# County Profiles
## 2009 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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

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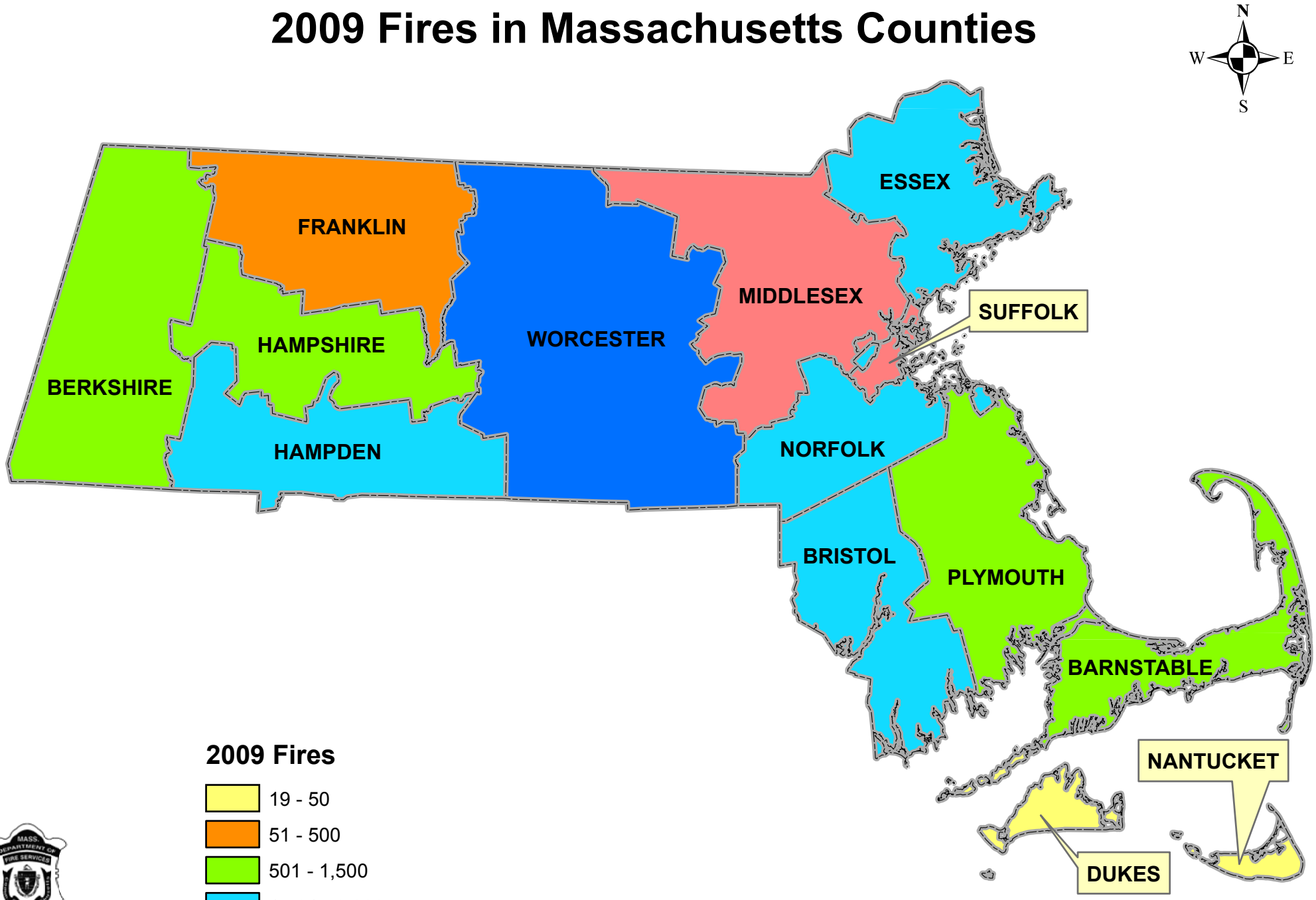
# 2009 Fires in Massachusetts Counties




MFIRS
Massachusetts Fire Incident Reporting System

Massachusetts Fire Incident Reporting System 2009

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# 2009 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 | 883 | 454 | 140 | 289 | 0 | 35 | 0 | 37 | $7,581,342 |
| Berkshire | 668 | 412 | 60 | 196 | 1 | 2 | 0 | 5 | 5,874,520 |
| Bristol | 1,774 | 796 | 306 | 672 | 7 | 39 | 0 | 29 | 12,904,955 |
| Dukes | 19 | 8 | 5 | 6 | 0 | 0 | 0 | 0 | 5,000 |
| Essex | 2,775 | 1,642 | 333 | 800 | 0 | 18 | 0 | 26 | 18,346,492 |
| Franklin | 302 | 163 | 27 | 116 | 0 | 3 | 0 | 5 | 2,017,050 |
| Hampden | 2,032 | 1,146 | 255 | 631 | 5 | 42 | 0 | 58 | 12,467,359 |
| Hampshire | 535 | 250 | 58 | 227 | 3 | 16 | 0 | 8 | 8,625,479 |
| Middlesex | 5,150 | 3,381 | 503 | 1,266 | 4 | 58 | 0 | 106 | 44,543,999 |
| Nantucket | 38 | 26 | 3 | 9 | 0 | 0 | 0 | 0 | 3,500 |
| Norfolk | 2,780 | 1,845 | 275 | 660 | 4 | 16 | 0 | 59 | 11,322,050 |
| Plymouth | 1,444 | 699 | 248 | 497 | 7 | 45 | 0 | 30 | 11,452,952 |
| Suffolk | 6,386 | 4,768 | 475 | 1,143 | 0 | 13 | 0 | 41 | 29,517,460 |
| Worcester | 3,850 | 2,183 | 381 | 1,241 | 5 | 45 | 0 | 56 | 18,433,647 |
| **Total** | **28,595** | **17,773** | **3,069** | **7,753** | **36** | **332** | **0** | **460** | **$183,095,805** |

# 2009 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 | 16 | 3 | 47 | 0 | 3 | 0 | 0 | $330,742 |
| Berkshire | 44 | 18 | 6 | 20 | 1 | 1 | 0 | 1 | 186,175 |
| Bristol | 137 | 53 | 18 | 66 | 0 | 3 | 0 | 1 | 1,270,653 |
| Dukes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Essex | 186 | 32 | 19 | 135 | 0 | 0 | 0 | 0 | 1,418,397 |
| Franklin | 17 | 2 | 1 | 14 | 0 | 1 | 0 | 0 | 700 |
| Hampden | 70 | 16 | 12 | 42 | 2 | 0 | 0 | 4 | 733,950 |
| Hampshire | 45 | 7 | 8 | 30 | 2 | 0 | 0 | 0 | 787,926 |
| Middlesex | 173 | 41 | 29 | 103 | 2 | 4 | 0 | 4 | 1,455,204 |
| Nantucket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Norfolk | 58 | 8 | 5 | 45 | 0 | 2 | 0 | 1 | 277,015 |
| Plymouth | 75 | 22 | 22 | 31 | 0 | 2 | 0 | 3 | 1,831,912 |
| Suffolk | 129 | 36 | 36 | 57 | 0 | 0 | 0 | 0 | 2,884,950 |
| Worcester | 183 | 40 | 29 | 114 | 1 | 3 | 0 | 4 | 758,176 |
| **Total** | **1,184** | **291** | **188** | **705** | **8** | **19** | **0** | **18** | **$11,935,530** |

*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.

# 2009 Fires, Arsons and Deaths By County and By Population*

| County | Population | Total Fires | Fires per 1,000 Pop. | Fire Deaths | Deaths per 1,000 Fires | Deaths per 10,000 Pop. | Total Arsons | Arsons per 1,000 Pop. |
|---|---|---|---|---|---|---|---|---|
| Barnstable | 222,230 | 883 | 4.0 | 0 | 0.0 | 0.00 | 66 | 0.3 |
| Berkshire | 134,953 | 668 | 4.9 | 1 | 1.5 | 0.07 | 44 | 0.3 |
| Bristol | 534,678 | 1,774 | 3.3 | 7 | 3.9 | 0.13 | 137 | 0.3 |
| Dukes | 14,987 | 19 | 1.3 | 0 | 0.0 | 0.00 | 0 | 0.0 |
| Essex | 723,419 | 2,775 | 3.8 | 0 | 0.0 | 0.00 | 186 | 0.3 |
| Franklin | 71,535 | 306 | 4.3 | 0 | 0.0 | 0.00 | 17 | 0.2 |
| Hampden | 456,228 | 2,032 | 4.5 | 5 | 2.5 | 0.11 | 70 | 0.2 |
| Hampshire | 152,251 | 535 | 3.5 | 3 | 5.6 | 0.20 | 45 | 0.3 |
| Middlesex | 1,465,396 | 5,150 | 3.5 | 4 | 0.8 | 0.03 | 173 | 0.1 |
| Nantucket | 9,520 | 38 | 4.0 | 0 | 0.0 | 0.00 | 1 | 0.1 |
| Norfolk | 650,308 | 2,780 | 4.3 | 4 | 1.4 | 0.06 | 58 | 0.1 |
| Plymouth | 472,822 | 1,444 | 3.1 | 7 | 4.8 | 0.15 | 75 | 0.2 |
| Suffolk | 689,807 | 6,386 | 9.3 | 0 | 0.0 | 0.00 | 129 | 0.2 |
| Worcester | 750,963 | 3,805 | 5.1 | 5 | 1.3 | 0.07 | 183 | 0.2 |
| **Massachusetts** | 6,349,097 | 28,595 | 4.5 | 36 | 1.3 | 0.06 | 1,184 | 0.2 |

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

# 2009 Non-Fire Responses By County and By Incident Type

| County | Total Non-Fire Responses | Overpressure Rupt. & Explos. (No-fire) | Rescue EMS Incidents | Hazardous Conditions (No-fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX[1] & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|
| Barnstable | 37,298 | 47 | 27,129 | 1,865 | 2,582 | 1,343 | 4,156 | 23 | 153 |
| Berkshire | 10,372 | 13 | 5,882 | 868 | 1,240 | 508 | 1,796 | 25 | 40 |
| Bristol | 41,484 | 68 | 24,192 | 2,399 | 3,233 | 2,955 | 8,322 | 30 | 285 |
| Dukes | 131 | 1 | 7 | 3 | 5 | 1 | 114 | 0 | 0 |
| Essex | 72,417 | 123 | 41,287 | 3,968 | 8,628 | 4,906 | 12,998 | 73 | 434 |
| Franklin | 5,575 | 11 | 2,767 | 400 | 999 | 535 | 834 | 14 | 214 |
| Hampden | 38,507 | 77 | 23,326 | 1,690 | 3,090 | 3,488 | 6,686 | 13 | 137 |
| Hampshire | 11,106 | 40 | 6,760 | 693 | 673 | 622 | 2,182 | 11 | 125 |
| Middlesex | 144,955 | 137 | 82,751 | 9,927 | 14,009 | 8,279 | 24,896 | 84 | 4,872 |
| Nantucket | 2,154 | 0 | 1,014 | 136 | 362 | 86 | 551 | 0 | 5 |
| Norfolk | 74,078 | 109 | 45,997 | 5,054 | 7,006 | 3,938 | 11,000 | 34 | 940 |
| Plymouth | 43,468 | 94 | 27,200 | 3,527 | 4,107 | 2,734 | 5,553 | 46 | 207 |
| Suffolk | 83,847 | 97 | 45,696 | 5,780 | 10,607 | 6,323 | 14,977 | 11 | 356 |
| Worcester | 75,927 | 152 | 50,403 | 4,167 | 5,780 | 3,885 | 10,641 | 78 | 821 |
| **Massachusetts** | 641,519 | 970 | 384,411 | 40,477 | 62,321 | 39,603 | 104,706 | 442 | 8,589 |

[1] WX is the abbreviation for Weather.

# Barnstable County

## 2009 Fire Data Analysis

Massachusetts Fire Incident Reporting System

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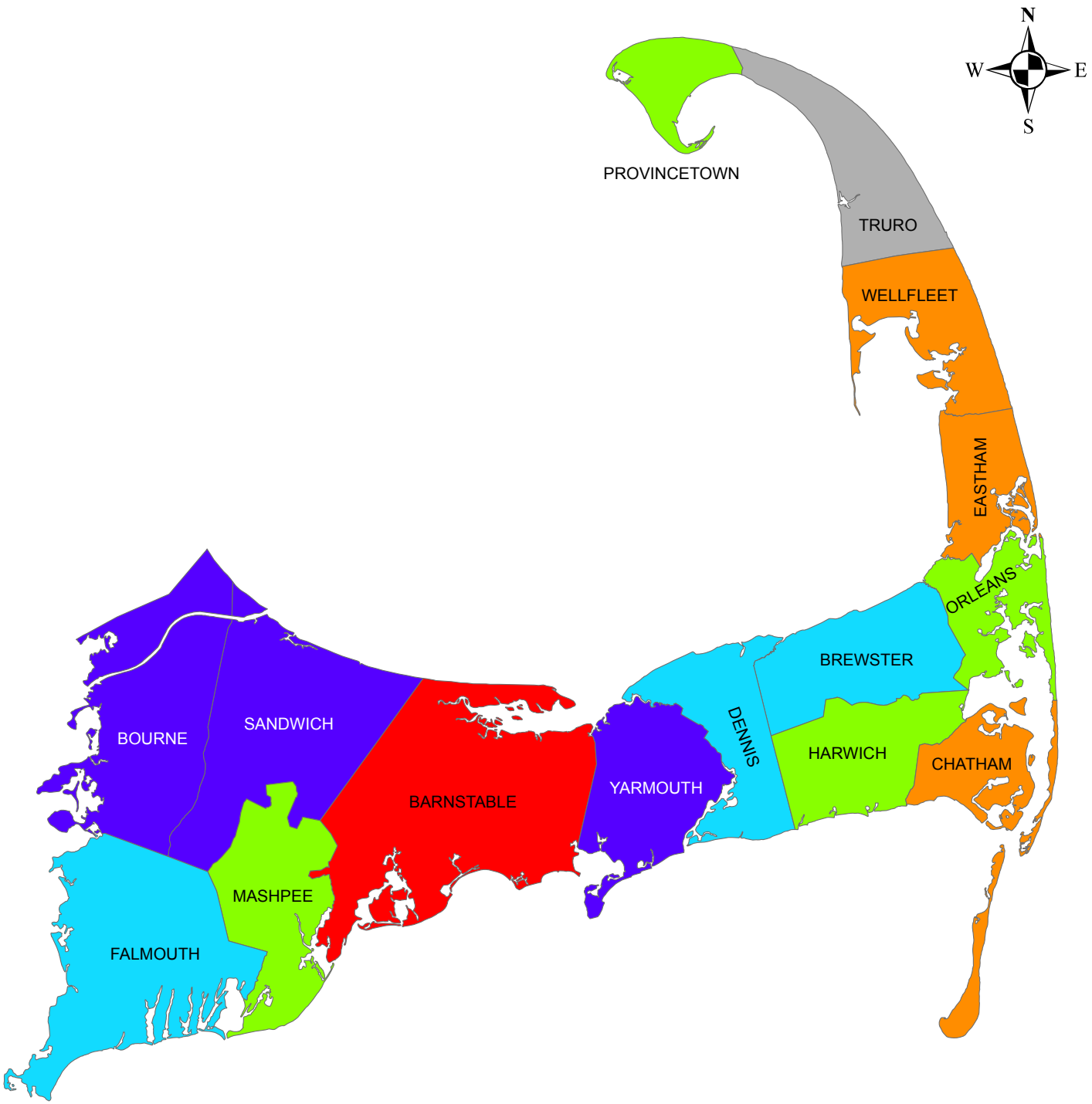
**Department of Fire Services**
P.O. Box 1025 State Road • Stow, Massachusetts 01775 • (978) 567-3300

# Barnstable County Fires 2009




## 2009 Fires

- 4
- 5 - 25
- 26 - 50
- 51 - 75
- 76 - 125
- 126 - 225

MASS. DEPARTMENT OF FIRE SERVICES

MFIRS
Massachusetts Fire Incident Reporting System

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2009

# Barnstable County Fires in 2009

**883 Total Fires — 454 Structures, 140 Vehicles & 289 Other Fires**
Barnstable County ranked ninth out of the 14 Massachusetts counties in total reported fires. Barnstable County fire departments reported 883 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 454 structure fires, 140 motor vehicle fires, 146 brush, tree, or lawn fires, 65 outside rubbish fires, 42 special outside fires, and 36 unclassified fires caused 35 civilian injuries, 37 fire service injuries and an estimated dollar loss of $7.6 million. Barnstable County's fires accounted for 3% of the 28,595 Massachusetts fires reported in 2009.

All 19 of Barnstable County's fire departments either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2009.

**No Fire Deaths in 2009**
Barnstable County did not have any reported fire deaths in 2009.

**Structure & Outside Fires Down**
The total number of reported fire incidents decreased by 199 from the 1,082 reported in 2008. Reported structure fires decreased by 26 from the 480 reported during the previous year. Motor vehicle fires increased by 16 from the 124 reported during 2008. Outside and other fires decreased by 189 from the 478 reported the year before.

**Brush Fires Fall Dramatically**
Barnstable County had a large decrease in brush fires in 2009. Brush fires decreased by 152, or 51%, from the 298 reported in 2008. This is the main reason for the 18% drop in overall fires in Barnstable County.

**BARNSTABLE COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1,173 | 539 | 144 | 490 | 57 | 16 | 4 | 37 |
| 2006 | 1,110 | 460 | 131 | 519 | 67 | 14 | 8 | 45 |
| 2007 | 1,060 | 460 | 119 | 481 | 83 | 16 | 7 | 60 |
| 2008 | 1,082 | 480 | 124 | 478 | 93 | 12 | 7 | 74 |
| 2009 | 883 | 454 | 140 | 289 | 66 | 16 | 3 | 47 |

**Fire and Fire Death Rates**
Barnstable County had 4.0 fires per 1,000 population. That figure ranks Barnstable County eighth in the state and below the state rate of 4.5 fires per 1,000 population. Barnstable County also had 0 fire deaths per 10,000 populations tying it for ninth among with six other Massachusetts counties and below the state rate of 0.06 fire deaths per 10,000 population.

### Harwich Has Barnstable County's Largest Loss Fire

- On July 20, 2009, at 6:05 p.m., the Harwich Fire Department responded to an electrical fire in an automotive repair shop. The fire originated in the first floor shop area. One firefighter was injured battling this fire. Detectors were present and operated. The building was not equipped with sprinklers. Damages were estimated to be $500,000.

## STRUCTURE FIRES

### Reported Structure Fires Up

The 454 structure fires caused 29 civilian injuries, 36 fire service injuries and an estimated dollar loss of $7 million. These incidents represented 51% of Barnstable County's reported fires in 2009. The average estimated dollar loss per structure fire was $15,350. The total number of reported structure fires decreased by 26, or 5%, from the 480 reported in 2008.

### Arson Caused of 4% of Structure Fires

The 16 structure arsons caused two civilian injuries and an estimated dollar loss of $315,250. Arson was indicated as the cause of 4% of the structure fires and 5% of Barnstable County's structure fire dollar loss. The 16 structure arsons accounted for 24% of the Barnstable County arson fires reported in 2009. The total number of reported structure arsons rose by four from 12 in 2008.

### 63% of Structure Arsons Occurred in Residences

Sixty-three percent (63%) of Barnstable County's 16 structure arsons occurred in residential occupancies; 13% occurred in public assembly facilities; another 13% occurred in storage facilities; and 6% each occurred in educational facilities and special properties.

## BUILDING FIRES

There were 448 building fires of different types in Barnstable County in 2009. These 448 building fires accounted for 98.7% of all building fires in Barnstable County.

### 82% of Barnstable Building Fires Occurred in People's Homes

Three hundred and sixty-seven (367), or 82%, of Barnstable County's 448 building fires occurred in residential occupancies. Twenty (20) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 19 fires. Thirteen (13) fires took place in storage properties. Special properties had nine fires. Hospitals, prisons, and other institutional buildings experienced eight fires. Educational facilities experienced five fires. Four (4) fires occurred in industrial, utility, defense, agricultural or mining facilities. Three (3) fires took place in manufacturing or processing facilities in Barnstable County in 2009.

## RESIDENTIAL FIRES

### Residential Building Fires Are Down

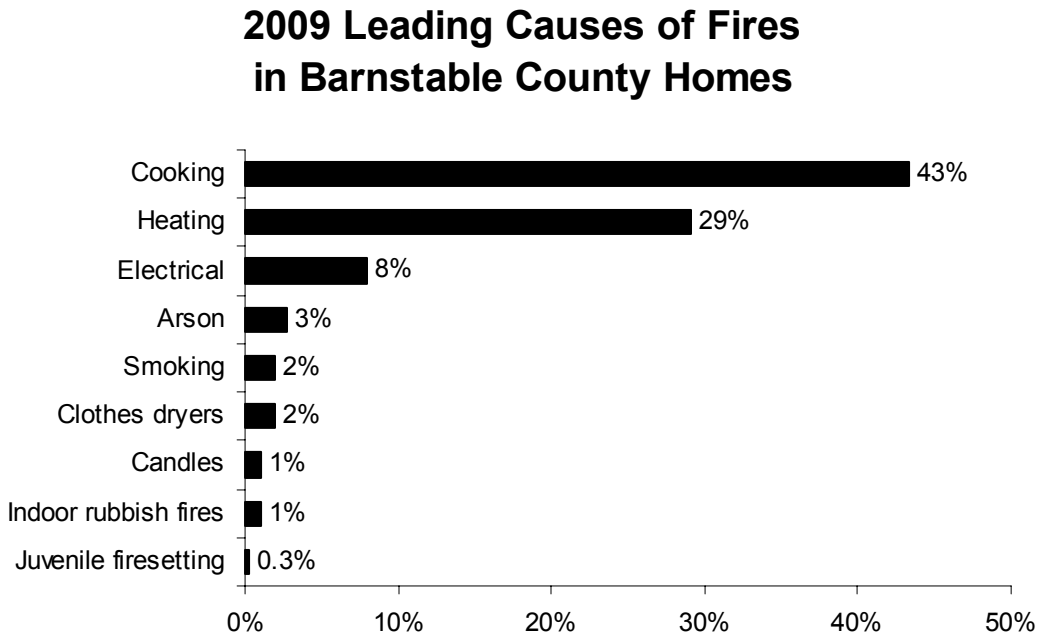
There were 367 reported residential building fires in Barnstable County in 2009. These 367 fires are a decrease of 18, or 5%, from the 385 residential building fires reported in 2008.

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

The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 83% of the building fires in Barnstable County; 10% occurred in apartments; 2% happened in hotels or motels; 1% happened in dormitories; another 1% occurred in rooming houses; and less than1% happened in residential board and care facilities. Nine (9), or 2% of the building fires in Barnstable County occurred in unclassified residential buildings.

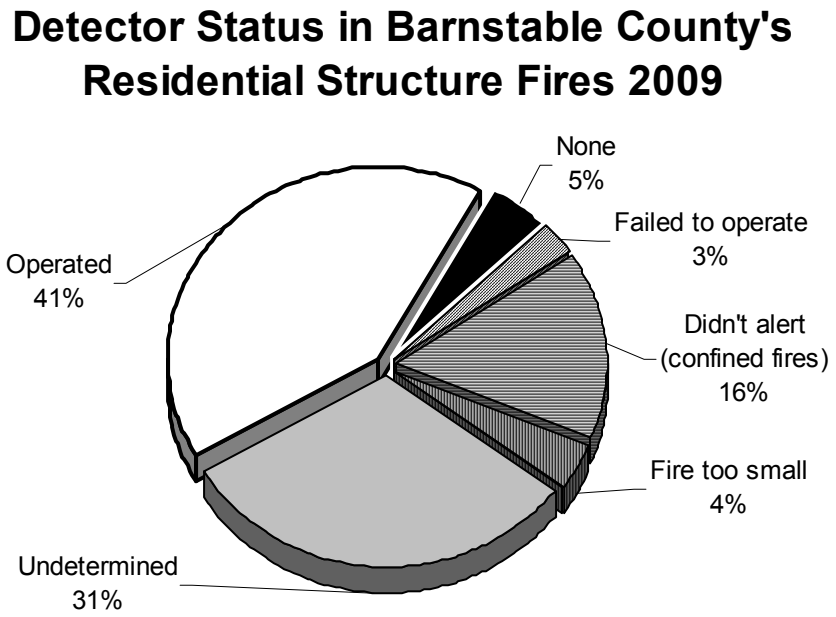
### Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Barnstable County was unattended cooking and other unsafe cooking practices, accounting for 43% of the fires. Heating fires accounted for 29% of the fires in people's homes in 2009; 53% of which involved chimney or flues, and 47% involved a fuel burner or boiler. Electrical problems caused 8% of fires in residential buildings. Arsons accounted for 3%. Smoking and clothes dryers each caused 2% of these fires. Candles and indoor rubbish fires each caused 1% of these fires and juvenile-set fires caused less than 1% of the fires in residential occupancies in Barnstable County in 2009.



**2/3% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
Two hundred and forty-two (242), or 66%, of all residential building fires were reported as confined to non-combustible containers in 2009. One hundred and forty (140), or 38%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Fifty-three (53) of the reported fires were confined to a chimney accounting for 14% of residential building fires. Forty-four (44), or 12%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 1%, of these fires were rubbish fires contained to a non-combustible container in Barnstable County in 2009.

**Detectors Alerted Occupants in 41% of Fires**
Smoke or heat detectors operated and alerted the occupants in 152, or 41%, of the residential building fires. In 16% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 5% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 4% of the residential fires. Smoke detector performance was undetermined in 115 incidents, or 31% of Barnstable County's residential building fires.




**70% of Detectors Failed From Missing Batteries**
Of the 10 fires where smoke detectors were present but failed to operate, seven, 70%, failed because the batteries were either missing or disconnected. . Two (2) detectors, or

[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.

20%, failed because of a lack of maintenance. One (1), or 10%, failed because the power was shut-off or disconnected

## VACANT BUILDINGS

### 4% of Building Fires Occurred in Vacant Buildings

Barnstable County reported 16 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 4% of the total 448 building fires reported to MFIRS in 2009. Eight (8) one- or two-family homes, two hotels or motels, a warehouse, a parking garage, an outside material storage area, a shed, a motor vehicle sales or service shop and an unclassified residential property were reported as vacant building fire incidents.

Three (3), or 10%, of the vacant building fires in Barnstable County in 2009 were determined to be intentionally set. These fires occurred in a hotel or motel, an outside material storage area and a warehouse.

## JUVENILE-SET FIRES

### 13 Juvenile-set Fires

There were 13 reported juvenile-set fires in Barnstable County in 2009. The two structure fires, seven brush fires, two special outside fires and two unclassified fires caused $10,075 in estimated damages.

## ARSONS

### 66 Total Arsons[4] — 16 Structures, 3 Vehicles & 47 Other Arsons

Sixty-six (66), or 7% of Barnstable County's 883 fires were considered intentionally set, or, for purposes of this analysis, arson. The 16 structure arsons, three motor vehicle arsons and 47 outside and other arsons caused three civilian injuries and an estimated dollar loss of $330,472.

### Outside & Other Arson Down in 2009

The total number of reported arson fires decreased by 27 from the 93 reported in 2008. Reported structure arsons increased by four from the 12 reported the previous year. Motor vehicle arsons decreased by four from the seven reported in 2008. Reported outside and other arsons increased by 27 from the 74 reported in 2008.

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

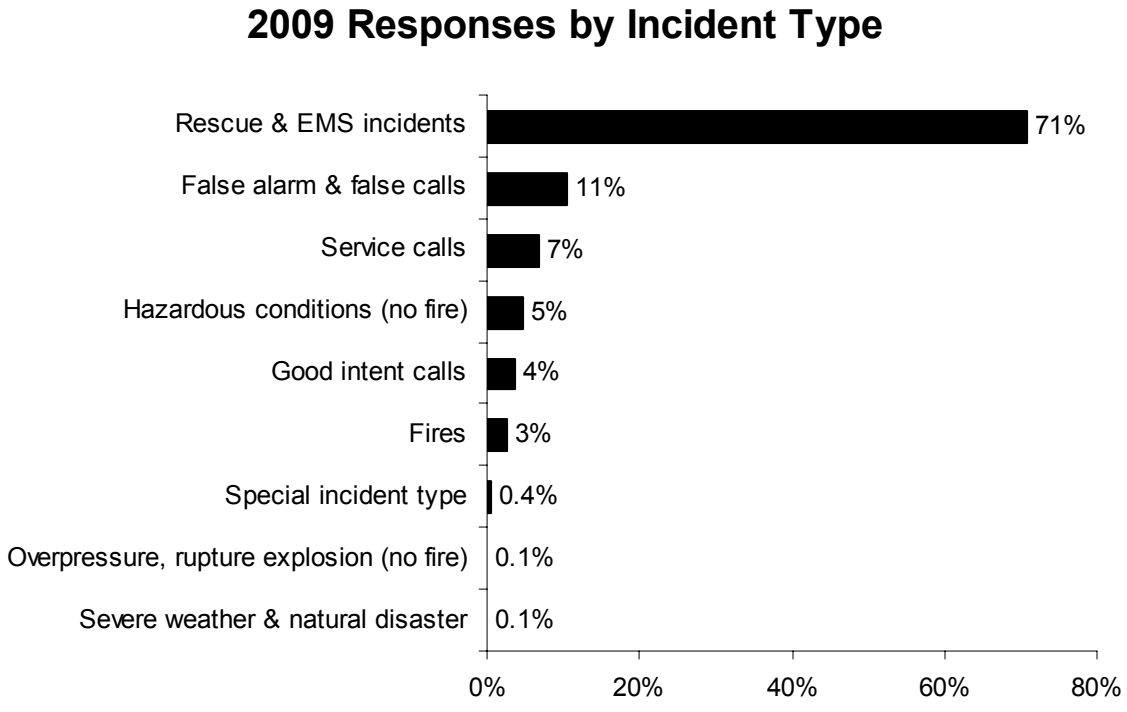
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

## ALL INCIDENTS

**Rescue & EMS Calls Are 71% of All Reported Incidents**
In 2009, Barnstable County fire departments reported 39,243 responses[5] to MFIRS. Of these 39,243 incidents, 38,207 non-fire calls were voluntarily reported.

Of these 38,207 non-fire calls 27,786, or 71% of all of the responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 4,167, 11%, were reported false alarm or false calls; 2,690, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,898, or 5%, were reported hazardous condition calls with no fire; 1,436, or 4%, reported good intent calls; 157, or 0.4%, were special incident type calls such as citizen complaints; 53, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; 49, and or 0.1%, were severe weather responses.

One thousand and thirty-six (1,036), or 3%, of the total responses submitted by Barnstable County fire departments were fires.




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

**Barnstable County Departments Gave Aid 1,034 Times**

In 2009, Barnstable County fire departments reported coming to the aid of other fire departments 1,034 times. Of these 1,034 responses, 643, or 62%, were for rescue or EMS incidents; 152, or 15%, were for fires; 99, or 10%, were for service calls such as cover assignments; 93, or 9%, were for good intent calls; 31, or 3%, were for hazardous conditions calls with no fire; 10, or 1%, were for false alarms or false calls; three, or 0.3%, were special incident types; two, or 0.2% were overpressure, rupture, explosion or overheat calls with no fire; and, or 0.1%, one was a severe weather call.

**Barnstable County Received Mutual Aid in 799 Incidents**

In 2009, Barnstable County fire departments received aid from surrounding departments in 799 incidents. Of these 799, incidents, 605, or 76%, were rescue and emergency medical services calls; 96, or 12%, were for fires; 28, or 4%, were good intent calls; 25, or 3%, were hazardous conditions calls with no fire; 24, or 3%, were false alarms or false calls; 16, or 2%, were service calls; four, or 1%, were overpressure, rupture, explosion or overheat calls with no fire; and one, or 1%, was a special incident type.

## Barnstable County Population: 222,230

**4.9 Fires/1,000 Population**

| **Total Fires:** | **883** | | **$7,581,342** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 454 | 51% | $6,968,893 |
| Vehicle Fires | 140 | 16% | 569,969 |
| Other Fires | 289 | 33% | 42,480 |

35 Civilian Injuries 37 Fire Service Injuries

# Building Fires: 448

## Residential Structure Fires: 367

**Residential Structure Fires Confined to Non-Combustible Containers: 242**

**Unconfined Residential Structure Fires: 125**

22 Civilian Injuries 10 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 306 | 83% |
| Apartments | 36 | 10% |
| Hotels, motels | 9 | 2% |
| Dormitories | 3 | 1% |
| Rooming houses | 3 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 152 | 41% |
| Didn't operate | 10 | 3% |
| None | 17 | 5% |
| Fire too small | 14 | 4% |
| Didn't Alert (confined) | 59 | 16% |
| Undetermined | 115 | 31% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 47% |
| Chimney or flue | 14% |
| Heating room or area | 14% |
| Bedroom | 3% |
| Living room | 2% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Heat from operating eq. | 5% | 15% |
| Radiated heat/oper. eq. | 5% | 14% |
| Arcing | 4% | 10% |
| Hot or smoldering object | 2% | 7% |
| Cigarette | 2% | 5% |
| Spark/ember/flame op. eq. | 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]** | **%** | **Factor Contrib. to Ignit.** | **%** | **%Unconfined[9]** |
|---|---|---|---|---|
| Food, cooking materials | 42% | Too close to combustibles | 5% | 14% |
| Film, residue (creosote) | 14% | Electrical failure, malfunct. | 2% | 7% |
| Flammable or comb. liquid | 12% | Unspec. Short-circuit arc | 2% | 7% |
| Structural member, framing | 3% | Failure to clean | 2% | 6% |
| Exterior sidewall covering | 2% | Abandoned materials | 2% | 6% |
| Rubbish, trash, waste | 2% | Mechanical failure, malfunct. | 2% | 6% |

| **Equipment[10]** | **%** | **Cause of Ignition** | **%** | **%Unconfined[11]** |
|---|---|---|---|---|
| Cooking equipment | 40% | Unintentional | 20% | 58% |
| None | 22% | Failure of eq. or heat source | 7% | 21% |
| Chimney or flue | 14% | Intentional | 2% | 5% |
| Boiler, furnace, cent. heat unit | 12% | Act of nature | 1% | 2% |
| Clothes dryer | 2% | Undetermined | 1% | 2% |
| | | Cause Under Investigation | 4% | 10% |

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

| | |
|---|---|
| Alerted Occupants | 38% |
| Didn't Alert Occupants | 24% |
| Undetermined | 37% |

[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 | 58 | 44 | 8 | 6 |
| February | 53 | 34 | 4 | 15 |
| March | 78 | 34 | 10 | 26 |
| April | 134 | 51 | 14 | 69 |
| May | 71 | 29 | 10 | 32 |
| June | 49 | 23 | 10 | 16 |
| July | 77 | 39 | 13 | 25 |
| August | 89 | 37 | 20 | 32 |
| September | 72 | 35 | 13 | 24 |
| October | 59 | 33 | 15 | 11 |
| November | 76 | 45 | 11 | 20 |
| December | 75 | 50 | 12 | 13 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 133 | 65 | 16 | 52 |
| Monday | 127 | 68 | 21 | 38 |
| Tuesday | 115 | 65 | 15 | 35 |
| Wednesday | 130 | 62 | 29 | 39 |
| Thursday | 126 | 60 | 16 | 50 |
| Friday | 111 | 60 | 25 | 26 |
| Saturday | 141 | 74 | 18 | 49 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 54 | 29 | 8 | 17 |
| 04:01 - 08:00 | 58 | 30 | 15 | 13 |
| 08:01 - 12:00 | 159 | 78 | 38 | 43 |
| 12:01 - 16:00 | 222 | 92 | 31 | 99 |
| 16:01 - 20:00 | 251 | 141 | 28 | 82 |
| 20:01 - 24:00 | 139 | 84 | 20 | 35 |

## Motor Vehicle Fires

Total: 140
Automobiles: 118 (84%)
2 (2%), of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 66** **Dollar loss: $330,472**

**0.4 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 16 | 4% | 24% | $315,250 |
| Vehicle Arsons | 3 | 2% | 5% | 1,000 |
| Other Arsons | 47 | 16% | 71% | 14,222 |

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

3 Civilian Injuries

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 7 | 44% |
| 16:01 - 20:00 | 4 | 25% |

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

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 16 | 34% |
| 08:01 - 12:00 | 9 | 19% |
| 12:01 - 16:00 | 9 | 19% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- & 2-Family homes | 8 | 50% |

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

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

| | Total | Structure | Vehicle | Other | Total | Structure | Vehicle | Other |
|---|---|---|---|---|---|---|---|---|
| 2005 | 32 | 10 | 4 | 18 | 1 | 0 | 0 | 1 |
| 2006 | 26 | 6 | 4 | 16 | 2 | 0 | 0 | 2 |
| 2007 | 23 | 8 | 4 | 11 | 0 | 0 | 0 | 0 |
| 2008 | 16 | 7 | 3 | 6 | 1 | 0 | 0 | 1 |
| 2009 | 19 | 3 | 9 | 7 | 0 | 0 | 0 | 0 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 82 | 40 | 11 | 31 | 6 | 1 | 1 | 4 |
| 2006 | 84 | 35 | 11 | 38 | 10 | 0 | 1 | 9 |
| 2007 | 88 | 42 | 9 | 37 | 4 | 0 | 0 | 4 |
| 2008 | 80 | 30 | 12 | 38 | 7 | 0 | 0 | 7 |
| 2009 | 69 | 39 | 10 | 20 | 3 | 0 | 0 | 3 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 147 | 56 | 22 | 69 | 12 | 5 | 0 | 7 |
| 2006 | 133 | 43 | 17 | 73 | 10 | 5 | 1 | 4 |
| 2007 | 134 | 47 | 13 | 74 | 20 | 2 | 2 | 16 |
| 2008 | 158 | 57 | 18 | 83 | 8 | 2 | 1 | 5 |
| 2009 | 118 | 55 | 14 | 49 | 19 | 6 | 1 | 12 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 37 | 10 | 5 | 22 | 1 | 0 | 0 | 1 |
| 2006 | 26 | 13 | 4 | 9 | 1 | 0 | 0 | 1 |
| 2007 | 10 | 3 | 3 | 4 | 1 | 0 | 0 | 1 |
| 2008 | 18 | 8 | 2 | 8 | 1 | 0 | 0 | 1 |
| 2009 | 12 | 8 | 3 | 1 | 0 | 0 | 0 | 0 |

**Bourne** **Population: 18,721**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 73 | 39 | 12 | 22 | 2 | 0 | 0 | 2 |
| 2006 | 85 | 33 | 13 | 39 | 12 | 5 | 2 | 5 |
| 2007 | 94 | 38 | 14 | 42 | 6 | 1 | 1 | 4 |
| 2008 | 88 | 40 | 14 | 34 | 5 | 0 | 1 | 4 |
| 2009 | 104 | 43 | 21 | 40 | 17 | 2 | 0 | 15 |

**Brewster** **Population: 10,094**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 6 | 3 | 0 | 3 | 1 | 1 | 0 | 0 |
| 2006 | 80 | 31 | 5 | 44 | 7 | 0 | 0 | 7 |
| 2007 | 63 | 33 | 1 | 29 | 2 | 0 | 0 | 2 |
| 2008 | 51 | 32 | 7 | 12 | 0 | 0 | 0 | 0 |
| 2009 | 53 | 32 | 2 | 19 | 5 | 0 | 1 | 4 |

**Chatham** **Population: 6,625**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 36 | 16 | 3 | 17 | 1 | 1 | 0 | 0 |
| 2006 | 32 | 13 | 2 | 17 | 0 | 0 | 0 | 0 |
| 2007 | 23 | 9 | 1 | 13 | 0 | 0 | 0 | 0 |
| 2008 | 31 | 13 | 8 | 10 | 1 | 0 | 1 | 0 |
| 2009 | 22 | 11 | 4 | 7 | 1 | 0 | 0 | 1 |

**Dennis** **Population: 15,973**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 85 | 20 | 8 | 57 | 3 | 0 | 0 | 3 |
| 2006 | 104 | 23 | 8 | 73 | 1 | 0 | 0 | 1 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 66 | 28 | 2 | 36 | 2 | 1 | 0 | 1 |
| 2009 | 56 | 24 | 7 | 25 | 1 | 0 | 0 | 1 |

**Eastham** **Population: 5,453**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 21 | 8 | 6 | 7 | 0 | 0 | 0 | 0 |
| 2006 | 24 | 6 | 6 | 12 | 0 | 0 | 0 | 0 |
| 2007 | 24 | 16 | 2 | 6 | 0 | 0 | 0 | 0 |
| 2008 | 23 | 13 | 0 | 10 | 0 | 0 | 0 | 0 |
| 2009 | 21 | 14 | 0 | 7 | 0 | 0 | 0 | 0 |

**Falmouth** **Population: 32,660**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 115 | 62 | 16 | 37 | 12 | 4 | 1 | 7 |
| 2006 | 77 | 34 | 14 | 29 | 10 | 2 | 3 | 5 |
| 2007 | 86 | 41 | 14 | 31 | 9 | 3 | 1 | 5 |
| 2008 | 162 | 44 | 15 | 103 | 48 | 8 | 1 | 39 |
| 2009 | 52 | 20 | 14 | 18 | 2 | 2 | 0 | 0 |

**Harwich** **Population: 12,386**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 52 | 30 | 8 | 14 | 0 | 0 | 0 | 0 |
| 2006 | 65 | 33 | 9 | 23 | 2 | 0 | 0 | 2 |
| 2007 | 63 | 26 | 7 | 30 | 0 | 0 | 0 | 0 |
| 2008 | 42 | 25 | 3 | 14 | 4 | 0 | 0 | 4 |
| 2009 | 44 | 25 | 5 | 14 | 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 |
|---|---|---|---|---|---|---|---|---|
| 2005 | Federal Fire Department - Did Not Report to the State. | | | | | | | |
| 2006 | Federal Fire Department - Did Not Report to the State. | | | | | | | |
| 2007 | Federal Fire Department - Did Not Report to the State. | | | | | | | |
| 2008[12] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 7 | 1 | 2 | 4 | 2 | 0 | 0 | 2 |

**Mashpee** **Population: 12,946**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 64 | 24 | 6 | 34 | 1 | 1 | 0 | 0 |
| 2006 | 71 | 40 | 7 | 24 | 2 | 0 | 1 | 1 |
| 2007 | 60 | 27 | 7 | 26 | 3 | 1 | 1 | 1 |
| 2008 | 64 | 27 | 7 | 30 | 3 | 0 | 1 | 2 |
| 2009 | 42 | 23 | 7 | 12 | 0 | 0 | 0 | 0 |

**Orleans** **Population: 6,341**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 36 | 15 | 2 | 19 | 0 | 0 | 0 | 0 |
| 2006 | 35 | 6 | 6 | 23 | 3 | 0 | 0 | 3 |
| 2007 | 40 | 8 | 2 | 30 | 3 | 0 | 0 | 3 |
| 2008 | 32 | 15 | 4 | 13 | 2 | 0 | 0 | 2 |
| 2009 | 29 | 14 | 5 | 10 | 1 | 0 | 0 | 1 |

**Provincetown** **Population: 3,431**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 27 | 14 | 5 | 8 | 1 | 0 | 0 | 1 |
| 2006 | 16 | 9 | 1 | 6 | 0 | 0 | 0 | 0 |
| 2007 | 47 | 23 | 5 | 19 | 13 | 8 | 1 | 4 |
| 2008 | 26 | 16 | 0 | 10 | 0 | 0 | 0 | 0 |
| 2009 | 28 | 21 | 3 | 4 | 0 | 0 | 0 | 0 |

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

**Sandwich** **Population: 20,136**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 174 | 111 | 15 | 48 | 8 | 2 | 1 | 5 |
| 2006 | 139 | 79 | 11 | 49 | 1 | 0 | 0 | 1 |
| 2007 | 126 | 84 | 14 | 28 | 3 | 0 | 0 | 3 |
| 2008 | 104 | 71 | 10 | 23 | 1 | 0 | 1 | 0 |
| 2009 | 110 | 81 | 17 | 12 | 4 | 3 | 0 | 1 |

**Truro** **Population: 2,087**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |

**Wellfleet** **Population: 2,749**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 38 | 19 | 9 | 10 | 0 | 0 | 0 | 0 |
| 2006 | 25 | 18 | 3 | 4 | 1 | 1 | 0 | 0 |
| 2007 | 20 | 6 | 3 | 11 | 0 | 0 | 0 | 0 |
| 2008 | 27 | 16 | 2 | 9 | 0 | 0 | 0 | 0 |
| 2009 | 11 | 5 | 1 | 5 | 0 | 0 | 0 | 0 |

**Yarmouth** **Population: 24,807**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 110 | 44 | 15 | 51 | 4 | 0 | 1 | 3 |
| 2006 | 84 | 34 | 11 | 39 | 6 | 1 | 1 | 4 |
| 2007 | 150 | 40 | 20 | 90 | 19 | 1 | 1 | 17 |
| 2008 | 89 | 37 | 15 | 37 | 10 | 1 | 1 | 8 |
| 2009 | 81 | 32 | 15 | 34 | 10 | 2 | 1 | 7 |

# 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 | 935 | 19 | 2 | 605 | 41 | 100 | 25 | 137 | 3 | 3 |
| 01036 | Bourne | 3,692 | 116 | 9 | 2,807 | 118 | 160 | 76 | 373 | 1 | 32 |
| 01041 | Brewster | 2,538 | 74 | 1 | 1,956 | 93 | 81 | 82 | 237 | 2 | 12 |
| 01920 | C.O.M.M. | 3,748 | 83 | 1 | 2,654 | 147 | 248 | 116 | 466 | 3 | 30 |
| 01055 | Chatham | 2,345 | 32 | 3 | 1,561 | 98 | 206 | 160 | 282 | 2 | 1 |
| 01921 | Cotuit | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01075 | Dennis | 4,196 | 67 | 11 | 3,102 | 165 | 364 | 130 | 343 | 0 | 14 |
| 01086 | Eastham | 183 | 26 | 3 | 4 | 45 | 23 | 7 | 73 | 2 | 0 |
| 01096 | Falmouth | 145 | 52 | 0 | 0 | 40 | 11 | 1 | 40 | 1 | 0 |
| 01126 | Harwich | 3,825 | 66 | 4 | 2,632 | 203 | 389 | 184 | 346 | 1 | 0 |
| 01922 | Hyannis | 189 | 119 | 0 | 0 | 23 | 3 | 0 | 44 | 0 | 0 |
| 01936 | Ma Military Res. | 917 | 19 | 0 | 99 | 351 | 173 | 38 | 237 | 0 | 0 |
| 01172 | Mashpee | 2,772 | 50 | 2 | 1,893 | 111 | 256 | 110 | 347 | 1 | 2 |
| 01224 | Orleans | 2,317 | 42 | 5 | 1,855 | 57 | 79 | 51 | 212 | 2 | 14 |
| 01242 | Provincetown | 165 | 29 | 1 | 26 | 28 | 9 | 20 | 52 | 0 | 0 |
| 01261 | Sandwich | 3,482 | 115 | 1 | 2,467 | 143 | 282 | 140 | 303 | 3 | 28 |
| 01300 | Truro | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01318 | Wellfleet | 1,087 | 18 | 0 | 826 | 39 | 61 | 38 | 103 | 1 | 1 |
| 01923 | West Barnstable | 497 | 20 | 0 | 356 | 15 | 21 | 23 | 59 | 1 | 2 |
| 01351 | Yarmouth | 6,205 | 84 | 6 | 4,943 | 181 | 224 | 235 | 513 | 1 | 18 |
| **Total** | **Barnstable County** | **39,243** | **1,036** | **49** | **27,786** | **1,898** | **2,690** | **1,436** | **4,167** | **24** | **157** |

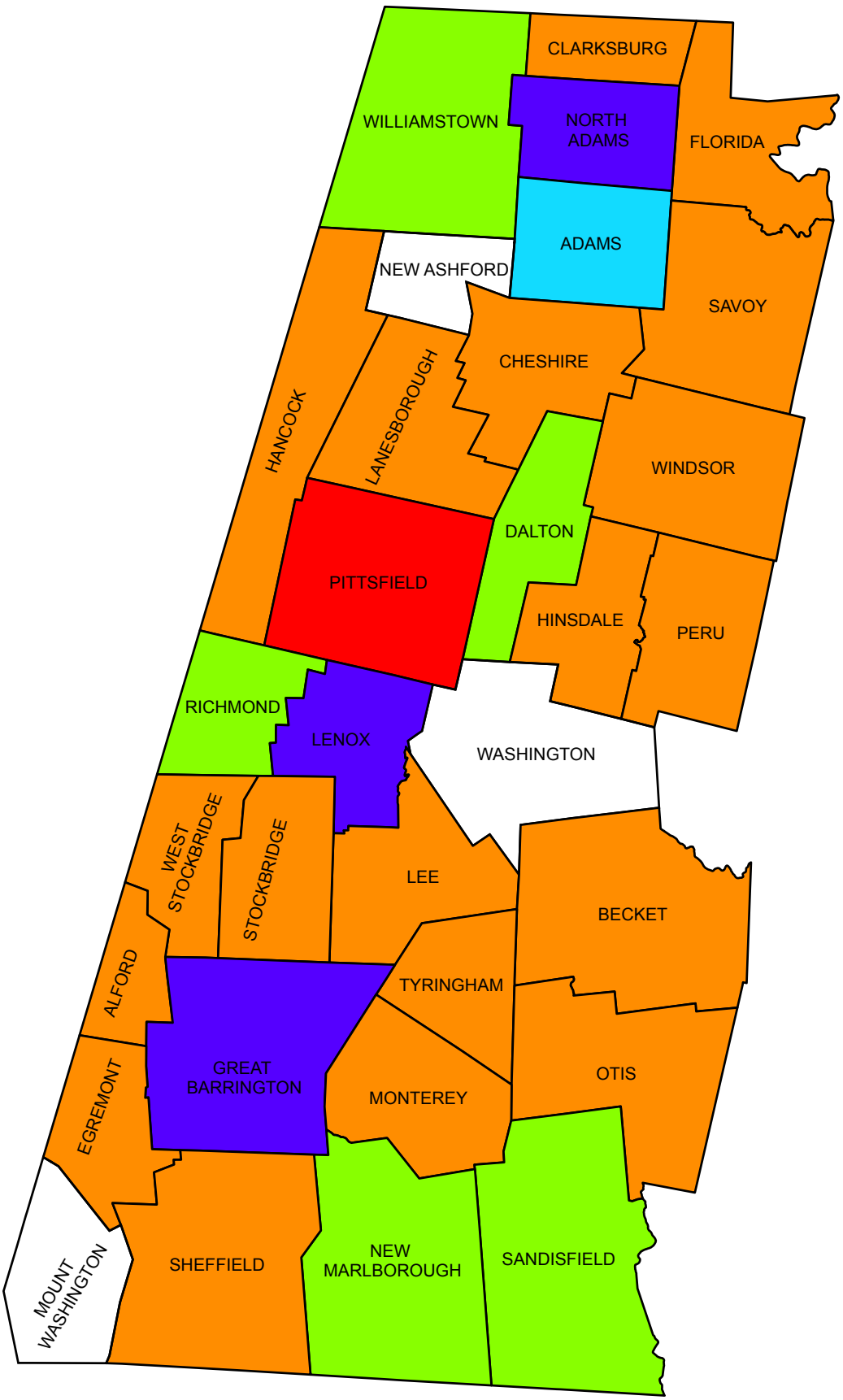
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

# Berkshire County
## 2009 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 2009




N
W E
S

## 2009 Fires

- 0
- 1 - 10
- 11 - 25
- 26 - 50
- 51 - 100
- 101 - 275

MASS. DEPARTMENT OF FIRE SERVICES

MFIRS
Massachusetts Fire Incident Reporting System

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2009

# Berkshire County Fires in 2009

**668 Total Fires — 412 Structures, 46 Vehicles & 196 Outside and Other Fires**
Berkshire County ranked tenth out of the fourteen Massachusetts counties in total reported fires. Berkshire County Fire Departments reported 668 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 412 structure fires, 60 motor vehicle fires, 87 brush, tree or lawn fires, 61 outside rubbish fires, 20 special outside fires, one cultivated crop or vegetation fire, and 27 other fires caused one civilian death, two civilian injuries, five fire service injuries and an estimated dollar loss of $5.9 million. Berkshire County's fires accounted for 2% of the 28,595 Massachusetts fires reported in 2009.

All 31 fire departments in Berkshire County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2009.

**Structure & Outside & Other Fires Down**
The total number of reported fire incidents decreased by 46 from the 714 reported in 2008. Reported structure fires decreased by 19 from the 431 reported during the previous year. Motor vehicle fires increased by 14 from the 46 reported the year before. Outside and other fires decreased by 41 from the 237 reported in 2008.

**BERKSHIRE COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 723 | 381 | 51 | 291 | 52 | 12 | 1 | 39 |
| 2006 | 736 | 392 | 47 | 297 | 46 | 10 | 7 | 30 |
| 2007 | 673 | 375 | 62 | 236 | 30 | 12 | 1 | 17 |
| 2008 | 714 | 431 | 46 | 237 | 42 | 8 | 1 | 33 |
| 2009 | 668 | 412 | 60 | 196 | 44 | 18 | 6 | 20 |

**Fire and Fire Death Rates**
Berkshire County had 4.9 fires per 1,000 population. That figure ranks Berkshire County third in the state and above the state rate of 4.5 fires per 1,000 population. Berkshire County also had 0.07 fire deaths per 10,000 populations ranking it fifth among Massachusetts counties and just above the state rate of 0.06 fire deaths per 10,000 population.

**Berkshire Resident Commits Suicide – Only Fire Death**
- On February 6, 2009, at 7:00 p.m., the Becket Fire Department was called to a fatal car fire that was a suicide by self-immolation at a rest stop along Route 20. The victim, a 40-year old possibly mentally disabled man, doused himself with gasoline inside his car and ignited it. No one else was injured at this fire. Damages from this fire were estimated to be $2,675.

### Egremont Had Berkshire County's Largest Loss Fire

- On December 11, 2009, at 4:45 a.m., the Egremont Fire Department was called to a fire in a restaurant of a 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 operated. The building was not sprinklered. Damages from this fire were estimated to be $1.5 million.

## STRUCTURE FIRES

### Reported Structure Fires Down

The 412 structure fires caused two civilian injuries, four fire service injuries and an estimated dollar loss of $5.5 million. These incidents represented 62% of Berkshire County's reported fires in 2009. The average estimated dollar loss per structure fire was $13,329. The total number of reported structure fires decreased by 19, or 4%, from the 431 reported in 2008.

### Arson Caused of 4% of Structure Fires

The 18 structure arsons caused one civilian injury, one fire service injury and an estimated dollar loss of $160,100. Arson was indicated as the cause of 4% of the structure fires and 3% of Berkshire County's structure fire dollar loss. The 18 structure arsons accounted for 41% of the Berkshire County arson fires reported in 2009. The total number of reported structure arsons increased by 10 from eight in 2008.

### 78% of Structure Arsons Occurred in Residences

Fourteen (14), or 78%, of Berkshire County's eight structure arsons occurred in residential occupancies. Public assembly property, an educational facility, a business, and a storage facility each had one structure arson in 2009.

## BUILDING FIRES

There were 407 building fires of different types in Berkshire County in 2009. These 407 building fires accounted for 98.8% of all structure fires in Berkshire County.

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

Three hundred and fourteen (314), or 77%, of Berkshire County's 407 building fires occurred in residential occupancies. Thirty (30) fires took place in public assembly properties, including restaurants and churches. Special properties such as outbuildings or sheds, had 20 fires. Mercantile and business properties had 12 fires. Eleven (11) fires occurred at educational facilities. Storage facilities also had 11 fires. Hospitals, prisons, and other institutional buildings experienced eight fires. One (1) fire occurred at an industrial facility in Berkshire County in 2009.

## RESIDENTIAL FIRES

### Residential Building Fires Down Slightly

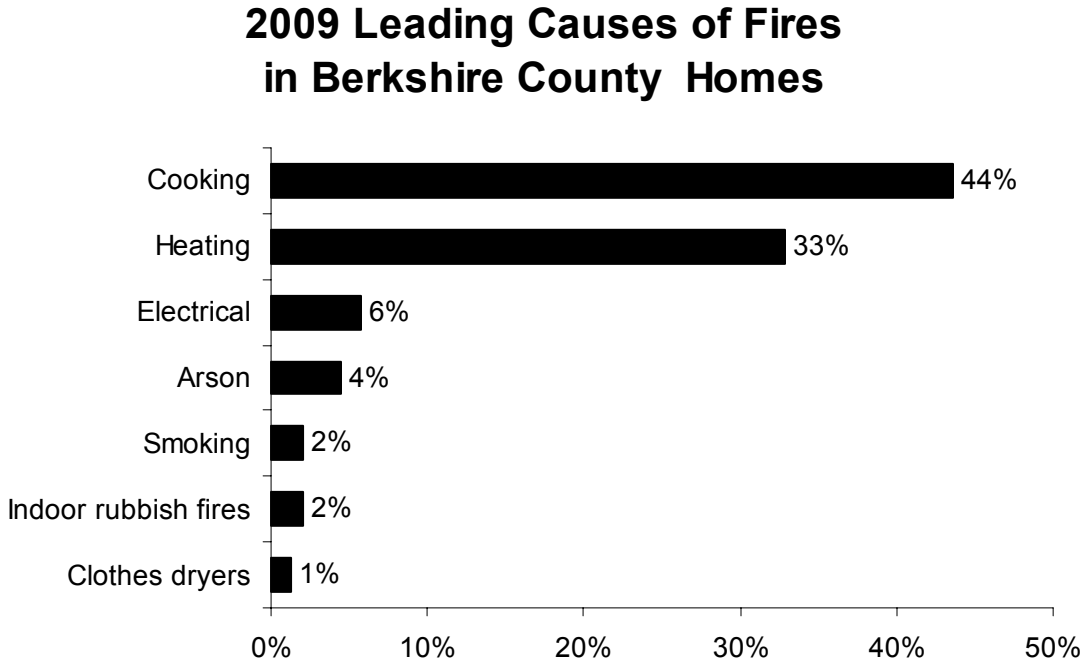
There were 314 reported residential building fires in Berkshire County in 2009. These 314 fires are a decrease of eight, or 2%, from the 322 residential building fires reported in 2008.

### 1- & 2-Family Homes Accounted for 61% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 61% of the building fires in Berkshire County; 30% occurred in apartments; 4% happened in hotels or motels; 3% occurred in dormitories; and 1% occurred in rooming houses. Six (6), or 2% of the building fires in Berkshire County, occurred in unclassified residential buildings.

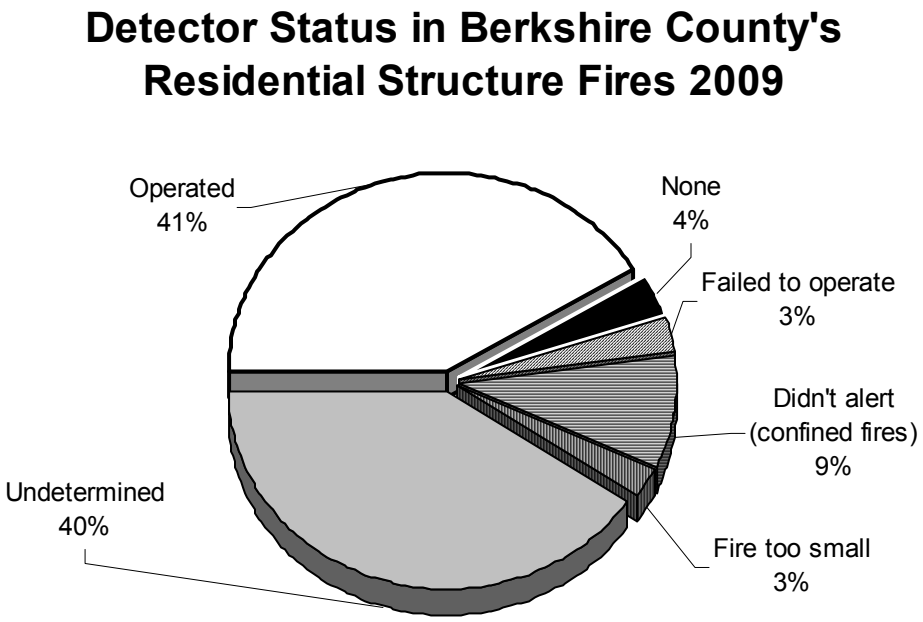
### Unattended Cooking Causes 44% of Residential Fires

The leading cause of residential building fires in Berkshire County was unattended cooking and other unsafe cooking practices, accounting for 44% of the fires. Heating caused 33% of the residential building fires; of which 64, or 62%, were caused by chimney, fireplace or flue fires. Electrical problems caused 6% of the fires. Arson caused 4% of these fires. Smoking and indoor rubbish fires each caused 2%. Clothes dryers were responsible for 1% of Berkshire County's residential building fires in 2009.



**72% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
Two hundred and twenty-six (226), or 72%, of these fires were confined to a non-combustible container. One hundred and twenty-one (121), or 39%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Fifty-five (55) of the reported fires were confined to a chimney accounting for 18% of residential building fires. Fires confined to a fuel burner or boiler malfunction accounted for 39, or 12%. Ten (10), or 3%, of these fires in Berkshire County in 2009 were indoor rubbish fires.

**Detectors Alerted Occupants in 41% of Fires**
Smoke or heat detectors operated and alerted the occupants in 130, or 41%, of the residential building fires. In 9% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 3% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 127 incidents, or 40% 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.

### Over 3/4 of Failed Detectors Had Missing or Disconnected Batteries

Of the nine fires where smoke detectors were present but failed to operate, seven, or 78%, failed because the batteries were either missing or disconnected. One (1) detector failed because of a power failure or shut-off, causing 11% of the failed detectors in Berkshire County in 2009. It was undetermined why one detector, or 11%, 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 407 building fires reported to MFIRS in 2009. Seven (7) one- or two-family homes, one restaurant, one unclassified business; one bar or nightclub, and one church were reported as vacant building fire incidents.

Four (4), or 36%, of the vacant building fires in Berkshire County in 2009 was determined to be intentionally set. Two of these fires were in one- or two-family homes. One fire occurred in a church while the other occurred at an unclassified business.

## JUVENILE-SET FIRES

### 5 Juvenile-set Fires

There were five reported juvenile-set fires in Berkshire County in 2009. The one structure fire, one outside rubbish fire, and three unclassified fires caused $100 in estimated damages.

## ARSONS

### 44 Total Arsons — 18 Structures, 6 Vehicle & 20 Other Arsons

Forty-four (44), or 7%, of Berkshire County's 668 fires were intentionally set, or, for purposes of this analysis, arson[4]. The 18 structure arsons, six motor vehicle arsons and 20 outside and other arsons caused one civilian death, one civilian injury, one fire service injury and an estimated dollar loss of $186,175.

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

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

### Structure & Motor Vehicle Arsons Up

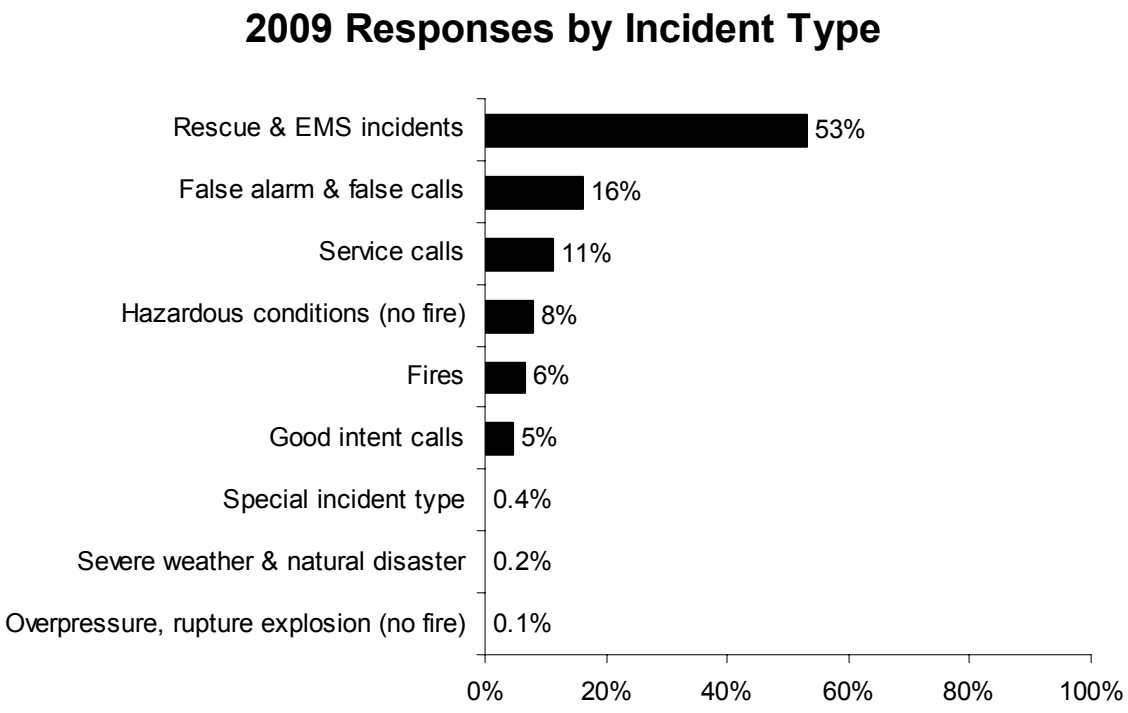
The total number of reported arson fires increased by two from the 42 reported in 2008. Reported structure arsons increased by 10 from eight in 2008. Motor vehicle arsons increased by five from the one reported the previous year. Reported outside and other arsons decreased by 13 from the 33 reported in 2008.

## ALL INCIDENTS

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

In 2009, Berkshire County fire departments reported 11,181 responses[5] to MFIRS. Of these 11,181 incidents, 10,460 non-fire incidents were voluntarily reported.

Of these 10,460 non-fire responses 5,930, or 53% of all the responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 1,800, or 16%, were reported false alarm or false calls; 1,262, or 11%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 870, or 8%, were reported hazardous condition calls with no fire; 514, or 5%, were reported good intent calls; 46, or 0.4% were special incident type calls such as citizen complaints; 25, 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.

Seven hundred and twenty-one (721), or 6%, of the total responses submitted by Berkshire County fire departments were fires.

**Berkshire County Departments Reported Giving Mutual Aid 141 Times**

In 2009, Berkshire County fire departments reported coming to the aid of other fire departments 141 times. Of these 141 responses, 53, or 38%, were for fires; 48, or 34%, were for rescue or EMS calls; 22, or 16%, were for service calls such as cover assignments; six, or 4% were good intent calls; another six, or 4%, were special incident types; four, or 3%, were for false alarms; and two, or 1%, were for hazardous conditions calls with no fire.

**Berkshire County Received Mutual Aid in 267 Incidents**

In 2009, Berkshire County fire departments reported receiving aid from surrounding departments in 267 incidents. Of these 267 incidents, 207, or 78%, were rescue and emergency medical services calls; 47, or 18%, were for fires; six, or 2%, were false alarms or false calls; three, or 1%, were service calls; two, or 1%, were hazardous conditions calls with no fire; and another two calls, or 1%, were overpressure, rupture explosions with no after fire calls.

## Berkshire County Population: 134,953

**4.9 Fires/1,000 Population**

| **Total Fires:** | **668** | | **$5,874,520** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 412 | 62% | $5,491,660 |
| Vehicle Fires | 46 | 9% | 330,260 |
| Other Fires | 196 | 29% | 52,600 |

| | |
|---|---|
| 1 Fatal Fire | 1.50 Civilian Deaths/1,000 Fires |
| 1 Civilian Death | 0.07 Civilian Deaths/10,000 Population |
| 2 Civilian Injuries | 5 Fire Service Injuries |

# Building Fires: 407

## Residential Structure Fires: 314

**Residential Structure Fires Confined to Non-Combustible Containers: 226**

**Unconfined Residential Structure Fires: 88**

1 Civilian Injury 3 Fire Service Injuries

| **Occupancy** | **Fires** | **%** | **Detector Status** | **Fires** | **%** |
|---|---|---|---|---|---|
| 1- & 2-Family homes | 190 | 61% | Operated | 130 | 41% |
| Apartments | 94 | 30% | Didn't operate | 9 | 3% |
| Hotels or motels | 13 | 4% | None | 11 | 4% |
| Dormitories | 8 | 3% | Fire too small | 8 | 3% |
| Rooming houses | 3 | 1% | Didn’t alert (confined) | 29 | 9% |
| Residential, other | 6 | 2% | Undetermined | 127 | 40% |

| **Area of Origin**[6] | **%** | **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|---|---|
| Kitchen | 45% | Heat from operating equip. | 4% | 16% |
| Chimney or flue | 18% | Radiated heat from op. eq. | 4% | 14% |
| Heating equipment room | 13% | Arcing | 3% | 11% |
| Living room | 3% | Hot ember or ash | 3% | 10% |
| Laundry room | 2% | Cigarette | 1% | 5% |

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

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

| **Item First Ignited[8]** | **%** | **Factor Contrib. to Ignit.** | **%** | **%Unconfined[9]** |
|---|---|---|---|---|
| Food, cooking materials | 40% | Failure to clean | 3% | 9% |
| Film, residue (creosote) | 18% | Equipment unattended | 2% | 7% |
| Flammable, combustible liquid | 12% | Electrical failure/malfunc. | 2% | 6% |
| Rubbish, trash, waste | 4% | Too close to combustibles | 1% | 5% |
| Electrical wire, cable insulation | 3% | Worn out | 1% | 3% |
| | | Unspecified short-circuit arc | 1% | 3% |

| **Equipment[10]** | **%** | **Cause of Ignition** | **%** | **%Unconfined[11]** |
|---|---|---|---|---|
| Cooking equipment | 42% | Unintentional | 12% | 43% |
| Chimney or flue | 19% | Failure of eq. or heat source | 7% | 24% |
| None | 15% | Intentional | 3% | 9% |
| Boiler, furnace, cent. heat unit | 12% | Cause under investigation | 2% | 6% |
| Clothes dryer | 1% | Undetermined | 4% | 14% |
| Stove, heater | 1% | Act of Nature | 1% | 3% |

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

| | |
|---|---|
| Alerted occupants | 42% |
| Didn't alert occupants | 13% |
| Undetermined | 45% |

[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 | 61 | 51 | 1 | 9 |
| February | 35 | 23 | 6 | 6 |
| March | 61 | 40 | 3 | 18 |
| April | 103 | 40 | 7 | 56 |
| May | 40 | 24 | 4 | 11 |
| June | 48 | 20 | 4 | 23 |
| July | 54 | 37 | 6 | 11 |
| August | 64 | 41 | 7 | 15 |
| September | 49 | 28 | 7 | 14 |
| October | 42 | 29 | 5 | 8 |
| November | 55 | 34 | 3 | 18 |
| December | 56 | 42 | 7 | 7 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 101 | 65 | 4 | 32 |
| Monday | 91 | 57 | 11 | 23 |
| Tuesday | 88 | 59 | 7 | 22 |
| Wednesday | 100 | 59 | 10 | 31 |
| Thursday | 86 | 52 | 9 | 25 |
| Friday | 88 | 51 | 9 | 28 |
| Saturday | 114 | 69 | 10 | 35 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 38 | 25 | 5 | 8 |
| 04:01 - 08:00 | 40 | 26 | 5 | 9 |
| 08:01 - 12:00 | 95 | 64 | 10 | 21 |
| 12:01 - 16:00 | 176 | 94 | 19 | 63 |
| 16:01 - 20:00 | 194 | 123 | 14 | 57 |
| 20:01 - 00:00 | 125 | 80 | 7 | 38 |

## Motor Vehicle Fires

Total: 60
Automobiles: 49 (82%)
5, or (10%), of the automobile fires were considered intentionally set.

## Arson Fires

**Total Arsons: 44** **Dollar loss: $186,175**

**0.3 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | $ Loss |
|---|---|---|---|---|
| Structure Arsons | 18 | 4% | 41% | $160,100 |
| Vehicle Arsons | 6 | 10% | 14% | 25,675 |
| Other Arsons | 20 | 10% | 45% | 400 |

0.13 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.15 Other arsons/1,000 population

1 Civilian Death 1 Civilian Injury 1 Fire Service Injury

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 8 | 44% |
| 12:01 - 16:00 | 4 | 22% |
| 08:01 - 12:00 | 2 | 11% |
| 20:01 - 00:00 | 2 | 11% |

| Vehicle Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 3 | 500% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 9 | 45% |
| 12:01 - 16:00 | 4 | 20% |
| 20:01 - 00:00 | 3 | 15% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- and 2-Family homes | 14 | 78% |

**Adams** **Population: 8,809**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 36 | 23 | 3 | 10 | 2 | 0 | 0 | 2 |
| 2006 | 40 | 28 | 3 | 9 | 2 | 0 | 0 | 2 |
| 2007 | 30 | 18 | 4 | 8 | 3 | 0 | 0 | 3 |
| 2008 | 40 | 31 | 3 | 6 | 3 | 0 | 0 | 3 |
| 2009 | 44 | 35 | 1 | 8 | 4 | 2 | 0 | 2 |

**Alford** **Population: 399**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Becket** **Population: 1,755**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |

**Cheshire** **Population: 3,401**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 8 | 3 | 2 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 0 | 1 | 2 | 1 | 0 | 0 | 1 |

**Clarksburg** **Population: 1,686**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2008 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 5 | 4 | 1 | 0 | 0 | 0 | 0 | 0 |

**Dalton** **Population: 6,892**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 19 | 15 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 25 | 12 | 4 | 9 | 1 | 0 | 1 | 0 |
| 2007 | 19 | 14 | 1 | 4 | 0 | 0 | 0 | 0 |
| 2008 | 26 | 19 | 1 | 6 | 1 | 1 | 0 | 0 |
| 2009 | 25 | 23 | 2 | 0 | 0 | 0 | 0 | 0 |

**Egremont** **Population: 1,345**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 10 | 3 | 0 | 7 | 1 | 0 | 0 | 1 |
| 2007 | 10 | 8 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2008 | Non-Reporting Community | | | | | | | |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Florida** **Population: 676**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 6 | 3 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 5 | 1 | 2 | 2 | 1 | 0 | 0 | 1 |
| 2008 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 10 | 5 | 1 | 4 | 0 | 0 | 0 | 0 |

**Great Barrington** **Population: 7,527**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 81 | 65 | 4 | 12 | 2 | 1 | 0 | 1 |
| 2006 | 104 | 80 | 3 | 21 | 2 | 0 | 0 | 2 |
| 2007 | 97 | 79 | 2 | 16 | 0 | 0 | 0 | 0 |
| 2008 | 92 | 73 | 3 | 16 | 1 | 1 | 0 | 0 |
| 2009 | 87 | 74 | 3 | 10 | 2 | 1 | 1 | 0 |

**Hancock** **Population: 721**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |

**Hinsdale** **Population: 1,872**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

**Lanesborough** **Population: 2,990**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 24 | 7 | 4 | 13 | 2 | 0 | 0 | 2 |
| 2006 | 15 | 6 | 1 | 8 | 1 | 0 | 0 | 1 |
| 2007 | 10 | 2 | 0 | 8 | 0 | 0 | 0 | 0 |
| 2008 | 14 | 5 | 0 | 9 | 3 | 0 | 0 | 3 |
| 2009 | 9 | 3 | 1 | 5 | 0 | 0 | 0 | 0 |

**Lee** **Population: 5,985**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 9 | 7 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 12 | 9 | 3 | 0 | 1 | 1 | 0 | 0 |
| 2008 | 8 | 5 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 6 | 2 | 4 | 0 | 0 | 0 | 0 | 0 |

**Lenox** **Population: 5,077**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 60 | 39 | 2 | 19 | 1 | 1 | 0 | 0 |
| 2006 | 62 | 40 | 2 | 20 | 1 | 1 | 0 | 0 |
| 2007 | 49 | 37 | 2 | 10 | 0 | 0 | 0 | 0 |
| 2008 | 49 | 38 | 0 | 11 | 0 | 0 | 0 | 0 |
| 2009 | 55 | 33 | 2 | 20 | 1 | 0 | 0 | 1 |

**Monterey** **Population: 934**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |

**New Ashford** **Population: 247**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

**New Marlborough** **Population: 1,494**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 5 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2008 | 6 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 16 | 5 | 3 | 8 | 0 | 0 | 0 | 0 |

**North Adams** **Population: 14,681**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 54 | 21 | 5 | 28 | 3 | 0 | 0 | 3 |
| 2006 | 53 | 22 | 2 | 29 | 7 | 3 | 1 | 3 |
| 2007 | 82 | 30 | 10 | 42 | 5 | 0 | 0 | 5 |
| 2008 | 84 | 47 | 8 | 29 | 6 | 1 | 0 | 5 |
| 2009 | 52 | 20 | 9 | 23 | 6 | 0 | 2 | 4 |

**Otis** **Population: 1,365**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006[12] | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 9 | 8 | 0 | 1 | 0 | 0 | 0 | 0 |

**Peru** **Population: 821**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 4 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 6 | 2 | 1 | 3 | 1 | 0 | 0 | 1 |
| 2009 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 1 |

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

**Pittsfield** **Population: 45,793**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 379 | 168 | 21 | 190 | 41 | 9 | 1 | 31 |
| 2006 | 336 | 155 | 19 | 162 | 26 | 5 | 5 | 16 |
| 2007 | 318 | 162 | 31 | 125 | 16 | 8 | 1 | 7 |
| 2008 | 312 | 166 | 19 | 127 | 26 | 5 | 1 | 20 |
| 2009 | 275 | 157 | 23 | 95 | 25 | 14 | 2 | 9 |

**Richmond** **Population: 1,604**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 8 | 5 | 0 | 3 | 0 | 0 | 0 | 0 |
| 2006 | 17 | 8 | 1 | 8 | 2 | 0 | 0 | 2 |
| 2007 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 17 | 7 | 0 | 10 | 1 | 0 | 0 | 1 |
| 2009 | 16 | 8 | 0 | 8 | 0 | 0 | 0 | 0 |

**Sandisfield** **Population: 824**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 13 | 6 | 1 | 6 | 0 | 0 | 0 | 0 |
| 2009 | 15 | 10 | 1 | 4 | 0 | 0 | 0 | 0 |

**Savoy** **Population: 705**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

**Sheffield** **Population: 3,335**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 4 | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2008 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |

**Stockbridge** **Population: 2,276**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Non-Reporting Community | | | | | | | |
| 2006 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Tyringham** **Population: 350**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007[13] | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**West Stockbridge** **Population: 1,416**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 10 | 3 | 2 | 5 | 0 | 0 | 0 | 0 |
| 2006 | 10 | 0 | 6 | 4 | 0 | 0 | 0 | 0 |
| 2007 | 5 | 0 | 1 | 4 | 0 | 0 | 0 | 0 |
| 2008 | 5 | 1 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 4 | 2 | 0 | 2 | 1 | 0 | 0 | 1 |

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

**Williamstown** **Population: 8,424**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 19 | 12 | 4 | 3 | 0 | 0 | 0 | 0 |
| 2006 | 31 | 17 | 3 | 11 | 3 | 0 | 0 | 3 |
| 2007 | 8 | 5 | 2 | 1 | 2 | 1 | 1 | 0 |
| 2008 | 16 | 11 | 2 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 16 | 10 | 5 | 1 | 1 | 0 | 0 | 1 |

---

**Windsor** **Population: 875**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 03004 | Adams | 307 | 49 | 1 | 78 | 49 | 12 | 19 | 95 | 1 | 3 |
| 03006 | Alford | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03022 | Becket | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03058 | Cheshire | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03063 | Clarksburg | 11 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03070 | Dalton | 627 | 25 | 1 | 449 | 25 | 50 | 8 | 68 | 1 | 0 |
| 03090 | Egremont | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03098 | Florida | 62 | 12 | 0 | 43 | 2 | 1 | 1 | 1 | 1 | 1 |
| 03113 | Great Barrington | 476 | 99 | 0 | 136 | 31 | 17 | 24 | 165 | 0 | 4 |
| 03121 | Hancock | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03132 | Hinsdale | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03148 | Lanesborough | 275 | 9 | 1 | 196 | 9 | 15 | 13 | 23 | 0 | 9 |
| 03150 | Lee | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03152 | Lenox | 536 | 58 | 1 | 95 | 44 | 87 | 17 | 232 | 2 | 0 |
| 03193 | Monterey | 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 | 156 | 19 | 0 | 98 | 1 | 1 | 0 | 37 | 0 | 0 |
| 03209 | North Adams | 1,077 | 52 | 1 | 234 | 139 | 235 | 106 | 298 | 1 | 11 |
| 03225 | Otis | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03233 | Peru | 42 | 5 | 0 | 30 | 4 | 0 | 1 | 2 | 0 | 0 |
| 03236 | Pittsfield | 7,102 | 275 | 5 | 4,396 | 508 | 801 | 296 | 790 | 13 | 18 |
| 03249 | Richmond | 100 | 23 | 1 | 11 | 28 | 17 | 0 | 19 | 1 | 0 |
| 03260 | Sandisfield | 151 | 21 | 1 | 89 | 10 | 15 | 0 | 11 | 4 | 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 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03302 | Tyringham | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03326 | West Stockbridge | 106 | 10 | 0 | 70 | 5 | 5 | 2 | 14 | 0 | 0 |
| 03341 | Williamstown | 114 | 16 | 0 | 5 | 15 | 6 | 27 | 45 | 0 | 0 |
| 03345 | Windsor | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| **Total** | **Berkshire County** | **11,181** | **721** | **13** | **5,930** | **870** | **1,262** | **514** | **1,800** | **25** | **46** |

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 2009

**275 Total Fires — 157 Structures, 23 Vehicles & 95 Other Fires**
The Pittsfield Fire Department reported 275 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 157 structure fires, 23 motor vehicle fires, 34 brush fires, 40 outside rubbish fires, 10 special outside fires; and 11 unclassified fires caused one civilian injury, one firefighter injury and an estimated dollar loss of $1.1 million. There were no fatal fires in Pittsfield in 2009.

**Structure Fires Down Slightly**
Total fires decreased by 37 from the 312 incidents reported in 2008. Reported structure fires decreased by nine from the 166 reported during the previous year. Motor vehicle fires increased by four from 19 the year before. Outside and other fires decreased by 32 from the 127 reported in 2008.

**PITTSFIELD FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 379 | 168 | 21 | 190 | 41 | 9 | 1 | 31 |
| 2006 | 336 | 155 | 19 | 162 | 26 | 5 | 5 | 16 |
| 2007 | 317 | 155 | 31 | 131 | 16 | 8 | 1 | 7 |
| 2008 | 312 | 166 | 19 | 127 | 26 | 5 | 1 | 20 |
| 2009 | 275 | 157 | 23 | 95 | 25 | 14 | 2 | 9 |

**BUILDING FIRES**

There were 153 building fires of different types in Pittsfield in 2009. These 153 building fires accounted for 97.5% of all structure fires in Pittsfield.

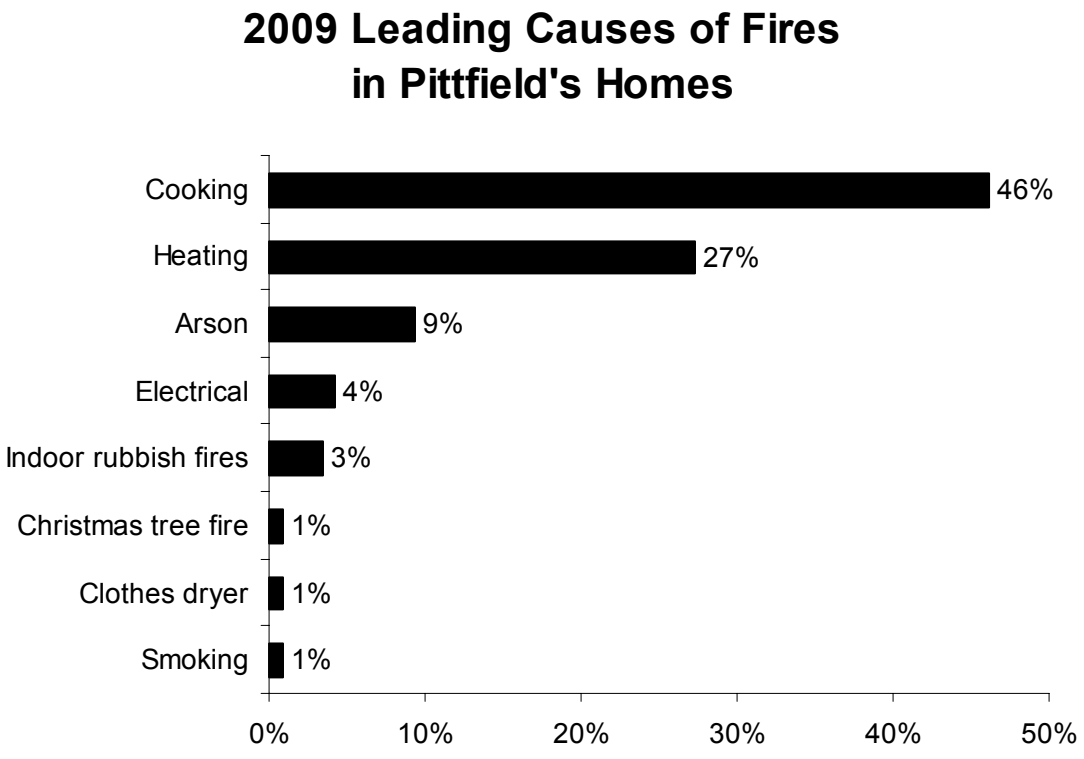
**Over 3/4 of Building Fires in Homes**
The 153 building fires that occurred in Pittsfield in 2009 can be broken down by fixed property use as follows: 117, or 76% of all building fires, were in residential properties; 16 fires occurred in special properties; eight fires occurred in public assembly properties; four fires happened in storage facilities; three fires occurred in educational facilities; another three happened in mercantile or business properties; and two fires occurred in institutional facilities.

**RESIDENTIAL FIRES**

**Residential Building Fires Up Slightly**
There were 117 reported residential building fires in Pittsfield in 2009. These 117 fires are an increase of two from the 115 reported residential building fires reported in 2008.

**1- or 2-Family Homes Accounted for 63% of Residential Building Fires**
The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 63% of the building fires in Pittsfield; 33% occurred in apartments; 3% happened in rooming houses; and 1% occurred in hotels and motels.

**Unattended Cooking Leading Cause of Residential Fires**
The leading cause of residential building fires in Pittsfield was unattended cooking and other unsafe cooking practices, accounting for 46% of these fires. Heating fires caused 27% of these fires. Arson was the cause of 9% of the fires. Electrical problems caused 4%. Indoor rubbish fires caused 3% of residential fires. Christmas tree fires, candles, and smoking were each the cause of 1% of the fires in Pittsfield's residential occupancies in 2009.



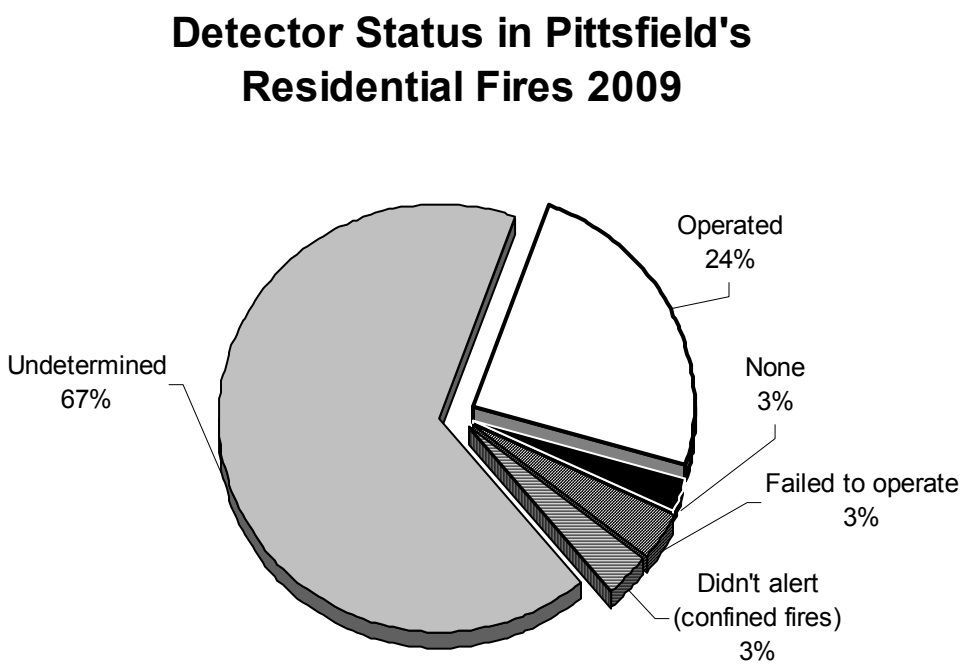

**74% of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
Eighty-six (86), or 74% of all residential building fires were confined to non-combustible containers in 2009. Forty-seven (47), or 40%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Twenty (20), or 17%, were fires confined to a fuel burner or boiler malfunction. Nine (9), or 8%, of these 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.

were rubbish fires contained to a non-combustible container. Another nine fires, or 8%, were reported to have been contained to a chimney or flue. One (1) fire, or 1%, was confined to a commercial compactor.

**Detectors Worked in Only 24% of Fires**

Smoke or heat detectors operated and alerted the occupants in 28, or 24%, of the residential building fires. In 3% of these fires[2], the detectors did not alert the occupants. There were no detectors in 3% of these fires. Detectors were present but did not operate in 3% of these incidents. There were no reported fires where the fire was too small to trigger the detector. Smoke detector performance was undetermined in 78 incidents, or 67% 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.

**3 of 4 Detectors Failed Detectors From a Missing Battery**

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

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

## VACANT BUILDINGS

### 3% of Building Fires Occurred in Vacant Buildings

Pittsfield reported four fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 153 building fires reported to MFIRS in 2009. Three (3) 1- or 2-family homes and one church were reported as vacant building fire incidents.

## JUVENILE-SET FIRES

### 2 Juvenile-set Fires

There were two reported juvenile-set fires in Pittsfield in 2009. There was an outside rubbish fire and an unclassified fire.

## ARSONS

### 25 Arsons[4] - 14 Structure, 2 Motor Vehicle and 9 Outside & Other

Twenty-five (25), or 9%, of Pittsfield's 275 fires were considered intentionally set, or, for purposes of this analysis, arson. There were 14 structure arsons, two motor vehicle arsons and nine outside and other arsons.

### Structure Arsons Up

The total number of arsons decreased by one from the 26 reported in 2008. Reported structure arsons increased by nine from the five reported in 2008. Reported motor vehicle arsons increased by one from the one reported in 2008. Outside and other arsons decreased by 11 from the 20 reported the year before.

### 72 Fires Reported as Undetermined or Still Under Investigation

In 2009, Pittsfield reported 72 fires under investigation or cause undetermined after investigation. Sixty-six (66), or 92%, of these fires were reported to be undetermined after investigation. The other six, or 8%, were still under investigation.

Twenty-nine (29), or 40%, of these 72 fires were structure fires. Ten (10), or 14% were motor vehicle fires; and 33, or 46%, were outside or other fires. Because so many fires or under investigation or undetermined after investigation, the true arson number might be actually higher in Pittsfield in 2009.

