6	2	12	0	0	0	0

Leominster **Population: 40,759**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	203	120	25	58	8	0	6	2
2010	217	108	22	87	20	4	0	16

Lunenburg **Population: 10,086**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	41	26	1	14	0	0	0	0
2010	48	28	3	17	0	0	0	0

Mendon **Population: 5,839**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	18	4	4	10	6	1	0	5
2010	21	5	1	15	7	0	0	7

Milford **Population: 27,999**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	117	67	20	30	5	3	1	1
2010	98	43	13	42	3	0	2	1

Millbury **Population: 13,261**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	49	31	8	10	2	1	1	0
2010	66	43	8	15	0	0	0	0

Millville **Population: 3,190**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	4	0	5	0	0	0	0
2010	7	5	0	2	0	0	0	0

New Braintree **Population: 999**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Non-Reporting Community							
2007	2	0	2	0	0	0	0	0
2008	1	1	0	0	0	0	0	0
2009	Non-Reporting Community							
2010	Non-Reporting Community							

North Brookfield **Population: 4,680**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	22	6	3	13	4	0	1	3
2010	23	9	0	14	3	0	0	3

Northborough **Population: 14,155**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	27	5	10	12	0	0	0	0
2010	43	15	7	21	2	0	0	2

Northbridge **Population: 15,707**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	43	29	3	11	0	0	0	0
2010	82	45	6	31	2	1	0	1

Oakham **Population: 1,902**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	9	4	0	5	0	0	0	0
2010	17	4	0	13	0	0	0	0

Oxford **Population: 13,709**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	54	35	7	12	2	2	0	0
2010	60	32	10	18	2	1	0	1

Paxton **Population: 4,806**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	5	3	0	2	0	0	0	0
2010	12	7	2	3	0	0	0	0

Petersham **Population: 1,234**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	11	9	0	2	0	0	0	0
2010	5	2	0	3	0	0	0	0

Phillipston **Population: 1,682**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1	1	0	0	0	0	0	0
2010	2	0	0	2	1	0	0	1

Princeton **Population: 3,413**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	12	3	2	7	3	2	1	0
2010	22	7	2	13	2	1	0	1

Royalston **Population: 1,258**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	Non-Reporting Community							
2007	Non-Reporting Community							
2008	1	1	0	0	0	0	0	0
2009	6	4	1	1	1	1	0	0
2010	2	2	0	0	0	0	0	0

Rutland **Population: 7,973**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	30	10	1	19	4	1	0	3
2010	24	10	1	13	0	0	0	0

Shrewsbury **Population: 35,608**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	107	71	11	25	4	0	0	4
2010	126	64	13	49	2	0	1	1

Southborough **Population: 9,767**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	25	15	6	4	0	0	0	0
2010	29	10	10	9	0	0	0	0

Southbridge **Population: 16,719**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	76	55	7	14	3	2	1	0
2010	82	48	6	28	2	0	0	2

Spencer **Population: 11,688**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	68	40	8	20	4	1	1	2
2010	91	58	5	28	3	1	0	2

Sterling **Population: 7,808**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	41	15	6	20	4	1	1	2
2010	33	10	3	20	0	0	0	0

Sturbridge **Population: 9,268**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	40	17	7	16	1	0	0	1
2010	43	15	9	19	3	0	0	3

Sutton **Population: 8,963**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	20	10	2	8	1	0	0	1
2010	16	4	3	9	1	0	0	1

Templeton **Population: 8,013**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	47	26	4	17	3	0	0	3
2010	42	32	0	10	2	1	0	1

Upton **Population: 7,542**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	42	23	6	13	9	0	0	9
2010	37	20	5	12	0	0	0	0

Uxbridge **Population: 13,457**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	58	35	6	17	3	0	0	3
2010	45	18	10	17	3	1	0	2

Warren **Population: 5,135**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	11	3	7	2	1	0	1
2010	24	11	3	10	0	0	0	0

Webster **Population: 16,767**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	46	12	3	31	5	0	0	5
2010	69	22	6	41	10	2	0	8

West Boylston **Population: 7,669**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	21	6	0	15	3	0	0	3
2010	26	7	7	12	2	0	0	2

West Brookfield **Population: 3,701**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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							
2009	9	7	0	2	0	0	0	0
2010[12]	Fire Department in Good Standing, Certified No Reportable Fires							

[12] In 2010, West Brookfield did not report any fires, but they did report 1 Hazardous condition call with no fire, and 1 severe weather response.

