

# **FIRE DEPARTMENT CALLS AND FALSE ALARMS**

**One-Stop Data Shop  
Fire Analysis and Research Division  
National Fire Protection Association**

**April 2008**



**National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471  
[www.nfpa.org](http://www.nfpa.org)**

## **Acknowledgements**

The NFPA gratefully thanks the many fire departments that responded to the 2006 National Fire Experience Survey for their continuing efforts for providing us in a timely manner the data so necessary to make national projections.

We are also grateful to the U.S. Fire Administration for its work in developing, coordinating, and maintaining NFIRS.

Keywords: False Alarm, Fire Department Calls.

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NFPA No. USS28  
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**FIRE DEPARTMENT CALLS**

| <b>Year</b> | <b>Total</b>              | <b>Fires</b>                     | <b>Medical Aid</b> | <b>False Alarms</b> | <b>Mutual Aid</b> | <b>Other</b> |  |           |  |  |                           |                                  |              |
|-------------|---------------------------|----------------------------------|--------------------|---------------------|-------------------|--------------|--|-----------|--|--|---------------------------|----------------------------------|--------------|
| 1980        | 10,819,000                | 2,988,000                        | 5,045,000          | 896,500             | 274,000           | 1,615,500    |  |           |  |  |                           |                                  |              |
| 1981        | 10,594,500                | 2,893,500                        | 5,019,000          | 788,000             | 349,500           | 1,544,500    |  |           |  |  |                           |                                  |              |
| 1982        | 10,548,000                | 2,538,000                        | 5,258,000          | 853,500             | 346,500           | 1,552,000    |  |           |  |  |                           |                                  |              |
| 1983        | 10,933,000                | 2,326,500                        | 5,660,000          | 979,500             | 353,000           | 1,614,000    |  |           |  |  |                           |                                  |              |
| 1984        | 11,070,000                | 2,343,000                        | 5,735,000          | 972,000             | 413,500           | 1,606,000    |  |           |  |  |                           |                                  |              |
| 1985        | 11,888,000                | 2,371,000                        | 6,467,000          | 936,500             | 389,500           | 1,724,000    |  |           |  |  |                           |                                  |              |
|             |                           |                                  |                    |                     |                   |              | <table border="0"> <thead> <tr> <th></th> <th><b>Hazardous Material</b></th> <th><b>Other Hazardous Condition</b></th> <th><b>Other</b></th> </tr> </thead> </table> |           |  |  | <b>Hazardous Material</b> | <b>Other Hazardous Condition</b> | <b>Other</b> |
|             | <b>Hazardous Material</b> | <b>Other Hazardous Condition</b> | <b>Other</b>       |                     |                   |              |  |           |  |  |                           |                                  |              |
| 1986        | 11,890,000                | 2,271,500                        | 6,437,500          | 992,500             | 441,000           | 171,500      | 318,000  | 1,258,000 |  |  |                           |                                  |              |
| 1987        | 12,237,500                | 2,330,000                        | 6,405,000          | 1,238,500           | 428,000           | 193,000      | 315,000  | 1,328,000 |  |  |                           |                                  |              |
| 1988        | 13,308,000                | 2,436,500                        | 7,169,500          | 1,404,500           | 490,500           | 204,000      | 333,000  | 1,270,000 |  |  |                           |                                  |              |
| 1989        | 13,409,500                | 2,115,000                        | 7,337,000          | 1,467,000           | 500,000           | 207,000      | 381,500  | 1,402,000 |  |  |                           |                                  |              |
| 1990        | 13,707,500                | 2,019,000                        | 7,650,000          | 1,476,000           | 486,500           | 210,000      | 423,000  | 1,443,000 |  |  |                           |                                  |              |
| 1991        | 14,556,500                | 2,041,500                        | 8,176,000          | 1,578,500           | 494,000           | 221,000      | 428,500  | 1,617,000 |  |  |                           |                                  |              |
| 1992        | 14,684,500                | 1,964,500                        | 8,263,000          | 1,598,000           | 514,000           | 220,500      | 400,000  | 1,724,500 |  |  |                           |                                  |              |
| 1993        | 15,318,500                | 1,952,500                        | 8,743,500          | 1,646,500           | 542,000           | 245,000      | 432,500  | 1,756,500 |  |  |                           |                                  |              |
| 1994        | 16,127,000                | 2,054,500                        | 9,189,000          | 1,666,000           | 586,500           | 250,000      | 432,500  | 1,948,500 |  |  |                           |                                  |              |
| 1995        | 16,391,500                | 1,965,500                        | 9,381,000          | 1,672,500           | 615,500           | 254,500      | 469,500  | 2,033,000 |  |  |                           |                                  |              |
| 1996        | 17,503,000                | 1,975,000                        | 9,841,500          | 1,816,500           | 688,000           | 285,000      | 536,500  | 2,360,500 |  |  |                           |                                  |              |
| 1997        | 17,957,500                | 1,795,000                        | 10,483,000         | 1,814,500           | 705,500           | 271,500      | 498,500  | 2,389,500 |  |  |                           |                                  |              |
| 1998        | 18,753,000                | 1,755,500                        | 10,936,000         | 1,956,000           | 707,500           | 301,000      | 559,000  | 2,538,000 |  |  |                           |                                  |              |
| 1999        | 19,667,000                | 1,823,000                        | 11,484,000         | 2,039,000           | 824,000           | 297,500      | 560,000  | 2,639,500 |  |  |                           |                                  |              |
| 2000        | 20,520,000                | 1,708,000                        | 12,251,000         | 2,126,500           | 864,000           | 319,000      | 543,500  | 2,708,000 |  |  |                           |                                  |              |
| 2001        | 20,965,500                | 1,734,500                        | 12,331,000         | 2,157,500           | 838,500           | 381,500      | 605,000  | 2,917,500 |  |  |                           |                                  |              |
| 2002        | 21,303,500                | 1,687,500                        | 12,903,000         | 2,116,000           | 888,500           | 361,000      | 603,500  | 2,744,000 |  |  |                           |                                  |              |
| 2003        | 22,406,000                | 1,584,500                        | 13,631,500         | 2,189,500           | 987,000           | 349,500      | 660,500  | 3,003,500 |  |  |                           |                                  |              |
| 2004        | 22,616,500                | 1,550,500                        | 14,100,000         | 2,106,000           | 984,000           | 354,000      | 671,000  | 2,851,000 |  |  |                           |                                  |              |
| 2005        | 23,251,500                | 1,602,000                        | 14,375,000         | 2,134,000           | 1,091,000         | 375,000      | 667,000  | 3,009,000 |  |  |                           |                                  |              |
| 2006        | 24,470,000                | 1,642,500                        | 15,062,500         | 2,119,500           | 1,159,500         | 388,500      | 659,000  | 3,438,500 |  |  |                           |                                  |              |