---

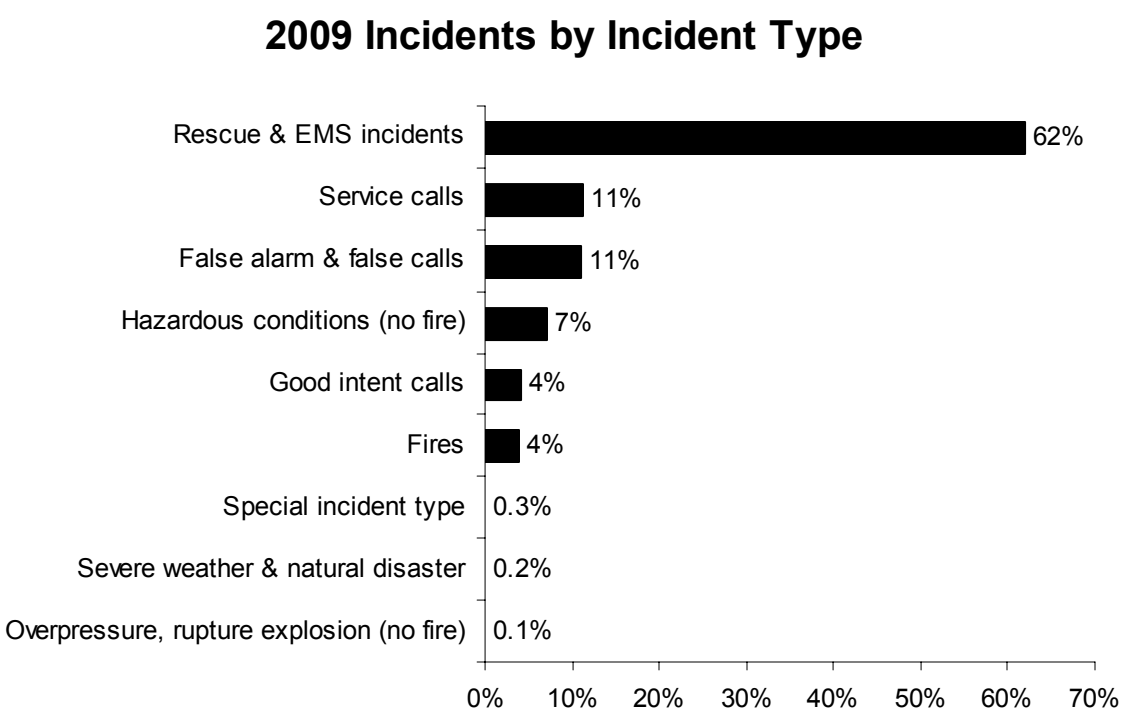
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is 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 2009, Pittsfield voluntarily reported 7,102 incidents to MFIRS. Of these 7,102 incidents, 6,827, or 96%, were non-fire incidents.

Of these 6,827 non-fire incidents 4,396, or 62% of all reported incidents in 2009, were reported rescue and emergency medical services (EMS) calls; 801, or 11%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 790, or 11%, were reported false alarm or false calls; 508, or 7%, were reported hazardous condition calls with no fire; 296, or 4%, were reported good intent calls; 18, or 0.3%, were special type incidents; 13, or 0.2%, were severe weather calls; and five, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire.

In 2009, Pittsfield reported 275 fires, accounting for 4% of all reported incidents.




**Pittsfield Gave Mutual Aid in 2 Incidents**
In 2009, Pittsfield reported giving mutual aid to other surrounding fire departments in two incidents. One was a good intent call and the other one was for a hazardous condition call with no fire.

**Pittsfield Received Mutual Aid in 1 Incidents**
In 2009, surrounding fire departments gave aid to Pittsfield in one incident. This incident was a rescue or EMS call.

# Pittsfield Population: 45,793

**6.8 Fires/1,000 Population**

| **Total Fires:** | **275** | | **$1,111,511** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 157 | 57% | $898,326 |
| Vehicle Fires | 23 | 8% | 195,385 |
| Other Fires | 95 | 35% | 17,800 |

1 Civilian Injury 1 Fire Service Injury

## Building Fires: 153

## Residential Structure Fires: 117

**Residential Structure Fires Confined to Non-Combustible Containers: 86**

**Unconfined Residential Structure Fires: 31**

1 Civilian Injury 1 Fire Service Injury

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 74 | 63% |
| Apartments | 39 | 33% |
| Boarding houses | 3 | 2% |
| Hotel/motel | 1 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 28 | 24% |
| Didn't operate | 4 | 3% |
| None | 3 | 3% |
| Fire too small | 0 | 0% |
| Didn't Alert (confined) | 4 | 3% |
| Undetermined | 78 | 67% |

| **Area of Origin**[5] | **%** |
|---|---|
| Kitchen | 50% |
| Heating room or area | 17% |
| Chimney or flue | 8% |
| Bedroom | 3% |
| Living room | 3% |

| **Heat Source** | **%** | **%Unconfined**[6] |
|---|---|---|
| Arcing | 3% | 13% |
| Heat from operating equip. | 3% | 13% |
| Radiated heat from op. eq. | 3% | 10% |
| Hot ember or ash | 2% | 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 | 44% |
| Flammable or combustible liq. | 17% |
| Rubbish, trash, waste | 9% |
| Film, residue (creosote) | 8% |
| Magazine, newspaper, paper | 3% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[8] |
|---|---|---|
| Equipment unattended | 3% | 10% |
| Operational deficiency | 2% | 6% |
| Failure to clean | 2% | 6% |

| **Equipment**[9] | **%** |
|---|---|
| Cooking equipment | 52% |
| None | 17% |
| Boiler, furnace, cent. heat. unit | 17% |
| Chimney or flue | 8% |

| **Cause of Ignition** | **%** | **%Unconfined**[10] |
|---|---|---|
| Unintentional | 9% | 32% |
| Intentional | 4% | 16% |
| Failure of eq./heat source | 3% | 13% |
| Cause Under Investigation | 3% | 10% |
| Undetermined | 8% | 29% |

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

| | |
|---|---|
| Alerted Occupants | 13% |
| Didn't Alert Occupants | 5% |
| Undetermined | 83% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Rescue & EMS incidents | 4,396 | 62% |
| Service calls | 801 | 11% |
| False alarms & false calls | 790 | 11% |
| Hazardous conditions (no fire) | 508 | 7% |
| Good intent calls | 296 | 4% |
| Fires[11] | 275 | 4% |
| Special Incident Types | 18 | 0.3% |
| Severe weather & natural disaster | 13 | 0.2% |
| Overpressure rupture, explosion or overheat calls (no fire) | 5 | 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 | 13 | 10 | 0 | 3 |
| February | 8 | 3 | 3 | 2 |
| March | 25 | 16 | 1 | 8 |
| April | 41 | 18 | 1 | 22 |
| May | 17 | 12 | 1 | 4 |
| June | 20 | 9 | 1 | 10 |
| July | 19 | 9 | 3 | 7 |
| August | 28 | 17 | 3 | 8 |
| September | 28 | 16 | 5 | 7 |
| October | 24 | 16 | 1 | 7 |
| November | 29 | 16 | 1 | 12 |
| December | 23 | 15 | 3 | 5 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 38 | 25 | 1 | 12 |
| Monday | 37 | 23 | 3 | 11 |
| Tuesday | 40 | 24 | 5 | 11 |
| Wednesday | 41 | 19 | 3 | 19 |
| Thursday | 33 | 19 | 5 | 9 |
| Friday | 33 | 19 | 1 | 13 |
| Saturday | 53 | 28 | 5 | 20 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 16 | 10 | 2 | 4 |
| 04:01 - 08:00 | 12 | 8 | 1 | 3 |
| 08:01 - 12:00 | 28 | 19 | 4 | 5 |
| 12:01 - 16:00 | 73 | 36 | 9 | 28 |
| 16:01 - 20:00 | 86 | 50 | 3 | 33 |
| 20:01 - 24:00 | 60 | 34 | 4 | 22 |

## Motor Vehicle Fires

Total: 23
Automobiles: 19 (83%)
2 (11%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 25** **Dollar loss: $100,800**

**0.6 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 14 | 9% | 56% | $80,100 |
| Vehicle Arsons | 2 | 9% | 8% | 20,500 |
| Other Arsons | 9 | 9% | 36% | 200 |

0.31 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.20 Other arsons/1,000 population

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 5 | 36% |
| 12:01 - 16:00 | 3 | 21% |
| 08:01 - 12:00 | 2 | 14% |
| 20:01 - 00:00 | 2 | 14% |

| Vehicle Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 2 | 100% |

| Other Arsons | # | % |
|---|---|---|
| 12:01 - 16:00 | 4 | 44% |
| 16:01 - 20:00 | 4 | 22% |
| 20:01 - 00:00 | 2 | 22% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- or 2-Family homes | 11 | 79% |
| Parking garage (detached residential) | 1 | 7% |
| High/junior high/middle school | 1 | 7% |
| Church, mosque, synagogue, temple | 1 | 7% |

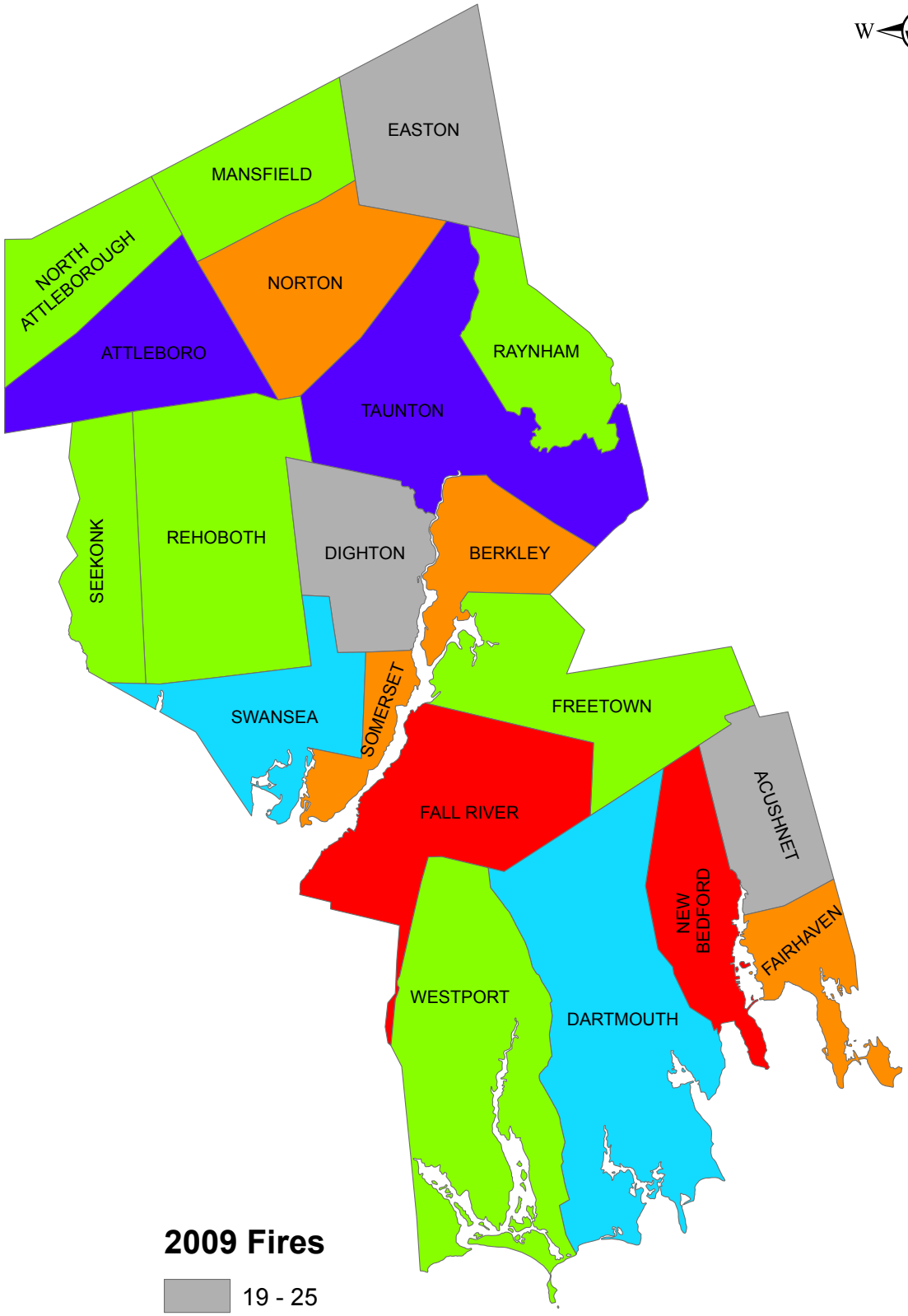
# Bristol County

## 2009 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 2009




## 2009 Fires

- 19 - 25
- 26 - 50
- 51 - 75
- 76 - 100
- 101 - 150
- 151 - 375

MASS. DEPARTMENT OF FIRE SERVICES

MFIRS Massachusetts Fire Incident Reporting System

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2009

# Bristol County Fires in 2009

**1,774 Total Fires — 796 Structures, 306 Vehicles & 672 Other Fires**
Bristol County ranked seventh out of the fourteen Massachusetts counties in total reported fires. The county reported 1,774 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 796 structure fires, 306 motor vehicle fires, 305 brush, tree or lawn fires, 240 outside rubbish fires, 40 special outside fires, one cultivated vegetation or crop fire, and 86 other fires caused seven civilian deaths, 39 civilian injuries, 29 fire service injuries and an estimated dollar loss of $12.9 million. Bristol County's fires accounted for 6% of the 28,595 Massachusetts fires reported in 2009.

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

**All Fires Down**
The total number of reported fire incidents decreased by 537 from the 2,311 reported in 2008. Reported structure fires decreased by 26 from the 822 reported during the previous year. The total number of reported motor vehicle fires dropped by five from the 311 incidents reported during 2008. Reported outside and other fires decreased by 506 from the 1,178 reported the year before.

**Outside Fires Fall Dramatically**
Bristol County had a large decrease in brush fires in 2009. Brush fires decreased by 261, or 46%, from the 566 reported in 2008. Outside rubbish fires decreased by 126, or 34%, from the 366 reported the year before. Special outside fires dropped by 97, or 71%, from the 137 reported in 2008.

**BRISTOL COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2,499 | 890 | 423 | 1,186 | 145 | 43 | 26 | 76 |
| 2006 | 2,331 | 837 | 353 | 1,141 | 159 | 53 | 38 | 68 |
| 2007 | 2,517 | 789 | 353 | 1,375 | 139 | 32 | 28 | 79 |
| 2008 | 2,311 | 822 | 311 | 1,178 | 129 | 31 | 22 | 76 |
| 2009 | 1,774 | 796 | 306 | 672 | 137 | 53 | 18 | 66 |

**Fire and Fire Death Rates**
Bristol County had 3.3 fires per 1,000 population. That figure ranks Bristol County twelfth in the state and below the state rate of 4.5 fires per 1,000 population. Bristol County also had 0.13 fire deaths per 10,000 populations ranking it third among Massachusetts counties and above the state rate of 0.06 fire deaths per 10,000 population.

## 5 Fires Kills 7 Bristol County Residents

- On February 19, 2009, at 6:18 p.m., the Somerset Fire Department was called to a fatal natural gas explosion in a single-family home. The blast occurred approximately an hour after a neighbor called in a smell of gas in the vicinity. The victim, a 62-year old woman, was inside her home when it exploded. The victim was found deceased on top of the remnants of her home. Because of the total destruction of the home, it was undetermined if detectors were present; and the home was not believed to be sprinklered. However, neither would have likely impacted life-safety in this incident. Two firefighters were injured in this fire. Total damages from this fire were estimated to be $300,000.

- On February 21, 2009, at 12:11 p.m., the Norton Fire Department was called to a fatal fire in a single-family home of undetermined cause. The victim, a 24-year old man, was overcome by the heat and smoke while attempting to escape. One other civilian was injured by this fire. It was undetermined if detectors were present and the building was not sprinklered. Damages from the blaze were estimated to be $260,000.

- On May 20, 2009, at 3:35 p.m., the Attleboro Fire Department was called to a fatal cooking fire in a single-family home. The victim, an 80-year old man got too close to his electric stove while cooking and ignited his clothes. The victim was the only thing that burned. There were no other injuries associated with this fire. Smoke detectors were present but the fire was too small to activate them. There were no sprinklers. No estimation of the damages was made for this fire.

- On July 6, 2009, at 2:21 a.m., the Raynham Fire Department was called to a fatal smoking fire in a single-family home (trailer). The victims, an 83-year old woman and her 60-year old son, were both asleep at the time of the fire. The victims were overcome by heat and smoke. No one else was injured at this fire. It was undetermined if detectors were present; and there were no sprinklers. Damages from the blaze were estimated to be $125,000.

- On November 2, 2009, at 5:20 p.m., the North Attleboro Fire Department was called to a fatal cooking fire in a single-family home. The victims, an 86-year old woman and her 87-year old husband apparently forgot that they used their oven for storage. One of them had turned the oven on to preheat it, starting the fire. Both victims were overcome by smoke while they attempted to escape. Both were transported to a local hospital where they later succumbed to their injuries. There were no other injuries associated with this fire. It was undetermined if smoke detectors operated and sprinklers were not present. Damages from this fire were estimated to be $5,000.

## Norton Has Bristol County's Largest Loss Fire

- On January 27, 2009, at 2:37 p.m., the Norton Fire Department responded to a fire at a sanitation facility. Investigators were unable to determine the cause of the fire. No one was injured by this fire. Detectors and sprinklers were not present. Damages were estimated to be $1.6 million.

## STRUCTURE FIRES

### Reported Structure Fires Down Slightly

The 796 structure fires caused all seven civilian deaths, 37 civilian injuries, 26 fire service injuries and an estimated dollar loss of $11.7 million. These incidents represented 45% of Bristol County's reported fires in 2009. The average estimated dollar loss per structure fire was $14,741. The total number of reported structure fires decreased by 26, or 3%, from the 822 reported in 2008.

### Structure Arsons Up 71%

The 53 structure arsons caused three civilian injuries, one fire service injury and an estimated dollar loss of $1.2 million. Arson was indicated as the cause of 7% of the structure fires and 10% of Bristol County's structure fire dollar loss. The 53 structure arsons accounted for 39% of the Bristol County arson fires reported in 2009. The total number of reported structure arsons increased by 22, or 71%, from 31 in 2008.

### Almost 2/3 of Structure Arsons Occurred in Residences

Sixty-two percent (62%) of Bristol County's 53 structure arsons occurred in residential occupancies; storage facilities, mercantile or business properties and special properties each had 8% of these fires; 6% each happened in public assembly and educational properties; and 2% each occurred in industrial facilities and manufacturing or processing facilities.

## BUILDING FIRES

There were 789 building fires of different types in Bristol County in 2009. These 789 building fires accounted for 98.9% of all building fires in Bristol County.

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

Six hundred and sixteen (616), or 78%, of Bristol County's 789 building fires occurred in residential occupancies. Special properties had 32 fires. Thirty (30) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties also had 27 fires. Twenty-four (24) fires took place in storage properties. Hospitals, prisons, and other institutional buildings experienced 23 fires. Seventeen (17) fires took place in manufacturing and processing facilities. Educational facilities had 12 fires. Six (6) fires occurred in industrial, utility, defense, agricultural or mining facilities in Bristol County in 2009.

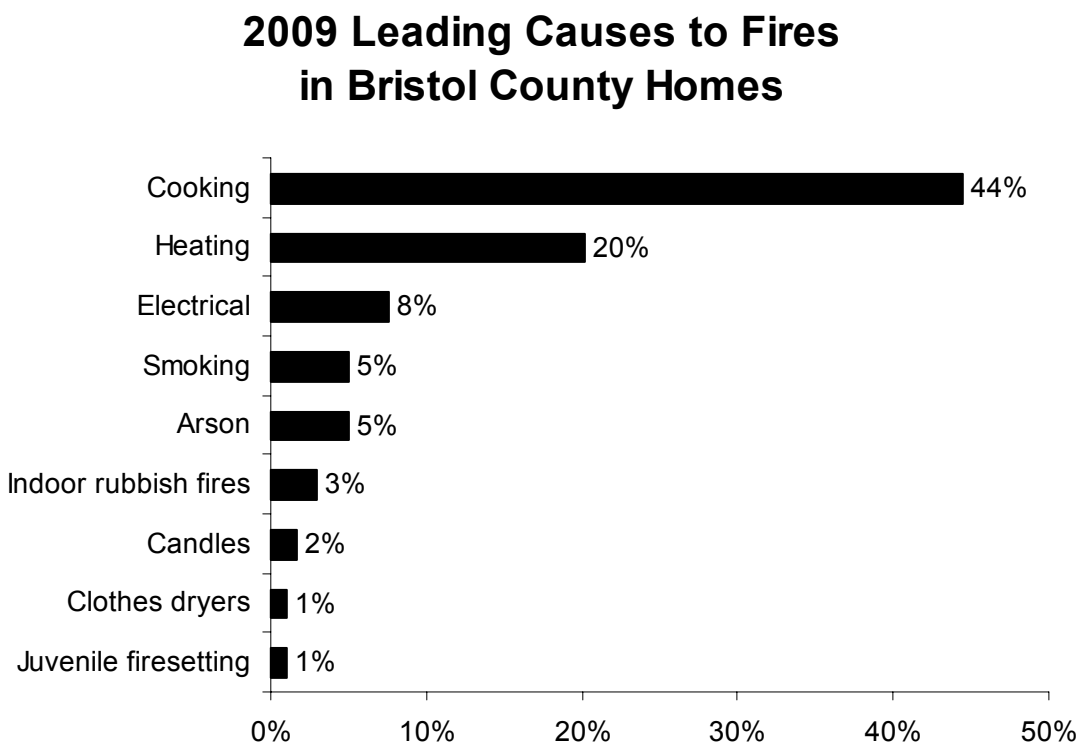
## RESIDENTIAL FIRES

### Residential Building Fires Are Down

There were 616 reported residential building fires in Bristol County in 2009. These 616 fires are a decrease of 32, or 5%, from the 648 residential building fires reported in 2008.

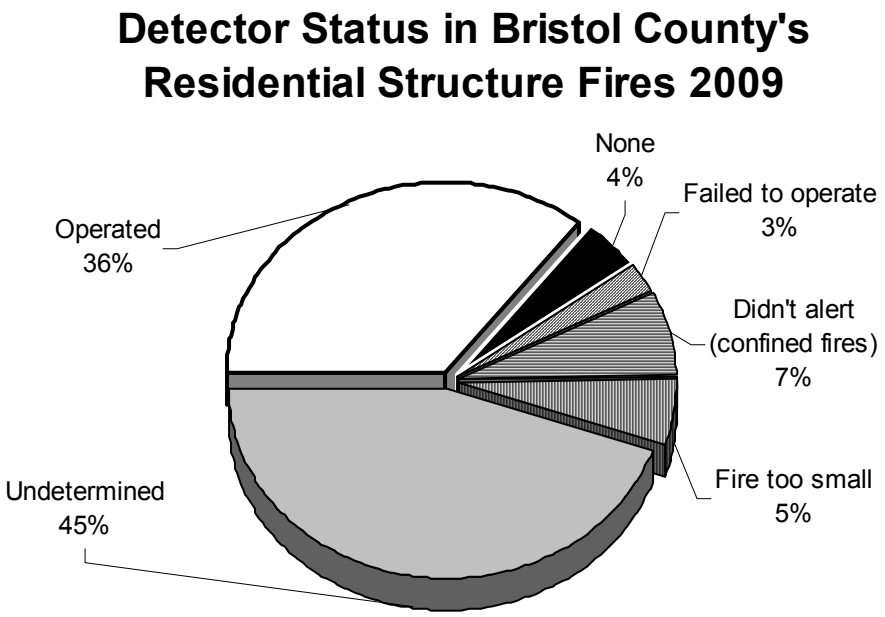
**1- & 2-Family Homes Accounted for Over 1/2 of Residential Building Fires**
The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 54% of the building fires in Bristol County; 41% occurred in apartments; 1% happened in rooming houses; another 1% occurred in residential board and care facilities, and less than 1% occurred in dormitories and hotels or motels. Eleven (11), or 2% of the residential building fires in Bristol County occurred in unclassified residential buildings.

**Unsafe Cooking Leading Cause of Residential Fires**
The leading cause of residential building fires in Bristol County was unattended cooking and other unsafe cooking practices, accounting for 44% of these fires. The second leading cause of residential building fires was heating equipment, accounting for 20%. Electrical problems caused 8% of the fires in people's homes. Smoking and arson were each responsible for 5% of these fires. Indoor rubbish fires accounted for 3% of fires in residences. Candles caused 2%, and clothes dryers and juvenile-set fires each accounted for 1% of Bristol County's residential building fires in 2009.



**60% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
Three hundred and seventy-one (371), or 60% of all residential building fires were reported as confined to non-combustible containers in 2009. Two hundred and thirty-nine (239), or 39%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Fifty-seven (57), or 9%, were fires confined to a fuel burner or boiler malfunction. Fifty-four (54) of the reported fires were confined to a chimney accounting for 9% of residential building fires. Twenty-one (21), or 3%, of these fires were rubbish fires contained to a non-combustible container in Bristol County in 2009.

**Detectors Alerted Occupants in Over 1/3 of Fires**
Smoke or heat detectors operated and alerted the occupants in 219, or 36%, 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 3% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 5% of the residential fires. Smoke detector performance was undetermined in 276 incidents, or 45% of Bristol County's residential building fires.




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

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

### 37% of Failed Detectors Had Dead or Missing Batteries

Of the 16 fires where smoke detectors were present but failed to operate, five, or 31%, failed because the batteries were either missing or disconnected. One (1), or 6% failed because of dead batteries. Two (2), or 13% failed because of a power failure, shutoff or disconnect, and a lack of maintenance, and a defective detector each caused 6% of the detectors that failed to operate. It was undetermined or unclassified in six cases, or 38%, why the detectors failed to operate.

## VACANT BUILDINGS

### 5% of Building Fires Occurred in Vacant Buildings

Bristol County reported 39 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 2009. Twenty-two (22) fires occurred in vacant residential properties. Seven (7) vacant building fires occurred in storage facilities. Four (4) of these fires happened in public assembly properties. Educational facilities, institutional facilities, mercantile and business properties, industrial facilities and a manufacturing facilities each accounted for one vacant building fire incident in Bristol County in 2009.

Seventeen (17), or 44%, of the vacant building fires in Bristol County in 2009 were determined to be intentionally set. Five (5) occurred in apartment buildings and another five occurred in single-family homes. Three (3) happened in sheds; and one each occurred at an elementary school, a military installation, a motor vehicle or boat sales facility, and an unclassified public assembly facility.

## JUVENILE-SET FIRES

### 9 Juvenile-set Fires

There were nine reported juvenile-set fires in Bristol County in 2009. The six structure fires, two brush fires and one unclassified fire caused $56,600 in estimated damages.

## ARSONS

### 137 Total Arsons[4] — 53 Structures, 18 Vehicles & 66 Other Arsons

Bristol County Fire Departments reported that 137, or 8%, of Bristol County's 1,774 fires were considered intentionally set, or, for purposes of this analysis, arson. The 53

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

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

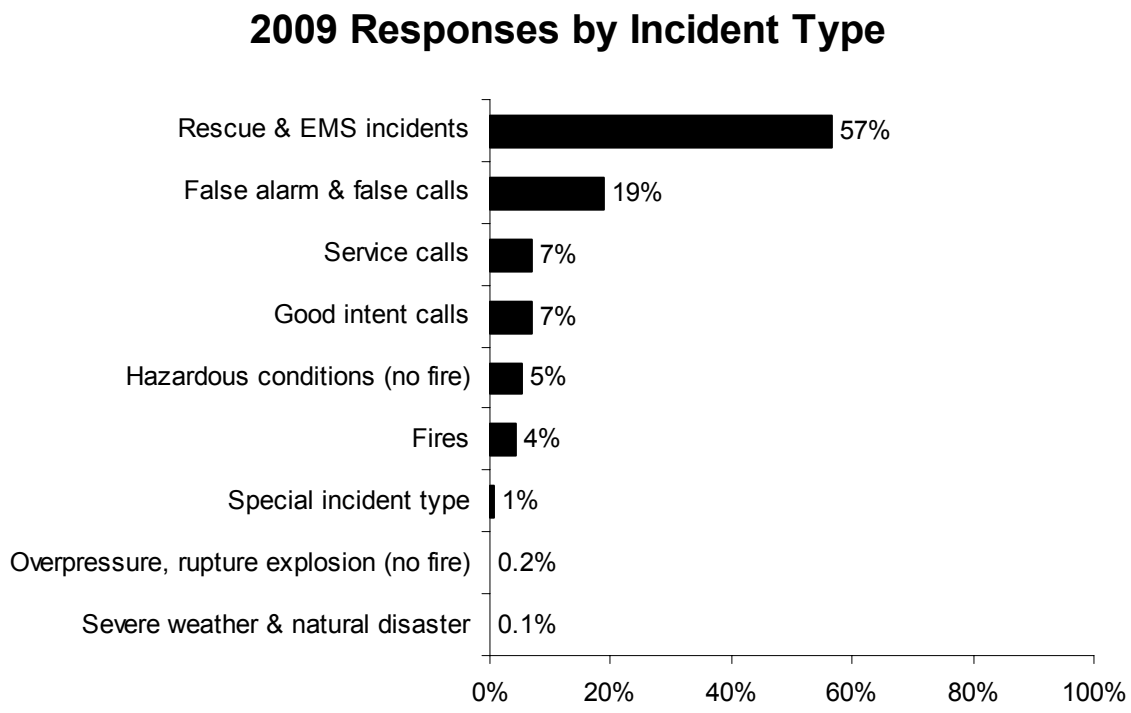
structure arsons, 18 motor vehicle arsons and 66 outside and other arsons caused three civilian injuries, one fire service injury and an estimated dollar loss of $1.3 million.

**Structure Arsons Up**
The total number of reported arson fires increased by eight from the 129 reported in 2008. Structure arsons increased by 22, or 71%, from the 31 reported in 2008. Motor vehicle arsons decreased by four from the 22 reported last year. Outside and other arsons dropped 10 from the 76 reported in 2008.

## ALL INCIDENTS

**Rescue & EMS Calls Are 57% of All Reported Responses**
In 2009, fire departments in Bristol County reported 44,427 responses[5] to MFIRS. Of these 44,427 incidents, 42,584 non-fire calls were voluntarily reported.

Of these 42,584 non-fire calls 25,103, or 57% of all the reported responses, were reported rescue and emergency medical services (EMS) calls; 8,336, or 19%, were reported false alarm or false calls; 3,322, or 7%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,027, or 7%, were reported good intent calls; 2,408, or 5%, were reported hazardous condition calls with no fire; 287, or 1%, were special incident type calls such as citizen complaints; 70, or 0.2%,




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

were reported overpressure, rupture, explosion or overheat calls with no fire; and 31, or 0.1% were severe weather responses.

One thousand eight hundred and forty-three (1,843), or 4%, of the total responses submitted by Bristol County fire departments were fires.

**Bristol County Fire Departments Gave Mutual Aid 1,137 Times**

In 2009, Bristol County fire departments reported coming to the aid of other fire departments 1,137 times. Of these 1,137 responses, 891, or 78%, were for rescue or EMS calls; 88, or 8%, were for service calls such as cover assignments; 71, or 6%, were for good intent calls; 68, or 6%, were for fires; nine, or 1%, were for false alarms or false calls; seven, or 1%, were for hazardous conditions calls with no fire; two, or less than 1%, were special incident types; and one, or less than 1% was for an overpressure, rupture explosion with no ensuing fire.

**Bristol County Received Mutual Aid in 885 Incidents**

In 2009, Bristol County fire departments reported receiving aid from surrounding departments in 885 incidents. Of these 885 incidents, 750, or 85%, were rescue and emergency medical services calls; 75, or 8%, were for fires; 18, or 2%, were hazardous conditions calls with no fire; 14, or 2%, were false alarms or false calls; 12, or 1%, were service calls; seven, or 1%, were good intent calls; and overpressure, rupture, explosion or overheat calls, severe weather calls, and special incident types each reported three, or less than 1%, of the mutual aid given calls.

## Bristol County — Population: 534,678

**3.3 Fires/1,000 Population**

**Total Fires: 1,774** **$12,904,955**

| Situation | Fires | % of Fires | Dollar Loss |
|---|---|---|---|
| Structure Fires | 796 | 45% | $11,733,955 |
| Vehicle Fires | 306 | 17% | 973,430 |
| Other Fires | 672 | 38% | 197,570 |

5 Fatal Fires
7 Civilian Deaths
39 Civilian Injuries
3.95 Civilian Deaths/1,000 Fires
0.13 Civilian Deaths/10,000 Population
29 Fire Service Injuries

## Building Fires: 789

## Residential Structure Fires: 616

**Residential Structure Fires Confined to Non-Combustible Containers: 371**

**Unconfined Residential Structure Fires: 245**

7 Civilian Deaths 34 Civilian Injuries 23 Fire Service Injuries

| Occupancy | Fires | % |
|---|---|---|
| 1- & 2-Family homes | 332 | 54% |
| Apartments | 253 | 41% |
| Residential board & care | 8 | 1% |
| Rooming houses | 7 | 1% |
| Dormitories | 3 | 0.5% |
| Hotels or motels | 2 | 0.3% |

| Detector Status | Fires | % |
|---|---|---|
| Operated | 219 | 36% |
| Didn't operate | 16 | 3% |
| None | 27 | 4% |
| Fire too small | 33 | 5% |
| Didn't alert (confined) | 45 | 7% |
| Undetermined | 276 | 45% |

| Area of Origin[6] | % | Heat Source | % | %Unconfined[7] |
|---|---|---|---|---|
| Kitchen | 49% | Arcing. | 5% | 13% |
| Heating room or area | 10% | Radiated heat from op. eq. | 4% | 11% |
| Chimney or flue | 9% | Heat from operating eq. | 4% | 11% |
| Bedroom | 3% | Cigarettes | 3% | 7% |
| Living room | 2% | Spark/ember/flame op. eq. | 2% | 6% |

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

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

| **Item First Ignited**[8] | **%** | **Factor Contrib. to Ignit.** | **%** | **%Unconfined**[9] |
|---|---|---|---|---|
| Food, cooking materials | 42% | Abandoned materials | 2% | 5% |
| Flammable or combust. liquid | 9% | Misuse of mater. or product | 2% | 4% |
| Film or residue (creosote) | 9% | Equipment unattended | 2% | 4% |
| Structural member, framing | 6% | Too close to combustibles | 1% | 4% |
| Rubbish, trash, waste | 4% | Failure to clean | 1% | 4% |
| Electrical wire, cable insulation | 4% | Electrical failure, malfunc. | 1% | 4% |

| **Equipment**[10] | **%** | **Cause of Ignition** | **%** | **%Unconfined**[11] |
|---|---|---|---|---|
| Cooking equipment | 42% | Unintentional | 22% | 54% |
| None | 27% | Failure of eq. or heat source | 5% | 13% |
| Boiler, furnace, cent. heat unit | 9% | Intentional | 5% | 13% |
| Chimney or flue | 9% | Cause under investigation | 3% | 7% |
| | | Undetermined | 4% | 10% |
| | | Act of Nature | 1% | 2% |

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

| | |
|---|---|
| Alerted Occupants | 32% |
| Didn't Alert Occupants | 12% |
| Undetermined | 58% |

[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 | 125 | 85 | 25 | 15 |
| February | 121 | 65 | 15 | 41 |
| March | 169 | 74 | 15 | 80 |
| April | 256 | 84 | 24 | 148 |
| May | 163 | 56 | 23 | 84 |
| June | 144 | 67 | 32 | 45 |
| July | 139 | 58 | 30 | 51 |
| August | 139 | 56 | 27 | 56 |
| September | 130 | 55 | 29 | 73 |
| October | 121 | 62 | 22 | 37 |
| November | 129 | 65 | 29 | 35 |
| December | 138 | 69 | 38 | 31 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 254 | 116 | 42 | 96 |
| Monday | 246 | 107 | 43 | 96 |
| Tuesday | 244 | 104 | 38 | 102 |
| Wednesday | 239 | 115 | 33 | 91 |
| Thursday | 274 | 136 | 50 | 88 |
| Friday | 226 | 91 | 53 | 82 |
| Saturday | 291 | 127 | 47 | 117 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 136 | 64 | 34 | 38 |
| 04:01 - 08:00 | 150 | 82 | 29 | 39 |
| 08:01 - 12:00 | 270 | 127 | 60 | 83 |
| 12:01 - 16:00 | 489 | 183 | 84 | 222 |
| 16:01 - 20:00 | 462 | 212 | 55 | 195 |
| 20:01 - 24:00 | 267 | 128 | 44 | 95 |

## Motor Vehicle Fires

Total: 306
Automobiles: 256 (84%)
15, or 6%, of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 137** **Dollar loss: $1,270,653**

**0.3 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 53 | 7% | 39% | $1,164,003 |
| Vehicle Arsons | 18 | 6% | 13% | 99,500 |
| Other Arsons | 66 | 10% | 48% | 7,150 |

0.10 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.12 Other arsons/1,000 population

3 Civilian Injuries 1 Fire Service Injury

**Peak Times of Day for:**

| Structure Arsons | # | % | Vehicle Arsons | # | % |
|---|---|---|---|---|---|
| 20:01 - 00:00 | 13 | 25% | 20:01 - 00:00 | 7 | 39% |
| 00:01 - 04:00 | 10 | 19% | 00:01 - 04:00 | 4 | 22% |
| 16:01 - 20:00 | 10 | 19% | 04:01 - 08:00 | 3 | 17% |

| Other Arsons | # | % |
|---|---|---|
| 12:01 - 16:00 | 23 | 35% |
| 16:01 - 20:00 | 14 | 21% |
| 20:01 - 00:00 | 13 | 20% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| Apartments | 19 | 36% |
| 1- and 2-Family homes | 12 | 23% |
| Outbuilding or shed | 4 | 8% |
| Elementary school, including kindergarten | 2 | 4% |

**Acushnet** **Population: 10,161**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 31 | 24 | 2 | 5 | 2 | 1 | 1 | 0 |
| 2006 | 31 | 20 | 4 | 7 | 3 | 1 | 1 | 1 |
| 2007 | 25 | 11 | 4 | 10 | 2 | 0 | 2 | 0 |
| 2008 | 37 | 17 | 5 | 15 | 2 | 1 | 0 | 1 |
| 2009 | 21 | 10 | 4 | 7 | 1 | 1 | 0 | 0 |

**Attleboro** **Population: 42,068**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 255 | 71 | 38 | 146 | 8 | 2 | 2 | 4 |
| 2006 | 121 | 52 | 15 | 54 | 1 | 0 | 0 | 0 |
| 2007 | 64 | 21 | 10 | 33 | 0 | 0 | 0 | 0 |
| 2008 | 168 | 66 | 26 | 76 | 12 | 3 | 0 | 11 |
| 2009 | 130 | 61 | 19 | 50 | 9 | 2 | 0 | 7 |

**Berkley** **Population: 5,749**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 17 | 4 | 4 | 9 | 5 | 1 | 0 | 4 |
| 2006 | 35 | 14 | 7 | 14 | 0 | 0 | 0 | 1 |
| 2007 | 17 | 5 | 6 | 6 | 2 | 1 | 0 | 1 |
| 2008 | 29 | 16 | 3 | 10 | 1 | 0 | 0 | 1 |
| 2009 | 27 | 17 | 1 | 9 | 0 | 0 | 0 | 0 |

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

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5 | 2 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 42 | 23 | 7 | 12 | 6 | 3 | 1 | 2 |
| 2007 | 45 | 19 | 3 | 23 | 2 | 0 | 0 | 2 |
| 2008 | 37 | 11 | 3 | 23 | 0 | 0 | 0 | 0 |
| 2009 | 30 | 11 | 4 | 15 | 6 | 1 | 0 | 5 |

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

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 8 | 3 | 1 | 4 | 1 | 1 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 6 | 2 | 3 | 1 | 0 | 0 | 0 | 0 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 129 | 35 | 13 | 81 | 5 | 0 | 0 | 5 |
| 2006 | 99 | 18 | 24 | 57 | 9 | 2 | 0 | 7 |
| 2007 | 135 | 7 | 16 | 112 | 8 | 0 | 1 | 7 |
| 2008 | 118 | 7 | 13 | 98 | 8 | 0 | 0 | 8 |
| 2009 | 49 | 8 | 7 | 34 | 5 | 2 | 2 | 1 |

**Dighton** **Population: 6,175**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 23 | 7 | 4 | 12 | 1 | 1 | 0 | 0 |
| 2006 | 30 | 10 | 5 | 15 | 0 | 0 | 0 | 0 |
| 2007 | 31 | 13 | 3 | 15 | 1 | 0 | 0 | 1 |
| 2008 | 32 | 4 | 8 | 20 | 1 | 0 | 0 | 1 |
| 2009 | 21 | 14 | 3 | 4 | 1 | 1 | 0 | 0 |

**Easton** **Population: 22,299**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 20 | 14 | 3 | 3 | 2 | 1 | 1 | 0 |
| 2006 | 22 | 17 | 4 | 1 | 1 | 0 | 0 | 1 |
| 2007 | 13 | 9 | 3 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 15 | 10 | 3 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 19 | 11 | 4 | 4 | 1 | 1 | 0 | 0 |

**Fairhaven** **Population: 16,159**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 71 | 21 | 8 | 42 | 2 | 1 | 0 | 1 |
| 2006 | 73 | 34 | 8 | 31 | 2 | 1 | 1 | 0 |
| 2007 | 87 | 25 | 15 | 47 | 0 | 0 | 0 | 0 |
| 2008 | 70 | 15 | 16 | 39 | 4 | 0 | 0 | 4 |
| 2009 | 48 | 24 | 11 | 13 | 7 | 2 | 2 | 3 |

**Fall River** **Population: 91,938**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 596 | 246 | 94 | 256 | 38 | 21 | 6 | 11 |
| 2006 | 560 | 249 | 74 | 237 | 51 | 24 | 8 | 19 |
| 2007 | 589 | 245 | 56 | 288 | 35 | 13 | 4 | 18 |
| 2008 | 472 | 232 | 65 | 175 | 20 | 7 | 3 | 10 |
| 2009 | 369 | 206 | 54 | 109 | 29 | 16 | 1 | 12 |

**Freetown** **Population: 8,472**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 59 | 24 | 16 | 19 | 7 | 0 | 3 | 4 |
| 2006 | 45 | 21 | 10 | 14 | 4 | 0 | 2 | 2 |
| 2007 | 60 | 25 | 14 | 21 | 5 | 1 | 2 | 2 |
| 2008 | 52 | 26 | 9 | 17 | 3 | 0 | 1 | 2 |
| 2009 | 64 | 37 | 14 | 13 | 13 | 5 | 2 | 6 |

**Mansfield** **Population: 22,414**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 91 | 25 | 17 | 49 | 7 | 1 | 0 | 6 |
| 2006 | 67 | 18 | 13 | 36 | 2 | 1 | 0 | 1 |
| 2007 | 62 | 12 | 13 | 37 | 1 | 0 | 0 | 1 |
| 2008 | 73 | 24 | 12 | 37 | 2 | 0 | 0 | 2 |
| 2009 | 56 | 20 | 11 | 25 | 2 | 0 | 0 | 2 |

**New Bedford** **Population: 93,768**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 432 | 153 | 102 | 177 | 20 | 5 | 8 | 7 |
| 2006 | 378 | 138 | 86 | 154 | 32 | 8 | 21 | 3 |
| 2007 | 426 | 141 | 76 | 209 | 29 | 11 | 14 | 4 |
| 2008 | 453 | 165 | 65 | 223 | 47 | 16 | 14 | 17 |
| 2009 | 343 | 172 | 65 | 106 | 32 | 14 | 9 | 9 |

**North Attleboro** **Population: 27,143**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 95 | 30 | 15 | 50 | 0 | 0 | 0 | 0 |
| 2006 | 100 | 31 | 12 | 57 | 1 | 0 | 1 | 0 |
| 2007 | 102 | 28 | 10 | 64 | 2 | 0 | 0 | 2 |
| 2008 | 70 | 28 | 7 | 35 | 1 | 0 | 0 | 1 |
| 2009 | 56 | 20 | 16 | 20 | 3 | 0 | 1 | 2 |

**Norton** **Population: 18,036**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 75 | 20 | 8 | 47 | 8 | 0 | 1 | 7 |
| 2006 | 82 | 13 | 6 | 63 | 5 | 1 | 0 | 4 |
| 2007 | 54 | 7 | 7 | 40 | 0 | 0 | 0 | 0 |
| 2008 | 73 | 20 | 10 | 43 | 1 | 0 | 1 | 0 |
| 2009 | 37 | 14 | 4 | 19 | 0 | 0 | 0 | 0 |

**Raynham** **Population: 11,739**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 87 | 23 | 23 | 41 | 0 | 0 | 0 | 0 |
| 2006 | 104 | 24 | 18 | 621 | 1 | 1 | 0 | 0 |
| 2007 | 100 | 23 | 20 | 57 | 0 | 0 | 0 | 0 |
| 2008 | 97 | 30 | 11 | 56 | 1 | 0 | 0 | 1 |
| 2009 | 70 | 23 | 15 | 32 | 1 | 0 | 0 | 1 |

**Rehoboth** **Population: 10,172**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 74 | 36 | 6 | 32 | 13 | 3 | 0 | 10 |
| 2006 | 62 | 36 | 3 | 23 | 7 | 4 | 0 | 3 |
| 2007 | 64 | 32 | 5 | 27 | 3 | 0 | 0 | 3 |
| 2008 | 73 | 36 | 8 | 29 | 2 | 0 | 1 | 1 |
| 2009 | 55 | 23 | 6 | 26 | 2 | 1 | 1 | 0 |

**Seekonk** **Population: 13,425**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 85 | 27 | 13 | 45 | 10 | 2 | 0 | 8 |
| 2006 | 76 | 21 | 5 | 50 | 9 | 3 | 0 | 6 |
| 2007 | 89 | 25 | 9 | 55 | 3 | 1 | 0 | 5 |
| 2008 | 80 | 25 | 6 | 49 | 4 | 0 | 0 | 4 |
| 2009 | 59 | 28 | 9 | 22 | 2 | 2 | 0 | 0 |

**Somerset** **Population: 18,234**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 52 | 20 | 10 | 22 | 1 | 0 | 0 | 1 |
| 2006 | 46 | 16 | 7 | 23 | 6 | 2 | 2 | 2 |
| 2007 | 47 | 10 | 10 | 27 | 3 | 1 | 1 | 1 |
| 2008 | 38 | 18 | 6 | 14 | 1 | 1 | 0 | 0 |
| 2009 | 32 | 14 | 2 | 16 | 3 | 1 | 0 | 2 |

**Swansea** **Population: 15,901**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 124 | 44 | 23 | 57 | 6 | 1 | 1 | 4 |
| 2006 | 85 | 32 | 7 | 46 | 5 | 0 | 0 | 5 |
| 2007 | 104 | 39 | 15 | 50 | 2 | 1 | 0 | 1 |
| 2008 | 85 | 35 | 5 | 45 | 4 | 2 | 0 | 2 |
| 2009 | 87 | 34 | 20 | 33 | 3 | 2 | 0 | 1 |

**Taunton** **Population: 55,976**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 108 | 28 | 15 | 65 | 7 | 1 | 2 | 4 |
| 2006 | 185 | 33 | 26 | 126 | 9 | 0 | 1 | 8 |
| 2007 | 246 | 31 | 37 | 178 | 31 | 2 | 4 | 25 |
| 2008 | 161 | 28 | 21 | 112 | 11 | 2 | 2 | 7 |
| 2009 | 143 | 32 | 25 | 86 | 11 | 2 | 0 | 9 |

**Westport** **Population: 14,183**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 57 | 15 | 4 | 38 | 2 | 1 | 1 | 0 |
| 2006 | 81 | 15 | 11 | 55 | 4 | 1 | 0 | 3 |
| 2007 | 88 | 24 | 9 | 55 | 7 | 1 | 0 | 6 |
| 2008 | 75 | 9 | 8 | 58 | 3 | 0 | 0 | 3 |
| 2009 | 52 | 15 | 9 | 28 | 5 | 0 | 0 | 5 |

# 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 | 308 | 23 | 5 | 64 | 60 | 70 | 18 | 61 | 2 | 5 |
| 05016 | Attleboro | 5,889 | 138 | 3 | 4,162 | 138 | 353 | 427 | 654 | 3 | 11 |
| 05027 | Berkley | 561 | 31 | 0 | 392 | 28 | 37 | 29 | 44 | 0 | 0 |
| 05972 | Dartmouth # 1 | 368 | 31 | 1 | 27 | 51 | 44 | 48 | 164 | 2 | 0 |
| 05973 | Dartmouth # 2 | 63 | 6 | 0 | 2 | 14 | 8 | 5 | 24 | 1 | 3 |
| 05974 | Dartmouth # 3 | 607 | 52 | 2 | 19 | 118 | 53 | 53 | 310 | 0 | 0 |
| 05076 | Dighton | 898 | 22 | 1 | 534 | 28 | 230 | 5 | 78 | 0 | 0 |
| 05088 | Easton | 19 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05094 | Fairhaven | 2,411 | 48 | 4 | 1,773 | 138 | 97 | 75 | 273 | 0 | 3 |
| 05095 | Fall River | 4,178 | 370 | 6 | 1,045 | 426 | 189 | 496 | 1,624 | 3 | 19 |
| 05102 | Freetown | 1,281 | 66 | 0 | 840 | 26 | 160 | 95 | 81 | 1 | 12 |
| 05167 | Mansfield | 1,063 | 59 | 4 | 72 | 156 | 210 | 102 | 413 | 7 | 40 |
| 05201 | New Bedford | 8,487 | 344 | 15 | 5,053 | 298 | 304 | 724 | 1,744 | 2 | 3 |
| 05211 | North Attleboro | 3,466 | 66 | 9 | 2,282 | 179 | 277 | 147 | 500 | 2 | 4 |
| 05218 | Norton | 2,689 | 46 | 0 | 1,611 | 140 | 358 | 23 | 400 | 2 | 109 |
| 05245 | Raynham | 883 | 80 | 6 | 235 | 62 | 61 | 65 | 364 | 1 | 9 |
| 05247 | Rehoboth | 409 | 55 | 0 | 9 | 150 | 48 | 49 | 97 | 1 | 0 |

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

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 05265 | Seekonk | 2,188 | 59 | 0 | 1,529 | 61 | 121 | 65 | 349 | 1 | 3 |
| 05273 | Somerset | 2,587 | 33 | 0 | 1,994 | 71 | 277 | 59 | 132 | 0 | 21 |
| 05292 | Swansea | 417 | 92 | 5 | 48 | 64 | 49 | 40 | 116 | 1 | 2 |
| 05293 | Taunton | 5,222 | 143 | 4 | 3,372 | 151 | 304 | 443 | 775 | 2 | 28 |
| 05334 | Westport | 433 | 60 | 5 | 40 | 49 | 72 | 59 | 133 | 0 | 15 |
| | **Bristol County** | **44,427** | **1,843** | **70** | **25,103** | **2,408** | **3,322** | **3,027** | **8,336** | **31** | **287** |

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

# Fall River Fires in 2009

**369 Total Fires — 206 Structures, 54 Vehicles & 109 Other Fires**
The Fall River Fire Department reported 369 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 206 structure fires, 54 motor vehicle fires, 41 brush fires, 52 trash fires, five special outside fires, and 11 unclassified fires caused six civilian injuries, eight fire service injuries and an estimated dollar loss of $1.6 million. There were no fire deaths in Fall River in 2009.

**All Fires Down**
Total fires decreased by 103 from the 472 fires reported in 2008. Reported structure fires decreased by 26 from the 232 reported during the previous year. Motor vehicle fires decreased by 11 from 65 the year before. Outside and other fires decreased by 66 from 175 the year before.

**FALL RIVER FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 598 | 262 | 95 | 241 | 40 | 23 | 6 | 11 |
| 2006 | 559 | 248 | 74 | 237 | 50 | 24 | 8 | 18 |
| 2007 | 589 | 245 | 56 | 288 | 35 | 13 | 4 | 18 |
| 2008 | 472 | 232 | 65 | 175 | 20 | 7 | 3 | 10 |
| 2009 | 369 | 206 | 54 | 109 | 29 | 16 | 1 | 12 |

**BUILDING FIRES**

There were 206 building fires of different types in Fall River in 2009. These 206 building fires accounted for all structure fires in Fall River.

**Almost 3/4 of Building Fires in Homes**
The 206 building fires that occurred in Fall River in 2009 can be broken down by fixed property use as follows: 152, or 74% of all structure fires, were in residential properties; 19 fires took place in a special properties; 10 occurred in mercantile or business properties; eight happened in each at public assembly properties; another eight occurred in institutional facilities; four fires happened in educational facilities; two fires occurred in manufacturing or processing facilities; another two fires happened in storage facilities; and one fire occurred in an industrial facility.

**RESIDENTIAL FIRES**

**Residential Building Fires Are Down**
There were 152 reported residential building fires in Fall River in 2009. These 152 residential building fires are a decrease of 28, or 16%, from the 180 reported in 2008.

**Apartments Accounted for Almost 2/3 of Residential Building Fires**
The peak fixed property uses for residential building fires were apartments, accounting for 73% of the residential building fires in Fall River; 18% occurred in 1- or 2-family homes; 3% occurred in rooming houses; another 3% happened in residential board and care facilities; and 3% occurred in unclassified residential properties.

**Unattended Cooking Leading Cause of Residential Fires**
The leading cause of residential building fires in Fall River was unattended cooking and other unsafe cooking practices, accounting for 62% of these fires. Arson and heating equipment each caused 7% of these fires. Electrical problems caused 6% and indoor rubbish fires accounted for 5% of residential fires. Smoking accounted for 3% of fires in residential occupancies. Candles, clothes dryers and juvenile-set fires each accounted for 1% of the fires in people's homes in Fall River in 2009.

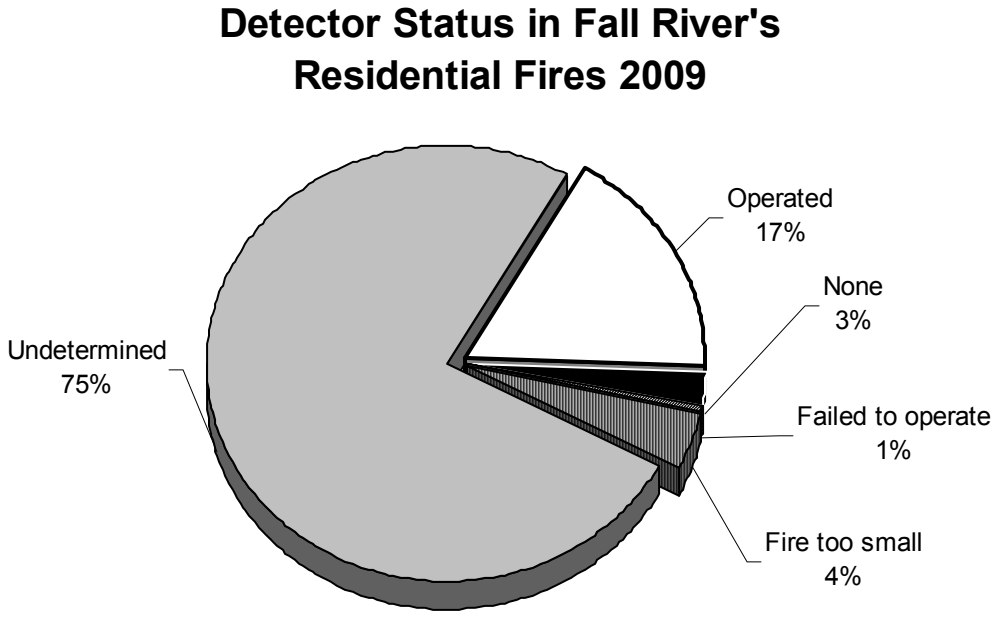

**70% of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
One hundred and six (106), or 70% of all residential building fires were confined to non-combustible containers in 2009. Eighty-seven (87), or 57%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Nine (9), or 6%, of these fires were rubbish fires contained to a non-combustible container. Another nine, or 6%, were fires confined to a fuel burner or boiler malfunction. There

[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.

was one reported fire confined to a chimney or flue, accounting for 1% of the residential building fires in Fall River in 2009.

**Detectors Operation Undetermined in 3/4 of Fires**

Smoke or heat detectors operated and alerted the occupants in 26, or 17%, of the residential building fires. There were no reported fires[2], where the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 3% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 4% of the residential fires. Smoke detector performance was undetermined in 115 incidents, or 75% of Fall River's residential building fires.




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

**Undetermined Why 1 Detector Failed**

There was only one detector reported to have failed in a Fall River residential building fire in 2009 and it was undetermined why it failed.

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

## VACANT BUILDING FIRES

### 2% 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 2% of the total 206 building fires reported to MFIRS in 2009. Two (2) apartment buildings, two single-family homes, and one elementary school were reported as vacant building fire incidents.

## JUVENILE-SET FIRES

There was one reported juvenile-set fire in Fall River in 2009. This fire was a building fire.

## ARSONS

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

Twenty-nine (29), or 5%, of Fall River's 369 fires were considered intentionally set, or, for purposes of this analysis, arson. The 16 structure arsons, one motor vehicle arson and 12 outside and other arsons caused one fire service injury and an estimated dollar loss of $517,250.

### Structure Arsons Up

The total number of arsons increased by nine from 20 in 2008. Reported structure arsons increased by nine from the seven reported the year before. Motor vehicle arsons decreased by two from the three reported the previous year. Outside and other arsons increased by two from the 10 reported in 2008.

## ALL INCIDENTS

### False Alarm & False Calls Are 39% of All Reported Incidents

In 2009, Fall River voluntarily reported 4,178 incidents to MFIRS. Of these 4,178 incidents, 3,808, or 91%, were non-fire incidents.

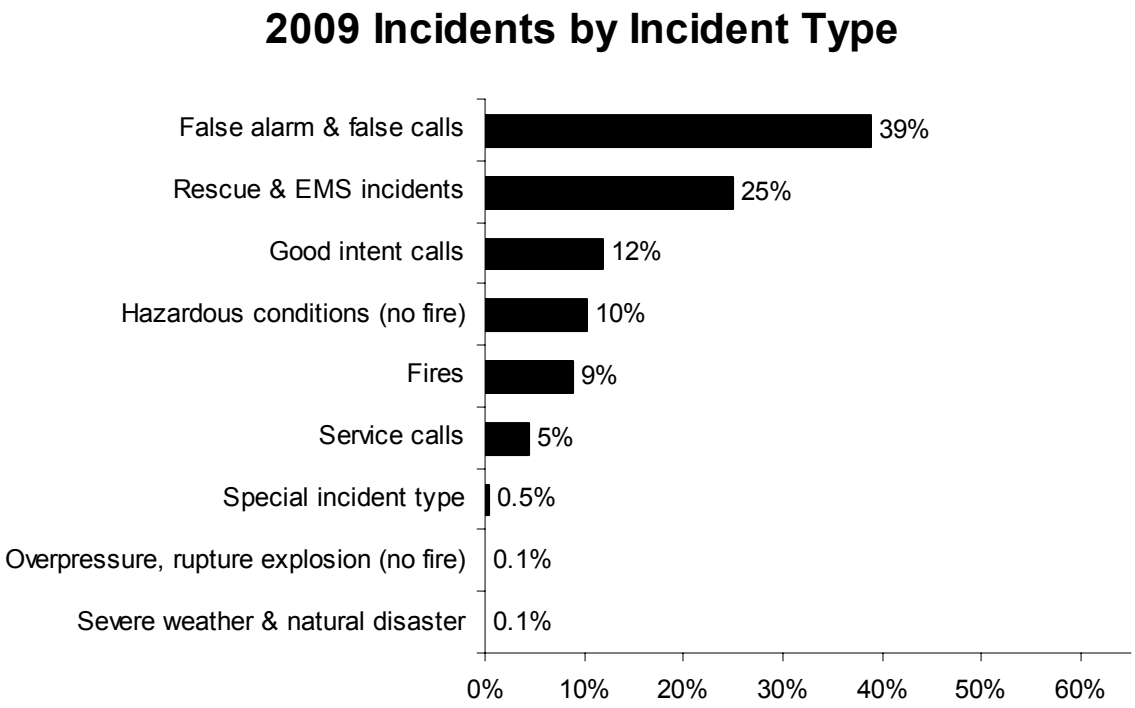
Of these 3,808 non-fire incidents 1,624, or 39% of all reported incidents in 2009, were reported false alarm or false calls; 1,045, or 25%, were reported rescue and emergency medical services (EMS) calls; 496, or 12%, were reported good intent calls; 426, or 10%, were reported hazardous condition calls with no fire; 189, or 5%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 19, or 0.5%, were special incident type calls; and six, or 0.1%, 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 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.

overpressure, rupture, explosion or overheat calls with no fire; and three, or 0.1% were severe weather or natural disaster calls.

In 2009, Fall River reported 370 fires[5], accounting for 9% of all reported incidents.




**Fall River Gave Mutual Aid in 3 Reported Incidents**
In 2009, Fall River reported coming to the aid of other fire departments three times. Two (2) were for cover assignments; and one was for a fire.

**Fall River Received Mutual Aid 11 Times**
In 2009, Fall River reported receiving mutual aid from surrounding fire departments 11 times. Four (4) were for medical assists; two were for service calls; another two were for hazardous conditions calls without fire; another two were for false alarms; and one was for a fire.

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

# Fall River Population: 94,938

**4.0 Fires/1,000 Population**

| **Total Fires:** | **369** | | **$1,590,950** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 206 | 56% | $1,470,350 |
| Vehicle Fires | 54 | 15% | 109,100 |
| Other Fires | 109 | 30% | 11,500 |

6 Civilian Injuries 8 Fire Service Injuries

## Building Fires: 206

## Residential Structure Fires: 152

**Residential Structure Fires Confined to Non-Combustible Containers: 106**

**Unconfined Residential Structure Fires: 46**

6 Civilian Injuries 7 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 110 | 72% |
| 1- & 2-Family homes | 28 | 18% |
| Residential board & care | 5 | 2% |
| Rooming houses | 5 | 2% |
| Residential, other | 4 | 2% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 26 | 17% |
| Didn't operate | 1 | 1% |
| None | 4 | 3% |
| Fire too small | 6 | 4% |
| Didn't Alert (confined) | 0 | 0% |
| Undetermined | 115 | 75% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 65% |
| Heating room or area | 6% |
| Living room | 3% |
| Bedroom | 3% |
| Laundry room | 3% |
| Interior stairway, ramp | 3% |
| Wall surface, exterior | 3% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Arcing | 5% | 15% |
| Heat from operating eq. | 4% | 13% |
| Cigarette | 2% | 7% |
| Candle | 1% | 4% |
| Spark, ember, flame/op. eq. | 1% | 4% |

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

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

| **Item First Ignited**[8] | **%** |
|---|---|
| Cooking materials | 61% |
| Rubbish, trash, waste | 6% |
| Flammable or combustible liq. | 6% |
| Electrical wire, cable insulation | 3% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[9] |
|---|---|---|
| Misuse of materials | 2% | 3% |
| Electrical failure, malfunc. | 1% | 1% |

| **Equipment**[10] | **%** |
|---|---|
| Cooking Equipment | 59% |
| None | 25% |
| Boiler, furnace, cent. heat unit | 6% |
| Clothes dryer | 1% |

| **Cause of Ignition** | **%** | **%Unconfined**[11] |
|---|---|---|
| Unintentional | 14% | 46% |
| Intentional | 7% | 22% |
| Failure of eq. or heat source | 4% | 13% |
| Undetermined | 3% | 9% |
| Cause under investigation | 3% | 11% |

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

| | |
|---|---|
| Alerted Occupants | 0% |
| Didn't Alert Occupants | 0% |
| Undetermined | 100% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| False alarms & false calls | 1,624 | 39% |
| Rescue & EMS incidents | 1,045 | 25% |
| Good intent calls | 496 | 12% |
| Hazardous conditions (no fire) | 426 | 10% |
| Fires[12] | 370 | 9% |
| Service calls | 189 | 5% |
| Special incident type | 19 | 0.5% |
| Overpressure rupture, explosion or overheat calls (no fire) | 6 | 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 | 22 | 17 | 2 | 3 |
| February | 20 | 11 | 0 | 9 |
| March | 35 | 15 | 3 | 17 |
| April | 50 | 20 | 8 | 22 |
| May | 32 | 12 | 5 | 15 |
| June | 40 | 26 | 7 | 7 |
| July | 29 | 17 | 4 | 8 |
| August | 36 | 20 | 7 | 9 |
| September | 17 | 9 | 0 | 5 |
| October | 36 | 25 | 6 | 5 |
| November | 26 | 14 | 5 | 7 |
| December | 29 | 20 | 7 | 2 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 60 | 35 | 6 | 19 |
| Monday | 58 | 33 | 7 | 18 |
| Tuesday | 55 | 30 | 11 | 14 |
| Wednesday | 30 | 19 | 3 | 8 |
| Thursday | 58 | 37 | 7 | 14 |
| Friday | 50 | 18 | 14 | 18 |
| Saturday | 58 | 34 | 6 | 18 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 35 | 16 | 8 | 1 |
| 04:01 - 08:00 | 34 | 22 | 7 | 5 |
| 08:01 - 12:00 | 48 | 29 | 9 | 10 |
| 12:01 - 16:00 | 94 | 54 | 13 | 27 |
| 16:01 - 20:00 | 95 | 47 | 13 | 35 |
| 20:01 - 24:00 | 63 | 38 | 4 | 21 |

## Motor Vehicle Fires

Total: 54
Automobiles: 48 (89%)
0 (0%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 29** **Dollar loss: $517,250**

**0.3 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 16 | 7% | 55% | $517,200 |
| Vehicle Arsons | 1 | 1% | 3% | 0 |
| Other Arsons | 12 | 5% | 41% | 50 |

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

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 5 | 31% |
| 00:01 - 04:00 | 3 | 19% |
| 04:01 - 08:00 | 3 | 19% |
| 16:01 - 20:00 | 3 | 19% |

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

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

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| Multi-family dwellings | 8 | 50% |
| 1 & 2 - Family homes | 1 | 13% |
| Elementary school, including kindergarten | 1 | 13% |

# New Bedford Fires in 2009

**344 Total Fires —172 Structures, 65 Vehicles & 107 Other Fires**
The New Bedford Fire Department reported 344 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 172 structure fires, 65 motor vehicle fires, 70 outside trash fires, 22 brush fires, five special outside fires, one cultivated vegetation or crop fire, and nine unclassified fires caused 14 civilian injuries, six fire service injuries, and an estimated dollar loss of $2 million. There were no fire deaths in New Bedford in 2009

**Outside & Other Fires Down**
Total fires decreased by 109 from the 453 reported in 2008. Reported structure fires increased by seven from the 165 reported during the previous year. Motor vehicle fires remained the same with 65 fires reported in both 2009 and 2008. Outside and other fires decreased by 116 from 223 the previous year.

**NEW BEDFORD FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 432 | 153 | 102 | 177 | 20 | 5 | 8 | 7 |
| 2006 | 378 | 138 | 86 | 154 | 32 | 8 | 21 | 3 |
| 2007 | 426 | 141 | 76 | 209 | 29 | 11 | 14 | 4 |
| 2008 | 453 | 165 | 65 | 223 | 47 | 16 | 14 | 17 |
| 2009 | 344 | 127 | 65 | 107 | 32 | 14 | 9 | 9 |

**Building Fires**

There were 170 building fires of different types in New Bedford in 2009. These 170 building fires accounted for 98.8% of all structure fires in New Bedford.

**79% of Building Fires in Homes**
The 170 building fires that occurred in New Bedford in 2009 can be broken down by fixed property use as follows: 135, or 79% of all building fires, were in residential properties; eight fires took place in mercantile or business properties; seven fires happened in manufacturing and processing facilities; another seven fires occurred in storage facilities; six fires occurred in public assembly properties; three fires occurred in institutional properties; two fires happened in educational facilities; one fire occurred at an industrial facility; and another fire occurred in a special property in 2009.

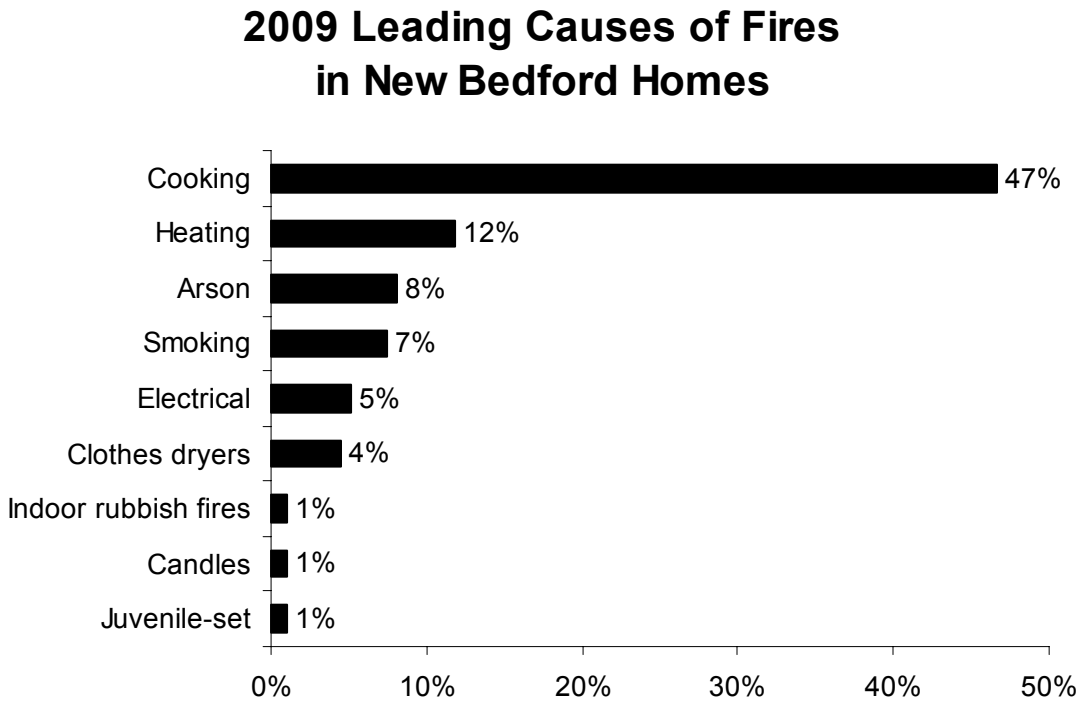
**RESIDENTIAL FIRES**

**Apartments Accounted for 65% of Residential Building Fires**
The peak fixed property uses for residential building fires were apartments, accounting for 65% of the building fires in New Bedford; 33% occurred in 1- or 2-family homes; 1%

occurred in residential board and care facilities; and 1% occurred in unclassified residential buildings.

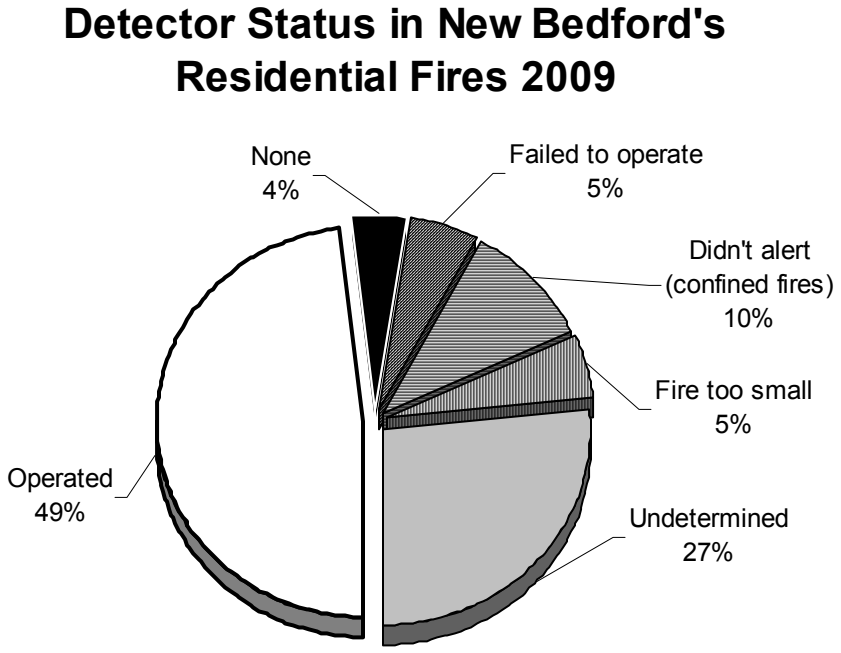
**Residential Building Fires Are Up Slightly**
There were 135 reported residential building fires in New Bedford in 2009. These 135 fires are an increase of one, or 1%, from the 134 residential building fires reported in 2008.

**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 almost half, 47%, of these fires. Heating problems accounted for 12% of residential fires. Arson caused 8% and smoking caused 7% of the fires in New Bedford homes. Electrical problems accounted for 5% of these fires. Clothes dryers caused 4% of these fires. Indoor rubbish fires, candles and juvenile-set fires each accounted for 1% of the residential building fires in New Bedford in 2009.



**44% of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
Fifty-nine (59), or 44% of all residential building fires were confined to non-combustible containers in 2009. Forty-eight (48), or 36%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Four (4) of the reported fires were fuel burner or boiler malfunctions, accounting for 3% of residential building fires in New Bedford in 2009. Another four of the reported fires were confined to a chimney or flue, accounting for 3% of residential building fires in New Bedford in 2009. Three (3), 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 65, or 49%, of the residential building fires. In 10% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 5% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 5% of the residential fires. Smoke detector performance was undetermined in 36 incidents, or 27% of New Bedford's residential building fires.




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

### 3 of 7 Detectors Failed Detectors From a Missing or Disconnected Batter

Of the seven fires where smoke detectors were present but failed to operate, three, or 43%, of these detectors failed because they were missing or had a disconnected battery. One (1) detector, or 14%, failed because of a power failure, shut-off or disconnect. It was undetermined in the other three cases, or 43%, why the detectors failed to operate.

## VACANT BUILDINGS

### 6% of Building Fires Occurred in Vacant Buildings

New Bedford reported 11 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 6% of the total 170 building fires reported to MFIRS in 2009. Six (6) fires in apartment buildings, two fires in one- or two-family homes; and one fire each in an outbuilding or shed, a manufacturing or processing facility and a military installation occurred in vacant buildings.

## JUVENILE-SET FIRES

### 2 Juvenile-set Fires

There were two reported juvenile-set fires in New Bedford in 2009. The one structure fire and one brush fire caused $6,000 in estimated damages.

## ARSONS

### 32 Total Arsons[4] — 14 Structures, 9 Motor Vehicles & 9 Other

Thirty-two (32), or 9%, of New Bedford's 344 fires were intentional, or for purposes of this analysis, arson. The 14 structure arsons, nine motor vehicle arsons and nine outside and other arsons caused one civilian injury and an estimated dollar loss of $346,200.

### All Arsons Down

The total number of arsons decreased by 15 from the 47 reported in 2008. Reported structure arsons decreased by two from 16 the year before. Motor vehicle arsons dropped by five from 14 the previous year. Outside and other arsons decreased by eight from the 17 reported last year.

---

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

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

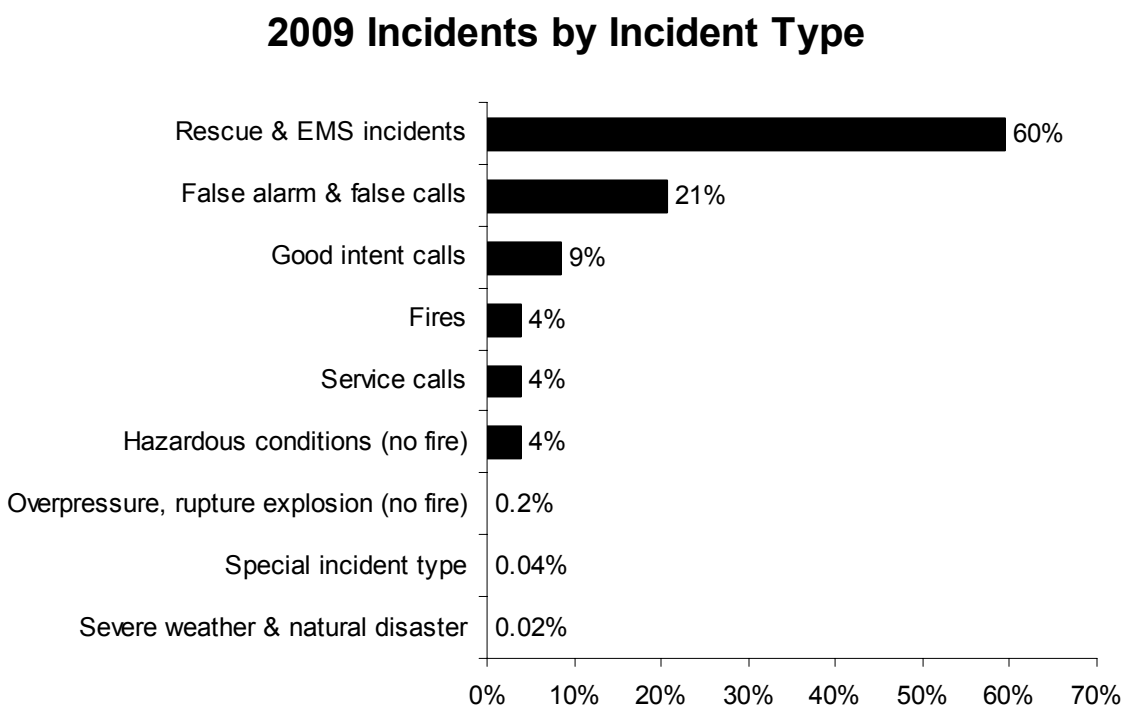
## ALL INCIDENTS

### Rescue & EMS Calls Were 60% of All Reported Incidents

In 2009, New Bedford voluntarily reported 8,487 incidents to MFIRS. Of these 8,487 incidents, 8,143, or 96%, were non-fire incidents.

Of these 8,143 non-fire incidents 5,053, or 60% of all reported incidents in 2009, were reported rescue and emergency medical services (EMS) calls; 1,744, or 21%, were reported false alarm or false calls; 724, or 9%, were reported good intent calls; 304, or 4%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 298, or 4%, were reported hazardous condition calls with no fire; 15, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; three, or 0.04%, were special incident type calls such as citizen complaints; and two, or 0.02%, were severe weather calls.

In 2009, New Bedford reported 344 fires[5], accounting for 4% of all reported incidents.




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

### New Bedford Gave Mutual Aid in 1 Reported Incident

In 2009, New Bedford reported coming to the aid of other fire departments once, for a fire.

### New Bedford Received Mutual Aid in 26 Incidents

In 2009, New Bedford reported receiving aid from surrounding fire departments 26 incidents. Eighteen (18) of these incidents were rescue or EMS calls, four were for hazardous condition calls with no fire; one was a false alarm or false call, two were for fires, and one was a service call.

# New Bedford Population: 93,768

**3.7 Fires/1,000 Population**

| **Total Fires:** | **344** | | **$2,017,939** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 172 | 50% | $1,672,494 |
| Vehicle Fires | 65 | 19% | 260,550 |
| Other Fires | 107 | 31% | 84,895 |

14 Civilian Injuries 6 Fire Service Injuries

## Building Fires: 170

## Residential Building Fires: 135

**Residential Building Fires Confined to Non-Combustible Containers: 56**

**Unconfined Residential Building Fires: 79**

12 Civilian Injuries 3 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 88 | 65% |
| 1- & 2-Family homes | 44 | 33% |
| Boarding houses | 2 | 1% |
| Residential, other | 1 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 65 | 49% |
| Didn't operate | 7 | 5% |
| None | 6 | 4% |
| Fire too small | 7 | 5% |
| Didn't Alert (confined) | 14 | 10% |
| Undetermined | 36 | 27% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 48% |
| Living room | 5% |
| Bedroom | 3% |
| Interior stairway or ramp | 3% |
| Bathroom | 3% |
| Laundry room | 3% |
| Heating room or area | 3% |
| Chimney or flue | 3% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Radiated heat from oper. eq. | 10% | 17% |
| Spark/ember/flame op. eq. | 8% | 14% |
| Cigarettes | 4% | 8% |
| Heat from operating equip. | 4% | 8% |
| Hot or smoldering obj., other | 4% | 7% |
| Heat open flame/smok. mat. | 4% | 7% |

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

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

| **Item First Ignited**[8] | **%** |
|---|---|
| Cooking materials | 41% |
| Structural member, framing | 6% |
| Wearing apparel not on a person | 4% |
| Rubbish, trash, waste | 3% |
| Upholstered sofa, chair | 3% |
| Flammable or combustible liquid | 3% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[9] |
|---|---|---|
| Too close to combustibles | 4% | 7% |
| Misuse of material/products | 3% | 5% |
| Installation deficiency | 1% | 3% |
| Equipment unattended | 1% | 3% |

| **Equipment**[10] | **%** |
|---|---|
| Cooking equipment | 45% |
| None | 31% |
| Clothes dryer | 4% |
| Chimney or flue | 3% |
| Boiler, furnace, cent. heat unit | 3% |

| **Cause of Ignition** | **%** | **%Unconfined**[11] |
|---|---|---|
| Unintentional | 38% | 67% |
| Intentional | 8% | 14% |
| Failure of eq. or heat source | 4% | 7% |
| Act of nature | 1% | 1% |
| Undetermined | 4% | 7% |
| Cause under investigation | 2% | 4% |

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

| | |
|---|---|
| Alerted Occupants | 46% |
| Didn't Alert Occupants | 24% |
| Undetermined | 31% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Rescue & EMS incidents | 5,053 | 60% |
| False alarms & false calls | 1,744 | 21% |
| Good intent calls | 724 | 9% |
| Fires[12] | 344 | 4% |
| Service calls | 304 | 4% |
| Hazardous conditions (no fire) | 298 | 4% |
| Overpressure rupture, explosion or overheat calls (no fire) | 15 | 0.2% |
| Special incident type | 3 | 0.04% |
| Severe weather & natural disaster | 2 | 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 5 mutual aid fires that New Bedford responded to outside of their jurisdiction.

| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 24 | 15 | 6 | 3 |
| February | 17 | 9 | 2 | 6 |
| March | 29 | 17 | 2 | 10 |
| April | 40 | 15 | 9 | 16 |
| May | 34 | 16 | 7 | 11 |
| June | 34 | 14 | 8 | 12 |
| July | 27 | 13 | 5 | 9 |
| August | 26 | 12 | 6 | 8 |
| September | 23 | 11 | 6 | 6 |
| October | 31 | 15 | 3 | 13 |
| November | 23 | 15 | 3 | 5 |
| December | 35 | 20 | 8 | 7 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 43 | 22 | 6 | 15 |
| Monday | 51 | 22 | 15 | 14 |
| Tuesday | 42 | 22 | 1 | 19 |
| Wednesday | 62 | 33 | 7 | 22 |
| Thursday | 54 | 34 | 11 | 9 |
| Friday | 36 | 18 | 9 | 9 |
| Saturday | 55 | 21 | 16 | 18 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 36 | 17 | 9 | 10 |
| 04:01 - 08:00 | 32 | 19 | 7 | 6 |
| 08:01 - 12:00 | 39 | 23 | 6 | 10 |
| 12:01 - 16:00 | 81 | 39 | 16 | 26 |
| 16:01 - 20:00 | 79 | 47 | 11 | 21 |
| 20:01 - 24:00 | 76 | 27 | 16 | 33 |

## Motor Vehicle Fires

Total: 65
Automobiles: 57 (88%)
9 (16%) of the automobile fires considered intentional.

## Arson Fires

**Total Arsons: 32** **Dollar loss: $346,200**

**0.3 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 14 | 8% | 44% | $294,200 |
| Vehicle Arsons | 9 | 14% | 28% | 49,500 |
| Other Arsons | 9 | 8% | 28% | 2,500 |

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

**Peak Times of Day for:**

| Structure Arsons | # | % | Vehicle Arsons | # | % |
|---|---|---|---|---|---|
| 00:01 - 04:00 | 4 | 29% | 20:01 - 00:00 | 4 | 44% |
| 20:01 - 00:00 | 4 | 29% | 00:01 - 04:00 | 2 | 22% |
| 16:01 - 20:00 | 3 | 21% | 04:01 - 08:00 | 2 | 22% |

| Other Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 5 | 56% |
| 16:01 - 20:00 | 2 | 22% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| Apartments | 7 | 50% |
| 1- or 2-Family homes | 4 | 29% |
| Mercantile, business, other | 1 | 7% |
| High/junior high/middle school | 1 | 7% |
| Defense, military installation | 1 | 7% |

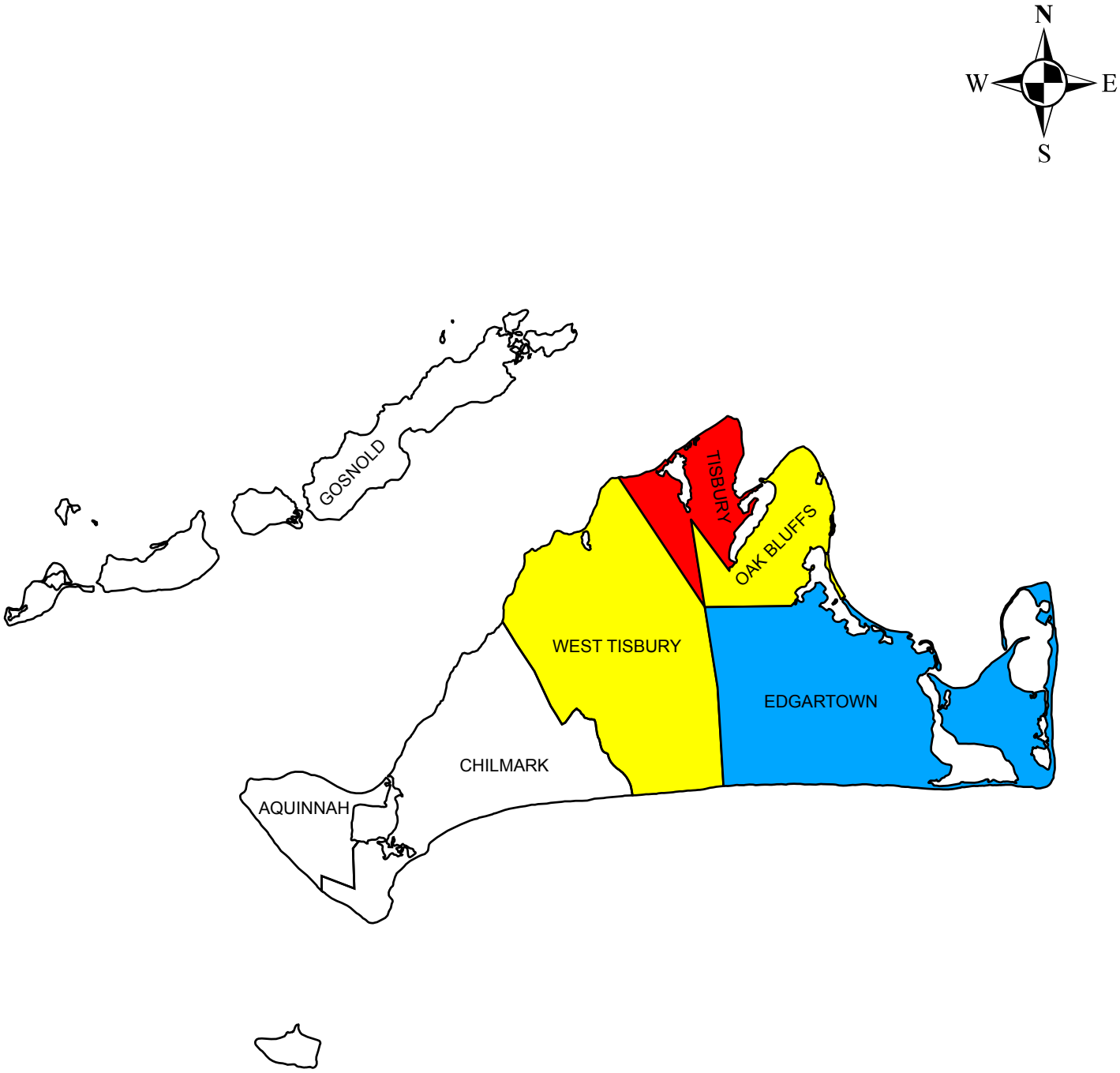
# Dukes County

## 2009 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 2009




**2009 Fires**

- 0
- 1
- 2 - 3
- 4 - 14

MFIRS Massachusetts Fire Incident Reporting System

0 1.25 2.5 5 7.5 10 Miles

Massachusetts Fire Incident Reporting System 2009

# Dukes County Fires in 2009

**19 Total Fires — 8 Structures, 5 Motor Vehicle Fires, 6 Other Fires**
Dukes County ranked last out of the fourteen Massachusetts counties in total fires. Dukes County Fire Departments reported 19 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The eight structure fires, five motor vehicle fires[1], three brush, tree or lawn fires, two special outside fires, and one unclassified fire caused an estimated dollar loss of $5,000. There were no fire-related deaths in Dukes County in 2009. Dukes County's fires accounted for 0.1% of the 28,595 Massachusetts fires reported in 2009.

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 2009.

**No Fire Deaths**
In 2009 fire departments in Dukes County did not report any fire-related deaths.

**Structure Fires Down**
The total number of reported fire incidents remained the same with 19 reported in both 2008 and 2009. Reported structure fires decreased by four from the 12 reported in 2008. Motor vehicle fires increased by two fires from the three reported the previous year. Outside and other fires increased by two from the four reported in 2008.

**DUKES COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 40 | 17 | 12 | 13 | 1 | 0 | 0 | 1 |
| 2006 | 38 | 18 | 7 | 13 | 2 | 0 | 0 | 2 |
| 2007 | 35 | 22 | 3 | 10 | 0 | 0 | 0 | 0 |
| 2008 | 19 | 12 | 3 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 19 | 8 | 5 | 6 | 0 | 0 | 0 | 0 |

**Fire and Fire Death Rates**
Dukes County had 1.3 fires per 1,000 population. That figure ranks Dukes County last in the state and below the state rate of 4.5 fires per 1,000 population. Dukes County also had 0 fire deaths per 10,000 population tying it ranked for ninth among Massachusetts counties and below the state rate of 0.06 fire deaths per 10,000 population.

**Tisbury Had Dukes County Largest Loss Fire**
- On April 19, 2009, at 5:52 p.m., the Tisbury Fire Department was dispatched to a car fire in a parking lot. Oily rags in the back of the van spontaneously combusted starting the fire. No one was injured at this fire and damages were estimated to be $435,000.

[1] All five of the motor vehicle fires were reported by Tisbury.

## STRUCTURE FIRES

### Reported Structure Fires Down

There were eight reported structure fires in Dukes County in 2009. These incidents represented 42% of Dukes County's reported fires in 2009, and none of the county's reported dollar loss. The total number of reported structure fires decreased by four, or 33%, from the 12 reported in 2008.

### No Reported Structure Arsons in 2009

There were no reported structure arsons in Dukes County in 2009. The last reported structure arson in Dukes County occurred in 2003.

## BUILDING FIRES

There were eight building fires of different types in Dukes County in 2009. These eight building fires accounted for all of the structure fires in Dukes County.

### 88%of Dukes Building Fires Occurred in People's Homes

Seven (7), or 88%, of Dukes County's eight building fires occurred in residential occupancies. One fire occurred in a business.