Westborough **Population: 18,272**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	59	29	10	20	2	0	0	2
2010	64	37	5	22	3	2	0	1

Westminster **Population: 7,277**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	24	10	4	10	3	1	1	1
2010	40	15	6	19	0	0	0	0

Winchendon **Population: 10,300**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	26	20	2	4	0	0	0	0
2010	49	27	2	20	0	0	0	0

Worcester **Population: 181,045**

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
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
2009	1,232	696	111	425	56	13	12	31
2010	1,430	730	95	605	58	13	6	39

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	13	13	0	0	0	0	0	0	0	0
27015	Athol	1,065	71	4	230	67	349	156	151	14	23
27017	Auburn	2,987	74	5	2,184	202	123	154	229	3	13
27021	Barre	266	32	0	113	15	40	20	37	0	9
27028	Berlin	391	34	0	58	22	25	17	98	3	134
27032	Blackstone	537	42	0	150	38	120	36	142	8	1
27034	Bolton	193	32	1	17	26	29	38	49	1	0
27039	Boylston	20	7	1	3	8	1	0	0	0	0
27045	Brookfield	5	5	0	0	0	0	0	0	0	0
27054	Charlton	1,984	72	3	1,312	277	112	84	119	5	0
27064	Clinton	1,761	179	3	961	102	157	26	305	6	22
27077	Douglas	295	46	0	78	26	59	20	62	3	1
27080	Dudley	470	69	17	101	62	34	62	109	8	8
27084	East Brookfield	50	11	0	3	16	5	3	5	0	7
27097	Fitchburg	3,780	418	6	1,620	209	462	221	837	1	6

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

Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27103	Gardner	3,554	87	4	1,858	125	563	61	554	4	298
27110	Grafton	202	35	1	21	29	30	20	66	0	0
27124	Hardwick	114	23	0	5	39	11	3	30	3	0
27125	Harvard	213	32	0	24	4	90	9	53	0	1
27134	Holden	1,884	53	3	1,351	41	203	95	130	6	2
27138	Hopedale	10	9	0	0	0	1	0	0	0	0
27140	Hubbardston	527	21	1	334	15	77	45	32	2	0
27147	Lancaster	359	28	0	99	24	73	30	93	3	9
27151	Leicester	125	27	0	5	8	29	2	43	0	11
27153	Leominster	6,567	234	5	4,096	320	895	169	800	11	37
27162	Lunenburg	357	56	4	31	59	90	23	76	2	16
27179	Mendon	979	21	0	783	23	49	28	74	1	0
27185	Milford	4,500	116	2	2,899	168	679	191	419	3	23
27186	Millbury	266	67	4	16	52	54	24	48	1	0
27188	Millville	378	16	0	220	22	64	25	30	0	1

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Responses Reported to MFIRS by Department