Source: NFPA Survey. Updated 10/07

# **FALSE ALARM ACTIVITY IN THE U.S. – 2006**

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**April 2008**



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## **Abstract**

In 2006, U.S. fire departments responded to 2,119,500 false alarms. This was a very slight decrease of 0.7%. This means that one out of ten calls responded to by fire departments were false alarms.

Keywords: false alarms,

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In 2006, U.S. fire departments responded to 2,119,500 false alarms. This was a very slight decrease of 1.3%. This means that one out of ten calls responded to by fire departments were false alarms.

False alarms were a big story in the 1970s, when the concern tended to be malicious activation of call boxes, typically by juveniles in large urban areas. A number of initiatives were taken in many cities, ranging from public education messages to stakeouts to greater use of voice-communication boxes to 911 phone message systems to box removal, and the problem seemed to retreat.

When false alarms began climbing again in 1982 (see Figure 1), fire protection experts expressed the view that the problem had changed, that malicious activation of boxes by juveniles were less of a problem than nuisance activation's of automatic detection systems. Table 1 shows this view is surely correct when there were almost 3 system malfunctions for every malicious false call.

Overall, the 2006 false alarm figure decreased a very slight 0.7 from the year before. Let's examine changes within categories of false alarms. System malfunctions decreased 3.3% from a year ago, accounting for 721,000 or 34.0 of all false alarms. Malicious false calls decreased a significant 19.5% from a year ago, accounting for 193,500 or 9.1% of all false calls. Unintentional false calls (e.g., tripping an interior device accidentally) accounted for 850,000 or 40.1% of all false alarms. Other false calls including bomb scares accounted for 355,000 or 16.8% of all false calls.