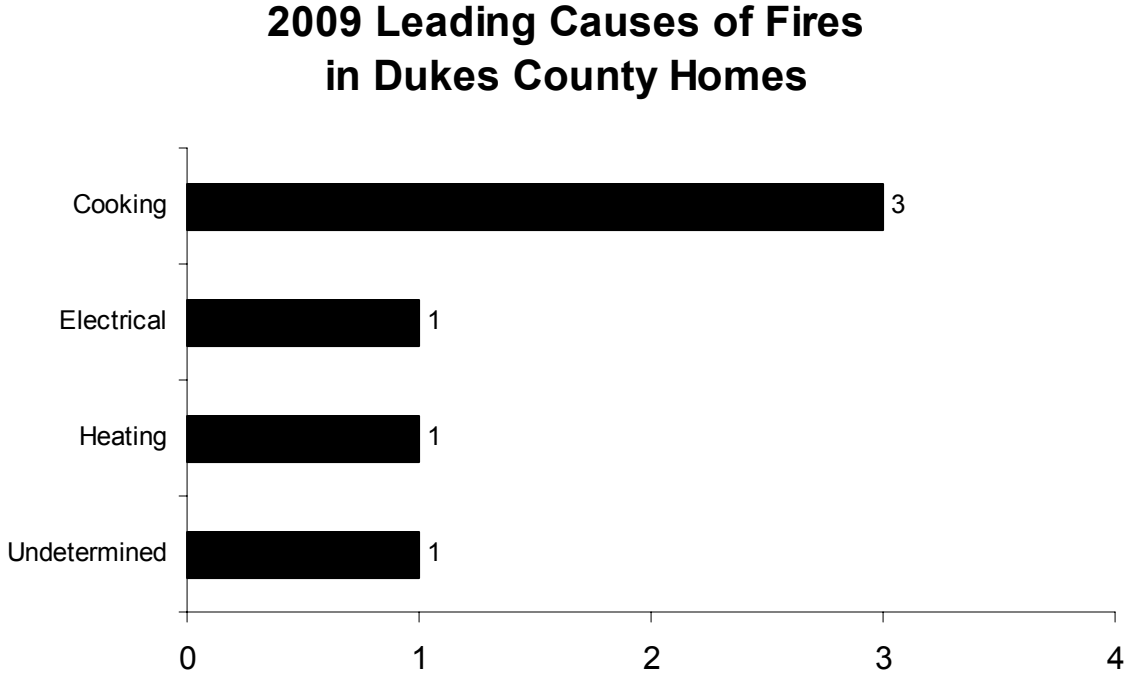
## RESIDENTIAL FIRES

### Residential Building Fires Down

There were seven reported residential building fires in Dukes County in 2009. These seven fires are a decrease of three, or 30%, from the 10 residential building fires reported in 2008.

### Cooking Was the Leading Cause of Residential Fires

Cooking was the leading cause of residential building fires in Dukes County, accounting for three, or 43%, of these fires. Electrical problems and heating equipment each caused one of the residential building fires in Dukes County in 2009, accounting for 14% of the fires. The cause was undetermined for one, or 14%, of the fires in Dukes County in 2009.

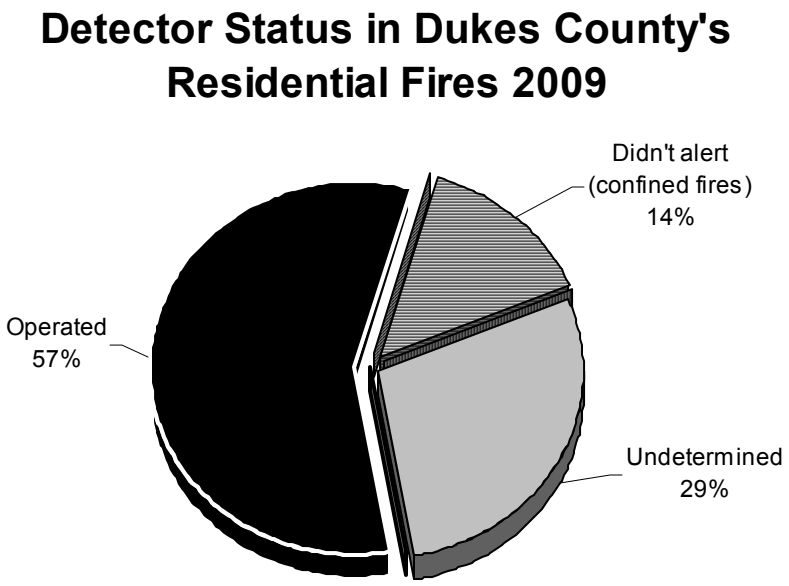



**2 of Residential Building Fires Are Confined to Non-Combustible Containers[2]**
Two (2), or 29%, of the reported fires in Dukes County were confined to a non-combustible container. One (1) of the reported fires was a cooking fire contained to a non-combustible container accounting for 14% of the residential fires. Another fire, or 14%, was confined to a fuel burner or boiler malfunction.

**Detectors Alerted Occupants in Over 1/2 of Fires**
Smoke or heat detectors operated and alerted the occupants in four, or 57%, of the residential building fires. In one, or 14% of these fires[3], the detectors did not alert the occupants. Smoke detector performance was undetermined in two incidents, or 29% of Dukes County's residential building fires.

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

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




## VACANT BUILDINGS

**None of Dukes County Building Fires Occurred in Vacant Buildings**
None of Dukes County reported fires that occurred in a building that was vacant, under construction or demolition[4].

## JUVENILE-SET FIRES

**No Juvenile-set Fires**
There were no reported juvenile-set fires in Dukes County in 2009.

## ARSONS

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

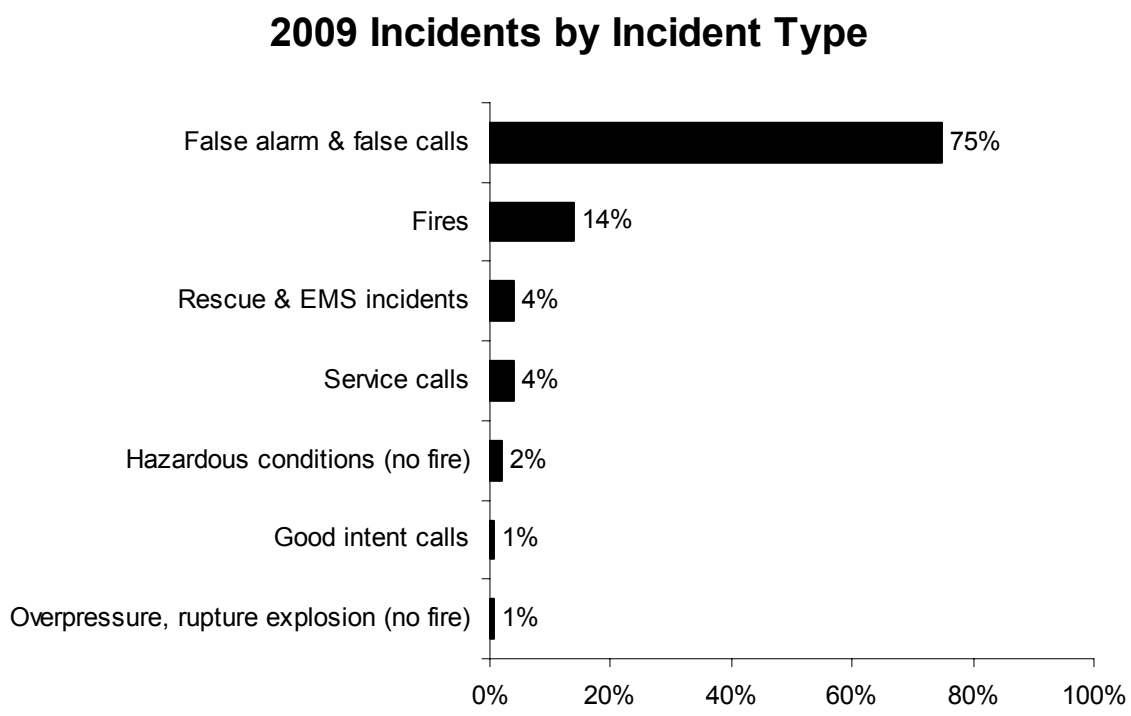
## ALL INCIDENTS

**False Alarms 3/4 of All Reported Responses**
In 2009, Dukes County fire departments reported 159 responses[5] to MFIRS. Of these 159 incidents, 137 non-fire calls were voluntarily reported.

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

Of these 137 non-fire calls 119, or 74%, were reported false alarm or false calls; seven, or 4% of all of the responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; six, or 4%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; three, or 2%, were reported hazardous condition calls with no fire; one, or 1%, was a reported good intent call; one, or 1%, was a reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 1% was a special incident type.

Twenty-two (22), or 14%, of the total incidents submitted by Dukes County fire departments were fires.




**Dukes County Fire Departments Gave Mutual Aid 9 Times**
In 2009, Dukes County fire departments reported coming to the aid of other fire departments nine times. Of these nine responses, five, or 56%, were for false alarms or false calls; three, or 33%, were for fires; and one, or 11% was for a service call.

**Dukes County Fire Departments Received Mutual Aid in 4 Incidents**
In 2009, Dukes County fire departments reported receiving aid from surrounding departments in five incidents. All four of these incidents were for fires.

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

## Dukes County Population: 14,987

**1.3 Fires/1,000 Population**

| **Total Fires:** | **19** | | **$5,000** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 8 | 42% | 0 |
| Vehicle Fires | 5 | 26% | 5,000 |
| Other Fires | 6 | 32% | 0 |

No Deaths
No Injuries

# Building Fires: 8

## Residential Structure Fires: 7

**Residential Structure Fires Confined to Non-Combustible Containers: 2**

**Unconfined Residential Structure Fires: 5**

No Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 7 | 100% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 4 | 57% |
| Didn't operate | 0 | 0% |
| None | 0 | 0% |
| Fire too small | 0 | 14% |
| Didn’t alert (confined) | 1 | 0% |
| Undetermined | 2 | 29% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 57% |
| Ceiling & floor assembly | 14% |
| Heating room or area | 14% |
| Structural areas, other | 14% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Radiated heat from oper. eq. | 43% | 60% |
| Arcing | 14% | 20% |

[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 | 14% | Abandoned materials | 14% | 20% |
| Cabinetry | 14% | Accident. turned on not off | 14% | 20% |
| Structural member, framing | 14% | Equipment unattended | 14% | 20% |
| Magazine, newspaper | 14% | | | |
| Flammable, combustible liquid | 14% | | | |

| **Equipment[10]** | **%** | **Cause of Ignition** | **%** | **%Unconfined[11]** |
|---|---|---|---|---|
| Cooking equipment | 43% | Unintentional | 29% | 40% |
| None | 14% | Failure of eq. or heat source | 14% | 20% |
| Overcurrent, disconnect equip. | 14% | Undetermined | 29% | 40% |
| Boiler, furnace, cent. heat. unit | 14% | Cause under investigation | 0% | 00% |

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

| | |
|---|---|
| Alerted occupants | 0% |
| Didn't alert occupants | 50% |
| Undetermined | 50% |

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

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

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

## Motor Vehicle Fires

Total: 3
Automobiles: 2 (60%)
None of the automobile fires were incendiary in 2009.

## Arson Fires

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

**0.0 Arson Fires/1,000 Population**

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

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

No Injuries

**Aquinnah** **Population: 344**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

**Chilmark** **Population: 843**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |

**Edgartown** **Population: 3,779**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 15 | 4 | 6 | 5 | 1 | 0 | 0 | 1 |
| 2006 | 11 | 2 | 2 | 7 | 1 | 0 | 0 | 1 |
| 2007 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2008 | 4 | 3 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

**Gosnold (Cuttyhunk)** **Population: 86**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

**Oak Bluffs** **Population: 3,713**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 9 | 5 | 2 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Tisbury** **Population: 3,755**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 12 | 6 | 1 | 5 | 0 | 0 | 0 | 0 |
| 2006 | 20 | 11 | 3 | 6 | 1 | 0 | 0 | 1 |
| 2007 | 26 | 15 | 3 | 8 | 0 | 0 | 0 | 0 |
| 2008 | 12 | 6 | 3 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 14 | 4 | 5 | 5 | 0 | 0 | 0 | 0 |

**West Tisbury** **Population: 2,467**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 07089 | Edgartown | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07221 | Oak Bluffs | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07296 | Tisbury | 154 | 17 | 1 | 7 | 3 | 6 | 1 | 119 | 0 | 0 |
| 07327 | West Tisbury | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **Dukes County** | **159** | **22** | **1** | **7** | **3** | **6** | **1** | **119** | **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.

# Essex County

## 2009 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

# Essex County Fires 2009


## 2009 Fires

- 1
- 2 - 25
- 26 - 50
- 51 - 100
- 101 - 150
- 151 - 305

MFIRS Massachusetts Fire Incident Reporting System

0 1.5 3 6 9 12 Miles

Massachusetts Fire Incident Reporting System 2009

# Essex County Fires in 2009

**2,775 Total Fires — 1,642 Structures, 333 Vehicles & 800 Other Fires**
Essex County ranked fifth out of the fourteen Massachusetts counties in total reported fires. The county reported 2,775 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 1,642 structure fires, 333 motor vehicle fires, 425 brush, tree or lawn fires, 235 outside rubbish fires, 48 special outside fires, three cultivated crop or vegetation fires, and 89 other fires caused 18 civilian injuries, 25 fire service injuries and an estimated dollar loss of $18.3 million. Essex County's fires accounted for 10% of the 28,595 Massachusetts fires reported in 2009.

There were no reported fire deaths in Essex County in 2009.

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 2009.

**Structure & Motor Vehicle Fires Up Slightly**
The total number of reported fire incidents decreased by 111 incidents from the 2,886 that were reported in 2008. Reported structure fires increased by 13 from the 1,629 reported during the previous year. The total number of motor vehicle fires increased by seven from the 326 incidents reported during 2008. Reported outside and other fires decreased 131 from the 931 reported the year before.

**Brush Fires Down by 27%**
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. This is a major decrease and the main reason for the drop in all Essex County fires.

**ESSEX COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3,090 | 1,641 | 358 | 1,091 | 139 | 37 | 14 | 88 |
| 2006 | 2,875 | 1,443 | 343 | 1,089 | 107 | 27 | 12 | 68 |
| 2007 | 3,636 | 1,694 | 340 | 1,602 | 178 | 32 | 12 | 134 |
| 2008 | 2,886 | 1,629 | 326 | 931 | 132 | 19 | 17 | 96 |
| 2009 | 2,775 | 1,642 | 333 | 800 | 186 | 32 | 19 | 135 |

**Fire and Fire Death Rates**
Essex County had 3.8 fires per 1,000 population. That figure ranks Essex County ninth in the state and below the state rate of 4.5 fires per 1,000 population. Essex County had no fire deaths per 10,000 population tying it for ninth among Massachusetts counties.

### Marblehead Has Essex County's Largest Loss Fire in 2009

- On July 10, 2009, at 7:09 p.m., the Marblehead Fire Department was called to a fire in single-family home of undetermined cause. The fire began in the garage and spread to the rest of the home. No one was injured at this fire. Smoke detectors were present and alerted the occupants. Sprinklers were not present. Damages were estimated to be $2 million.

## STRUCTURE FIRES

### Reported Structure Fires Up Slightly

The 1,642 structure fires caused 16 civilian injuries, 23 fire service injuries and an estimated dollar loss of $17.2 million. These incidents represented 59% of Essex County's reported fires in 2009. The average estimated dollar loss per structure fire was $10,486. The total number of reported structure fires increased by 13, or 1%, from the 1,629 reported in 2008.

### Arson Caused of 2% of Structure Fires

The 32 structure arsons caused an estimated dollar loss of $1.3 million. Arson was indicated as the cause of 2% of the structure fires and 8% of Essex County's structure fire dollar loss. The 32 structure arsons accounted for 17% of the Essex County arson fires reported in 2009. The total number of reported structure arsons increased by 13 or 68%, from 19 in 2008.

### 63% of Structure Arsons Occurred in Residences

Sixty-three percent (63%), of Essex County's 32 structure arsons occurred in residential occupancies; 22% occurred in special properties; 6% happened in mercantile or business facilities; and 6% occurred each in public assembly properties, storage facilities and institutional facilities.

## BUILDING FIRES

There were 1,628 building fires of different types in Essex County in 2009. These 1,628 building fires accounted for 99.1 % of all structure fires in Essex County.

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

One thousand three hundred and sixty-eight (1,368), or 84%, of Essex County's 1,628 building fires occurred in residential occupancies. Mercantile and business properties had 69 fires. Fifty-four (54) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 44 fires. Thirty-two (32) building fires in Essex County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Twenty-two (22) building fires took place on educational properties. Nineteen (19) fires took place in storage properties. Fifteen (15) fires took place in manufacturing and processing facilities. Two (1) fires happened in industrial facilities; and three fires occurred in unclassified properties in Essex County in 2009.

## RESIDENTIAL FIRES

### Residential Building Fires Down Up in 2009

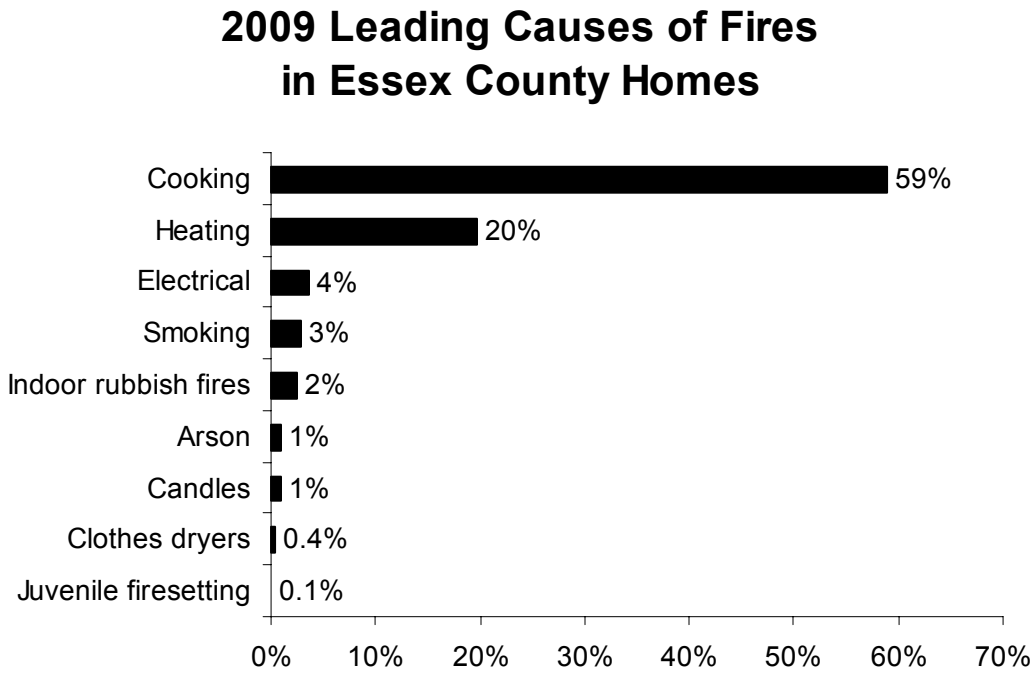
There were 1,368 reported residential building fires in Essex County in 2009. These 1,368 fires are an increase of 52, or 4%, from the 1,316 residential building fires reported in 2008.

### 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 48%, of the building fires in Essex County; 41% occurred in apartments; 2% took place in dormitories; 1% each happened in rooming houses, and residential board and care facilities; and less than 1% occurred in hotels or motels. Seventy-five (75), or 5% of the residential building fires in Essex County occurred in unclassified residential buildings.

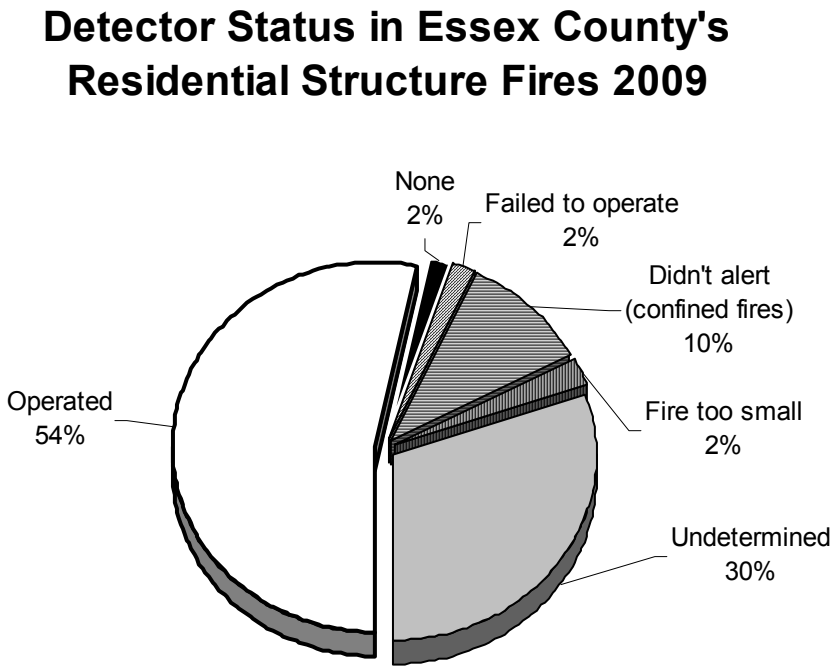
### Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Essex County was unattended cooking and other unsafe cooking practices, accounting for 59% of these fires. Heating was the second leading cause, accounting for 20% of these fires. Electrical problems caused 4% of residential building fires. Smoking caused 3% of these fires. Indoor rubbish fires were the cause of 2% of residential fires. Arson and candles each caused 1% of these fires; and clothes dryers and juvenile-set fire each caused less than 1% of the fires in people's' homes in Essex County in 2009.



**78% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
One thousand and seventy (1,070), or 78% of all residential building fires were reported as confined to non-combustible containers in 2009. Seven hundred and seventy-two (772), or 56%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. One hundred and sixty-seven (167), or 12%, were fires confined to a fuel burner or boiler malfunction. Ninety-one (91) of the reported fires were confined to a chimney accounting for 7% of residential building fires. Forty (40), or 3%, of these fires were rubbish fires contained to a non-combustible container.

**Detectors Operated in Over 1/2 of Fires**
Smoke or heat detectors operated and alerted the occupants in 728, or 54%, 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 2% of the residential fires. Smoke detector performance was undetermined in 350 incidents, or 30% of Essex County's residential building fires.




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

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

### Almost 1/4 of Failed Detectors Had Missing or Disconnected Batteries

Of the 29 fires where smoke detectors were present but failed to operate, seven, or 24%, failed because the batteries were either missing or disconnected. Three (3), or 10%, failed because of a power failure, shutoff or disconnect. Two (2), or 7%, did not operate because of a dead battery. It was undetermined or unclassified in 17 cases, or 59%, why the detectors failed to operate.

## VACANT BUILDINGS

### 2% of Building Fires Occurred in Vacant Buildings

Essex County reported 36 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 1,628 building fires reported to MFIRS in 2009. Twenty-two (22) fires occurred in vacant residential properties. Mercantile or business properties and storage facilities each accounted for six vacant building fire incidents. Public assembly facilities and manufacturing or processing facilities each accounted for one vacant building fire in Essex County in 2009.

Five (5) of the vacant building fires in Essex County in 2009 were determined to be intentionally set. Two (2) single-family homes, one apartment building, one motor vehicle or boat sales facility and one shed were vacant building arsons.

## JUVENILE-SET FIRES

### 11 Juvenile-set Fires

There were 11 reported juvenile-set fires in Essex County in 2009. The three structure fires, four brush fires, two motor vehicle fires and two special outside fires caused one fire service injury and $328,000 in estimated damages.

## ARSONS

### 186 Total Arsons[4] — 32 Structures, 19 Vehicles & 135 Other Arsons

One hundred and eighty-six (186), or 7%, of Essex County's 2,775 fires were considered intentionally set, or, for purposes of this analysis, arson. The 32 structure arsons, 19 motor vehicle arsons and 135 outside and other arsons caused an estimated dollar loss of $1.4 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.

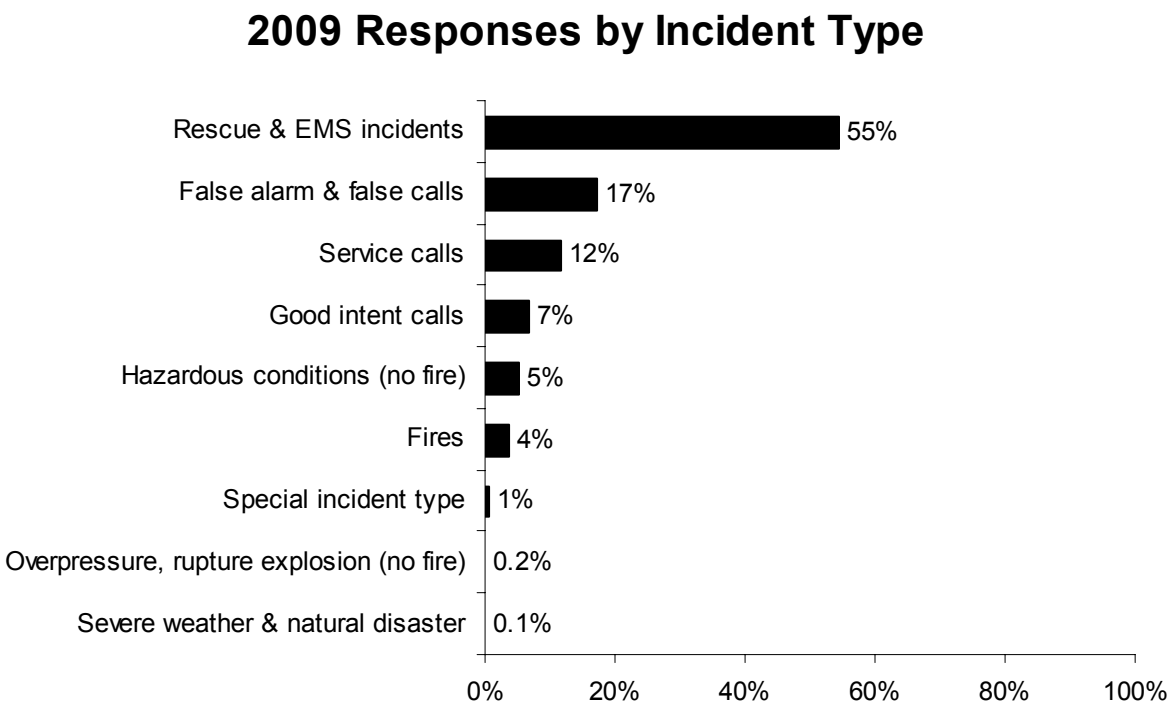
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

**All Arsons Up**
The total number of reported arson fires increased by 54 from the 132 reported in 2008. Reported structure arsons increased by 13 from the 19 reported the previous year. Motor vehicle arsons increased by two from the 17 reported in 2008. Outside and other arsons increased by 39 from 96 reported the year before.

## ALL INCIDENTS

**Rescue & EMS Calls Are Over 1/2 of All Reported Responses**
In 2009, fire departments in Essex County reported 76,418 responses[5] to MFIRS. Of these 76,418 incidents, 73,487 non-fire calls were voluntarily reported.

Of these 73,487 non-fire calls, 41,724, or 55% of all the reported responses in 2009, were reported rescue and emergency medical services (EMS) calls; 13,060, or 17%, were reported false alarm or false calls; 8,991, or 12%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,086 or 7%, were reported good intent calls; 3,987, or 5%, were reported hazardous condition calls with no fire; 440, or 1%, were special incident type calls such as citizen complaints; 126, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire ; and 73, or 0.1%, were severe weather responses.




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

Two thousand nine hundred and thirty-one (2,931), or 4%, of the total incidents submitted by Essex County fire departments were fires.

**Essex County Fire Departments Reported Giving Mutual Aid 1,194 Times**

In 2009, Essex County fire departments reported coming to the aid of other fire departments 1,194 times. Of these 1,194 responses, 420, or 35%, were for rescue or EMS calls; 353, or 30%, were for service calls such as cover assignments; 178, or 15%, were for good intent calls; 155, or 13%, were for fires; 61, or 5%, were for false alarms or false calls; 19, or 2%, were for hazardous conditions calls with no fire; five, or 0.4%, were special incident types; and three, or 0.3% were reported overpressure, rupture, explosion or overheat calls with no fire.

**Essex County Received Mutual Aid in 1,306 Incidents**

In 2009, Essex County fire departments reported receiving aid from surrounding departments in 1,306 incidents. Of these 1,306 incidents, 893, or 68%, were rescue and emergency medical services calls; 163, or 12%, were for fires; 137, or 10%, were false alarms or false calls; 44, or 3%, were hazardous conditions calls with no fire; 40, or 3%, were good intent calls; 22, or 2% were service calls; five, or 0.4%, were reported overpressure, rupture, explosion or overheat calls with no fire; one, or 0.1%, was for a severe weather or natural disaster call; and one, or 0.1%, was a special incident type.

## Essex County Population: 723,419

**4.0 Fires/1,000 Population**

| **Total Fires:** | **2,775** | | **$18,346,492** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 1,642 | 59% | $17,218,182 |
| Vehicle Fires | 333 | 12% | 999,096 |
| Other Fires | 800 | 29% | 129,214 |

18 Civilian Injuries 26 Fire Service Injuries

# Building Fires: 1,628

## Residential Structure Fires: 1,368

**Residential Structure Fires Confined to Non-Combustible Containers: 1,070**

**Unconfined Residential Structure Fires: 298**

14 Civilian Injuries 18 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 662 | 48% |
| Apartments | 565 | 41% |
| Dormitories | 34 | 2% |
| Rooming houses | 15 | 1% |
| Residential board & care | 13 | 1% |
| Hotels/motels | 4 | 0.3% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 728 | 54% |
| Didn't operate | 29 | 2% |
| None | 23 | 2% |
| Fire too small | 34 | 2% |
| Didn’t alert (confined) | 138 | 10% |
| Undetermined | 416 | 30% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 62% |
| Heating equipment room | 12% |
| Chimney or flue | 7% |
| Bedroom | 2% |
| Ext. balcony, unenclosed porch | 1% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Heat from operating equip. | 3% | 15% |
| Radiated heat from oper. eq. | 2% | 9% |
| Arcing | 2% | 8% |
| Cigarettes | 2% | 8% |
| Hot or smoldering object | 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 | 58% | Abandoned materials | 2% | 10% |
| Flammable/comb. liquid | 12% | Too close to combustibles | 2% | 9% |
| Film, residue (creosote) | 7% | Electrical failure, malfunc. | 2% | 6% |
| Rubbish, trash, waste | 4% | Misuse of materials | 1% | 5% |
| Structural member, framing | 2% | Failure to clean | 1% | 4% |

| **Equipment[10]** | | **Cause of Ignition** | **%** | **%Unconfined[11]** |
|---|---|---|---|---|
| Kitchen & cooking equipment | 58% | Unintentional | 12% | 56% |
| None | 17% | Failure of eq. or heat source | 3% | 15% |
| Boiler, furnace, cent. heat. unit | 12% | Intentional | 1% | 5% |
| Chimney, flue | 7% | Undetermined | 1% | 6% |
| Electrical branch circuit | 1% | Cause under investigation | 3% | 16% |
| | | Act of Nature | 0.2% | 1% |

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

| | |
|---|---|
| Alerted occupants | 54% |
| Didn't alert occupants | 13% |
| Undetermined | 33% |

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

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

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[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 | 208 | 157 | 33 | 18 |
| February | 168 | 124 | 25 | 19 |
| March | 222 | 129 | 37 | 56 |
| April | 306 | 134 | 25 | 147 |
| May | 254 | 117 | 24 | 113 |
| June | 204 | 108 | 34 | 62 |
| July | 235 | 141 | 33 | 61 |
| August | 263 | 132 | 36 | 95 |
| September | 233 | 133 | 25 | 75 |
| October | 231 | 160 | 21 | 50 |
| November | 246 | 146 | 23 | 77 |
| December | 205 | 161 | 17 | 27 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 410 | 256 | 48 | 106 |
| Monday | 410 | 228 | 69 | 113 |
| Tuesday | 403 | 224 | 47 | 132 |
| Wednesday | 359 | 226 | 48 | 85 |
| Thursday | 415 | 263 | 45 | 107 |
| Friday | 373 | 215 | 41 | 117 |
| Saturday | 405 | 230 | 35 | 140 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 186 | 106 | 34 | 46 |
| 04:01 - 08:00 | 166 | 98 | 39 | 29 |
| 08:01 - 12:00 | 416 | 270 | 51 | 95 |
| 12:01 - 16:00 | 731 | 405 | 86 | 240 |
| 16:01 - 20:00 | 850 | 530 | 69 | 251 |
| 20:01 - 00:00 | 426 | 233 | 54 | 139 |

## Motor Vehicle Fires

Total: 333
Automobiles: 289 (87%)
19, or (7%), of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 186** **Dollar loss: $1,418,397**

**0.3 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Loss |
|---|---|---|---|---|
| Structure Arsons | 32 | 2% | 17% | $1,341,875 |
| Vehicle Arsons | 19 | 6% | 10% | 71,500 |
| Other Arsons | 135 | 17% | 73% | 5,022 |

0.04 Structure arsons/1,000 population
0.03 Vehicle arsons/1,000 population
0.19 Other arsons/1,000 population

No Injuries

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 14 | 44% |
| 20:01 - 00:00 | 9 | 28% |
| 00:01 - 04:00 | 7 | 22% |

| Vehicle Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 9 | 47% |
| 04:01 - 08:00 | 4 | 21% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 49 | 36% |
| 20:01 - 00:00 | 37 | 27% |
| 12:01 - 16:00 | 29 | 21% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- and 2-Family homes | 11 | 34% |
| Apartment buildings | 9 | 28% |
| Bridge, trestle | 2 | 6% |

**Amesbury** **Population: 16,450**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 73 | 39 | 12 | 22 | 3 | 1 | 0 | 2 |
| 2006 | 68 | 39 | 5 | 24 | 2 | 1 | 0 | 1 |
| 2007 | 53 | 31 | 4 | 18 | 0 | 0 | 0 | 0 |
| 2008 | 64 | 33 | 12 | 19 | 1 | 1 | 0 | 0 |
| 2009 | 52 | 35 | 8 | 9 | 1 | 0 | 0 | 1 |

**Andover** **Population: 31,247**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 172 | 62 | 30 | 80 | 7 | 3 | 1 | 3 |
| 2006 | 132 | 59 | 27 | 46 | 1 | 0 | 1 | 0 |
| 2007 | 184 | 57 | 19 | 108 | 3 | 2 | 0 | 1 |
| 2008 | 146 | 78 | 32 | 36 | 0 | 0 | 0 | 0 |
| 2009 | 127 | 75 | 22 | 30 | 4 | 1 | 1 | 2 |

**Beverly** **Population: 39,862**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 27 | 20 | 6 | 1 | 1 | 1 | 0 | 0 |
| 2006 | 92 | 51 | 12 | 29 | 1 | 1 | 0 | 0 |
| 2007 | 156 | 71 | 14 | 71 | 5 | 2 | 0 | 3 |
| 2008 | 159 | 100 | 18 | 41 | 5 | 3 | 1 | 1 |
| 2009 | 128 | 66 | 17 | 45 | 5 | 0 | 2 | 3 |

**Boxford** **Population: 7,921**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 37 | 19 | 7 | 11 | 1 | 0 | 0 | 1 |
| 2006 | 37 | 20 | 7 | 17 | 0 | 0 | 0 | 0 |
| 2007 | 46 | 29 | 6 | 11 | 2 | 1 | 0 | 1 |
| 2008 | 34 | 20 | 0 | 14 | 2 | 0 | 0 | 2 |
| 2009 | 25 | 12 | 5 | 8 | 1 | 0 | 0 | 1 |

**Danvers** **Population: 25,212**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 118 | 72 | 16 | 30 | 2 | 1 | 1 | 0 |
| 2006 | 85 | 43 | 19 | 23 | 2 | 1 | 1 | 0 |
| 2007 | 186 | 55 | 13 | 118 | 0 | 0 | 0 | 0 |
| 2008 | 118 | 44 | 10 | 64 | 3 | 1 | 1 | 1 |
| 2009 | 90 | 31 | 13 | 46 | 1 | 0 | 1 | 0 |

**Essex** **Population: 3,267**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 7 | 4 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 27 | 11 | 5 | 11 | 1 | 0 | 0 | 1 |

**Georgetown** **Population: 7,377**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 26 | 9 | 1 | 16 | 1 | 1 | 0 | 0 |
| 2007 | 50 | 36 | 3 | 11 | 0 | 0 | 0 | 0 |
| 2008 | 55 | 49 | 1 | 5 | 1 | 0 | 0 | 1 |
| 2009 | 70 | 59 | 5 | 6 | 0 | 0 | 0 | 0 |

**Gloucester** **Population: 30,273**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 166 | 85 | 17 | 64 | 11 | 0 | 0 | 11 |
| 2006 | 153 | 87 | 14 | 52 | 2 | 0 | 0 | 2 |
| 2007 | 217 | 95 | 11 | 111 | 8 | 1 | 0 | 7 |
| 2008 | 164 | 100 | 17 | 47 | 7 | 0 | 1 | 6 |
| 2009 | 124 | 65 | 20 | 39 | 7 | 1 | 1 | 5 |

**Groveland** **Population: 6,038**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 8 | 5 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 3 | 1 | 0 | 1 | 1 | 0 | 0 |
| 2007 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 6 | 4 | 2 | 0 | 0 | 0 | 0 | 0 |

**Hamilton** **Population: 8,315**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 43 | 23 | 3 | 17 | 12 | 0 | 0 | 12 |
| 2006 | 57 | 30 | 3 | 24 | 3 | 0 | 0 | 3 |
| 2007 | 52 | 27 | 5 | 20 | 4 | 0 | 0 | 4 |
| 2008 | 31 | 17 | 4 | 10 | 1 | 0 | 0 | 1 |
| 2009 | 21 | 16 | 2 | 3 | 0 | 0 | 0 | 0 |

**Haverhill** **Population: 58,969**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 235 | 166 | 17 | 52 | 26 | 5 | 0 | 21 |
| 2006 | 272 | 190 | 26 | 56 | 29 | 5 | 0 | 24 |
| 2007 | 374 | 225 | 25 | 124 | 63 | 4 | 0 | 59 |
| 2008 | 311 | 209 | 8 | 94 | 52 | 2 | 0 | 50 |
| 2009 | 305 | 182 | 21 | 102 | 69 | 1 | 1 | 65 |

**Ipswich** **Population: 12,987**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 57 | 28 | 6 | 23 | 6 | 3 | 1 | 2 |
| 2006 | 41 | 14 | 3 | 24 | 2 | 0 | 1 | 1 |
| 2007 | 39 | 20 | 1 | 18 | 0 | 0 | 0 | 0 |
| 2008 | 41 | 19 | 7 | 15 | 1 | 0 | 0 | 1 |
| 2009 | 24 | 13 | 7 | 4 | 2 | 0 | 0 | 2 |

**Lawrence** **Population: 72,043**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 321 | 187 | 35 | 99 | 16 | 3 | 5 | 8 |
| 2006 | 296 | 97 | 64 | 135 | 13 | 5 | 3 | 5 |
| 2007 | 282 | 134 | 67 | 81 | 43 | 12 | 9 | 22 |
| 2008 | 260 | 136 | 40 | 84 | 11 | 5 | 5 | 1 |
| 2009 | 219 | 114 | 45 | 62 | 43 | 17 | 6 | 20 |

**Lynn** **Population: 89,050**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 69 | 39 | 29 | 1 | 4 | 3 | 1 | 0 |
| 2006 | 95 | 65 | 29 | 1 | 8 | 6 | 2 | 0 |
| 2007 | 128 | 87 | 38 | 3 | 3 | 3 | 0 | 0 |
| 2008 | 126 | 83 | 42 | 1 | 8 | 2 | 6 | 0 |
| 2009 | 257 | 199 | 19 | 39 | 4 | 3 | 1 | 0 |

**Lynnfield** **Population: 11,542**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 113 | 83 | 6 | 24 | 0 | 0 | 0 | 0 |
| 2006 | 112 | 75 | 7 | 30 | 0 | 0 | 0 | 0 |
| 2007 | 80 | 45 | 2 | 33 | 1 | 1 | 0 | 0 |
| 2008 | 57 | 31 | 4 | 22 | 1 | 0 | 0 | 1 |
| 2009 | 83 | 54 | 10 | 19 | 1 | 0 | 0 | 1 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 35 | 24 | 2 | 9 | 0 | 0 | 0 | 0 |
| 2006 | 27 | 14 | 5 | 8 | 0 | 0 | 0 | 0 |
| 2007 | 36 | 17 | 4 | 15 | 1 | 0 | 0 | 1 |
| 2008 | 27 | 18 | 1 | 8 | 0 | 0 | 0 | 0 |
| 2009 | 27 | 16 | 5 | 6 | 0 | 0 | 0 | 0 |

**Marblehead** **Population: 20,377**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 79 | 46 | 5 | 28 | 1 | 1 | 0 | 0 |
| 2006 | 61 | 40 | 6 | 15 | 1 | 0 | 0 | 1 |
| 2007 | 67 | 33 | 3 | 31 | 0 | 0 | 0 | 0 |
| 2008 | 52 | 25 | 7 | 20 | 5 | 1 | 0 | 4 |
| 2009 | 39 | 25 | 3 | 11 | 2 | 0 | 0 | 2 |

**Merrimac** **Population: 6,138**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 30 | 16 | 4 | 10 | 2 | 0 | 0 | 2 |
| 2006 | 38 | 23 | 3 | 12 | 2 | 0 | 0 | 2 |
| 2007 | 39 | 15 | 5 | 19 | 4 | 0 | 0 | 4 |
| 2008 | 49 | 27 | 2 | 20 | 5 | 0 | 0 | 5 |
| 2009 | 62 | 35 | 4 | 23 | 9 | 0 | 0 | 9 |

**Methuen** **Population: 43,789**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 193 | 79 | 33 | 81 | 7 | 1 | 1 | 5 |
| 2006 | 201 | 83 | 20 | 98 | 5 | 0 | 1 | 4 |
| 2007 | 198 | 79 | 19 | 100 | 2 | 0 | 1 | 1 |
| 2008 | 118 | 55 | 29 | 34 | 2 | 0 | 1 | 1 |
| 2009 | 150 | 86 | 23 | 41 | 4 | 1 | 1 | 2 |

**Middleton** **Population: 7,744**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 57 | 8 | 7 | 42 | 0 | 0 | 0 | 0 |
| 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 |

[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: 3,632**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 6 | 2 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2007 | 7 | 1 | 0 | 6 | 0 | 0 | 0 | 0 |
| 2008 | 11 | 2 | 0 | 9 | 3 | 0 | 0 | 3 |
| 2009 | 7 | 3 | 1 | 3 | 0 | 0 | 0 | 0 |

**Newbury** **Population: 6,717**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 14 | 7 | 3 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 12 | 1 | 2 | 9 | 0 | 0 | 0 | 0 |
| 2007 | 11 | 3 | 3 | 5 | 1 | 0 | 0 | 1 |
| 2008 | 6 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 21 | 13 | 1 | 7 | 1 | 1 | 0 | 0 |

**Newburyport** **Population: 17,189**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 19 | 14 | 3 | 2 | 1 | 1 | 0 | 0 |
| 2006 | 13 | 8 | 2 | 3 | 0 | 0 | 0 | 0 |
| 2007 | 19 | 13 | 4 | 2 | 1 | 1 | 0 | 0 |
| 2008 | 8 | 5 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 13 | 6 | 1 | 6 | 0 | 0 | 0 | 0 |

**North Andover** **Population: 27,202**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 139 | 74 | 14 | 51 | 4 | 0 | 1 | 3 |
| 2006 | 108 | 66 | 5 | 37 | 4 | 1 | 0 | 3 |
| 2007 | 134 | 78 | 10 | 46 | 1 | 0 | 0 | 1 |
| 2008 | 121 | 76 | 12 | 33 | 0 | 0 | 0 | 0 |
| 2009 | 135 | 104 | 8 | 23 | 1 | 0 | 0 | 1 |

**Peabody** **Population: 48,129**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 243 | 107 | 29 | 107 | 3 | 1 | 0 | 2 |
| 2006 | 214 | 64 | 18 | 132 | 4 | 0 | 0 | 4 |
| 2007 | 240 | 80 | 17 | 143 | 4 | 0 | 1 | 3 |
| 2008 | 180 | 74 | 22 | 84 | 4 | 1 | 1 | 2 |
| 2009 | 127 | 61 | 21 | 45 | 2 | 0 | 0 | 2 |

**Rockport** **Population: 7,767**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 20 | 4 | 1 | 15 | 1 | 0 | 0 | 1 |
| 2006 | 14 | 5 | 1 | 8 | 0 | 0 | 0 | 0 |
| 2007 | 22 | 7 | 1 | 14 | 0 | 0 | 0 | 0 |
| 2008 | 13 | 5 | 2 | 6 | 0 | 0 | 0 | 0 |
| 2009 | 10 | 7 | 1 | 2 | 0 | 0 | 0 | 0 |

**Rowley** **Population: 5,500**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 31 | 12 | 7 | 12 | 0 | 0 | 0 | 0 |
| 2006 | 33 | 18 | 4 | 11 | 0 | 0 | 0 | 0 |
| 2007 | 57 | 17 | 7 | 33 | 2 | 1 | 0 | 1 |
| 2008 | 28 | 14 | 5 | 9 | 0 | 0 | 0 | 0 |
| 2009 | 27 | 20 | 5 | 2 | 0 | 0 | 0 | 0 |

**Salem** **Population: 40,407**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 374 | 223 | 18 | 133 | 5 | 2 | 1 | 2 |
| 2006 | 190 | 97 | 16 | 77 | 6 | 2 | 3 | 1 |
| 2007 | 300 | 97 | 20 | 183 | 12 | 1 | 0 | 11 |
| 2008 | 189 | 78 | 14 | 97 | 2 | 0 | 1 | 1 |
| 2009 | 171 | 59 | 25 | 87 | 10 | 1 | 3 | 6 |

**Salisbury** **Population: 7,827**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 22 | 8 | 3 | 11 | 0 | 0 | 0 | 0 |
| 2006 | 29 | 6 | 5 | 18 | 0 | 0 | 0 | 0 |
| 2007 | 31 | 10 | 7 | 14 | 1 | 0 | 0 | 1 |
| 2008 | 19 | 6 | 6 | 7 | 0 | 0 | 0 | 0 |
| 2009 | 10 | 3 | 5 | 2 | 0 | 0 | 0 | 0 |

**Saugus** **Population: 26,078**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 202 | 80 | 29 | 93 | 23 | 9 | 1 | 13 |
| 2006 | 212 | 84 | 19 | 109 | 13 | 1 | 0 | 12 |
| 2007 | 221 | 62 | 14 | 145 | 7 | 0 | 0 | 7 |
| 2008 | 165 | 69 | 12 | 84 | 14 | 2 | 0 | 12 |
| 2009 | 166 | 68 | 14 | 84 | 7 | 1 | 1 | 5 |

**Swampscott** **Population: 14,412**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 70 | 44 | 4 | 22 | 2 | 1 | 1 | 0 |
| 2006 | 55 | 32 | 9 | 14 | 0 | 0 | 0 | 0 |
| 2007 | 57 | 25 | 3 | 29 | 1 | 1 | 0 | 0 |
| 2008 | 56 | 30 | 5 | 21 | 1 | 1 | 0 | 0 |
| 2009 | 40 | 23 | 4 | 13 | 8 | 4 | 0 | 4 |

**Topsfield** **Population: 6,141**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 52 | 34 | 6 | 12 | 1 | 1 | 0 | 0 |
| 2006 | 101 | 79 | 1 | 21 | 5 | 0 | 0 | 5 |
| 2007 | 115 | 74 | 6 | 35 | 6 | 0 | 1 | 5 |
| 2008 | 73 | 64 | 1 | 8 | 0 | 0 | 0 | 0 |
| 2009 | 70 | 55 | 5 | 10 | 2 | 0 | 0 | 2 |

**Wenham** **Population: 4,440**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 51 | 21 | 1 | 29 | 1 | 1 | 0 | 0 |
| 2006 | 20 | 10 | 0 | 10 | 1 | 1 | 0 | 0 |
| 2007 | 16 | 6 | 3 | 7 | 2 | 1 | 0 | 1 |
| 2008 | 21 | 15 | 2 | 4 | 1 | 0 | 0 | 1 |
| 2009 | 16 | 9 | 4 | 3 | 0 | 0 | 0 | 0 |

**West Newbury** **Population: 4,149**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 12 | 5 | 2 | 5 | 0 | 0 | 0 | 0 |
| 2007 | 4 | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2008 | 6 | 1 | 1 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 09007 | Amesbury | 3,295 | 68 | 0 | 2,075 | 118 | 655 | 126 | 247 | 2 | 4 |
| 09009 | Andover | 2,268 | 128 | 6 | 939 | 181 | 200 | 118 | 689 | 0 | 7 |
| 09030 | Beverly | 4,434 | 130 | 16 | 2,425 | 237 | 289 | 236 | 1,085 | 15 | 1 |
| 09038 | Boxford | 608 | 30 | 1 | 306 | 35 | 37 | 32 | 166 | 1 | 0 |
| 09071 | Danvers | 6,594 | 90 | 7 | 2,498 | 201 | 2,699 | 191 | 794 | 23 | 91 |
| 09092 | Essex | 206 | 40 | 2 | 31 | 21 | 59 | 5 | 48 | 0 | 0 |
| 09105 | Georgetown | 971 | 72 | 5 | 471 | 40 | 233 | 30 | 118 | 1 | 1 |
| 09107 | Gloucester | 4,650 | 125 | 2 | 2,887 | 181 | 419 | 528 | 489 | 3 | 16 |
| 09116 | Groveland | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09119 | Hamilton | 386 | 21 | 0 | 64 | 58 | 62 | 49 | 131 | 1 | 0 |
| 09128 | Haverhill | 305 | 305 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09144 | Ipswich | 1,230 | 26 | 1 | 650 | 132 | 109 | 75 | 236 | 0 | 1 |
| 09149 | Lawrence | 6,014 | 219 | 12 | 2,588 | 510 | 304 | 623 | 1,696 | 3 | 59 |
| 09163 | Lynn | 4,961 | 267 | 6 | 2,771 | 155 | 394 | 222 | 1,141 | 0 | 5 |
| 09164 | Lynnfield | 1,482 | 88 | 1 | 940 | 86 | 119 | 58 | 190 | 0 | 0 |
| 09166 | Manchester | 951 | 32 | 4 | 467 | 82 | 108 | 65 | 188 | 2 | 3 |
| 09168 | Marblehead | 2,385 | 47 | 3 | 926 | 186 | 310 | 485 | 413 | 2 | 13 |
| 09180 | Merrimac | 796 | 72 | 2 | 528 | 30 | 56 | 50 | 52 | 0 | 6 |
| 09181 | Methuen | 5,877 | 151 | 2 | 4,322 | 200 | 380 | 178 | 624 | 0 | 20 |

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 09184 | Middleton | 1,625 | 142 | 4 | 758 | 60 | 228 | 124 | 300 | 1 | 8 |
| 09196 | Nahant | 424 | 10 | 0 | 277 | 20 | 43 | 17 | 51 | 0 | 6 |
| 09205 | Newbury | 543 | 30 | 0 | 290 | 33 | 69 | 36 | 79 | 0 | 6 |
| 09206 | Newburyport | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09210 | North Andover | 3,848 | 136 | 12 | 2,587 | 173 | 297 | 108 | 454 | 8 | 73 |
| 09229 | Peabody | 7,703 | 127 | 19 | 5,039 | 346 | 408 | 615 | 1,129 | 5 | 15 |
| 09252 | Rockport | 247 | 11 | 1 | 17 | 63 | 24 | 4 | 127 | 0 | 0 |
| 09254 | Rowley | 571 | 35 | 0 | 327 | 26 | 58 | 65 | 58 | 0 | 2 |
| 09258 | Salem | 6,412 | 171 | 4 | 3,658 | 398 | 408 | 386 | 1,369 | 3 | 15 |
| 09259 | Salisbury | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09262 | Saugus | 4,117 | 174 | 3 | 2,126 | 198 | 396 | 497 | 636 | 3 | 84 |
| 09291 | Swampscott | 1,748 | 57 | 6 | 959 | 129 | 195 | 67 | 332 | 0 | 3 |
| 09298 | Topsfield | 1,198 | 78 | 3 | 561 | 61 | 370 | 27 | 97 | 0 | 1 |
| 09320 | Wenham | 537 | 18 | 4 | 237 | 26 | 62 | 69 | 121 | 0 | 0 |
| 09324 | West Newbury | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **Essex County** | **73,123** | **2,863** | **126** | **39,649** | **3,869** | **8,336** | **4,960** | **12,813** | **71** | **436** |

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

# Haverhill Fires in 2009

**305 Total Fires — 182 Structures, 8 Vehicles & 102 Other Fires**
The Haverhill Fire Department reported 305 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 182 structure fires, 21 motor vehicle fires, 97 brush fires, two special outside fires; and three unclassified fires caused an estimated dollar loss of $678,710. There were no fatal fires in Haverhill in 2009, and no reported civilian or fire service injuries

**Structure Fires Down in 2009**
Total fires decreased by six from the 311 incidents reported in 2009. Reported structure fires were down 27 from the 209 reported during the previous year. Motor vehicle fires increased by 13 from eight the year before. Outside and other fires increased by eight from the 94 reported in 2007.

**HAVERHILL FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 235 | 166 | 17 | 52 | 25 | 5 | 0 | 20 |
| 2006 | 272 | 190 | 26 | 56 | 29 | 5 | 0 | 4 |
| 2007 | 374 | 225 | 25 | 124 | 63 | 4 | 0 | 59 |
| 2008 | 311 | 209 | 8 | 94 | 52 | 2 | 0 | 50 |
| 2009 | 305 | 182 | 21 | 102 | 69 | 2 | 2 | 65 |

**BUILDING FIRES**

There were 181 building fires of different types in Haverhill in 2009. These 181 building fires accounted for 99.5% of all structure fires in Haverhill.

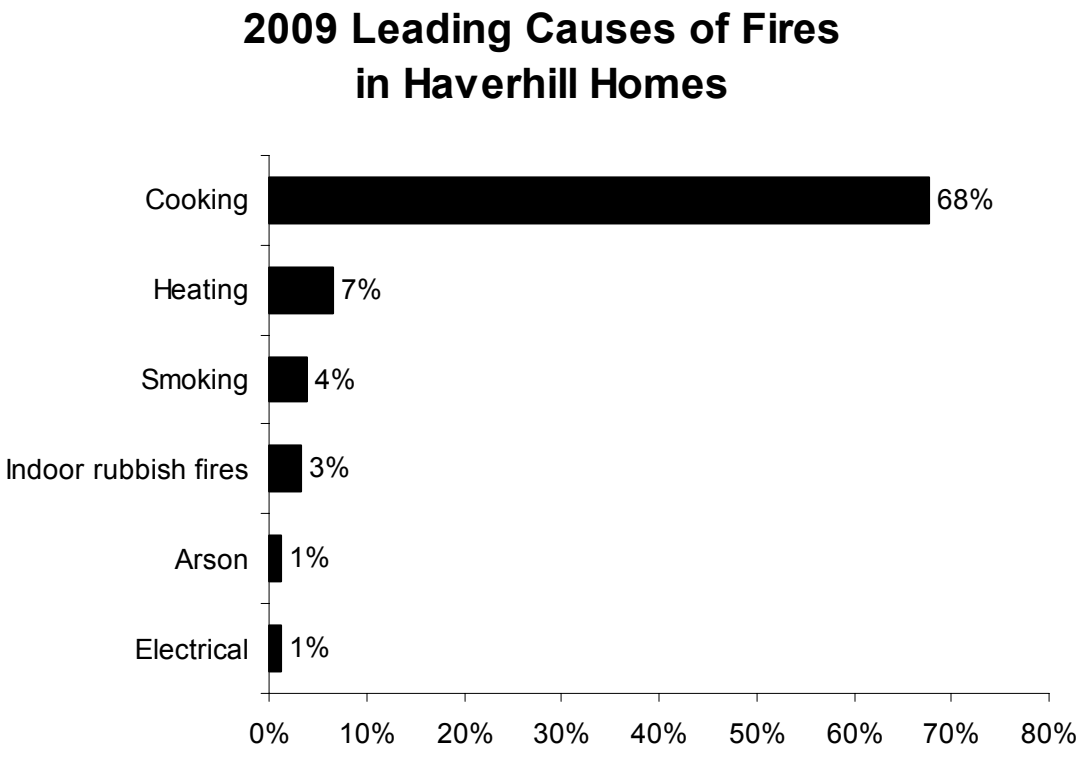
**84% of Building Fires in Homes**
The 181 building fires that occurred in Haverhill in 2009 can be broken down by fixed property use as follows: 152, or 84% of all building fires, were in residential properties; 12 fires occurred in public assembly properties; six happened in mercantile or business properties; five fires occurred in educational facilities; three fires occurred in institutional facilities; two fires occurred in manufacturing or processing facilities; and one fire occurred in a special property.

**RESIDENTIAL FIRES**

**Residential Building Fires Down Slightly**
There were 152 reported residential building fires in Haverhill in 2009. These 152 fires are a decrease of 12 from the 164 reported residential building fires reported in 2009.

**Apartments Accounted for 43% of Residential Building Fires**
The peak fixed property uses for residential building fires were apartments, accounting for 43% of the building fires in Haverhill; 21% occurred in 1- or 2-family homes; 5% occurred in dormitory style residences; 1% happened in rooming houses, and 30% occurred in unclassified residences.

**Unattended Cooking Cause 2/3 of Residential Fires**
The leading cause of residential building fires in Haverhill was unattended cooking and other unsafe cooking practices, accounting 68% of these fires. Heating fires caused 7% of these fires. Smoking caused 4% of these fires and indoor rubbish fires caused 3%. Arsons and electrical problems were each the cause of 1% of the fires in Haverhill's residential occupancies in 2009.



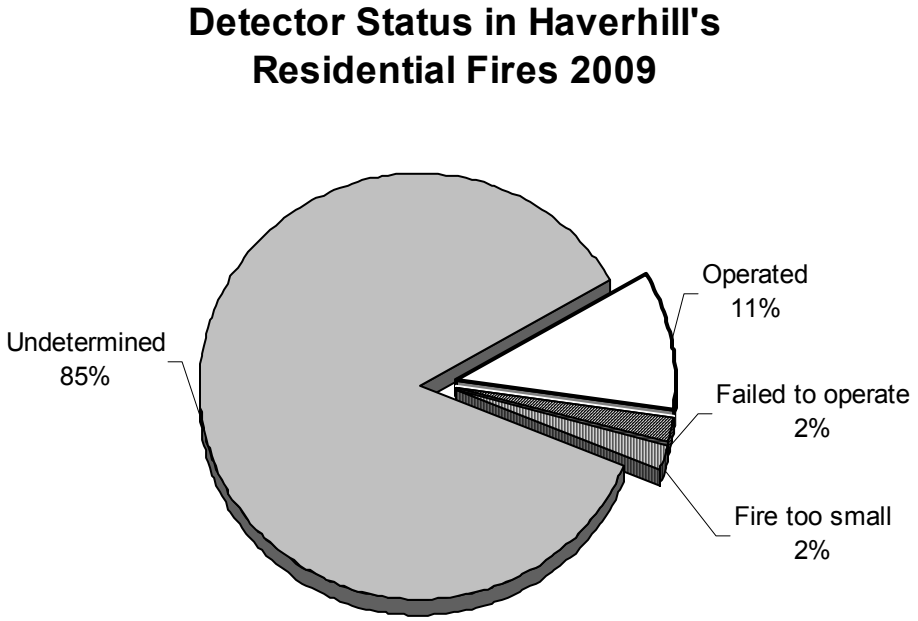

**3/4 of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
One hundred and fourteen (114), or 75% of all residential building fires were confined to non-combustible containers in 2009. Ninety-nine (99), or 65%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Six (6), or 4%, were fires confined to a fuel burner or boiler malfunction. Five (5), or 3%, of

[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.

these fires were rubbish fires contained to a non-combustible container. Four (4) fires, or 3%, were reported to have been contained to a chimney or flue.

**Detectors Worked in Only 11% of Fires**

Smoke detector performance was undetermined in 130 incidents, or 85% of Haverhill's residential building fires. Smoke or heat detectors operated and alerted the occupants in 16, or 11%, of the residential building fires. There were no reported fires[2], where the detectors did not alert the occupants. Detectors were present but did not operate in 2% of residential fires. The fire was too small to trigger the detector in another 2% of these fires.




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

**1/2 of Detectors Failed Detectors From Missing Batteries**

Of the four fires where smoke detectors were present but failed to operate, two, or 50%, failed because of missing or disconnected batteries. It was undetermined in the other two cases, or 50%, why the detectors failed to operate.

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

## VACANT BUILDINGS

### 3% of Building Fires Occurred in Vacant Buildings

Haverhill reported six fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 181 building fires reported to MFIRS in 2009. Three (3) 1- or 2-family homes, two apartment buildings, and one unclassified business were reported as vacant building fire incidents.

## JUVENILE-SET FIRES

### No Juvenile-set Fires in 2009

There were no reported juvenile-set fires in Haverhill in 2009.

## ARSONS

### 69 Arsons[4] - 2 Structure, 2 Motor Vehicle and 65 Outside & Other

Sixty-nine (69), or 23%, of Haverhill's 305 fires were considered intentionally set, or, for purposes of this analysis, arson. There were two structure arsons, two motor vehicle arsons and 65 outside and other arsons.

### All Arsons Up in 2009

The total number of arsons increased by 17 from the 52 reported in 2009. Reported structure arsons remained the same with two reported in both 2008 and 2009. There were two reported motor vehicle arsons in Haverhill, an increase of two over zero the year before. Outside and other arsons increased by 15 from the 50 reported the year before.

### 30 Fires Reported as Undetermined or Still Under Investigation

In 2009, Haverhill reported 30 fires under investigation or cause undetermined after investigation. Eighteen (18), or 60%, of these fires were reported to be undetermined after investigation. The other 12, or 40%, were still under investigation.

Ten (10), or 33%, of these 43 fires were structure fires. Seven (7), or 23% were motor vehicle fires; and 13, or 43%, were outside or other fires. Because so many fires or under investigation or undetermined after investigation, the true arson number might be actually higher in Haverhill in 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

### Haverhill Only Reports Fires to MFIRS

In 2009 Haverhill only reported their fires and no other incident types to MFIRS.

# Haverhill Population: 58,969

**5.2 Fires/1,000 Population**

| **Total Fires:** | **305** | | **$678,710** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 182 | 60% | $678,710 |
| Vehicle Fires | 21 | 7% | 0 |
| Other Fires | 102 | 33% | 0 |

No Casualties Reported

## Building Fires: 181

## Residential Structure Fires: 152

**Residential Structure Fires Confined to Non-Combustible Containers: 114**

**Unconfined Residential Structure Fires: 38**

No Casualties Reported

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 65 | 43% |
| 1- & 2-Family homes | 32 | 21% |
| Dormitories | 8 | 5% |
| Rooming houses | 2 | 1% |
| Residential, other | 45 | 30% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 16 | 11% |
| Didn't operate | 3 | 2% |
| None | 0 | 0% |
| Fire too small | 3 | 2% |
| Didn't Alert (confined) | 0 | 0% |
| Undetermined | 130 | 85% |

| **Area of Origin**[5] | **%** |
|---|---|
| Kitchen | 74% |
| Heating room or area | 4% |
| Chimney or flue | 3% |
| Substructure area, crawl space | 3% |
| Bedroom | 2% |
| Courtyard, patio, terrace | 2% |

| **Heat Source** | **%** | **%Unconfined**[6] |
|---|---|---|
| Heat from operating equip. | 5% | 21% |
| Cigarettes | 3% | 13% |
| Heat from direct flame | 2% | 8% |
| Arcing | 1% | 5% |

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

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

| **Item First Ignited**[7] | **%** |
|---|---|
| Cooking materials | 68% |
| Flammable or combustible liq. | 4% |
| Rubbish, trash, waste | 3% |
| Film, residue (creosote) | 3% |
| Structural member, framing | 1% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[8] |
|---|---|---|
| Abandoned materials | 2% | 8% |
| Too close to combustibles | 2% | 8% |
| Equipment unattended | 1% | 5% |

| **Equipment**[9] | **%** |
|---|---|
| Cooking equipment | 65% |
| None | 25% |
| Chimney or flue | 4% |
| Boiler, furnace, cent. heat. unit | 3% |

| **Cause of Ignition** | **%** | **%Unconfined**[10] |
|---|---|---|
| Unintentional | 16% | 63% |
| Intentional | 1% | 5% |
| Failure of eq./heat source | 1% | 5% |
| Cause Under Investigation | 5% | 21% |
| Undetermined | 1% | 3% |
| Act of nature | 1% | 3% |

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

| | |
|---|---|
| Alerted Occupants | 0% |
| Didn't Alert Occupants | 0% |
| Undetermined | 100% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Fires[11] | 305 | 100% |

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

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

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

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

[11] Haverhill only reports fires to MFIRS.

| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 22 | 17 | 4 | 1 |
| February | 24 | 21 | 2 | 1 |
| March | 24 | 14 | 2 | 8 |
| April | 43 | 19 | 0 | 24 |
| May | 40 | 19 | 3 | 18 |
| June | 28 | 14 | 2 | 12 |
| July | 32 | 18 | 4 | 10 |
| August | 30 | 16 | 0 | 14 |
| September | 16 | 10 | 2 | 4 |
| October | 16 | 12 | 1 | 3 |
| November | 17 | 10 | 0 | 7 |
| December | 13 | 12 | 1 | 0 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 51 | 27 | 6 | 18 |
| Monday | 35 | 24 | 3 | 8 |
| Tuesday | 25 | 19 | 2 | 4 |
| Wednesday | 44 | 30 | 4 | 10 |
| Thursday | 50 | 28 | 4 | 18 |
| Friday | 43 | 21 | 1 | 21 |
| Saturday | 57 | 33 | 1 | 23 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 17 | 13 | 1 | 3 |
| 04:01 - 08:00 | 20 | 16 | 3 | 1 |
| 08:01 - 12:00 | 49 | 34 | 3 | 12 |
| 12:01 - 16:00 | 78 | 51 | 3 | 24 |
| 16:01 - 20:00 | 74 | 36 | 7 | 31 |
| 20:01 - 24:00 | 67 | 32 | 4 | 31 |

## Motor Vehicle Fires

Total: 21
Automobiles: 19 (90%)
2 (11%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 52** **Dollar loss: $600**

**1.2 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 2 | 1% | 3% | $600 |
| Vehicle Arsons | 2 | 10% | 3% | 0 |
| Other Arsons | 65 | 64% | 94% | 0 |

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

**Peak Times of Day for:**

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

| Other Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 23 | 35% |
| 16:01 - 20:00 | 20 | 31% |
| 12:01 - 16:00 | 16 | 25% |

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

# Lawrence Fires in 2009

**219 Total Fires — 112 Structures, 45 Vehicles & 62 Other Fires**
The Lawrence Fire Department reported 219 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 112 structure fires, 45 motor vehicle fires, 35 outside rubbish fires, and 27 brush fires, caused two civilian injuries, four fire service injuries and an estimated dollar loss of $2.6 million.

**Structure Fires Down**
Total fires decreased by 41 from the 260 incidents reported in 2008. Reported structure fires decreased by 24 from the 136 reported during the previous year. Motor vehicle fires increased by five from 40 the year before. Outside and other fires decreased by 22 from 84 in 2008.

**LAWRENCE FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 321 | 187 | 35 | 99 | 16 | 3 | 5 | 8 |
| 2006 | 296 | 97 | 64 | 135 | 13 | 5 | 3 | 5 |
| 2007 | 282 | 134 | 67 | 81 | 43 | 12 | 2 | 22 |
| 2008 | 260 | 136 | 40 | 84 | 11 | 5 | 5 | 1 |
| 2009 | 219 | 112 | 45 | 62 | 43 | 17 | 6 | 20 |

**BUILDING FIRES**

There were 109 building fires of different types in Lawrence in 2009. These 109 building fires accounted for 97.3% of all structure fires in Lawrence.

**3/4 of Building Fires in Homes**
The 109 building fires that occurred in Lawrence in 2009 can be broken down by fixed property use as follows: 82, or 75% of all building fires, were in residential properties; 10 fires happened in special properties; seven fires occurred in mercantile or business properties; three fires occurred in public assembly properties; another three fires occurred in manufacturing or processing facilities, three more occurred in storage facilities, and one fire occurred in educational facilities.

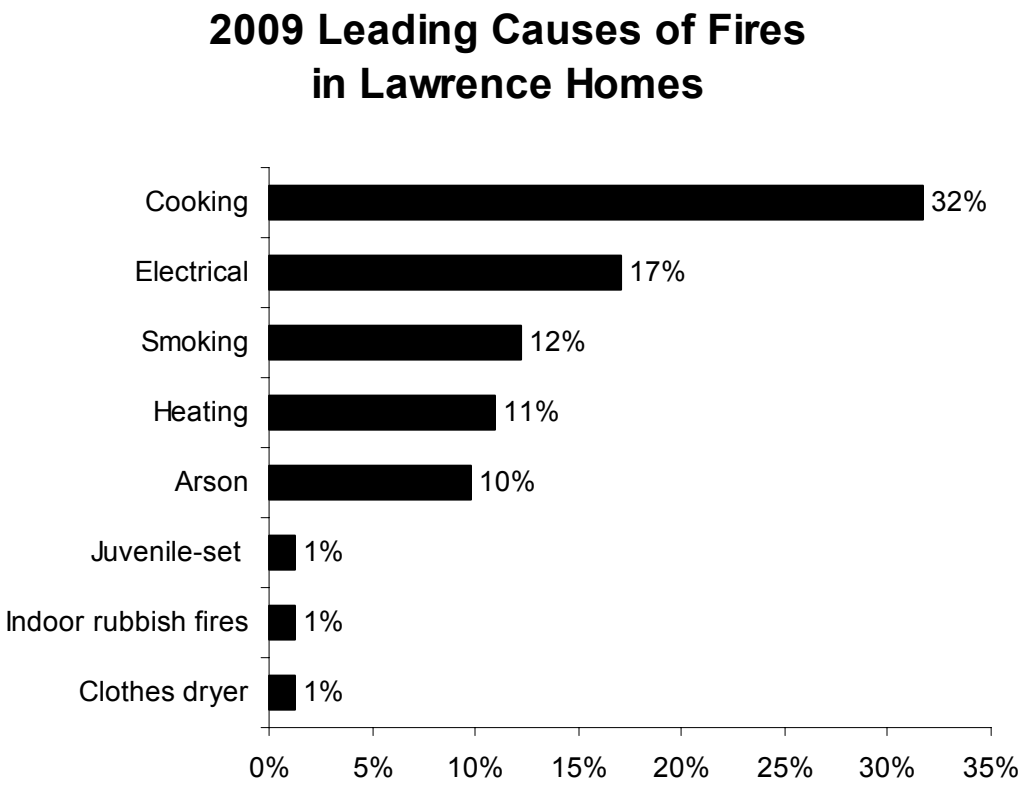
**RESIDENTIAL FIRES**

**Residential Building Fires Down**
There were 82 reported residential building fires in Lawrence in 2009. These 82 fires are a decrease of 26, or 24%, from the 108 residential building fires reported in 2008.

**Apartments Accounted for Over 55% of Residential Building Fires**
The peak fixed property uses for residential building fires were apartments, accounting for 55% of the residential building fires in Lawrence; 41% occurred in 1- or 2-family

homes; 1% occurred in residential board and care facilities; and 2% 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 32% of these fires. Seventeen percent (17%) of these fires were caused by electrical problems. Smoking accounted for 12% of the fires in residential occupancies. Heating equipment caused 11% of the residential fires in Lawrence in 2009. Arson caused 10% of the residential fires. Juvenile-set fires, indoor rubbish fires and clothes dryers each accounted for 1% of Lawrence's residential fires in 2009.

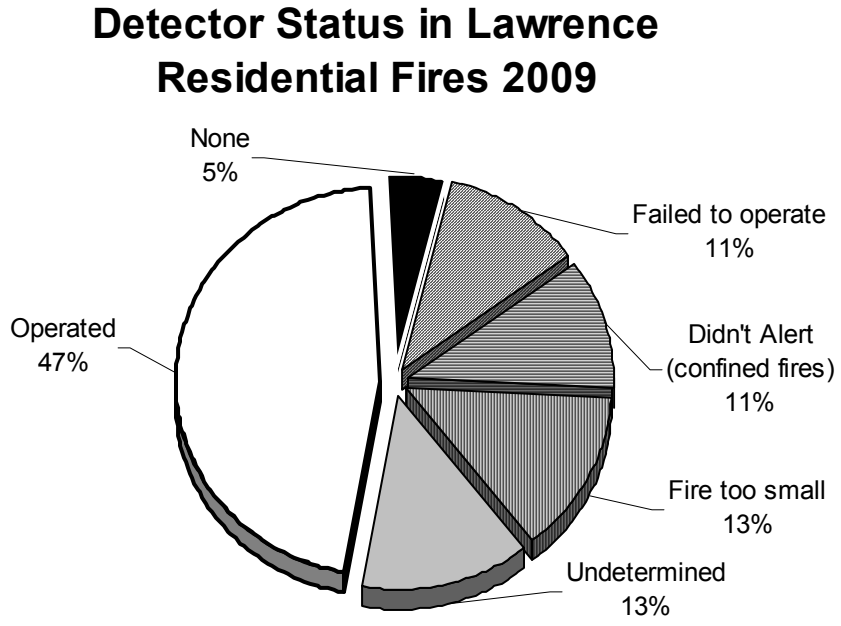



**35% of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
Twenty-nine (29), or 35% of all residential building fires were confined to non-combustible containers in 2009. Nineteen (19), or 23% of all residential building fires reported in 2009, were cooking fires contained to a non-combustible container. Five (5),

[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 6%, of all residential building fires were fuel burner or boiler malfunctions. Another five, or 6%, 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 38, or 47%, 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 11% of these incidents. In 5% 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 11 incidents, or 13% of Lawrence's residential building fires.




**Undetermined Cause in Over 3/4 of Failed Detectors**
Of the nine fires where smoke detectors were present but failed to operate, one, or 11%, failed because the power was shut off or failed; and another, or 11%, failed because of a dead battery. It was undetermined in the other seven cases, or 78%, why the detectors failed to operate.

## VACANT BUILDINGS

**10% of Building Fires Occurred in Vacant Buildings**
Lawrence reported 11 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 10% of the total 109 building fires reported

[2] These represent confined fires where it was reported that the detector did not alert the occupants.
[3] In version 4 a vacant building was defined by having a Fixed Property Use code in the subsection of construction, unoccupied properties, between 910 & 919. However in version 5, the Property Use is separate from the Building Status. In v5 a building is considered vacant if the Building Status is coded: 1-

to MFIRS in 2009. Four (4) apartment buildings, four one- or two-family home, one warehouse, one motor vehicle or boat sales, service or repair facility, and one manufacturing facility were reported as vacant building fire incidents.

## JUVENILE-SET FIRES

### 5 Juvenile-set Fires

There were five juvenile-set fires in Lawrence in 2009. The five dumpster fires, one structure fire and one outside rubbish fire caused an estimated $103,000 in damages.

## ARSONS

### 43 Total Arsons[4] - 17 Structures, 6 Motor Vehicles & 20 Other

Forty-three (43), or 20%, of Lawrence's 219 fires were considered intentionally set, or, for purposes of this analysis, arson. The 17 structure arsons, six motor vehicle arsons and 20 outside and other arson caused three fire service injuries and an estimated dollar loss of $376,795.

### All Arson Is Up

The total number of arsons increased by 32 from the 11 reported in 2008. Reported structure arsons increased by 12 from the five reported in 2008. Motor vehicle arsons increased by one from five in 2008. Outside and other arsons increased by 19 from the one reported last year.

## ALL INCIDENTS

### Rescue & EMS Calls Were 44% of All Reported Incidents

In 2009, Lawrence voluntarily reported 6,014 incidents to MFIRS. Of these 6,014 incidents, 5,795, or 96%, were non-fire incidents.

Of these 5,795 non-fire incidents 2,588, or 43% of all reported incidents in 2009, were reported rescue and emergency medical services (EMS) calls; 1,696, or 28%, were reported false alarm or false calls; 623, or 10%, were reported good intent calls; 510, or 8%, were reported hazardous condition calls with no fire; 304, or 5%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 59, or 1%, were special incident types; 12, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and three, or 0.05% were severe weather calls;.

In 2009, Lawrence reported 219 fires[5], accounting for 4% of all reported incidents.

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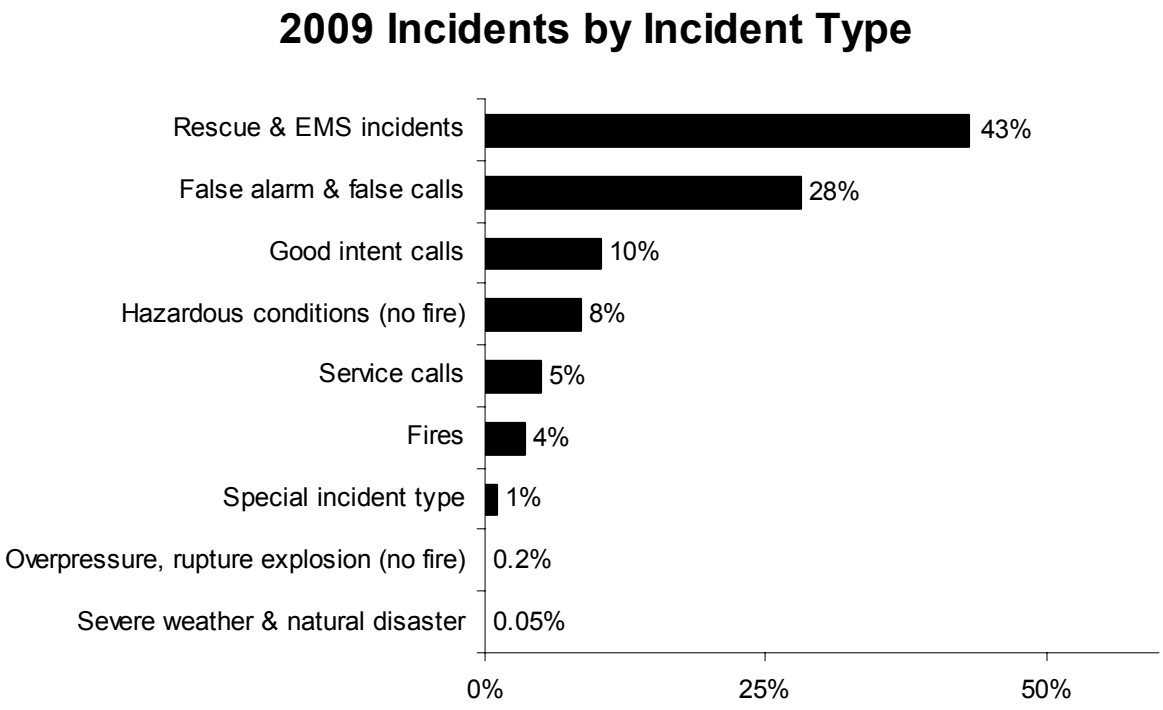
Under Construction; 3-Idle, not routinely used; 4-Under major renovation; 5-Vacant, secured; 6-Vacant, unsecured; & 7-Being demolished. The building use is coded separately in the Property Use field.

[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.

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




**Lawrence Gave Mutual Aid in 8 Reported Incidents**
In 2009, Lawrence reported coming to the aid of other fire departments eight times. All eight, or 100%, of these incidents were service calls such as station coverage.

**Lawrence Received Aid in 7 Reported Incidents**
In 2009, Lawrence reported receiving mutual aid at seven incidents. Six, or 86%, of these incidents were fires; and one, or 14% was for a false alarm.

# Lawrence Population: 72,043

**3.0 Fires/1,000 Population**

| **Total Fires:** | **219** | | **$2,642,781** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 112 | 51% | $4,737,830 |
| Vehicle Fires | 45 | 21% | 113,900 |
| Other Fires | 62 | 28% | 71,755 |

2 Civilian Injuries 4 Fire Service Injuries

## Building Fires: 109

## Residential Building Fires: 82

**Residential Building Fires Confined to Non-Combustible Containers: 29**

**Unconfined Residential Building Fires: 53**

2 Civilian Injuries 4 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 45 | 55% |
| 1- & 2-Family homes | 34 | 41% |
| Dormitories | 1 | 1% |
| Residential, other | 2 | 2% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 38 | 47% |
| Didn't operate | 9 | 11% |
| None | 4 | 5% |
| Fire too small | 11 | 13% |
| Didn't Alert (confined) | 9 | 11% |
| Undetermined | 11 | 13% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 39% |
| Bedroom | 9% |
| Bathroom | 6% |
| Heating room or area | 6% |
| Structural area, other | 4% |
| Ceiling/floor assembly | 4% |
| Exterior, exposed surface | 4% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Cigarette | 9% | 13% |
| Heat from operating equip. | 7% | 11% |
| Heat from direct flame | 6% | 9% |
| Arcing | 6% | 9% |
| Hot ember or ash | 4% | 6% |
| Radiated heat from op. eq. | 4% | 6% |

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

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

| Item First Ignited[8] | % |
|---|---|
| Cooking materials | 29% |
| Rubbish, trash, waste | 12% |
| Electrical wire/cable insulation | 9% |
| Therm/acoust. insul. w/in wall | 7% |
| Structural member, framing | 6% |
| Flammable or combustible liquid | 6% |

| Factor Contrib. to Ignition | % | %Unconfined[9] |
|---|---|---|
| Abandoned materials | 15% | 23% |
| Too close to combustibles | 10% | 15% |
| Elec. failure/malfunction | 9% | 13% |
| Flammable liquid/gas spilled | 2% | 4% |

| Equipment[10] | % |
|---|---|
| None | 38% |
| Cooking equipment | 28% |
| Electrical branch circuit | 7% |
| Boiler, furnace, cent. heating unit | 6% |
| Fan | 4% |
| Stove, heating | 4% |

| Cause of Ignition | % | %Unconfined[11] |
|---|---|---|
| Unintentional | 34% | 53% |
| Failure of eq./heat source | 15% | 23% |
| Cause under investigation | 4% | 6% |
| Intentional | 6% | 9% |
| Undetermined | 6% | 9% |

| All Reported Incidents | # of Incidents | % of Incidents |
|---|---|---|
| Rescue & EMS incidents | 2,588 | 43% |
| False alarms & false calls | 1,696 | 28% |
| Good intent calls | 623 | 10% |
| Hazardous conditions (no fire) | 510 | 8% |
| Service calls | 304 | 5% |
| Fires[12] | 219 | 4% |
| Special incident type | 59 | 1% |
| Overpressure rupture, explosion or overheat calls (no fire) | 12 | 0.2% |
| Severe weather & natural disaster | 3 | 0.05% |

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

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

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

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

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

| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 18 | 10 | 7 | 1 |
| February | 16 | 10 | 4 | 2 |
| March | 17 | 8 | 6 | 3 |
| April | 24 | 12 | 6 | 6 |
| May | 20 | 10 | 2 | 8 |
| June | 17 | 9 | 5 | 3 |
| July | 18 | 9 | 2 | 7 |
| August | 23 | 8 | 5 | 10 |
| September | 15 | 10 | 1 | 4 |
| October | 12 | 9 | 2 | 1 |
| November | 30 | 11 | 2 | 15 |
| December | 9 | 6 | 1 | 2 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 33 | 18 | 6 | 9 |
| Monday | 32 | 18 | 7 | 7 |
| Tuesday | 36 | 15 | 7 | 14 |
| Wednesday | 27 | 15 | 7 | 5 |
| Thursday | 32 | 14 | 9 | 9 |
| Friday | 27 | 15 | 4 | 8 |
| Saturday | 32 | 17 | 5 | 10 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 32 | 16 | 9 | 6 |
| 04:01 - 08:00 | 10 | 4 | 2 | 2 |
| 08:01 - 12:00 | 24 | 14 | 5 | 6 |
| 12:01 - 16:00 | 48 | 22 | 10 | 17 |
| 16:01 - 20:00 | 64 | 37 | 10 | 18 |
| 20:01 - 24:00 | 41 | 19 | 10 | 13 |

## Motor Vehicle Fires

Total: 45
Automobiles: 44 (98%)
6 (14%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 43** **Dollar loss: $376,795**

**0.60 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 17 | 15% | 40% | $306,775 |
| Vehicle Arsons | 6 | 13% | 14% | 66,000 |
| Other Arsons | 20 | 32% | 47% | 4,020 |

3 Fire Service Injuries

0.24 Structure arsons/1,000 population
0.08 Vehicle arsons/1,000 population
0.28 Other arsons/1,000 population

**Peak Times of Day for:**

| Structure Arsons | # | % | Vehicle Arsons | # | % |
|---|---|---|---|---|---|
| 16:01 - 20:00 | 9 | 40% | 00:01 - 04:00 | 4 | 67% |
| 20:01 - 00:00 | 5 | 20% | 04:01 - 08:00 | 1 | 17% |
| 00:01 - 04:00 | 2 | 20% | 16:01 - 20:00 | 1 | 17% |

**Outside & Other Arsons**

| | | |
|---|---|---|
| 16:01 - 20:00 | 7 | 35% |
| 20:01 - 00:00 | 6 | 30% |
| 00:01 - 04:00 | 3 | 15% |

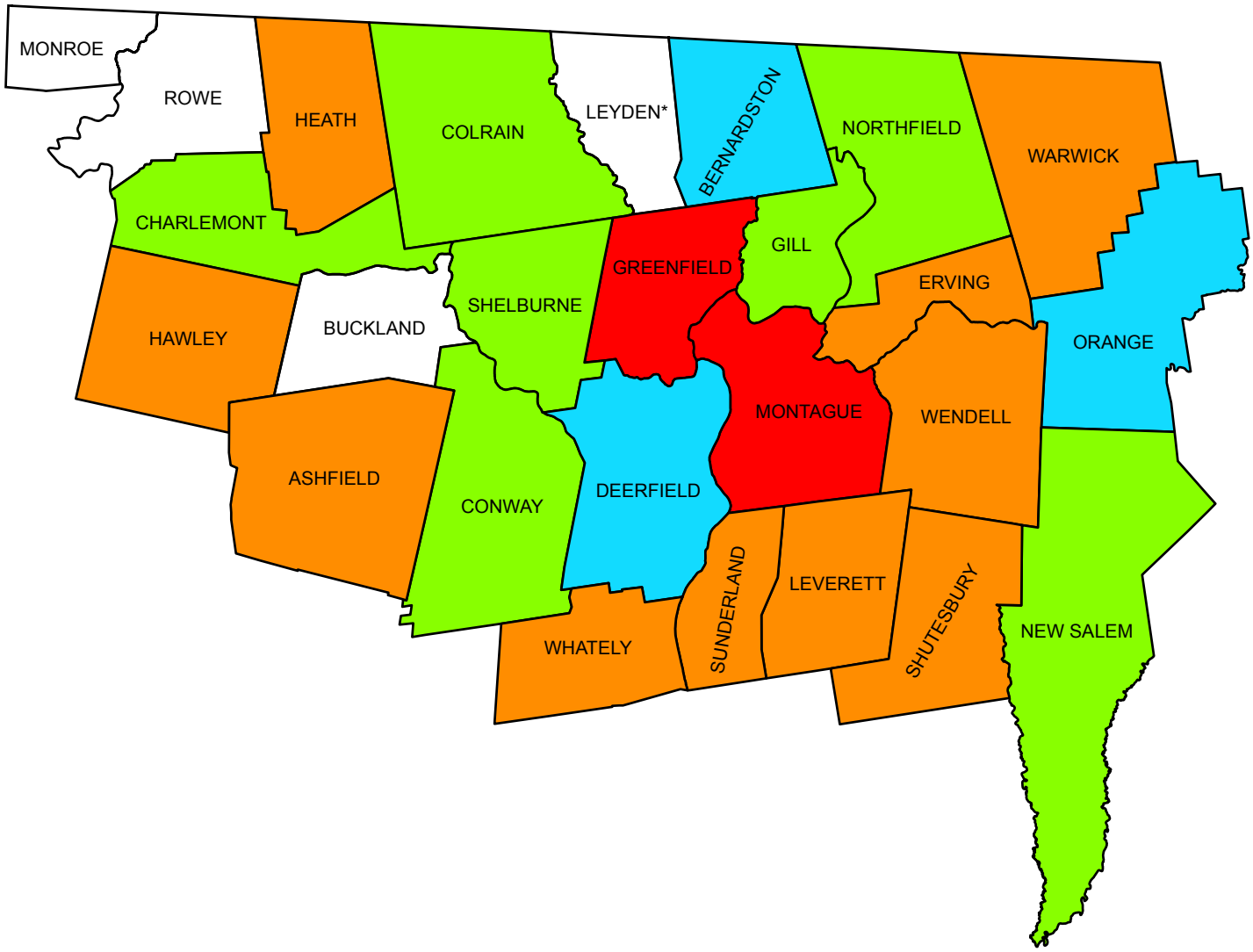
| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| Apartments | 5 | 29% |
| 1- or 2-Family homes | 3 | 18% |
| Bridge, trestle | 2 | 12% |

# Franklin County
## 2009 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 2009




*Non-reporting fire department

## 2009 Fires

- 0
- 1 - 5
- 6 - 15
- 16 - 35
- 36 - 50
- 51 - 100

MFIRS Massachusetts Fire Incident Reporting System

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2009

# Franklin County Fires in 2009

**306 Total Fires — 163 Structures, 27 Motor Vehicles & 116 Outside or Other Fires**
Franklin County ranked twelfth out of the fourteen Massachusetts counties in total fires. Franklin County fire departments reported 306 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 163 structure fires, 27 motor vehicle fires, 59 brush, tree or lawn fires, 33 outside rubbish fires, 11 special outside fires, one cultivated crop or vegetation fire and 12 unclassified fires caused three civilian injuries, five fire service injuries and an estimated dollar loss of $2 million. There were no fatal fires in Franklin County in 2009. Franklin County's fires accounted for 1% of the 28,595 Massachusetts fires reported in 2009.

Twenty-eight (28) of the 29, or 96%, 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 2009.

**No Fire Deaths in 2009**
In 2009, Franklin County did not report any fire-related deaths.

**Structure Fires & Outside Fires Up Slightly**
The total number of reported fire incidents remained the same with 306 reported in both 2008 and 2009. Reported structure fires increased three from the 160 reported during the previous year. Motor vehicle fires decreased by five from 32 in 2008. Outside and other fires increased two from the 114 reported the year before.

**FRANKLIN COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 395 | 182 | 39 | 174 | 18 | 3 | 2 | 13 |
| 2006 | 383 | 175 | 35 | 173 | 14 | 3 | 3 | 8 |
| 2007 | 329 | 127 | 36 | 166 | 18 | 5 | 1 | 12 |
| 2008 | 306 | 160 | 32 | 114 | 14 | 1 | 1 | 12 |
| 2009 | 306 | 163 | 27 | 116 | 17 | 2 | 1 | 14 |

**Fire and Fire Death Rates**
Franklin County had 4.3 fires per 1,000 population. That figure ranks Franklin County ninth in the state and below the state rate of 4.5 fires per 1,000 population. Franklin County also had 0 fire deaths per 10,000 population ranking it tied for ninth among Massachusetts counties and below the state rate of 0.06 fire deaths per 10,000 population.

**Greenfield Has Franklin County's Largest Loss Fire**
- On November 8, 2009, at 8:31 a.m., the Greenfield Fire Department was called to a fire of undetermined cause in a 16-unit apartment building. The fire began in a third floor bedroom. One (1) firefighter was injured battling this blaze. Detectors were

present and alerted the occupants of the building. There were no sprinklers. Damages from this fire were estimated to be $625,000.

## STRUCTURE FIRES

### Reported Structure Fires Up Slightly

The 163 structure fires caused two civilian injuries, five fire service injuries and an estimated dollar loss of $1.9 million. These incidents represented 53% of Franklin County's reported fires in 2009. The average estimated dollar loss per structure fire was $11,663. The total number of reported structure fires increased by three, or 2%, from the 160 reported in 2008.