FDID #	Department	Total # of Reported Responses	Fires	Overpressure Rupt. & Explos. (No fire)	Rescue EMS Incidents	Hazardous Conditions (No fire)	Service Calls	Good Intent Calls	False Alarm Calls	Severe WX & Natural Disaster	Special Incident Type
27212	North Brookfield	130	30	0	8	40	11	1	36	1	3
27215	Northborough	1,930	58	0	1,133	71	289	76	303	0	0
27216	Northbridge	786	90	0	199	91	135	76	194	0	1
27222	Oakham	146	24	0	86	10	11	3	11	0	1
27226	Oxford	527	63	4	99	66	69	64	158	0	4
27228	Paxton	18	12	0	1	4	0	0	0	1	0
27234	Petersham	93	8	0	32	9	22	1	18	2	1
27235	Phillipston	123	2	0	84	3	8	7	16	2	1
27241	Princeton	299	25	0	159	13	26	16	54	2	4
27255	Royalston	3	3	0	0	0	0	0	0	0	0
27257	Rutland	774	25	0	594	18	33	38	64	1	1
27271	Shrewsbury	3,301	130	0	2,230	209	196	97	407	4	28
27277	Southborough	1,287	39	1	754	78	128	79	206	2	0
27278	Southbridge	1,113	90	8	557	90	83	75	185	2	23
27280	Spencer	422	101	1	10	95	59	49	104	0	3
27282	Sterling	852	46	0	522	22	150	26	74	12	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	358	47	1	27	53	44	50	132	0	4
27290	Sutton	344	27	0	223	10	12	7	64	1	0
27294	Templeton	245	42	0	51	19	73	10	49	1	0
27303	Upton	325	50	0	24	74	70	18	79	3	7
27304	Uxbridge	1,866	52	4	1,475	57	78	58	137	4	1
27311	Warren	216	31	0	31	20	54	26	54	0	0
27316	Webster	489	74	2	7	100	94	33	169	0	10
27321	West Boylston	1,033	34	1	823	22	55	24	73	1	0
27323	West Brookfield	2	0	0	0	1	0	0	0	1	0
27328	Westborough	2,670	77	3	1,808	121	120	140	389	10	2
27332	Westminster	885	40	2	318	85	213	53	166	0	8
27343	Winchendon	1,369	49	0	946	38	121	76	131	8	0
27348	Worcester	27,677	1,431	29	20,529	669	537	1,534	2,927	2	19
Total	**Worcester County**	**83,135**	**4,630**	**120**	**51,302**	**4,087**	**7,115**	**4,199**	**10,791**	**148**	**743**

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Worcester Fires in 2010

1,430 Total Fires — 730 Structures, 95 Vehicles & 605 Other Fires
The Worcester Fire Department reported 1,430 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2010. The 730 structure fires, 95 motor vehicle fires, 141 brush fires, 447 outside rubbish fires, 16 special outside fires, and one cultivated crop fire caused one civilian death, two civilian injuries, 67 fire service injuries and an estimated dollar loss of $8.3 million.

Male Resident Killed While Smoking on Oxygen

- On February 12, 2010, at 12:00 p.m., the Worcester Fire Department was dispatched to a smoking fire in a single-family home. The victim, an 83-year old man, was able to call 911 and tell them that he just ignited his cigarette while using oxygen and that his clothing had caught fire. He was transported to a local hospital where he succumbed to his injuries. There were no other injuries associated with this fire. Detectors were present, but it was undetermined if they operated. The home was not sprinklered. Damages from this fire were not estimated.

Structure & Outside Fires Up 2010
Total fires increased by 198 from the 1,232 incidents reported in 2009. Reported structure fires increased by 34 from the 696 reported during the previous year. Motor vehicle fires declined by 16 from 111 the year before. Outside and other fires increased by 180 from the 425 reported the year before.

WORCESTER FIRES FROM 2006 TO 2010

	Total Fires	Structure Fires	Vehicle Fires	Other Fires	Total Arsons	Structure Arsons	Vehicle Arsons	Other Arsons
2006	1,312	635	119	558	45	12	8	25
2007	1,390	701	120	569	29	14	6	9
2008	1,445	807	117	521	53	18	12	23
2009	1,232	696	111	425	56	13	12	31
2010	1,430	730	95	605	58	13	6	39

BUILDING FIRES

There were 725 building fires of different types in Worcester in 2010. These 725 building fires accounted for 99% of all structure fires in Worcester.

86% of Building Fires in Homes
The 725 building fires that occurred in Worcester in 2010 can be broken down by fixed property use as follows: 620, or 86% of all structure fires, were in residential properties; 26 fires took place in public assembly properties; 25 fires occurred in mercantile or business properties; 23 fires took place in institutional properties; 16 fires happened in educational properties; seven fires occurred at manufacturing or processing facilities; four fires occurred in storage facilities; and another four fires happened in special properties.