Over the 1988-2006 period, the number of system malfunctions increased every year from 1988 to 1999 and increased an overall 63.7% from 550,500 in 1988 to 901,500 in 1999, changed little in 2000, and decreased 18.4% to 721,000 by the end of 2006 (Table 2). Malicious false calls after hovering around the 450,000 level from 1990 to 1992 decreased 40% from 1993 to 274,000 in 2001, increased 13% in 2002, and decreased a significant 37.8% to 193,500 in 2006. Unintentional false calls increased every year except for 1990, 1997 and 2002 for an overall increase of 206% from 278,000 in 1988 to 850,000 in 2006.

**Table 1**  
**Estimates of False Alarms by Type, 2006**

|   | <b>Estimate</b> | <b>Percent<br/>Change<br/>From 2005</b> | <b>Percent<br/>of All False<br/>Alarms</b> |
|---|-----------------|---|--|
| Malicious Mischievous<br>False Call       | 193,500         | -19.5                                   | 9.1  |
| System Malfunction                        | 721,000         | -3.3                                    | 34.0                                       |
| Unintentional Call                        | 850,000         | +1.4                                    | 40.1                                       |
| Other False Alarms<br>(Bomb Scares, etc.) | 355,000         | +14.5                                   | 16.8                                       |
| Total                                     | 2,119,500       | -0.7                                    |  |

Source: NFPA's Survey of Fire Departments for 2006 U.S. Fire Experience.

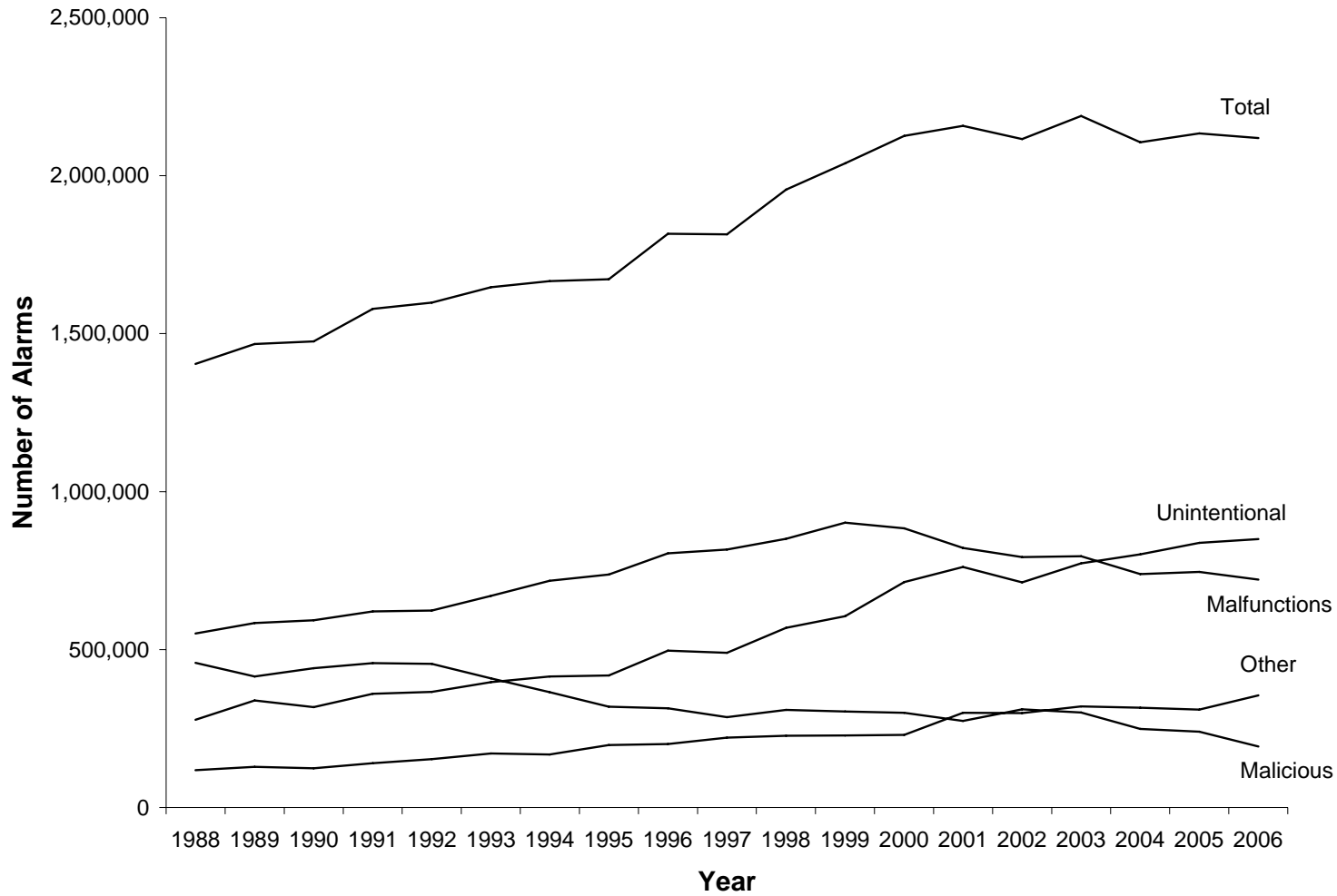
**Table 2**  
**Estimates of False Alarms by Type, 1988-2006**