### Arson Caused of 1% of Structure Fires

The two structure arsons caused an estimated dollar loss of $600. Arson was indicated as the cause of 1% of the structure fires and less than 1% of Franklin County's structure fire dollar loss. The two structure arsons accounted for 12% of the Franklin County arson fires reported in 2009. The total number of reported structure arsons increased by one, or 100%, from the one reported in 2008.

### 100% Structure Arsons Occurred in Residences

Both of Franklin County's structure arsons occurred in single-family homes.

## BUILDING FIRES

There were 159 building fires of different types in Franklin County in 2009. These 159 building fires accounted for 96.9% of all structure fires in Franklin County.

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

One hundred and thirty (130), or 82%, of Franklin County's 159 building fires occurred in residential occupancies. Eleven (11) fires occurred in special properties such as outbuildings or sheds. Storage facilities had five fires. Manufacturing and processing facilities had four fires. Mercantile or business properties had three fires. Two (2) fires took place in public assembly properties, including restaurants and churches. One (1) fire occurred at an educational facility, another fire at an institutional facility and one fire in an industrial facility in Franklin County in 2009.

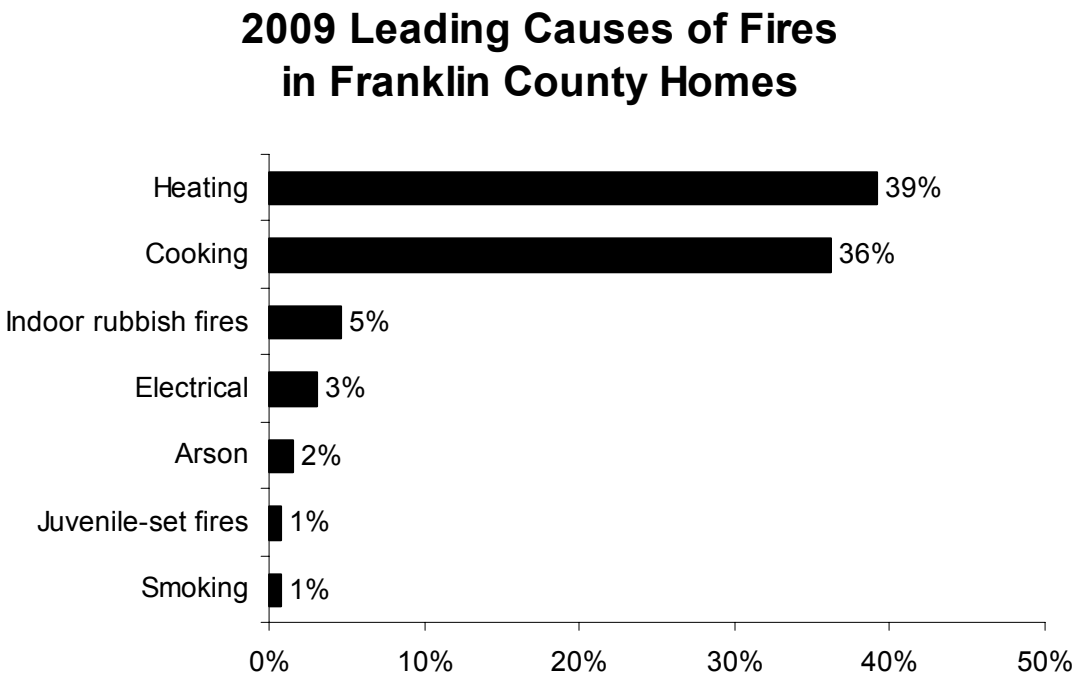
## RESIDENTIAL FIRES

### Residential Building Fires Up Slightly

There were 130 reported residential building fires in Franklin County in 2009. These 130 fires are an increase of four, or 3%, from the 126 residential building fires reported in 2008.

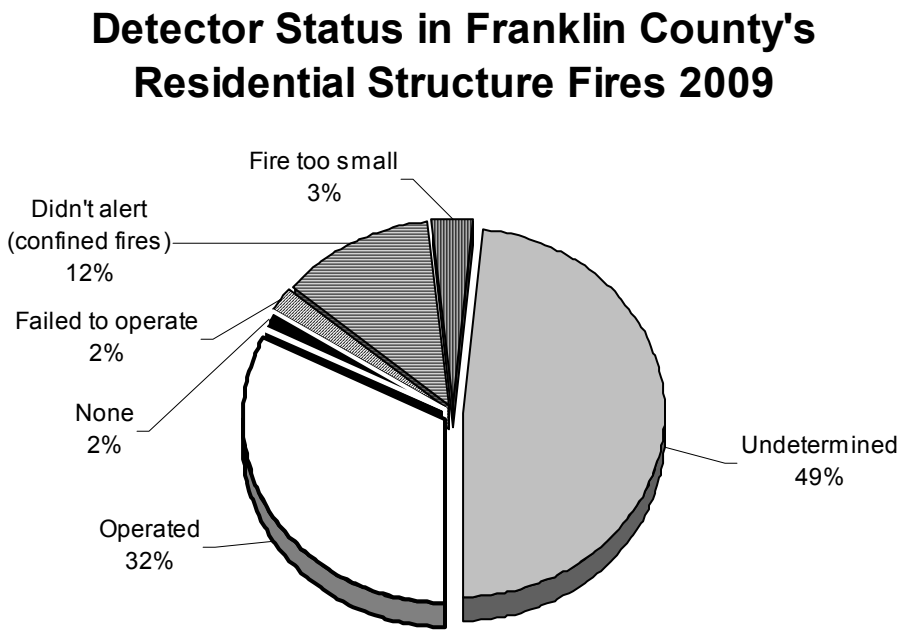
**1- & 2-Family Homes Accounted for Over 3/4 of Residential Building Fires**
The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 77% of the building fires in Franklin County; 16% occurred in apartments; 2% happened rooming houses and dormitories; and 1% occurred hotels. Four (4), or 3% of the residential building fires in Franklin County occurred in unclassified residential buildings.

**Heating Leading Cause of Residential Fires**
Heating was the leading cause of residential fires in Franklin County in 2009. Thirty-nine percent (39%) of the residential fires were caused by heating. Ninety percent (90%) 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 2009. Unattended cooking and other unsafe cooking practices accounted for 36% of the fires in people's homes. Indoor rubbish fires caused 5% of these fires. Electrical problems accounted for 3% of the residential building fires. Arson caused 2% of the fires, and smoking and juvenile-set fires each caused 1% of the fires in people's homes in Franklin County in 2009.



**76% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
Ninety-nine (99), or 76%, of these fires were confined to a non-combustible container. Forty-five (45) of the reported fires were cooking fires contained to a non-combustible container accounting for 35% of residential building fires. Forty-two (42), or 32% of all residential building fires reported in 2009, were fires confined to a chimney or flue. Six (6), or 5%, of these fires were indoor rubbish fires contained to a non-combustible container. Six (6), or 5%, were fires confined to a fuel burner or boiler malfunction in Franklin County in 2009.

**Detectors Operation Undetermined in Almost 1/2 of Fires**
Smoke or heat detectors operated and alerted the occupants in 42, or 32%, 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 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 63 incidents, or 48% 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.

### 3 Detectors Failed

In the three fires where smoke detectors were present but failed to operate, one failed because it was missing a battery; and it was unclassified why the other two detectors failed.

## VACANT BUILDINGS

### 3% of Building Fires Occurred in Vacant Buildings

Franklin County reported five fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 159 building fires reported to MFIRS in 2009. Two (2) fires occurred at vacant storage facilities; one occurred in a residence, and one vacant building fire occurred at an industrial facility in Franklin County in 2009.

One of the vacant building fires in Franklin County in 2009 were determined to be intentionally set and that occurred in a single-family home.

## JUVENILE-SET FIRES

### 1 Juvenile-set Fires Caused $100,000

There was one reported juvenile-set fire in Hampden County in 2009. The structure fire caused $100,000 in estimated damages.

## ARSONS

### 17 Total Arsons — 2 Structure, 1 Motor Vehicle & 14 Other Arsons

Seventeen (17), or 6%, of Franklin County's 306 fires were intentionally set, or, for purposes of this analysis, arson[4]. The two structure arsons, one motor vehicle arson and 14 outside and other arsons caused one civilian injury and an estimated dollar loss of $700.

### Structure Arson Up Slightly

The number of arsons increased by three, or 21%, in 2009. Structure arsons increased by one from one reported in 2008. Motor vehicle arsons remained the same with one reported in both 2008 and 2009. Outside and other arsons rose by two, or 17%, from the 12 reported in 2008.

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

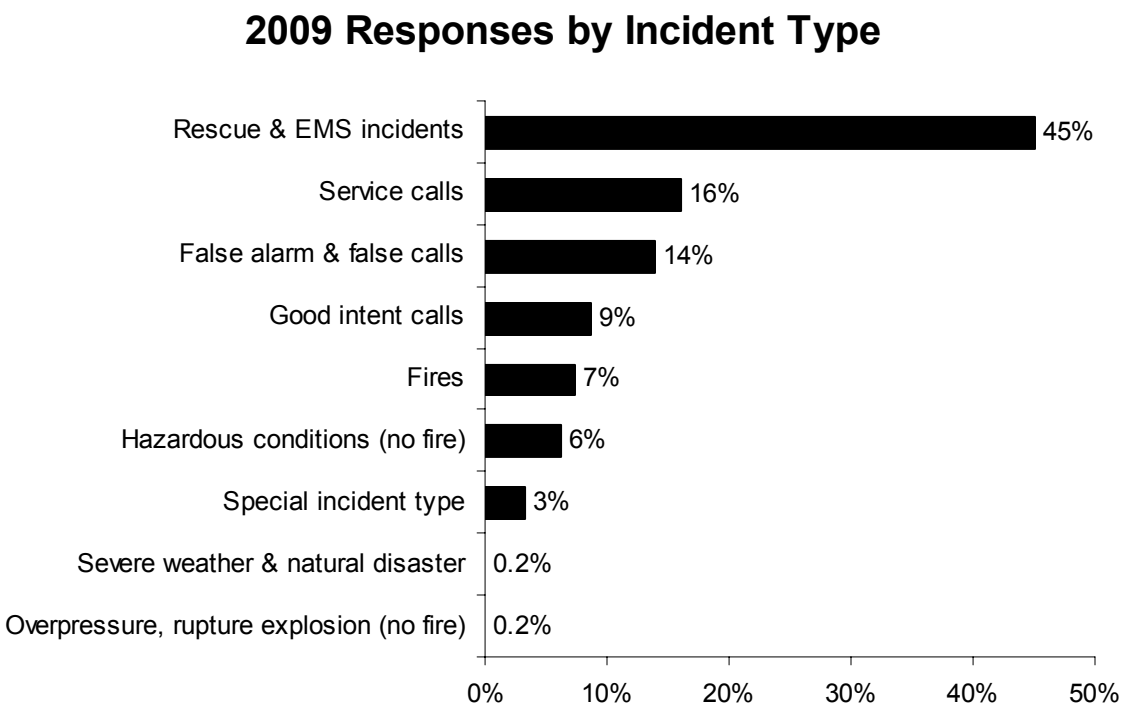
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

## ALL INCIDENTS

**Rescue & EMS Calls Are 45% of All Reported Responses**
In 2009, Franklin County fire departments reported 6,519 responses[5] to MFIRS. Of these 6,519 incidents, 6,037 non-fire calls were voluntarily reported.

Of these 6,037 non-fire calls 2,936, or 45% of all of the responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 1,051, or 16%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 837, or 14%, were reported false alarm or false calls; 564, or 9%, were reported good intent calls; 407 or 6%, were reported hazardous condition calls with no fire; 215, or 3%, were special incident type calls such as citizen complaints; 14, or 0.2%, were severe weather responses; and 13, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire.

Four hundred and eighty-two (482), or 7%, of the total incidents submitted by Franklin County fire departments were fires.




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

**Franklin County Fire Departments Gave Mutual Aid 434 Times**
In 2009, Franklin County fire departments reported coming to the aid of other fire departments 434 times. Of these 434 responses, 176, or 41%, were for fires; 167, or 38%, were for rescue or EMS calls; 51, or 12%, were for service calls such as cover assignments; 29, or 7%, were for good intent calls; six, or 1%, were for hazardous conditions calls with no fire; three, or 1%, were for false alarms or false calls; one, or 0.2% was for an overpressure, rupture explosion with no fire, and one, or 0.2% was a special incident type 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 178 Incidents**
In 2009, Franklin County fire departments reported receiving aid from surrounding departments in 178 incidents. Of these 178 incidents, 115, or 65%, were rescue and emergency medical services calls; 46, or 26%, were for fires; nine, or 5%, were hazardous conditions calls with no fire; four, or 2%, were good intent calls; three, or 2%, were service calls; and one, or 1%, was a false alarm or false call.

## Franklin County Population: 70,092

**4.3 Fires/1,000 Population**

**Total Fires: 306** **$2,017,050**

| Situation | Fires | % of Fires | Dollar Loss |
|---|---|---|---|
| Structure Fires | 163 | 53% | $1,901,115 |
| Vehicle Fires | 27 | 9% | 110,825 |
| Other Fires | 116 | 38% | 5,110 |

No Deaths
3 Civilian Injuries 5 Fire Service Injuries

## Building Fires: 159

## Residential Structure Fires: 130

**Residential Structure Fires Confined to Non-Combustible Containers: 99**

**Unconfined Residential Structure Fires: 31**

2 Civilian Injuries 2 Fire Service Injuries

| Occupancy | Fires | % |
|---|---|---|
| 1- & 2-Family homes | 100 | 77% |
| Apartments | 21 | 13% |
| Rooming houses | 2 | 2% |
| Dormitories | 2 | 2% |
| Hotel or motel | 1 | 1% |

| Detector Status | Fires | % |
|---|---|---|
| Operated | 42 | 32% |
| Didn't operate | 3 | 2% |
| None | 2 | 2% |
| Fire too small | 4 | 3% |
| Didn't Alert (confined) | 16 | 12% |
| Undetermined | 63 | 49% |

| Area of Origin[6] | % |
|---|---|
| Kitchen | 39% |
| Chimney or flue | 32% |
| Heating room or area | 5% |
| Living room | 2% |
| Bedroom | 2% |

| Heat Source | % | %Unconfined[7] |
|---|---|---|
| Hot ember or ash | 3% | 13% |
| Radiated heat from oper. eq. | 2% | 10% |

[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 | 36% |
| Film, residue (creosote) | 32% |
| Flamm. or combustible liquid | 5% |
| Rubbish, trash, waste | 5% |
| Structural member, framing | 4% |

| **Factor Contrib. to Ignit.** | **%** | **%Unconfined[9]** |
|---|---|---|
| Misuse of prod. or materials | 3% | 13% |
| Too close to combustibles | 2% | 6% |
| Unspec. short-circuit arc | 2% | 6% |
| Equipment unattended | 2% | 6% |

| **Equipment[10]** | **%** |
|---|---|
| Cooking equipment | 35% |
| Chimney or flue | 34% |
| None | 19% |
| Boiler, furnace, cent. heat. unit | 5% |

| **Cause of Ignition** | **%** | **%Unconfined[11]** |
|---|---|---|
| Unintentional | 15% | 61% |
| Failure of eq. or heat source | 1% | 3% |
| Intentional | 1% | 3% |
| Cause under investigation | 5% | 19% |
| Undetermined | 1% | 3% |
| Act of nature | 2% | 6% |

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

| | |
|---|---|
| Alerted occupants | 31% |
| Didn't alert occupants | 16% |
| Undetermined | 53% |

[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 | 17 | 13 | 2 | 2 |
| February | 20 | 14 | 3 | 3 |
| March | 41 | 16 | 1 | 24 |
| April | 64 | 16 | 2 | 46 |
| May | 18 | 8 | 2 | 8 |
| June | 28 | 19 | 3 | 6 |
| July | 16 | 8 | 4 | 4 |
| August | 15 | 5 | 5 | 5 |
| September | 20 | 15 | 0 | 5 |
| October | 18 | 9 | 3 | 6 |
| November | 25 | 18 | 2 | 5 |
| December | 24 | 22 | 0 | 2 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 46 | 22 | 4 | 20 |
| Monday | 36 | 18 | 5 | 13 |
| Tuesday | 44 | 26 | 6 | 12 |
| Wednesday | 38 | 22 | 0 | 16 |
| Thursday | 45 | 25 | 6 | 14 |
| Friday | 39 | 20 | 4 | 15 |
| Saturday | 58 | 30 | 2 | 26 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 15 | 8 | 1 | 6 |
| 04:01 - 08:00 | 13 | 10 | 0 | 3 |
| 08:01 - 12:00 | 56 | 23 | 3 | 30 |
| 12:01 - 16:00 | 76 | 33 | 9 | 34 |
| 16:01 - 20:00 | 92 | 56 | 10 | 26 |
| 20:01 - 00:00 | 54 | 33 | 4 | 17 |

## Motor Vehicle Fires

Total: 27
Automobiles: 19 (70%)
1, or 5%, of the automobile fires were considered intentionally set.

## Arson Fires

**Total Arsons: 17** **Dollar loss: $700**

**0.2 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Loss |
|---|---|---|---|---|
| Structure Arsons | 2 | 1% | 12% | $600 |
| Vehicle Arsons | 1 | 4% | 6% | 0 |
| Other Arsons | 14 | 12% | 82% | 100 |

0.03 Structure arsons/1,000 population
0.01 Vehicle arsons/1,000 population
0.20 Other arsons/1,000 population

1 Civilian Injury

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 04:01 - 08:00 | 1 | 50% |
| 16:01 - 20:00 | 1 | 50% |

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

| Other Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 6 | 43% |
| 08:01 - 12:00 | 3 | 21% |

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

**Ashfield** **Population: 1,800**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

**Bernardston** **Population: 2,155**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 23 | 3 | 3 | 17 | 4 | 0 | 0 | 4 |
| 2006 | 26 | 4 | 4 | 18 | 0 | 0 | 0 | 0 |
| 2007 | 24 | 7 | 9 | 8 | 0 | 0 | 0 | 0 |
| 2008 | 22 | 7 | 1 | 14 | 0 | 0 | 0 | 0 |
| 2009 | 16 | 4 | 3 | 9 | 2 | 0 | 0 | 2 |

**Buckland** **Population: 1,991**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

**Charlemont** **Population: 1,358**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| 2006 | 7 | 4 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 16 | 4 | 0 | 12 | 0 | 0 | 0 | 0 |
| 2008 | 9 | 7 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 6 | 3 | 0 | 3 | 2 | 0 | 0 | 2 |

**Colrain** **Population: 1,813**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 9 | 5 | 1 | 3 | 1 | 0 | 0 | 0 |
| 2006 | 9 | 7 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 16 | 10 | 1 | 5 | 1 | 1 | 0 | 0 |
| 2008 | Non-Reporting Community | | | | | | | |
| 2009 | 9 | 5 | 1 | 3 | 0 | 0 | 0 | 0 |

**Conway** **Population: 1,809**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 2 | 0 | 5 | 0 | 0 | 0 | 0 |
| 2006 | 14 | 7 | 2 | 5 | 1 | 0 | 1 | 0 |
| 2007 | 20 | 16 | 0 | 4 | 1 | 1 | 0 | 0 |
| 2008 | 9 | 5 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 12 | 8 | 0 | 4 | 0 | 0 | 0 | 0 |

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

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 6 | 0 | 1 | 5 | 0 | 0 | 0 | 0 |
| 2006 | Non-Reporting Community | | | | | | | |
| 2007 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2008 | 7 | 2 | 0 | 5 | 0 | 0 | 0 | 0 |
| 2009 | 10 | 2 | 1 | 7 | 1 | 0 | 0 | 1 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 3 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 20 | 13 | 2 | 5 | 0 | 0 | 0 | 0 |
| 2007 | 18 | 11 | 1 | 6 | 1 | 0 | 0 | 1 |
| 2008 | 17 | 10 | 4 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 12 | 5 | 1 | 6 | 0 | 0 | 0 | 0 |

**Erving** **Population: 11,467**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 16 | 5 | 1 | 10 | 0 | 0 | 0 | 0 |
| 2006 | 6 | 3 | 0 | 3 | 0 | 0 | 0 | 0 |
| 2007[12] | Non-Reporting Community | | | | | | | |
| 2008 | 6 | 1 | 1 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |

**Gill** **Population: 1,363**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 13 | 7 | 3 | 3 | 1 | 0 | 0 | 1 |
| 2006 | 16 | 2 | 3 | 11 | 2 | 0 | 0 | 2 |
| 2007 | 13 | 4 | 3 | 6 | 1 | 0 | 0 | 1 |
| 2008 | 8 | 5 | 0 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 6 | 3 | 0 | 3 | 2 | 0 | 0 | 2 |

**Greenfield** **Population: 18,168**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 141 | 80 | 7 | 54 | 3 | 1 | 1 | 1 |
| 2006 | 102 | 51 | 8 | 43 | 4 | 2 | 1 | 1 |
| 2007 | 104 | 41 | 12 | 51 | 4 | 1 | 0 | 3 |
| 2008 | 116 | 65 | 9 | 42 | 9 | 1 | 0 | 2 |
| 2009 | 100 | 62 | 7 | 31 | 7 | 2 | 0 | 5 |

**Hawley** **Population: 336**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 5 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 0 | 1 | 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: 805**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 12 | 10 | 1 | 1 | 1 | 1 | 0 | 0 |
| 2006 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 5 | 4 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 4 | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 5 | 2 | 0 | 3 | 0 | 0 | 0 | 0 |

**Leverett** **Population: 11,663**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 5 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 10 | 6 | 1 | 3 | 0 | 0 | 0 | 0 |
| 2007 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |

**Leyden** **Population: 772**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 3 | 0 | 0 | 3 | 2 | 0 | 0 | 2 |
| 2008 | Non-Reporting Community | | | | | | | |
| 2009 | Non-Reporting Community | | | | | | | |

**Monroe** **Population: 93**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

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

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 18 | 2 | 1 | 15 | 0 | 0 | 0 | 0 |
| 2006 | 25 | 11 | 1 | 13 | 2 | 1 | 1 | 0 |
| 2007 | 12 | 4 | 1 | 7 | 1 | 1 | 0 | 0 |
| 2008 | 14 | 8 | 1 | 5 | 0 | 0 | 0 | 0 |
| 2009 | 22 | 11 | 0 | 11 | 0 | 0 | 0 | 0 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 31 | 19 | 2 | 10 | 3 | 1 | 0 | 2 |
| 2006 | 44 | 30 | 4 | 10 | 2 | 0 | 0 | 2 |
| 2007 | 21 | 10 | 2 | 9 | 2 | 0 | 0 | 2 |
| 2008 | 32 | 21 | 4 | 7 | 1 | 0 | 2 | 0 |
| 2009 | 30 | 22 | 1 | 7 | 1 | 0 | 0 | 1 |

**New Salem** **Population: 929**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5 | 4 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| 2007 | 7 | 2 | 0 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 7 | 1 | 1 | 5 | 0 | 0 | 0 | 0 |
| 2009 | 9 | 2 | 1 | 6 | 1 | 0 | 1 | 0 |

**Northfield** **Population: 2,915**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Non-Reporting Community | | | | | | | |
| 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 |

**Orange** **Population: 7,518**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 29 | 11 | 4 | 14 | 3 | 0 | 1 | 2 |
| 2006 | 20 | 12 | 0 | 8 | 0 | 0 | 0 | 0 |
| 2007 | 17 | 2 | 2 | 13 | 0 | 0 | 0 | 0 |
| 2008 | 5 | 4 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 32 | 14 | 5 | 13 | 0 | 0 | 0 | 0 |

**Rowe** **Population: 351**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

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

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5 | 1 | 1 | 3 | 0 | 0 | 0 | 0 |
| 2006 | 12 | 2 | 1 | 9 | 0 | 0 | 0 | 0 |
| 2007 | 5 | 2 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |

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

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 10 | 0 | 1 | 9 | 1 | 0 | 0 | 1 |
| 2007 | 10 | 2 | 0 | 8 | 3 | 1 | 0 | 2 |
| 2008 | 6 | 4 | 0 | 2 | 1 | 0 | 0 | 1 |
| 2009 | 4 | 1 | 1 | 2 | 0 | 0 | 0 | 0 |

**Shutesbury** **Population: 1,810**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 7 | 4 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 5 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |

**Sunderland** **Population: 3,777**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 14 | 6 | 1 | 7 | 0 | 0 | 0 | 0 |
| 2006 | 15 | 5 | 1 | 9 | 1 | 0 | 0 | 1 |
| 2007 | 10 | 4 | 1 | 5 | 1 | 0 | 0 | 1 |
| 2008 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |

**Warwick** **Population: 750**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 11 | 5 | 3 | 3 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Wendell** **Population: 986**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 12 | 5 | 1 | 6 | 1 | 0 | 0 | 1 |
| 2007 | 5 | 1 | 0 | 4 | 1 | 0 | 0 | 1 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |

**Whately** **Population: 1,573**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 19 | 4 | 6 | 9 | 2 | 0 | 0 | 2 |
| 2006 | 20 | 5 | 3 | 12 | 0 | 0 | 0 | 0 |
| 2007 | 10 | 2 | 0 | 8 | 0 | 0 | 0 | 0 |
| 2008 | 11 | 3 | 3 | 5 | 2 | 0 | 0 | 2 |
| 2009 | 5 | 2 | 2 | 1 | 0 | 0 | 0 | 0 |

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11013 | Ashfield | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11029 | Bernardston | 188 | 35 | 0 | 106 | 9 | 17 | 10 | 9 | 2 | 0 |
| 11053 | Charlemont | 56 | 14 | 0 | 14 | 7 | 7 | 6 | 8 | 0 | 0 |
| 11066 | Colrain | 96 | 20 | 0 | 36 | 16 | 13 | 1 | 10 | 0 | 0 |
| 11068 | Conway | 37 | 18 | 1 | 1 | 13 | 1 | 1 | 2 | 0 | 0 |
| 11975 | Deerfield | 113 | 11 | 1 | 7 | 10 | 14 | 6 | 58 | 0 | 6 |
| 11091 | Erving | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11106 | Gill | 93 | 15 | 4 | 9 | 10 | 17 | 2 | 28 | 3 | 5 |
| 11114 | Greenfield | 2,176 | 112 | 3 | 690 | 160 | 415 | 392 | 394 | 1 | 9 |
| 11129 | Hawley | 18 | 4 | 0 | 9 | 4 | 0 | 0 | 1 | 0 | 0 |
| 11130 | Heath | 43 | 10 | 0 | 26 | 4 | 0 | 0 | 2 | 1 | 0 |
| 11154 | Leverett | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11192 | Montague Center | 143 | 33 | 0 | 65 | 15 | 12 | 8 | 10 | 0 | 0 |
| 11204 | New Salem | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11217 | Northfield | 50 | 6 | 0 | 0 | 13 | 2 | 0 | 26 | 2 | 1 |
| 11223 | Orange | 2,145 | 43 | 1 | 1,390 | 46 | 346 | 77 | 67 | 4 | 171 |

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

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11990 | Shelburne Center | 112 | 11 | 0 | 67 | 11 | 6 | 4 | 12 | 0 | 1 |
| 11989 | Shelburne Falls | 92 | 13 | 1 | 17 | 11 | 11 | 7 | 32 | 0 | 0 |
| 11272 | Shutesbury | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11976 | South Deerfield | 146 | 23 | 0 | 5 | 21 | 11 | 16 | 62 | 1 | 7 |
| 11289 | Sunderland | 68 | 6 | 0 | 42 | 3 | 5 | 8 | 4 | 0 | 0 |
| 11984 | Turners Falls | 807 | 53 | 2 | 409 | 46 | 163 | 22 | 97 | 0 | 15 |
| 11312 | Warwick | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11319 | Wendell | 43 | 6 | 0 | 25 | 5 | 4 | 0 | 3 | 0 | 0 |
| 11337 | Whately | 61 | 18 | 0 | 18 | 2 | 7 | 4 | 12 | 0 | 0 |
| **Total** | **Franklin County** | **6,517** | **480** | **13** | **2,936** | **407** | **1,051** | **564** | **837** | **14** | **215** |

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

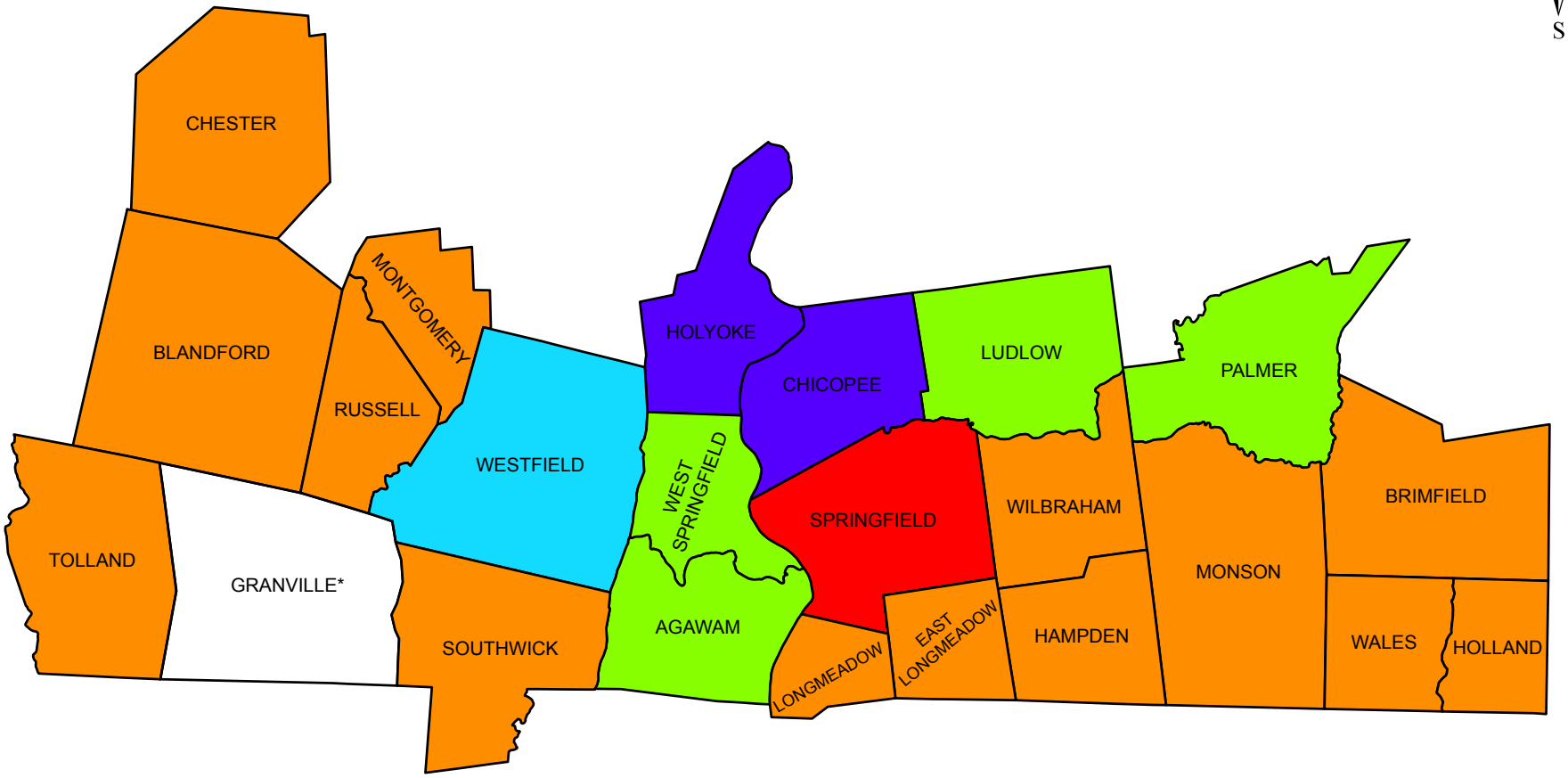
# Hampden County

## 2009 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 2009




## 2009 Fires

- 0
- 1 - 50
- 51 - 100
- 101 - 200
- 201 - 300
- 301 - 1000

*Non-reporting fire department

Miles
0 2 4 8 12 16

Massachusetts Fire Incident Reporting System 2009

# Hampden County Fires in 2009

**2,032 Total Fires — 1,146 Structures, 255 Vehicles & 631 Other Fires**
Hampden County ranked sixth out of the fourteen Massachusetts counties in total reported fires. Hampden County Fire Departments reported 2,032 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 1,146 structure fires, 255 motor vehicle fires, 259 brush, tree or lawn fires, 252 outside rubbish fires, 39 special outside fires, two cultivated vegetation or crop fires, and 79 other fires caused five civilian fire deaths, 42 civilian injuries, 58 fire service injuries and an estimated dollar loss of $12.5 million. Hampden County's 2,032 fires accounted for 7% of the 28,585 fire incidents reported to MFIRS in 2009.

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 2009.

**All Fires Down**
The total number of reported fire incidents decreased by 457 from the 2,489 reported in 2009. Reported structure fires decreased by 252 from the 1,398 reported during the previous year. Motor vehicle fires decreased by 15 from the 270 reported during 2009. Outside and other fires decreased by 190 from the 821 reported the year before.

**HAMPDEN COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2,421 | 1,233 | 344 | 844 | 116 | 26 | 24 | 66 |
| 2006 | 2,480 | 1,257 | 290 | 933 | 70 | 21 | 6 | 43 |
| 2007 | 2,775 | 1,436 | 312 | 1,027 | 83 | 22 | 13 | 48 |
| 2008 | 2,489 | 1,398 | 270 | 821 | 97 | 33 | 15 | 49 |
| 2009 | 2,032 | 1,146 | 255 | 631 | 40 | 16 | 12 | 42 |

**Fire and Fire Death Rates**
Hampden County had 4.5 fires per 1,000 population. That figure ranks Hampden County fourth in the state and tied with the state rate of 4.5 fires per 1,000 population. Hampden County also had 0.11 fire deaths per 10,000 population ranking it fourth among Massachusetts counties and above the state rate of 0.06 fire deaths per 10,000 population.

**5 Residents Died in 4 Hampden County Fires**
- On February 18, 2009 at 1:59 p.m., the Chicopee Fire Department was called to a fatal smoking fire in a four-unit apartment building. The fire began on a living room couch. The victim, an 84-year old physically disabled woman was transported to a local hospital where she later succumbed to her injuries. One firefighter was injured in this fire, and damages were estimated at $60,000.

- On April 1, 2009, at 3:44 p.m., the Springfield Fire Department was called to a fatal motor vehicle arson on Interstate - 91. The fire was a suicide by self-immolation. The victim, a 45-year old man doused himself and the inside of his car with gasoline and ignited it. He was transported to a local hospital where he later died from his injuries. Damages from the fire were estimated to be $3,000.

- On April 7, 2009, at 12:07 p.m., the Springfield Fire Department was called to a fatal motor vehicle arson. The fire was a suicide by self-immolation. The victim, a 42-year old man doused himself and the inside of his car with gasoline and ignited it. Passers-by and arriving firefighters were unable to extricate the victim from the vehicle before he died. Damages from the fire were estimated to be $2,000.

- On June 27, 2009, at 08:20 a.m., the Springfield Fire Department was called to a fatal electrical fire in a single-family home. The fire began in an electrical junction box in the basement ceiling. The victims, a 4-year old boy that was found in the first floor living room and his 17-year old brother who was found in the second floor bathroom, were both overcome by the fire. They both died from smoke inhalation and burns. Four (4) other civilians and two firefighters were injured at this fire. Neither smoke detectors nor sprinklers were present. Damages from the blaze were estimated to be $80,000.

**Westfield Had Largest Loss Fire in Hampden County**

- On April 19, 2009, at 3:40 p.m., the Westfield Fire Department responded to a fire at an electroplating facility of undetermined cause. The fire began on the first floor and was confined to the room of origin. Detectors were present and operated but the building was not sprinklered. Damages were estimated to be $600,000.

## STRUCTURE FIRES

**Reported Structure Fires Down**

The 1,146 structure fires caused three civilian deaths, 36 civilian injuries, 58 fire service injuries and an estimated dollar loss of $10.4 million. These incidents represented 56% of Hampden County's reported fires in 2009. The average estimated dollar loss per structure fire was $9,141. The total number of reported structure fires decreased by 252, or 18%, from the 1,398 reported in 2009.

**Arson Caused 1% of Structure Fires**

The 16 structure arsons caused four fire service injuries and an estimated dollar loss of $682,850. Arson was indicated as the cause of 1% of the structure fires and 7%, of Hampden County's structure fire dollar loss. The 16 structure arsons accounted for 23% of the Hampden County arson fires reported in 2009. The total number of reported structure arsons decreased by 17, or 52%, from 33 in 2009.

### 1/2 of Structure Arsons Occurred in Residences

Fifty percent (50%) of Hampden County's 16 structure arsons occurred in residential occupancies; educational facilities, mercantile or business properties and special properties each accounted for 13% of these structure arsons; and 6% each occurred in industrial facilities and storage facilities.

## BUILDING FIRES

There were 1,136 building fires of different types in Hampden County in 2009. These 1,136 building fires accounted for 99.1% of all structure fires in Hampden County.

### 85% of Hampden Building Fires Occurred in People's Homes

Nine hundred and sixty-four (964), or 85%, of Hampden County's 1,136 building fires occurred in residential occupancies. Mercantile and business properties experienced 36 fires. Special properties had 32 fires. Hospitals, prisons, and other institutional buildings experienced 27 fires. Twenty-three (23) building fires took place on educational properties. Another 23 fires took place in storage properties. Eighteen (18) fires took place in public assembly properties, including restaurants and churches. Ten (10) fires took place in manufacturing and processing facilities. Three (3) fires occurred in industrial, utility, defense, agricultural or mining facilities in Hampden County in 2009.

## RESIDENTIAL FIRES

### Residential Building Fires Down

There were 964 reported residential building fires in Hampden County in 2009. These 964 fires are a decrease of 190, or 16%, from the 1,154 residential building fires reported in 2008.

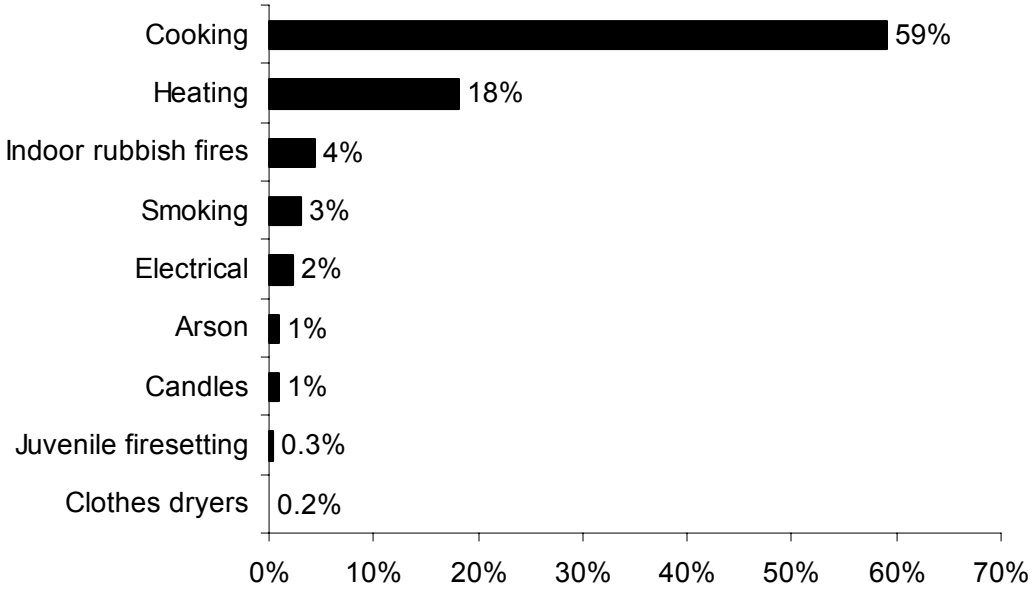
### 1- & 2-Family Homes Accounted for Almost 1/2 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for almost half, or 48%, of the building fires in Hampden County; 46% occurred in apartments; 2% happened in rooming houses; 1% happened in residential board and care facilities; another 1% happened in hotels or motels; 1% occurred in dormitories. Ten (10), or 1% of the residential building fires in Hampden County occurred in unclassified residential buildings.

### Unattended 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 59% of these fires. Heating was the second leading cause of fires in people's homes, accounting for 18% of these fires. Indoor rubbish fires, caused 4% and smoking caused 3% of these fires. Two percent (2%) were caused by electrical problems. Arsons and candles each caused 1% of these residential fires. Juvenile-set fires and clothes dryers each caused less than 1% of the fires in Hampden County in 2009.

## 2009 Leading Causes of Fires in Hampden County Homes



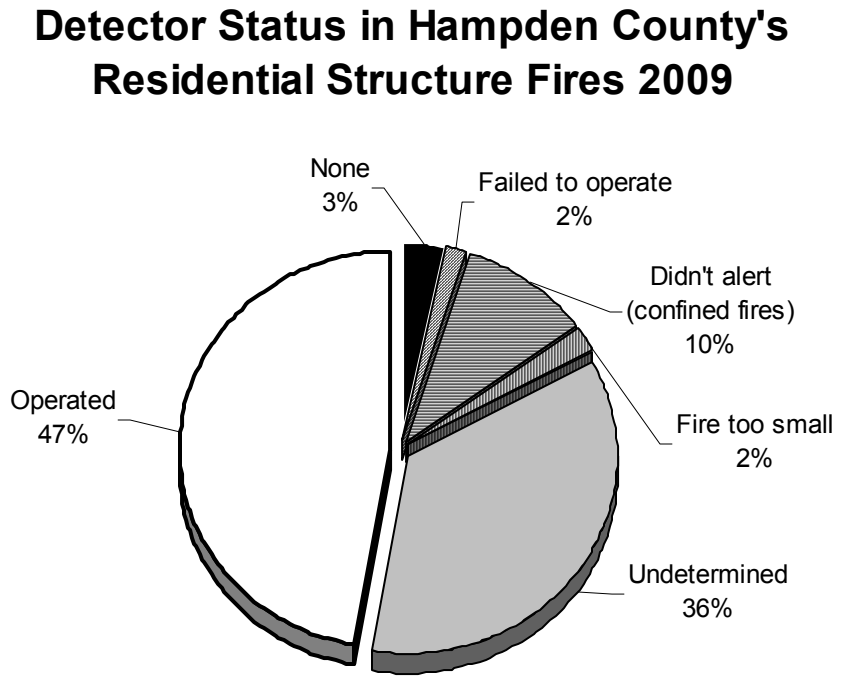

**78% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
Seven hundred and fifty (750), or 78% of all residential building fires, were reported as confined to non-combustible containers in 2009. Five hundred and twenty-nine (529) of the reported fires were cooking fires contained to a non-combustible container accounting for 55% of residential building fires. One hundred and twenty-six (126), or 13%, were fires confined to a fuel burner or boiler malfunction. Forty-six (46), or 5%, of all residential building fires reported in 2009 were fires confined to a chimney. Forty-three (43), or 4%, of these fires were contained rubbish fires. Four (4), or less than 1% of confined fires, occurred in incinerators; and two, or less than 1%, were confined to commercial compactors.

**Detectors Alerted Occupants in Almost 1/2 of Fires**
Smoke or heat detectors operated and alerted the occupants in 455, or 47%, 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 3% 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 343 incidents, or 36% of Hampden County's residential building fires.




**Over 2/3 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 five incidents, or 31%, the detectors failed because the batteries were dead. In one fire, or 4%, the detector failed because it was defective. Four (4), or 25% of the detectors failed for unclassified or undetermined reasons.

## VACANT BUILDINGS

**2% of Building Fires Occurred in Vacant Buildings**
Hampden County reported 25 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 1,136 building fires reported to MFIRS in 2009. Sixteen (16) fires occurred in vacant residential properties. Six (6) fires in storage facilities were reported as vacant building fires. Industrial facilities, manufacturing and processing facilities and special properties each accounted for one vacant building fire in Hampden County in 2009.

[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.

Three (3), or 12%, of the vacant building fires in Hampden County in 2009 were determined to be intentionally set. One of these fires occurred in a single-family home, another occurred in an unclassified industrial facility and the other vacant building arson happened in a shed.

## JUVENILE-SET FIRES

### 13 Juvenile-set Fires Caused 1 Civilian Injury

There were 13 reported juvenile-set fires in Hampden County in 2009. The five structure fires, two motor vehicle fires, four brush fires, one outside rubbish fire and one special outside fire caused one civilian injury and $12,700 in estimated damages.

## ARSONS

### 70 Total Arsons — 16 Structures, 12 Vehicles & 42 Other Arsons

Seventy (70), or 3%, of Hampden County's 2,032 fires were considered intentionally set, or, for purposes of this analysis, arson[4]. The 16 structure arsons, 12 motor vehicle arsons and 42 outside and other arsons caused two civilian deaths[5], four fire service injuries and an estimated dollar loss of $733,950.

### All Arson Down

The total number of reported arson fires decreased by 27 from the 97 reported in 2009. Structure arsons decreased by 17 from the 33 reported in 2009. Motor vehicle arsons decreased by three from the 14 reported the year before. Outside and other fires decreased seven from the 49 reported the year before.

## ALL INCIDENTS

### Rescue & EMS Calls Are 58% of All Reported Responses

In 2009, fire departments in Hampden County reported 41,245 responses[6] to MFIRS. Of these 41,245 incidents, 39,143 non-fire calls were voluntarily reported.

Of these 39,143 non-fire calls 23,783, or 58% of all reported responses in 2009, were reported rescue and emergency medical services (EMS) calls; 6,715, or 16%, were reported false alarm or false calls; 3,525, or 9%, were reported good intent calls; 3,171, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 1,718, or 4%, were reported hazardous

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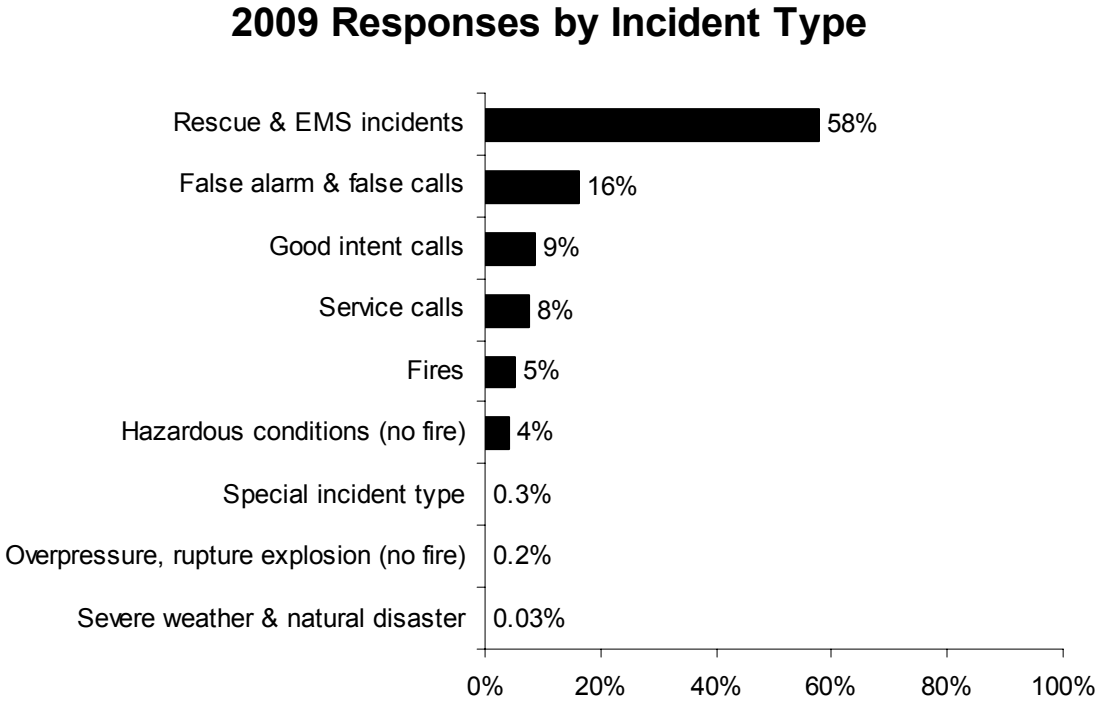
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

[5] Both of these deaths were suicides in motor vehicles.

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

condition calls with no fire; 140, or 0.3%, were special incident type calls such as citizen complaints; 78, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 13, or 0.03%, were severe weather responses.

Two thousand one hundred and two (2,102), or 5%, of the total responses submitted by Hampden County fire departments were fires.




**Hampden County Fire Departments Gave Mutual Aid 630 Times**
In 2009, Hampden County fire departments reported coming to the aid of other fire departments 630 times. Of these 630 responses, 401, or 64%, were for rescue or EMS calls; 75, or 12%, were for service calls such as cover assignments; 70, or 11%, were for fires; 32, or 5%, were for good intent calls; 26, or 4%, were for false alarms or false calls; 24, or 4%, were for hazardous conditions calls with no fire; one, or less than 1% was an overpressure, rupture explosion with no ensuing fire; and one, or less than 1%, was a special incident type call.

**Hampden County Received Mutual Aid in 781 Incidents**
In 2009, Hampden County fire departments reported receiving aid from surrounding departments in 781 incidents. Of these 781 incidents, 658, or 84%, were rescue and emergency medical services calls; 67, or 9%, were for fires; 22, or 3%, were false alarms or false calls; 14, or 2%, were service calls; 10, or 1%, were good intent calls; and another 10, or 1%, were hazardous conditions calls with no fire.

## Hampden County Population: 456,228

**4.45 Fires/1,000 Population**

**Total Fires: 2,032** **$12,467,359**

| Situation | Fires | % of Fires | Dollar Loss |
|---|---|---|---|
| Structure Fires | 1,146 | 56% | $10,475,513 |
| Vehicle Fires | 255 | 13% | 1,025,310 |
| Other Fires | 631 | 31% | 966,536 |

4 Fatal Fires
5 Civilian Deaths
42 Civilian Injuries
2.46 Civilian Deaths/1,000 Fires
0.11 Civilian Deaths/10,000 Population
58 Fire Service Injuries

# Building Fires: 1,136

## Residential Structure Fires: 964

**Residential Structure Fires Confined to Non-Combustible Containers: 750**

**Unconfined Residential Structure Fires: 214**

3 Civilian Deaths 32 Civilian Injuries 47 Fire Service Injuries

| Occupancy | Fires | % |
|---|---|---|
| 1- & 2-Family homes | 467 | 49% |
| Apartments | 441 | 45% |
| Rooming houses | 23 | 2% |
| Residential board & care | 9 | 1% |
| Dormitories | 8 | 1% |
| Hotels or motels | 6 | 1% |

| Detector Status | Fires | % |
|---|---|---|
| Operated | 455 | 47% |
| Didn't operate | 16 | 2% |
| None | 32 | 3% |
| Fire too small | 22 | 2% |
| Didn't alert (confined) | 96 | 10% |
| Undetermined | 343 | 36% |

| Area of Origin[7] | % | Heat Source | % | %Unconfined[8] |
|---|---|---|---|---|
| Kitchen | 61% | Heat from operating equip. | 4% | 18% |
| Heating room or area | 13% | Radiated heat/oper. eq. | 3% | 12% |
| Chimney, flue | 5% | Cigarettes | 2% | 7% |
| Bedroom | 3% | Hot or smoldering object | 1% | 6% |
| Exter. balcony/unenclosed porch | 1% | Spark/ember/flame op. eq. | 1% | 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 | 59% | Too close to combustibles | 2% | 7% |
| Flammable or combust. liquid | 13% | Equipment unattended | 1% | 7% |
| Rubbish, trash, waste | 6% | Abandoned materials | 1% | 5% |
| Film, residue (creosote) | 5% | Electrical failure, malfunc. | 1% | 4% |
| Structural member, framing | 1% | Misuse of materials or prod. | 1% | 4% |

| **Equipment**[11] | **%** | **Cause of Ignition** | **%** | **%Unconfined**[12] |
|---|---|---|---|---|
| Cooking equipment | 56% | Unintentional | 11% | 53% |
| None | 19% | Failure of eq./heat source | 2% | 9% |
| Boiler, furnace, cent. heat unit | 13% | Intentional | 1% | 4% |
| Chimney or flue | 5% | Act of Nature | 0.2% | 1% |
| | | Undetermined | 2% | 8% |
| | | Cause under investigation | 5% | 24% |

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

| | |
|---|---|
| Alerted occupants | 50% |
| Didn't alert occupants | 13% |
| Undetermined | 37% |

[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 | 149 | 119 | 17 | 13 |
| February | 134 | 88 | 26 | 20 |
| March | 223 | 135 | 20 | 68 |
| April | 262 | 108 | 24 | 130 |
| May | 193 | 84 | 18 | 91 |
| June | 144 | 75 | 24 | 45 |
| July | 159 | 89 | 23 | 47 |
| August | 144 | 80 | 21 | 43 |
| September | 149 | 75 | 27 | 47 |
| October | 157 | 99 | 21 | 37 |
| November | 177 | 92 | 18 | 67 |
| December | 141 | 102 | 16 | 23 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 317 | 185 | 35 | 97 |
| Monday | 276 | 145 | 41 | 90 |
| Tuesday | 281 | 143 | 41 | 97 |
| Wednesday | 277 | 160 | 33 | 84 |
| Thursday | 286 | 163 | 29 | 94 |
| Friday | 322 | 182 | 49 | 91 |
| Saturday | 273 | 168 | 27 | 78 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 – 04:00 | 150 | 87 | 28 | 35 |
| 04:01 – 08:00 | 115 | 72 | 19 | 24 |
| 08:01 – 12:00 | 310 | 190 | 40 | 80 |
| 12:01 – 16:00 | 540 | 276 | 61 | 203 |
| 16:01 – 20:00 | 571 | 336 | 65 | 170 |
| 20:01 – 00:00 | 346 | 185 | 42 | 119 |

**Motor Vehicle Fires**
Total: 255
Automobiles: 203 (80%)
8, or (4%), of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 70** **Dollar loss: $2,383,391**

**0.46 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Loss |
|---|---|---|---|---|
| Structure Arsons | 16 | 1% | 23% | $682,850 |
| Vehicle Arsons | 12 | 5% | 17% | 50,100 |
| Other Arsons | 42 | 7% | 60% | 1,000 |

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

2 Civilian Deaths 4 Fire Service Injuries

**Peak Times of Day for:**

| Structure Arsons | # | % | Vehicle Arsons | # | % |
|---|---|---|---|---|---|
| 00:01 - 04:00 | 5 | 31% | 00:01 - 04:00 | 4 | 33% |
| 12:01 - 16:00 | 5 | 31% | 12:01 - 16:00 | 3 | 25% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 13 | 31% |
| 12:00 - 16:00 | 12 | 29% |
| 08:01 - 12:00 | 7 | 17% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- and 2-Family homes | 6 | 38% |
| Apartment buildings | 2 | 13% |

**Agawam** **Population: 28,144**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 93 | 42 | 10 | 41 | 9 | 1 | 1 | 7 |
| 2006 | 125 | 68 | 14 | 43 | 1 | 0 | 0 | 1 |
| 2007 | 89 | 48 | 10 | 31 | 4 | 3 | 0 | 1 |
| 2008 | 100 | 56 | 13 | 31 | 4 | 0 | 1 | 3 |
| 2009 | 76 | 36 | 14 | 26 | 2 | 0 | 2 | 0 |

**Blandford** **Population: 1,214**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 14 | 6 | 4 | 4 | 1 | 0 | 0 | 1 |
| 2006 | 14 | 5 | 8 | 1 | 1 | 0 | 0 | 1 |
| 2007 | 12 | 6 | 5 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 7 | 3 | 1 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 9 | 4 | 3 | 2 | 0 | 0 | 0 | 0 |

**Brimfield** **Population: 3,339**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 6 | 3 | 2 | 1 | 0 | 0 | 0 | 0 |

**Chester** **Population: 1,308**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 14 | 5 | 1 | 8 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 12 | 1 | 1 | 10 | 0 | 0 | 0 | 0 |
| 2009 | 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 |

**Chicopee** **Population: 54,653**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 307 | 140 | 54 | 113 | 29 | 7 | 5 | 17 |
| 2006 | 229 | 113 | 32 | 84 | 11 | 5 | 0 | 6 |
| 2007 | 264 | 153 | 26 | 85 | 14 | 5 | 0 | 9 |
| 2008 | 244 | 134 | 33 | 77 | 20 | 10 | 0 | 10 |
| 2009 | 224 | 131 | 26 | 67 | 11 | 4 | 1 | 6 |

**East Longmeadow** **Population: 14,100**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 40 | 17 | 10 | 13 | 2 | 0 | 0 | 2 |
| 2006 | 38 | 6 | 6 | 26 | 2 | 0 | 0 | 2 |
| 2007 | 41 | 19 | 6 | 16 | 3 | 1 | 0 | 2 |
| 2008 | 43 | 18 | 1 | 24 | 1 | 1 | 0 | 0 |
| 2009 | 28 | 10 | 6 | 12 | 1 | 0 | 0 | 1 |

**Granville** **Population: 1,521**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 5 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2007 | Non-Reporting Community | | | | | | | |
| 2008 | Non-Reporting Community | | | | | | | |
| 2009 | Non-Reporting Community | | | | | | | |

**Hampden** **Population: 5,171**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 4 | 3 | 1 | 0 | 1 | 1 | 0 | 0 |

**Holland** **Population: 2,407**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 13 | 6 | 1 | 6 | 0 | 0 | 0 | 0 |
| 2006 | 24 | 4 | 1 | 19 | 13 | 1 | 0 | 12 |
| 2007 | 12 | 3 | 1 | 8 | 2 | 0 | 0 | 2 |
| 2008 | 23 | 6 | 1 | 16 | 5 | 0 | 0 | 5 |
| 2009 | 10 | 3 | 0 | 7 | 3 | 0 | 0 | 3 |

**Holyoke** **Population: 39,838**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 321 | 148 | 43 | 130 | 14 | 3 | 4 | 7 |
| 2006 | 282 | 138 | 35 | 109 | 9 | 2 | 3 | 4 |
| 2007 | 422 | 181 | 44 | 197 | 18 | 5 | 1 | 12 |
| 2008 | 330 | 196 | 29 | 105 | 17 | 3 | 3 | 11 |
| 2009 | 244 | 147 | 24 | 73 | 11 | 1 | 1 | 9 |

**Longmeadow** **Population: 15,633**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 36 | 22 | 6 | 8 | 2 | 0 | 0 | 2 |
| 2006 | 43 | 19 | 8 | 16 | 1 | 0 | 0 | 1 |
| 2007 | 41 | 21 | 3 | 17 | 1 | 0 | 0 | 1 |
| 2008 | 42 | 18 | 0 | 24 | 4 | 0 | 0 | 4 |
| 2009 | 42 | 16 | 6 | 20 | 1 | 0 | 0 | 1 |

**Ludlow** **Population: 21,209**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 68 | 32 | 12 | 24 | 3 | 1 | 0 | 2 |
| 2006 | 69 | 37 | 9 | 23 | 7 | 2 | 0 | 5 |
| 2007 | 78 | 48 | 12 | 18 | 2 | 1 | 0 | 1 |
| 2008 | 64 | 38 | 12 | 14 | 1 | 0 | 2 | 2 |
| 2009 | 53 | 25 | 11 | 17 | 3 | 0 | 0 | 3 |

**Monson** **Population: 8,359**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 32 | 8 | 6 | 18 | 0 | 0 | 0 | 0 |
| 2006 | 39 | 15 | 3 | 21 | 0 | 0 | 0 | 0 |
| 2007 | 35 | 13 | 4 | 18 | 0 | 0 | 0 | 0 |
| 2008 | 31 | 18 | 3 | 10 | 1 | 0 | 0 | 1 |
| 2009 | 37 | 16 | 5 | 16 | 0 | 0 | 0 | 0 |

**Montgomery** **Population: 654**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Non-Reporting Community | | | | | | | |
| 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 |

**Town of Palmer Fire Districts** **Population: 13,000**

***Palmer District # 1*** ***Est. Pop. Protected: 6,000***

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 60 | 26 | 15 | 19 | 1 | 1 | 0 | 0 |
| 2006 | 48 | 21 | 11 | 16 | 1 | 0 | 0 | 1 |
| 2007 | 58 | 20 | 14 | 24 | 0 | 0 | 0 | 0 |
| 2008 | 61 | 41 | 9 | 11 | 1 | 1 | 0 | 0 |
| 2009 | 44 | 29 | 5 | 10 | 1 | 1 | 0 | 0 |

***Bondsville*** ***Est. Pop. Protected: 3,000***

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 6 | 5 | 0 | 1 | 1 | 1 | 0 | 0 |
| 2006 | 6 | 2 | 2 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 8 | 2 | 1 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 12 | 1 | 2 | 9 | 0 | 0 | 0 | 0 |
| 2009 | 15 | 2 | 2 | 11 | 5 | 0 | 0 | 5 |

***Three Rivers*** ***Est. Pop. Protected: 4,000***

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 15 | 6 | 2 | 7 | 4 | 1 | 2 | 1 |
| 2006 | 15 | 1 | 5 | 9 | 0 | 0 | 0 | 0 |
| 2007 | 9 | 4 | 1 | 4 | 0 | 0 | 0 | 0 |
| 2008 | 12 | 7 | 0 | 5 | 0 | 0 | 0 | 0 |
| 2009 | 5 | 2 | 1 | 2 | 0 | 0 | 0 | 0 |

**Russell** **Population: 1,657**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 15 | 9 | 2 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 10 | 5 | 0 | 5 | 2 | 0 | 0 | 2 |
| 2007 | 10 | 4 | 0 | 6 | 0 | 0 | 0 | 0 |
| 2008 | 14 | 8 | 3 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 9 | 1 | 2 | 6 | 0 | 0 | 0 | 0 |

**Southwick** **Population: 8,835**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 44 | 24 | 3 | 17 | 2 | 0 | 1 | 1 |
| 2006 | 47 | 20 | 5 | 22 | 0 | 0 | 0 | 0 |
| 2007 | 47 | 17 | 5 | 25 | 2 | 1 | 0 | 1 |
| 2008 | 51 | 29 | 4 | 18 | 2 | 1 | 1 | 0 |
| 2009 | 21 | 11 | 1 | 9 | 1 | 0 | 0 | 1 |

**Springfield** **Population: 152,082**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1,004 | 574 | 128 | 302 | 30 | 7 | 5 | 18 |
| 2006 | 1,146 | 633 | 108 | 405 | 10 | 5 | 1 | 4 |
| 2007 | 1,311 | 741 | 129 | 441 | 15 | 3 | 10 | 2 |
| 2008 | 1,138 | 687 | 104 | 347 | 24 | 13 | 6 | 5 |
| 2009 | 960 | 583 | 109 | 268 | 16 | 7 | 6 | 3 |

**Tolland** **Population: 426**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5 | 0 | 2 | 3 | 2 | 0 | 1 | 1 |
| 2006 | 5 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 |
| 2008 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 5 | 0 | 1 | 4 | 0 | 0 | 0 | 0 |

**Wales** **Population: 1,737**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |

**West Springfield** **Population: 27,899**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 144 | 65 | 20 | 59 | 7 | 2 | 2 | 3 |
| 2006 | 143 | 66 | 25 | 52 | 3 | 1 | 2 | 0 |
| 2007 | 128 | 45 | 25 | 59 | 14 | 2 | 2 | 10 |
| 2008 | 120 | 46 | 27 | 47 | 7 | 0 | 0 | 7 |
| 2009 | 65 | 22 | 13 | 30 | 4 | 0 | 0 | 4 |

**Westfield** **Population: 40,072**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 150 | 75 | 18 | 57 | 4 | 1 | 1 | 2 |
| 2006 | 136 | 74 | 13 | 49 | 4 | 3 | 0 | 1 |
| 2007 | 136 | 76 | 16 | 44 | 5 | 1 | 0 | 4 |
| 2008 | 135 | 60 | 20 | 55 | 2 | 1 | 1 | 0 |
| 2009 | 123 | 72 | 17 | 34 | 2 | 1 | 1 | 0 |

**Wilbraham** **Population: 13,473**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 41 | 20 | 5 | 16 | 5 | 1 | 2 | 2 |
| 2006 | 37 | 15 | 3 | 19 | 4 | 1 | 0 | 3 |
| 2007 | 56 | 27 | 10 | 19 | 3 | 0 | 0 | 3 |
| 2008 | 39 | 21 | 8 | 10 | 1 | 0 | 0 | 1 |
| 2009 | 46 | 32 | 3 | 11 | 2 | 0 | 0 | 2 |

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13005 | Agawam | 2,222 | 76 | 3 | 1,450 | 80 | 260 | 97 | 245 | 1 | 10 |
| 13033 | Blandford | 105 | 18 | 0 | 60 | 2 | 10 | 5 | 10 | 0 | 0 |
| 13987 | Bondsville | 85 | 19 | 0 | 6 | 19 | 23 | 8 | 10 | 0 | 0 |
| 13043 | Brimfield | 15 | 7 | 0 | 7 | 1 | 0 | 0 | 0 | 0 | 0 |
| 13059 | Chester | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13061 | Chicopee | 3,825 | 225 | 13 | 1,987 | 164 | 450 | 350 | 611 | 1 | 24 |
| 13085 | East Longmeadow | 537 | 28 | 1 | 14 | 96 | 61 | 64 | 272 | 0 | 1 |
| 13120 | Hampden | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13135 | Holland | 147 | 11 | 0 | 100 | 2 | 17 | 5 | 9 | 1 | 2 |
| 13137 | Holyoke | 4,971 | 246 | 5 | 3,192 | 148 | 205 | 193 | 959 | 0 | 23 |
| 13159 | Longmeadow | 2,008 | 42 | 3 | 1,357 | 105 | 191 | 59 | 246 | 1 | 4 |
| 13161 | Ludlow | 878 | 55 | 3 | 319 | 75 | 151 | 97 | 172 | 0 | 6 |
| 13191 | Monson | 1,117 | 46 | 2 | 875 | 28 | 67 | 48 | 48 | 3 | 0 |
| 13194 | Montgomery | 48 | 6 | 0 | 33 | 4 | 0 | 1 | 4 | 0 | 0 |
| 13986 | Palmer #1 | 327 | 44 | 0 | 12 | 62 | 80 | 63 | 63 | 0 | 3 |

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

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13256 | Russell | 126 | 16 | 0 | 70 | 12 | 15 | 1 | 12 | 0 | 0 |
| 13279 | Southwick | 135 | 22 | 0 | 16 | 22 | 7 | 25 | 41 | 2 | 0 |
| 13281 | Springfield | 14,545 | 965 | 43 | 7,260 | 549 | 885 | 2,095 | 2,718 | 0 | 30 |
| 13988 | Three Rivers | 103 | 13 | 0 | 7 | 21 | 23 | 7 | 31 | 1 | 0 |
| 13297 | Tolland | 50 | 9 | 0 | 31 | 6 | 3 | 0 | 1 | 0 | 0 |
| 13306 | Wales | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13325 | West Springfield | 5,657 | 65 | 1 | 4,608 | 170 | 217 | 126 | 460 | 2 | 8 |
| 13329 | Westfield | 2,231 | 128 | 4 | 899 | 112 | 354 | 167 | 539 | 1 | 27 |
| 13339 | Wilbraham | 2,104 | 52 | 0 | 1,480 | 40 | 152 | 114 | 264 | 0 | 2 |
| | **Hampden County** | **38,918** | **2,008** | **75** | **22,273** | **1,636** | **2,901** | **3,423** | **6,460** | **12** | **130** |

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

# Springfield Fires in 2009

**955 Total Fires — 579 Structures, 109 Vehicles & 267 Other Fires**
The Springfield Fire Department reported 955 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 579 structure fires, 109 motor vehicle fires, 159 outside trash fires, 73 brush fires, 14 special outside fires, one cultivated vegetation or crop fire, and 20 unclassified fires caused four civilian deaths, 23 civilian injuries, 49 fire service injuries and an estimated dollar loss of $4.5 million.

**4 Killed in 3 Fatal Fires in Springfield**

- On April 1, 2009, at 3:44 p.m., the Springfield Fire Department was called to a fatal motor vehicle arson on Interstate - 91. The fire was a successful attempt at self-immolation. The victim, a 45-year old man doused himself and the inside of his car with gasoline and ignited it. He was transported to a local hospital where he later died from his injuries. Damages from the fire were estimated to be $3,000.

- On April 7, 2009, at 12:07 p.m., the Springfield Fire Department was called to a fatal motor vehicle arson. The fire was a successful attempt at self-immolation. The victim, a 42-year old man doused himself and the inside of his car with gasoline and ignited it. Passers-by and arriving firefighters were unable to extricate the victim from the vehicle before he died. Damages from the fire were estimated to be $2,000.

- On June 27, 2009, at 08:20 a.m., the Springfield Fire Department was called to a fatal electrical fire in a single-family home. The fire began in an electrical junction box in the basement ceiling. The victims, a 4-year old boy that was found in the first floor living room and his 17-year old brother who was found in the second floor bathroom, were both overcome by the fire. They both died from smoke inhalation and burns. Four (4) other civilians and two firefighters were injured at this fire. Neither smoke detectors nor sprinklers were present. Damages from the blaze were estimated to be $80,000.

**All Fires Down in 2009**
Total fires decreased by 183 from 1,311 incidents in 2008. Reported structure fires were down 108 from the 687 reported during the previous year. Motor vehicle fires increased by five from 104 the year before. Outside and other fires decreased by 80 from the 347 reported in 2008.

**SPRINGFIELD FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1,004 | 574 | 128 | 302 | 30 | 7 | 5 | 18 |
| 2006 | 1,146 | 633 | 108 | 405 | 10 | 5 | 1 | 4 |
| 2007 | 1,311 | 741 | 129 | 441 | 15 | 3 | 10 | 2 |
| 2008 | 1,138 | 687 | 104 | 347 | 22 | 12 | 6 | 4 |
| 2009 | 955 | 579 | 109 | 267 | 16 | 7 | 6 | 2 |

## BUILDING FIRES

There were 573 building fires of different types in Springfield in 2009. These 573 building fires accounted for 99% of all structure fires in Springfield.

### 90% of Building Fires in Homes

The 573 building fires that occurred in Springfield in 2009 can be broken down by fixed property use as follows: 515, or 90% of all building fires, were in residential properties; 15 fires occurred in institutional properties; 13 fires occurred in educational properties; another 13 fires happened in mercantile or business properties; eight fires occurred in storage properties; six fires took place in public assembly properties; four fires occurred at industrial facilities; two fires happened in manufacturing or processing facilities; and one fire occurred in a special property.

## RESIDENTIAL FIRES

### Residential Building Fires Down

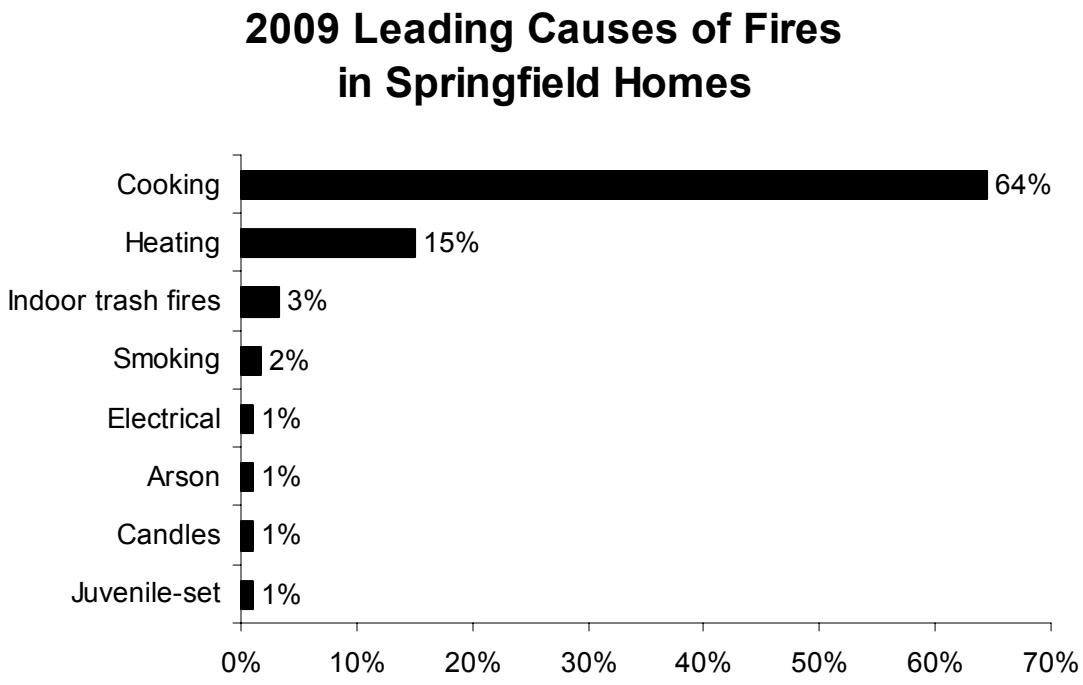
There were 515 reported residential building fires in Springfield in 2009. These 515 fires are a decrease of 77, or 13%, over the 592 residential building fires reported in 2008.

### Apartments Accounted for 51% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 51% of these building fires in Springfield; 41% occurred in 1- or 2-family homes; 2% occurred in residential board and care facilities; 1% occurred in dormitories, 1% occurred in hotels or motels; and another 1% occurred in rooming houses. Two percent (2%) occurred in unclassified residential buildings.

### Unattended Cooking Leading Cause of Residential Fires

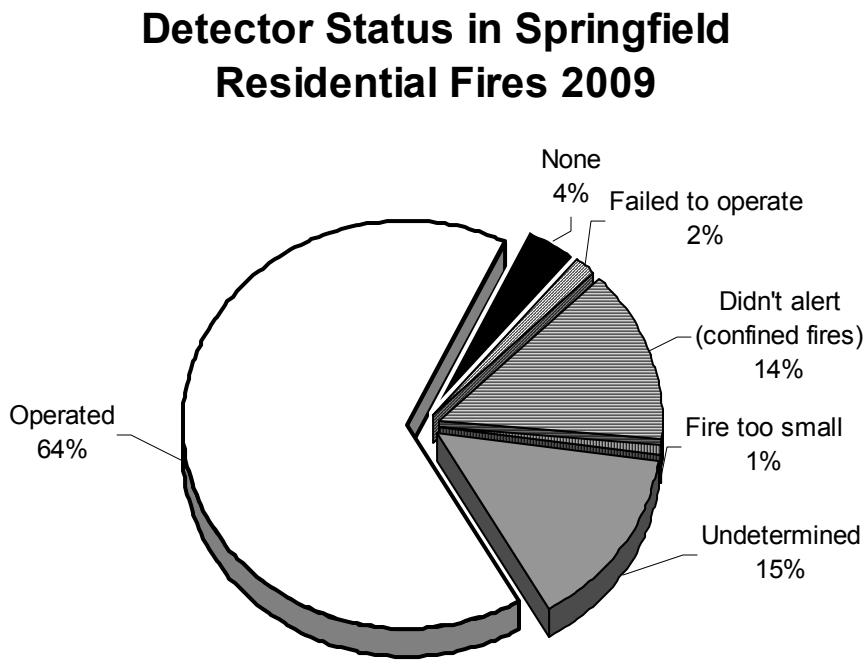
The leading cause of residential building fires in Springfield was unattended cooking and other unsafe cooking practices, accounting for 64% of these fires. Heating equipment accounted for 15% of the residential building fires in 2009. Indoor rubbish fires were responsible for 3%. Smoking caused 2% of these fires. Electrical problems, arsons, candles and juvenile-set fires each caused 1% of the fires in people's homes in Springfield in 2009.




**80% of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
Four hundred and twelve (412), or 80% of all residential building fires were confined to non-combustible containers in 2009. Three hundred and fifteen (315), or 61% of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Seventy (70), or 14% of all residential fires were fuel burner or boiler malfunctions. Sixteen (16), or 3% of residential fires were rubbish fires contained to a non-combustible container. Six (6) fires were confined to chimneys, which accounted for 1% of residential building fires. Four (4) incinerator overloads or malfunctions, accounted for 1% of these fires and one commercial compactor fire caused less than 1% of residential building fires in 2009.

**Detectors Alerted Occupants in 64% of Fires**
Smoke or heat detectors operated and alerted the occupants in 337, or 64%, of the residential building fires. In 14% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 1% of the residential fires. Smoke detector performance was undetermined in 75 incidents, or 15% of Springfield's residential building fires.

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




**1/3 of Failed Detectors Had Dead Batteries**

Of the nine fires where smoke detectors were present but failed to operate, three, or 33%, were due to dead batteries. Two (2), or 22%, failed because the batteries were either missing or disconnected. In one incident, a defective detector accounted for 11%, of the detectors that fail in Springfield's residential fires in 2009. It was undetermined in the other three, or 33%, cases why the detectors failed to operate.

## VACANT BUILDINGS

**17 Building Fires in Vacant Buildings**

Springfield reported 17 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 3% of the total 573 building fires reported to MFIRS in 2009. Nine (9) one- or two-family homes, four apartment buildings, two detached residential garages, one unclassified manufacturing or processing center and an outbuilding were reported as vacant building fire incidents.

[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

### 6 Juvenile-set Fires

There were six juvenile-set fires in Springfield in 2009. The four structure fires, one passenger vehicle fire, and one unclassified motor vehicle fire caused one civilian injury and $11,600 in estimated damages.

## ARSONS

### 16 Total Arsons[4] — 7 Structures, 6 Motor Vehicles, & 3 Other

Sixteen (16), or 2%, of Springfield's 955 fires were intentionally set, or, for purposes of this analysis, arson. The seven structure arsons, six motor vehicle arsons and three outside and other arsons caused two civilian deaths, four fire service injuries and an estimated dollar loss of $171,100.

### 2 Civilian Deaths in 2009 Arsons

In 2009, the City of Springfield had two fatal fires and two resulting deaths that were the result of successful self-immolation attempts in motor vehicles.

### All Arsons Down

The total number of arsons reported, 16, decreased by seven from the 23 reported in 2008. Reported structure arsons decreased five from 12 the year before. Motor vehicle arsons remained the same with six reported in both 2008 as well as in 2009. Outside and other arsons decreased one from the four reported last year.

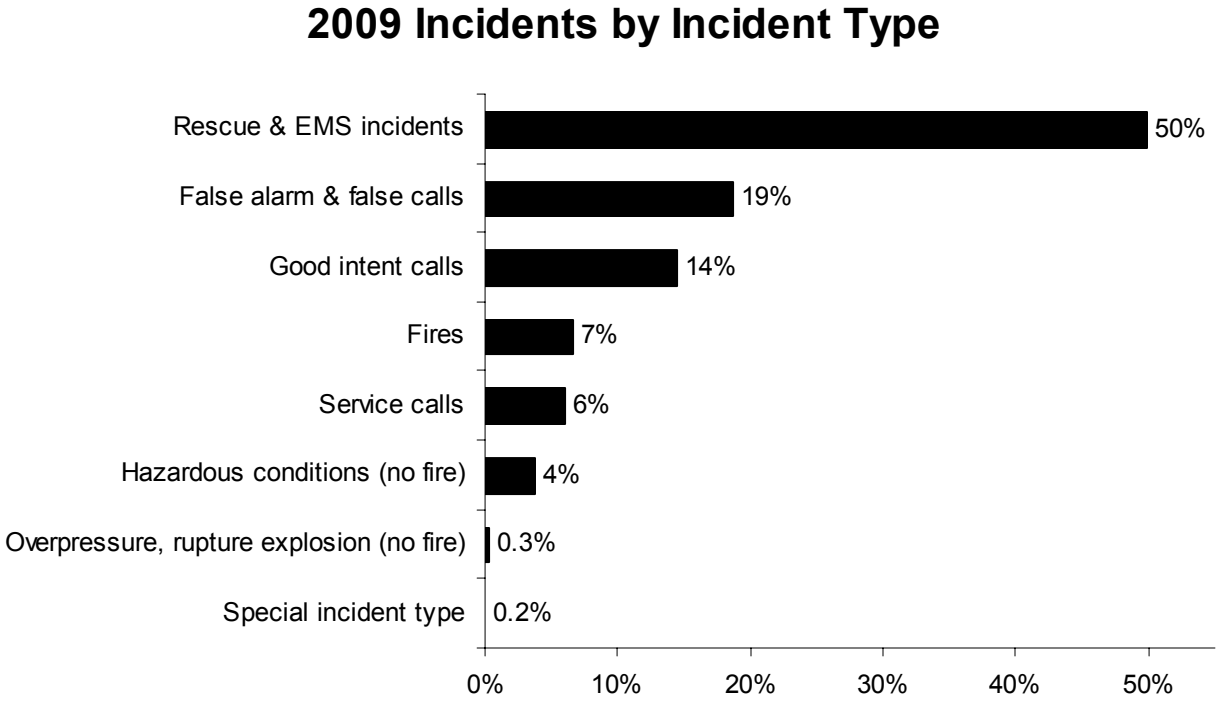
Springfield reported 126, or 13%, of all fires are still under investigation or undetermined after investigation. This high number of fires with these classifications is one possible reason for the unusually low number of reported arsons in Springfield in 2009.

### Rescue & EMS Calls Are 1/2 of All Reported Incidents

In 2009, Springfield voluntarily reported 14,545 incidents to MFIRS. Of these 14,545 incidents, 13,580, or 93% were non-fire incidents.

Of these 13,580 non-fire incidents 7,260, or 50%, were reported rescue and emergency medical services (EMS) calls; 2,718, or 19%, were reported false alarm or false calls; 2,095, or 14%, were reported good intent calls; 885, or 6%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 549, or 4%, were reported hazardous condition calls with no fire; 43,or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 30, or 0.2%, were special incident type calls, such as citizen complaints.

[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 2009, Springfield reported 965 fires[5] to MFIRS, accounting for 7% of all reported incidents.

**Springfield Gave Mutual Aid in 78 Reported Incidents**
In 2009, Springfield reported giving mutual aid 78 times. Of these 78 incidents, 37, or 47%, were rescue or EMS incidents; 13, or 17% were false alarms; nine, or 12%, were for fires; eight, or 10%, were hazardous condition calls without fire; five, or 6%, were for cover assignments (service calls); six or 8% were good intent calls; and five, or 6% were service (station coverage) calls.

**Springfield Received Mutual Aid in 16 Incidents**
In 2009, Springfield reported receiving mutual aid from surrounding fire departments in 16 incidents. Of these 16 incidents, seven, or 44%, were for rescue or EMS incidents; three, or 19%, were for good intent calls; three, or 19%, were for fires; two, or 13%, were service calls; and one, or 6%, was for a false alarm.

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

# Springfield Population: 152,082

**6.3 Fires/1,000 Population**

| **Total Fires:** | **955** | | **$4,514,247** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 579 | 61% | $4,103,107 |
| Vehicle Fires | 109 | 11% | 397,375 |
| Other Fires | 267 | 28% | 13,765 |

| | |
|---|---|
| 4 Civilian Deaths | 4.2 Civilian Deaths/1,000 Fires |
| 3 Fatal Fires | 0.3 Civilian Deaths/10,000 Population |
| 23 Civilian Injuries | 49 Fire Service Injuries |

## Building Fires: 573

## Residential Structure Fires: 515

**Residential Structure Fires Confined to Non-Combustible Containers: 412**

**Unconfined Residential Structure Fires: 103**

2 Civilian Deaths 19 Civilian Injuries 43 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 265 | 51% |
| 1- & 2-Family homes | 213 | 41% |
| Boarding house | 12 | 3% |
| Residential board & care | 8 | 1% |
| Dormitories | 6 | 1% |
| Hotel, motel | 3 | 0.3% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 337 | 64% |
| Didn't operate | 9 | 2% |
| None | 20 | 4% |
| Fire too small | 4 | 1% |
| Didn’t Alert (confined) | 70 | 14% |
| Undetermined | 75 | 15% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 67% |
| Heating room or area | 14% |
| Bedroom | 3% |
| Substructure area, crawl space | 1% |
| Function room, other | 1% |
| Chimney or flue | 1% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Heat from operating eq. | 4% | 22% |
| Radiated heat from oper. eq. | 1% | 7% |
| Heat op. flame/smok. mat. | 1% | 6% |
| Hot or smoldering object | 1% | 6% |
| Hot ember or ash | 1% | 5% |
| Candle | 1% | 4% |

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

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

| **Item First Ignited**[8] | **%** |
|---|---|
| Cooking materials | 63% |
| Flammable or combust. liquid | 14% |
| Rubbish, trash, waste | 5% |
| Structural member/framing | 5% |
| Film or residue (creosote) | 1% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[9] |
|---|---|---|
| Combustibles too close | 2% | 11% |
| Equipment unattended | 2% | 9% |
| Misuse of material or prod. | 1% | 5% |
| Abandoned materials | 1% | 4% |
| Playing with heat source | 1% | 3% |

| **Equipment**[10] | **%** |
|---|---|
| Cooking equipment | 62% |
| None | 20% |
| Boiler, furnace, cent. heat. unit | 14% |
| Chimney or flue | 1% |
| Incinerator | 1% |

| **Cause of Ignition** | **%** | **%Unconfined**[11] |
|---|---|---|
| Unintentional | 8% | 41% |
| Failure of eq. or heat source | 1% | 7% |
| Intentional | 1% | 7% |
| Act of Nature | 0% | 0% |
| Undetermined | 1% | 6% |
| Cause Under Investigation | 8% | 40% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Rescue & EMS incidents | 7,260 | 50% |
| False alarms & false calls | 2,718 | 19% |
| Good intent calls | 2,095 | 14% |
| Fires[12] | 965 | 7% |
| Service calls | 885 | 6% |
| Hazardous conditions (no fire) | 549 | 4% |
| Overpressure rupture, explosion or overheat calls (no fire) | 43 | 0.3% |
| Special incident type | 30 | 0.2% |
| Severe weather & natural disaster | 0 | 0% |

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

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

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

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

[12] This figure contains calls for mutual aid assistance.

| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 76 | 61 | 9 | 6 |
| February | 70 | 48 | 12 | 10 |
| March | 99 | 65 | 9 | 25 |
| April | 112 | 53 | 12 | 47 |
| May | 105 | 49 | 11 | 45 |
| June | 62 | 36 | 8 | 18 |
| July | 72 | 47 | 3 | 22 |
| August | 72 | 41 | 8 | 23 |
| September | 71 | 36 | 12 | 23 |
| October | 81 | 53 | 12 | 16 |
| November | 86 | 49 | 10 | 27 |
| December | 49 | 41 | 3 | 5 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 168 | 108 | 14 | 46 |
| Monday | 123 | 60 | 21 | 42 |
| Tuesday | 126 | 73 | 15 | 38 |
| Wednesday | 125 | 75 | 16 | 34 |
| Thursday | 133 | 80 | 14 | 39 |
| Friday | 154 | 104 | 16 | 34 |
| Saturday | 126 | 79 | 13 | 34 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 78 | 47 | 15 | 16 |
| 04:01 - 08:00 | 63 | 43 | 9 | 11 |
| 08:01 - 12:00 | 145 | 101 | 14 | 30 |
| 12:01 - 16:00 | 244 | 142 | 27 | 75 |
| 16:01 - 20:00 | 245 | 148 | 24 | 73 |
| 20:01 - 24:00 | 180 | 98 | 20 | 62 |

## Motor Vehicle Fires

Total: 109
Automobiles: 85 (78%)
4 (5%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 16** **Dollar loss: $171,100**

**0.1 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 7 | 1% | 44% | $144,100 |
| Vehicle Arsons | 6 | 6% | 38% | 27,000 |
| Other Arsons | 3 | 1% | 19% | 0 |

2 Civilian Deaths 4 Fire Service Injuries

0.05 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.02 Other arsons/1,000 population

**Peak Times of Day for:**

| Structure Arsons | # | % | Vehicle Arsons | # | % |
|---|---|---|---|---|---|
| 00:01 - 04:00 | 4 | 57% | 12:01 - 16:00 | 3 | 50% |
| 12:01 - 16:00 | 2 | 29% | 00:01 - 04:00 | 2 | 33% |
| 16:01 - 20:00 | 1 | 14% | 16:01 - 20:00 | 1 | 17% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 2 | 67% |
| 20:01 - 00:00 | 1 | 33% |

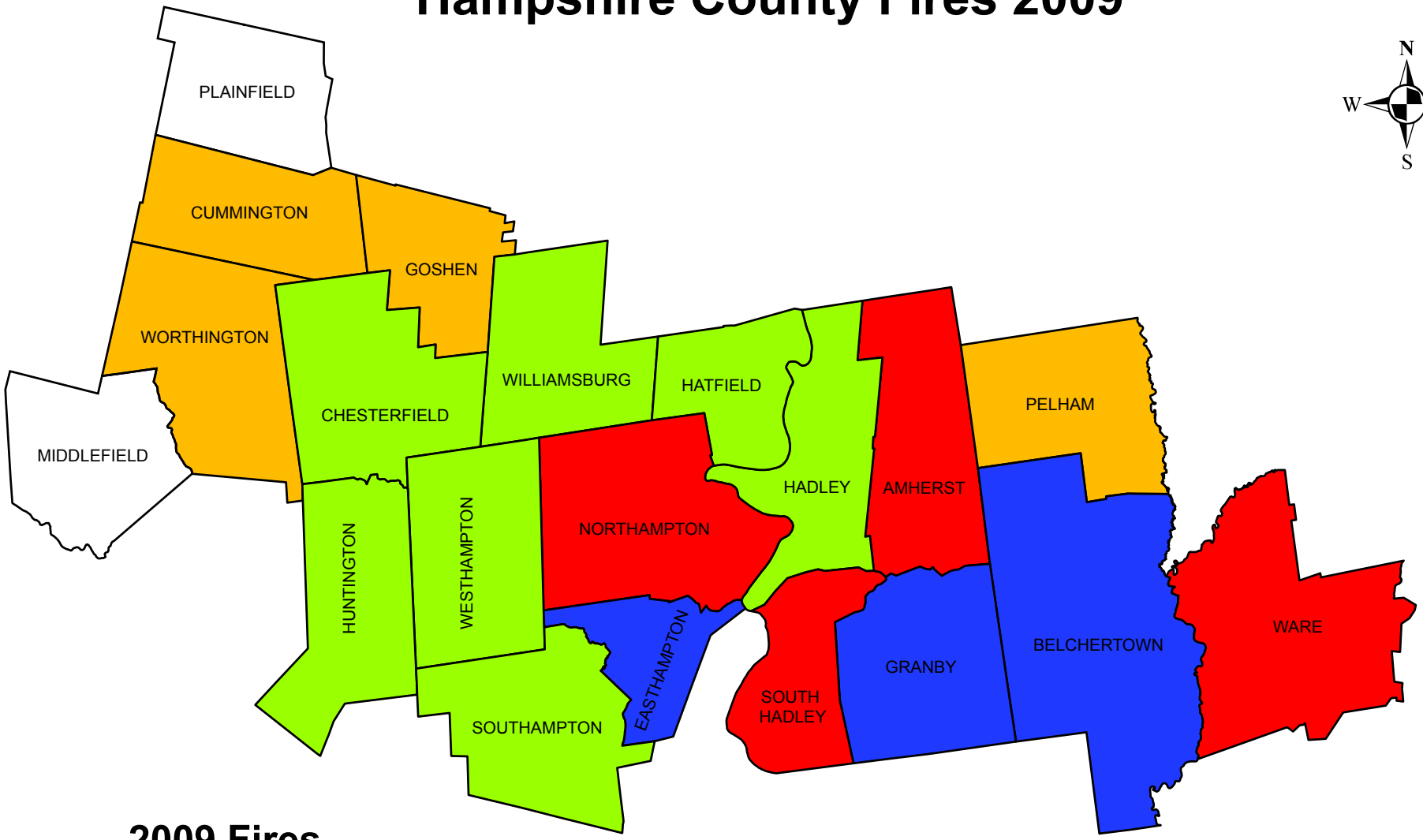
| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- & 2-Family homes | 4 | 57% |
| Apartments | 2 | 29% |
| Personal service | 1 | 14% |

# Hampshire County
## 2009 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 2009




## 2009 Fires

- 0
- 1 - 5
- 6 - 25
- 26 - 50
- 51 - 100

MFIRS
Massachusetts Fire Incident Reporting System

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2009

# Hampshire County Fires in 2009

**535 Total Fires — 250 Structures, 58 Vehicles & 227 Other Fires**
Hampshire County ranked eleventh out of the fourteen Massachusetts counties in total reported fires. Hampshire County Fire Departments reported 535 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 250 structure fires, 58 motor vehicle fires, 91 brush, tree or lawn fires, 71 outside rubbish fires, 18 special outside fires, two cultivated vegetation or crop fires and 45 other fires caused three civilian deaths, 16 civilian injuries, eight fire service injuries and an estimated dollar loss of $8.6 million. Hampshire County's 535 total reported fires accounted for 2% of the 20,595 fires reported to MFIRS in 2009.