RESIDENTIAL FIRES

Apartments Accounted for 62% of Residential Building Fires

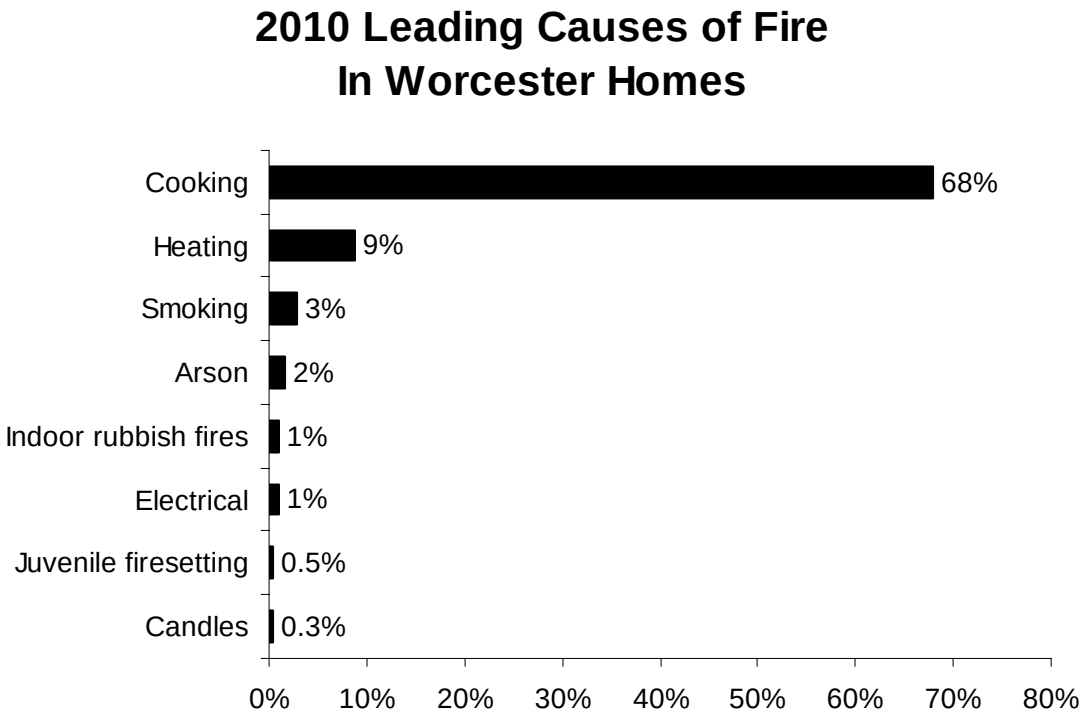
The peak fixed property uses for residential building fires were apartments, accounting for 62% of the building fires in Worcester; 18% occurred in one- or two-family homes; 11% occurred in rooming houses; 6% occurred in dormitories; 2% happened in residential board and care properties; 1% occurred in hotels and motels; and 1% occurred in unclassified residential properties.

Residential Building Fires Were Up

There were 620 reported residential building fires in Worcester in 2010. These 620 fires were an increase of 31, or 5%, from the 589 residential building fires reported in 2009.

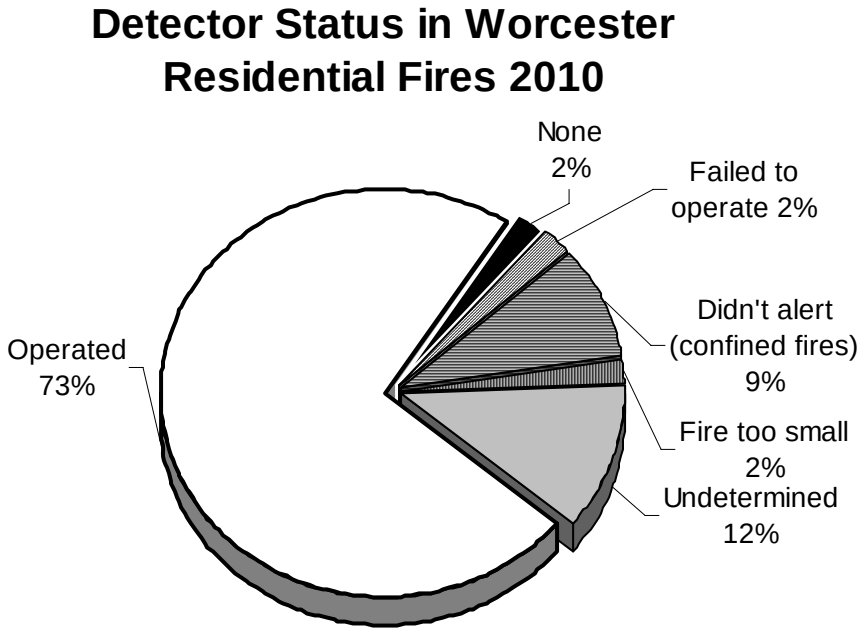
Unattended Cooking Caused Over 2/3 of All Residential Fires