| <b>Year</b> | <b>Total</b> | <b>Malicious<br/>Mischievous</b> | <b>System<br/>Malfunctions</b> | <b>Unintentional<br/>Calls</b> | <b>Other</b> |
|-------------|--------------|----------------------------------|--------------------------------|--------------------------------|--------------|
| 1988        | 1,404,500    | 458,000                          | 550,500                        | 278,000                        | 118,000      |
| 1989        | 1,467,000    | 415,000                          | 584,000                        | 339,000                        | 129,000      |
| 1990        | 1,476,000    | 441,500                          | 593,000                        | 317,500                        | 124,000      |
| 1991        | 1,578,500    | 457,500                          | 620,500                        | 360,000                        | 140,500      |
| 1992        | 1,598,000    | 455,000                          | 623,000                        | 366,000                        | 153,500      |
| 1993        | 1,646,500    | 408,500                          | 670,000                        | 397,000                        | 171,000      |
| 1994        | 1,666,000    | 365,000                          | 718,000                        | 415,000                        | 168,000      |
| 1995        | 1,672,500    | 319,500                          | 737,500                        | 418,000                        | 197,500      |
| 1996        | 1,816,500    | 314,500                          | 805,000                        | 496,000                        | 201,000      |
| 1997        | 1,814,500    | 286,500                          | 816,500                        | 490,000                        | 221,500      |
| 1998        | 1,956,000    | 309,000                          | 851,000                        | 569,000                        | 227,000      |
| 1999        | 2,039,000    | 304,000                          | 901,500                        | 605,000                        | 228,500      |
| 2000        | 2,126,500    | 299,500                          | 884,000                        | 713,500                        | 229,500      |
| 2001        | 2,157,500    | 274,000                          | 822,000                        | 761,500                        | 300,000      |
| 2002        | 2,116,000    | 311,000                          | 793,000                        | 713,000                        | 299,000      |
| 2003        | 2,189,500    | 301,000                          | 795,500                        | 773,000                        | 320,000      |
| 2004        | 2,106,000    | 249,000                          | 739,500                        | 801,500                        | 316,000      |
| 2005        | 2,134,000    | 240,500                          | 745,500                        | 838,000                        | 310,000      |
| 2006        | 2,119,500    | 193,500                          | 721,000                        | 850,000                        | 355,000      |

Source: NFPA Annual Fire Experience Survey (1988-2006)



### False Alarms by Type, 1988-2006



Source: NFPA Fire Experience Survey, 1988-2006