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 2009.

**Structure & Motor Vehicle Fires Up**
The total number of reported fire incidents decreased by two from the 537 reported in 2008. Reported structure fires increased by 17 from the 233 reported during the previous year. Motor vehicle fires increased by 13 from 45 the year before. The number of outside and other fires decreased by 32 from 259 in 2008.

**HAMPSHIRE COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 540 | 214 | 66 | 260 | 44 | 7 | 0 | 37 |
| 2006 | 664 | 224 | 67 | 373 | 82 | 5 | 3 | 74 |
| 2007 | 635 | 287 | 54 | 294 | 34 | 7 | 0 | 27 |
| 2008 | 537 | 233 | 45 | 259 | 54 | 1 | 2 | 51 |
| 2009 | 535 | 250 | 58 | 227 | 45 | 7 | 8 | 30 |

**Fire and Fire Death Rates**
Hampshire County had 3.4 fires per 1,000 population. That figure ranks Hampshire County eleventh in the state and below the state rate of 4.5 fires per 1,000 population. Hampshire County also had 0.20 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.

**3 Hampshire County Residents Killed in 2 Fires**
- On December 27, 2009, at 2:11 a.m., the Northampton Fire Department was called to a fatal arson in a single-family home that took the life of a father and son. The fire was one of 18 fires set in the town between the hours of 2:00 a.m. and 3:15 a.m. The victims, a 39-year old man and his 82-year old father were asleep when their front porch was set on fire. They were unable to escape and were overcome by the heat and smoke. No one else was injured at this fire. Detectors were present and operated. Sprinklers were not present. Damages from the blaze were estimated to be $368,300.

- On December 31, 2009, at 1:20 p.m., the Ware Fire Department was called to a fatal fire in a two-family home. The victim, a 42-year old man, was thought to be working on a lawnmower in the basement. It is believed that the furnace pilot ignited the vapors from a gasoline can that the victim had nearby. One firefighter was injured at this fire. Detectors were present and alerted the other occupants of the building. Sprinklers were not present. Damages from the fire were estimated to be $250,000.

**Northampton Has Hampshire County's Largest Loss Fire**

- On April 13, 2009, at 2:57 p.m., the Northampton Fire Department was called to a smoking fire at an eight-unit apartment building. The fire began in a second story bedroom. One civilian and two firefighters were injured at this fire. Detectors were present and alerted the occupants. The building was not sprinklered. Damages from the blaze were estimated to be $3.75 million.

## STRUCTURE FIRES

**Reported Structure Fires Up Slightly**

The 250 structure fires caused three civilian deaths, 12 civilian injuries, seven fire service injuries and an estimated dollar loss of $8.6 million. These incidents represented 47% of Hampshire County's reported fires in 2009. The average estimated dollar loss per structure fire was $32,252. The total number of reported structure fires increased by 17, or 7%, from the 233 reported in 2008.

**7 Structure Arsons[1]**

The seven structure arsons caused two civilian deaths and an estimated dollar loss of $749,000. Arson was indicated as the cause of 3% of the structure fires and 9% of Hampshire County's structure fire dollar loss. The seven structure arsons accounted for 16% of the Hampshire County arson fires reported in 2009. The total number of reported structure arsons increased by six, or 600%, from one in 2008.

**Almost 3/4 of Structure Arsons Occurred in Residences**

Seventy-one percent (71%) of Hampshire County's seven structure arsons occurred in residential occupancies. A library and an unclassified vehicle storage facility each accounted for 14% of the structure arsons in Hampshire County in 2009.

### BUILDING FIRES

There were 249 building fires of different types in Hampshire County in 2009. These 249 building fires accounted for 99.6% of all structure fires in Hampshire County.

[1] 4 of the 7 structure arsons in Hampshire County occurred on the same 2-hour period in Northampton on 12/27/09. Three were single-family homes and one was an unclassified vehicle storage facility.

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

One hundred and ninety-nine (199), or 80%, of Hampshire County's 249 building fires occurred in residential occupancies. Sixteen (16) fires took place each in public assembly properties, including restaurants and churches, and in storage facilities. Mercantile and business properties had 10 fires. Eight (8) fires occurred in educational facilities. Seven (7) fires occurred in storage facilities. Special properties such as outbuildings or sheds, experienced six fires. Hospitals, prisons, and other institutional buildings experienced one fire. One fire in Hampshire County in 2009 occurred in a manufacturing or processing facility and another building fire happened in an industrial facility.

## RESIDENTIAL FIRES

### Residential Building Fires Up

There were 199 reported residential building fires in Hampshire County in 2009. This is an increase of 13 fires, or 7%, from the 186 residential fires Hampshire County fire departments reported to MFIRS in 2008.

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

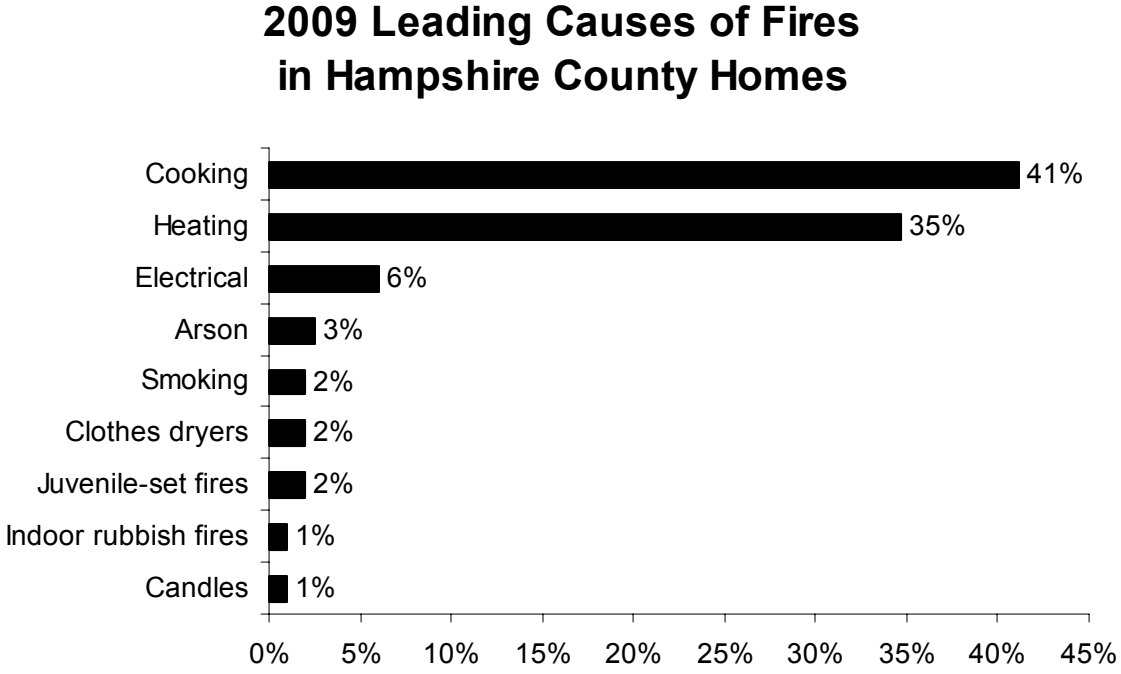
The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 66% of the residential building fires in Hampshire County; 17% occurred in apartments; 13% occurred in dormitories; 2% happened in residential board and care facilities, and 1% occurred in rooming houses. Two percent (2%) of the residential building fires in Hampshire County occurred in unclassified residential buildings.

Although much of Hampshire County is rural, the county is home to several colleges and the main campus of the University of Massachusetts. Twenty-five (25), or 13%, of Hampshire County's residential fires occurred in dormitories. Dormitory fires make up smaller percentages of the other counties' fires. In 2009, one of the structure arsons in Hampshire County occurred in a dormitory.

### Cooking Causes 41% of Residential Fires

Unattended cooking and other unsafe cooking practices was the leading cause of the 199 residential building fires in Hampshire County accounting for 41% of these fires. Heating equipment fires accounted for 35% of home fires. Electrical problems cause 6%, and arson caused 3% of the residential fires. Smoking, clothes dyers and juvenile-set fires each accounted for 2% of these fires. Indoor rubbish fires and candles each caused 1% of the residential fires in Hampshire County in 2009.

During the past five years, cooking and heating equipment have both been the leading cause of Hampshire County's residential fires. In 2008, 2007 and in 2005, heating was the leading cause of residential fires in Hampshire and cooking was the second leading cause. In 2006 and 2004 cooking fires were the leading cause of residential fires and heating fires were the second leading cause.

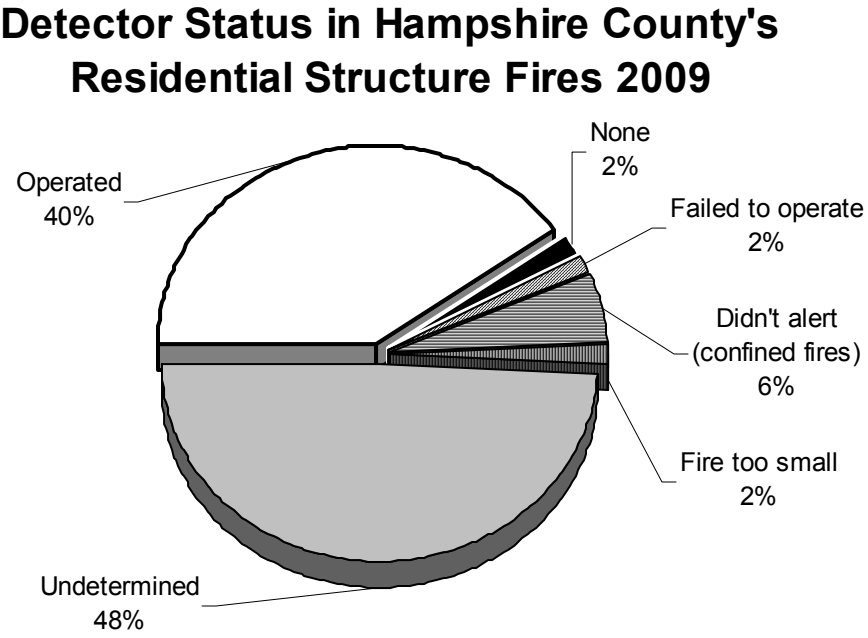



**74%of Residential Building Fires Are Confined to Non-Combustible Containers[2]**
One hundred and forty-eight (148), or 74% of all residential building fires were reported as confined to non-combustible containers in 2009. Seventy-seven (77) of the reported fires were cooking fires contained to a non-combustible container accounting for 39% of residential building fires. Forty-two (42), or 21%, of all residential building fires reported in 2009 were fires confined to a chimney. Twenty-six (26), or 13%, were fires confined to a fuel burner or boiler malfunction. Three (3), or 2%, of these fires were rubbish fires contained to a non-combustible container in Hampshire County in 2009.

**Undetected if Detectors Operated in Almost 1/2 of Fires**
Smoke or heat detectors operated and alerted the occupants in 80, or 40%, of the residential building fires. In 6% of these fires[3], 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 98 incidents, or 48% of Hampshire County's residential building fires.

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

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




**2 of 3 Failed Detectors Had Missing or Disconnected Batteries**
In two of the three fires where smoke detectors were present but failed to operate, they failed because the batteries were either missing or disconnected. The other detector failed from a lack of maintenance.

## VACANT BUILDINGS

**2% of Building Fires Occurred in Vacant Buildings**
Hampshire County reported four fires that occurred in buildings that were vacant, under construction or demolition[4]. This represented 2% of the total 249 building fires reported to MFIRS in 2009. All four of these vacant building fires occurred in residential occupancies.

None, of the vacant building fires in Hampshire County in 2009 were determined to be intentionally set.

[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.

## JUVENILE-SET FIRES

### 4 Juvenile-set Fires

There were four reported juvenile-set fires in Hampshire County in 2009. The three structure fires and one motor vehicle fire caused $250 in estimated damages.

## ARSONS

### 45 Total Arsons — 7 Structures, 8 Motor Vehicle & 30 Other Arsons

Forty-five (45), or 8%, of Hampshire County's 535 fires were intentionally set, or, for purposes of this analysis, arson[5]. The seven structure arsons, eight motor vehicle arsons and 30 outside and other arsons caused two civilian deaths and an estimated dollar loss of $787,926.

### Outside Arson Down

The total number of reported arson fires decreased by nine from the 54 reported in 2008. Structure arsons increased by six from the one reported the previous year. Motor vehicle arsons increased by six from two in 2008. Reported outside and other arsons decreased 21 from the 51 reported in 2008.

## ALL INCIDENTS

### Rescue & EMS Calls Are 58% of All Reported Responses

In 2009, Hampshire County fire departments reported 12,067 responses[6] to MFIRS. Of these 12,067 incidents, 11,405 non-fire calls were voluntarily reported.

Of these 11,405 non-fire calls, 6,941, or 58% of all the responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 2,200, or 18%, were reported false alarm or false calls; 725, or 6%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 717, or 6%, were reported hazardous condition calls with no fire; 644, or 5%, were reported good intent calls; 126 or 1%, were special incident type calls such as citizen complaints; 40, or 0.3%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 12, or 0.1%, were severe weather responses.

Six hundred and sixty-two (662), or 5% of the total responses submitted by Hampshire County fire departments were fires.

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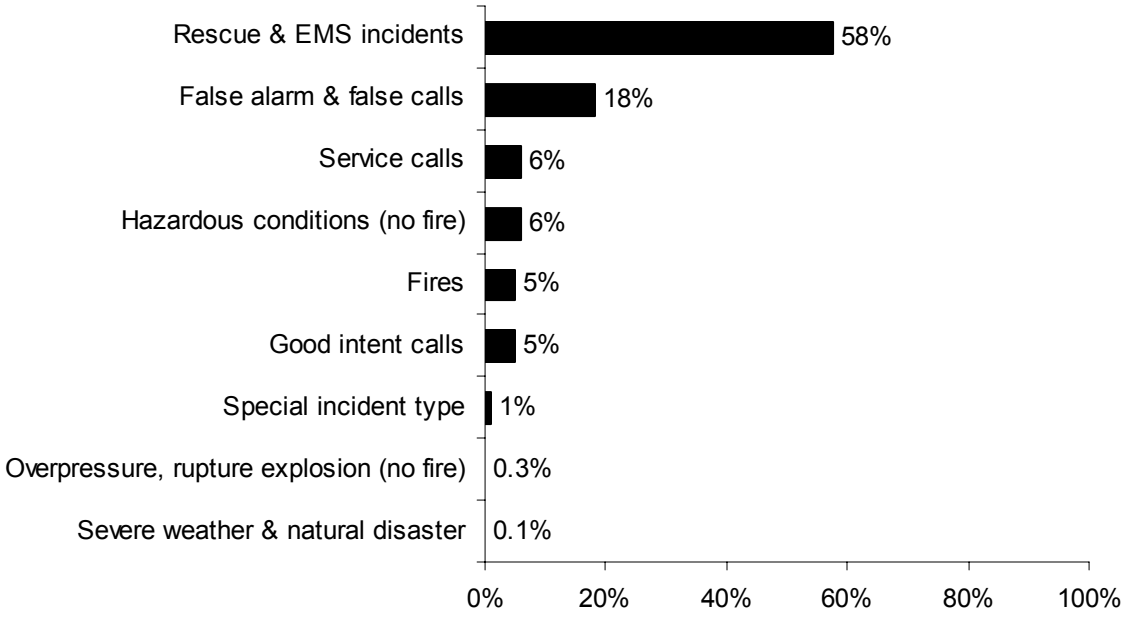
[5] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

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

## 2009 Responses by Incident Type




**Hampshire County Fire Departments Gave Mutual Aid 414 Times**
In 2009, Hampshire County fire departments reported coming to the aid of other fire departments 414 times. Of these 414 responses, 171, or 41%, were for rescue or EMS calls; 128, or 31%, were for fires; 49, or 12%, were for service calls such as cover assignments; 24, or 6%, were hazardous conditions calls with no fire; 22, or 5%, were for good intent calls; 18, or 4%, were for false alarms or false calls; one, or 0.2%, was a severe weather calls; and another call, or 0.2% was a special incident type.

**Hampshire County Received Mutual Aid in 149 Incidents**
In 2009, Hampshire County fire departments received aid from surrounding departments in 149 incidents. Of these 149 incidents, 74, or 50%, were rescue and emergency medical services calls; 54, or 36%, were for fires; eight, or 5%, were false alarm or false calls; four, or 3%, were service calls; four, or 3%, were good intent calls; three, or 2%, were hazardous conditions calls with no fire; one call, or 1% was an overpressure or rupture explosion with no fire; and another call was a special incident type call also accounting for 1% of the mutual aid calls received in Hampshire County in 2009.

## Hampshire County Population: 152,251

**3.5 Fires/1,000 Population**

| **Total Fires:** | **535** | | **$8,625,479** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 250 | 47% | $8,062,936 |
| Vehicle Fires | 42 | 11% | 298,552 |
| Other Fires | 227 | 42% | 263,991 |

| | |
|---|---|
| 2 Fatal Fires | 5.61 Civilian Deaths/1,000 Fires |
| 3 Civilian Deaths | 0.20 Civilian Deaths/10,000 Population |
| 16 Civilian Injuries | 8 Fire Service Injuries |

# Building Fires: 249

## Residential Structure Fires: 199

**Residential Structure Fires Confined to Non-Combustible Containers: 148**

**Unconfined Residential Structure Fires: 51**

3 Civilian Deaths 9 Civilian Injuries 7 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 131 | 66% |
| Apartments | 34 | 17% |
| Dormitories | 25 | 13% |
| Residential board & care | 3 | 2% |
| Rooming houses | 2 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 80 | 40% |
| Didn't operate | 3 | 2% |
| None | 4 | 2% |
| Fire too small | 3 | 2% |
| Didn’t alert (confined) | 11 | 6% |
| Undetermined | 98 | 48% |

| **Area of Origin**[7] | **%** |
|---|---|
| Kitchen | 43% |
| Chimney or flue | 21% |
| Heating room or area | 14% |
| Living room | 3% |
| Bedroom | 3% |

| **Heat Source** | **%** | **%Unconfined**[8] |
|---|---|---|
| Arcing | 4% | 14% |
| Heat from operating eq. | 3% | 10% |
| Cigarette | 2% | 8% |
| Radiated, con. Heat op. eq. | 2% | 8% |

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

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

| **Item First Ignited[9]** | **%** |
|---|---|
| Food, cooking materials | 41% |
| Film, residue (creosote) | 21% |
| Flamm. or combustible liquid | 13% |
| Structural member, framing | 3% |
| Electrical wire, cable insulation | 2% |

| **Factor Contrib. to Ignit.** | **%** | **%Unconfined[10]** |
|---|---|---|
| Too close to combustibles | 2% | 8% |
| Failure to clean | 2% | 8% |
| Unspecified short-circuit arc | 2% | 8% |
| Playing with heat source | 2% | 6% |
| Mechanical failure, malfunc. | 1% | 4% |
| Electrical failure, malfunc. | 1% | 4% |

| **Equipment[11]** | **%** |
|---|---|
| Cooking equipment | 39% |
| Chimney or flue | 21% |
| None | 20% |
| Boiler, furnace, cent. heat unit | 13% |
| Clothes dryer | 2% |

| **Cause of Ignition** | **%** | **%Unconfined[12]** |
|---|---|---|
| Unintentional | 11% | 41% |
| Failure of eq. or heat source | 6% | 24% |
| Intentional | 2% | 8% |
| Cause under investigation | 3% | 10% |
| Undetermined | 4% | 16% |
| Act of nature | 1% | 4% |

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

| | |
|---|---|
| Alerted occupants | 36% |
| Didn't alert occupants | 7% |
| Undetermined | 56% |

[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 | 56 | 39 | 4 | 13 |
| February | 26 | 18 | 2 | 6 |
| March | 50 | 24 | 3 | 23 |
| April | 89 | 20 | 2 | 67 |
| May | 45 | 14 | 7 | 24 |
| June | 38 | 13 | 3 | 22 |
| July | 24 | 10 | 3 | 11 |
| August | 26 | 7 | 8 | 11 |
| September | 38 | 13 | 7 | 18 |
| October | 47 | 27 | 3 | 17 |
| November | 35 | 23 | 3 | 9 |
| December | 61 | 42 | 13 | 6 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 97 | 43 | 10 | 44 |
| Monday | 85 | 44 | 6 | 35 |
| Tuesday | 64 | 35 | 13 | 16 |
| Wednesday | 64 | 29 | 7 | 28 |
| Thursday | 75 | 38 | 5 | 32 |
| Friday | 68 | 25 | 6 | 37 |
| Saturday | 82 | 36 | 11 | 35 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 57 | 31 | 7 | 19 |
| 04:01 - 08:00 | 27 | 21 | 3 | 3 |
| 08:01 - 12:00 | 94 | 38 | 12 | 44 |
| 12:01 - 16:00 | 132 | 52 | 15 | 65 |
| 16:01 - 20:00 | 144 | 69 | 15 | 60 |
| 20:01 - 00:00 | 81 | 39 | 6 | 36 |

## Motor Vehicle Fires

Total: 58
Automobiles: 51 (88%)
8, or (16%), of the automobile fires were considered intentionally set.

## Arson Fires

**Total Arsons: 45** **Dollar loss: $787,926**

**0.1 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Loss |
|---|---|---|---|---|
| Structure Arsons | 7 | 3% | 16% | $749,000 |
| Vehicle Arsons | 8 | 14% | 18% | 37,425 |
| Other Arsons | 30 | 13% | 67% | 1,501 |

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

2 Civilian Deaths

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 4 | 57% |

| Vehicle Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 5 | 63% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 13 | 43% |
| 20:01 - 00:00 | 7 | 23% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| One- or two-family homes | 4 | 57% |

**Amherst** **Population: 34,874**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 122 | 54 | 5 | 63 | 20 | 5 | 0 | 15 |
| 2006 | 120 | 52 | 14 | 54 | 20 | 4 | 0 | 15 |
| 2007 | 105 | 49 | 10 | 46 | 14 | 2 | 0 | 12 |
| 2008 | 102 | 55 | 6 | 41 | 12 | 1 | 0 | 11 |
| 2009 | 98 | 44 | 8 | 46 | 16 | 2 | 0 | 14 |

**Belchertown** **Population: 12,968**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 48 | 23 | 5 | 20 | 6 | 0 | 0 | 6 |
| 2006 | 47 | 19 | 7 | 21 | 4 | 0 | 0 | 4 |
| 2007 | 62 | 30 | 5 | 27 | 4 | 2 | 0 | 2 |
| 2008 | 52 | 24 | 3 | 25 | 1 | 0 | 0 | 1 |
| 2009 | 33 | 16 | 4 | 13 | 2 | 0 | 0 | 2 |

**Chesterfield** **Population: 1,201**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 9 | 3 | 0 | 6 | 1 | 0 | 0 | 1 |
| 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 |

**Cummington** **Population: 978**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Easthampton** **Population: 15,994**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 71 | 31 | 11 | 29 | 0 | 0 | 0 | 0 |
| 2006 | 80 | 35 | 8 | 37 | 6 | 1 | 1 | 4 |
| 2007 | 85 | 56 | 8 | 21 | 1 | 0 | 0 | 1 |
| 2008 | 56 | 26 | 5 | 25 | 7 | 0 | 1 | 6 |
| 2009 | 48 | 30 | 3 | 15 | 2 | 0 | 0 | 2 |

**Goshen** **Population: 921**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 4 | 1 | 0 | 3 | 0 | 0 | 0 | 0 |

**Granby** **Population: 6,132**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 10 | 3 | 1 | 6 | 1 | 0 | 0 | 1 |
| 2006 | 35 | 8 | 4 | 23 | 11 | 0 | 0 | 11 |
| 2007 | 29 | 14 | 1 | 14 | 5 | 0 | 0 | 5 |
| 2008 | 36 | 13 | 2 | 21 | 6 | 0 | 0 | 6 |
| 2009 | 41 | 19 | 2 | 20 | 1 | 0 | 0 | 1 |

**Hadley** **Population: 4,793**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 12 | 4 | 2 | 6 | 2 | 0 | 0 | 2 |
| 2006 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 5 | 1 | 3 | 1 | 1 | 0 | 1 | 0 |
| 2009 | 9 | 4 | 2 | 3 | 0 | 0 | 0 | 0 |

**Hatfield** **Population: 3,249**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 12 | 6 | 2 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 18 | 5 | 2 | 11 | 0 | 0 | 0 | 0 |
| 2007 | 18 | 3 | 2 | 13 | 0 | 0 | 0 | 0 |
| 2008 | 6 | 2 | 2 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 11 | 7 | 2 | 2 | 0 | 0 | 0 | 0 |

**Huntington** **Population: 2,174**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 11 | 5 | 0 | 6 | 0 | 0 | 0 | 0 |
| 2007 | 12 | 4 | 0 | 8 | 1 | 1 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 11 | 6 | 0 | 5 | 0 | 0 | 0 | 0 |

**Middlefield** **Population: 542**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | Non-Reporting Community | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

**Northampton** **Population: 28,978**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 114 | 48 | 22 | 44 | 2 | 0 | 0 | 2 |
| 2006 | 153 | 65 | 25 | 63 | 7 | 0 | 0 | 7 |
| 2007 | 110 | 49 | 17 | 44 | 2 | 1 | 0 | 1 |
| 2008 | 114 | 54 | 12 | 48 | 0 | 0 | 0 | 0 |
| 2009 | 89 | 34 | 23 | 32 | 15 | 5 | 7 | 3 |

**Pelham** **Population: 1,403**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007[13] | Non-Reporting Community | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Plainfield** **Population: 589**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |

**SOUTH HADLEY FIRE DISTRICTS** **Population: 15,000**

***South Hadley District # 1*** ***Est. Pop. Protected: 10,000***

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 46 | 9 | 7 | 30 | 4 | 0 | 1 | 3 |

***South Hadley District # 2*** ***Est. Pop. Protected: 5,000***

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 8 | 2 | 2 | 4 | 1 | 0 | 0 | 1 |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 28 | 20 | 3 | 5 | 1 | 0 | 0 | 1 |
| 2008 | 13 | 11 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 44 | 42 | 0 | 2 | 0 | 0 | 0 | 0 |

[13] Pelham did report 1 severe weather response in 2007.

**Southampton** **Population: 5,387**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 41 | 6 | 2 | 33 | 1 | 1 | 0 | 0 |
| 2006 | 75 | 6 | 0 | 69 | 4 | 0 | 0 | 4 |
| 2007 | 65 | 7 | 1 | 57 | 1 | 0 | 0 | 1 |
| 2008 | 33 | 1 | 3 | 29 | 13 | 0 | 0 | 13 |
| 2009 | 11 | 1 | 0 | 10 | 3 | 0 | 0 | 3 |

**Ware** **Population: 9,707**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 74 | 21 | 10 | 43 | 8 | 0 | 0 | 8 |
| 2006 | 96 | 18 | 6 | 72 | 28 | 0 | 2 | 26 |
| 2007 | 76 | 25 | 4 | 47 | 10 | 1 | 0 | 9 |
| 2008 | 67 | 15 | 2 | 50 | 11 | 0 | 0 | 11 |
| 2009 | 51 | 16 | 4 | 31 | 0 | 0 | 0 | 0 |

**Westhampton** **Population: 1,468**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 4 | 2 | 0 | 2 | 1 | 0 | 0 | 1 |
| 2006 | 5 | 1 | 0 | 4 | 1 | 0 | 0 | 1 |
| 2007 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 8 | 4 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 13 | 6 | 2 | 5 | 0 | 0 | 0 | 0 |

**Williamsburg** **Population: 2,427**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5 | 4 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 10 | 4 | 1 | 5 | 1 | 0 | 0 | 1 |
| 2007 | 17 | 11 | 1 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 8 | 4 | 1 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 10 | 6 | 0 | 4 | 2 | 0 | 0 | 2 |

**Worthington** **Population: 1,270**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15024 | Belchertown | 258 | 37 | 2 | 4 | 54 | 42 | 18 | 101 | 0 | 0 |
| 15060 | Chesterfield | 104 | 24 | 0 | 51 | 7 | 4 | 6 | 12 | 0 | 0 |
| 15069 | Cummington | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15087 | Easthampton | 2,511 | 65 | 1 | 2,000 | 82 | 127 | 52 | 158 | 2 | 24 |
| 15108 | Goshen | 100 | 10 | 0 | 58 | 4 | 6 | 3 | 18 | 1 | 0 |
| 15111 | Granby | 191 | 45 | 0 | 13 | 28 | 45 | 16 | 43 | 0 | 1 |
| 15117 | Hadley | 10 | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 15127 | Hatfield | 118 | 12 | 0 | 12 | 17 | 21 | 14 | 41 | 0 | 1 |
| 15143 | Huntington | 283 | 32 | 0 | 164 | 31 | 20 | 8 | 27 | 1 | 0 |
| 15214 | Northampton | 5,139 | 92 | 29 | 3,455 | 225 | 235 | 269 | 765 | 1 | 68 |
| 15230 | Pelham | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15978 | South Hadley #1 | 292 | 47 | 4 | 3 | 28 | 48 | 44 | 112 | 1 | 5 |
| 15979 | South Hadley #2 | 687 | 60 | 0 | 433 | 46 | 27 | 30 | 91 | 0 | 0 |
| 15276 | Southampton | 494 | 12 | 0 | 333 | 33 | 37 | 19 | 57 | 2 | 1 |
| 15309 | Ware | 284 | 59 | 2 | 14 | 51 | 33 | 36 | 78 | 2 | 9 |
| 15331 | Westhampton | 156 | 23 | 1 | 87 | 10 | 8 | 9 | 17 | 1 | |
| 15340 | Williamsburg | 232 | 21 | 0 | 129 | 10 | 28 | 14 | 16 | 0 | 14 |
| 15349 | Worthington | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **Hampshire County** | **12,067** | **662** | **40** | **6,941** | **717** | **725** | **644** | **2,200** | **12** | **126** |

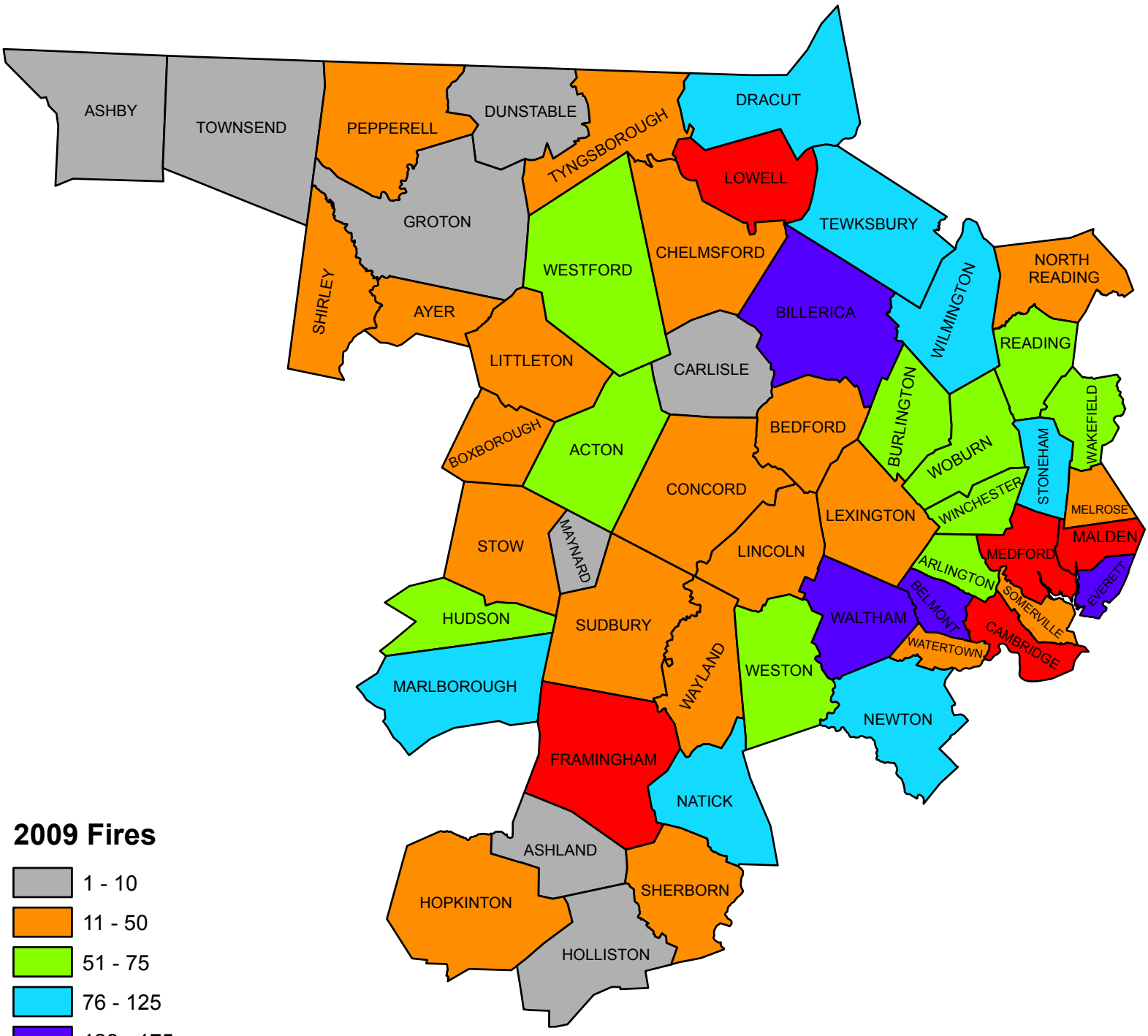
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

# Middlesex County
## 2009 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 2009




## 2009 Fires

- 1 - 10
- 11 - 50
- 51 - 75
- 76 - 125
- 126 - 175
- 176 - 875

MASS. DEPARTMENT OF FIRE SERVICES

MFIRS
Massachusetts Fire Incident Reporting System

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2009

# Middlesex County Fires in 2009

**5,150 Total Fires — 3,381 Structures, 503 Vehicles & 1,266 Other Fires**
Middlesex County ranked second out of the fourteen Massachusetts counties in total reported fires. Middlesex County fire departments reported 5,150 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 3,381 structure fires, 503 motor vehicle fires, 576 brush fires, 392 outside rubbish fires, 107 special outside fires, three cultivated vegetation or crop fires, and 188 unclassified fires caused four civilian deaths, 58 civilian injuries, 106 fire service injuries and an estimated dollar loss of $44.5 million. Middlesex County's fires accounted for 18% of the 28,595 Massachusetts fires reported in 2009.

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 2009.

**All Fires Down**
The total number of reported fire incidents decreased by 173 from the 5,323 reported in 2008. Reported structure fires were down 66 from 3,447 in the previous year. Motor vehicle fires decreased by nine from the 512 reported during 2008. Reported outside and other fires decreased by 98 from 1,364 the year before.

**MIDDLESEX COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5,029 | 2,819 | 633 | 1,577 | 154 | 48 | 24 | 82 |
| 2006 | 5,344 | 3,171 | 564 | 1,609 | 171 | 52 | 24 | 95 |
| 2007 | 5,758 | 3,207 | 569 | 1,982 | 173 | 63 | 16 | 94 |
| 2008 | 5,323 | 3,447 | 512 | 1,364 | 168 | 40 | 27 | 101 |
| 2009 | 5,150 | 3,381 | 503 | 1,266 | 173 | 41 | 29 | 103 |

**Fire and Fire Death Rates**
Middlesex County had 3.5 fires per 1,000 population. That figure ranks Middlesex County tenth in the state and below the state rate of 4.5 fires per 1,000 population. Middlesex County also had 0.03 fire deaths per 10,000 population ranking it eleventh among Massachusetts counties and below the state rate of 0.06 fire deaths per 10,000 population.

**4 Fatal Fires Killed 4 Middlesex County Residents**
- On January 23, 2009, at 10:39 a.m., the Malden Fire Department was called to a fatal smoking fire in a two-family home. The victim, a 62-year old woman, fell asleep while smoking on her living room couch. Arriving firefighters found her unconscious on the couch with the fire self-extinguished. She was transported to a local hospital where she died from smoke inhalation and burns. Detectors were present but didn't

work because of a missing battery. The building was not sprinklered. No one else was injured in this fire, and damages were not estimated.

- On April 8, 2009, at 6:29 a.m. the Waltham Fire Department was called to a fatal outside arson fire, a suicide by self-immolation. The 78-year old male victim, had poured lighter fluid over himself and ignited it. No one else was injured at this fire. Damages from this fire were not estimated.

- On June 14, 2009, at 9:41 p.m., the Sudbury Fire Department was called to a fatal car fire in a field. The fire was most likely a suicide by self-immolation. The unidentified female victim was discovered in the vehicle after the fire was extinguished. No one else was injured in this fire, and damages were not estimated.

- On August 12, 2009, at 4:55 a.m., the Waltham Fire Department was called to a fatal electrical fire at a three-unit apartment building. The victim, a 22-year old man, was sleeping at the time of the fire. A fluorescent lighting fixture in the illegal basement apartment failed starting the fire. No one else was injured at this fire. Detectors were present but failed due to a missing battery and sprinklers were not present. Damages were not estimated.

**Largest Loss Fires in 2009**
In 2009, Middlesex County fire departments reported eight fires with a reported dollar loss of $1 million or greater. The combined dollar loss of these eight fires totaled $17.9 million, or 40% of the county's total dollar loss. Newton had four of these fires.

- On July 2 2009, at 10:09 a.m., the Everett Fire Department was called to a fire at a steel recycling plant. Lightning struck the conveyor belt starting the fire. No one was injured at this fire. Detectors and sprinklers were not present. Damages from this fire were estimated to be $4.4 million.

- On December 23, 2009, at 6:08 a.m., the Weston Fire Department was called to a fire at the Gifford School. The fire was started when someone accidentally turned on a burner on a stove in the kitchen. Nearby combustible items ignited. 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 $3 million.

## STRUCTURE FIRES

**Reported Structure Fires Down**
The 3,381 structure fires caused two civilian deaths, 49 civilian injuries, 94 fire service injuries and an estimated dollar loss of $41.5 million. These incidents represented 66% of Middlesex County's reported fires in 2009. The average estimated dollar loss per structure fire was $12,268. The total number of reported structure fires decreased by 66, or 2%, from the 3,447 reported in 2008.

### Arson Caused of 1% of Structure Fires

The 41 structure arsons caused three civilian injuries, four fire service injuries and an estimated dollar loss of $1.2 million. Arson was indicated as the cause of 1% of the structure fires and 3% of Middlesex County's structure fire dollar loss. The 41 structure arsons accounted for 24% of the Middlesex County arson fires reported in 2009. The total number of reported structure arsons increased by one, or 3%, from 40 in 2008.

### 3/4 of Structure Arsons Occurred in Residences

Seventy-five percent (75%) of Middlesex County's 41 structure arsons occurred in residential occupancies; educational facilities, mercantile or business facilities, and special properties each had 8% of these fires; and 3% occurred in manufacturing or processing facilities.

## BUILDING FIRES

There were 3,363 building fires of different types in Middlesex County in 2009. These 3,363 building fires accounted for 99.5% of all structure fires in Middlesex County.

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

Two thousand seven hundred and forty-five (2,745), or 82%, of Middlesex County's 3,363 building fires occurred in residential occupancies. One hundred and thirty-one (131) fires took place in public assembly properties, including restaurants and churches. Mercantile and business properties had 120 fires. Hospitals, prisons, and other institutional buildings experienced 118 fires. Eighty-eight (88) building fires in Middlesex County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Seventy-eight (78) building fires took place in educational facilities. Thirty-nine (39) fires took place in storage properties. Twenty-nine (29) fires took place in manufacturing and processing facilities. Fifteen (15) fires occurred in industrial, utility, defense, agricultural or mining facilities in Middlesex County in 2009.

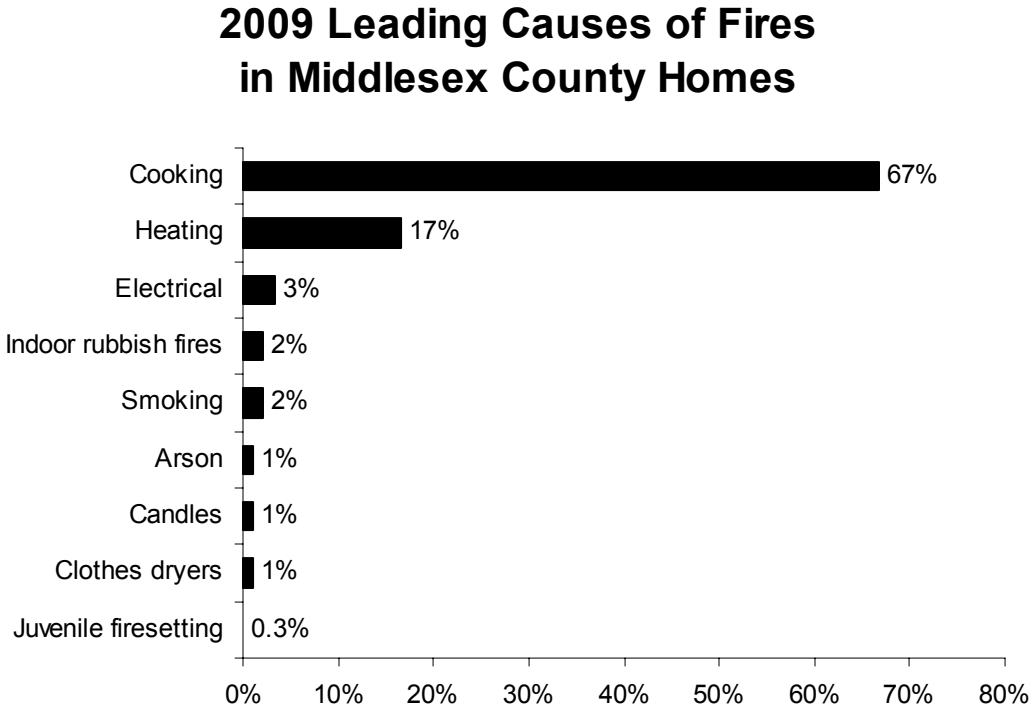
## RESIDENTIAL FIRES

### Residential Building Fires Are Up

There were 2,745 reported residential building fires in Middlesex County in 2009. These 2,745 fires are an increase of 54, or 2%, from the 2,691 residential building fires reported in 2008.

### 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 67% of these fires. Heating caused 17% of fires in people's homes. Electrical problems caused 3%. Indoor rubbish fires and smoking each caused 2% of these fires. Arsons, candles and clothes dryers each caused 1% of these fires; and juvenile-set fires caused less than 1% of the residential fires in Middlesex County in 2009.



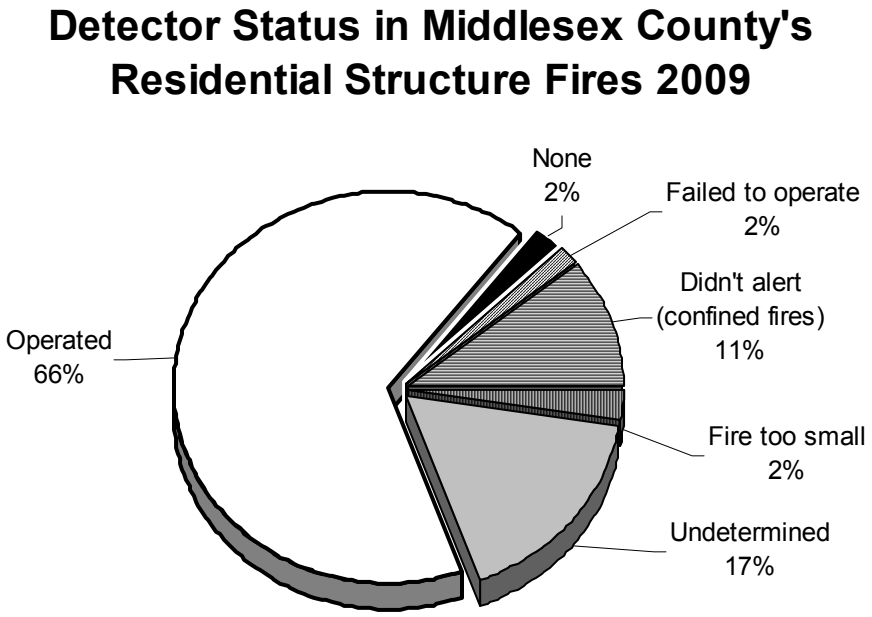

**83% of Residential Building Fires Are Confined to Non-Combustible Containers1**
Two thousand two hundred and sixty-eight (2,268), or 83%, of all residential building fires were reported as confined to non-combustible containers in 2009. One thousand seven hundred and seventy (1,770) of the reported fires were cooking fires contained to a non-combustible container accounting for 64% of residential building fires. Three hundred and twenty-one (321), or 12%, were fires confined to a fuel burner or boiler malfunction. One hundred and twelve (112), or 4%, of all residential building fires reported in 2009 were fires confined to a chimney. Sixty-three (63), or 2%, 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 2009.

**Detectors Alerted Occupants in Almost 2/3 of Fires**
Smoke or heat detectors operated and alerted the occupants in 1,816, or 66%, of the residential building fires. In 11% of these fires[2], the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 2% of the

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

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

residential fires. Smoke detector performance was undetermined in 467 incidents, or 17% of Middlesex County's residential building fires.




**Nearly 40% of Failed Detectors Had Dead, Missing or Disconnected Batteries**
Of the 44 fires where smoke detectors were present but failed to operate, nine, or 20%, failed because the batteries were either missing or disconnected. Eight (8), or 18%, did not operate because of dead batteries. Five (5), or 11%, failed because of a power failure, shutoff or disconnect. Four (4) detectors, or 9%, failed from a lack of maintenance. One (1) unit, or 2%, failed because of improper installation or placement; and another unit, or 2%, failed because it was defective. It was undetermined or unclassified in 16 cases, or 36%, why the detectors failed to operate.

## VACANT BUILDINGS

**1% of Building Fires Occurred in Vacant Buildings**
Middlesex County reported 43 fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 1% of the total 3,363 building fires reported to MFIRS in 2009. Twenty-eight (28) fires occurred in vacant residential properties. Six (6) vacant building fires occurred in storage facilities. Public assembly properties and manufacturing or processing facilities each accounted for three vacant building fire

[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.

incidents. Educational facilities, mercantile or business properties, and special properties each accounted for one vacant building fire in Middlesex County in 2009.

Five (5), or 11%, of the vacant building fires in Middlesex County in 2009 were determined to be intentionally set. Two (2) of these fires occurred in single-family homes. Vacant building fires also occurred in a manufacturing or processing facility, at an unclassified business and in an outbuilding.

## JUVENILE-SET FIRES

### 34 Juvenile-set Fires

There were 34 reported juvenile-set fires in Middlesex County in 2009. The 11 structure fires, one camper fire, 14 brush fires, three outside rubbish fires, three special outside fires, and two unclassified fires caused one fire service injury and $88,150 in estimated damages.

## ARSONS

### 173 Total Arsons[4] — 41 Structures, 29 Vehicles & 103 Other Arsons

One hundred and seventy-three (173), or 3%, of Middlesex County's 5,150 fires were considered intentionally set, or, for purposes of this analysis, arson. The 41 structure arsons, 29 motor vehicle arsons and 103 outside and other arsons caused two civilian deaths, four civilian injuries, four fire service injuries and an estimated dollar loss of $1.5 million.

### All Arson Up Slightly

The total number of reported arson fires increased by five from the 168 reported in 2008. Reported structure arsons increased by one from the 40 reported in the previous year. Motor vehicle arsons increased by two from the 27 in 2008. Reported outside and other arsons increased by two from 101 the year before.

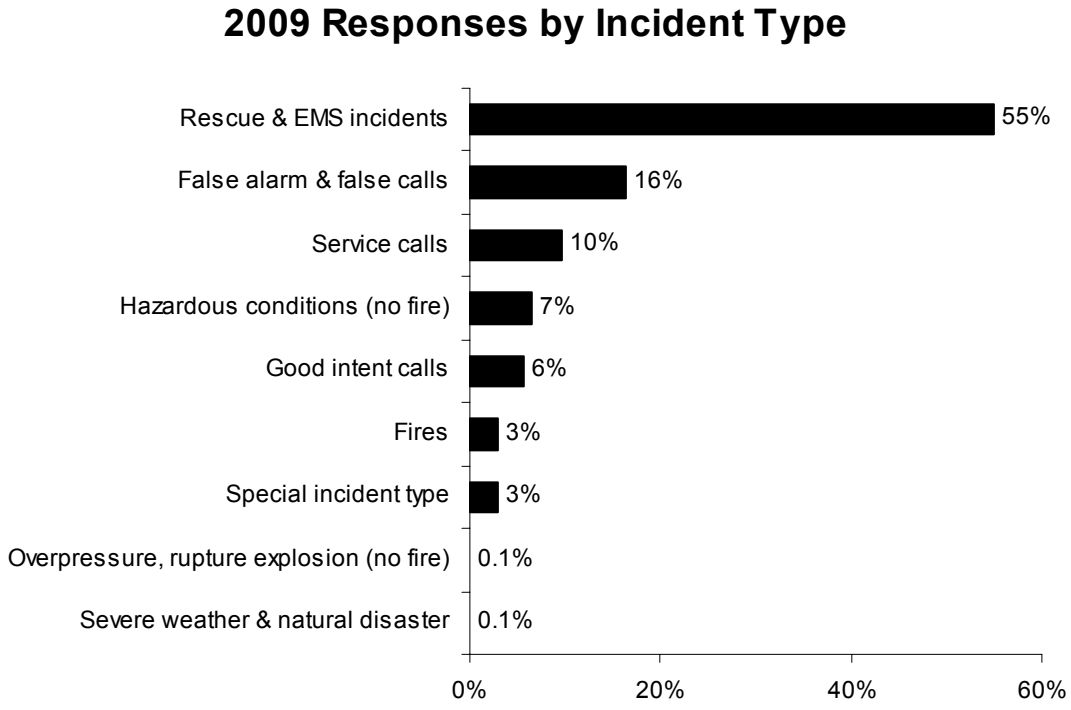
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

## ALL INCIDENTS

**Rescue & EMS Calls Are 55% of All Reported Responses**
In 2009, fire departments in Middlesex County reported 152,768 responses[5] to MFIRS. This is a 6% increase over the 146,561 responses reported in 2008. Of these 152,768 incidents, 147,435 non-fire calls were voluntarily reported.

Of these 147,435 non-fire calls, 84,079 or 55% of all the responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 25,011 or 16%, were reported false alarm or false calls; 14,633, or 10%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 10,006, or 7%, reported hazardous condition calls with no fire; 8,587, or 6%, were reported good intent calls; 4,891, 3%, were special incident type calls such as citizen complaints; 142, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 86, or 0.1%, were severe weather responses..

Five thousand three hundred and thirty-three (5,333), or 3%, 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 2,572 Times**

In 2009, Middlesex County fire departments reported coming to the aid of other fire departments 2,572 times. Of these 2,572 responses, 1,274, or 50%, were for rescue or EMS calls; 606 or 24%, were for service calls such as cover assignments; 304, or 12%, were for good intent calls; 181, or 7%, were for fires; 106, or 4%, were for false alarms or false calls; 65, or 3%, were for hazardous conditions calls with no fire; 19, or 1%, were special incident types; five, or less than 1%, were for reported overpressure, rupture, explosion or overheat calls with no fire; and two, or less than 1%, were severe weather calls.

**Middlesex County Received Mutual Aid in 1,972 Incidents**

In 2009, Middlesex County fire departments reported receiving aid from surrounding departments in 1,972 incidents. Of these 1,972 incidents, 1,344, or 68%, were rescue and emergency medical services calls; 259, or 13%, were for fires; 201, or 10%, were false alarms or false calls; 53, or 3%, were hazardous conditions calls with no fire; 53, or 3%, were service calls; 53, or 3%, were good intent calls; six, or less than 1% were overpressure, rupture, explosion or overheat calls with no fire; two, or less than 1%, was a severe weather call; and one, or less than 1%, was a special incident type.

## Middlesex County Population: 1,465,396

**3.5 Fires/1,000 Population**

**Total Fires: 5,150** **$44,543,999**

| Situation | Fires | % of Fires | Dollar Loss |
|---|---|---|---|
| Structure Fires | 3,381 | 66% | $41,478,215 |
| Vehicle Fires | 503 | 10% | 2,570,123 |
| Other Fires | 1,266 | 25% | 495,661 |

4 Fatal Fires 0.78 Civilian Deaths/1,000 Fires
4 Civilian Deaths 0.03 Civilian Deaths/10,000 Population
58 Civilian Injuries 106 Fire Service Injuries

# Building Fires: 3,363

## Residential Building Fires: 2,745

**Residential Building Fires Confined to Non-Combustible Containers: 2,268**

**Unconfined Residential Building Fires: 477**

2 Civilian Deaths 46 Civilian Injuries 80 Fire Service Injuries

| Occupancy | Fires | % |
|---|---|---|
| Apartments | 1,178 | 43% |
| 1- & 2-Family homes | 1,124 | 41% |
| Dormitories | 159 | 5% |
| Rooming houses | 69 | 2% |
| Residential board & care | 23 | 1% |
| Hotel or motel | 20 | 1% |

| Detector Status | Fires | % |
|---|---|---|
| Operated | 1,816 | 66% |
| Didn't operate | 44 | 2% |
| None | 59 | 2% |
| Fire too small | 65 | 2% |
| Didn’t alert (confined) | 294 | 11% |
| Undetermined | 467 | 17% |

| Area of Origin[6] | % |
|---|---|
| Kitchen | 68% |
| Heating equipment room | 12% |
| Chimney or flue | 4% |
| Bedroom | 2% |
| Living room | 1% |

| Heat Source | % | %Unconfined[7] |
|---|---|---|
| Heat from operating eq. | 2% | 14% |
| Arcing | 2% | 12% |
| Radiated heat/oper. eq. | 2% | 11% |
| Cigarette | 1% | 8% |
| Spark/ember/flame op. eq. | 1% | 7% |

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

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

| **Item First Ignited[8]** | **%** |
|---|---|
| Food, cooking materials | 66% |
| Flammable, combustible liquid | 12% |
| Film, residue (creosote) | 4% |
| Rubbish, trash, waste | 3% |
| Structural member, framing | 1% |
| Electrical wire, cable insulation | 1% |

| **Factor Contrib. to Ignit.** | **%** | **%Unconfined[9]** |
|---|---|---|
| Too close to combustibles | 2% | 12% |
| Abandoned materials | 1% | 8% |
| Misuse of material or prod. | 1% | 7% |
| Equipment unattended | 1% | 6% |
| Elec. failure or malfunction | 1% | 5% |

| **Equipment[10]** | **%** |
|---|---|
| Cooking equipment | 66% |
| None | 12% |
| Boiler, furnace, cent. heat unit | 12% |
| Chimney or flue | 4% |
| Clothes dryer | 1% |

| **Cause of Ignition** | **%** | **%Unconfined[11]** |
|---|---|---|
| Unintentional | 11% | 64% |
| Failure of eq. or heat source | 2% | 12% |
| Intentional | 1% | 5% |
| Act of nature | 0.3% | 2% |
| Undetermined | 1% | 8% |
| Cause under investigation | 1% | 8% |

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

| | |
|---|---|
| Alerted occupants | 70% |
| Didn't alert occupants | 13% |
| 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 | 438 | 351 | 47 | 40 |
| February | 358 | 268 | 57 | 33 |
| March | 469 | 307 | 32 | 130 |
| April | 667 | 328 | 49 | 290 |
| May | 501 | 281 | 49 | 171 |
| June | 358 | 232 | 33 | 93 |
| July | 369 | 247 | 43 | 79 |
| August | 339 | 202 | 34 | 103 |
| September | 387 | 251 | 37 | 99 |
| October | 395 | 295 | 40 | 60 |
| November | 445 | 293 | 40 | 60 |
| December | 424 | 326 | 42 | 56 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 722 | 485 | 55 | 182 |
| Monday | 685 | 447 | 76 | 162 |
| Tuesday | 704 | 465 | 64 | 175 |
| Wednesday | 707 | 463 | 87 | 157 |
| Thursday | 812 | 537 | 83 | 192 |
| Friday | 763 | 483 | 79 | 201 |
| Saturday | 757 | 501 | 59 | 197 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 321 | 188 | 54 | 79 |
| 04:01 - 08:00 | 311 | 207 | 46 | 58 |
| 08:01 - 12:00 | 842 | 574 | 104 | 164 |
| 12:01 - 16:00 | 1,207 | 731 | 113 | 363 |
| 16:01 - 20:00 | 1,576 | 1,061 | 111 | 404 |
| 20:01 - 00:00 | 893 | 620 | 75 | 198 |

## Motor Vehicle Fires

Total: 503
Automobiles: 433 (86%)
26, or (6%), of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 173** **Dollar loss: $1,844,516**

**0.12 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Loss |
|---|---|---|---|---|
| Structure Arsons | 41 | 1% | 24% | $1,173,852 |
| Vehicle Arsons | 29 | 6% | 17% | 258,820 |
| Other Arsons | 103 | 8% | 60% | 22,532 |

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

2 Civilian Deaths 4 Civilian Injuries 4 Fire Service Injuries

**Peak Times of Day for:**

| Structure Arsons | # | % | Vehicle Arsons | # | % |
|---|---|---|---|---|---|
| 00:01 - 04:00 | 11 | 22% | 00:01 - 04:00 | 12 | 41% |
| 20:01 - 00:00 | 9 | 22% | 20:01 - 00:00 | 9 | 31% |
| 12:01 - 16:00 | 8 | 20% | 16:01 - 20:00 | 5 | 17% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 42 | 41% |
| 20:01 - 00:00 | 25 | 24% |
| 12:01 - 16:00 | 17 | 17% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- & 2-Family homes | 18 | 44% |
| Apartment buildings | 10 | 24% |
| Mercantile, business, other | 5 | 5% |

**Acton** **Population: 20,331**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 43 | 14 | 3 | 26 | 0 | 0 | 0 | 0 |
| 2007 | 75 | 32 | 4 | 39 | 3 | 0 | 0 | 3 |
| 2008 | 66 | 49 | 0 | 17 | 0 | 0 | 0 | 0 |
| 2009 | 58 | 43 | 4 | 11 | 0 | 0 | 0 | 0 |

**Arlington** **Population: 42,389**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 123 | 64 | 11 | 48 | 3 | 1 | 0 | 2 |
| 2006 | 92 | 49 | 9 | 34 | 8 | 2 | 1 | 5 |
| 2007 | 103 | 48 | 5 | 50 | 9 | 1 | 0 | 8 |
| 2008 | 92 | 51 | 11 | 30 | 7 | 3 | 0 | 4 |
| 2009 | 72 | 41 | 5 | 26 | 5 | 0 | 0 | 5 |

**Ashby** **Population: 2,845**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 11 | 9 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 9 | 7 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 7 | 6 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 7 | 6 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |

**Ashland** **Population: 14,674**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 20 | 10 | 1 | 9 | 0 | 0 | 0 | 0 |
| 2007 | 51 | 13 | 14 | 24 | 0 | 0 | 0 | 0 |
| 2008 | 35 | 18 | 2 | 15 | 0 | 0 | 0 | 0 |
| 2009 | 10 | 8 | 0 | 2 | 1 | 1 | 0 | 0 |

**Ayer** **Population: 7,287**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 26 | 9 | 1 | 16 | 2 | 2 | 0 | 0 |
| 2006 | 40 | 16 | 1 | 23 | 5 | 3 | 0 | 2 |
| 2007 | 45 | 20 | 4 | 21 | 3 | 2 | 0 | 1 |
| 2008 | 24 | 10 | 3 | 11 | 1 | 1 | 0 | 0 |
| 2009 | 31 | 22 | 2 | 7 | 0 | 0 | 0 | 0 |

**Bedford** **Population: 12,595**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 31 | 14 | 4 | 13 | 4 | 2 | 1 | 1 |
| 2006 | 29 | 14 | 6 | 9 | 2 | 2 | 0 | 0 |
| 2007 | 40 | 18 | 7 | 15 | 2 | 0 | 0 | 2 |
| 2008 | 26 | 15 | 3 | 8 | 0 | 0 | 0 | 0 |
| 2009 | 33 | 18 | 6 | 9 | 1 | 0 | 1 | 0 |

**Belmont** **Population: 24,194**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 183 | 144 | 7 | 32 | 5 | 3 | 0 | 2 |
| 2006 | 178 | 146 | 6 | 26 | 4 | 0 | 0 | 0 |
| 2007 | 162 | 118 | 3 | 41 | 10 | 2 | 0 | 8 |
| 2008 | 186 | 164 | 5 | 17 | 2 | 1 | 0 | 1 |
| 2009 | 148 | 118 | 4 | 26 | 6 | 0 | 0 | 6 |

**Billerica** **Population: 38,981**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 193 | 80 | 28 | 85 | 17 | 1 | 1 | 15 |
| 2006 | 166 | 71 | 19 | 76 | 10 | 0 | 2 | 8 |
| 2007 | 147 | 55 | 16 | 76 | 2 | 0 | 0 | 2 |
| 2008 | 129 | 58 | 21 | 50 | 9 | 1 | 2 | 6 |
| 2009 | 150 | 71 | 20 | 59 | 1 | 0 | 0 | 1 |

**Boxborough** **Population: 4,868**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 26 | 8 | 8 | 10 | 2 | 0 | 0 | 2 |
| 2006 | 32 | 13 | 8 | 11 | 0 | 0 | 0 | 0 |
| 2007 | 24 | 2 | 10 | 12 | 1 | 0 | 0 | 1 |
| 2008 | 13 | 3 | 3 | 7 | 2 | 0 | 0 | 2 |
| 2009 | 11 | 1 | 3 | 7 | 0 | 0 | 0 | 0 |

**Burlington** **Population: 22,876**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 122 | 47 | 18 | 57 | 2 | 0 | 0 | 2 |
| 2006 | 82 | 42 | 19 | 21 | 0 | 0 | 0 | 0 |
| 2007 | 91 | 34 | 14 | 43 | 2 | 0 | 0 | 2 |
| 2008 | 69 | 26 | 12 | 31 | 3 | 1 | 0 | 2 |
| 2009 | 68 | 34 | 8 | 26 | 5 | 1 | 0 | 4 |

**Cambridge** **Population: 101,355**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 482 | 354 | 30 | 98 | 13 | 7 | 1 | 5 |
| 2006 | 630 | 495 | 33 | 102 | 15 | 6 | 1 | 8 |
| 2007 | 669 | 523 | 20 | 126 | 7 | 5 | 0 | 2 |
| 2008 | 860 | 748 | 14 | 98 | 9 | 2 | 0 | 7 |
| 2009 | 874 | 775 | 17 | 82 | 4 | 0 | 0 | 4 |

**Carlisle** **Population: 4,717**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

**Chelmsford** **Population: 33,858**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 48 | 25 | 16 | 7 | 0 | 0 | 0 | 0 |
| 2006 | 49 | 23 | 18 | 8 | 2 | 0 | 1 | 1 |
| 2007 | 41 | 28 | 9 | 4 | 1 | 1 | 0 | 0 |
| 2008 | 43 | 21 | 16 | 6 | 0 | 0 | 0 | 0 |
| 2009 | 36 | 13 | 16 | 7 | 2 | 0 | 1 | 1 |

**Concord** **Population: 16,993**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 73 | 37 | 6 | 30 | 2 | 0 | 0 | 2 |
| 2006 | 60 | 22 | 7 | 31 | 9 | 3 | 2 | 4 |
| 2007 | 64 | 28 | 6 | 30 | 5 | 2 | 0 | 3 |
| 2008 | 43 | 23 | 7 | 13 | 0 | 0 | 0 | 0 |
| 2009 | 38 | 14 | 4 | 20 | 3 | 1 | 1 | 1 |

**Devens** **Population: 2,112**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 15 | 7 | 2 | 6 | 1 | 1 | 0 | 0 |
| 2006 | 17 | 8 | 2 | 7 | 0 | 0 | 0 | 0 |
| 2007 | 16 | 5 | 3 | 8 | 0 | 0 | 0 | 0 |
| 2008 | 9 | 5 | 3 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 16 | 2 | 1 | 13 | 0 | 0 | 0 | 0 |

**Dracut** **Population: 28,562**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 89 | 32 | 17 | 40 | 6 | 2 | 2 | 2 |
| 2006 | 96 | 33 | 14 | 49 | 5 | 2 | 1 | 2 |
| 2007 | 93 | 32 | 9 | 52 | 5 | 2 | 0 | 3 |
| 2008 | 61 | 25 | 11 | 25 | 6 | 1 | 3 | 2 |
| 2009 | 87 | 45 | 14 | 28 | 11 | 2 | 2 | 7 |

**Dunstable** **Population: 2,829**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2006 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |

**Everett** **Population: 38,037**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 168 | 94 | 22 | 52 | 16 | 10 | 2 | 4 |
| 2006 | 154 | 72 | 29 | 53 | 18 | 4 | 5 | 9 |
| 2007 | 176 | 102 | 17 | 57 | 10 | 8 | 1 | 1 |
| 2008 | 139 | 86 | 13 | 40 | 10 | 4 | 4 | 2 |
| 2009 | 152 | 90 | 27 | 35 | 12 | 7 | 3 | 2 |

**Framingham** **Population: 66,910**

| | Total | Structure | Vehicle | Other | Total | Structure | Vehicle | Other |
|---|---|---|---|---|---|---|---|---|
| 2005 | 423 | 281 | 36 | 106 | 5 | 3 | 1 | 1 |
| 2006 | 402 | 282 | 22 | 98 | 8 | 4 | 0 | 4 |
| 2007 | 477 | 319 | 37 | 121 | 7 | 5 | 1 | 1 |
| 2008 | 420 | 305 | 39 | 76 | 8 | 3 | 2 | 3 |
| 2009 | 385 | 313 | 19 | 53 | 4 | 2 | 2 | 0 |

**Groton** **Population: 9,547**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 23 | 17 | 3 | 3 | 0 | 0 | 0 | 0 |
| 2006 | 36 | 14 | 1 | 21 | 3 | 0 | 1 | 2 |
| 2007 | 16 | 11 | 0 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 31 | 15 | 1 | 15 | 2 | 0 | 0 | 2 |
| 2009 | 10 | 6 | 4 | 0 | 1 | 1 | 0 | 0 |

**Holliston** **Population: 13,801**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 13 | 9 | 3 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 6 | 5 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |

**Hopkinton** **Population: 13,346**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 116 | 72 | 14 | 30 | 3 | 0 | 0 | 3 |
| 2006 | 80 | 50 | 10 | 20 | 5 | 1 | 1 | 3 |
| 2007 | 87 | 47 | 16 | 24 | 7 | 1 | 0 | 6 |
| 2008 | 81 | 54 | 6 | 21 | 0 | 0 | 0 | 0 |
| 2009 | 50 | 23 | 11 | 16 | 0 | 0 | 0 | 0 |

**Hudson** **Population: 18,113**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 22 | 14 | 4 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 57 | 34 | 9 | 14 | 4 | 2 | 1 | 1 |
| 2007 | 64 | 21 | 8 | 35 | 1 | 1 | 0 | 0 |
| 2008 | 75 | 37 | 10 | 28 | 1 | 1 | 0 | 0 |
| 2009 | 59 | 24 | 7 | 28 | 5 | 1 | 1 | 3 |

**Lexington** **Population: 30,355**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 62 | 39 | 16 | 1 | 2 | 2 | 0 | 0 |
| 2006 | 45 | 27 | 10 | 8 | 1 | 0 | 0 | 1 |
| 2007 | 71 | 37 | 17 | 17 | 5 | 2 | 0 | 3 |
| 2008 | 57 | 36 | 12 | 9 | 1 | 0 | 0 | 1 |
| 2009 | 47 | 28 | 8 | 11 | 2 | 0 | 1 | 1 |

**Lincoln** **Population: 8,056**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 39 | 17 | 3 | 19 | 0 | 0 | 0 | 0 |
| 2006 | 33 | 16 | 3 | 14 | 0 | 0 | 0 | 0 |
| 2007 | 37 | 18 | 3 | 16 | 3 | 1 | 0 | 2 |
| 2008 | 25 | 12 | 4 | 9 | 2 | 0 | 0 | 2 |
| 2009 | 35 | 23 | 3 | 9 | 1 | 0 | 0 | 1 |

**Littleton** **Population: 8,184**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 49 | 25 | 14 | 10 | 1 | 0 | 0 | 1 |
| 2006 | 51 | 18 | 18 | 15 | 0 | 0 | 0 | 0 |
| 2007 | 50 | 24 | 12 | 14 | 0 | 0 | 0 | 0 |
| 2008 | 51 | 31 | 8 | 12 | 4 | 2 | 0 | 2 |
| 2009 | 48 | 32 | 6 | 10 | 0 | 0 | 0 | 0 |

**Lowell** **Population: 105,167**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 393 | 227 | 49 | 117 | 3 | 0 | 3 | 0 |
| 2006 | 688 | 443 | 53 | 192 | 13 | 6 | 1 | 6 |
| 2007 | 630 | 372 | 46 | 212 | 12 | 6 | 2 | 4 |
| 2008 | 573 | 403 | 43 | 127 | 24 | 5 | 12 | 7 |
| 2009 | 506 | 324 | 45 | 137 | 24 | 8 | 6 | 10 |

**Malden** **Population: 56,340**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 191 | 109 | 16 | 66 | 1 | 0 | 0 | 1 |
| 2006 | 315 | 173 | 20 | 122 | 6 | 2 | 0 | 4 |
| 2007 | 371 | 233 | 22 | 116 | 1 | 0 | 1 | 0 |
| 2008 | 307 | 212 | 18 | 77 | 4 | 3 | 0 | 1 |
| 2009 | 355 | 267 | 25 | 63 | 9 | 0 | 4 | 5 |

**Marlborough** **Population: 36,255**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 146 | 72 | 23 | 51 | 5 | 1 | 0 | 4 |
| 2006 | 118 | 56 | 21 | 41 | 3 | 1 | 1 | 1 |
| 2007 | 163 | 61 | 25 | 77 | 4 | 3 | 1 | 0 |
| 2008 | 131 | 63 | 21 | 47 | 8 | 3 | 1 | 4 |
| 2009 | 120 | 52 | 18 | 50 | 2 | 1 | 1 | 0 |

**Maynard** **Population: 10,433**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 |
| 2006 | 9 | 4 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 8 | 8 | 0 | 0 | 2 | 2 | 0 | 0 |
| 2008 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |

**Medford** **Population: 55,765**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 200 | 120 | 18 | 62 | 11 | 1 | 2 | 8 |
| 2006 | 300 | 196 | 19 | 85 | 1 | 0 | 1 | 0 |
| 2007 | 304 | 179 | 19 | 106 | 13 | 4 | 1 | 8 |
| 2008 | 251 | 147 | 20 | 84 | 9 | 2 | 1 | 6 |
| 2009 | 367 | 217 | 34 | 116 | 18 | 1 | 1 | 16 |

**Melrose** **Population: 27,134**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 37 | 18 | 11 | 8 | 1 | 0 | 0 | 1 |
| 2006 | 40 | 30 | 3 | 7 | 4 | 2 | 0 | 2 |
| 2007 | 25 | 18 | 3 | 4 | 1 | 1 | 0 | 0 |
| 2008 | 20 | 13 | 4 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 25 | 13 | 7 | 5 | 0 | 0 | 0 | 0 |

**Natick** **Population: 32,170**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 17 | 12 | 3 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 105 | 58 | 13 | 34 | 5 | 3 | 0 | 2 |
| 2007 | 143 | 80 | 16 | 47 | 2 | 0 | 0 | 2 |
| 2008 | 128 | 71 | 12 | 45 | 4 | 0 | 0 | 4 |
| 2009 | 94 | 58 | 8 | 28 | 4 | 1 | 0 | 3 |

**Newton** **Population: 83,829**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 189 | 118 | 13 | 58 | 7 | 3 | 1 | 3 |
| 2006 | 187 | 107 | 20 | 60 | 8 | 1 | 0 | 7 |
| 2007 | 194 | 105 | 31 | 58 | 12 | 3 | 0 | 9 |
| 2008 | 190 | 126 | 19 | 45 | 2 | 0 | 0 | 2 |
| 2009 | 111 | 66 | 16 | 29 | 5 | 1 | 0 | 4 |

**North Reading** **Population: 13,837**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 65 | 36 | 8 | 21 | 2 | 1 | 0 | 1 |
| 2006 | 66 | 32 | 7 | 27 | 3 | 1 | 0 | 2 |
| 2007 | 13 | 17 | 7 | 19 | 2 | 1 | 0 | 1 |
| 2008 | 43 | 25 | 3 | 15 | 0 | 0 | 0 | 0 |
| 2009 | 49 | 26 | 2 | 21 | 4 | 0 | 0 | 4 |

**Pepperell** **Population: 11,142**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 38 | 23 | 1 | 14 | 4 | 0 | 0 | 4 |
| 2006 | 21 | 12 | 3 | 6 | 0 | 0 | 0 | 0 |
| 2007 | 19 | 8 | 4 | 7 | 1 | 0 | 0 | 1 |
| 2008 | 34 | 15 | 6 | 13 | 1 | 0 | 0 | 1 |
| 2009 | 38 | 21 | 2 | 15 | 0 | 0 | 0 | 0 |

**Reading** **Population: 23,708**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 48 | 38 | 8 | 2 | 1 | 1 | 0 | 0 |
| 2006 | 80 | 68 | 7 | 5 | 2 | 1 | 0 | 1 |
| 2007 | 138 | 73 | 11 | 54 | 7 | 1 | 0 | 6 |
| 2008 | 96 | 56 | 4 | 36 | 15 | 1 | 0 | 14 |
| 2009 | 71 | 32 | 9 | 30 | 6 | 0 | 0 | 6 |

**Sherborn** **Population: 4,200**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 23 | 5 | 2 | 16 | 4 | 0 | 0 | 4 |
| 2006 | 16 | 6 | 1 | 9 | 0 | 0 | 0 | 0 |
| 2007 | 23 | 7 | 2 | 14 | 3 | 0 | 0 | 3 |
| 2008 | 27 | 4 | 2 | 21 | 7 | 0 | 0 | 7 |
| 2009 | 26 | 10 | 3 | 13 | 5 | 1 | 1 | 3 |

**Shirley** **Population: 6,373**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 23 | 19 | 2 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 7 | 6 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| 2008 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 23 | 23 | 0 | 0 | 1 | 1 | 0 | 0 |

**Somerville** **Population: 77,478**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 69 | 30 | 39 | 0 | 4 | 1 | 3 | 0 |
| 2006 | 66 | 36 | 29 | 1 | 4 | 2 | 2 | 0 |
| 2007 | 52 | 34 | 18 | 0 | 5 | 3 | 2 | 0 |
| 2008 | 60 | 34 | 25 | 1 | 3 | 3 | 0 | 0 |
| 2009 | 49 | 32 | 16 | 1 | 2 | 2 | 0 | 0 |

**Stoneham** **Population: 22,219**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 63 | 35 | 14 | 14 | 1 | 0 | 1 | 0 |
| 2006 | 65 | 45 | 9 | 11 | 0 | 0 | 0 | 0 |
| 2007 | 88 | 78 | 5 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 67 | 57 | 7 | 3 | 1 | 0 | 0 | 1 |
| 2009 | 87 | 72 | 6 | 9 | 1 | 1 | 0 | 0 |

**Stow** **Population: 5,902**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 17 | 5 | 0 | 12 | 2 | 0 | 0 | 2 |
| 2006 | 32 | 12 | 5 | 15 | 3 | 0 | 1 | 2 |
| 2007 | 27 | 8 | 4 | 15 | 0 | 0 | 0 | 0 |
| 2008 | 16 | 9 | 1 | 6 | 1 | 0 | 0 | 1 |
| 2009 | 18 | 5 | 3 | 10 | 2 | 0 | 0 | 2 |

**Sudbury** **Population: 16,841**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 69 | 30 | 2 | 37 | 0 | 0 | 0 | 0 |
| 2006 | 68 | 31 | 3 | 34 | 3 | 0 | 0 | 3 |
| 2007 | 57 | 29 | 3 | 25 | 4 | 1 | 0 | 3 |
| 2008 | 58 | 58 | 5 | 25 | 0 | 0 | 0 | 0 |
| 2009 | 32 | 13 | 4 | 15 | 1 | 0 | 1 | 0 |

**Tewksbury** **Population: 28,851**

| | Total | Structure | Vehicle | Other | Total | Structure | Vehicle | Other |
|---|---|---|---|---|---|---|---|---|
| 2005 | 99 | 32 | 14 | 53 | 4 | 0 | 0 | 4 |
| 2006 | 93 | 37 | 12 | 44 | 4 | 1 | 0 | 3 |
| 2007 | 148 | 38 | 20 | 90 | 5 | 1 | 2 | 2 |
| 2008 | 82 | 27 | 11 | 44 | 3 | 0 | 0 | 3 |
| 2009 | 92 | 44 | 15 | 33 | 2 | 1 | 0 | 1 |

**Townsend** **Population: 9,198**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 11 | 8 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 6 | 4 | 0 | 2 | 1 | 1 | 0 | 0 |
| 2008 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 8 | 6 | 2 | 0 | 0 | 0 | 0 | 0 |

**Tyngsborough** **Population: 11,081**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 20 | 4 | 9 | 7 | 0 | 0 | 0 | 0 |
| 2006 | 22 | 6 | 6 | 10 | 2 | 0 | 0 | 2 |
| 2007 | 21 | 7 | 1 | 13 | 0 | 0 | 0 | 0 |
| 2008 | 25 | 6 | 8 | 11 | 0 | 0 | 0 | 0 |
| 2009 | 19 | 7 | 4 | 8 | 0 | 0 | 0 | 0 |

**Wakefield** **Population: 24,804**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 74 | 58 | 14 | 2 | 0 | 0 | 0 | 0 |
| 2006 | 73 | 56 | 15 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 65 | 43 | 18 | 4 | 1 | 0 | 1 | 0 |
| 2008 | 59 | 54 | 5 | 0 | 1 | 0 | 1 | 0 |
| 2009 | 54 | 38 | 13 | 3 | 1 | 0 | 1 | 0 |

**Waltham** **Population: 59,226**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 217 | 93 | 26 | 98 | 7 | 4 | 1 | 2 |
| 2006 | 196 | 76 | 26 | 94 | 4 | 2 | 2 | 0 |
| 2007 | 220 | 67 | 23 | 130 | 1 | 0 | 1 | 0 |
| 2008 | 173 | 76 | 22 | 75 | 1 | 0 | 1 | 0 |
| 2009 | 148 | 74 | 13 | 61 | 6 | 1 | 0 | 5 |

**Watertown** **Population: 32,986**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 87 | 52 | 8 | 27 | 0 | 0 | 0 | 0 |
| 2006 | 72 | 30 | 8 | 34 | 0 | 0 | 0 | 0 |
| 2007 | 79 | 35 | 7 | 37 | 0 | 0 | 0 | 0 |
| 2008 | 58 | 26 | 7 | 25 | 4 | 1 | 0 | 3 |
| 2009 | 50 | 24 | 7 | 19 | 0 | 0 | 0 | 0 |

**Wayland** **Population: 13,100**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 56 | 16 | 4 | 36 | 3 | 0 | 0 | 3 |
| 2006 | 28 | 10 | 2 | 16 | 0 | 0 | 0 | 0 |
| 2007 | 38 | 14 | 4 | 20 | 1 | 0 | 0 | 1 |
| 2008 | 27 | 19 | 4 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 25 | 15 | 3 | 7 | 0 | 0 | 0 | 0 |

**Westford** **Population: 20,754**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 61 | 29 | 9 | 23 | 1 | 0 | 0 | 1 |
| 2006 | 31 | 10 | 3 | 18 | 2 | 0 | 0 | 2 |
| 2007 | 57 | 24 | 7 | 26 | 4 | 1 | 2 | 1 |
| 2008 | 77 | 27 | 9 | 41 | 6 | 0 | 0 | 6 |
| 2009 | 68 | 22 | 8 | 38 | 1 | 0 | 0 | 1 |

**Weston** **Population: 11,469**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 98 | 31 | 18 | 49 | 2 | 0 | 0 | 2 |
| 2006 | 72 | 35 | 7 | 30 | 4 | 0 | 0 | 4 |
| 2007 | 66 | 33 | 7 | 26 | 3 | 1 | 0 | 2 |
| 2008 | 41 | 20 | 7 | 14 | 1 | 0 | 0 | 1 |
| 2009 | 56 | 32 | 10 | 14 | 2 | 0 | 0 | 2 |

**Wilmington** **Population: 21,363**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 44 | 20 | 8 | 16 | 0 | 0 | 0 | 0 |
| 2006 | 43 | 26 | 8 | 9 | 1 | 1 | 0 | 0 |
| 2007 | 26 | 10 | 13 | 3 | 2 | 1 | 0 | 1 |
| 2008 | 47 | 13 | 13 | 21 | 1 | 0 | 0 | 1 |
| 2009 | 92 | 51 | 14 | 27 | 4 | 2 | 1 | 1 |

**Winchester** **Population: 20,810**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 3 | 4 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 35 | 25 | 4 | 6 | 0 | 0 | 0 | 0 |
| 2007 | 59 | 19 | 5 | 35 | 0 | 0 | 0 | 0 |
| 2008 | 43 | 25 | 6 | 12 | 2 | 0 | 0 | 2 |
| 2009 | 64 | 42 | 7 | 15 | 3 | 2 | 0 | 1 |

**Woburn** **Population: 37,258**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 83 | 55 | 15 | 13 | 0 | 0 | 0 | 0 |
| 2006 | 66 | 48 | 5 | 13 | 0 | 0 | 0 | 0 |
| 2007 | 51 | 39 | 7 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 72 | 40 | 18 | 14 | 2 | 2 | 0 | 0 |
| 2009 | 70 | 42 | 17 | 11 | 0 | 0 | 0 | 0 |

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17002 | Acton | 4,203 | 58 | 2 | 1,444 | 178 | 158 | 72 | 357 | 3 | 1,931 |
| 17010 | Arlington | 4,701 | 78 | 2 | 2,861 | 307 | 399 | 241 | 789 | 1 | 23 |
| 17012 | Ashby | 18 | 7 | 0 | 0 | 1 | 7 | 3 | 0 | 0 | 0 |
| 17014 | Ashland | 13 | 10 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 17019 | Ayer | 610 | 37 | 1 | 95 | 73 | 268 | 40 | 91 | 1 | 4 |
| 17023 | Bedford | 2,343 | 42 | 2 | 1,174 | 137 | 178 | 74 | 310 | 0 | 426 |
| 17026 | Belmont | 3,000 | 156 | 3 | 1,685 | 161 | 241 | 238 | 514 | 0 | 2 |
| 17031 | Billerica | 3,661 | 153 | 3 | 2,224 | 306 | 371 | 100 | 485 | 1 | 18 |
| 17037 | Boxborough | 425 | 11 | 0 | 145 | 31 | 57 | 25 | 149 | 0 | 7 |
| 17048 | Burlington | 3,647 | 69 | 0 | 2,236 | 118 | 514 | 168 | 540 | 0 | 2 |
| 17049 | Cambridge | 13,319 | 875 | 17 | 6,385 | 827 | 609 | 1,702 | 2,891 | 0 | 13 |
| 17051 | Carlisle | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17056 | Chelmsford | 36 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17067 | Concord | 2,920 | 44 | 2 | 1,560 | 207 | 278 | 112 | 701 | 1 | 15 |
| 17919 | Devens | 762 | 21 | 1 | 229 | 37 | 354 | 8 | 108 | 0 | 4 |
| 17079 | Dracut | 3,128 | 88 | 6 | 1,914 | 140 | 352 | 43 | 574 | 5 | 6 |
| 17081 | Dunstable | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17093 | Everett | 4,941 | 157 | 4 | 3,137 | 173 | 361 | 325 | 773 | 0 | 11 |
| 17100 | Framingham | 9,211 | 387 | 2 | 5,995 | 313 | 739 | 460 | 1,306 | 2 | 7 |

# 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 | 936 | 11 | 19 | 653 | 48 | 48 | 6 | 149 | 0 | 2 |
| 17136 | Holliston | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17139 | Hopkinton | 1,629 | 64 | 2 | 944 | 169 | 119 | 84 | 223 | 10 | 14 |
| 17141 | Hudson | 3,235 | 64 | 4 | 1,437 | 380 | 487 | 85 | 453 | 2 | 323 |
| 17155 | Lexington | 50 | 47 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| 17157 | Lincoln | 920 | 43 | 6 | 264 | 102 | 183 | 83 | 233 | 3 | 3 |
| 17158 | Littleton | 1,316 | 50 | 0 | 898 | 101 | 94 | 40 | 126 | 1 | 6 |
| 17160 | Lowell | 11,811 | 516 | 13 | 5,991 | 595 | 1,234 | 846 | 2,534 | 2 | 80 |
| 17165 | Malden | 7,986 | 356 | 0 | 5,404 | 311 | 598 | 201 | 1,100 | 0 | 16 |
| 17170 | Marlborough | 5,336 | 120 | 4 | 3,002 | 322 | 409 | 394 | 1,040 | 9 | 36 |
| 17174 | Maynard | 5 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 17176 | Medford | 10,480 | 371 | 3 | 6,028 | 920 | 1,185 | 530 | 1,374 | 2 | 67 |
| 17178 | Melrose | 28 | 26 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 17198 | Natick | 4,391 | 104 | 2 | 2,889 | 324 | 327 | 183 | 550 | 1 | 11 |
| 17207 | Newton | 7,996 | 111 | 5 | 3,990 | 585 | 961 | 639 | 1,703 | 0 | 2 |
| 17213 | North Reading | 1,883 | 54 | 4 | 960 | 95 | 302 | 156 | 292 | 1 | 19 |
| 17232 | Pepperell | 416 | 39 | 1 | 78 | 36 | 102 | 35 | 123 | 0 | 2 |
| 17246 | Reading | 2,817 | 104 | 0 | 1,576 | 156 | 108 | 0 | 194 | 0 | 679 |
| 17269 | Sherborn | 286 | 27 | 0 | 26 | 45 | 57 | 25 | 95 | 3 | 8 |
| 17270 | Shirley | 23 | 23 | 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 | 49 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17284 | Stoneham | 3,704 | 91 | 0 | 2,253 | 466 | 246 | 178 | 463 | 0 | 7 |
| 17286 | Stow | 743 | 18 | 0 | 497 | 50 | 28 | 38 | 110 | 1 | 1 |
| 17288 | Sudbury | 2,037 | 32 | 0 | 1,156 | 145 | 199 | 117 | 326 | 22 | 40 |
| 17295 | Tewksbury | 3,503 | 92 | 5 | 2,152 | 172 | 599 | 80 | 372 | 1 | 30 |
| 17299 | Townsend | 10 | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 17301 | Tyngsborough | 898 | 19 | 0 | 407 | 84 | 147 | 63 | 178 | 0 | 0 |
| 17305 | Wakefield | 152 | 54 | 0 | 0 | 15 | 0 | 0 | 83 | 0 | 0 |
| 17308 | Waltham | 7,320 | 148 | 8 | 3,734 | 594 | 892 | 557 | 1,353 | 2 | 32 |
| 17314 | Watertown | 4,014 | 54 | 4 | 2,569 | 267 | 333 | 121 | 658 | 0 | 8 |
| 17315 | Wayland | 3,003 | 26 | 2 | 1,003 | 264 | 421 | 86 | 198 | 2 | 1,001 |
| 17330 | Westford | 2,219 | 73 | 0 | 1,310 | 107 | 175 | 61 | 476 | 7 | 10 |
| 17333 | Weston | 1,912 | 62 | 4 | 923 | 205 | 204 | 83 | 426 | 1 | 4 |
| 17342 | Wilmington | 2,506 | 94 | 4 | 1,713 | 118 | 122 | 179 | 261 | 2 | 13 |
| 17344 | Winchester | 2,066 | 69 | 5 | 1,132 | 295 | 161 | 104 | 292 | 0 | 8 |
| 17347 | Woburn | 139 | 70 | 1 | 6 | 19 | 4 | 2 | 37 | 0 | 0 |
| | **Middlesex County** | **152,768** | **5,333** | **142** | **84,079** | **10,006** | **14,633** | **8,587** | **25,011** | **86** | **4,891** |

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 2009

**874 Total Fires — 775 Structures, 17 Vehicles & 82 Other Fires**
The Cambridge Fire Department reported 874 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 774 structure fires, 17 motor vehicle fires, 41 outside rubbish fires, 29 brush fires, six special outside fires, one cultivated vegetation or crop fire and five unclassified fires caused three civilian injuries, 12 fire service injuries and an estimated dollar loss of $4 million. There were no fire deaths in Cambridge in 2009.

**Structure Fires Increased in 2009**
Total fires increased by 14, or 2%, from 748 incidents reported in 2008. Reported structure fires increased by 27, or 4%, from the 748 reported during the previous year. Motor vehicle fires increased three, or 21%, from 14 the year before. Outside and other fires decreased by 16 from the 98 reported the year before; this is a decrease of 16%.

**CAMBRIDGE FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 482 | 354 | 30 | 98 | 13 | 7 | 1 | 5 |
| 2006 | 630 | 495 | 33 | 102 | 15 | 6 | 1 | 8 |
| 2007 | 669 | 523 | 20 | 126 | 7 | 5 | 0 | 2 |
| 2008 | 860 | 748 | 14 | 98 | 9 | 2 | 0 | 7 |
| 2009 | 874 | 775 | 17 | 82 | 4 | 0 | 0 | 4 |

**BUILDING FIRES**

There were 774 building fires of different types in Cambridge in 2009. These 774 building fires accounted for 99.5% of all structure fires in Cambridge.