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 9% of these fires. Smoking caused 3% of the fires in Worcester homes and the only fatal fire. Arsons were responsible for 2% of these fires. Electrical fires and indoor rubbish fires each caused 1% of these fires. Juvenile-set fires and candles were each responsible for less than 1% of the residential building fires in Worcester in 2010.



73% of Residential Building Fires Are Confined to Non-Combustible Containers[1]
Four hundred and twenty-one (421), or 73% of all residential building fires were confined to non-combustible containers in 2010. Three hundred and ninety-one (391), or 63%, of all residential building fires reported in 2010 were cooking fires contained to a non-combustible container. Forty-three (43), or 7%, of all residential building fires were fuel burner or boiler malfunctions. Eleven (11) of the reported fires were confined to a chimney, accounting for 2% of residential building fires in Worcester in 2010. Six (6) rubbish fires contained to a non-combustible container caused 1% of these fires and one commercial compactor fire caused 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 453, or 73%, 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 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 73 incidents, or 12% of Worcester'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.

27% of Failed Detectors Had Missing or Disconnected Batteries

Of the 15 fires where smoke detectors were present but failed to operate, four, or 27%, failed because the batteries were either missing or disconnected. A power failure, shutoff or disconnect caused one, or 7%, of the detectors to fail. A dead battery was also responsible for one, or 7%, of the smoke detectors that failed to operate. It was undetermined in the other nine cases why the detectors failed to operate.

VACANT BUILDINGS

3% of Building Fires Occurred in Vacant Buildings

Worcester reported 19 fires that occurred in buildings that were vacant, under construction or demolition. This represented 3% of the total 725 building fires reported to MFIRS in 2010. Ten (10) apartment buildings, two business offices, two outside structures, one storage facility, one unclassified residential property, one manufacturing facility, one dormitory and one shed were reported as vacant building fire incidents.

These 19 vacant building fires caused 11 fire service injuries. That is almost one firefighter injury for every vacant building fire in Worcester in 2010.

JUVENILE-SET FIRES

8 Juvenile-set Fires

There were eight juvenile-set fires in Worcester in 2010. The five structure fires and three brush fires caused $175,700 in estimated damages.

ARSONS

58 Total Arsons — 13 Structures, 6 Motor Vehicles, & 39 Other

Fifty-eight (58), or 4%, of Worcester's 1,430 fires were considered intentionally set, or, for purposes of this analysis, arson. The 13 structure arsons, six motor vehicle arsons and 39 outside and other arsons caused an estimated dollar loss of $137,151.

MV Arsons Decrease

The total number of arsons increased by two. This is a 4% increase from the 56 arsons reported in 2009. Reported structure arsons remained the same with 13 reported in both 2009 and 2010. Motor vehicle arsons decreased by six from 12 in 2009. Outside and other arsons increased by eight from the 31 reported the year before.

Worcester reported 186 fires that are still under investigation or undetermined after investigation. One hundred and twenty-two (122) of these fires were reported as under investigation and 64 were classified as undetermined.