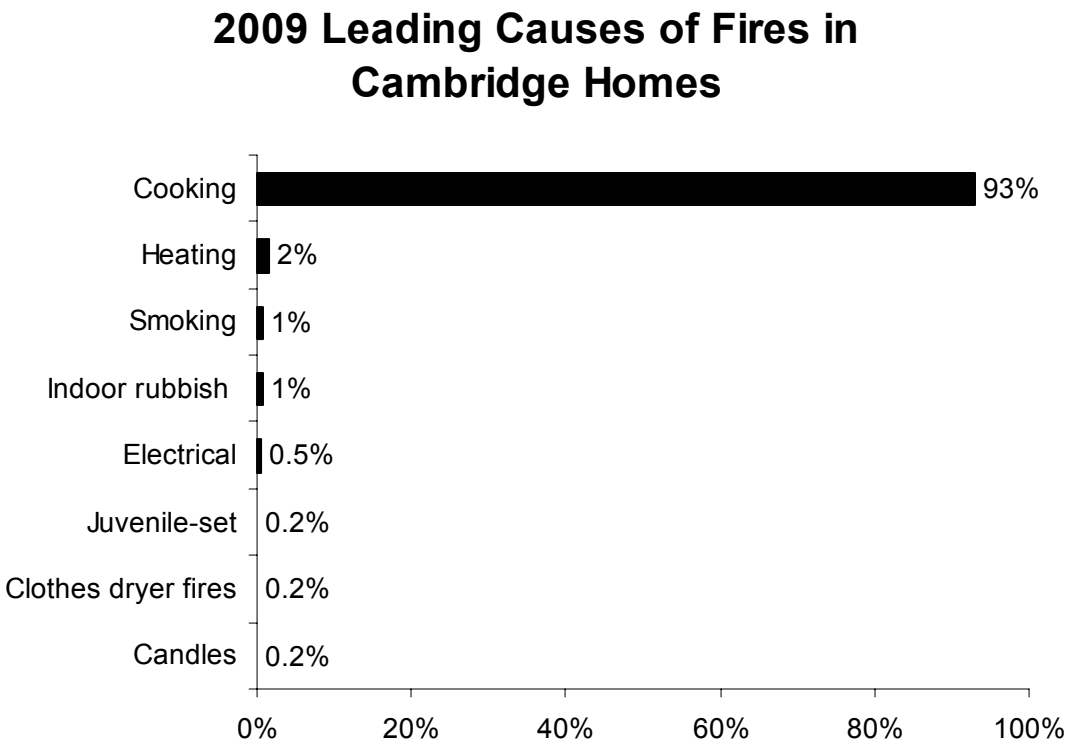
**82% of Building Fires in Homes**
The 774 building fires that occurred in Cambridge in 2009 can be broken down by fixed property use as follows: 636, or 82% of all structure fires, were in residential properties; 37 occurred in public assembly properties; 27 fires happened in educational facilities; 25 fires occurred in mercantile or business properties; 23 fires took place in institutional properties; 19 occurred in special properties; six occurred in industrial, utility, defense, agricultural or mining facilities; and one occurred in a storage facility.

**RESIDENTIAL FIRES**

**Residential Building Fires Are Up**
There were 636 reported residential building fires in Cambridge in 2009. These 636 fires are an increase of 62, or 11%, from the 574 residential building fires reported in 2008.

**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; 11% occurred in 1- or 2-family homes; 2% happened in rooming houses; another 2% occurred in hotels or motels; 1% happened in residential board and care facilities; and 10% occurred in unclassified residences.

**Unattended Cooking Caused 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 2% of the residential fires in Cambridge. Smoking and indoor rubbish fires each caused 1% of these fires. Electrical problems were responsible for 1% of fires in people's homes. Juvenile-set fires, candles and clothes dryers each caused less than 1% of the fires in Cambridge homes in 2009.



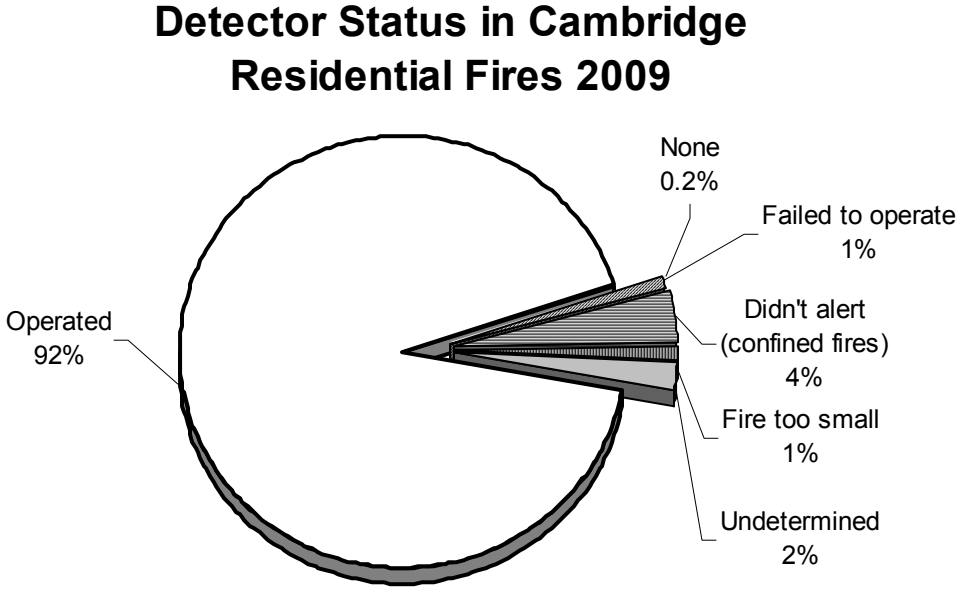

**94% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
Five hundred and ninety-nine (599), or 94% of all residential building fires were confined to non-combustible containers in 2009. Five hundred and eighty-seven (587), or 92%, of

[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.

all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Six (6), or 1%, were fires confined to a fuel burner or boiler malfunction. Four (4), or 1%, of these fires were rubbish fires contained to a non-combustible container. Two (2) fires, or less than 1%, were confined to a chimney or flue in Cambridge in 2009.

**Detectors Alerted Occupants in 92% of Fires**

Smoke or heat detectors operated and alerted the occupants in 586, or 92%, of the residential building fires. In 4% of these fires[2], the detectors did not alert the occupants. Detectors were present but failed to operate in 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 13 incidents, or 2% of Cambridge's residential building fires.




**5 Failed Detectors**

Two (2) detectors failed because of dead batteries. One (1) detector failed because of a power failure, shut-off or disconnect. It was undetermined in two cases why the detector failed to operate.

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

## VACANT BUILDINGS

### 3 Building Fires Occurred in Vacant Buildings

Cambridge reported three fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 0.4% of the total 774 building fires reported to MFIRS in 2009. An apartment building, a single-family home and a college classroom were reported as vacant building fire incidents.

## JUVENILE-SET FIRES

### 1 Juvenile-set Fire

There was one juvenile-set fire reported by Cambridge in 2009. The structure fire caused $750 in estimated damages.

## ARSONS

### 4 Total Arsons[4] — 4 Other or Outside Arsons

Four (4), or 1%, of Cambridge's 874 fires were considered intentionally set, or, for purposes of this analysis, arson. The two brush fires, one special outside fire and one unclassified fire caused one civilian injury and four fire service injuries.

### No Structure or Motor Vehicle Arsons

The total number of arsons decreased by five from the nine arsons that were reported in 2008. Reported structure arsons decreased by two from two the year before. There were no reported motor vehicle arsons in 2009 or in 2008. Outside and other arsons decreased by three from the seven reported in 2008.

### Rescue & EMS Calls Are 48% of All Reported Incidents

In 2009, Cambridge voluntarily reported 13,319 incidents to MFIRS. Of these 13,319 incidents, 12,444, or 93%, were non-fire incidents.

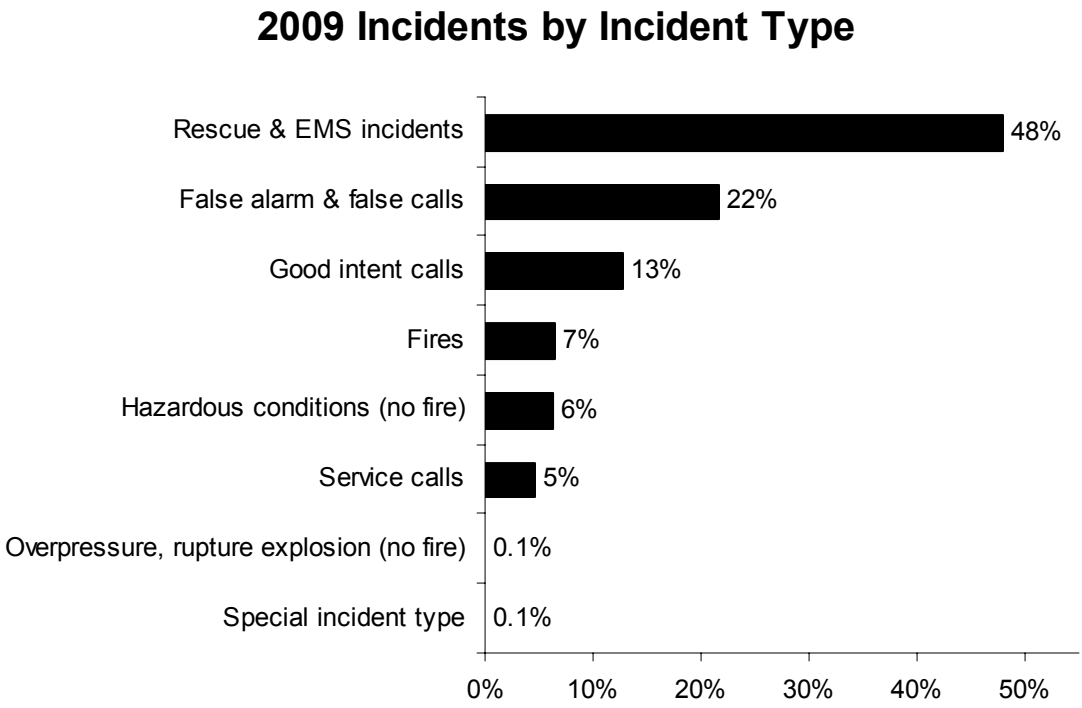
Of these 12,444 non-fire incidents 6,385, or 48% of all the incidents reported in 2009, were reported rescue and emergency medical services (EMS) calls; 2,891, or 22%, were reported false alarm or false calls; 1,702, or 13%, were reported good intent calls; 827, or 6%, were reported hazardous condition calls with no fire; 609, or 5%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 17, or 0.1%, were reported overpressure, rupture, explosion 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.

overheat calls with no fire; and 13, or 0.1%, were special incident type calls such as citizen complaints.

In 2009, Cambridge reported 875 fires[5], accounting for 7% of all reported incidents.



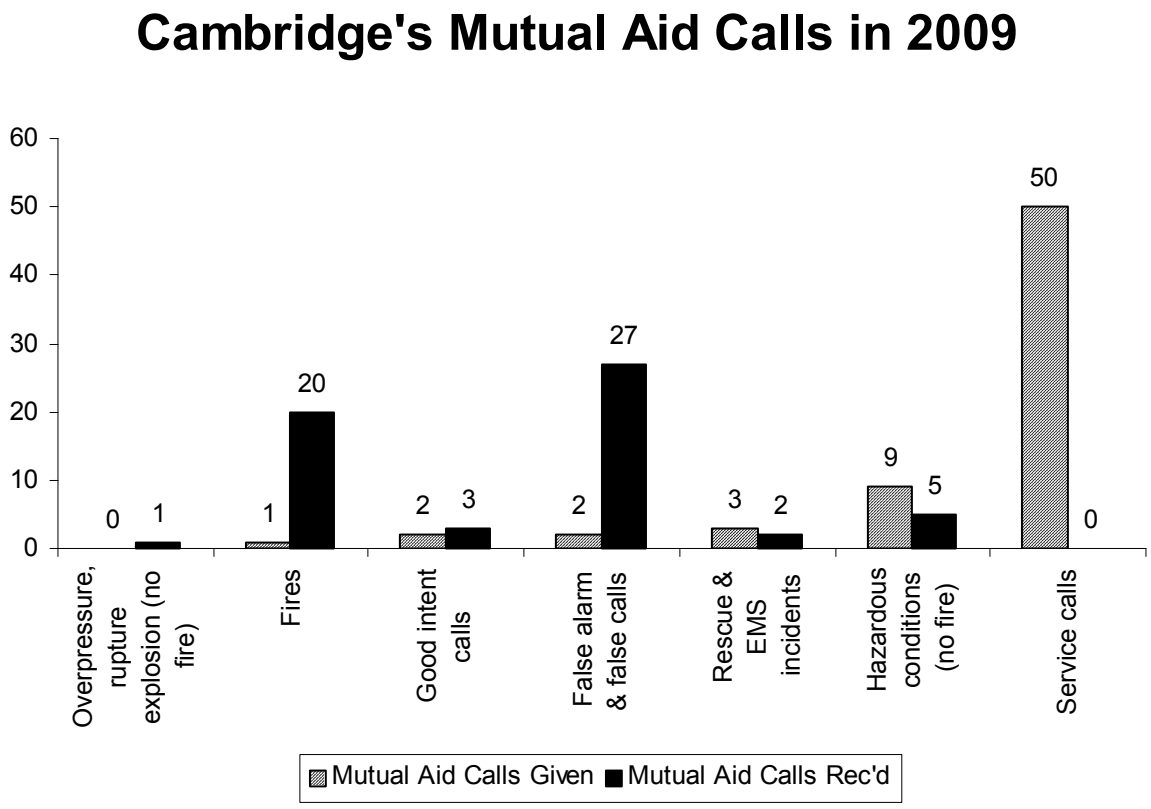

**Cambridge Gave Mutual Aid in 67 Reported Incidents**
In 2009, Cambridge reported coming to the aid of other fire departments 67 times. Of these 67 incidents, 50, or 75%, were for cover assignments (service calls); nine, or 13%, were for hazardous conditions calls with no fire; three, or 4% were for rescue or EMS calls; two, or 2%, were for good intent calls; another two, or 2%; were false alarms; and one, or 1%, was for a fire.

**Cambridge Received Mutual Aid in 58 Incidents**
In 2009, surrounding fire departments gave aid to Cambridge in 58 incidents. Of these 58 incidents, 27, or 47%, were false alarms or false calls; 20, or 34%, were fires; five, or 9%, were hazardous conditions calls with no fire; three, or 5%, were good intent calls; two, or 3% were for rescue or EMS calls; and one, or 2%, was a reported overpressure, rupture, explosion or overheat calls with no fire.

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 2009 Cambridge was asked to send an

[5] These fire calls include mutual aid call outside of Cambridge's jurisdiction.

apparatus outside of Cambridge 1.2 times more than they asked neighboring fire departments for help.



# Cambridge Population: 101,355

**8.6 Fires/1,000 Population**

| **Total Fires:** | **874** | | **$4,001,770** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 775 | 89% | $3,926,720 |
| Vehicle Fires | 17 | 2% | 51,100 |
| Other Fires | 82 | 9% | 23,950 |

3 Civilian Injuries 12 Fire Service Injuries

## Building Fires: 774

## Residential Structure Fires: 636

**Residential Structure Fires Confined to Non-Combustible Containers: 599**

**Unconfined Residential Structure Fires: 37**

2 Civilian Injuries 5 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 349 | 55% |
| Dormitories | 127 | 20% |
| 1- & 2-Family homes | 69 | 11% |
| Rooming houses | 13 | 2% |
| Hotels, motels | 12 | 2% |
| Residential board & care | 5 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 586 | 92% |
| Didn't operate | 5 | 1% |
| None | 1 | 0.2% |
| Fire too small | 6 | 1% |
| Didn't Alert (confined) | 25 | 4% |
| Undetermined | 13 | 3% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 93% |
| Heating room or area | 1% |
| Bedroom | 1% |
| Living room | 1% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Heat from operating. eq. | 1% | 22% |
| Cigarette | 1% | 14% |
| Rad., conduct./heat-op. eq. | 1% | 11% |
| Spark, ember, flame-op. eq. | 1% | 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, but is sometimes voluntarily reported.

| **Item First Ignited**[8] | **%** |
|---|---|
| Cooking materials | 93% |
| Flammable or combustible liq. | 1% |
| Rubbish, trash, waste | 1% |
| Structural comp., finish, other | 1% |
| Box, carton, bag | |

| **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% |
| Mech. fail., malf., other | 0.5% | 8% |
| Equipment unattended | 0.3% | 5% |

| **Equipment**[10] | **%** |
|---|---|
| Cooking equipment | 93% |
| None | 4% |
| Boiler, furnace, cent. heat unit | 1% |

| **Cause of Ignition** | **%** | **%Unconfined**[11] |
|---|---|---|
| Unintentional | 4% | 62% |
| Failure of eq./heat source | 1% | 14% |
| Intentional | 0.2% | 3% |
| Act of nature | 0.2% | 3% |
| Undetermined | 0.2% | 3% |
| Cause under investigation | 1% | 14% |

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

| | |
|---|---|
| Alerted Occupants | 95% |
| Didn't Alert Occupants | 4% |
| Undetermined | 1% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Rescue & EMS incidents | 6,385 | 48% |
| False alarms & false calls | 2,891 | 22% |
| Good intent calls | 1,702 | 13% |
| Fires | 875[12] | 7% |
| Hazardous conditions (no fire) | 827 | 6% |
| Service calls | 609 | 5% |
| Overpressure rupture, explosion or overheat calls (no fire) | 17 | 0.1% |
| Special incident type | 13 | 0.1% |
| Severe weather & natural disaster | 0 | 0% |

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

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

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

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

[12] This includes the mutual aid fire calls outside of Cambridge's city limits.

| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 71 | 68 | 2 | 1 |
| February | 67 | 62 | 0 | 5 |
| March | 90 | 83 | 2 | 5 |
| April | 83 | 68 | 0 | 15 |
| May | 76 | 57 | 1 | 18 |
| June | 55 | 49 | 2 | 4 |
| July | 59 | 51 | 0 | 8 |
| August | 61 | 53 | 0 | 8 |
| September | 74 | 63 | 5 | 6 |
| October | 84 | 78 | 2 | 4 |
| November | 77 | 71 | 1 | 5 |
| December | 77 | 72 | 2 | 3 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 136 | 124 | 1 | 11 |
| Monday | 123 | 112 | 1 | 10 |
| Tuesday | 101 | 94 | 2 | 5 |
| Wednesday | 108 | 91 | 2 | 15 |
| Thursday | 156 | 139 | 2 | 15 |
| Friday | 124 | 106 | 4 | 14 |
| Saturday | 126 | 109 | 5 | 12 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 48 | 33 | 3 | 12 |
| 04:01 - 08:00 | 40 | 31 | 2 | 7 |
| 08:01 - 12:00 | 123 | 108 | 4 | 11 |
| 12:01 - 16:00 | 187 | 163 | 4 | 20 |
| 16:01 - 20:00 | 297 | 278 | 3 | 16 |
| 20:01 - 24:00 | 179 | 162 | 1 | 16 |

## Motor Vehicle Fires

Total: 15
Automobiles: 15 (100%)
None of the automobile fires considered intentional.

## Arson Fires

**Total Arsons: 4** **Dollar loss: $0**

**0.04 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 0 | 0% | 0% | $0 |
| Motor Vehicle Arsons | 0 | 0% | 0% | 0 |
| Other Arsons | 4 | 5% | 100% | 0 |

1 Civilian Injury

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:**

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 2 | 50% |
| 04:01 - 08:00 | 1 | 25% |
| 20:01 - 00:00 | 1 | 25% |

# Lowell Fires in 2009

**506 Total Fires — 324 Structures, 45 Vehicles & 137 Other Fires**
The Lowell Fire Department reported 506 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 324 structure fires, 45 motor vehicle fires, 82 outside rubbish fires, 40 brush fires, six special outside fires; and nine unclassified fires caused five civilian injuries, two firefighter injuries and an estimated dollar loss of $1.4 million. There were no fatal fires in Lowell in 2009.

**Structure Fires Down in 2009**
Total fires decreased by 67 from the 573 incidents reported in 2008. Reported structure fires decreased by 79 from the 403 reported during the previous year. Motor vehicle fires increased by two from 43 the year before. Outside and other fires increased by 10 from the 127 reported in 2008.

**LOWELL FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 393 | 227 | 49 | 117 | 3 | 0 | 3 | 0 |
| 2006[1] | 688 | 443 | 53 | 192 | 13 | 6 | 1 | 6 |
| 2007 | 630 | 372 | 46 | 212 | 12 | 6 | 2 | 4 |
| 2008 | 573 | 403 | 43 | 127 | 24 | 5 | 12 | 7 |
| 2009 | 506 | 324 | 45 | 137 | 24 | 8 | 6 | 10 |

**BUILDING FIRES**

There were 322 building fires of different types in Lowell in 2009. These 322 building fires accounted for 99.4% of all structure fires in Lowell.

**86% of Building Fires in Homes**
The 322 building fires that occurred in Lowell in 2009 can be broken down by fixed property use as follows: 276, or 86% of all building fires, were in residential properties; 24 fires occurred in public assembly properties; 12 fires occurred in special properties; 10 happened in mercantile or business properties; eight fires occurred in institutional facilities; three fires occurred in manufacturing or processing facilities; two fires occurred in educational facilities; and another two fires happened in storage facilities.

[1] The large increase in fires from 2005 to 2006 is because from Jan - May of 2005, Lowell only reported the mandated fires. In 2006 Lowell reported all of their fires for the entire year. Most of these fires fall into the confined fires category that Lowell may not have reported in the past.

## RESIDENTIAL FIRES

### Residential Building Fires Were Up

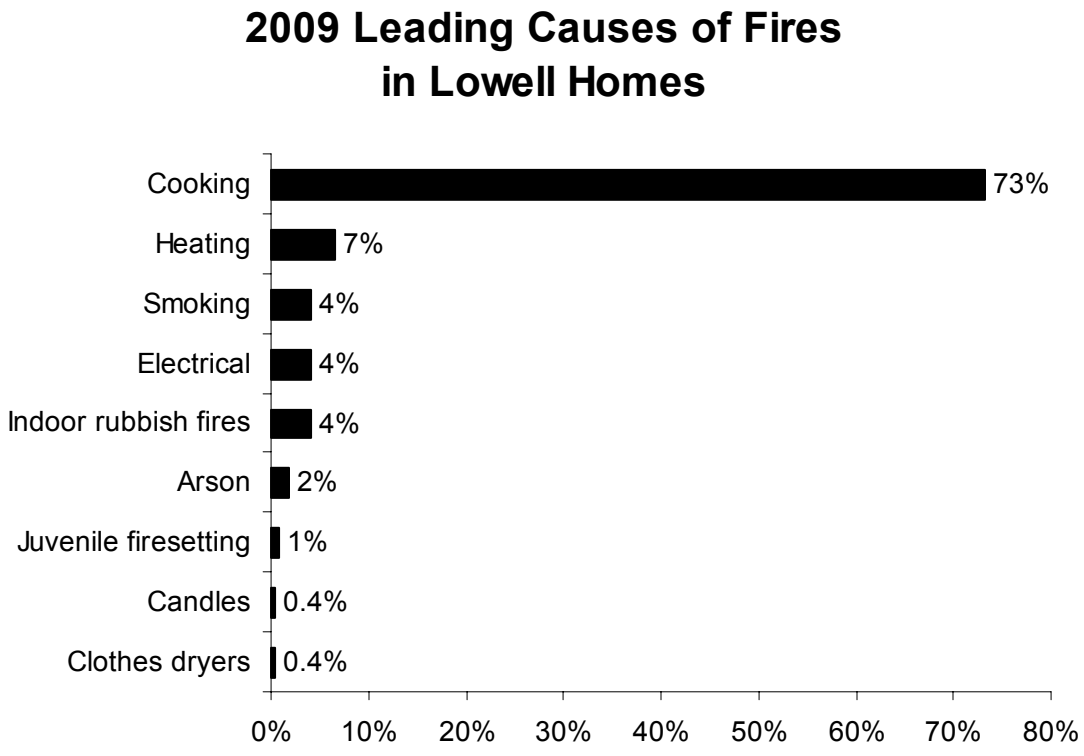
There were 276 reported residential building fires in Lowell in 2009, a decrease of 45 from the 321 reported residential building fires reported in 2008.

### Apartments Accounted for Almost 3/4 of Residential Building Fires

Apartments, accounting for 74% of the building fires in Lowell where the peak fixed property use for residential building fires in 2009. Twenty percent (20%) of residential fires occurred in 1- or 2-family homes; 3% happened in rooming houses; 1% occurred in dormitories; another 1% happened in residential board and care facilities; and 1% occurred in unclassified residences.

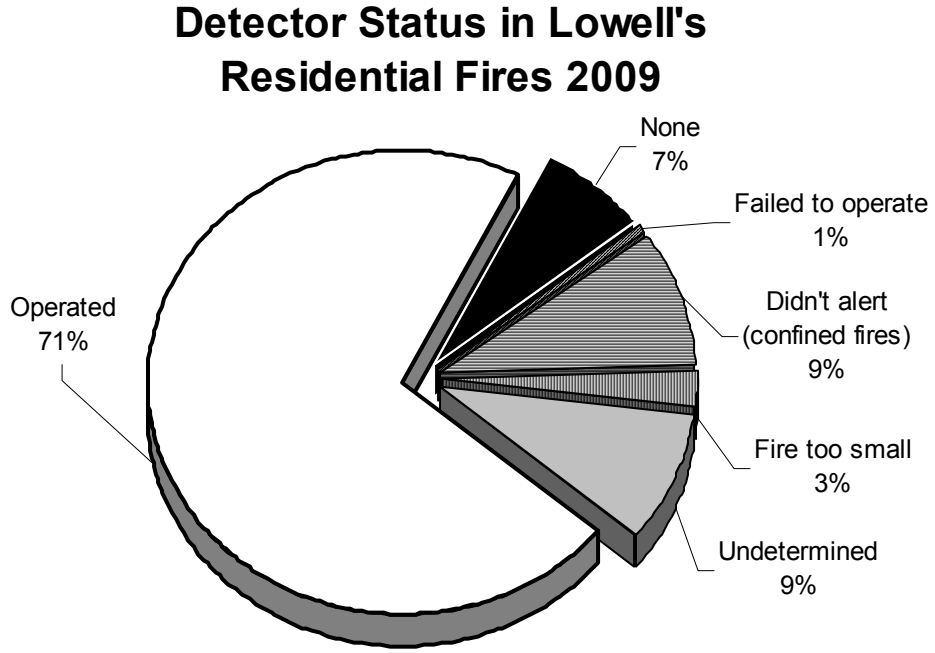
### Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Lowell was unattended cooking and other unsafe cooking practices, nearly three-quarters, or 73%, of these fires. Heating fires caused 7% of these fires. Smoking, electrical problems and indoor rubbish fires were each the cause of 4% of Lowell's residential fires. Juvenile-set fires caused 1% of these fires. Candles and clothes dryers were each the cause of less than 1% of the fires in Lowell's residential occupancies in 2009.



**78% of Residential Building Fires Are Confined to Non-Combustible Containers[2]**
Two hundred and fourteen (214), or 78% of all residential building fires were confined to non-combustible containers in 2009. One hundred and eighty-nine (189), or 68%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Twelve (12), or 4%, of these fires were rubbish fires contained to a non-combustible container. Eleven (11), or 4%, 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.

**Detectors Worked in 71% of Fires**
Smoke or heat detectors operated and alerted the occupants in 197, or 71%, of the residential building fires. In 9% of these fires[3], the detectors did not alert the occupants. Detectors were present but did not operate in 1% of these incidents. In 7% 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 25 incidents, or 9% of Lowell's residential building fires.




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

### 1 Detector Failed From Dead Battery

One (1) of the two detectors that failed, did so because of a dead battery. It was undetermined in the other case why the detector failed to operate.

## VACANT BUILDINGS

### 7 Building Fires in Vacant Buildings

Lowell reported seven fires that occurred in buildings that were vacant, under construction or demolition[4]. This represented 2% of the total 322 building fires reported to MFIRS in 2009. Two (2) one- or two-family homes, two manufacturing or processing facilities; one apartment building, one detached residential garage 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 2009. There were three structure fires, one brush fire and one outside equipment fire.

## ARSONS

### 24 Arsons[5] - 8 Structure, 6 Motor Vehicle and 10 Outside & Other

Twenty-four (24), or 5%, of Lowell's 506 fires were considered intentionally set, or, for purposes of this analysis, arson. There were eight structure arsons, six motor vehicle arsons and 10 outside and other arsons.

### Motor Vehicle Arsons Down in 2009

The total number of arsons remained the same with 24 total arsons reported in both 2008 and 2009. Reported structure arsons increased by five from the three reported in 2009. Motor vehicle arsons decreased by six from the 12 reported in 2008. Outside and other arsons increased by three from seven reported the year before.

### 27 Fires Reported as Undetermined

In 2009, Lowell reported 27 fires with an undetermined cause after investigation. Twelve (12), or 44%, of these 27 fires were structure fires. Nine (9), or 33% were motor vehicle fires; and six, or 22%, were outside or other fires.

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

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

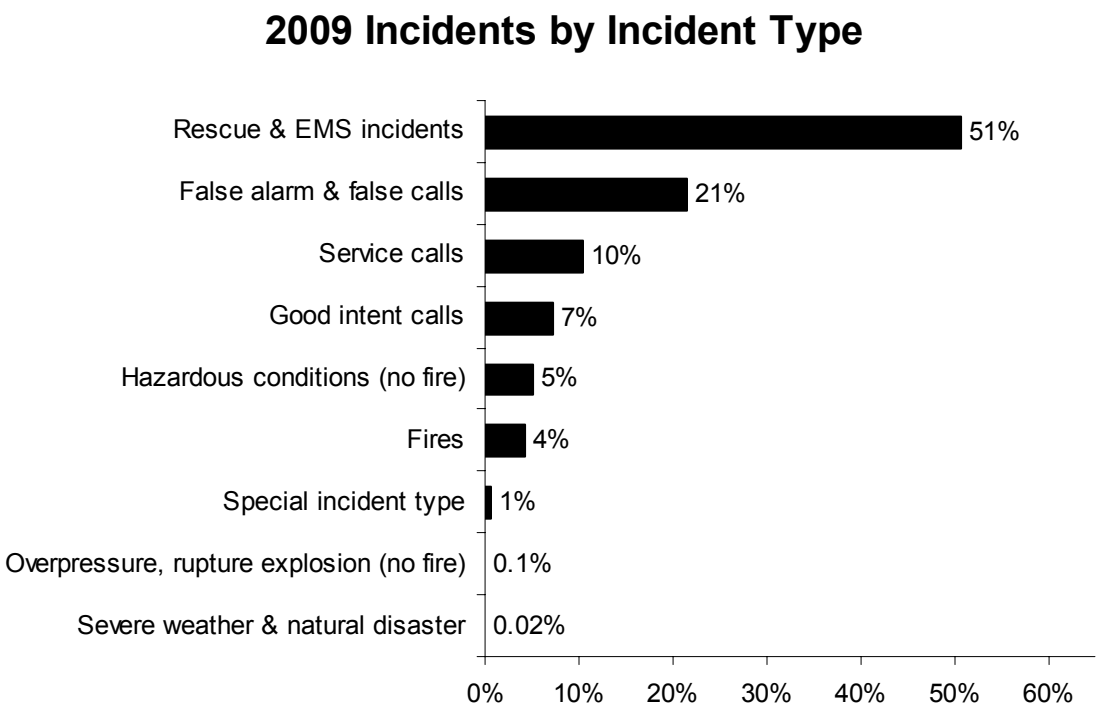
## ALL INCIDENTS

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

In 2009, Lowell voluntarily reported 11,811 incidents to MFIRS. Of these 11,811 incidents, 11,295, or 96% were non-fire incidents.

Of these 11,295 non-fire incidents 5,991, or 51% of all reported incidents in 2009, were reported rescue and emergency medical services (EMS) calls; 2,534, or 21%, were reported false alarm or false calls; 1,234, or 10%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 876, or 7%, were reported good intent calls; 595, or 5%, were reported hazardous condition calls with no fire; 80, or 1%, were special incident types; 13, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and two, or 0.02%, were severe weather calls.

In 2009, Lowell reported 516 fires[6], accounting for 4% of all reported incidents.



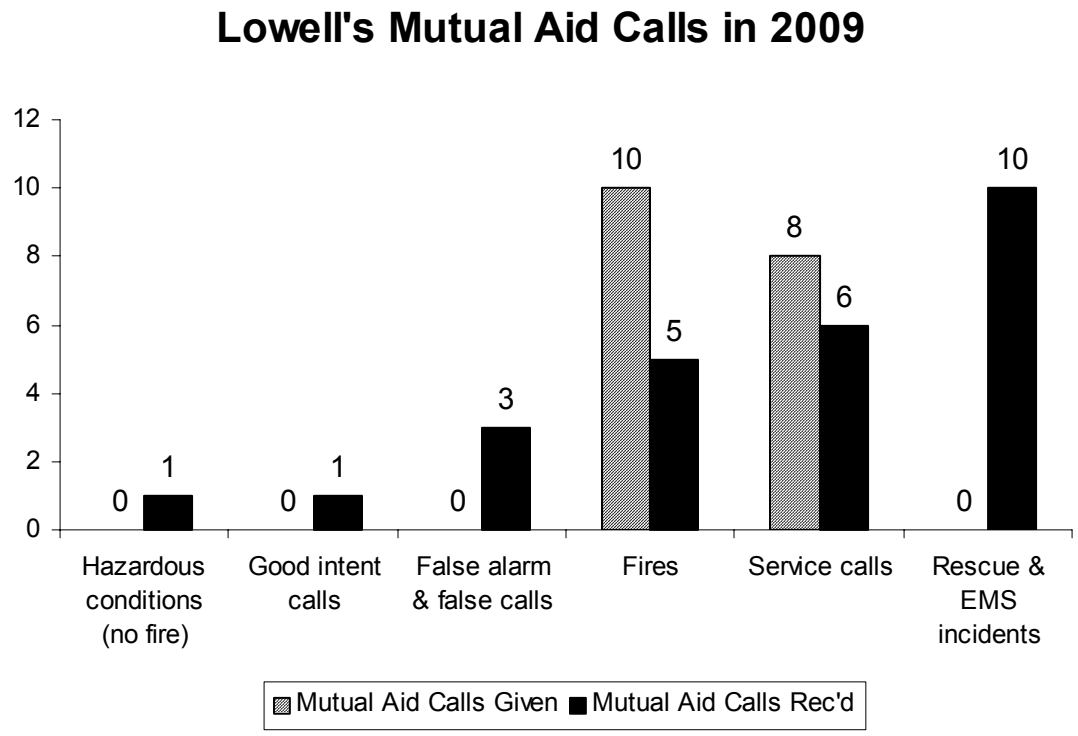

### Lowell Gave Mutual Aid in 18 Reported Incidents

In 2009, Lowell reported coming to the aid of other fire departments 18 times. Of these 18 incidents, 10, or 56%, were for fires; and eight, or 44%, were for cover assignments or other service calls.

[6] This includes the fires that Lowell responded to as mutual aid calls outside of their jurisdiction.

**Lowell Received Mutual Aid in 26 Incidents**
In 2009, surrounding fire departments gave aid to Lowell during 26 incidents. Of these 26 incidents, 10, or 38%, were rescue or EMS calls, six, or 23%, were service calls; five, or 19%, were for fires; three, or 12%, were false alarms or false calls; one, or 4%, was a good intent call; 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 2009 Lowell received aid 1.4 times more than they gave it.



# Lowell Population: 105,167

**4.8 Fires/1,000 Population**

| **Total Fires:** | **506** | | **$1,394,749** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 324 | 64% | $1,160,535 |
| Vehicle Fires | 45 | 9% | 229,941 |
| Other Fires | 137 | 27% | 4,273 |

5 Civilian Injuries 2 Fire Service Injuries

## Building Fires: 322

## Residential Structure Fires: 276

**Residential Structure Fires Confined to Non-Combustible Containers: 214**

**Unconfined Residential Structure Fires: 62**

4 Civilian Injuries 2 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 203 | 74% |
| 1- & 2-Family homes | 56 | 20% |
| Boarding houses | 9 | 3% |
| Dormitories | 4 | 1% |
| Residential board & care | 2 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 197 | 71% |
| Didn't operate | 2 | 1% |
| None | 19 | 7% |
| Fire too small | 7 | 3% |
| Didn't Alert (confined) | 26 | 9% |
| Undetermined | 25 | 9% |

| **Area of Origin**[7] | **%** |
|---|---|
| Kitchen | 75% |
| Heating room or area | 4% |
| Bedroom | 3% |
| Exterior stairway | 2% |
| Wall surface, exterior | 2% |

| **Heat Source** | **%** | **%Unconfined**[8] |
|---|---|---|
| Heat from operating equip. | 4% | 19% |
| Cigarette | 3% | 11% |
| Arcing | 2% | 10% |
| Radiated heat from op. eq. | 2% | 10% |
| Spark/ember/flame op eq. | 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] | **%** |
|---|---|
| Cooking materials | 72% |
| Rubbish, trash, waste | 5% |
| Flammable or combustible liq. | 4% |
| Exterior sidewall covering | 3% |
| Structural member, framing | 3% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[10] |
|---|---|---|
| Misuse of materials or prod. | 3% | 13% |
| Too close to combustibles | 3% | 13% |
| Equipment unattended | 3% | 11% |
| Abandoned materials | 2% | 10% |
| Electrical fail./malf., other | 2% | 10% |

| **Equipment**[11] | **%** |
|---|---|
| Cooking equipment | 72% |
| None | 14% |
| Boiler, furnace, cent. heat. unit | 4% |
| Stove, heating | 2% |
| Soldering equipment | 1% |
| Chimney, flue | 1% |

| **Cause of Ignition** | **%** | **%Unconfined**[12] |
|---|---|---|
| Unintentional | 17% | 76% |
| Intentional | 2% | 8% |
| Failure of eq./heat source | 1% | 5% |
| Cause Under Investigation | 0% | 0% |
| Undetermined | 3% | 11% |

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

| | |
|---|---|
| Alerted Occupants | 78% |
| Didn't Alert Occupants | 12% |
| Undetermined | 10% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Rescue & EMS incidents | 5,991 | 51% |
| False alarms & false calls | 2,534 | 21% |
| Service calls | 1,234 | 10% |
| Good intent calls | 846 | 7% |
| Hazardous conditions (no fire) | 595 | 5% |
| Fires[13] | 516 | 4% |
| Special incident type | 80 | 1% |
| Overpressure rupture, explosion or overheat calls (no fire) | 13 | 0.1% |
| Severe weather & natural disaster | 2 | 0.02% |

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

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

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

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

[13] This figure contains the fires that Lowell gave mutual aid to in another jurisdiction.

| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 42 | 37 | 2 | 3 |
| February | 47 | 34 | 8 | 5 |
| March | 51 | 34 | 6 | 11 |
| April | 55 | 30 | 5 | 20 |
| May | 44 | 32 | 3 | 9 |
| June | 38 | 19 | 2 | 17 |
| July | 34 | 21 | 3 | 10 |
| August | 32 | 16 | 3 | 13 |
| September | 29 | 15 | 3 | 11 |
| October | 39 | 19 | 3 | 17 |
| November | 55 | 39 | 3 | 13 |
| December | 40 | 28 | 4 | 8 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 65 | 43 | 3 | 19 |
| Monday | 66 | 35 | 11 | 20 |
| Tuesday | 78 | 50 | 6 | 22 |
| Wednesday | 74 | 49 | 9 | 16 |
| Thursday | 75 | 54 | 5 | 16 |
| Friday | 71 | 46 | 7 | 18 |
| Saturday | 77 | 47 | 4 | 26 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 48 | 25 | 5 | 18 |
| 04:01 - 08:00 | 21 | 16 | 0 | 5 |
| 08:01 - 12:00 | 85 | 62 | 7 | 16 |
| 12:01 - 16:00 | 102 | 70 | 9 | 23 |
| 16:01 - 20:00 | 139 | 87 | 11 | 41 |
| 20:01 - 24:00 | 111 | 64 | 13 | 34 |

## Motor Vehicle Fires

Total: 45
Automobiles: 44 (98%)
6 (14%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 24** **Dollar loss: $65,320**

**0.11 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 8 | 2% | 33% | $3,000 |
| Vehicle Arsons | 6 | 13% | 25% | 62,120 |
| Other Arsons | 10 | 7% | 42% | 200 |

0.08 Structure arsons/1,000 population
0.06 Vehicle arsons/1,000 population
0.10 Other arsons/1,000 population

**Peak Times of Day for:**

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

| Vehicle Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 4 | 67% |
| 20:01 - 00:00 | 2 | 33% |

| Other Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 4 | 40% |
| 16:01 - 20:00 | 3 | 30% |
| 00:01 - 04:00 | 1 | 10% |
| 08:01 - 12:00 | 1 | 10% |
| 12:01 - 16:00 | 1 | 10% |

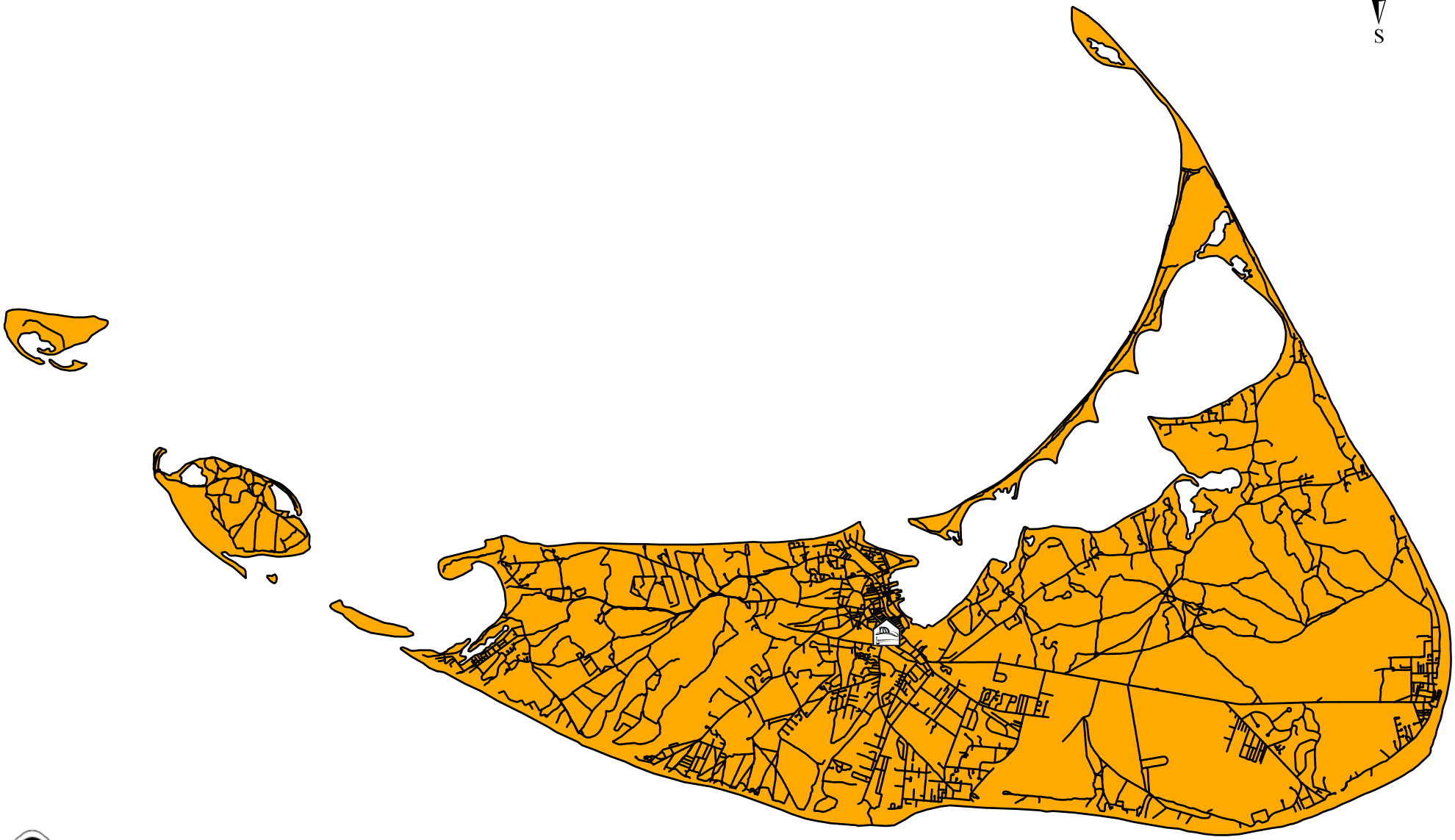
| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| Apartments | 5 | 63% |
| Manufacturing or processing facility | 5 | 13% |
| Outbuilding, protective shelter | 5 | 13% |

# Nantucket County
## 2009 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 2009



**2009 Fires**

38

FireStations

ROADS5K_ARC

Miles

0 0.5 1 2 3 4

Massachusetts Fire Incident Reporting System 2009

# Nantucket County Fires in 2009

**38 Total Fires — 26 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 38 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 26 structure fires, three motor vehicle fires, four brush fires, one outside rubbish fire and four unclassified fires caused an estimated dollar loss of $3,500. Nantucket County's fires accounted for 0.1% of the 28,595 Massachusetts fires reported in 2009.

**Structure & Outside Fires Up**
The total number of reported fire incidents increased by 13 from the 25 fires reported in 2008. Structure fires increased by 12 from the 14 reported in 2008. Motor vehicle fires decreased by two from five the year before. Reported outside and other fires increased by three from the six reported in 2008.

Nantucket is an island community with a small year round population. During the summer months, the population increases immensely. Consequently, 37% of Nantucket's fires occurred during the months May to September.

**No Reported Fire Deaths**
In 2009, Nantucket did not report any fire-related deaths.

**NANTUCKET FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005[1] | 115 | 66 | 17 | 32 | 0 | 0 | 0 | 0 |
| 2006[2] | 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 | 38 | 26 | 3 | 9 | 1 | 0 | 0 | 1 |

**Fire and Fire Death Rates**
Nantucket County had 4.0 fires per 1,000 population. That figure ranks Nantucket County seventh in the state and below the state rate of 4.5 fires per 1,000 population. Nantucket County also had no fire deaths, tying it for ninth among Massachusetts counties and below the state rate of 0.06 fire deaths per 10,000 population.

[1] In 2005, Nantucket had problems submitting their incidents for October – December. They were only able to submit fires, and only the very basic information for these incidents.
[2] 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.

### Cooking Caused Nantucket's Largest Loss Fire

- On January 31, 2009, at 5:39 p.m., the Nantucket Fire Department was called to a cooking fire in a three-unit apartment building. The occupant had left the food on the stove unattended only to come back and find that a fire had started and extended to the cabinets and microwave above the stove. No one was injured at this fire, and damages were estimated to be $3,500. Smoke detectors were present they alerted the building's occupants. The building was not sprinklered.

## STRUCTURE FIRES

### Reported Structure Fires Up

The 26 structure fires caused an estimated dollar loss of $3,500. These incidents represented 68% of Nantucket County's reported fires in 2009. The average estimated dollar loss per structure fire was $135. The total number of reported structure fires increased by 12 from the 14 reported in 2008.

### No Reported Structure Arsons

Nantucket County did not report any structure arsons in 2009. The last year that Nantucket reported a structure arson was in 2003.

#### BUILDING FIRES

There were 26 building fires of different types in Nantucket County in 2009. These 26 building fires accounted for all of the structure fires in Nantucket County.

### 88% of Nantucket Building Fires Occurred in People's Homes

Twenty-three (23), or 88%, of Nantucket County's 13 building fires occurred in residential occupancies. The other three fires took place in public assembly properties.

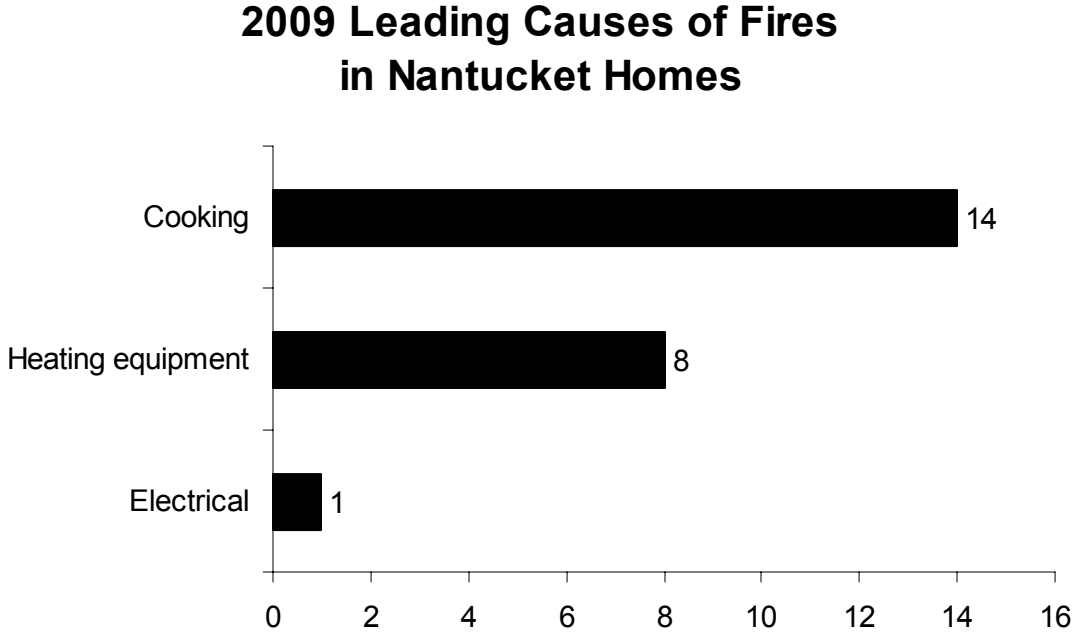
#### RESIDENTIAL FIRES

### Residential Building Fires Up

There were 23 reported residential building fires in Nantucket County in 2009. These 23 fires are an increase of 11, or 92%, from the 12 residential building fires reported in 2008. Twenty (20), or 87%, occurred in one- or two-family homes; two, or 9%, happened in apartments; and one, or 4%, occurred in a hotel or motel.

### Cooking Fires Cause 14 of 23 Residential Fires

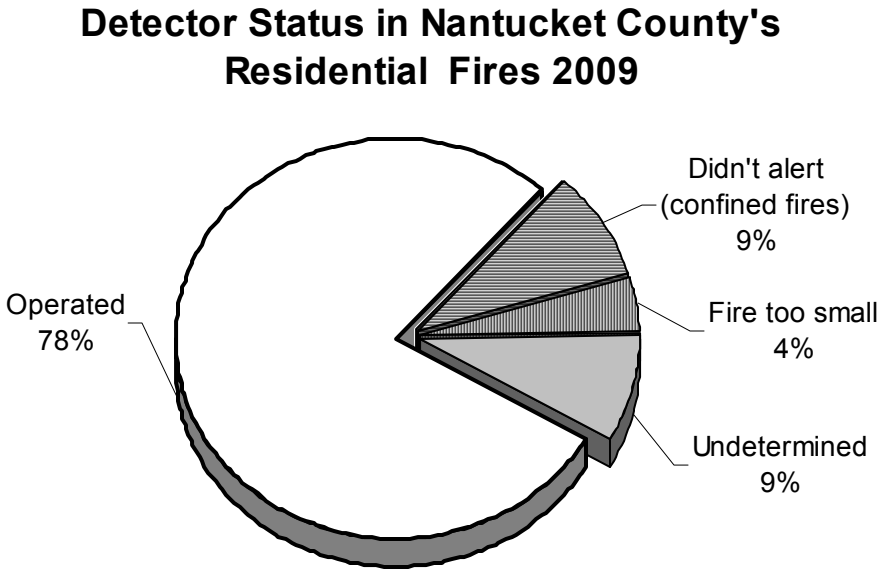
The leading cause of residential building fires in Nantucket County was unattended cooking and other unsafe cooking practices, accounting for 14, or 61% of these fires. Heating equipment caused eight, or 35%, of these fires. Electrical problems caused, one, or 4%, of Nantucket's 2009 residential fires.




**21 Residential Building Fires Are Confined to Non-Combustible Containers[3]**
Twenty-one (21), or 91% of all residential building fires, were reported as confined to non-combustible containers in 2009. Thirteen (13) of the reported fires were cooking fires contained to a non-combustible container accounting for 57% of the residential fires. Eight (8), or 35%, of Nantucket's residential fires were confined to chimneys or flues.

**Detectors Alerted Occupants in Over 3/4 of Fires**
Smoke or heat detectors operated and alerted the occupants in 18, or 78%, of the residential building fires. In two, or 9% of these fires[4], the detectors did not alert the occupants. Detectors were present but the fire was too small to activate it in one, or 4%, of these incidents. Detector performance was undetermined in two, or 9%, of Nantucket's residential fires.

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




## VACANT BUILDING FIRES

**None of Nantucket County Building Fires Occurred in Vacant Buildings**
None of Nantucket County reported fires that occurred in a building that was vacant, under construction or demolition[5].

## JUVENILE-SET FIRES

**No Juvenile-set Fires**
There was one reported juvenile-set fire in Nantucket County in 2009.

## ARSONS

**1 Total Arson[6] — 1 Outside Arson**
One (1), or 5%, of Nantucket County's 38 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.

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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.

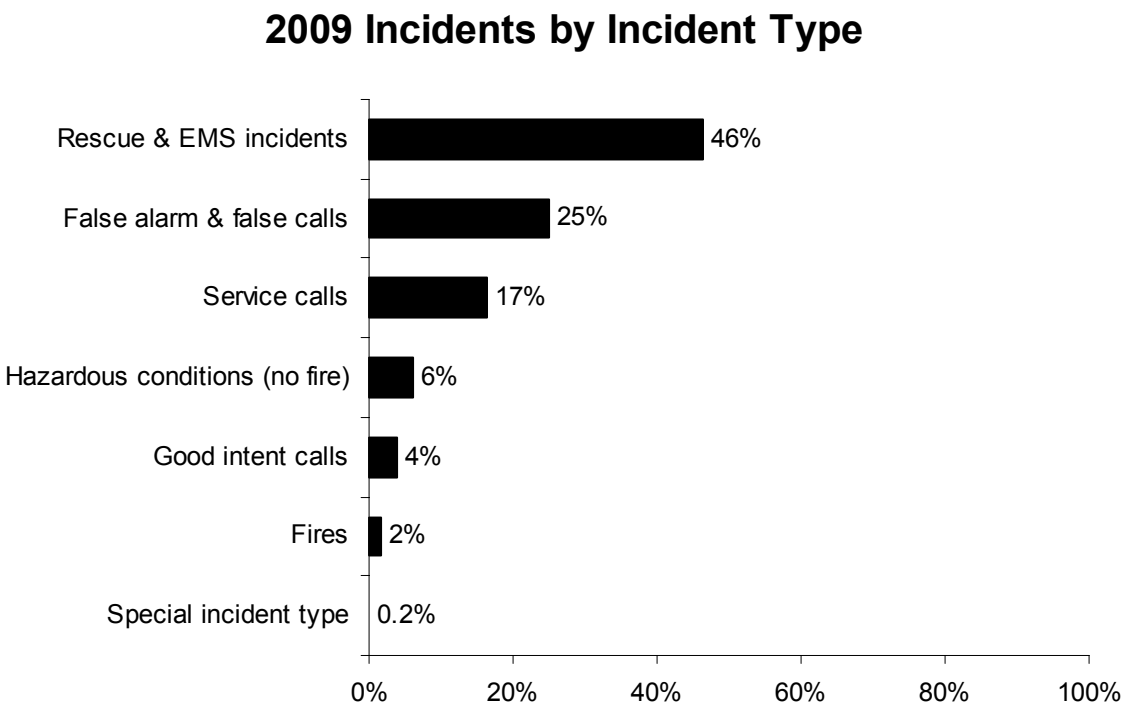
**Outside Arson Fires Up Slightly**
For the first time since 2006, Nantucket reported an arson. The total number of arsons increased by one from none reported in 2008. Reported structure and motor vehicle arsons remained the same with none reported in both 2008 and 2009. Outside and other arsons increased by one from none reported last year.

## ALL INCIDENTS

**Rescue & EMS Calls Are 46% of All Reported Incidents**
In 2009, Nantucket County reported 2,193 responses to MFIRS. Of these 2,193 incidents, 2,188 non-fire calls were voluntarily reported.

Of these 2,188 non-fire calls 1,015, or 46% of the total responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 551, or 25%, were reported false alarm or false calls; 362, or 17%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 136, or 6%, were reported hazardous condition calls with no fire; 86, or 4%, reported good intent calls; and five, or 0.2%, were special incident type calls.

Thirty-eight (38), or 2%, of the total responses submitted by the Nantucket Fire Department were fires.



## Nantucket County Population: 9,520

**4.0 Fires/1,000 Population**

| **Total Fires:** | **38** | | **$3,500** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 26 | 68% | $0 |
| Vehicle Fires | 3 | 8% | 3,500 |
| Other Fires | 9 | 24% | 0 |

No Injuries

# Building Fires: 26

## Residential Structure Fires: 23

**Residential Structure Fires Confined to Non-Combustible Containers: 21**

**Unconfined Residential Structure Fires: 2**

No Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 20 | 87% |
| Apartments | 2 | 8% |
| Hotels or motels | 1 | 4% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 18 | 78% |
| Didn't operate | 0 | 0% |
| None | 0 | 0% |
| Fire too small | 1 | 4% |
| Didn’t alert (confined) | 2 | 9% |
| Undetermined | 2 | 9% |

| **Area of Origin**[7] | **%** |
|---|---|
| Kitchen | 61% |
| Chimney or flue | 35% |
| Outside area, other | 4% |

| **Heat Source** | **%** | **%Unconfined**[8] |
|---|---|---|
| Radiated heat from oper. eq. | 4% | 50% |
| Hot or smoldering object | 4% | 50% |

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

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

| **Item First Ignited**[9] | **%** | **Factor Contrib. to Ignit.** | **%** | **%Unconfined**[10] |
|---|---|---|---|---|
| Cooking materials | 61% | Equipment unattended | 4% | 50% |
| Film, residue (creosote) | 35% | | | |
| Exterior sidewall covering | 4% | | | |

| **Equipment**[11] | **%** | **Cause of Ignition** | **%** | **%Unconfined**[12] |
|---|---|---|---|---|
| Cooking equipment | 61% | Unintentional | 4% | 50% |
| Chimney or flue | 35% | Failure of eq. or heat source | 4% | 50% |
| Electric meter, meter box | 4% | | | |

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

| | |
|---|---|
| Alerted Occupants | 81% |
| Didn't Alert Occupants | 10% |
| Undetermined | 10% |

[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 | 3 | 2 | 1 | 0 |
| February | 2 | 2 | 0 | 0 |
| March | 3 | 2 | 0 | 1 |
| April | 3 | 3 | 0 | 0 |
| May | 1 | 1 | 0 | 0 |
| June | 3 | 3 | 0 | 0 |
| July | 4 | 3 | 1 | 0 |
| August | 6 | 3 | 1 | 2 |
| September | 0 | 0 | 0 | 0 |
| October | 3 | 0 | 0 | 3 |
| November | 5 | 3 | 0 | 2 |
| December | 5 | 5 | 0 | 0 |

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

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 0 | 0 | 0 | 0 |
| 04:01 - 08:00 | 1 | 1 | 0 | 0 |
| 08:01 - 12:00 | 4 | 4 | 1 | 0 |
| 12:01 - 16:00 | 11 | 6 | 3 | 2 |
| 16:01 - 20:00 | 20 | 13 | 0 | 7 |
| 20:01 - 00:00 | 2 | 2 | 0 | 0 |

## 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**

**0.11 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 | 11% | 100% | 0 |

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

No Injuries

**Peak Times of Day for:**

| Other Arsons | # | % |
|---|---|---|
| 16:01 – 20:00 | 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 | 38 | 3 | 2 | 3 | 3 | 1 | 3 | 4 | 6 | 0 | 3 | 5 | 5 |
| Overpressure, rupture explosion (no fire) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rescue & EMS incidents | 1,015 | 93 | 71 | 64 | 70 | 68 | 128 | 165 | 131 | 25 | 73 | 52 | 75 |
| Hazardous conditions (no fire) | 136 | 14 | 6 | 11 | 10 | 7 | 10 | 16 | 23 | 7 | 13 | 12 | 7 |
| Service calls | 362 | 36 | 8 | 30 | 36 | 62 | 31 | 63 | 44 | 6 | 18 | 15 | 13 |
| Good intent calls | 86 | 9 | 13 | 6 | 4 | 5 | 13 | 9 | 8 | 3 | 6 | 2 | 8 |
| False alarm & false calls | 551 | 45 | 29 | 29 | 47 | 29 | 61 | 69 | 68 | 17 | 53 | 58 | 46 |
| Severe weather & natural disaster | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Special incident type | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 |
| **Total** | **2,193** | **201** | **130** | **143** | **170** | **172** | **246** | **326** | **282** | **58** | **166** | **145** | **154** |

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

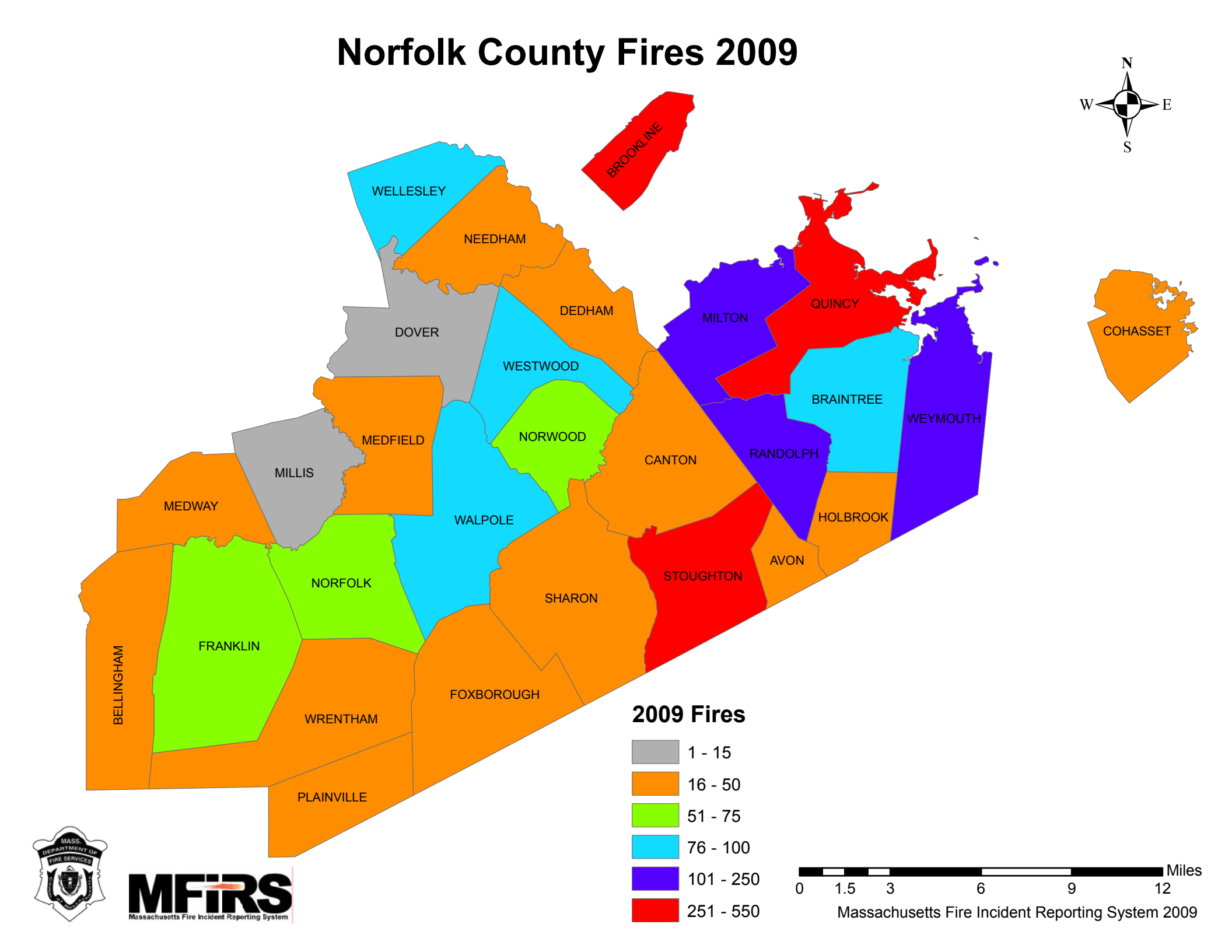
# Norfolk County

## 2009 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 2009



# Norfolk County Fires in 2009

**2,780 Total Fires — 1,845 Structures, 275 Vehicles & 660 Other Fires**
Norfolk County ranked fourth out of the fourteen Massachusetts counties in total reported fires. Norfolk County fire departments reported 2,780 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 1,845 structure fires, 275 motor vehicle fires, 320 brush, tree or lawn fires, 209 outside rubbish fires, 79 special outside fires, two cultivated vegetation or crop fires, and 50 other fires caused four civilian deaths, 16 civilian injuries, 59 fire service injuries and an estimated dollar loss of $11.3 million. Norfolk County's fires accounted for 10% of the 28,595 Massachusetts fires reported in 2009.

All 28 of the fire departments in Norfolk County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2009.

**Structure Fires Up**
The total number of reported fire incidents decreased by 288 from the 3,068 reported in 2008. Reported structure fires increased 15 from the 1,830 reported during the previous year. Motor vehicle fires decreased 15 from the 290 reported the year before. Reported outside and other fires decreased by 288 from the 948 reported a year earlier.

**Brush Fires Down by 45%**
Brush fires decreased by 261, or 45%, from the 581 reported in 2009. This is a major decrease and the main reason for the drop in all Norfolk County fires.

**NORFOLK COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2,998 | 1,562 | 345 | 1,091 | 100 | 20 | 17 | 63 |
| 2006 | 3,010 | 1,644 | 280 | 1,086 | 88 | 24 | 7 | 57 |
| 2007 | 3,750 | 1,686 | 308 | 1,756 | 94 | 21 | 4 | 69 |
| 2008 | 3,068 | 1,830 | 290 | 948 | 86 | 17 | 6 | 63 |
| 2009 | 2,780 | 1,845 | 275 | 660 | 58 | 8 | 5 | 45 |

**Fire and Fire Death Rates**
Norfolk County had 4.3 fires per 1,000 population. That figure ranks Norfolk County sixth in the state and lower than the state rate of 4.5 fires per 1,000 population. Norfolk County also had 0.06 fire deaths per 10,000 population ranking it sixth among Massachusetts counties and tied with the state rate of 0.06 fire deaths per 10,000 population.

### 2 Norfolk Fires Kill 4 Residents

- On March 25, 2009 at 3:05 a.m., the Quincy Fire Department was called to a fatal electrical fire in a six-unit apartment building. The fire was caused by a faulty lamp that had already been banned in Europe. The victims, a 45-year old man and his 2-month and 1-year old sons were sleeping in their basement apartment at the time of the fire. They were overcome by the heat and smoke. The victims' wife and mother also received life-threatening injuries at this fire. Detectors were present but they failed because of a hardwired power failure. Sprinklers were not present. Damages were estimated to be $200,000.

- On December 26, 2009, at 7:54 a.m., the Quincy Fire Department was called to a fatal smoking while on home oxygen fire in a 150-unit apartment building. The victim, a 75-year old physically disabled woman, had her clothing ignited while she was smoking on home oxygen. It is believed that she became disoriented and chose an inappropriate escape route and was overcome by the heat and smoke. Three (3) firefighters were injured at this fire. Smoke detectors were present and alerted the other occupants of the building. Sprinklers were present and suppressed the fire. Damages from this fire were estimated to be $200,000.

### Braintree Has Norfolk County's Largest Loss Fire in 2009

- On January 12, 2009, at 11:43 a.m., the Braintree Fire Department responded to an explosion and ensuing fire at a foundry. A piece of equipment that hadn't been regulary cleaned and was being improperly operated caused the explosion. There were no reported injuries at this fire. Smoke detectors were present and alerted the occupants. Sprinklers were not present. Damages from this fire were estimated to be $1 million.

## STRUCTURE FIRES

### Reported Structure Fires Up

The 1,845 structure fires caused all four of Norfolk County's civilian deaths, 13 civilian injuries, 59 fire service injuries and an estimated dollar loss of $11.3 million. These incidents represented 66% of Norfolk County's reported fires in 2009. The average estimated dollar loss per structure fire was $5,505. The total number of reported structure fires increased slightly by 15, or 1%, from the 1,830 reported in 2008.

### Arson Caused of Less Than 1% of Structure Fires

The eight structure arsons caused one fire service injury and an estimated dollar loss of $236,200. Arson was indicated as the cause of less than 1% of the structure fires and 2% of Norfolk County's structure fire dollar loss. The eight structure arsons accounted for 14% of the Norfolk County arson fires reported in 2009. The total number of reported structure arsons decreased by nine, or 53%, from 17 in 2008.

### 1/2 of Structure Arsons Occur in Residential Properties

Half, or 50% of Norfolk County's eight structure arsons occurred in residential occupancies and 13% each occurred in jails or prisons[1], educational facilities, storage facilities, and special properties.

## BUILDING FIRES

There were 1,839 building fires of different types in Norfolk County in 2009. These 1,839 building fires accounted for 99.6% of all structure fires in Norfolk County.

### 86% of Norfolk Building Fires Occurred in People's Homes

One thousand five hundred and eighty-five (1,585), or 86%, of Norfolk County's 1,839 building fires occurred in residential occupancies. Sixty-four (64) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings also experienced 60 fires. Mercantile and business properties had 51 fires. Twenty-five (25) building fires took place on educational properties. Twenty-one (21) building fires in Norfolk County occurred in special properties such as outbuildings, bus stop shelters and telephone booths. Nineteen (19) fires took place in storage properties. Nine (9) fires took place in manufacturing and processing facilities, and four fires occurred in industrial facilities in Norfolk County in 2009.

## 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 51% of the residential building fires in Norfolk County; 42% occurred in 1- or 2-family homes; 3% happened in rooming houses; 2% occurred in dormitories; 1% occurred in residential board and care facilities; and less than 1% happened in hotels or motels. Thirteen (13), or 1% of the residential building fires in Norfolk County occurred in unclassified residential buildings.

### Residential Building Fires Are Up

There were 1,585 reported residential building fires in Norfolk County in 2009. These 1,585 fires are an increase of 64, or 4%, from the 1,521 residential building fires reported in 2008.

### Cooking Causes 3/4 of Residential Fires

The leading cause of residential building fires in Norfolk County was unattended cooking and other unsafe cooking practices, accounting for 75% of the fires. Heating caused 14% of fires in people's homes. Electrical problems caused 2% of these fires. Smoking, indoor rubbish fires and candles each caused 1% of these fires. Clothes dryers (0.3%), arson (0.3%), and arson (0.3%) each caused less than 1%, of the residential building fires in Norfolk County in 2009.

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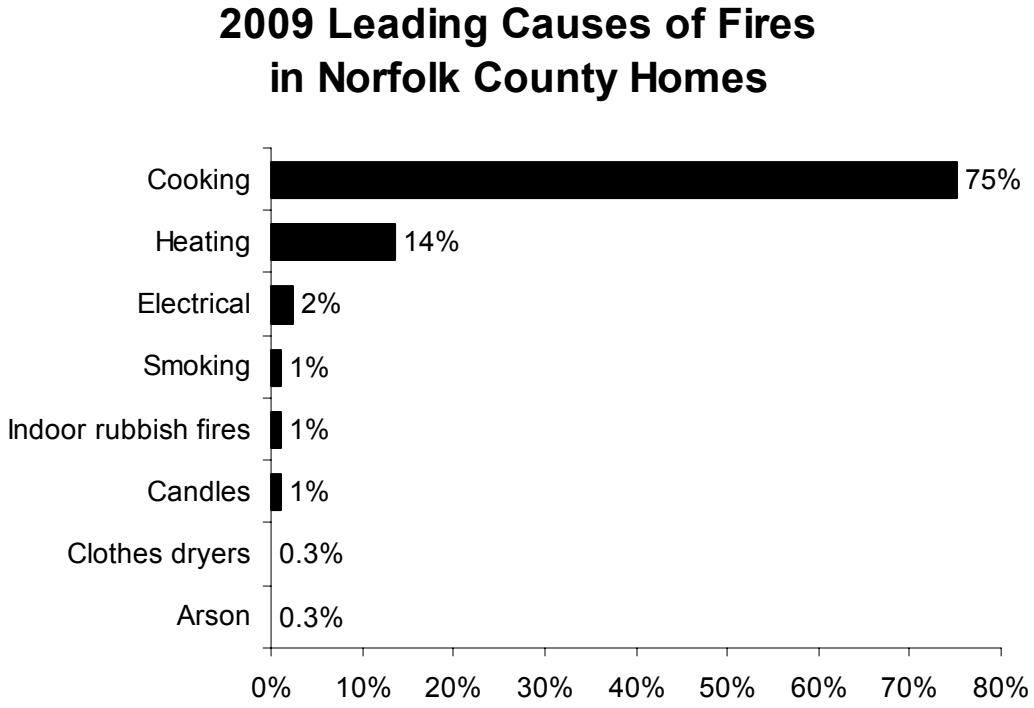
[1] This arson happened at MCI-Cedar Junction in Walpole.




**88% of Residential Building Fires Are Confined to Non-Combustible Containers[2]**
One thousand and three hundred and ninety-one (1,391), or 88% of all residential building fires, were reported as confined to non-combustible containers in 2009. One thousand one hundred and sixty-five (1,165) of the reported fires were cooking fires contained to a non-combustible container accounting for 74% of residential building fires. One hundred and forty-eight (148), or 9%, were fires confined to a fuel burner or boiler malfunction. Fifty-eight (58), or 4%, of all residential building fires reported in 2009 were fires confined to a chimney. Twenty (20), or 1%, of Norfolk County's residential fires were contained rubbish fires.

**Detectors Alerted Occupants in Just Almost 2/3 of Fires**
Smoke or heat detectors operated and alerted the occupants in 1,032, or 65%, of the residential building fires. In 10% of these fires[3], 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 330 incidents, or 21% of Norfolk County's residential building fires.

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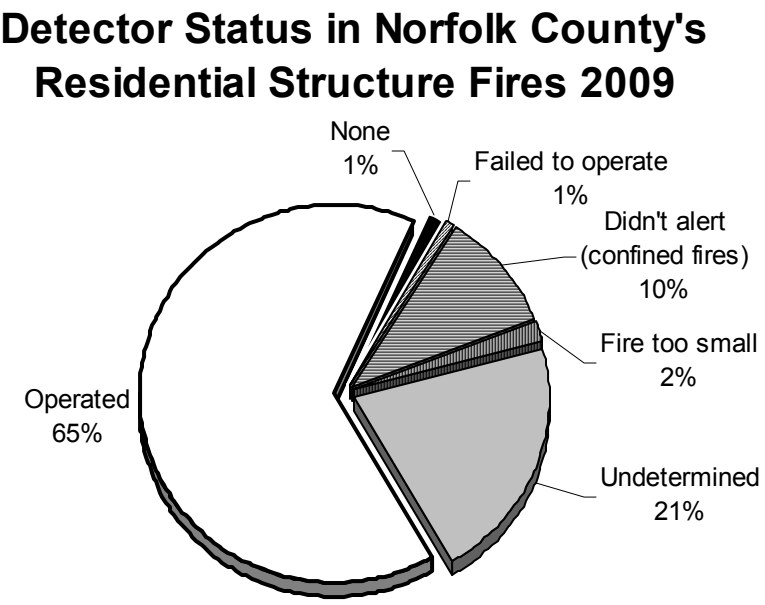
[2] In MFIRS v5 a fire in a building contained to a non-combustible container (Incident Type = 113-118) does not have to have a Fire Module completed. Therefore the following data fields do not need to be completed: Area of Origin, Detector Status, Item First Ignited, Heat Source, Factors Contributing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




**1/5 of Failed Detectors Had 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. Another three detectors, or 20%, failed because the power was shut-off or disconnected. Two (2), or 13%, failed because of improper installation or placement. One (1), or 7%, did not operate because of dead batteries. Another detector, or 7%, failed because of a lack of maintenance. It was undetermined or unclassified in five cases, or 33%, why the detectors failed to operate.

## VACANT BUILDINGS

**1% of Building Fires Occurred in Vacant Buildings**
Norfolk County reported 26 fires that occurred in buildings that were vacant, under construction or demolition[4]. This represented 1% of the total 1,839 building fires reported to MFIRS in 2009. Fifteen (15) fires occurred in vacant residential properties. Three (3) fires each in storage facilities and manufacturing or processing facilities were reported as vacant building fires. Two vacant building fires occurred in institutional buildings. Public assembly properties, industrial facilities and educational facilities all reported one vacant building fire.

[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.

Three (3), or 12%, of the vacant building fires in Norfolk County in 2009 were determined to be intentionally set. All three vacant building arsons occurred at single-family homes.

## JUVENILE-SET FIRES

### 17 Juvenile-set Fires

There were 17 reported juvenile-set fires in Norfolk County in 2009. The three structure fires, one motor vehicle fire, 11 brush fires, one outside rubbish fire, and one unclassified fire caused one fire service injury and $8,450 in estimated damages.

## ARSONS

### 58 Total Arsons — 8 Structures, 5 Vehicles & 45 Other Arsons

Fifty-eight (58), or 2% of Norfolk County's 2,780 fires were intentionally set, or, for purposes of this analysis, arson[5]. The eight structure arsons, five motor vehicle arsons and 45 outside and other arsons caused two civilian injuries, one fire service injury and an estimated loss of $277,015.

### All Arsons Down

The total number of reported arson fires decreased by 28 from the 86 reported in 2008. Reported structure arsons decreased by nine from the 17 reported the previous year. Motor vehicle arsons decreased by one from the six reported in 2008. Reported outside and other arsons decreased by 18 from 63 the year before.

## ALL INCIDENTS

### Rescue & EMS Calls Are 60% of All Reported Incidents

In 2009, fire departments in Norfolk County reported 79,958 responses[6] to MFIRS. Of these 79,958 incidents, 76,999 non-fire calls were voluntarily reported.

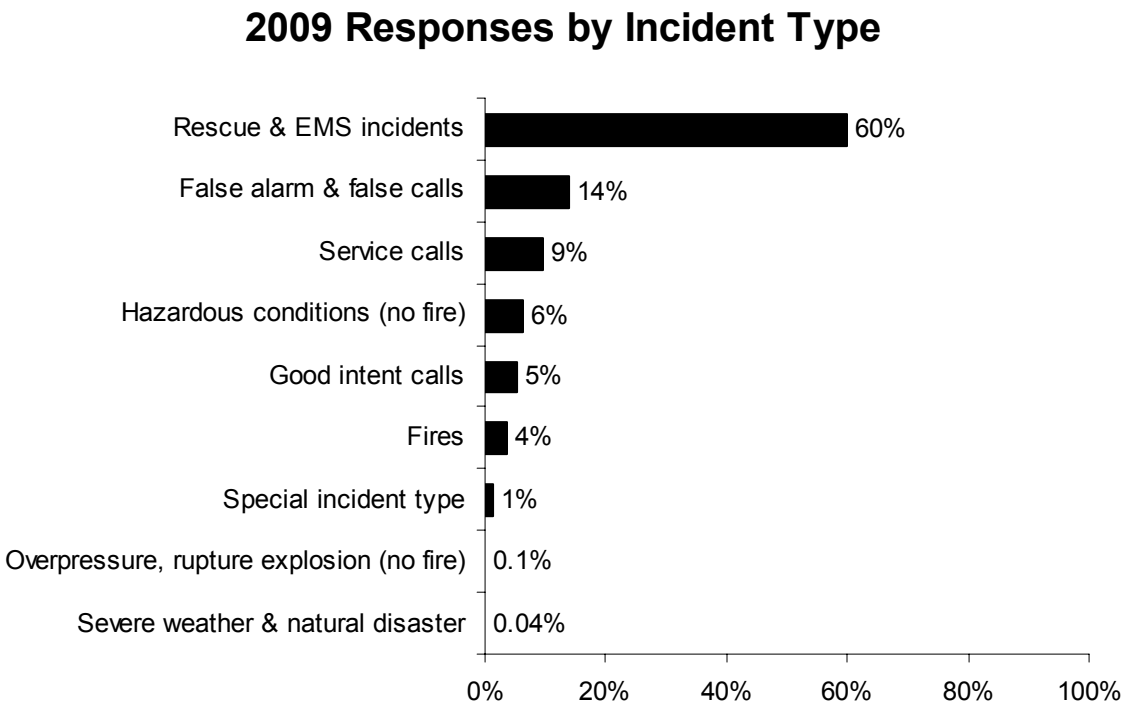
Of these 76,999 non-fire incidents, 47,824, or 60% of all the incidents reported in 2009, were reported rescue and emergency medical services (EMS) calls; 11,149, or 14%, were reported false alarm or false calls; 7,546, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 5,092, or 6%, reported hazardous condition calls with no fire; 4,295, or 6%, were reported good intent calls; 949, 1%, were special incident type calls such as citizen complaints; 110, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 34, or 0.04%, were severe weather responses.

---

[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.

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

Two thousand nine hundred and fifty-nine (2,959), or 4%, of the total responses submitted by Norfolk County fire departments were fires.




**Norfolk County Fire Departments Gave Mutual Aid 3,062 Times**
In 2009, Norfolk County fire departments reported coming to the aid of other fire departments 3,062 times. Of these 3,062 responses, 1,808, or 59%, were for rescue or EMS calls; 537, or 18%, were for service calls such as cover assignments; 352, or 11%, were for good intent calls; 172, or 6%, were for fires; 148, or 5%, were for false alarms or false calls; 37, or 1%, were for hazardous conditions calls with no fire; seven, or 0.2%, were special incident types; and one, or 0.03%, was a reported overpressure, rupture, explosion or overheat call with no fire.

**Norfolk County Received Mutual Aid in 1,996 Incidents**
In 2009, Norfolk County fire departments reported receiving aid from surrounding departments in 1,996 incidents. Of these 1,996 incidents, 1,562, or 78%, were rescue and emergency medical services calls; 154, or 8%, were false alarms or false calls; 150, or 8%, were for fires; 48, or 2% were good intent calls; 40, or 2% were service calls; 37, or 2% were hazardous conditions calls with no fire; three, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire, one, or 0.1%, was a severe weather call; and another incident, or 0.1%, was a special incident type call.

## Norfolk County Population: 650,308

**4.3 Fires/1,000 Population**

| **Total Fires:** | **2,780** | | **$11,322,050** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 1,845 | 66% | $10,156,925 |
| Vehicle Fires | 275 | 10% | 694,465 |
| Other Fires | 660 | 24% | 470,660 |

| | |
|---|---|
| 2 Fatal Fires | 1.44 Civilian Deaths/1,000 Fires |
| 4 Civilian Deaths | 0.06 Civilian Deaths/10,000 Population |
| 16 Civilian Injuries | 59 Fire Service Injuries |

# Building Fires: 1,839

## Residential Structure Fires: 1,585

**Residential Structure Fires Confined to Non-Combustible Containers: 1,391**

**Unconfined Residential Structure Fires: 194**

4 Civilian Deaths 13 Civilian Injuries 44 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 816 | 51% |
| 1- & 2-Family homes | 665 | 42% |
| Rooming houses | 44 | 3% |
| Dormitories | 28 | 2% |
| Residential board & care | 12 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 1,032 | 65% |
| Didn't operate | 15 | 1% |
| None | 20 | 1% |
| Fire too small | 28 | 2% |
| Didn't alert (confined) | 160 | 10% |
| Undetermined | 330 | 21% |

| **Area of Origin**[7] | **%** |
|---|---|
| Kitchen | 77% |
| Heating equipment room | 10% |
| Chimney or flue | 4% |
| Bedroom | 1% |
| Bathroom | 1% |
| Ceiling & floor assembly | 1% |

| **Heat Source** | **%** | **%Unconfined**[8] |
|---|---|---|
| Heat from operating equip. | 2% | 16% |
| Arcing | 1% | 11% |
| Spark/ember/flame oper. eq. | 1% | 9% |
| Radiated heat from oper. eq. | 1% | 8% |
| Hot or smoldering object | 1% | 6% |
| Hot ember or ash | 1% | 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]** | **%** |
|---|---|
| Food, cooking materials | 75% |
| Flammable/comb. liquid | 9% |
| Film, residue (creosote) | 4% |
| Rubbish, trash, waste | 1% |
| Structural member, framing | 1% |

| **Factor Contrib. to Ignit.** | **%** | **%Unconfined[10]** |
|---|---|---|
| Too close to combustibles | 2% | 13% |
| Abandoned materials | 1% | 8% |
| Misuse of materials or prod. | 1% | 6% |
| Unspecified short-circuit arc | 1% | 6% |
| Mechanical failure, malfunc. | 1% | 5% |

| **Equipment[11]** | **%** |
|---|---|
| Kitchen & cooking equipment | 75% |
| None | 10% |
| Boiler, furnace, cent. heat. unit | 9% |
| Chimney, flue | 4% |

| **Cause of Ignition** | **%** | **%Unconfined[12]** |
|---|---|---|
| Unintentional | 7% | 56% |
| Failure of eq. or heat source | 2% | 18% |
| Intentional | 0.3% | 2% |
| Act of nature | 0.4% | 3% |
| Cause under investigation | 1% | 9% |
| Undetermined | 1% | 11% |

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

| | |
|---|---|
| Alerted occupants | 68% |
| Didn't alert occupants | 12% |
| Undetermined | 21% |

[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 | 228 | 193 | 22 | 13 |
| February | 193 | 152 | 15 | 26 |
| March | 238 | 153 | 21 | 64 |
| April | 326 | 149 | 25 | 152 |
| May | 262 | 131 | 26 | 105 |
| June | 192 | 121 | 27 | 44 |
| July | 226 | 125 | 37 | 64 |
| August | 186 | 113 | 23 | 50 |
| September | 195 | 131 | 19 | 45 |
| October | 225 | 178 | 25 | 22 |
| November | 261 | 190 | 22 | 49 |
| December | 248 | 209 | 13 | 26 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 404 | 282 | 39 | 83 |
| Monday | 352 | 237 | 42 | 73 |
| Tuesday | 364 | 256 | 28 | 80 |
| Wednesday | 383 | 245 | 45 | 93 |
| Thursday | 429 | 277 | 48 | 104 |
| Friday | 427 | 278 | 37 | 112 |
| Saturday | 421 | 270 | 36 | 115 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 160 | 99 | 21 | 40 |
| 04:01 - 08:00 | 171 | 108 | 28 | 35 |
| 08:01 - 12:00 | 447 | 315 | 49 | 83 |
| 12:01 - 16:00 | 684 | 395 | 77 | 212 |
| 16:01 - 20:00 | 842 | 613 | 58 | 171 |
| 20:01 - 00:00 | 476 | 315 | 42 | 119 |

**Motor Vehicle Fires**
Total: 275
Automobiles: 236 (86%)
4, or (2%), of the automobile fires were considered intentionally set.

## Arson Fires

**Total Arsons: 58** **Dollar loss: $277,015**

**0.09 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Loss |
|---|---|---|---|---|
| Structure Arsons | 8 | 0.4% | 14% | $236,200 |
| Vehicle Arsons | 5 | 2% | 9% | 37,475 |
| Other Arsons | 45 | 7% | 78% | 3,340 |

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

2 Civilian Injuries 1 Fire Service Injury

**Peak Times of Day for**

| Structure Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 3 | 38% |
| 00:01 - 04:00 | 2 | 25% |

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

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 19 | 42% |
| 08:01 - 12:00 | 9 | 20% |
| 20:01 - 00:00 | 7 | 16% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- and 2-Family homes | 4 | 50% |
| Jail, prison (not juvenile)[13] | 1 | 13% |
| High/junior high/middle school | 1 | 13% |
| Water area, other | 1 | 13% |
| Outbuilding or shed | 1 | 13% |

[13] Occurred at MCI-Cedar Junction in Walpole.