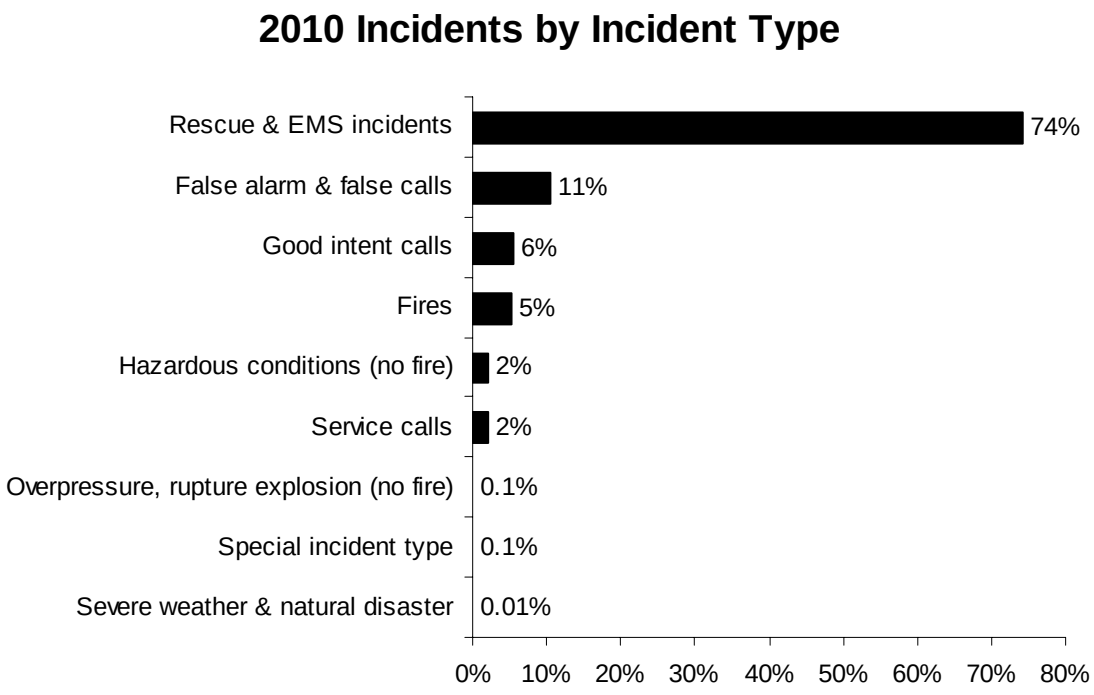
ALL INCIDENTS

Rescue & EMS Calls Are Almost 3/4 of All Reported Incidents

In 2010, Worcester voluntarily reported 27,677 incidents to MFIRS. Of these 27,677 incidents, 26,246, or 95%, were non-fire incidents.

Of these 26,246 non-fire incidents 20,529, or 74% of all reported incidents in 2010, were reported rescue and emergency medical services (EMS) calls; 2,927, or 11%, were reported false alarm or false calls; 1,534, or 6%, were reported good intent calls; 669, or 2%, were reported hazardous condition calls with no fire; 537, or 2%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 29, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; 19, or 0.1%, were special type incidents; and two, or 0.01%, were responses to incidents caused by severe weather.

In 2010, Worcester reported 1,431 fires, accounting for 5% of all reported incidents.



Worcester Gave Mutual Aid in 1 Incident

In 2010, Worcester reported giving mutual aid to other surrounding fire departments in one fire incident.

Worcester Did Not Report Receiving Any Mutual 2010

In 2010, Worcester did not report any incidents in which they received mutual aid from another fire department.

Worcester Population: 181,045

7.9 Fires/1,000 Population

Total Fires:	**1,430**		**$8,278,703**
Situation	**Fires**	**% of Fires**	**Dollar Loss**
Structure Fires	730	51%	$8,056,502
Vehicle Fires	95	7%	210,900
Other Fires	605	42%	11,301

1 Civilian Death — 0.70 Civilian Deaths/1,000 Fires
1 Fatal Fire — 0.06 Civilian Deaths/10,000 Population
5 Civilian Injuries — 36 Fire Service Injuries

Building Fires: 725

Residential Structure Fires: 620

Residential Structure Fires Confined to Non-Combustible Containers: 451

Unconfined Residential Structure Fires: 169

1 Civilian Death 2 Civilian Injuries 35 Fire Service Injuries

Occupancy	**Fires**	**%**
Apartments	384	53%
1- & 2-Family homes	109	18%
Boarding house	67	11%
Dormitories	38	6%

Detector Status	**Fires**	**%**
Operated	453	73%
Didn't operate	15	2%
None	13	2%
Fire too small	11	2%
Didn't Alert (confined)	55	9%
Undetermined	73	12%