**Avon** **Population: 4,443**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 48 | 11 | 13 | 24 | 5 | 0 | 2 | 3 |
| 2006 | 28 | 10 | 7 | 11 | 1 | 1 | 0 | 0 |
| 2007 | 58 | 10 | 14 | 34 | 1 | 0 | 1 | 0 |
| 2008 | 55 | 17 | 14 | 24 | 0 | 0 | 0 | 0 |
| 2009 | 30 | 8 | 11 | 11 | 0 | 0 | 0 | 0 |

**Bellingham** **Population: 15,314**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 82 | 38 | 10 | 34 | 0 | 0 | 0 | 0 |
| 2006 | 80 | 43 | 12 | 25 | 3 | 3 | 0 | 0 |
| 2007 | 83 | 33 | 12 | 38 | 0 | 0 | 0 | 0 |
| 2008 | 55 | 33 | 7 | 15 | 3 | 2 | 0 | 1 |
| 2009 | 50 | 25 | 6 | 19 | 2 | 0 | 0 | 2 |

**Braintree** **Population: 33,828**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 141 | 26 | 31 | 84 | 11 | 0 | 3 | 8 |
| 2006 | 101 | 21 | 28 | 52 | 7 | 1 | 2 | 4 |
| 2007 | 143 | 31 | 23 | 89 | 8 | 0 | 0 | 8 |
| 2008 | 100 | 18 | 21 | 61 | 5 | 0 | 0 | 5 |
| 2009 | 81 | 15 | 16 | 50 | 5 | 0 | 0 | 5 |

**Brookline** **Population: 57,107**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 42 | 32 | 10 | 0 | 3 | 2 | 1 | 0 |
| 2006 | 37 | 27 | 6 | 4 | 1 | 1 | 0 | 0 |
| 2007 | 29 | 27 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2008[14] | 372 | 322 | 11 | 39 | 1 | 0 | 1 | 0 |
| 2009 | 430 | 387 | 11 | 32 | 1 | 0 | 1 | 0 |

[14] 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: 20,775**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 52 | 30 | 18 | 4 | 1 | 1 | 0 | 0 |
| 2006 | 44 | 23 | 10 | 11 | 3 | 2 | 1 | 0 |
| 2007 | 39 | 18 | 10 | 11 | 1 | 1 | 0 | 0 |
| 2008 | 45 | 21 | 15 | 9 | 1 | 0 | 0 | 1 |
| 2009 | 31 | 10 | 17 | 4 | 3 | 1 | 0 | 2 |

**Cohasset** **Population: 7,261**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 27 | 13 | 1 | 13 | 1 | 0 | 0 | 1 |
| 2006 | 34 | 13 | 2 | 19 | 0 | 0 | 0 | 0 |
| 2007 | 68 | 24 | 2 | 42 | 2 | 0 | 0 | 2 |
| 2008 | 37 | 12 | 3 | 22 | 4 | 0 | 0 | 4 |
| 2009 | 27 | 16 | 0 | 11 | 1 | 0 | 0 | 1 |

**Dedham** **Population: 23,464**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 8 | 7 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 17 | 14 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 34 | 19 | 7 | 8 | 0 | 0 | 0 | 0 |

**Dover** **Population: 5,558**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 7 | 4 | 1 | 2 | 0 | 0 | 0 | 0 |

**Foxborough** **Population: 16,246**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 47 | 18 | 14 | 15 | 1 | 0 | 0 | 1 |
| 2006 | 79 | 34 | 19 | 26 | 2 | 1 | 0 | 1 |
| 2007 | 56 | 16 | 11 | 29 | 3 | 0 | 1 | 2 |
| 2008 | 50 | 16 | 13 | 21 | 3 | 1 | 1 | 1 |
| 2009 | 36 | 17 | 8 | 11 | 0 | 0 | 0 | 0 |

**Franklin** **Population: 29,560**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 18 | 18 | 0 | 0 | 1 | 1 | 0 | 0 |
| 2007 | 89 | 24 | 6 | 59 | 0 | 0 | 0 | 0 |
| 2008 | 64 | 22 | 9 | 33 | 2 | 2 | 0 | 0 |
| 2009 | 51 | 15 | 8 | 28 | 1 | 0 | 0 | 1 |

**Holbrook** **Population: 10,785**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 45 | 17 | 5 | 23 | 1 | 0 | 0 | 1 |
| 2006 | 61 | 35 | 1 | 25 | 3 | 2 | 0 | 1 |
| 2007 | 94 | 28 | 4 | 62 | 5 | 1 | 1 | 3 |
| 2008 | 46 | 23 | 3 | 20 | 0 | 0 | 0 | 0 |
| 2009 | 36 | 18 | 7 | 11 | 2 | 0 | 2 | 0 |

**Medfield** **Population: 12,273**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 48 | 21 | 0 | 27 | 3 | 0 | 0 | 3 |
| 2006 | 34 | 10 | 2 | 22 | 5 | 0 | 1 | 4 |
| 2007 | 45 | 20 | 4 | 21 | 10 | 0 | 1 | 9 |
| 2008 | 31 | 13 | 3 | 15 | 13 | 0 | 2 | 11 |
| 2009 | 19 | 9 | 3 | 7 | 6 | 1 | 0 | 5 |

**Medway** **Population: 12,448**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 21 | 9 | 0 | 12 | 0 | 0 | 0 | 0 |
| 2006 | 7 | 4 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 9 | 6 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 50 | 41 | 3 | 6 | 0 | 0 | 0 | 0 |

**Millis** **Population: 7,902**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 4 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Milton** **Population: 26,062**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 209 | 148 | 19 | 42 | 11 | 1 | 2 | 8 |
| 2006 | 183 | 103 | 17 | 63 | 11 | 0 | 0 | 11 |
| 2007 | 225 | 137 | 16 | 72 | 13 | 0 | 0 | 13 |
| 2008 | 187 | 129 | 15 | 43 | 5 | 0 | 0 | 5 |
| 2009 | 160 | 111 | 17 | 32 | 8 | 0 | 0 | 8 |

**Needham** **Population: 28,911**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 74 | 40 | 14 | 20 | 1 | 0 | 1 | 0 |
| 2006 | 74 | 41 | 8 | 25 | 3 | 0 | 0 | 3 |
| 2007 | 82 | 36 | 11 | 35 | 5 | 1 | 0 | 4 |
| 2008 | 78 | 35 | 14 | 29 | 6 | 0 | 0 | 6 |
| 2009 | 49 | 25 | 7 | 17 | 4 | 0 | 0 | 4 |

**Norfolk** **Population: 10,460**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 44 | 31 | 6 | 7 | 1 | 0 | 0 | 1 |
| 2006 | 46 | 28 | 2 | 16 | 4 | 1 | 0 | 3 |
| 2007 | 51 | 39 | 2 | 10 | 0 | 0 | 0 | 0 |
| 2008 | 57 | 43 | 3 | 11 | 3 | 3 | 0 | 0 |
| 2009 | 62 | 50 | 1 | 11 | 0 | 0 | 0 | 0 |

**Norwood** **Population: 28,587**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 110 | 40 | 23 | 47 | 4 | 0 | 2 | 2 |
| 2006 | 124 | 43 | 16 | 65 | 4 | 0 | 0 | 4 |
| 2007 | 142 | 48 | 16 | 78 | 3 | 0 | 0 | 3 |
| 2008 | 91 | 34 | 9 | 48 | 0 | 0 | 0 | 0 |
| 2009 | 75 | 33 | 9 | 33 | 1 | 1 | 0 | 0 |

**Plainville** **Population: 7,683**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 80 | 5 | 4 | 71 | 1 | 0 | 0 | 1 |
| 2006 | 61 | 11 | 3 | 47 | 0 | 0 | 0 | 0 |
| 2007 | 51 | 19 | 4 | 28 | 2 | 1 | 0 | 1 |
| 2008 | 36 | 17 | 4 | 15 | 5 | 1 | 0 | 4 |
| 2009 | 29 | 9 | 8 | 12 | 1 | 0 | 0 | 1 |

**Quincy** **Population: 88,025**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 663 | 355 | 59 | 249 | 17 | 2 | 1 | 14 |
| 2006 | 670 | 367 | 54 | 249 | 1 | 0 | 0 | 1 |
| 2007 | 861 | 293 | 51 | 517 | 15 | 1 | 0 | 14 |
| 2008 | 532 | 282 | 45 | 205 | 15 | 2 | 0 | 13 |
| 2009 | 531 | 308 | 44 | 179 | 7 | 0 | 1 | 6 |

**Randolph** **Population: 30,963**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 107 | 51 | 17 | 39 | 6 | 1 | 3 | 2 |
| 2006 | 215 | 135 | 18 | 62 | 2 | 1 | 1 | 0 |
| 2007 | 249 | 140 | 24 | 85 | 1 | 1 | 0 | 0 |
| 2008 | 214 | 141 | 17 | 56 | 0 | 0 | 0 | 0 |
| 2009 | 187 | 136 | 22 | 29 | 1 | 0 | 0 | 1 |

**Sharon** **Population: 17,408**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 53 | 27 | 9 | 17 | 3 | 1 | 0 | 2 |
| 2006 | 53 | 25 | 8 | 20 | 4 | 0 | 0 | 4 |
| 2007 | 61 | 31 | 8 | 22 | 1 | 0 | 0 | 1 |
| 2008 | 51 | 22 | 11 | 18 | 0 | 0 | 0 | 0 |
| 2009 | 38 | 23 | 12 | 3 | 0 | 0 | 0 | 0 |

**Stoughton** **Population: 27,149**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 273 | 206 | 25 | 42 | 7 | 1 | 0 | 6 |
| 2006 | 292 | 239 | 14 | 39 | 3 | 0 | 0 | 3 |
| 2007 | 287 | 230 | 18 | 39 | 4 | 2 | 1 | 1 |
| 2008 | 266 | 219 | 24 | 23 | 4 | 0 | 2 | 2 |
| 2009 | 266 | 246 | 11 | 9 | 0 | 0 | 0 | 0 |

**Walpole** **Population: 22,824**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 99 | 56 | 8 | 35 | 8 | 8 | 0 | 0 |
| 2006 | 103 | 64 | 8 | 31 | 8 | 6 | 0 | 2 |
| 2007[15] | 134 | 82 | 8 | 44 | 10 | 9 | 0 | 1 |
| 2008 | 105 | 69 | 8 | 28 | 7 | 4 | 0 | 3 |
| 2009 | 86 | 58 | 8 | 20 | 2 | 2 | 0 | 0 |

[15] 7 of the 10 arsons occurred at MCI – Cedar Junction maximum security state penitentiary.

**Wellesley** **Population: 26,613**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 110 | 93 | 7 | 10 | 1 | 1 | 0 | 0 |
| 2006 | 108 | 77 | 5 | 26 | 0 | 0 | 0 | 0 |
| 2007 | 135 | 90 | 13 | 32 | 2 | 1 | 0 | 1 |
| 2008 | 94 | 75 | 6 | 13 | 1 | 1 | 0 | 0 |
| 2009 | 77 | 48 | 6 | 23 | 2 | 1 | 0 | 1 |

**Westwood** **Population: 14,117**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 75 | 54 | 7 | 14 | 1 | 1 | 0 | 0 |
| 2006 | 62 | 38 | 5 | 19 | 6 | 1 | 1 | 4 |
| 2007 | 133 | 70 | 10 | 53 | 2 | 0 | 0 | 2 |
| 2008 | 110 | 56 | 9 | 45 | 2 | 1 | 0 | 1 |
| 2009 | 81 | 64 | 8 | 9 | 0 | 0 | 0 | 0 |

**Weymouth** **Population: 53,988**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 379 | 215 | 32 | 132 | 9 | 1 | 1 | 7 |
| 2006 | 341 | 209 | 28 | 104 | 16 | 3 | 1 | 12 |
| 2007 | 470 | 209 | 31 | 230 | 11 | 3 | 0 | 8 |
| 2008 | 307 | 188 | 17 | 102 | 6 | 0 | 0 | 6 |
| 2009 | 220 | 137 | 21 | 62 | 8 | 3 | 1 | 4 |

**Wrentham** **Population: 10,554**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 158 | 15 | 10 | 133 | 4 | 0 | 1 | 3 |
| 2006 | 142 | 10 | 3 | 129 | 1 | 0 | 0 | 1 |
| 2007 | 142 | 14 | 8 | 120 | 1 | 0 | 0 | 1 |
| 2008 | 63 | 6 | 6 | 51 | 0 | 0 | 0 | 0 |
| 2009 | 39 | 15 | 3 | 21 | 4 | 0 | 0 | 4 |

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 21018 | Avon | 1,454 | 43 | 2 | 912 | 48 | 153 | 144 | 151 | 0 | 1 |
| 21025 | Bellingham | 1,706 | 54 | 0 | 1,259 | 74 | 100 | 60 | 141 | 0 | 18 |
| 21040 | Braintree | 5,306 | 81 | 35 | 3,082 | 336 | 616 | 313 | 762 | 0 | 81 |
| 21046 | Brookline | 7,283 | 431 | 12 | 4,129 | 447 | 646 | 261 | 1,345 | 2 | 10 |
| 21050 | Canton | 40 | 31 | 0 | 0 | 4 | 1 | 0 | 1 | 3 | 0 |
| 21065 | Cohasset | 2,015 | 32 | 2 | 976 | 123 | 491 | 128 | 214 | 0 | 49 |
| 21073 | Dedham | 638 | 38 | 5 | 399 | 63 | 34 | 24 | 73 | 1 | 1 |
| 21078 | Dover | 27 | 8 | 0 | 2 | 4 | 4 | 0 | 9 | 0 | 0 |
| 21099 | Foxborough | 425 | 46 | 4 | 29 | 77 | 52 | 18 | 189 | 8 | 2 |
| 21101 | Franklin | 3,391 | 60 | 1 | 2,423 | 88 | 154 | 235 | 428 | 2 | 0 |
| 21133 | Holbrook | 2,548 | 45 | 2 | 1,353 | 110 | 545 | 258 | 230 | 0 | 5 |
| 21175 | Medfield | 1,056 | 24 | 0 | 587 | 106 | 142 | 38 | 151 | 5 | 3 |
| 21177 | Medway | 145 | 51 | 0 | 2 | 32 | 9 | 7 | 43 | 1 | 0 |
| 21187 | Millis | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21189 | Milton | 3,829 | 166 | 6 | 1,947 | 204 | 385 | 175 | 509 | 2 | 435 |

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

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 21199 | Needham | 3,147 | 49 | 1 | 1,796 | 222 | 440 | 203 | 432 | 0 | 4 |
| 21208 | Norfolk | 1,428 | 76 | 0 | 816 | 227 | 43 | 15 | 251 | 0 | 0 |
| 21220 | Norwood | 5,116 | 77 | 2 | 3,574 | 246 | 402 | 255 | 556 | 0 | 4 |
| 21238 | Plainville | 1,597 | 32 | 1 | 922 | 59 | 135 | 53 | 186 | 1 | 208 |
| 21243 | Quincy | 9,025 | 531 | 21 | 5,152 | 552 | 619 | 449 | 1,693 | 1 | 7 |
| 21244 | Randolph | 4,765 | 194 | 1 | 3,086 | 413 | 419 | 168 | 481 | 0 | 3 |
| 21266 | Sharon | 2,013 | 65 | 7 | 1,267 | 107 | 164 | 193 | 202 | 3 | 5 |
| 21285 | Stoughton | 5,173 | 275 | 3 | 3,135 | 204 | 521 | 313 | 639 | 0 | 83 |
| 21307 | Walpole | 2,861 | 101 | 2 | 1,957 | 171 | 206 | 135 | 282 | 2 | 5 |
| 21317 | Wellesley | 3,742 | 78 | 0 | 1,671 | 306 | 487 | 190 | 1,007 | 0 | 3 |
| 21335 | Westwood | 2,627 | 103 | 1 | 1,679 | 162 | 222 | 106 | 349 | 2 | 3 |
| 21336 | Weymouth | 6,837 | 220 | 2 | 4,447 | 633 | 356 | 506 | 653 | 1 | 19 |
| 21350 | Wrentham | 1,763 | 47 | 0 | 1,222 | 74 | 200 | 48 | 172 | 0 | 0 |
| | **Norfolk County** | **79,958** | **2,959** | **110** | **47,824** | **5,092** | **7,546** | **4,295** | **11,149** | **34** | **949** |

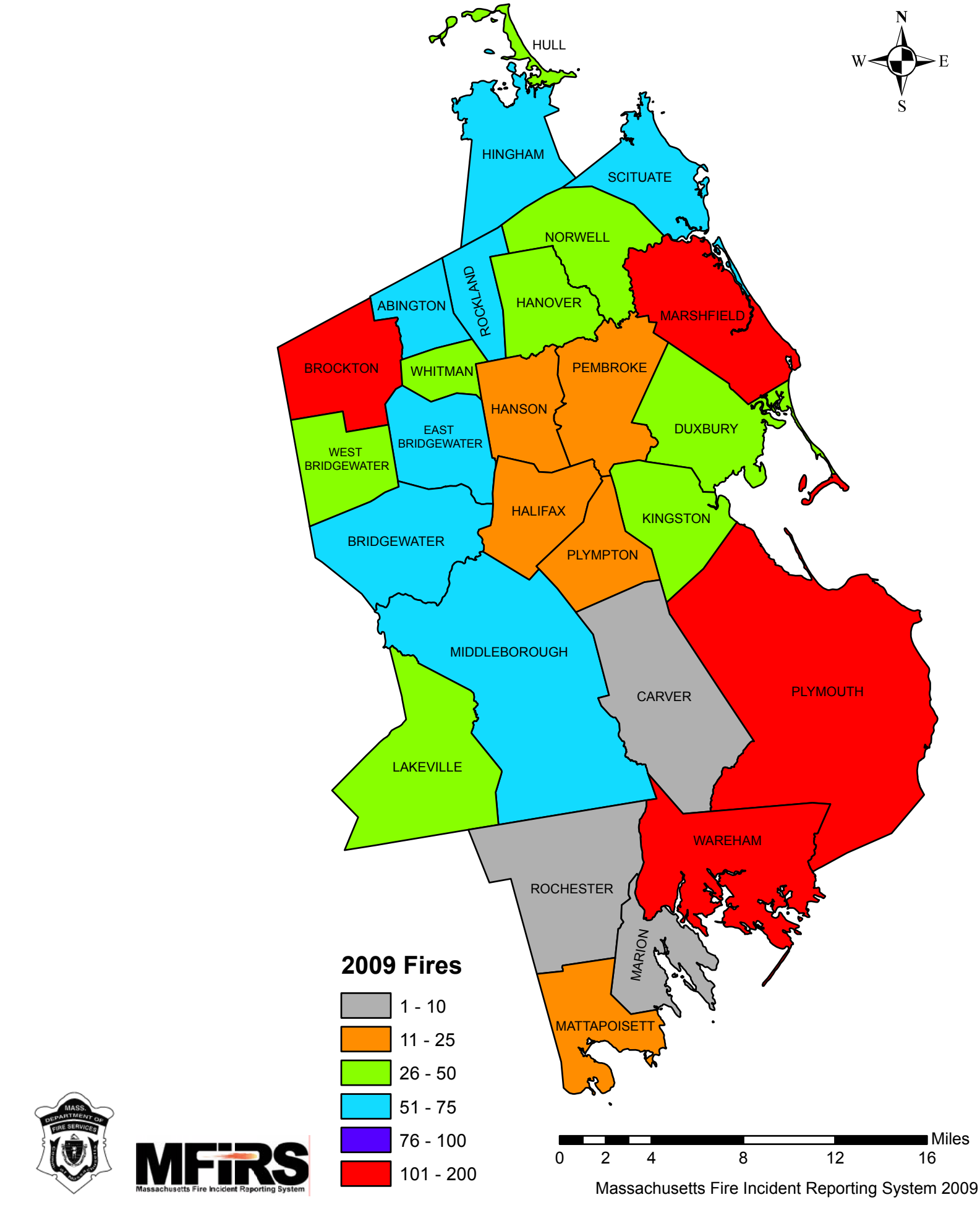
All non-fire responses or fire incidents without a dollar loss or human casualty are voluntarily reported to MFIRS. The Office of the State Fire Marshal strongly encourages any departments that wants to send all of their responses to do so.

# Plymouth County
## 2009 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 2009




MASS. DEPARTMENT OF FIRE SERVICES

MFIRS
Massachusetts Fire Incident Reporting System

# Plymouth County Fires in 2009

**1,444 Total Fires — 699 Structures, 248 Vehicles & 497 Other Fires**
Plymouth County ranked eighth out of the fourteen Massachusetts counties in total reported fires. Plymouth County fire departments reported 1,444 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 699 structure fires, 248 motor vehicle fires, 221 brush, tree or lawn fires, 131 outside rubbish fires, 90 special outside fires, one cultivated vegetation or crop fire and 54 other fires caused seven civilian deaths, 45 civilian injuries, 30 fire service injuries and an estimated dollar loss of $11.5 million. Plymouth County's fires accounted for 5% of the 28,595 Massachusetts fires reported in 2009.

All 28 fire departments in Plymouth County either reported incidents to the Massachusetts Fire Incident Reporting System (MFIRS) or certified that they had no reportable fires in 2009.

**Structure & Outside Fires Down**
The total number of reported fire incidents decreased by 332, from the 1,776 reported in 2008. Reported structure fires decreased by 77, from 776 the year before. Motor vehicle fires increased by 16 from 232 the previous year. Reported outside and other fires decreased by 271 from 768 in 2008.

**Brush Fires Fall Dramatically**
Plymouth County had a large decrease in brush fires in 2009. Brush fires decreased by 247, or 53%, from the 468 reported in 2008. This is the main reason for the 19% drop in overall fires in Plymouth County.

**PLYMOUTH COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1,682 | 694 | 285 | 703 | 103 | 17 | 17 | 69 |
| 2006 | 1,929 | 733 | 238 | 958 | 114 | 22 | 5 | 87 |
| 2007 | 2,010 | 884 | 268 | 858 | 91 | 28 | 12 | 51 |
| 2008 | 1,776 | 776 | 232 | 768 | 99 | 34 | 9 | 56 |
| 2009 | 1,444 | 699 | 248 | 497 | 75 | 22 | 22 | 31 |

**Fire and Fire Death Rates**
Plymouth County had 3.1 fires per 1,000 population. That figure ranks Plymouth County thirteenth in the state and below the state rate of 4.5 fires per 1,000 population. Plymouth County also had 0.15 fire deaths per 10,000 populations ranking it second among Massachusetts counties and above the state rate of 0.06 fire deaths per 10,000 population.

## 6 Plymouth County Fatal Fires Killed 7 Residents in 2009[1]

- On February 10, 2009, at 4:46 p.m. the Plymouth Fire Department was called to a fatal smoking fire in a single-family home. The 77-year old woman fell asleep while smoking on the living room couch. She was able to attempt an escape before being overcome by the heat and smoke. Firefighters found her in the kitchen and transported her to a local hospital. She was then life-flighted to a Boston hospital where she died two days later. No one else was injured at this fire. There were no smoke detectors in the home; and it was not sprinklered. Damages from this fire were estimated to be $60,000.

- On February 12, 2009 at 6:41 a.m., the Plymouth Fire Department was called to a fatal heating fire in a single-family home. The fire was caused by either the improper cleaning or lighting of the wood stove in the living room. The physically disabled victims, a 69-year old woman and her 77-year old husband, were attempting to escape when they were overcome by smoke. The female victim was transported to a local hospital where she later succumbed to her injuries. One firefighter was injured at this fire. The home had neither smoke detectors nor sprinklers. Damages from this fire were not estimated.

- On April 3, 2009, at 4:59 p.m., the Brockton Fire Department was called to a fatal smoking fire in a single-family home. The victim, an 83-year old woman, ignited her clothing with a match she was using to light her cigarette. Her badly burned body was discovered by a family member, after the fire had extinguished itself, who then called the fire department. Smoke detectors were present but it was undetermined if they operated. The building was not sprinklered. No estimation was made of the damages from the fire.

- On May 16, 2009, at 1:10 a.m., the Whitman Fire Department was called to a fatal smoking while using home oxygen fire in a single-family home. The 73-year old physically disabled female victim was smoking in her bedroom while using home oxygen. The cigarette ignited her clothes and spread to the room's other contents. The victim's four grandchildren and their babysitter were able to escape the fire. After getting the four children out of the house, the babysitter was injured attempting rescue the victim. One firefighter was also injured in this fire. Detectors were present but did not operate because of a missing battery. The home did not have sprinklers. Damages from this fire were estimated to be $80,000.

- On May 18, 2009 at 2:55 a.m., the Plymouth Fire Department was called to a fatal electrical fire in a single-family home (trailer). The fire was caused by arcing from heat tape that was used the keep the water in the home's pipes from freezing. The victim, a 69-year old woman, was sleeping at the time of the fire. She was overcome by the heat and smoke and never attempted to escape. It was undetermined if detectors were present; and the home did not have sprinklers. No one else was injured at this fire. Damages from this fire were estimated to be $30,000.

[1] 5 of the 7 deaths in Plymouth County in 2009 occurred in the Town of Plymouth.

- On June 13, 2009, at 6:15 p.m., the Plymouth Fire Department was notified by the state police of a fatal undetermined single-car fire that self-extinguished previous to its discovery. The remains of the 67-year old male driver were found in his car on a road near the Myles Standish State forest. The most likely cause of the fire was a suicide attempt by self-immolation. No one else was injured in this fire, and damages were not estimated.

**Middleborough Has Plymouth County's Largest Loss Fires in 2009**

- On May 25, 2009, at 6:37 a.m., the Middleborough Fire Department responded to an electrical fire in a church. The fire started on the first floor. Three (3) firefighters were injured battling this fire. Detectors were not present; and the building was not sprinklered. Damages from this fire were estimated to be $1.1 million.

## STRUCTURE FIRES

**Reported Structure Fires Down**

The 699 structure fires caused six civilian deaths, 42 civilian injuries, 29 fire service injuries and an estimated dollar loss of $10.6 million. These incidents represented 48% of Plymouth County's reported fires in 2009. The average estimated dollar loss per structure fire was $15,199. The total number of reported structure fires decreased by 77, or 10%, from the 776 reported in 2008.

**Arson Caused of 3% of Structure Fires**

The 22 structure arsons caused one civilian injury, three fire service injuries and an estimated dollar loss of $1.7 million. Arson was indicated as the cause of 3% of the structure fires and 16% of Plymouth County's structure fire dollar loss. The 22 structure arsons accounted for 29% of the Plymouth County arson fires reported in 2009. The total number of reported structure arsons decreased by 12, or 35%, from 34 in 2008.

**Over 2/3 of Structure Arsons Occurred in Residences**

Sixty-eight percent (68%) of Plymouth County's 22 structure arsons occurred in residential occupancies; 18% occurred in storage facilities; 9% happened in mercantile or business properties; and 5% occurred in educational facilities.

### BUILDING FIRES

There were 685 building fires of different types in Plymouth County in 2009. These 685 building fires accounted for 98% of all building fires in Plymouth County.

**85% of Plymouth Building Fires Occurred in People's Homes**

Five hundred and eighty-four (584), or 85%, of Plymouth County's 584 building fires occurred in residential occupancies. Mercantile and business properties had 25 fires. Twenty-four (24) building fires in Plymouth County occurred in special properties such as outbuildings and sheds. Twenty (20) fires took place in storage facilities. Eighteen (18) fires took place in public assembly properties, including restaurants and churches. Eight (8) building fires took place in educational facilities. Hospitals, prisons, and other institutional buildings experienced five fires. Two (2) fires took place in manufacturing

and processing facilities. One (1) fire occurred in an industrial, utility, defense, agricultural or mining facility in Plymouth County in 2009.

## RESIDENTIAL FIRES

### Residential Building Fires Down Slightly

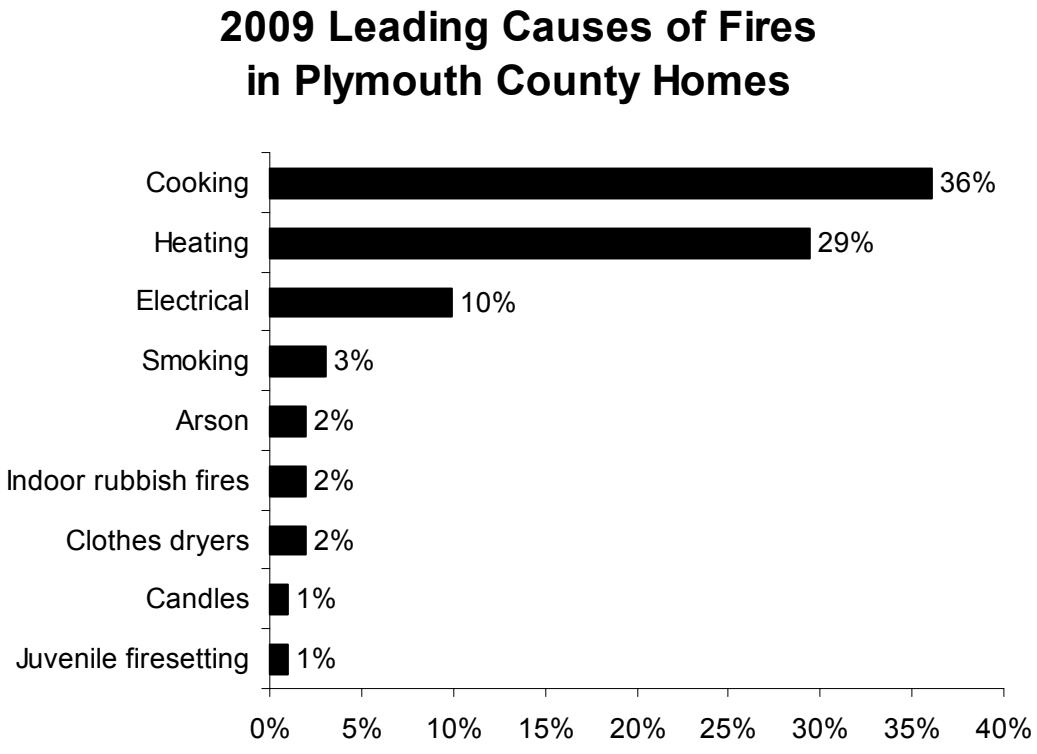
There were 584 reported residential building fires in Plymouth County in 2009. These 584 fires are a decrease of six, or 1%, from the 590 residential building fires reported in 2008.

### 1- & 2-Family Homes Accounted Almost 3/4 of Residential Building Fires

The peak fixed property uses for residential building fires were 1- & 2-family homes, accounting for 74% of the residential building fires in Plymouth County; 22% occurred in apartments. Rooming houses, hotels or motels, residential board and care facilities, and dormitories each had 1% of these fires. Eight (8), or 1% of the residential building fires in Plymouth County occurred in unclassified residential buildings.

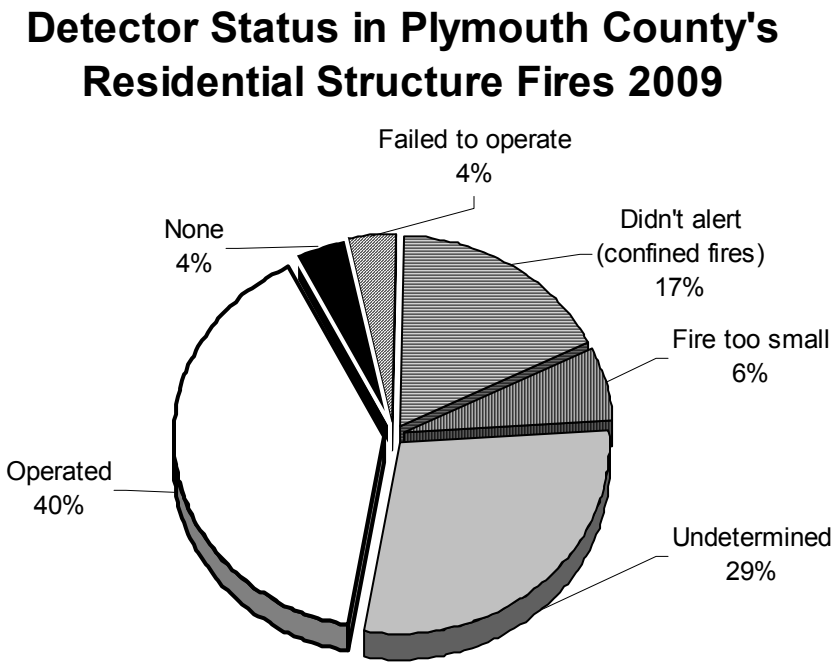
### Cooking & Heating Leading Causes of Residential Fires

The leading cause of the 584 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 10% and smoking 3% of these fires. Arson, indoor rubbish fire and clothes dryers each caused 2% of residential fires. Candles and juvenile-set fires each caused 1% of the residential fires in Plymouth County in 2009.



**61% of Residential Building Fires Are Confined to Non-Combustible Containers[2]**
Three hundred and fifty-five (355), or 61% of all residential building fires, were reported as confined to non-combustible containers in 2009. One hundred and eighty-three (183) of the reported fires were cooking fires contained to a non-combustible container accounting for 31% of residential building fires. Eighty (80), or 14%, were fires confined to a fuel burner or boiler malfunction. Seventy-seven (77), or 13%, of all residential building fires reported in 2009 were fires confined to a chimney. Fourteen (14), or 2%, of these fires were contained rubbish fires; and one fire was confined to a commercial compactor accounting for less than 1% of Plymouth County's residential fires in 2009.

**Detectors Alerted Occupants in 40% of Fires**
Smoke or heat detectors operated and alerted the occupants in 232, or 40%, of the residential building fires. In 17% of these fires[3], the detectors did not alert the occupants. Detectors were present but did not operate in 4% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 6% of the residential fires. Smoke detector performance was undetermined in 168 incidents, or 29% of Plymouth County's residential building fires.




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

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

### 39% of Failed Detectors Had Dead, Missing or Disconnected Batteries

Of the 21 fires where smoke detectors were present but failed to operate, six, or 29%, failed because the batteries were either missing or disconnected. Two (2), or 10%, did not operate because of dead batteries. Four (4) detectors, or 19%, failed from a lack of maintenance or cleaning. One (1), or 4%, failed because of a power failure, shutoff or disconnect. It was undetermined or unclassified in eight cases, or 38%, why the detectors failed to operate.

## VACANT BUILDINGS

### 5% of Building Fires Occurred in Vacant Buildings

Plymouth County reported 36 fires that occurred in buildings that were vacant, under construction or demolition[4]. This represented 5% of the total 685 building fires reported to MFIRS in 2009. Nineteen (19) fires occurred in vacant residential properties. Eleven (11) vacant building fires occurred in storage facilities. Three (3) of these fires happened at mercantile and business properties; and public assembly facilities, educational facilities and special properties each accounted for one vacant building fire in 2009.

Six (6), or 17%, of the vacant building fires in Plymouth County in 2009 were determined to be intentionally set. Three (3) of these fires occurred in single-family homes. One (1) each happened in an unclassified business, a shed, and a detached residential parking garage.

## JUVENILE-SET FIRES

### 10 Juvenile-set Fires

There were 10 reported juvenile-set fires in Plymouth County in 2009. The five structure fires, one motor vehicle fire, one brush fire, one outside rubbish fire, and two special outside fires caused one civilian injury, three fire service injuries and $80,555 in estimated damages.

## ARSONS

### 75 Total Arsons — 22 Structures, 22 Vehicles & 31 Other Arsons

Seventy-five (75), or 5%, of Plymouth County's 1,444 fires were considered intentionally set, or, for purposes of this analysis, arson[5]. The 22 structure arsons, 22 motor vehicle arsons and 31 outside and other arsons caused two civilian injuries, three fire service injuries and an estimated dollar loss of $1.8 million.

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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.

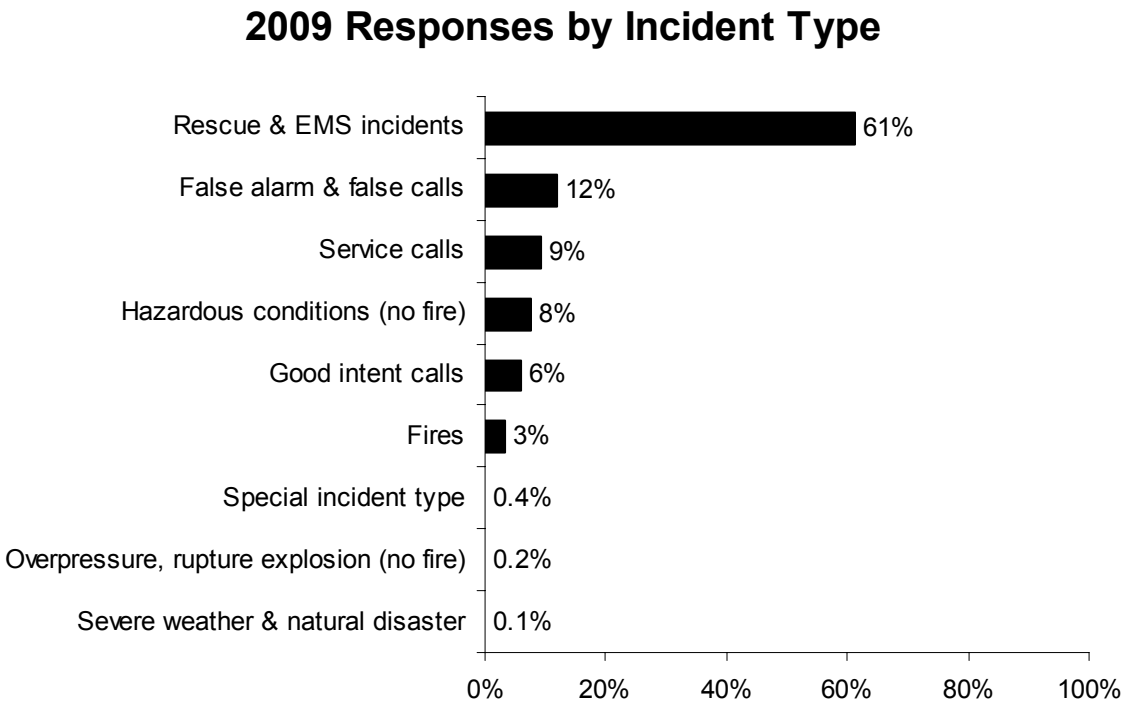
[5] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

**Motor Vehicle Arson Up**
The total number of reported arson fires decreased by 24 from the 99 reported in 2008. Reported structure arsons decreased by 12 from 34 the previous year. Motor vehicle arsons increased 13 from nine in 2008. Reported outside and other arsons decreased by 25 from 56 reported the year before.

## ALL INCIDENTS

**Rescue & EMS Calls Are 61% of All Reported Responses**
In 2009, Plymouth County fire departments reported 46,786 responses[6] to MFIRS. Of these 46,786 incidents, 45,272 non-fire calls were voluntarily reported.

Of these 45,272 non-fire calls 28,634, or 61% of the total responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 5,574, or 12%, were reported false alarm or false calls; 4,316, or 9%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 3,572, or 8%, were reported hazardous condition calls with no fire; 2,825, or 6%, were reported good intent calls; 209, or 0.4%, were special incident type calls such as citizen complaints; 96, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 46, or 0.1% were severe weather responses.




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

One thousand five hundred and fourteen (1,514), or 3%, of the total responses submitted by Plymouth County fire departments were fires.

**Plymouth County Fire Departments Gave Mutual Aid 1,816 Times**

In 2009, Plymouth County fire departments reported coming to the aid of other fire departments 1,816 times. Of these 1,816 responses, 1,399, or 77%, were for rescue or EMS calls; 203, or 11%, were for service calls such as cover assignments; 88, or 5%, were for good intent calls; 69, or 4%, were for fires; 37, or 2%, were for hazardous conditions calls with no fire; 17, or 1%, were for false alarms or false calls; two, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; and one, or 0.1%, was for a special incident type call.

**Plymouth County Received Mutual Aid in 1,953 Incidents**

In 2009, Plymouth County fire departments received aid from surrounding departments in 1,965 incidents. Of these 1,953 incidents, 1,701, or 87%, were rescue and emergency medical services calls; 91, or 5%, were for fires; 63, or 3%, were hazardous conditions calls with no fire; 42, or 2%, were false alarms or false calls; 37, or 2%, were good intent calls; 13, or 1%, were service calls; four, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; one, or 0.1%, for a severe weather response and one, or 0.1%, for a special incident type call,

## Plymouth County Population: 472,822

**3.1 Fires/1,000 Population**

| **Total Fires:** | **1,444** | | **$11,452,952** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 699 | 48% | $10,624,320 |
| Vehicle Fires | 248 | 17% | 743,835 |
| Other Fires | 497 | 34% | 84,797 |

6 Fatal Fires 4.85 Civilian Deaths/1,000 Fires
7 Civilian Deaths 0.15 Civilian Deaths/10,000 Population
45 Civilian Injuries 30 Fire Service Injuries

# Building Fires: 685

## Residential Building Fires: 584

**Residential Building Fires Confined to Non-Combustible Containers: 355**

**Unconfined Residential Building Fires: 229**

6 Civilian Deaths 40 Civilian Injuries 22 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 434 | 74% |
| Apartments | 127 | 22% |
| Rooming houses | 4 | 1% |
| Hotels or motels | 4 | 1% |
| Residential board & care | 4 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 232 | 40% |
| Didn't operate | 21 | 4% |
| None | 24 | 4% |
| Fire too small | 37 | 6% |
| Didn’t Alert (confined) | 102 | 17% |
| Undetermined | 168 | 29% |

| **Area of Origin**[7] | **%** |
|---|---|
| Kitchen | 39% |
| Heating room or area | 14% |
| Chimney or flue | 13% |
| Bedroom | 5% |
| Living room | 4% |

| **Heat Source** | **%** | **%Unconfined**[8] |
|---|---|---|
| Arcing | 7% | 19% |
| Radiated, cond./heat op. eq. | 6% | 15% |
| Heat from operating eq. | 4% | 11% |
| Hot or smoldering object | 3% | 7% |
| Cigarette | 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]** | **%** |
|---|---|
| Food, cooking materials | 35% |
| Flammable or combust. liquid | 14% |
| Film, residue (creosote) | 13% |
| Structural member, framing | 5% |
| Electrical wire, cable insulation | 4% |

| **Factor Contrib. to Ignit.** | **%** | **%Unconfined[10]** |
|---|---|---|
| Abandoned materials | 4% | 9% |
| Too close to combustibles | 4% | 8% |
| Misuse of materials | 2% | 4% |
| Electrical failure, malfunc. | 2% | 4% |
| Failure to clean | 1% | 3% |
| Unspecified short-circuit arc | 1% | 3% |

| **Equipment[11]** | **%** |
|---|---|
| Cooking equipment | 35% |
| None | 27% |
| Chimney or flue | 14% |
| Boiler, furnace, cent. heat. unit | 14% |
| Clothes dryer | 2% |
| Stove, heating | 1% |

| **Cause of Ignition** | **%** | **%Unconfined[12]** |
|---|---|---|
| Unintentional | 20% | 50% |
| Failure of eq. or heat source | 8% | 21% |
| Intentional | 3% | 7% |
| Act of Nature | 1% | 2% |
| Cause under investigation | 5% | 12% |
| Undetermined | 3% | 7% |

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

| | |
|---|---|
| Alerted Occupants | 38% |
| Didn't Alert Occupants | 29% |
| 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 | 115 | 85 | 19 | 11 |
| February | 101 | 67 | 16 | 18 |
| March | 126 | 60 | 22 | 44 |
| April | 192 | 61 | 12 | 119 |
| May | 147 | 49 | 19 | 79 |
| June | 89 | 43 | 18 | 28 |
| July | 129 | 51 | 23 | 55 |
| August | 118 | 50 | 28 | 40 |
| September | 79 | 34 | 19 | 26 |
| October | 94 | 50 | 24 | 20 |
| November | 111 | 55 | 22 | 34 |
| December | 143 | 94 | 26 | 23 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 189 | 79 | 37 | 73 |
| Monday | 178 | 79 | 23 | 76 |
| Tuesday | 220 | 113 | 43 | 64 |
| Wednesday | 174 | 93 | 32 | 49 |
| Thursday | 226 | 112 | 33 | 81 |
| Friday | 227 | 116 | 36 | 75 |
| Saturday | 230 | 107 | 44 | 79 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 110 | 59 | 30 | 21 |
| 04:01 - 08:00 | 94 | 56 | 17 | 21 |
| 08:01 - 12:00 | 220 | 111 | 45 | 64 |
| 12:01 - 16:00 | 381 | 146 | 77 | 158 |
| 16:01 - 20:00 | 409 | 213 | 49 | 147 |
| 20:01 - 00:00 | 230 | 114 | 30 | 86 |

## Motor Vehicle Fires

Total: 248
Automobiles: 215 (87%)
20, or (9%), of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 75** **Dollar loss: $1,831,912**

**0.2 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 22 | 3% | 29% | $1,709,100 |
| Vehicle Arsons | 22 | 9% | 29% | 117,300 |
| Other Arsons | 31 | 6% | 41% | 5,512 |

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

2 Civilian Injuries 3 Fire Service Injuries

**Peak Times of Day for:**

| Structure Arsons | # | % | Vehicle Arsons | # | % |
|---|---|---|---|---|---|
| 00:01 – 04:00 | 7 | 32% | 00:01 – 04:00 | 11 | 50% |
| 20:01 – 00:00 | 7 | 32% | 04:01 – 08:00 | 3 | 14% |
| 12:01 – 16:00 | 4 | 18% | 20:01 – 00:00 | 3 | 14% |

| Other Arsons | # | % |
|---|---|---|
| 12:01 – 16:00 | 8 | 26% |
| 16:01 – 20:00 | 8 | 26% |
| 20:01 – 00:00 | 8 | 26% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- and 2-Family homes | 7 | 32% |
| Apartments | 6 | 27% |

**Abington** **Population: 14,605**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 91 | 44 | 10 | 37 | 3 | 0 | 0 | 3 |
| 2006 | 100 | 64 | 8 | 28 | 2 | 0 | 0 | 2 |
| 2007 | 106 | 49 | 12 | 45 | 4 | 0 | 0 | 4 |
| 2008 | 82 | 42 | 6 | 34 | 4 | 0 | 0 | 4 |
| 2009 | 61 | 34 | 9 | 18 | 0 | 0 | 0 | 0 |

**Bridgewater** **Population: 25,185**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2006[13] | 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 |

**Brockton** **Population: 94,304**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 182 | 108 | 58 | 16 | 10 | 4 | 4 | 2 |
| 2006 | 148 | 87 | 35 | 26 | 6 | 6 | 0 | 0 |
| 2007 | 311 | 211 | 59 | 41 | 18 | 13 | 4 | 1 |
| 2008 | 197 | 142 | 36 | 19 | 13 | 9 | 1 | 3 |
| 2009[14] | 199 | 138 | 35 | 26 | 18 | 11 | 5 | 2 |

**Carver** **Population: 11,163**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 6 | 4 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 9 | 6 | 3 | 0 | 1 | 0 | 1 | 0 |
| 2007 | 11 | 4 | 7 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 9 | 2 | 7 | 0 | 1 | 0 | 1 | 0 |
| 2009 | 10 | 6 | 4 | 0 | 0 | 0 | 0 | 0 |

[13] In 2006, the Bridgewater Fire Department was able to begin reporting all of their incidents.

[14] 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: 14,248**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 40 | 21 | 5 | 14 | 0 | 0 | 0 | 0 |
| 2006 | 39 | 13 | 5 | 21 | 2 | 1 | 0 | 1 |
| 2007 | 61 | 25 | 10 | 26 | 0 | 0 | 0 | 0 |
| 2008 | 38 | 14 | 20 | 1 | 0 | 0 | 0 | 1 |
| 2009 | 41 | 18 | 4 | 19 | 8 | 4 | 1 | 3 |

**East Bridgewater** **Population: 12,974**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 64 | 33 | 8 | 23 | 0 | 0 | 0 | 0 |
| 2006 | 52 | 25 | 6 | 21 | 1 | 0 | 0 | 1 |
| 2007 | 61 | 33 | 5 | 23 | 1 | 1 | 0 | 0 |
| 2008 | 44 | 25 | 4 | 15 | 0 | 0 | 0 | 0 |
| 2009 | 51 | 34 | 5 | 12 | 1 | 1 | 0 | 0 |

**Halifax** **Population: 7,500**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 30 | 24 | 3 | 3 | 2 | 1 | 1 | 0 |
| 2008 | 65 | 29 | 3 | 33 | 6 | 2 | 0 | 4 |
| 2009 | 20 | 9 | 4 | 7 | 1 | 0 | 1 | 0 |

**Hanover** **Population: 13,164**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 56 | 21 | 14 | 21 | 2 | 0 | 0 | 2 |
| 2006 | 40 | 15 | 4 | 21 | 2 | 1 | 0 | 1 |
| 2007 | 91 | 18 | 11 | 62 | 1 | 0 | 1 | 0 |
| 2008 | 59 | 15 | 4 | 40 | 4 | 0 | 0 | 4 |
| 2009 | 47 | 25 | 7 | 15 | 0 | 0 | 0 | 0 |

**Hanson** **Population: 9,495**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 35 | 13 | 5 | 17 | 1 | 0 | 0 | 1 |
| 2006 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 33 | 9 | 2 | 22 | 4 | 2 | 0 | 2 |
| 2008 | 38 | 12 | 1 | 25 | 2 | 1 | 0 | 1 |
| 2009 | 21 | 14 | 2 | 5 | 1 | 0 | 0 | 1 |

**Hingham** **Population: 19,882**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 64 | 31 | 13 | 20 | 1 | 0 | 0 | 1 |
| 2006 | 67 | 38 | 10 | 19 | 5 | 2 | 1 | 2 |
| 2007 | 120 | 69 | 6 | 45 | 1 | 0 | 0 | 1 |
| 2008 | 75 | 35 | 11 | 29 | 3 | 1 | 1 | 1 |
| 2009 | 69 | 33 | 8 | 28 | 2 | 0 | 1 | 1 |

**Hull** **Population: 11,050**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 53 | 27 | 6 | 20 | 0 | 0 | 0 | 0 |
| 2006 | 33 | 16 | 3 | 14 | 1 | 0 | 1 | 0 |
| 2007 | 33 | 20 | 2 | 11 | 2 | 0 | 2 | 0 |
| 2008 | 26 | 19 | 2 | 5 | 1 | 1 | 0 | 0 |
| 2009 | 27 | 13 | 2 | 12 | 1 | 1 | 0 | 0 |

**Kingston** **Population: 11,780**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 84 | 28 | 10 | 46 | 8 | 2 | 1 | 5 |
| 2006 | 88 | 26 | 14 | 48 | 13 | 1 | 0 | 12 |
| 2007 | 87 | 22 | 17 | 48 | 10 | 0 | 0 | 10 |
| 2008 | 62 | 23 | 10 | 29 | 4 | 1 | 2 | 1 |
| 2009 | 41 | 14 | 8 | 19 | 1 | 0 | 0 | 1 |

**Lakeville** **Population: 9,821**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 26 | 4 | 0 | 22 | 2 | 1 | 0 | 1 |
| 2006 | 45 | 11 | 2 | 32 | 3 | 0 | 1 | 2 |
| 2007 | 40 | 12 | 3 | 25 | 3 | 2 | 0 | 1 |
| 2008 | 52 | 6 | 6 | 40 | 0 | 0 | 0 | 0 |
| 2009 | 39 | 7 | 4 | 28 | 5 | 1 | 1 | 3 |

**Marion** **Population: 5,123**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 8 | 6 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 5 | 2 | 3 | 0 | 1 | 1 | 0 | 0 |
| 2007 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Marshfield** **Population: 24,324**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 139 | 54 | 9 | 76 | 9 | 0 | 0 | 9 |
| 2006 | 109 | 62 | 6 | 41 | 3 | 0 | 0 | 3 |
| 2007 | 135 | 57 | 6 | 72 | 12 | 1 | 0 | 11 |
| 2008 | 129 | 59 | 5 | 65 | 8 | 0 | 0 | 8 |
| 2009 | 127 | 63 | 11 | 53 | 6 | 0 | 2 | 4 |

**Mattapoisett** **Population: 6,268**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 27 | 6 | 4 | 17 | 1 | 0 | 0 | 1 |
| 2006 | 22 | 2 | 2 | 18 | 0 | 0 | 0 | 0 |
| 2007 | 14 | 4 | 3 | 7 | 0 | 0 | 0 | 0 |
| 2008 | 25 | 14 | 2 | 9 | 1 | 0 | 0 | 1 |
| 2009 | 14 | 9 | 2 | 3 | 0 | 0 | 0 | 0 |

**Middleborough** **Population: 19,941**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 111 | 27 | 27 | 57 | 8 | 2 | 4 | 2 |
| 2006 | 62 | 21 | 9 | 32 | 3 | 0 | 0 | 3 |
| 2007 | 95 | 40 | 15 | 40 | 7 | 0 | 4 | 3 |
| 2008 | 101 | 35 | 15 | 51 | 3 | 0 | 0 | 3 |
| 2009 | 73 | 26 | 17 | 30 | 3 | 0 | 1 | 2 |

**Norwell** **Population: 9,765**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 66 | 27 | 12 | 27 | 5 | 1 | 0 | 4 |
| 2006 | 71 | 33 | 7 | 31 | 11 | 1 | 0 | 10 |
| 2007 | 63 | 27 | 9 | 27 | 2 | 0 | 0 | 2 |
| 2008 | 54 | 20 | 8 | 26 | 4 | 1 | 0 | 3 |
| 2009 | 36 | 20 | 6 | 10 | 0 | 0 | 0 | 0 |

**Pembroke** **Population: 16,927**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 17 | 9 | 6 | 2 | 2 | 1 | 1 | 0 |
| 2006 | 22 | 13 | 6 | 3 | 0 | 0 | 0 | 0 |
| 2007 | 25 | 15 | 7 | 3 | 3 | 2 | 0 | 1 |
| 2008 | 22 | 15 | 5 | 2 | 0 | 0 | 0 | 0 |
| 2009 | 13 | 9 | 3 | 1 | 2 | 2 | 0 | 0 |

**Plymouth** **Population: 51,701**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 224 | 66 | 31 | 127 | 7 | 3 | 2 | 3 |
| 2006 | 200 | 60 | 41 | 99 | 14 | 2 | 0 | 12 |
| 2007 | 222 | 65 | 33 | 124 | 6 | 2 | 0 | 4 |
| 2008 | 200 | 68 | 29 | 103 | 12 | 5 | 0 | 7 |
| 2009 | 167 | 66 | 37 | 64 | 6 | 1 | 3 | 2 |

**Plympton** **Population: 2,637**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 6 | 2 | 0 | 4 | 1 | 0 | 0 | 1 |
| 2006 | 10 | 5 | 0 | 5 | 3 | 0 | 0 | 3 |
| 2007 | 18 | 5 | 3 | 10 | 3 | 0 | 0 | 3 |
| 2008 | 21 | 8 | 0 | 13 | 2 | 0 | 0 | 2 |
| 2009 | 12 | 6 | 3 | 3 | 0 | 0 | 0 | 0 |

**Rochester** **Population: 4,581**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 4 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 3 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2007 | 7 | 6 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 12 | 9 | 3 | 0 | 1 | 0 | 1 | 0 |
| 2009 | 9 | 6 | 3 | 0 | 0 | 0 | 0 | 0 |

**Rockland** **Population: 17,670**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 11 | 9 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2006 | 54 | 33 | 6 | 15 | 3 | 0 | 0 | 3 |
| 2007 | 18 | 14 | 1 | 3 | 0 | 0 | 0 | 0 |
| 2008 | 59 | 25 | 3 | 31 | 2 | 0 | 0 | 0 |
| 2009 | 58 | 23 | 12 | 23 | 2 | 0 | 1 | 1 |

**Scituate** **Population: 17,683**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 114 | 48 | 9 | 57 | 4 | 1 | 1 | 2 |
| 2006 | 88 | 34 | 9 | 45 | 4 | 2 | 0 | 2 |
| 2007 | 74 | 26 | 3 | 45 | 1 | 0 | 0 | 1 |
| 2008 | 72 | 36 | 8 | 28 | 4 | 3 | 0 | 1 |
| 2009 | 55 | 25 | 5 | 25 | 2 | 0 | 0 | 2 |

**WAREHAM FIRE DISTRICTS** **Population: 20,335**

***Onset*** ***Est. Pop. Protected: 4,314***

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 54 | 32 | 5 | 17 | 4 | 0 | 2 | 2 |
| 2006 | 54 | 30 | 7 | 17 | 1 | 0 | 0 | 1 |
| 2007 | 6 | 5 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 39 | 15 | 6 | 18 | 5 | 3 | 1 | 1 |
| 2009 | 36 | 19 | 6 | 11 | 2 | 0 | 1 | 1 |

***Wareham District*** *Est. Pop. Protected: 15,562*

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 119 | 38 | 25 | 56 | 25 | 0 | 1 | 24 |
| 2006 | 138 | 48 | 17 | 73 | 29 | 2 | 1 | 26 |
| 2007 | 126 | 37 | 22 | 67 | 3 | 0 | 0 | 3 |
| 2008 | 118 | 52 | 21 | 45 | 11 | 3 | 1 | 7 |
| 2009 | 94 | 44 | 24 | 26 | 2 | 0 | 1 | 1 |

**West Bridgewater** **Population: 6,634**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 19 | 12 | 7 | 0 | 2 | 1 | 1 | 0 |
| 2006 | 18 | 6 | 8 | 4 | 0 | 0 | 0 | 0 |
| 2007 | 45 | 15 | 8 | 22 | 3 | 0 | 0 | 3 |
| 2008 | 38 | 14 | 8 | 16 | 0 | 0 | 0 | 0 |
| 2009 | 34 | 6 | 16 | 12 | 2 | 0 | 2 | 0 |

**Whitman** **Population: 13,882**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 48 | 22 | 2 | 24 | 8 | 1 | 0 | 7 |
| 2006 | 44 | 19 | 6 | 19 | 0 | 0 | 0 | 0 |
| 2007 | 53 | 23 | 6 | 24 | 2 | 2 | 0 | 0 |
| 2008 | 40 | 13 | 3 | 24 | 5 | 1 | 0 | 4 |
| 2009 | 42 | 20 | 3 | 19 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 23001 | Abington | 3,325 | 61 | 2 | 2,042 | 381 | 343 | 103 | 389 | 1 | 3 |
| 23042 | Bridgewater | 2,827 | 70 | 2 | 1,744 | 156 | 159 | 111 | 521 | 2 | 62 |
| 23044 | Brockton | 305 | 180 | 4 | 3 | 48 | 1 | 1 | 68 | 0 | 0 |
| 23052 | Carver | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23082 | Duxbury | 1,937 | 44 | 6 | 1,335 | 116 | 147 | 41 | 248 | 0 | 0 |
| 23083 | East Bridgewater | 2,090 | 64 | 3 | 1,571 | 106 | 110 | 53 | 176 | 1 | 6 |
| 23118 | Halifax | 257 | 20 | 3 | 144 | 40 | 25 | 5 | 20 | 0 | 0 |
| 23122 | Hanover | 2,343 | 48 | 4 | 1,627 | 150 | 231 | 60 | 215 | 3 | 5 |
| 23123 | Hanson | 1,298 | 29 | 2 | 852 | 87 | 162 | 52 | 113 | 1 | 0 |
| 23131 | Hingham | 74 | 69 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23142 | Hull | 2,258 | 27 | 7 | 1,501 | 162 | 253 | 81 | 217 | 2 | 8 |
| 23145 | Kingston | 2,264 | 42 | 1 | 1,686 | 139 | 137 | 56 | 198 | 0 | 5 |
| 23146 | Lakeville | 790 | 49 | 2 | 528 | 36 | 63 | 22 | 86 | 0 | 4 |
| 23169 | Marion | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23171 | Marshfield | 3,586 | 128 | 8 | 2,272 | 264 | 407 | 102 | 396 | 0 | 9 |

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

# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 23173 | Mattapoisett | 360 | 14 | 1 | 17 | 104 | 76 | 14 | 123 | 5 | 6 |
| 23182 | Middleborough | 2,566 | 79 | 4 | 386 | 257 | 160 | 1,249 | 399 | 2 | 30 |
| 23219 | Norwell | 2,171 | 37 | 3 | 1,256 | 281 | 239 | 98 | 250 | 2 | 5 |
| 23993 | Onset | 1,562 | 39 | 3 | 699 | 133 | 509 | 72 | 95 | 9 | 3 |
| 23231 | Pembroke | 14 | 13 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 23239 | Plymouth | 5,338 | 169 | 7 | 3,246 | 323 | 355 | 276 | 935 | 15 | 12 |
| 23240 | Plympton | 315 | 14 | 0 | 226 | 16 | 20 | 14 | 23 | 0 | 2 |
| 23250 | Rochester | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23251 | Rockland | 2,699 | 59 | 7 | 1,992 | 111 | 123 | 90 | 281 | 1 | 35 |
| 23264 | Scituate | 2,710 | 58 | 7 | 1,988 | 143 | 174 | 80 | 255 | 1 | 4 |
| 23992 | Wareham | 1,905 | 98 | 11 | 868 | 332 | 216 | 128 | 247 | 0 | 5 |
| 23322 | West Bridgewater | 1,321 | 37 | 2 | 993 | 52 | 108 | 9 | 118 | 0 | 2 |
| 23338 | Whitman | 2,451 | 46 | 3 | 1,657 | 135 | 297 | 108 | 201 | 1 | 3 |
| **Total** | **Plymouth County** | **46,786** | **1,514** | **96** | **28,634** | **3,572** | **4,316** | **2,825** | **5,574** | **46** | **209** |

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

# Brockton Fires in 2009

**179 Total Fires[1] — 125 Structures, 30 Vehicles & 24 Other Fires**
The Brockton Fire Department reported 179 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 125 structure fires, 30 motor vehicle fires, 10 outside rubbish fires, three brush fires, five special outside fires; and six unclassified fires caused one civilian death, 10 civilian injuries, 12 firefighter injuries and an estimated dollar loss of $2.7 million.

**1 Brockton Resident Killed in 1 Fatal Fire**

- On April 3, 2009, at 4:59 p.m., the Brockton Fire Department was called to a fatal smoking fire in a single-family home. The victim, an 83-year old woman ignited her clothing with a match she was using it to light her cigarette. Her badly burned body was discovered by a family member after the fire had extinguished itself and who then called the fire department. Smoke detectors were present but it was undetermined if they operated. The building was not sprinklered. No estimation was made of the damages from the fire.

**All Fires Down in 2009**
Total fires decreased by 18 from the 197 incidents reported in 2008. Reported structure fires were down 17 from the 142 reported during the previous year. Motor vehicle fires decreased by six from 36 the year before. Outside and other fires increased by five from the 19 reported in 2008.

**BROCKTON FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 182 | 108 | 58 | 16 | 10 | 4 | 4 | 2 |
| 2006 | 163 | 124 | 24 | 15 | 12 | 7 | 4 | 1 |
| 2007 | 311 | 211 | 59 | 41 | 18 | 13 | 4 | 1 |
| 2008 | 197 | 142 | 36 | 19 | 12 | 9 | 1 | 2 |
| 2009[2] | 179 | 125 | 30 | 24 | 17 | 10 | 5 | 2 |

**BUILDING FIRES**

There were 123 building fires of different types in Brockton in 2009. These 123 building fires accounted for 98.4% of all structure fires in Brockton.

**89% of Building Fires in Homes**
The 123 building fires that occurred in Brockton in 2009 can be broken down by fixed property use as follows: 109, or 89% of all building fires, were in residential properties;

[1] Because of a computer malfunction, Brockton had been unable to submit July 2009 data. Even without these incidents they met the minimum requirements for a community profile.
[2] July 2009 fires not included.

six happened in mercantile or business properties; four fires happened in storage facilities; two fires happened at special properties; one fire happened in a public assembly building; and one fire occurred in an institutional facility.

## RESIDENTIAL FIRES

### Residential Building Fires Down Slightly

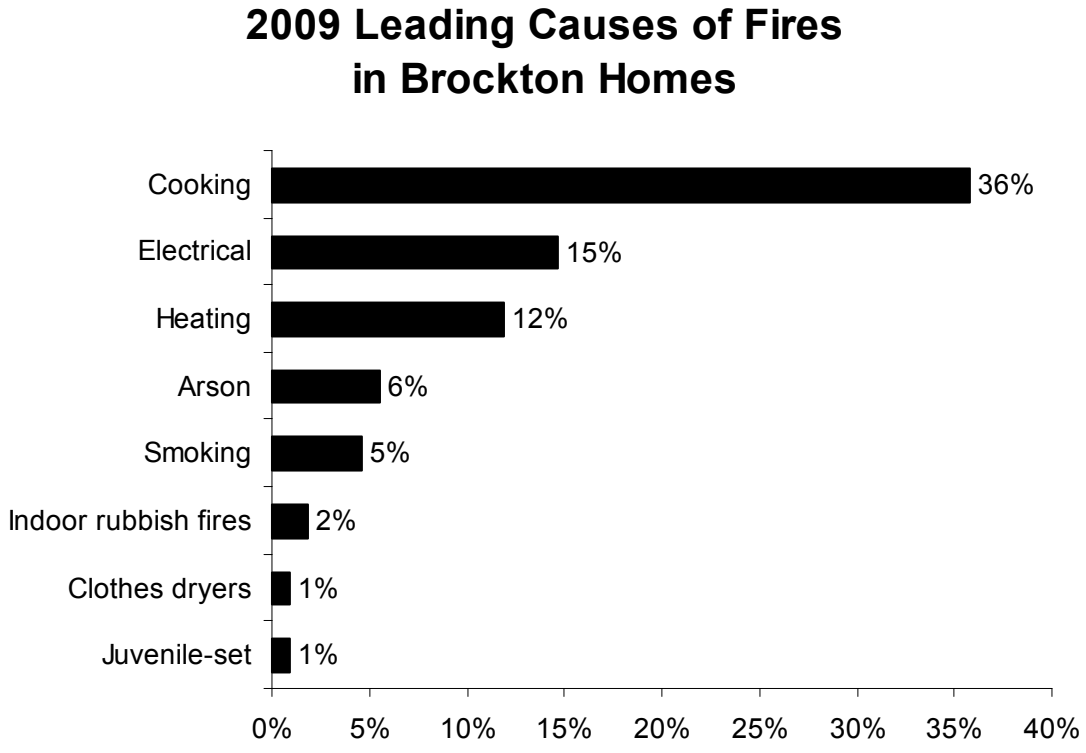
There were 109 reported residential building fires in Brockton in 2009. These 109 fires are a decrease of six from the 115 reported residential building fires reported in 2008.

### 1- or 2-Family Homes Accounted for 51% of Residential Building Fires

The peak fixed property uses for residential building fires were 1- or 2-family homes, accounting for 51% of the building fires in Brockton; 42% occurred in apartments; 2% each happened in residential board and care facilities and hotels or motels; 1% occurred in rooming houses; and 2% occurred in unclassified residences.

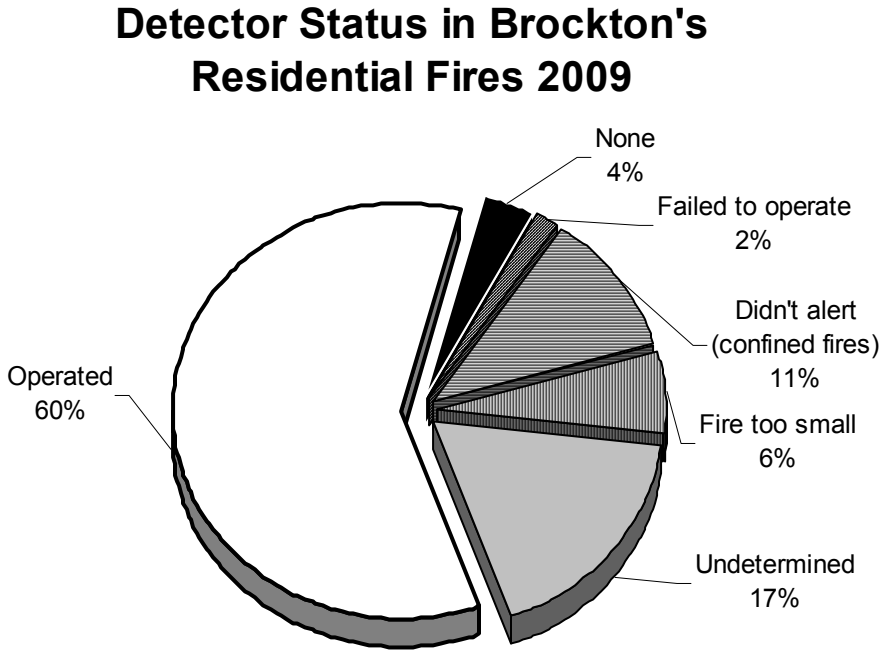
### Unattended Cooking Leading Cause of Residential Fires

The leading cause of residential building fires in Brockton was unattended cooking and other unsafe cooking practices, accounting for 36% of these fires. Electrical problems caused 15% of these fires. Heating fires caused 12% of these fires. Arsons caused 6% of these fires. Smoking was the cause of 5% of Brockton's residential fires. Indoor rubbish fires caused 2% of the fires. Clothes dryers and juvenile-set fires each caused 1% of the fires in Brockton's residential occupancies in 2009.



**34% of Residential Building Fires Are Confined to Non-Combustible Containers**[3]
Thirty-seven (37), or 34% of all residential building fires were confined to non-combustible containers in 2009. Twenty-three (23), or 21%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Ten (10), or 9%, were fires confined to a fuel burner or boiler malfunction. Two (2), or 2%, of these fires were rubbish fires contained to a non-combustible container. One (1) fire, or 1%, was reported to have been contained to a chimney or flue; and another fire, or 1%, was confined to a commercial trash compactor.

**Detectors Worked in 60% of Fires**
Smoke or heat detectors operated and alerted the occupants in 65, or 60%, of the residential building fires. In 11% of these fires[4], the detectors did not alert the occupants. Detectors were present but did not operate in 2% of these incidents. In 4% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 6% of these fires. Smoke detector performance was undetermined in 19 incidents, or 17% of Brockton's residential building fires.




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

### Undetermined Why Both Detectors Failed

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

## VACANT BUILDINGS

### 11% of Building Fires Occurred in Vacant Buildings

Brockton reported 13 fires that occurred in buildings that were vacant, under construction or demolition[5]. This represented 11% of the total 123 building fires reported to MFIRS in 2009. Six (6) one- or two-family homes, two apartment buildings, one business office, one detached residential garage, one residential or self storage unit; one outbuilding or shed; and one unclassified business were reported as vacant building fire incidents.

## JUVENILE-SET FIRES

### 1 Juvenile-set Fire in 2009

Brockton reported one juvenile-set fire in 2009. This structure fire caused one fire service injury and an estimated dollar loss of $80,000.

## ARSONS

### 17 Arsons[6] - 10 Structure, 5 Motor Vehicle and 2 Outside & Other

Seventeen (17), or 9%, of Brockton's 179 fires were considered intentionally set, or, for purposes of this analysis, arson. There were 10 structure arsons, five motor vehicle arsons and two outside and other arsons.

### All Arsons Up in 2009

The total number of arsons increased by five from the 12 reported in 2008. Reported structure arsons increased by one from the nine reported in 2008. Motor vehicle arsons increased by four from the one reported in 2008. Outside and other arsons remained the same with two reported in both 2008 as well as in 2009.

### 33 Fires Reported as Undetermined or Still Under Investigation

In 2009, Brockton reported 33 fires under investigation or cause undetermined after investigation. Eight (8), or 24%, of these fires were reported to be undetermined after investigation. The other 25, or 76%, were still under investigation.

Eighteen (18), or 55%, of these 33 fires were structure fires. Eleven (11), or 33% were motor vehicle fires; and four, or 12%, were outside or other fires. Because so many fires

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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.

or under investigation or undetermined after investigation, the true arson number might be actually higher in Brockton for 2009.

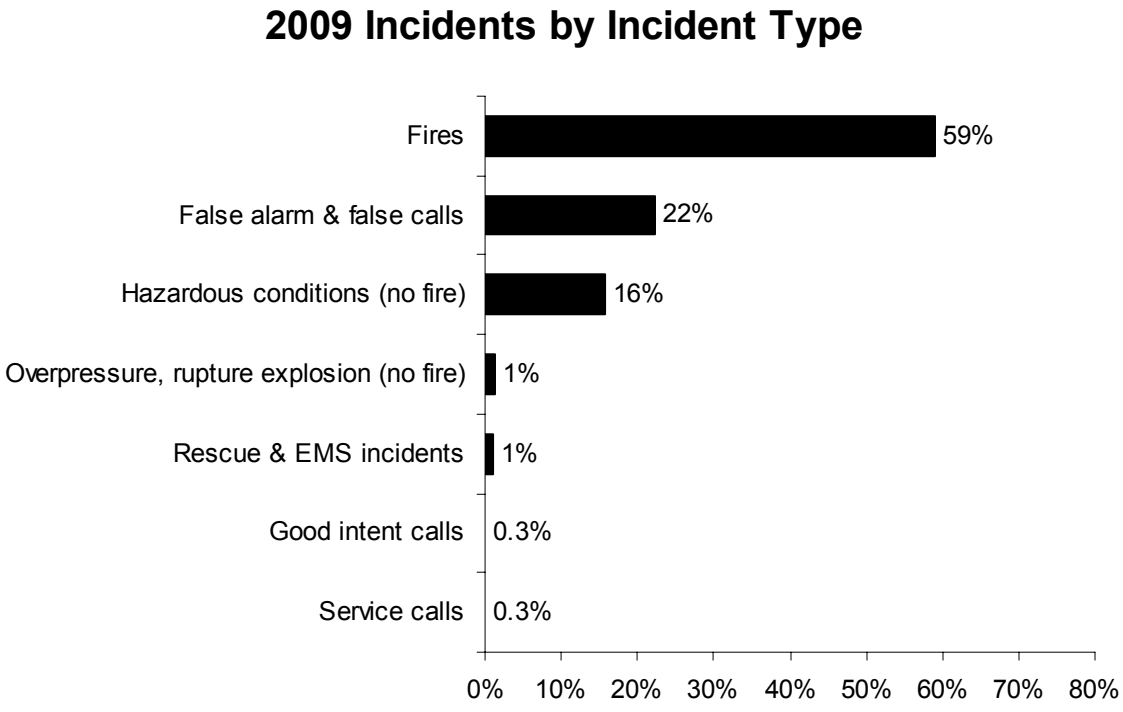
## ALL INCIDENTS

### Fire Are 59% of All Reported Incidents

In 2009, Brockton voluntarily reported 305 incidents to MFIRS. Of these 305 incidents, 125, or 41% were non-fire incidents. Brockton mainly reports only fires to MFIRS, and thus the other 125 non-fire incidents reported to MFIRS for 2009 is only a small fraction of the non-fire calls to which the Brockton Fire Department responds.

Of these 125 non-fire incidents 68, or 22%, were reported false alarm or false calls; 48, or 16%, were reported hazardous condition calls with no fire; four, or 1%, were overpressure, rupture or explosions with no after fire calls; three, or 1% of all reported incidents in 2009, were reported rescue and emergency medical services (EMS) calls; one, or 0.3%, was a good intent call; and another incident, or 0.3%, was a service call.

In 2009, Brockton reported 180 fires[7], accounting for 59% of all reported incidents.




### Brockton Gave Mutual Aid in 1 Reported Incident

In 2009, Brockton reported coming to the aid of other fire departments once. This was for a fire in Stoughton.

[7] This includes fires that Brockton responded to as mutual aid calls outside of their jurisdiction.

## Brockton Received Mutual Aid in 6 Incidents

In 2009, surrounding fire departments gave aid to Brockton during six incidents. Five of these six incidents were for fires, and the other one was for a rescue or EMS call.

# Brockton Population: 94,304

**1.9 Fires/1,000 Population**

| **Total Fires:** | **179** | | **$2,658,204** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 125 | 70% | $2,581,954 |
| Vehicle Fires | 30 | 17% | 62,500 |
| Other Fires | 24 | 13% | 13,750 |

| | |
|---|---|
| 1 Civilian Death | 5.59 Civilian Deaths/1,000 Fires |
| 1 Fatal Fire | 0.11 Civilian Deaths/10,000 Population |
| 10 Civilian Injuries | 12 Fire Service Injuries |

## Building Fires: 123

## Residential Structure Fires: 109

**Residential Structure Fires Confined to Non-Combustible Containers: 37**

**Unconfined Residential Structure Fires: 72**

1 Civilian Deaths 10 Civilian Injuries 10 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| 1- & 2-Family homes | 56 | 51% |
| Apartments | 46 | 42% |
| Hotel/motel | 2 | 2% |
| Residential board & care | 2 | 2% |
| Boarding houses | 1 | 1% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 65 | 60% |
| Didn't operate | 2 | 2% |
| None | 4 | 4% |
| Fire too small | 7 | 6% |
| Didn’t Alert (confined) | 12 | 11% |
| Undetermined | 19 | 17% |

| **Area of Origin**[8] | **%** |
|---|---|
| Kitchen | 44% |
| Heating room or area | 10% |
| Bedroom | 8% |
| Wall assembly, concealed space | 5% |
| Living room | 4% |

| **Heat Source** | **%** | **%Unconfined**[9] |
|---|---|---|
| Arcing | 13% | 19% |
| Radiated heat from op. eq. | 12% | 18% |
| Molten, hot material | 6% | 8% |
| Heat from operating equip. | 6% | 8% |
| Hot or smoldering object | 5% | 7% |

[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 | 33% |
| Structural member, framing | 10% |
| Flammable or combustible liq. | 9% |
| Exterior sidewall covering | 6% |
| Electrical wire, cable insulation | 4% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[11] |
|---|---|---|
| Abandoned materials | 2% | 3% |
| Playing with heat source | 1% | 1% |
| Short-circuit arc, worn insul. | 1% | 1% |
| Arc, spark from oper. equip. | 1% | 1% |

| **Equipment**[12] | **%** |
|---|---|
| None | 46% |
| Cooking equipment | 32% |
| Boiler, furnace, cent. heat. unit | 9% |
| Clothes dryer | 1% |

| **Cause of Ignition** | **%** | **%Unconfined**[13] |
|---|---|---|
| Unintentional | 35% | 53% |
| Intentional | 6% | 8% |
| Failure of eq./heat source | 16% | 24% |
| Cause Under Investigation | 10% | 15% |

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

| | |
|---|---|
| Alerted Occupants | 65% |
| Didn't Alert Occupants | 32% |
| Undetermined | 3% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Fires[14] | 180 | 59% |
| False alarms & false calls | 68 | 22% |
| Hazardous conditions (no fire) | 48 | 16% |
| Overpressure rupture, explosion or overheat calls (no fire) | 4 | 1% |
| Rescue & EMS incidents | 3 | 1% |
| Good intent calls | 1 | 0.3% |
| Service calls | 1 | 0.3% |

[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 | 17 | 11 | 5 | 1 |
| February | 12 | 8 | 2 | 2 |
| March | 11 | 7 | 4 | 0 |
| April | 16 | 12 | 0 | 4 |
| May | 13 | 9 | 1 | 3 |
| June | 12 | 9 | 3 | 0 |
| July[15] | 0 | 0 | 0 | 0 |
| August | 17 | 10 | 5 | 2 |
| September | 17 | 13 | 4 | 0 |
| October | 20 | 12 | 3 | 5 |
| November | 14 | 10 | 0 | 4 |
| December | 30 | 24 | 3 | 3 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 22 | 11 | 5 | 6 |
| Monday | 26 | 19 | 3 | 4 |
| Tuesday | 23 | 17 | 5 | 1 |
| Wednesday | 26 | 19 | 4 | 3 |
| Thursday | 26 | 21 | 1 | 4 |
| Friday | 30 | 22 | 5 | 3 |
| Saturday | 26 | 16 | 7 | 3 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 27 | 15 | 8 | 4 |
| 04:01 - 08:00 | 19 | 13 | 4 | 2 |
| 08:01 - 12:00 | 24 | 19 | 3 | 2 |
| 12:01 - 16:00 | 28 | 18 | 7 | 3 |
| 16:01 - 20:00 | 43 | 32 | 3 | 8 |
| 20:01 - 24:00 | 38 | 28 | 5 | 5 |

## Motor Vehicle Fires

Total: 30
Automobiles: 28 (93%)
4 (14%) of the automobile fires considered intentionally set.

[15] Because of a computer malfunction, Brockton had been unable to submit their July 2009 incidents to MFIRS.

## Arson Fires

**Total Arsons: 17** **Dollar loss: $1,066,500**

**0.18 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 10 | 8% | 59% | $1,032,500 |
| Vehicle Arsons | 5 | 17% | 29% | 9,000 |
| Other Arsons | 2 | 8% | 12% | 25,000 |

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

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 4 | 40% |
| 20:01 - 00:00 | 4 | 40% |

| Vehicle Arsons | # | % |
|---|---|---|
| 00:01 - 04:00 | 4 | 80% |

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

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| Apartments | 5 | 50% |
| 1- or 2-Family homes | 2 | 20% |
| Parking garage, detached residential | 1 | 10% |
| Mercantile, business, other | 1 | 10% |
| Household goods, sales, repairs | 1 | 10% |

# Suffolk County Has It's Own In-Depth Analysis Report Which Is Published Separately

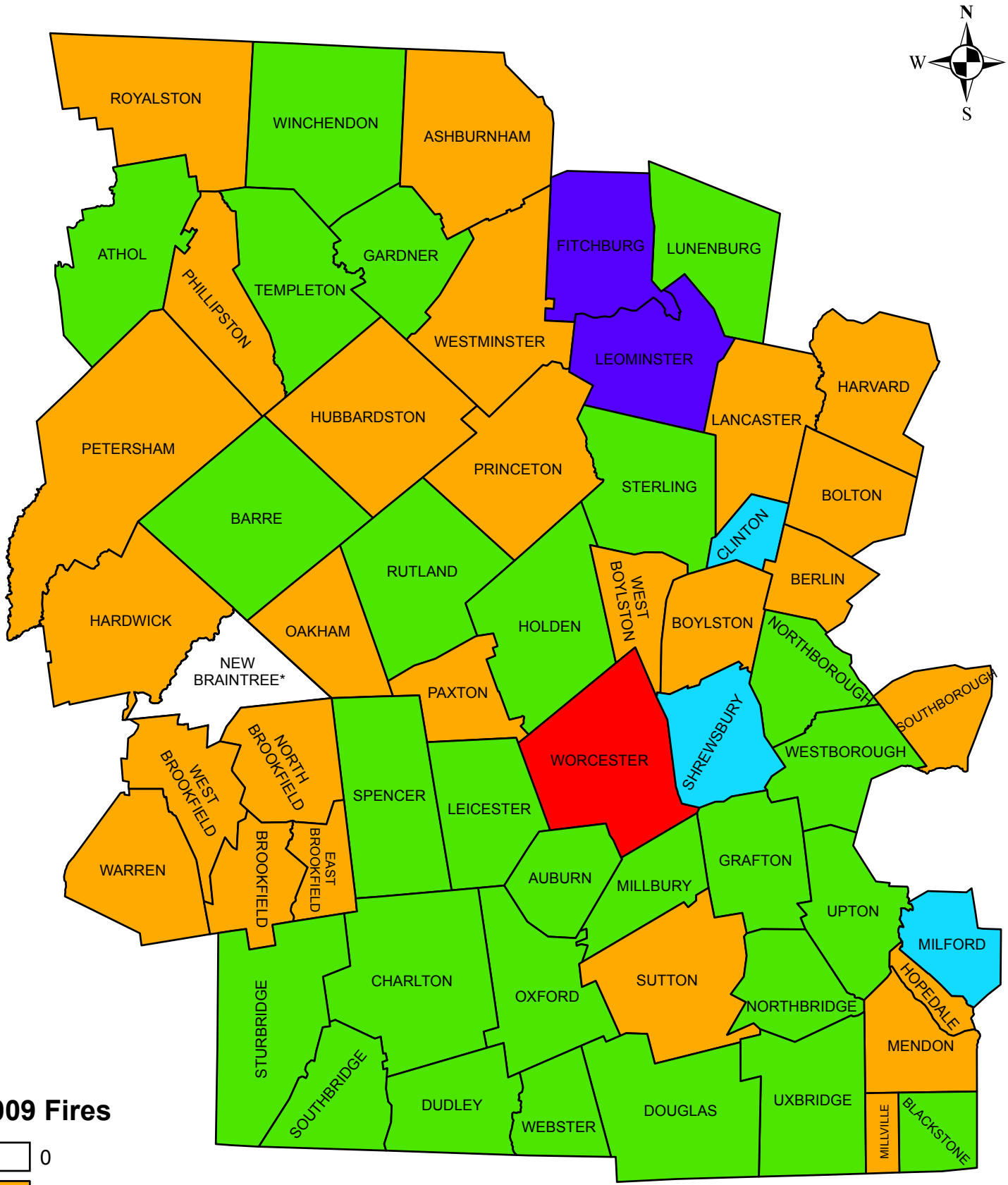
# Worcester County

## 2009 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 2009




## 2009 Fires

- 0
- 1 - 25
- 26 - 100
- 101 - 200
- 201 - 375
- 376 - 1250

*Non-reporting fire department

MFIRS
Massachusetts Fire Incident Reporting System

0 2 4 8 12 16 Miles

Massachusetts Fire Incident Reporting System 2009

# Worcester County Fires in 2009

**3,805 Total Fires — 2,183 Structures, 381 Vehicles & 1,241 Other Fires**
Worcester County ranked third out of the fourteen Massachusetts counties in total reported fires. Worcester County fire departments reported 3,805 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 2,183 structure fires, 381 motor vehicle fires, 563 brush fires, 505 outside rubbish fires, 85 special outside fires; 10 cultivated vegetation or crop fires and 78 unclassified fires caused five civilian deaths, 45 civilian injuries, 56 fire service injuries and an estimated dollar loss of $18.4 million. Worcester County's fires accounted for 13% of the 28,595 Massachusetts fires reported in 2009.

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 2009.

**All Fires Down**
Total fires decreased by 377, or 9%, from 4,182 incidents in 2008. Reported structure fires decreased by 20 from the 2,203 reported during the previous year. Motor vehicle fires decreased by 17 from 461 the year before. Outside and other fires decreased by 277 from 1,518 the year before.

**Brush Fires Down by 22%**
Brush fires decreased by 158, or 22%, from the 721 reported in 2009. This is a decrease and the main reason for the drop in all Worcester County fires.

**WORCESTER COUNTY FIRES FROM 2005 TO 2009**

| Year | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3,999 | 2,014 | 525 | 1,460 | 164 | 43 | 27 | 94 |
| 2006 | 4,398 | 2,117 | 461 | 1,820 | 195 | 37 | 17 | 141 |
| 2007 | 4,634 | 2,275 | 501 | 1,858 | 149 | 40 | 21 | 88 |
| 2008 | 4,182 | 2,203 | 461 | 1,518 | 142 | 36 | 24 | 82 |
| 2009 | 3,805 | 2,183 | 381 | 1,241 | 183 | 40 | 29 | 114 |

**Fire and Fire Death Rates**
Worcester County had 5.1 fires per 1,000 population. That figure ranks Worcester County second in the state and above the state rate of 4.5 fires per 1,000 population. Worcester County also had 0.07 fire deaths per 10,000 population ranking it sixth among Massachusetts counties and slightly above the state rate of 0.06 fire deaths per 10,000 population.

## 5 Residents Died in 5 Worcester County Fires

- On January 6, 2009, at 10:27 p.m., the Worcester Fire Department was dispatched to a fire in a three-unit apartment building of undetermined cause. The victim, a 46-year old man, was found by firefighters on his bed in his third floor bedroom. He was transported to a local hospital where he succumbed to his injuries. There were no other injuries associated with this fire. It was undetermined if detectors were present, and sprinklers were not. Damages from this fire were estimated to be $56,000.

- On March 21, 2009, at 5:18 p.m., the Hopedale Fire Department was dispatched for an EMS call to a single-family home. Upon arrival, firefighters discovered the remnants of a cooking fire and an 85-year old man with severe burns. A book next to the stove had caught fire and ignited the victim's clothing. There were no other injuries associated with this fire. Detectors were present but the fire was too small to activate them. The victim was transported to a local hospital where he later succumbed to his injuries. The home was not sprinklered. No estimation was made for damages from this fire.

- On April 21, 2009, at 9:06 p.m., the Spencer Fire Department was called to an arson fire in a single-family home. The victim, a 57-year old woman poured gasoline on herself in a suicide by self-immolation. No one else was injured at this fire. Detectors were present but failed to operate because of a missing battery. The home was not sprinklered; and no estimation of damages was made.

- On August 12, 2009, at 10:23 p.m., the Fitchburg Fire Department was dispatched for an EMS call to a two-family home. Upon arrival, firefighters discovered a 70-year old woman with burns to her face. She had been smoking while using home oxygen. She was transported to a local hospital where she succumbed to her injuries in December of 2009. It was undetermined if smoke detectors were present and the home was not sprinklered. No estimation was made for damages from this fire.

- On September 16, 2009, at 10:54 p.m., the Leominster Fire Department was called to an electrical fire in a two-family home. The victim, a 16-year old boy was trapped above the fire in his third floor bedroom. Two other civilians were injured at this fire. Detectors were present but it was undetermined if they operated. The building was not sprinklered. No estimation was made for damages from this fire.

## Largest Loss Fire in 2009

- On March 5, 2009, at 2:36 p.m., the Worcester Fire Department was called to a fire of undetermined cause in a 10-unit apartment building. The fire is believed to have started on the third floor. Six (6) firefighters were injured at this fire. Detectors were present but it was undetermined if they operated. The building was not sprinklered. Damages from this fire were estimated to be $1.5 million. An exposure fire to the church next door also caused 120,000 in estimated damages.

## STRUCTURE FIRES

### Reported Structure Fires Down

The 2,183 structure fires caused five civilian deaths, 41 civilian injuries, 53 fire service injuries and an estimated dollar loss of $16.6 million. These incidents represented 57% of Worcester County's reported fires in 2009. The average estimated dollar loss per structure fire was $7,627. The total number of reported structure fires decreased by 20, or 1%, from the 2,203 reported in 2008.

### Arson Caused 2% of Structure Fires

The 40 structure arsons caused one civilian death, two civilian injuries, three fire service injuries and an estimated dollar loss of $661,975. Arson was indicated as the cause of 2% of the structure fires and 4% of Worcester County's structure fire dollar loss. The 40 structure arsons accounted for 22% of the Worcester County arson fires reported in 2009. The total number of reported structure arsons increased by four, or 11%, from 36 in 2008.

### Almost 2/3 of Structure Arsons Occurred in Residences

Sixty-five percent (65%) of Worcester County's 40 structure arsons occurred in residential occupancies; 5% happened in mercantile and business properties; 13% occurred in special properties; 8% occurred each in storage facilities and educational facilities; and 3% happened in public assembly facilities in Worcester County in 2009.

## BUILDING FIRES

There were 2,163 building fires of different types in Worcester County in 2009. These 2,163 building fires accounted for 99.1% of all structure fires in Worcester County.

### 85% of Worcester Building Fires Occurred in People's Homes

One thousand eight hundred and thirty-six (1,836), or 85%, of Worcester County's 2,163 building fires occurred in residential occupancies. Mercantile and business properties had 74 fires. Sixty-one (61) fires took place in public assembly properties, including restaurants and churches. Hospitals, prisons, and other institutional buildings experienced 59 fires. Forty-two (42) building fires took place on educational properties. Thirty-five (35) fires took place in storage properties. Twenty-six (26) fires took place in manufacturing and processing facilities. Twenty-five (25) building fires in Worcester County occurred in special properties such as outbuildings, bus stop shelters and toll booths. Four (4) fires occurred in industrial, utility, defense, agricultural or mining facilities, and one fire occurred in an unclassified building in Worcester County in 2009.

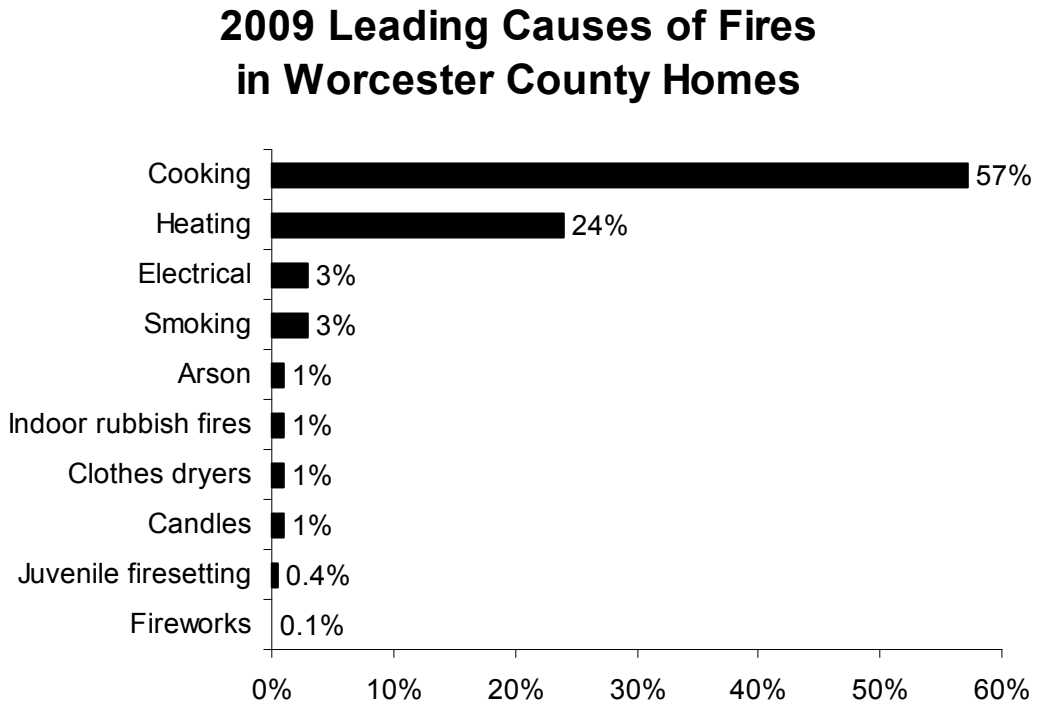
## RESIDENTIAL FIRES

### Residential Building Fires Are Down Slightly

There were 1,836 reported residential building fires in Worcester County in 2009. These 1,836 fires are a decrease of 38, or 2%, from the 1,874 residential building fires reported in 2008.

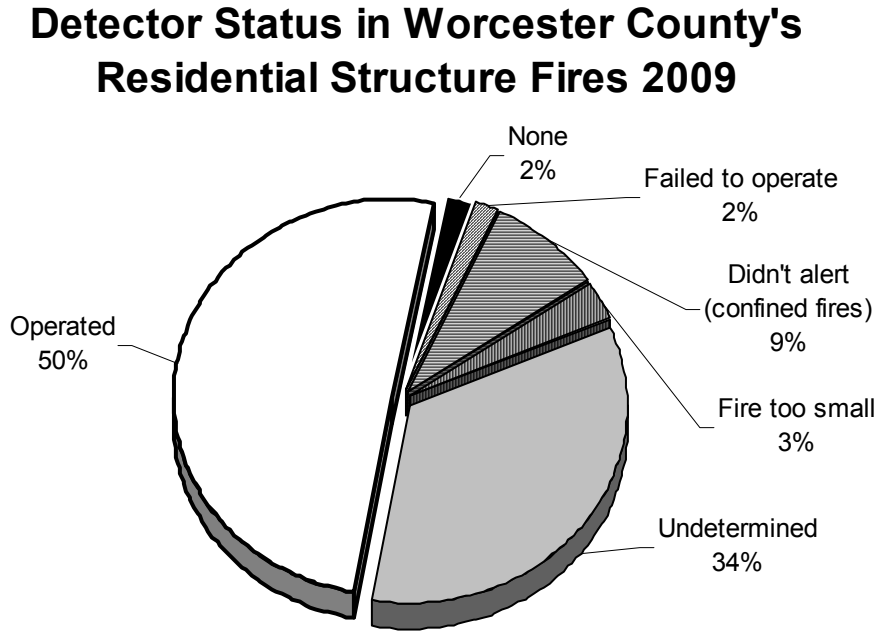
**Apartments Accounted for 44% of Residential Building Fires**
The peak fixed property uses for residential building fires were apartments, accounting for 44% of the residential building fires in Worcester County; another 44% occurred in one- or two-family homes; 4% occurred in dormitories; 3% happened in rooming houses; 1% each occurred residential board and care facilities and in hotels or motels. Twenty-one (21), or 1%, of the residential building fires in Worcester County occurred in unclassified residential buildings.

**Unattended Cooking Caused 57% of Residential Fires**
The leading cause of residential building fires in Worcester County was unattended cooking and other unsafe cooking practices accounting for 57% of these fires. Heating caused 24% of fires in people's homes. Electrical problems and smoking each accounted for 3% of these fires. Arson, indoor rubbish fires, clothes dryers, and candles each caused 1% of the fires in people's homes in Worcester County in 2009. Juvenile-set fires fireworks each caused less than 1% of these fires in 2009.