Area of Origin[3]	**%**
Kitchen	71%
Heating room or area	7%
Bedroom	3%
Chimney or flue	2%
Exterior stairway	2%

Heat Source	**%**	**%Unconfined**[4]
Radiated heat from op. eq.	5%	17%
Heat from operating eq.	4%	13%
Hot or smoldering obj. other	2%	7%
Cigarette	1%	5%
Hot ember or ash	1%	5%

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

Item First Ignited[5]	**%**
Cooking materials	67%
Flammable or combust. liquid	7%
Rubbish, trash, waste	2%
Film or residue (creosote)	2%
Exterior sidewall covering	1%
Structural member, framing	1%

Factor Contrib. to Ignition	**%**	**%Unconfined**[6]
Misuse of material or prod.	4%	13%
Abandoned materials	3%	12%
Too close to combustibles	3%	9%
Equipment unattended	2%	8%
Elec. failure or malf., other	2%	7%

Equipment[7]	**%**
Cooking equipment	65%
None	24%
Boiler, furnace, cent. heat. unit	7%
Chimney or flue	2%
Personal & household eq., other	1%

Cause of Ignition	**%**	**%Unconfined**[8]
Unintentional	14%	51%
Failure of eq./heat source	1%	5%
Intentional	2%	6%
Act of Nature	0%	0%
Undetermined	1%	4%
Cause under investigation	9%	33%

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

Alerted Occupants	80%
Didn't Alert Occupants	12%
Undetermined	8%

All Reported Incidents	**# of Incidents**	**% of Incidents**
Rescue & EMS incidents	20,259	74%
False alarms & false calls	2,927	11%
Good intent calls	1,534	6%
Fires	1,431	5%
Hazardous conditions (no fire)	669	2%
Service calls	537	2%
Overpressure rupture, explosion or overheat calls (no fire)	29	0.1%
Special Incident Types	19	0.1%
Severe weather & natural disaster	2	0.01%

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

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

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

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

Month	Total Fires	Structure Fires	Vehicle Fires	Other Fires
January	104	89	10	5
February	76	54	12	10
March	93	49	7	37
April	150	56	4	90
May	125	36	6	83
June	103	45	3	55
July	156	55	5	96
August	146	60	11	75
September	129	55	14	60
October	100	68	9	23
November	142	78	7	57
December	106	85	7	14

Day	Total Fires	Structure Fires	Vehicle Fires	Other Fires
Sunday	249	121	15	113
Monday	196	103	15	78
Tuesday	165	102	12	51
Wednesday	189	97	8	84
Thursday	184	94	15	76
Friday	214	110	15	89
Saturday	232	103	15	114

Time	Total Fires	Structure Fires	Vehicle Fires	Other Fires
00:01 - 04:00	129	54	21	54
04:01 - 08:00	73	41	11	21
08:01 - 12:00	180	116	14	50
12:01 - 16:00	339	186	19	134
16:01 - 20:00	414	219	9	186
20:01 - 24:00	295	114	21	160

Motor Vehicle Fires

Total: 95
Automobiles: 92 (97%)
6 (7%) of the automobile fires considered intentionally set.

Arson Fires

Total Arsons: 58 **Dollar loss: $137,151**

0.3 Arson Fires/1,000 Population

Situation	Arsons	% Situation	% Arson	Dollar Loss
Structure Arsons	13	2%	22%	$135,950
Vehicle Arsons	6	4%	10%	1,000
Other Arsons	39	11%	67%	201

0.07 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.22 Other arsons/1,000 population

Peak Times of Day for:

Structure Arsons	#	%
00:01 - 04:00	6	46%
20:01 - 00:00	3	23%
08:01 - 12:00	2	15%

Vehicle Arsons	#	%
00:01 - 04:00	3	50%
20:01 - 00:00	2	33%
04:01 - 08:00	2	17%

Other Arsons	#	%
12:01 - 16:00	14	36%
16:01 - 20:00	9	23%
20:01 - 00:00	7	18%

Peak Fixed Property Uses for Structure Arsons	#	%
Apartments	7	54%