**77% of Residential Building Fires Are Confined to Non-Combustible Containers[1]**
One thousand four hundred and nineteen (1,419), or 77% of all residential building fires, were reported as confined to non-combustible containers in 2009. Nine hundred and seventy-nine (979) of the reported fires were cooking fires contained to a non-combustible container accounting for 53% of residential building fires. Two hundred and twenty-three (223), or 12%, were fires confined to a fuel burner or boiler malfunction. One hundred and ninety-two (192), or 10%, of all residential building fires reported in 2009 were confined to a chimney. Twenty-three (23), or 1%, of the residential building fires in Worcester County in 2009 were contained rubbish fires. One (1) fire, or less than 1%, was confined to a commercial compactor, and another fire, or less than 1%, that was confined to an incinerator.

**Detectors Alerted Occupants in Just 1/2 of Fires**
Smoke or heat detectors operated and alerted the occupants in 925, or 50%, 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 another 2% of these fires, no detectors were present at all. The fire was too small to trigger the detector in 3% of the residential fires. Smoke detector performance was undetermined in 625 incidents, or 34% of Worcester County's residential building fires.




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

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

### Over 40% of Failed Detectors Had Dead, Missing or Disconnected Batteries

Of the 28 fires where smoke detectors were present but failed to operate, 10, or 36%, failed because the batteries were either missing or disconnected. Two (2), or 7%, failed because of a power failure, shutoff or disconnect. Two (2), or 7%, did not operate because of dead batteries. It was undetermined or unclassified in 14 cases, or 50%, why the detectors failed to operate.

## 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 2,163 building fires reported to MFIRS in 2009. Twenty-four (24) fires occurred in vacant residential properties. Seven (7) vacant building fires occurred in storage facilities. Three (3) of these fires occurred in manufacturing or processing facilities. Public assembly properties accounted for two vacant building fire incidents. Another two vacant building fires occurred in educational facilities. One (1) of these fires occurred in mercantile and business properties in Worcester County in 2009.

Nine (9), or 23%, of the vacant building fires in Worcester County in 2009 were determined to be intentionally set. Four (4) of these fires occurred in single-family homes. Three happened in apartment buildings; and one each occurred in an unclassified residential building and a warehouse.

## JUVENILE-SET FIRES

### 26 Juvenile-set Fires

There were 26 reported juvenile-set fires in Worcester County in 2009. The 11 structure fires, one motor vehicle fire, 10 brush fires, two outside rubbish fires, and one unclassified fire caused one fire service injury and $59,901 in estimated damages.

[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.

## ARSONS

### 183 Total Arsons[4] — 40 Structures, 29 Vehicles & 114 Other Arsons

One hundred and eighty-three (183), or 5%, of Worcester County's 3,805 fires were considered intentionally set, or, for purposes of this analysis, arson. The 40 structure arsons, 29 motor vehicle arsons and 114 outside and other arsons caused one civilian death, four civilian injuries, three fire service injuries and an estimated dollar loss of $758,176. Worcester County's arson fires accounted for 15% of the state's total arson fires, but only 6% of the state's total dollar losses from arsons.

### All Arson Fires Up

The total number of arsons increased by 41 from 142 in 2008. Reported structure arsons increased by four from 36 the year before. Motor vehicle arsons increased five from 24 reported in 2008. Outside and other arsons increased by 32 from the 82 reported last year.

## ALL INCIDENTS

### Rescue & EMS Calls Are 63% of All Reported Responses

In 2009, fire departments in Worcester County reported 81,639 responses[5] to MFIRS. This is a decrease of 5,783 runs, or 7%, over the 87,422 reported in 2008. Of these 81,639 responses, 77,615 non-fire calls were voluntarily reported.

Of these 77,615 non-fire calls, 51,521, or 63% of all the responses reported in 2009, were reported rescue and emergency medical services (EMS) calls; 10,682, or 13%, were reported false alarm or false calls; 6,167, or 8%, were reported service calls such as lock-outs, water or smoke problems, unauthorized burning or public service assistance; 4,202, or 5%, reported hazardous condition calls with no fire; 3,978, or 5%, were reported good intent calls; 832, or 1%, were special incident type calls such as citizen complaints; 153, or 0.5%, were reported overpressure, rupture, explosion or overheat calls with no fire; and 80, or 0.1%, were severe weather calls.

Four thousand and twenty-four (4,024), or 5%, of the total responses submitted by Worcester County fire departments were fires.

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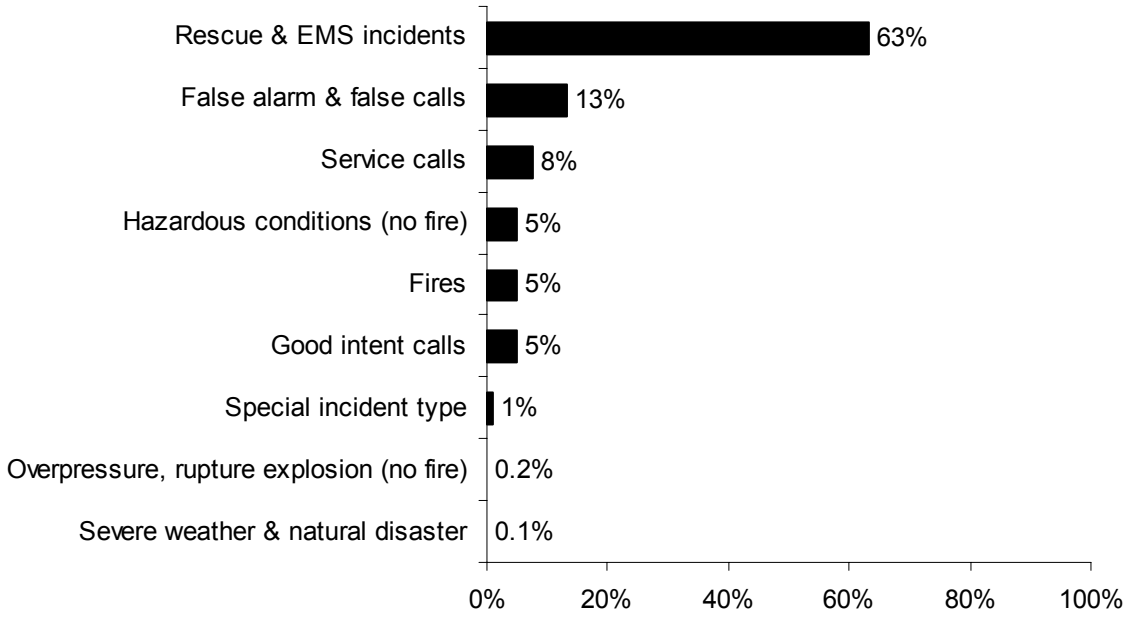
[4] In MFIRS v5 a fire is considered an arson if the Cause of Ignition = 1 (Intentional) and the Age of Person (Fire Module) is greater than 17 or if the field is blank; or if the Wildland Module is used, the Wildland Fire Cause = 7 (Incendiary) and the Age of the Person (Wildland Module) is greater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

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

## 2009 Responses by Incident Type




**Worcester County Fire Departments Reported Giving Mutual Aid 1,861 Times**
In 2009, Worcester County fire departments reported coming to the aid of other fire departments 1,861 times. Of these 1,861 responses, 1,088, or 58%, were for rescue or EMS incidents; 384, or 21%, were for service calls such as cover assignments; 215, or 12%, were for fires; 89, or 5%, were for good intent calls; 38, or 2%, were for false alarms or false calls; 35, or 2%, were for hazardous conditions calls with no fire; 10, or 1%, were special incident types; and two, or 0.1%, were severe weather calls.

**Worcester County Fire Departments Received Mutual Aid in 854 Incidents**
In 2009, Worcester County fire departments reported receiving aid from surrounding departments in 854 incidents. Of these 854 incidents, 547, or 64%, were rescue and emergency medical services calls; 190, or 21%, were for fires; 41, or 5%, were false alarms or false calls; 29, or 3%, were hazardous conditions calls with no fire; 25 or 3% were good intent calls; 17, or 2%, were service calls; two, or 0.2%, were severe weather calls; another two, or 0.2%, were special incident type calls; and one, or 0.1%, was a reported overpressure, rupture, explosion or overheat call with no fire.

## Worcester County Population: 750,963

**5.1 Fires/1,000 Population**

| **Total Fires:** | **3,805** | | **$18,433,647** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 2,183 | 57% | $16,648,694 |
| Vehicle Fires | 381 | 10% | 1,660,077 |
| Other Fires | 1,241 | 33% | 124,876 |

| | |
|---|---|
| 5 Fatal Fires | 1.31. Civilian Deaths/1,000 Fires |
| 5 Civilian Deaths | 0.07 Civilian Deaths/10,000 Population |
| 45 Civilian Injuries | 56 Fire Service Injuries |

# Building Fires: 2,163

## Residential Structure Fires: 1,836

**Residential Structure Fires Confined to Non-Combustible Containers: 1,419**

**Unconfined Residential Structure Fires: 417**

5 Civilian Deaths 38 Civilian Injuries 46 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 811 | 44% |
| 1- & 2-Family homes | 807 | 44% |
| Dormitories | 89 | 5% |
| Rooming houses | 70 | 3% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 925 | 50% |
| Didn't operate | 28 | 2% |
| None | 40 | 2% |
| Fire too small | 58 | 3% |
| Didn't Alert (confined) | 160 | 9% |
| Undetermined | 625 | 34% |

| **Area of Origin**[6] | **%** |
|---|---|
| Kitchen | 59% |
| Heating room or area | 12% |
| Chimney or flue | 10% |
| Bedroom | 2% |
| Ceiling/floor assembly | 1% |

| **Heat Source** | **%** | **%Unconfined**[7] |
|---|---|---|
| Radiated heat from oper. eq. | 4% | 16% |
| Heat from operating eq. | 3% | 14% |
| Arcing | 2% | 8% |
| Hot or smoldering object | 2% | 7% |
| Cigarette | 2% | 7% |
| 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 | 56% |
| Flammable, combustible liquid | 12% |
| Film or residue (creosote) | 10% |
| Rubbish, trash, waste | 2% |
| Structural member, framing | 1% |

| **Factor Contrib. to Ignit.** | **%** | **%Unconfined[9]** |
|---|---|---|
| Too close to combustibles | 2% | 9% |
| Abandoned materials | 2% | 8% |
| Misuse of materials | 2% | 7% |
| Elec. fail., malfunc., other | 1% | 5% |
| Failure to clean | 1% | 5% |
| Equipment unattended | 1% | 4% |

| **Equipment[10]** | **%** |
|---|---|
| Cooking equipment | 56% |
| None | 16% |
| Boiler, furnace, cent. heat. unit | 12% |
| Chimney or flue | 11% |
| Clothes dryer | 1% |
| Stove, heating | 1% |

| **Cause of Ignition** | **%** | **%Unconfined[11]** |
|---|---|---|
| Unintentional | 14% | 60% |
| Failure of eq. or heat source | 3% | 13% |
| Intentional | 1% | 6% |
| Act of Nature | 0.4% | 2% |
| Cause under investigation | 3% | 12% |
| Undetermined | 2% | 7% |

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

| | |
|---|---|
| Alerted Occupants | 52% |
| Didn't Alert Occupants | 11% |
| Undetermined | 37% |

[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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[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 | 317 | 255 | 37 | 25 |
| February | 244 | 179 | 34 | 31 |
| March | 402 | 202 | 28 | 172 |
| April | 540 | 203 | 29 | 308 |
| May | 320 | 144 | 21 | 155 |
| June | 284 | 153 | 33 | 98 |
| July | 263 | 142 | 37 | 84 |
| August | 263 | 135 | 42 | 86 |
| September | 253 | 139 | 29 | 85 |
| October | 266 | 182 | 26 | 58 |
| November | 351 | 218 | 29 | 104 |
| December | 302 | 231 | 36 | 35 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 555 | 309 | 59 | 187 |
| Monday | 495 | 291 | 53 | 151 |
| Tuesday | 511 | 309 | 48 | 154 |
| Wednesday | 528 | 301 | 54 | 173 |
| Thursday | 561 | 339 | 47 | 175 |
| Friday | 499 | 293 | 57 | 149 |
| Saturday | 656 | 341 | 63 | 252 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 – 04:00 | 266 | 141 | 45 | 80 |
| 04:01 – 08:00 | 243 | 152 | 42 | 49 |
| 08:01 – 12:00 | 598 | 389 | 56 | 153 |
| 12:01 – 16:00 | 974 | 499 | 98 | 377 |
| 16:01 – 20:00 | 1,060 | 629 | 77 | 354 |
| 20:01 – 00:00 | 664 | 373 | 63 | 228 |

## Motor Vehicle Fires

Total: 381
Automobiles: 318 (83%)
25, or (8%), of the automobile fires considered incendiary or suspicious

## Arson Fires

**Total Arsons: 183** **Dollar loss: $758,176**

**0.2 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 40 | 2% | 22% | $661,975 |
| Vehicle Arsons | 29 | 8% | 16% | 86,100 |
| Other Arsons | 114 | 9% | 62% | 10,101 |

0.05 Structure arsons/1,000 population
0.04 Vehicle arsons/1,000 population
0.15 Other arsons/1,000 population

1 Civilian Death 3 Civilian Injuries 4 Fire Service Injuries

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 20:01 – 00:00 | 13 | 33% |
| 08:01 – 12:00 | 7 | 18% |
| 00:01 – 04:00 | 6 | 15% |
| 04:01 – 08:00 | 6 | 15% |

| Vehicle Arsons | # | % |
|---|---|---|
| 20:01 – 00:00 | 11 | 38% |
| 00:01 – 04:00 | 7 | 24% |
| 04:01 – 08:00 | 5 | 17% |
| 16:01 – 20:00 | 4 | 14% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 – 20:00 | 41 | 36% |
| 20:01 – 00:00 | 27 | 24% |
| 12:01 – 16:00 | 22 | 19% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- or 2-Family homes | 12 | 30% |
| Apartments | 11 | 28% |

**Ashburnham** **Population: 5,546**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 13 | 4 | 0 | 9 | 0 | 0 | 0 | 0 |
| 2006 | 7 | 2 | 1 | 4 | 0 | 0 | 0 | 0 |
| 2007 | 19 | 13 | 2 | 4 | 0 | 0 | 0 | 0 |
| 2008 | 16 | 5 | 4 | 7 | 0 | 0 | 0 | 0 |
| 2009 | 13 | 7 | 3 | 3 | 1 | 1 | 0 | 0 |

**Athol** **Population: 11,299**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 102 | 57 | 7 | 38 | 3 | 2 | 0 | 1 |
| 2006 | 105 | 44 | 13 | 48 | 3 | 0 | 0 | 3 |
| 2007 | 78 | 39 | 10 | 29 | 4 | 2 | 1 | 1 |
| 2008 | 63 | 24 | 8 | 31 | 0 | 0 | 0 | 0 |
| 2009 | 56 | 21 | 5 | 30 | 7 | 1 | 0 | 6 |

**Auburn** **Population: 15,901**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 64 | 30 | 7 | 27 | 4 | 0 | 1 | 3 |
| 2006 | 92 | 28 | 21 | 43 | 2 | 0 | 0 | 2 |
| 2007 | 80 | 29 | 21 | 30 | 1 | 0 | 0 | 1 |
| 2008 | 47 | 18 | 11 | 18 | 1 | 0 | 0 | 1 |
| 2009 | 50 | 23 | 11 | 16 | 0 | 0 | 0 | 0 |

**Barre** **Population: 5,113**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 27 | 18 | 2 | 7 | 1 | 1 | 0 | 0 |
| 2006 | 32 | 16 | 1 | 15 | 2 | 0 | 1 | 1 |
| 2007 | 28 | 13 | 4 | 11 | 1 | 0 | 0 | 1 |
| 2008 | 21 | 12 | 1 | 8 | 0 | 0 | 0 | 0 |
| 2009 | 26 | 11 | 2 | 13 | 0 | 0 | 0 | 0 |

**Berlin** **Population: 2,380**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 44 | 15 | 11 | 18 | 6 | 1 | 0 | 5 |
| 2006 | 38 | 12 | 7 | 19 | 3 | 0 | 2 | 1 |
| 2007 | 43 | 16 | 10 | 17 | 1 | 0 | 0 | 1 |
| 2008 | 34 | 14 | 6 | 14 | 0 | 0 | 0 | 0 |
| 2009 | 16 | 5 | 2 | 9 | 0 | 0 | 0 | 0 |

**Blackstone** **Population: 8,804**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 31 | 13 | 4 | 14 | 8 | 1 | 1 | 6 |
| 2006 | 62 | 27 | 2 | 33 | 8 | 0 | 0 | 8 |
| 2007 | 53 | 17 | 4 | 32 | 6 | 1 | 0 | 5 |
| 2008 | 37 | 13 | 2 | 22 | 8 | 1 | 1 | 6 |
| 2009 | 41 | 18 | 5 | 18 | 2 | 0 | 0 | 2 |

**Bolton** **Population: 4,148**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 30 | 8 | 2 | 20 | 0 | 0 | 0 | 0 |
| 2008 | 21 | 8 | 8 | 5 | 1 | 1 | 0 | 0 |
| 2009 | 19 | 5 | 2 | 12 | 0 | 0 | 0 | 0 |

**Boylston** **Population: 4,008**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 8 | 3 | 1 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 10 | 7 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 7 | 5 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 5 | 3 | 1 | 1 | 0 | 0 | 0 | 0 |

**Brookfield** **Population: 3,051**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 4 | 3 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |

**Charlton** **Population: 11,263**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 70 | 41 | 11 | 18 | 0 | 0 | 0 | 0 |
| 2006 | 69 | 29 | 15 | 25 | 0 | 0 | 0 | 0 |
| 2007 | 63 | 28 | 11 | 24 | 2 | 0 | 0 | 2 |
| 2008 | 67 | 36 | 15 | 16 | 2 | 0 | 0 | 2 |
| 2009 | 59 | 37 | 6 | 16 | 2 | 1 | 0 | 1 |

**Clinton** **Population: 13,435**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 149 | 15 | 3 | 131 | 1 | 0 | 0 | 1 |
| 2006 | 176 | 25 | 3 | 148 | 4 | 0 | 0 | 4 |
| 2007 | 184 | 110 | 2 | 72 | 5 | 0 | 0 | 5 |
| 2008 | 95 | 49 | 6 | 40 | 5 | 0 | 0 | 5 |
| 2009 | 149 | 127 | 0 | 22 | 1 | 0 | 0 | 1 |

**Douglas** **Population: 7,045**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 35 | 20 | 4 | 11 | 1 | 0 | 0 | 1 |
| 2006 | 38 | 21 | 4 | 13 | 3 | 0 | 1 | 2 |
| 2007 | 33 | 16 | 2 | 15 | 4 | 0 | 0 | 4 |
| 2008 | 33 | 24 | 1 | 8 | 3 | 0 | 0 | 3 |
| 2009 | 33 | 22 | 3 | 8 | 0 | 0 | 0 | 0 |

**Dudley** **Population: 10,036**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 52 | 16 | 10 | 26 | 8 | 1 | 0 | 7 |
| 2006 | 47 | 19 | 7 | 21 | 0 | 0 | 0 | 0 |
| 2007 | 46 | 22 | 2 | 22 | 3 | 0 | 1 | 2 |
| 2008 | 54 | 18 | 7 | 29 | 3 | 1 | 0 | 2 |
| 2009 | 80 | 24 | 7 | 49 | 7 | 0 | 1 | 6 |

**East Brookfield** **Population: 2,097**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 15 | 5 | 0 | 10 | 0 | 0 | 0 | 0 |
| 2006 | 13 | 3 | 0 | 10 | 0 | 0 | 0 | 0 |
| 2007 | 16 | 4 | 3 | 9 | 0 | 0 | 0 | 0 |
| 2008 | 9 | 6 | 0 | 3 | 1 | 0 | 0 | 1 |
| 2009 | 6 | 1 | 0 | 5 | 1 | 0 | 0 | 1 |

**Fitchburg** **Population: 39,102**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 220 | 129 | 26 | 65 | 14 | 6 | 1 | 7 |
| 2006 | 304 | 225 | 9 | 70 | 6 | 1 | 0 | 5 |
| 2007 | 336 | 216 | 30 | 90 | 16 | 5 | 1 | 10 |
| 2008 | 334 | 242 | 26 | 66 | 16 | 4 | 3 | 9 |
| 2009 | 366 | 293 | 19 | 54 | 14 | 5 | 2 | 7 |

**Gardner** **Population: 20,770**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 99 | 40 | 13 | 46 | 8 | 2 | 2 | 4 |
| 2006 | 113 | 40 | 16 | 57 | 11 | 4 | 1 | 6 |
| 2007 | 130 | 52 | 19 | 59 | 5 | 3 | 1 | 1 |
| 2008 | 91 | 40 | 12 | 39 | 0 | 0 | 0 | 0 |
| 2009 | 89 | 41 | 10 | 38 | 3 | 1 | 0 | 2 |

**Grafton** **Population: 14,894**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 57 | 27 | 7 | 23 | 3 | 0 | 0 | 3 |
| 2006 | 50 | 30 | 7 | 13 | 1 | 1 | 0 | 0 |
| 2007 | 62 | 29 | 12 | 21 | 1 | 0 | 0 | 1 |
| 2008 | 7 | 4 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2009 | 37 | 17 | 7 | 13 | 2 | 0 | 0 | 2 |

**Hardwick** **Population: 2,622**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 10 | 2 | 3 | 5 | 1 | 0 | 0 | 1 |
| 2006 | 19 | 2 | 0 | 17 | 8 | 0 | 0 | 8 |
| 2007 | 33 | 4 | 2 | 27 | 2 | 0 | 0 | 2 |
| 2008 | 16 | 6 | 0 | 10 | 0 | 0 | 0 | 0 |
| 2009 | 8 | 5 | 0 | 3 | 0 | 0 | 0 | 0 |

**Harvard** **Population: 5,981**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 32 | 16 | 2 | 14 | 0 | 0 | 0 | 0 |
| 2006 | 33 | 9 | 1 | 23 | 3 | 0 | 0 | 3 |
| 2007 | 25 | 5 | 2 | 18 | 1 | 0 | 0 | 1 |
| 2008 | 26 | 9 | 4 | 13 | 1 | 0 | 0 | 1 |
| 2009 | 24 | 6 | 2 | 16 | 1 | 0 | 0 | 1 |

**Holden** **Population: 15,621**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 47 | 28 | 3 | 16 | 0 | 0 | 0 | 0 |
| 2006 | 46 | 25 | 5 | 16 | 3 | 1 | 0 | 2 |
| 2007 | 59 | 36 | 7 | 16 | 1 | 0 | 0 | 1 |
| 2008 | 79 | 45 | 14 | 20 | 1 | 0 | 0 | 1 |
| 2009 | 34 | 24 | 3 | 7 | 0 | 0 | 0 | 0 |

**Hopedale** **Population: 5,907**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 9 | 8 | 1 | 0 | 1 | 1 | 0 | 0 |
| 2006 | 35 | 33 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 20 | 18 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 13 | 9 | 2 | 2 | 2 | 1 | 0 | 1 |
| 2009 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |

**Hubbardston** **Population: 3,909**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 30 | 7 | 4 | 19 | 2 | 0 | 1 | 1 |
| 2006 | 40 | 10 | 4 | 26 | 12 | 2 | 0 | 10 |
| 2007 | 25 | 12 | 2 | 11 | 3 | 0 | 0 | 3 |
| 2008 | 39 | 14 | 2 | 23 | 2 | 0 | 1 | 1 |
| 2009 | 19 | 10 | 0 | 9 | 0 | 0 | 0 | 0 |

**Lancaster** **Population: 7,380**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 19 | 7 | 7 | 5 | 0 | 0 | 0 | 0 |
| 2006 | 5 | 2 | 2 | 1 | 1 | 1 | 0 | 0 |
| 2007 | 23 | 9 | 5 | 9 | 0 | 0 | 0 | 0 |
| 2008 | 27 | 10 | 4 | 13 | 3 | 2 | 0 | 1 |
| 2009 | 19 | 10 | 3 | 6 | 3 | 0 | 0 | 3 |

**Leicester** **Population: 10,471**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 52 | 27 | 3 | 22 | 4 | 0 | 1 | 3 |
| 2006 | 47 | 22 | 4 | 21 | 1 | 0 | 0 | 1 |
| 2007 | 35 | 11 | 1 | 23 | 0 | 0 | 0 | 0 |
| 2008 | 37 | 12 | 4 | 21 | 1 | 0 | 1 | 0 |
| 2009 | 29 | 6 | 9 | 14 | 1 | 1 | 0 | 0 |

**Leominster** **Population: 41,303**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 196 | 137 | 14 | 45 | 1 | 1 | 0 | 0 |
| 2006 | 283 | 185 | 21 | 77 | 7 | 2 | 0 | 5 |
| 2007 | 290 | 180 | 27 | 83 | 4 | 2 | 0 | 2 |
| 2008 | 257 | 160 | 18 | 79 | 7 | 2 | 0 | 5 |
| 2009 | 203 | 120 | 25 | 58 | 8 | 0 | 6 | 2 |

**Lunenburg** **Population: 9,401**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 58 | 31 | 10 | 17 | 1 | 0 | 1 | 0 |
| 2006 | 66 | 27 | 7 | 32 | 4 | 1 | 0 | 3 |
| 2007 | 52 | 27 | 6 | 19 | 2 | 0 | 0 | 2 |
| 2008 | 60 | 34 | 6 | 20 | 0 | 0 | 0 | 0 |
| 2009 | 41 | 26 | 1 | 14 | 0 | 0 | 0 | 0 |

**Mendon** **Population: 5,286**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 11 | 5 | 0 | 6 | 0 | 0 | 0 | 0 |
| 2006 | 27 | 6 | 2 | 19 | 2 | 0 | 0 | 2 |
| 2007 | 24 | 8 | 3 | 13 | 0 | 0 | 0 | 0 |
| 2008 | 24 | 7 | 3 | 14 | 0 | 0 | 0 | 0 |
| 2009 | 18 | 4 | 4 | 10 | 6 | 1 | 0 | 5 |

**Milford** **Population: 26,799**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 159 | 82 | 23 | 54 | 4 | 1 | 1 | 2 |
| 2006 | 129 | 71 | 13 | 45 | 5 | 1 | 0 | 4 |
| 2007 | 162 | 82 | 16 | 64 | 3 | 0 | 1 | 2 |
| 2008 | 112 | 54 | 25 | 33 | 0 | 0 | 0 | 0 |
| 2009 | 117 | 67 | 20 | 30 | 5 | 3 | 1 | 1 |

**Millbury** **Population: 12,784**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 54 | 35 | 11 | 8 | 1 | 1 | 0 | 0 |
| 2006 | 58 | 32 | 11 | 15 | 2 | 2 | 0 | 0 |
| 2007 | 64 | 31 | 19 | 14 | 1 | 1 | 0 | 0 |
| 2008 | 33 | 22 | 6 | 5 | 0 | 0 | 0 | 0 |
| 2009 | 49 | 31 | 8 | 10 | 2 | 1 | 1 | 0 |

**Millville** **Population: 2,724**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 18 | 8 | 1 | 9 | 0 | 0 | 0 | 0 |
| 2006 | 13 | 1 | 1 | 11 | 3 | 0 | 0 | 3 |
| 2007 | 10 | 4 | 1 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 14 | 10 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2009 | 9 | 4 | 0 | 5 | 0 | 0 | 0 | 0 |

**New Braintree** **Population: 927**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | Non-Reporting Community | | | | | | | |
| 2006 | Non-Reporting Community | | | | | | | |
| 2007 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | Non-Reporting Community | | | | | | | |

**North Brookfield** **Population: 4,683**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 27 | 9 | 0 | 18 | 4 | 0 | 0 | 4 |
| 2008 | 27 | 9 | 2 | 16 | 1 | 0 | 0 | 1 |
| 2009 | 22 | 6 | 3 | 13 | 4 | 0 | 1 | 3 |

**Northborough** **Population: 14,013**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 41 | 13 | 5 | 23 | 3 | 2 | 0 | 1 |
| 2006 | 37 | 8 | 12 | 17 | 2 | 1 | 0 | 1 |
| 2007 | 51 | 18 | 6 | 27 | 3 | 0 | 3 | 0 |
| 2008 | 39 | 12 | 8 | 19 | 1 | 1 | 0 | 0 |
| 2009 | 27 | 5 | 10 | 12 | 0 | 0 | 0 | 0 |

**Northbridge** **Population: 13,182**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 63 | 38 | 10 | 15 | 1 | 0 | 0 | 1 |
| 2006 | 68 | 31 | 8 | 29 | 2 | 1 | 0 | 1 |
| 2007 | 64 | 29 | 6 | 29 | 1 | 0 | 0 | 1 |
| 2008 | 43 | 18 | 3 | 22 | 2 | 1 | 0 | 1 |
| 2009 | 43 | 29 | 3 | 11 | 0 | 0 | 0 | 0 |

**Oakham** **Population: 1,673**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 13 | 9 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2006 | 12 | 8 | 0 | 4 | 0 | 0 | 0 | 0 |
| 2007 | 14 | 4 | 1 | 9 | 2 | 0 | 0 | 2 |
| 2008 | 12 | 6 | 0 | 6 | 0 | 0 | 0 | 0 |
| 2009 | 9 | 4 | 0 | 5 | 0 | 0 | 0 | 0 |

**Oxford** **Population: 13,352**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 54 | 11 | 15 | 28 | 1 | 0 | 1 | 0 |
| 2006 | 80 | 20 | 15 | 45 | 13 | 2 | 0 | 11 |
| 2007 | 82 | 27 | 16 | 39 | 7 | 2 | 3 | 2 |
| 2008 | 70 | 38 | 12 | 20 | 5 | 2 | 3 | 0 |
| 2009 | 54 | 35 | 7 | 12 | 2 | 2 | 0 | 0 |

**Paxton** **Population: 4,386**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 10 | 9 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 8 | 5 | 1 | 2 | 0 | 0 | 0 | 0 |
| 2007 | 12 | 8 | 3 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 9 | 8 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 5 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |

**Petersham** **Population: 1,180**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 7 | 6 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 14 | 7 | 0 | 7 | 0 | 0 | 0 | 0 |
| 2007 | 12 | 7 | 0 | 5 | 0 | 0 | 0 | 0 |
| 2008 | 8 | 5 | 0 | 3 | 0 | 0 | 0 | 0 |
| 2009 | 11 | 9 | 0 | 2 | 0 | 0 | 0 | 0 |

**Phillipston** **Population: 1,621**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 15 | 1 | 0 | 14 | 0 | 0 | 0 | 0 |
| 2006 | 14 | 2 | 2 | 10 | 0 | 0 | 0 | 0 |
| 2007 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2008 | 10 | 1 | 1 | 8 | 0 | 0 | 0 | 0 |
| 2009 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Princeton** **Population: 3,353**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 22 | 9 | 2 | 11 | 5 | 3 | 0 | 2 |
| 2006 | 19 | 5 | 4 | 10 | 3 | 0 | 0 | 3 |
| 2007 | 8 | 3 | 0 | 5 | 1 | 0 | 0 | 1 |
| 2008 | 17 | 7 | 1 | 9 | 2 | 1 | 0 | 1 |
| 2009 | 12 | 3 | 2 | 7 | 3 | 2 | 1 | 0 |

**Royalston** **Population: 1,254**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | Non-Reporting Community | | | | | | | |
| 2007 | Non-Reporting Community | | | | | | | |
| 2008 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 6 | 4 | 1 | 1 | 1 | 1 | 0 | 0 |

**Rutland** **Population: 6,353**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 24 | 8 | 3 | 13 | 1 | 0 | 0 | 1 |
| 2006 | 27 | 9 | 2 | 16 | 1 | 0 | 0 | 1 |
| 2007 | 26 | 8 | 1 | 17 | 2 | 0 | 0 | 2 |
| 2008 | 3 | 2 | 0 | 1 | 1 | 0 | 0 | 1 |
| 2009 | 30 | 10 | 1 | 19 | 4 | 1 | 0 | 3 |

**Shrewsbury** **Population: 31,640**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 117 | 67 | 13 | 37 | 5 | 0 | 0 | 5 |
| 2006 | 135 | 78 | 18 | 39 | 9 | 0 | 3 | 6 |
| 2007 | 134 | 69 | 15 | 50 | 3 | 0 | 1 | 2 |
| 2008 | 126 | 63 | 19 | 44 | 5 | 0 | 1 | 4 |
| 2009 | 107 | 71 | 11 | 25 | 4 | 0 | 0 | 4 |

**Southborough** **Population: 8,781**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 49 | 20 | 5 | 24 | 7 | 3 | 0 | 4 |
| 2006 | 37 | 19 | 6 | 12 | 0 | 0 | 0 | 0 |
| 2007 | 39 | 19 | 8 | 12 | 2 | 1 | 0 | 1 |
| 2008 | 33 | 20 | 3 | 10 | 1 | 0 | 0 | 1 |
| 2009 | 25 | 15 | 6 | 4 | 0 | 0 | 0 | 0 |

**Southbridge** **Population: 17,214**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 100 | 67 | 10 | 23 | 6 | 2 | 1 | 3 |
| 2006 | 77 | 59 | 5 | 13 | 4 | 0 | 1 | 3 |
| 2007 | 93 | 50 | 7 | 36 | 7 | 1 | 2 | 4 |
| 2008 | 74 | 43 | 10 | 21 | 1 | 0 | 1 | 0 |
| 2009 | 76 | 55 | 7 | 14 | 3 | 2 | 1 | 0 |

**Spencer** **Population: 11,691**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 53 | 29 | 10 | 14 | 0 | 0 | 0 | 0 |
| 2006 | 63 | 31 | 7 | 36 | 2 | 0 | 0 | 2 |
| 2007 | 81 | 54 | 2 | 25 | 3 | 0 | 0 | 3 |
| 2008 | 82 | 46 | 6 | 30 | 0 | 0 | 0 | 0 |
| 2009 | 68 | 40 | 8 | 20 | 4 | 1 | 1 | 2 |

**Sterling** **Population: 7,257**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 50 | 20 | 12 | 18 | 3 | 1 | 0 | 2 |
| 2006 | 53 | 10 | 7 | 36 | 2 | 0 | 0 | 2 |
| 2007 | 59 | 24 | 6 | 29 | 4 | 2 | 0 | 2 |
| 2008 | 45 | 17 | 5 | 23 | 0 | 0 | 0 | 0 |
| 2009 | 41 | 15 | 6 | 20 | 4 | 1 | 1 | 2 |

**Sturbridge** **Population: 7,837**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 57 | 14 | 18 | 25 | 2 | 0 | 0 | 2 |
| 2006 | 40 | 10 | 5 | 25 | 3 | 0 | 0 | 3 |
| 2007 | 47 | 16 | 7 | 24 | 2 | 0 | 0 | 2 |
| 2008 | 44 | 6 | 18 | 20 | 0 | 0 | 0 | 0 |
| 2009 | 40 | 17 | 7 | 16 | 1 | 0 | 0 | 1 |

**Sutton** **Population: 8,250**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 18 | 5 | 6 | 7 | 0 | 0 | 0 | 0 |
| 2006 | 21 | 6 | 5 | 10 | 0 | 0 | 0 | 0 |
| 2007 | 17 | 6 | 4 | 7 | 1 | 0 | 0 | 1 |
| 2008 | 10 | 2 | 3 | 5 | 0 | 0 | 0 | 0 |
| 2009 | 20 | 10 | 2 | 8 | 1 | 0 | 0 | 1 |

**Templeton** **Population: 6,799**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 36 | 22 | 5 | 9 | 1 | 1 | 0 | 0 |
| 2006 | 35 | 24 | 3 | 8 | 1 | 1 | 0 | 0 |
| 2007 | 35 | 18 | 5 | 12 | 1 | 1 | 0 | 0 |
| 2008 | 37 | 18 | 4 | 15 | 3 | 0 | 0 | 3 |
| 2009 | 47 | 26 | 4 | 17 | 3 | 0 | 0 | 3 |

**Upton** **Population: 5,642**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 41 | 20 | 3 | 18 | 3 | 0 | 0 | 3 |
| 2006 | 39 | 15 | 4 | 10 | 0 | 0 | 0 | 0 |
| 2007 | 42 | 12 | 5 | 25 | 1 | 0 | 1 | 0 |
| 2008 | 36 | 12 | 1 | 23 | 3 | 0 | 0 | 3 |
| 2009 | 42 | 23 | 6 | 13 | 9 | 0 | 0 | 9 |

**Uxbridge** **Population: 11,156**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 93 | 45 | 12 | 36 | 2 | 1 | 0 | 1 |
| 2006 | 89 | 47 | 14 | 28 | 4 | 2 | 0 | 2 |
| 2007 | 83 | 40 | 11 | 32 | 5 | 2 | 0 | 3 |
| 2008 | 57 | 27 | 9 | 21 | 3 | 0 | 1 | 2 |
| 2009 | 58 | 35 | 6 | 17 | 3 | 0 | 0 | 3 |

**Warren** **Population: 4,776**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 18 | 8 | 5 | 5 | 1 | 0 | 0 | 1 |
| 2006 | 29 | 6 | 6 | 17 | 2 | 0 | 0 | 2 |
| 2007 | 19 | 8 | 2 | 9 | 0 | 0 | 0 | 0 |
| 2008 | 26 | 13 | 2 | 11 | 1 | 0 | 0 | 1 |
| 2009 | 21 | 11 | 3 | 7 | 2 | 1 | 0 | 1 |

**Webster** **Population: 16,415**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 30 | 9 | 7 | 14 | 2 | 0 | 0 | 2 |
| 2007 | 36 | 6 | 12 | 18 | 0 | 0 | 0 | 0 |
| 2008 | 69 | 31 | 9 | 29 | 0 | 0 | 0 | 0 |
| 2009 | 46 | 12 | 3 | 31 | 5 | 0 | 0 | 5 |

**West Boylston** **Population: 7,481**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 8 | 2 | 6 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 3 | 1 | 0 | 2 | 1 | 0 | 0 | 1 |
| 2007 | 28 | 12 | 4 | 12 | 1 | 0 | 0 | 1 |
| 2008 | 28 | 4 | 6 | 18 | 0 | 0 | 0 | 0 |
| 2009 | 21 | 6 | 0 | 15 | 3 | 0 | 0 | 3 |

**West Brookfield** **Population: 3,804**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 12 | 3 | 2 | 7 | 0 | 0 | 0 | 0 |
| 2006 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008 | Fire Department in Good Standing, Certified No Reportable Fires | | | | | | | |
| 2009 | 9 | 7 | 0 | 2 | 0 | 0 | 0 | 0 |

**Westborough** **Population: 17,997**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 69 | 37 | 8 | 24 | 4 | 0 | 0 | 4 |
| 2006 | 114 | 60 | 21 | 33 | 6 | 2 | 0 | 4 |
| 2007 | 97 | 40 | 17 | 40 | 1 | 1 | 0 | 0 |
| 2008 | 60 | 26 | 10 | 6 | 2 | 0 | 0 | 2 |
| 2009 | 59 | 29 | 10 | 20 | 2 | 0 | 0 | 2 |

**Westminster** **Population: 6,907**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 6 | 1 | 5 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 27 | 11 | 7 | 9 | 0 | 0 | 0 | 0 |
| 2007 | 54 | 17 | 4 | 33 | 4 | 1 | 0 | 3 |
| 2008 | 32 | 16 | 10 | 6 | 1 | 1 | 0 | 0 |
| 2009 | 24 | 10 | 4 | 10 | 3 | 1 | 1 | 1 |

**Winchendon** **Population: 9,611**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 11 | 7 | 4 | 0 | 1 | 0 | 1 | 0 |
| 2006 | 51 | 34 | 3 | 14 | 0 | 0 | 0 | 0 |
| 2007 | 45 | 23 | 9 | 13 | 1 | 1 | 0 | 0 |
| 2008 | 40 | 26 | 1 | 13 | 1 | 0 | 0 | 0 |
| 2009 | 26 | 20 | 2 | 4 | 0 | 0 | 0 | 0 |

**Worcester** **Population: 172,648**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1,192 | 670 | 157 | 365 | 35 | 8 | 12 | 15 |
| 2006 | 1,312 | 635 | 119 | 558 | 45 | 12 | 8 | 25 |
| 2007 | 1,389 | 700 | 120 | 569 | 28 | 13 | 6 | 9 |
| 2008 | 1,449 | 811 | 117 | 521 | 53 | 18 | 12 | 23 |
| 2009 | 1,232 | 696 | 111 | 425 | 56 | 13 | 12 | 31 |

# 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 | 1,056 | 66 | 6 | 167 | 115 | 396 | 152 | 121 | 2 | 31 |
| 27017 | Auburn | 3,021 | 58 | 5 | 2,248 | 236 | 78 | 169 | 216 | 0 | 11 |
| 27021 | Barre | 259 | 26 | 0 | 108 | 30 | 32 | 10 | 44 | 0 | 9 |
| 27028 | Berlin | 460 | 18 | 2 | 49 | 27 | 17 | 27 | 74 | 1 | 245 |
| 27032 | Blackstone | 465 | 47 | 0 | 177 | 46 | 40 | 19 | 136 | 0 | 0 |
| 27034 | Bolton | 152 | 19 | 2 | 18 | 17 | 7 | 23 | 65 | 1 | 0 |
| 27039 | Boylston | 11 | 5 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 0 |
| 27045 | Brookfield | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27054 | Charlton | 1,946 | 68 | 0 | 1,321 | 286 | 63 | 89 | 112 | 3 | 4 |
| 27064 | Clinton | 1,567 | 154 | 5 | 909 | 87 | 56 | 34 | 306 | 0 | 16 |
| 27077 | Douglas | 243 | 33 | 2 | 69 | 37 | 30 | 15 | 54 | 3 | 0 |
| 27080 | Dudley | 500 | 87 | 20 | 122 | 37 | 54 | 56 | 102 | 3 | 19 |
| 27084 | East Brookfield | 92 | 11 | 0 | 9 | 31 | 4 | 18 | 10 | 0 | 9 |
| 27097 | Fitchburg | 3,524 | 370 | 7 | 1,487 | 224 | 436 | 205 | 779 | 2 | 14 |

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 | 3,298 | 89 | 2 | 1,696 | 119 | 564 | 57 | 515 | 1 | 255 |
| 27110 | Grafton | 342 | 46 | 1 | 39 | 48 | 40 | 42 | 122 | 1 | 3 |
| 27124 | Hardwick | 73 | 12 | 0 | 1 | 37 | 2 | 2 | 18 | 1 | 0 |
| 27125 | Harvard | 194 | 25 | 0 | 42 | 7 | 52 | 10 | 56 | 2 | 0 |
| 27134 | Holden | 1,573 | 35 | 0 | 1,093 | 49 | 152 | 115 | 128 | 0 | 1 |
| 27138 | Hopedale | 7 | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 27140 | Hubbardston | 458 | 19 | 3 | 320 | 9 | 31 | 35 | 38 | 2 | 1 |
| 27147 | Lancaster | 299 | 21 | 1 | 114 | 22 | 27 | 24 | 84 | 0 | 6 |
| 27151 | Leicester | 160 | 35 | 0 | 6 | 21 | 28 | 9 | 57 | 0 | 4 |
| 27153 | Leominster | 6,528 | 210 | 5 | 4,219 | 313 | 843 | 183 | 719 | 1 | 35 |
| 27162 | Lunenburg | 360 | 48 | 0 | 43 | 64 | 68 | 22 | 93 | 2 | 20 |
| 27179 | Mendon | 997 | 18 | 1 | 823 | 32 | 41 | 28 | 52 | 0 | 2 |
| 27185 | Milford | 4,248 | 125 | 1 | 2,806 | 157 | 574 | 171 | 389 | 2 | 23 |
| 27186 | Millbury | 225 | 49 | 1 | 10 | 52 | 40 | 19 | 52 | 2 | 0 |
| 27188 | Millville | 437 | 22 | 1 | 254 | 19 | 48 | 43 | 49 | 1 | 0 |

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# Responses Reported to MFIRS by Department

| FDID # | Department | Total # of Reported Responses | Fires | Overpressure Rupt. & Explos. (No fire) | Rescue EMS Incidents | Hazardous Conditions (No fire) | Service Calls | Good Intent Calls | False Alarm Calls | Severe WX & Natural Disaster | Special Incident Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 27212 | North Brookfield | 155 | 30 | 0 | 21 | 35 | 18 | 0 | 47 | 1 | 3 |
| 27215 | Northborough | 1,871 | 36 | 0 | 1,152 | 70 | 230 | 85 | 295 | 3 | 0 |
| 27216 | Northbridge | 783 | 50 | 0 | 281 | 105 | 74 | 78 | 191 | 1 | 3 |
| 27222 | Oakham | 16 | 9 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 0 |
| 27226 | Oxford | 455 | 57 | 5 | 63 | 55 | 82 | 37 | 150 | 5 | 1 |
| 27228 | Paxton | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27234 | Petersham | 69 | 11 | 0 | 24 | 4 | 12 | 1 | 17 | 0 | 0 |
| 27235 | Phillipston | 161 | 4 | 0 | 132 | 5 | 4 | 4 | 10 | 0 | 2 |
| 27241 | Princeton | 269 | 15 | 1 | 179 | 6 | 8 | 17 | 40 | 1 | 2 |
| 27255 | Royalston | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27257 | Rutland | 750 | 32 | 0 | 567 | 28 | 33 | 34 | 52 | 1 | 3 |
| 27271 | Shrewsbury | 3,266 | 107 | 3 | 2,277 | 211 | 159 | 121 | 356 | 2 | 30 |
| 27277 | Southborough | 1,234 | 31 | 3 | 713 | 92 | 121 | 62 | 210 | 1 | 1 |
| 27278 | Southbridge | 921 | 80 | 11 | 358 | 93 | 86 | 72 | 198 | 1 | 22 |
| 27280 | Spencer | 353 | 77 | 3 | 13 | 88 | 43 | 34 | 86 | 0 | 9 |
| 27282 | Sterling | 1,077 | 47 | 2 | 619 | 43 | 164 | 39 | 151 | 11 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 27287 | Sturbridge | 385 | 42 | 9 | 30 | 72 | 57 | 52 | 120 | 0 | 3 |
| 27290 | Sutton | 346 | 29 | 5 | 202 | 12 | 18 | 13 | 66 | 1 | 0 |
| 27294 | Templeton | 271 | 47 | 3 | 51 | 23 | 77 | 19 | 51 | 0 | 0 |
| 27303 | Upton | 220 | 47 | 2 | 4 | 52 | 47 | 8 | 59 | 0 | 1 |
| 27304 | Uxbridge | 1,822 | 61 | 3 | 1,419 | 50 | 86 | 83 | 119 | 0 | 1 |
| 27311 | Warren | 213 | 31 | 1 | 31 | 22 | 67 | 13 | 44 | 2 | 2 |
| 27316 | Webster | 372 | 53 | 2 | 9 | 93 | 51 | 17 | 136 | 0 | 11 |
| 27321 | West Boylston | 1,121 | 23 | 1 | 928 | 30 | 30 | 40 | 66 | 3 | 0 |
| 27323 | West Brookfield | 16 | 12 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 |
| 27328 | Westborough | 2,878 | 63 | 6 | 2,009 | 153 | 95 | 119 | 411 | 15 | 7 |
| 27332 | Westminster | 899 | 24 | 2 | 375 | 51 | 189 | 59 | 190 | 0 | 9 |
| 27343 | Winchendon | 1,316 | 26 | 0 | 888 | 41 | 166 | 94 | 100 | 0 | 1 |
| 27348 | Worcester | 27,878 | 1,232 | 26 | 21,026 | 636 | 522 | 1,300 | 3,122 | 2 | 12 |
| **Total** | **Worcester County** | **81,639** | **4,024** | **153** | **51,521** | **4,202** | **6,167** | **3,978** | **10,682** | **80** | **832** |

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

# Fitchburg Fires in 2009

**366 Total Fires — 293 Structures, 19 Vehicles & 54 Other Fires**
The Fitchburg Fire Department reported 366 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 293 structure fires, 19 motor vehicle fires, 36 brush fires, seven special outside fires; and one unclassified fire caused one civilian death, six civilian injuries, four firefighter injuries and an estimated dollar loss of $1 million.

**1 Resident Killed While Smoking on Home $O_2$**

- On August 12, 2009, at 10:23 p.m., the Fitchburg Fire Department was dispatched to a medical call in a two-family home. The victim, a 70-year old woman, was found by firefighters in the kitchen with burn injuries. She was transported to a local hospital where she later succumbed to her injuries. The victim was smoking while using home oxygen when she was injured. There were no other injuries associated with this fire. It was undetermined if detectors were present, and sprinklers were not. No estimation of damages was made for this incident.

**Structure Fires Up in 2009**
Total fires increased by 32, or 10%, from the 334 incidents reported in 2008. Reported structure fires increased by 51 from the 242 reported during the previous year. Motor vehicle fires decreased by seven from 26 the year before. Outside and other fires decreased by 12 from the 66 reported in 2008.

**FITCHBURG FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 220 | 129 | 26 | 65 | 13 | 5 | 1 | 7 |
| 2006 | 304 | 225 | 9 | 70 | 6 | 1 | 0 | 5 |
| 2007 | 336 | 216 | 30 | 90 | 16 | 5 | 1 | 10 |
| 2008 | 334 | 242 | 26 | 66 | 16 | 4 | 3 | 9 |
| 2009 | 366 | 293 | 19 | 54 | 14 | 5 | 2 | 7 |

**BUILDING FIRES**

There were 293 building fires of different types in Fitchburg in 2009. These 293 building fires accounted for all structure fires in Fitchburg.

**83% of Building Fires in Homes**
The 293 building fires that occurred in Fitchburg in 2009 can be broken down by fixed property use as follows: 243, or 83% of all building fires, were in residential properties; 13 fires occurred in educational facilities; 10 fires occurred in institutional facilities; nine fires happened in storage facilities; six happened in mercantile or business properties; four fires occurred in public assembly properties; another four occurred in manufacturing

or processing facilities; three fires occurred in special properties; and one fire was reported to have occurred at an industrial facility.

## RESIDENTIAL FIRES

### Residential Building Fires Up

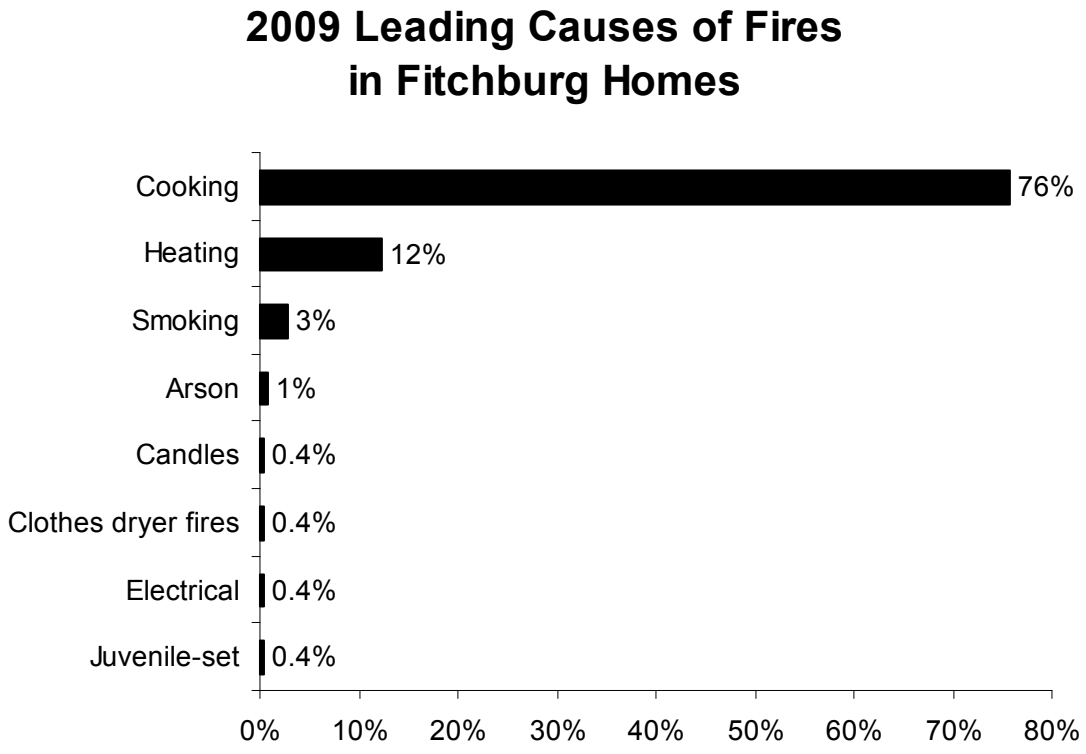
There were 243 reported residential building fires in Fitchburg in 2009. These 243 fires are an increase of 33 from the 210 reported residential building fires reported in 2008.

### Apartments Accounted for 51% of Residential Building Fires

The peak fixed property uses for residential building fires were apartments, accounting for 51% of the building fires in Fitchburg; 31% occurred in 1- or 2-family homes; 9% occurred in dormitories; 4% happened in residential board and care facilities; another 4% happened in rooming houses; less than 1% occurred in hotels and motels; and 1% occurred in unclassified residential properties.

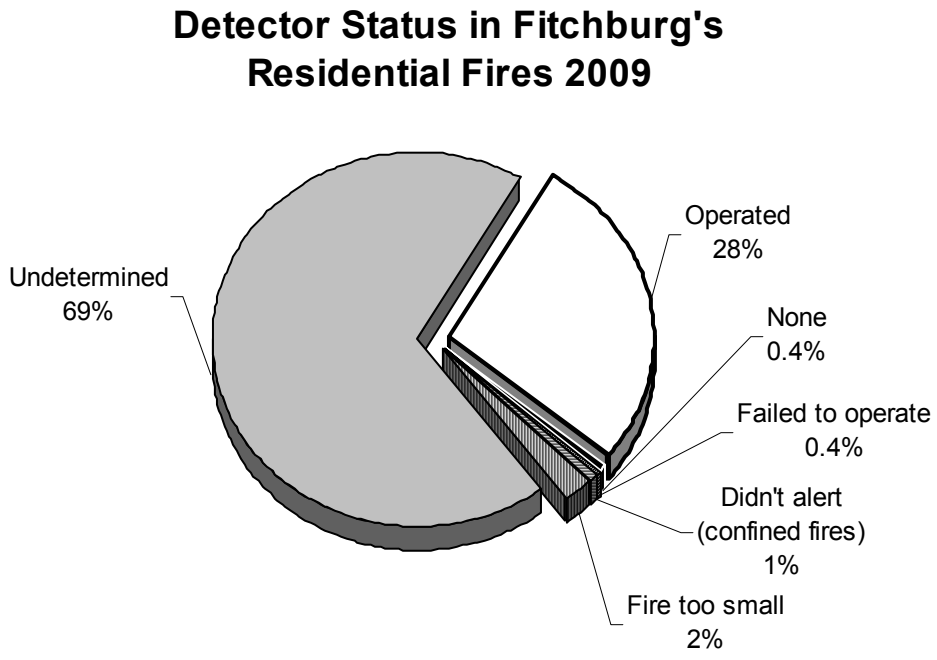
### Unattended Cooking Caused Over 3/4 of Residential Fires

The leading cause of residential building fires in Fitchburg was unattended cooking and other unsafe cooking practices, accounting for 76% of these fires. Heating fires caused 12% of these fires. Smoking caused 3% of residential fires. Arsons caused 1% of the fires. Candles, clothes dryer fires, electrical problems and juvenile-set fires were each the cause of less than 1% of the fires in Fitchburg's residential occupancies in 2009.



**84% of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
Two hundred and five (205), or 84% of all residential building fires were confined to non-combustible containers in 2009. One hundred and seventy-eight (178), or 73%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Twenty-five (25), or 10%, were fires confined to a fuel burner or boiler malfunction. One (1) fire, or less than 1%, was reported to have been contained to a chimney or flue. Another fire, or 1%, was a rubbish fires contained to a non-combustible container.

**Detector Operation Undetermined in Over 2/3 of Fires**
Smoke or heat detectors operated and alerted the occupants in 67, or 28%, of the residential building fires. In 1% of these fires[2], the detectors did not alert the occupants. There were no detectors in less than 1% of these fires. Detectors were present but did not operate in less than 1% of these incidents. The fire was too small to trigger the detector in 2% of these fires. Smoke detector performance was undetermined in 167 incidents, or 69% of Fitchburg's residential building fires.




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

[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.

or not the smoke alarms alerted the occupants to the fire would provide a better understanding of this issue.

### 1 Detector Failed From a Missing Battery

The one detector that failed did so because of a missing battery.

## VACANT BUILDINGS

### 2% of Building Fires Occurred in Vacant Buildings

Fitchburg reported seven fires that occurred in buildings that were vacant, under construction or demolition[3]. This represented 2% of the total 293 building fires reported to MFIRS in 2009. Two (2) single-family homes, one apartment building, one detached residential garage, one warehouse, and one outbuilding or shed were reported as vacant building fire incidents.

## JUVENILE-SET FIRES

### 1 Juvenile-set Fire

There was one reported juvenile-set fire in Fitchburg in 2009. The one structure fire caused an estimated damage of $1.

## ARSONS

### 14 Arsons[4] - 5 Structure, 2 Motor Vehicle and 7 Outside & Other

Fourteen (14), or 4%, of Fitchburg's 366 fires were considered intentionally set, or, for purposes of this analysis, arson. There were five structure arsons, two motor vehicle arsons and seven outside and other arsons.

### All Arsons Down in 2009

The total number of arsons decreased slightly in 2009 with 14 reported in 2009 and 16 in 2008. Reported structure arsons increased by one from the four reported in 2008. Reported motor vehicle arsons decreased by one from the three arsons reported in 2008. Outside and other arsons decreased by one from eight reported the year before.

---

[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.

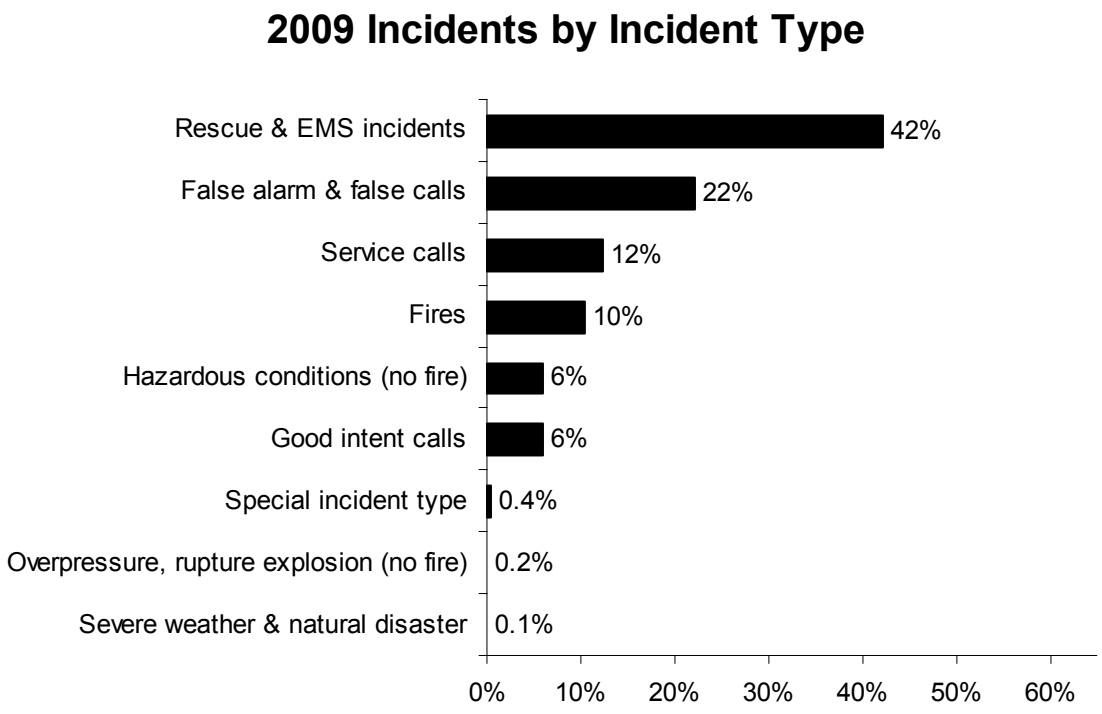
**53 Fires Reported as Undetermined or Still Under Investigation**
In 2009, Fitchburg reported 53 fires under investigation or cause undetermined after investigation. Forty-seven (47), or 89%, of these fires were reported to be undetermined after investigation. The other six, or 11%, were still under investigation.

Fourteen (14), or 26%, of these 53 fires were structure fires. Nine (9), or 17% were motor vehicle fires; and 30, or 57%, were outside or other fires. Because so many fires are under investigation or undetermined after investigation, the true arson number might be actually higher in Fitchburg in 2009.

**Rescue & EMS Calls Are 36% of All Reported Incidents**
In 2009, Fitchburg voluntarily reported 3,524 incidents to MFIRS. Of these 3,524 incidents, 3,154, or 90%, were non-fire incidents.

Of these 3,154 non-fire incidents 1,487, or 42% of all reported incidents in 2009, were reported rescue and emergency medical services (EMS) calls; 779, or 22%, were reported false alarm or false calls; 436, or 12%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 224, or 6%, were reported hazardous condition calls with no fire; 205, or 6%, were reported good intent calls; 14, or 0.4%, were special type incidents; seven, or 0.2%, were reported overpressure, rupture, explosion or overheat calls with no fire; and two, or 0.1%, were responses to incidents caused by severe weather.

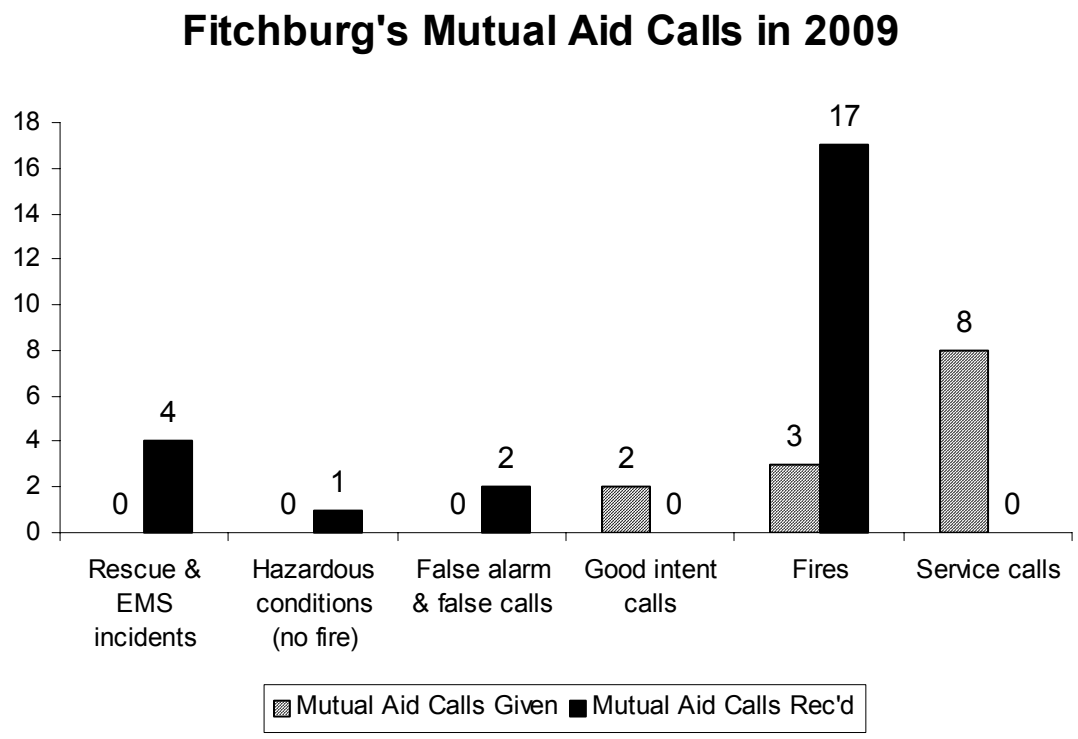
In 2009, Fitchburg reported 370 fires, accounting for 10% of all reported incidents.



**Fitchburg Gave Mutual Aid in 13 Incidents**
In 2009, Fitchburg reported giving mutual aid to other surrounding fire departments in 13 incidents. Eight (8), or 62%, were for service calls; three, or 23%, were for fires; and two, or 15% were for good intent calls.

**Fitchburg Received Mutual Aid in 24 Incidents**
In 2009, surrounding fire departments gave aid to Fitchburg in 24 incidents. Of these 24 incidents, 17, or 71%, were fires; four, or 17%, were a rescue or EMS calls; two, or 8%, were false alarm or false calls; and one, or 4%, was a hazardous condition call with no fire.

The following chart compares the number of calls that the Fitchburg Fire Department gave mutual aid to a neighboring community compared to the number of calls that a neighboring community assisted Fitchburg. In 2009 Fitchburg was received aid from other fire departments twice as much as they were asked to provide it.



# Fitchburg Population: 39,102

**9.4 Fires/1,000 Population**

| **Total Fires:** | **366** | | **$1,067,991** |
|---|---|---|---|
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 293 | 80% | $680,891 |
| Vehicle Fires | 19 | 5% | 381,850 |
| Other Fires | 54 | 15% | 5,250 |

| | |
|---|---|
| 1 Civilian Death | 2.73 Civilian Deaths/1,000 Fires |
| 1 Fatal Fire | 0.26 Civilian Deaths/10,000 Population |
| 6 Civilian Injuries | 4 Fire Service Injuries |

## Building Fires: 293

## Residential Structure Fires: 243

**Residential Structure Fires Confined to Non-Combustible Containers: 205**

**Unconfined Residential Structure Fires: 38**

1 Civilian Death 3 Civilian Injuries 5 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 123 | 51% |
| 1- & 2-Family homes | 75 | 31% |
| Dormitories | 23 | 9% |
| Residential board & care | 10 | 4% |
| Boarding houses | 9 | 3% |
| Hotel/motel | 1 | 0.3% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 67 | 28% |
| Didn't operate | 1 | 0.4% |
| None | 1 | 0.4% |
| Fire too small | 5 | 2% |
| Didn’t Alert (confined) | 2 | 1% |
| Undetermined | 167 | 69% |

| **Area of Origin**[5] | **%** |
|---|---|
| Kitchen | 77% |
| Heating room or area | 10% |
| Living room | 2% |
| Bath room | 2% |
| Bedroom | 1% |

| **Heat Source** | **%** | **%Unconfined**[6] |
|---|---|---|
| Cigarette | 2% | 16% |
| Radiated heat from op. eq. | 2% | 16% |
| Hot or smoldering object | 2% | 13% |
| Heat from operating equip. | 2% | 13% |
| Heat-open fl./smok. mater. | 1% | 5% |

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

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

| **Item First Ignited**[7] | **%** |
|---|---|
| Cooking materials | 75% |
| Flammable or combustible liq. | 10% |
| Box, carton, bag, basket, barrel | 2% |
| Mattress, pillow | 1% |

| **Factor Contrib. to Ignition** | **%** | **%Unconfined**[8] |
|---|---|---|
| Too close to combustibles | 1% | 8% |
| Abandoned materials | 1% | 3% |
| Failure to clean | 1% | 3% |
| Improper container/storage | 1% | 3% |

| **Equipment**[9] | **%** |
|---|---|
| Cooking equipment | 74% |
| None | 12% |
| Boiler, furnace, cent. heat. unit | 10% |
| Stove, heating | 1% |

| **Cause of Ignition** | **%** | **%Unconfined**[10] |
|---|---|---|
| Unintentional | 12% | 74% |
| Intentional | 1% | 5% |
| Undetermined | 2% | 16% |
| Cause Under Investigation | 1% | 5% |

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

| | |
|---|---|
| Alerted Occupants | 23% |
| Didn't Alert Occupants | 1% |
| Undetermined | 76% |

| **All Reported Incidents** | **# of Incidents** | **% of Incidents** |
|---|---|---|
| Rescue & EMS incidents | 1,487 | 42% |
| False alarms & false calls | 779 | 22% |
| Service calls | 436 | 12% |
| Fires[11] | 370 | 10% |
| Hazardous conditions (no fire) | 224 | 6% |
| Good intent calls | 205 | 6% |
| Special Incident Types | 14 | 0.4% |
| Overpressure rupture, explosion or overheat calls (no fire) | 7 | 0.2% |
| Severe weather & natural disaster | 2 | 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 Fitchburg responded to outside of their jurisdiction as mutual aid given.

| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 24 | 21 | 3 | 0 |
| February | 21 | 18 | 3 | 0 |
| March | 27 | 19 | 1 | 7 |
| April | 38 | 22 | 1 | 15 |
| May | 31 | 21 | 0 | 10 |
| June | 33 | 26 | 3 | 4 |
| July | 28 | 23 | 2 | 3 |
| August | 25 | 20 | 2 | 3 |
| September | 30 | 22 | 0 | 8 |
| October | 35 | 32 | 2 | 1 |
| November | 35 | 31 | 1 | 3 |
| December | 39 | 38 | 1 | 0 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 43 | 34 | 2 | 7 |
| Monday | 56 | 47 | 6 | 3 |
| Tuesday | 47 | 37 | 0 | 10 |
| Wednesday | 56 | 44 | 3 | 9 |
| Thursday | 56 | 46 | 3 | 7 |
| Friday | 50 | 39 | 3 | 8 |
| Saturday | 58 | 46 | 2 | 10 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 23 | 17 | 3 | 3 |
| 04:01 - 08:00 | 22 | 18 | 4 | 0 |
| 08:01 - 12:00 | 73 | 60 | 4 | 9 |
| 12:01 - 16:00 | 83 | 61 | 3 | 19 |
| 16:01 - 20:00 | 107 | 85 | 3 | 19 |
| 20:01 - 24:00 | 58 | 52 | 2 | 4 |

## Motor Vehicle Fires

Total: 19
Automobiles: 17 (89%)
1 (6%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 14** **Dollar loss: $198,450**

**0.4 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 5 | 2% | 36% | $190,000 |
| Vehicle Arsons | 2 | 11% | 14% | 8,450 |
| Other Arsons | 7 | 13% | 50% | 0 |

0.13 Structure arsons/1,000 population
0.05 Vehicle arsons/1,000 population
0.18 Other arsons/1,000 population

**Peak Times of Day for:**

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

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

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 4 | 57% |
| 08:01 - 12:00 | 1 | 14% |
| 12:01 - 16:00 | 1 | 14% |
| 20:01 - 00:00 | 1 | 14% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| 1- or 2-Family dwelling | 2 | 40% |
| Schools, non-adult | 1 | 20% |
| Warehouse | 1 | 20% |

# Worcester Fires in 2009

**1,232 Total Fires — 696 Structures, 111 Vehicles & 425 Other Fires**
The Worcester Fire Department reported 1,232 fires to the Massachusetts Fire Incident Reporting System (MFIRS) in 2009. The 696 structure fires, 111 motor vehicle fires, 105 brush fires, 311 outside rubbish fires, eight special outside fires, and one cultivated crop fire caused one civilian death, five civilian injuries, 36 fire service injuries and an estimated dollar loss of $5.3 million.

**Male Resident Killed in Apartment Building Fire**

- On January 6, 2009, at 10:27 p.m., the Worcester Fire Department was dispatched to a fire in a three-unit apartment building of undetermined cause. The victim, a 46-year old man, was found by firefighters on the bed in his third floor bedroom. He was transported to a local hospital where he succumbed to his injuries. There were no other injuries associated with this fire. It was undetermined if detectors were present, and sprinklers were not. Damages from this fire were estimated to be $56,000.

**All Fires Down in 2009**
Total fires decreased by 213 from the 1,445 incidents reported in 2008. Reported structure fires decreased by 111 from the 807 reported during the previous year. Motor vehicle fires declined by six from 117 the year before. Outside and other fires decreased by 96 from the 521 reported the year before.

**WORCESTER FIRES FROM 2005 TO 2009**

| | Total Fires | Structure Fires | Vehicle Fires | Other Fires | Total Arsons | Structure Arsons | Vehicle Arsons | Other Arsons |
|---|---|---|---|---|---|---|---|---|
| 2005 | 1,239 | 690 | 166 | 383 | 35 | 11 | 15 | 19 |
| 2006 | 1,312 | 635 | 119 | 558 | 45 | 12 | 8 | 25 |
| 2007 | 1,390 | 701 | 120 | 569 | 29 | 14 | 6 | 9 |
| 2008 | 1,445 | 807 | 117 | 521 | 53 | 18 | 12 | 23 |
| 2009 | 1,232 | 696 | 111 | 425 | 56 | 13 | 12 | 31 |

**BUILDING FIRES**

There were 689 building fires of different types in Worcester in 2009. These 689 building fires accounted for 99% of all structure fires in Worcester.

**87% of Building Fires in Homes**
The 689 building fires that occurred in Worcester in 2009 can be broken down by fixed property use as follows: 589, or 85% of all structure fires, were in residential properties; 25 fires occurred in mercantile or business properties; 24 fires took place in institutional properties; 22 fires took place in public assembly properties; 17 fires happened in educational properties; nine fires occurred at manufacturing or processing facilities; and three fires occurred in storage facilities.

## RESIDENTIAL FIRES

### Apartments Accounted for 61% of Residential Building Fires

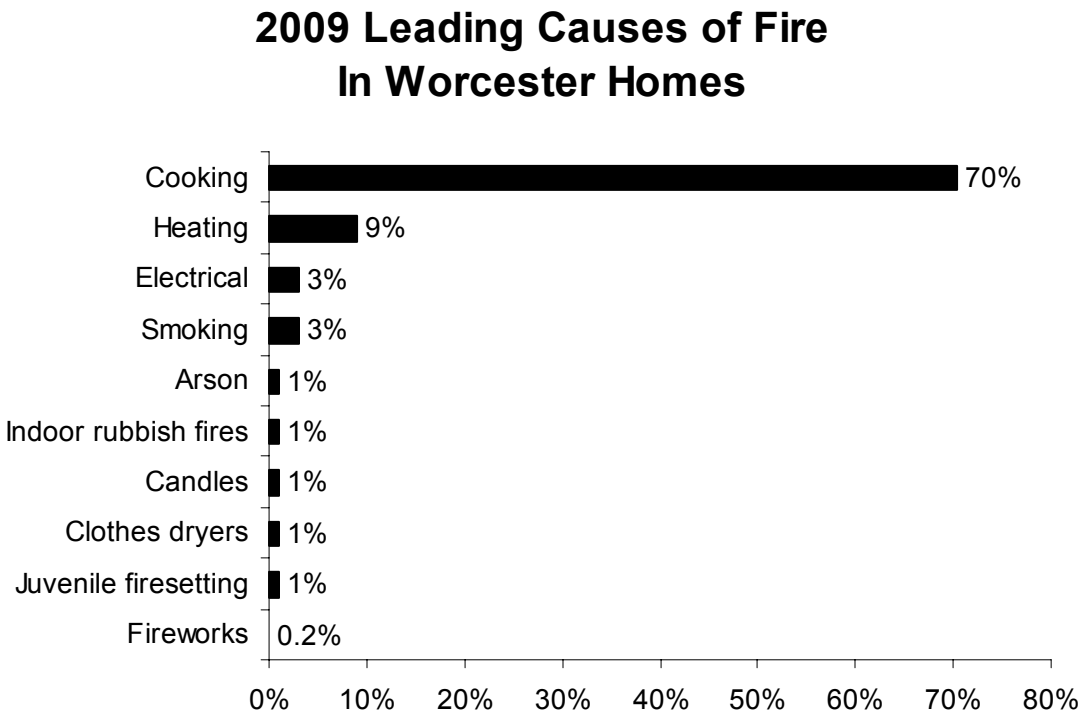
The peak fixed property uses for residential building fires were apartments, accounting for 61% of the building fires in Worcester; 17% occurred in one- or two-family homes; 10% occurred in rooming houses; another 10% occurred in dormitories; 1% happened in residential board and care properties; another 1% occurred in hotels and motels; and 1% occurred in unclassified residential properties.

### Residential Building Fires Were Down

There were 589 reported residential building fires in Worcester in 2009. These 589 fires were a decrease of 108, or 15%, from the 697 residential building fires reported in 2008.

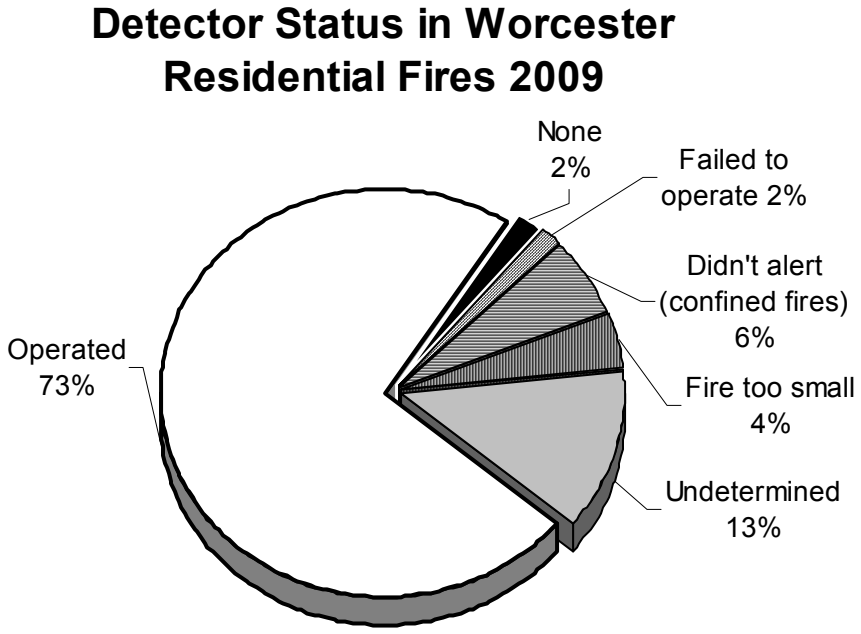
### Unattended Cooking Causes 70% of All Residential Fires

The leading cause of residential building fires in Worcester was unattended cooking and other unsafe cooking practices, accounting for 70% of these fires. Heating fires accounted for 9% of these fires. Electrical fires and smoking each caused 3% of the fires in Worcester homes. Arsons, indoor rubbish fires, candles, clothes dryers and juvenile-set fires each caused 1% of these fires. Fireworks were responsible for less than 1% of the residential building fires in Worcester in 2009.



**74% of Residential Building Fires Are Confined to Non-Combustible Containers**[1]
Four hundred and thirty-three (433), or 74% of all residential building fires were confined to non-combustible containers in 2009. Three hundred and eighty (380), or 65%, of all residential building fires reported in 2009 were cooking fires contained to a non-combustible container. Thirty-three (33), or 6%, of all residential building fires were fuel burner or boiler malfunctions. Fourteen (14) of the reported fires were confined to a chimney, accounting for 2% of residential building fires in Worcester in 2009. Five (5) rubbish fires contained to a non-combustible container caused 1% of these fires and one commercial compactor fire caused less than 1%, of these Worcester's residential fires.

**Detectors Alerted Occupants in Almost 3/4 of Fires**
Smoke or heat detectors operated and alerted the occupants in 430, or 73%, 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 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 4% of the residential fires. Smoke detector performance was undetermined in 76 incidents, or 13% 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.

### 30% of Failed Detectors Had Missing or Disconnected Batteries

Of the 10 fires where smoke detectors were present but failed to operate, three, or 30%, failed because the batteries were either missing or disconnected. A power failure, shutoff or disconnect caused one, or 10%, of the detectors to fail. A dead battery was also responsible for one, or 10%, of the smoke detectors that failed to operate. It was undetermined in the other five cases why the detectors failed to operate.

## VACANT BUILDINGS

### 2% of Building Fires Occurred in Vacant Buildings

Worcester reported 15 fires that occurred in buildings that were vacant, under construction or demolition. This represented 2.2% of the total 689 building fires reported to MFIRS in 2009. Nine (9) apartment buildings, two (2) one- or two-family homes, two manufacturing facilities, one licensed day care, and one unclassified educational facility were reported as vacant building fire incidents.

These 15 vacant building fires caused 15 fire service injuries. That is one firefighter injured per vacant building fire in Worcester in 2009.

## JUVENILE-SET FIRES

### 6 Juvenile-set Fires

There were six juvenile-set fires in Worcester in 2009. The four structure fires and two brush fires caused $600 in estimated damages.

## ARSONS

### 56 Total Arsons — 13 Structures, 12 Motor Vehicles, & 31 Other

Fifty-six (56), or 6%, of Worcester's 1,232 fires were considered intentionally set, or, for purposes of this analysis, arson. The 13 structure arsons, 12 motor vehicle arsons and 31 outside and other arsons caused one fire service injury and an estimated dollar loss of $86,150.

### Structure Arsons Decrease Slightly

The total number of arsons increased by three. This is a 6% increase from the 53 arsons reported in 2008. Reported structure arsons decreased by five from 18 the year before. Motor vehicle arsons remained the same with 12 reported arsons in both 2008 and 2009. Outside and other arsons increased by eight from the 23 reported the year before.

Worcester reported 61 fires that are still under investigation or undetermined after investigation. Fifty-three (53) of these fires were reported as under investigation and eight were classified as undetermined.

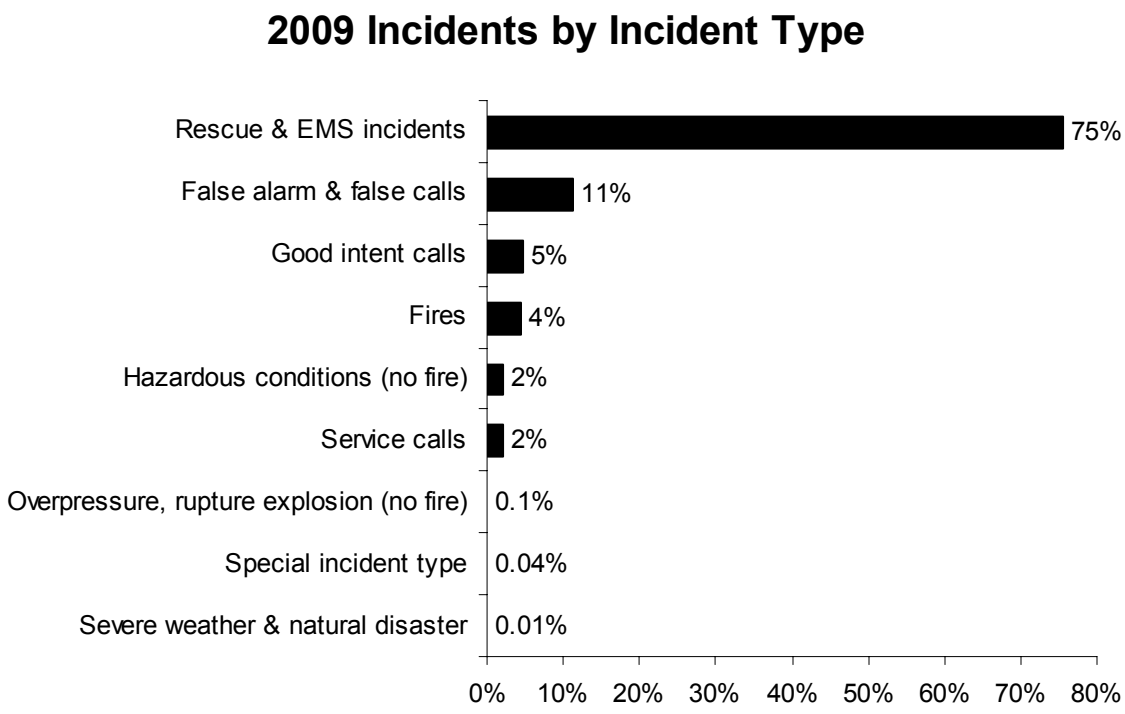
## ALL INCIDENTS

### Rescue & EMS Calls Are 3/4 of All Reported Incidents

In 2009, Worcester voluntarily reported 27,878 incidents to MFIRS. Of these 27,878 incidents, 26,646, or 96%, were non-fire incidents.

Of these 26,646 non-fire incidents 21,026, or 75% of all reported incidents in 2009, were reported rescue and emergency medical services (EMS) calls; 3,122, or 11%, were reported false alarm or false calls; 1,300, or 5%, were reported good intent calls; 636, or 2%, were reported hazardous condition calls with no fire; 522, or 2%, were reported service calls such as lock-outs, water or smoke problem, unauthorized burning or public service assistance; 26, or 0.1%, were reported overpressure, rupture, explosion or overheat calls with no fire; 12, or 0.04%, were special type incidents; and two, or 0.01%, were responses to incidents caused by severe weather.

In 2009, Worcester reported 1,232 fires, accounting for 4% of all reported incidents.



## Worcester Gave Mutual Aid in 4 Incidents

In 2009, Worcester reported giving mutual aid to other surrounding fire departments in four incidents. One incident was for a water rescue and the other three incidents were coded as a special incident types, other.

## Worcester Reported Receiving Mutual 2 Times in 2009

In 2009, Worcester reported two incidents in which they received mutual aid from another fire department. One was for a fire. The other call for mutual aid was a good intent call.

# Worcester Population: 172,648

**7.1 Fires/1,000 Population**

| | | | |
|---|---|---|---|
| **Total Fires:** | **1,232** | | **$5,349,841** |
| **Situation** | **Fires** | **% of Fires** | **Dollar Loss** |
| Structure Fires | 696 | 56% | $5,216,896 |
| Vehicle Fires | 111 | 9% | 126,935 |
| Other Fires | 425 | 34% | 6,010 |

1 Civilian Death — 0.81 Civilian Deaths/1,000 Fires
1 Fatal Fire — 0.06 Civilian Deaths/10,000 Population
5 Civilian Injuries — 36 Fire Service Injuries

## Building Fires: 689

## Residential Structure Fires: 589

**Residential Structure Fires Confined to Non-Combustible Containers: 433**

**Unconfined Residential Structure Fires: 156**

1 Civilian Death 4 Civilian Injuries 31 Fire Service Injuries

| **Occupancy** | **Fires** | **%** |
|---|---|---|
| Apartments | 359 | 61% |
| 1- & 2-Family homes | 103 | 17% |
| Boarding house | 58 | 8% |
| Dormitories | 56 | 8% |

| **Detector Status** | **Fires** | **%** |
|---|---|---|
| Operated | 430 | 73% |
| Didn't operate | 10 | 2% |
| None | 12 | 2% |
| Fire too small | 26 | 4% |
| Didn't Alert (confined) | 35 | 6% |
| Undetermined | 76 | 13% |

| **Area of Origin**[3] | **%** |
|---|---|
| Kitchen | 74% |
| Heating room or area | 6% |
| Bedroom | 2% |
| Chimney or flue | 2% |
| Exterior stairway | 1% |

| **Heat Source** | **%** | **%Unconfined**[4] |
|---|---|---|
| Heat from operating eq. | 4% | 15% |
| Radiated heat from op. eq. | 4% | 15% |
| Arcing | 2% | 7% |
| Hot or smoldering obj. other | 2% | 6% |
| Cigarette | 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 | 70% |
| Flammable or combust. liquid | 2% |
| Film or residue (creosote) | 2% |
| Rubbish, trash, waste | 1% |
| Upholstered sofa, chair | 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% | 12% |
| Equipment unattended | 2% | 8% |
| Worn out | 1% | 3% |
| Unspec. Short-circuit arc | 1% | 3% |

| Equipment[7] | % |
|---|---|
| Cooking equipment | 68% |
| None | 20% |
| Boiler, furnace, cent. heat. unit | 6% |
| Chimney or flue | 2% |
| Clothes dryer | 1% |
| Personal & household eq., other | 1% |

| Cause of Ignition | % | %Unconfined[8] |
|---|---|---|
| Unintentional | 17% | 63% |
| Failure of eq./heat source | 2% | 6% |
| Intentional | 2% | 6% |
| Act of Nature | 0% | 0% |
| Undetermined | 1% | 3% |
| Cause under investigation | 6% | 22% |

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

| | |
|---|---|
| Alerted Occupants | 81% |
| Didn't Alert Occupants | 8% |
| Undetermined | 11% |

| All Reported Incidents | # of Incidents | % of Incidents |
|---|---|---|
| Rescue & EMS incidents | 21,026 | 75% |
| False alarms & false calls | 3,122 | 11% |
| Good intent calls | 1,300 | 5% |
| Fires | 1,232 | 4% |
| Hazardous conditions (no fire) | 636 | 2% |
| Service calls | 522 | 2% |
| Overpressure rupture, explosion or overheat calls (no fire) | 26 | 0.1% |
| Special Incident Types | 12 | 0.04% |
| 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.

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| Month | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| January | 86 | 67 | 9 | 10 |
| February | 81 | 62 | 10 | 9 |
| March | 119 | 60 | 7 | 52 |
| April | 145 | 61 | 9 | 75 |
| May | 126 | 51 | 7 | 68 |
| June | 106 | 52 | 8 | 46 |
| July | 99 | 50 | 11 | 38 |
| August | 89 | 46 | 13 | 30 |
| September | 83 | 51 | 8 | 24 |
| October | 83 | 58 | 7 | 18 |
| November | 134 | 80 | 9 | 45 |
| December | 81 | 58 | 13 | 10 |

| Day | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| Sunday | 194 | 103 | 21 | 70 |
| Monday | 169 | 91 | 14 | 64 |
| Tuesday | 169 | 102 | 11 | 56 |
| Wednesday | 154 | 94 | 14 | 46 |
| Thursday | 181 | 115 | 15 | 51 |
| Friday | 154 | 92 | 15 | 47 |
| Saturday | 211 | 99 | 21 | 91 |

| Time | Total Fires | Structure Fires | Vehicle Fires | Other Fires |
|---|---|---|---|---|
| 00:01 - 04:00 | 103 | 42 | 25 | 36 |
| 04:01 - 08:00 | 74 | 44 | 8 | 22 |
| 08:01 - 12:00 | 176 | 124 | 14 | 38 |
| 12:01 - 16:00 | 269 | 158 | 19 | 92 |
| 16:01 - 20:00 | 339 | 189 | 22 | 128 |
| 20:01 - 24:00 | 271 | 139 | 23 | 109 |

## Motor Vehicle Fires

Total: 111
Automobiles: 104 (94%)
10 (10%) of the automobile fires considered intentionally set.

## Arson Fires

**Total Arsons: 56** **Dollar loss: $86,150**

**0.3 Arson Fires/1,000 Population**

| Situation | Arsons | % Situation | % Arson | Dollar Loss |
|---|---|---|---|---|
| Structure Arsons | 13 | 2% | 23% | $62,750 |
| Vehicle Arsons | 12 | 8% | 21% | 22,000 |
| Other Arsons | 31 | 8% | 55% | 1,400 |

0.08 Structure arsons/1,000 population
0.07 Vehicle arsons/1,000 population
0.18 Other arsons/1,000 population

**Peak Times of Day for:**

| Structure Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 5 | 38% |
| 00:01 - 04:00 | 2 | 15% |
| 04:01 - 08:00 | 2 | 15% |
| 08:01 - 12:00 | 2 | 17% |

| Vehicle Arsons | # | % |
|---|---|---|
| 20:01 - 00:00 | 4 | 33% |
| 00:01 - 04:00 | 3 | 25% |
| 04:01 - 08:00 | 2 | 17% |
| 16:01 - 20:00 | 2 | 17% |

| Other Arsons | # | % |
|---|---|---|
| 16:01 - 20:00 | 15 | 48% |
| 20:01 - 00:00 | 7 | 23% |
| 04:01 - 08:00 | 3 | 1% |
| 12:01 - 16:00 | 3 | 10% |

| Peak Fixed Property Uses for Structure Arsons | # | % |
|---|---|---|
| Apartments | 7 | 54% |
| Mercantile, business, other | 2 | 15% |