

FALSE ALARM ACTIVITY IN THE U.S. 2012

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Abstract

In 2012, U.S. fire departments responded to 2,238,000 false alarms. This was a decrease of 6.1% from the year before. This means that one out of twelve calls responded to by fire departments were false alarms.

Keywords: false alarms

Acknowledgements

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In 2012, U.S. fire departments responded to 2,238,000 false alarms. This was an decrease of 6.1%. This means that one out of twelve 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 2012 false alarm figure decreased 6.1% from the year before. Let's examine changes within categories of false alarms. System malfunctions decreased 4.7% from a year ago, accounting for 713,000 or 31.9% of all false alarms. Malicious false calls decreased 8.2% from a year ago, accounting for 167,500 or 8.2% of all false calls. Unintentional false calls (e.g., tripping an interior device accidentally and includes carbon monoxide detectors) accounted for 1,044,500 or 46.6% of all false alarms. Other false calls including bomb scares accounted for 313,500 or 14.0% of all false calls.

Over the 1988-2012 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 then decreased 20.9% to 713,000 by the end of 2012 (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, then decreased quite steadily for an overall decrease of 46.1% to 167,500 in 2012. Unintentional false calls increased every year except for 1990, 1997, 2002, 2009, and 2012 for an overall increase of 276% from 278,000 in 1988 to 1,044,500 in 2012. A portion of the increase was due to the increase in the use of carbon monoxide detectors.

Another way to look at this is to examine the portion of total false alarms by type of alarm over the 1988 to 2012 period (Figure 2). Malicious false calls accounted for 33% of false alarms in 1988, decreased most years, and accounted for 7% of false alarms in 2012. System malfunctions accounted for 39% of false alarms in 1988, increased in the 1990s but decreased in the 2000s, and accounted for 32% of false alarms in 2012. On the other hand, unintentional accounted for 20% of false alarms in 1988, increased most years, and accounted for 47% of false alarms in 2011. Other false alarms accounted for 8% of false alarms in 1988, increased most years, and accounted for 14% of false alarms in 2012.

Table 1
Estimates of False Alarms by Type, 2012

	Estimate	Percent Change From 2011	Percent of All False Alarms
Malicious Mischievous False Call	167,500	-8.2	7.5
System Malfunction	713,000	-4.7	31.9
Unintentional Call	1,044,500	-1.6	46.6
Other False Alarms (Bomb Scares, etc.)	313,500	-19.8	14.0
Total	2,238,000	-6.1	

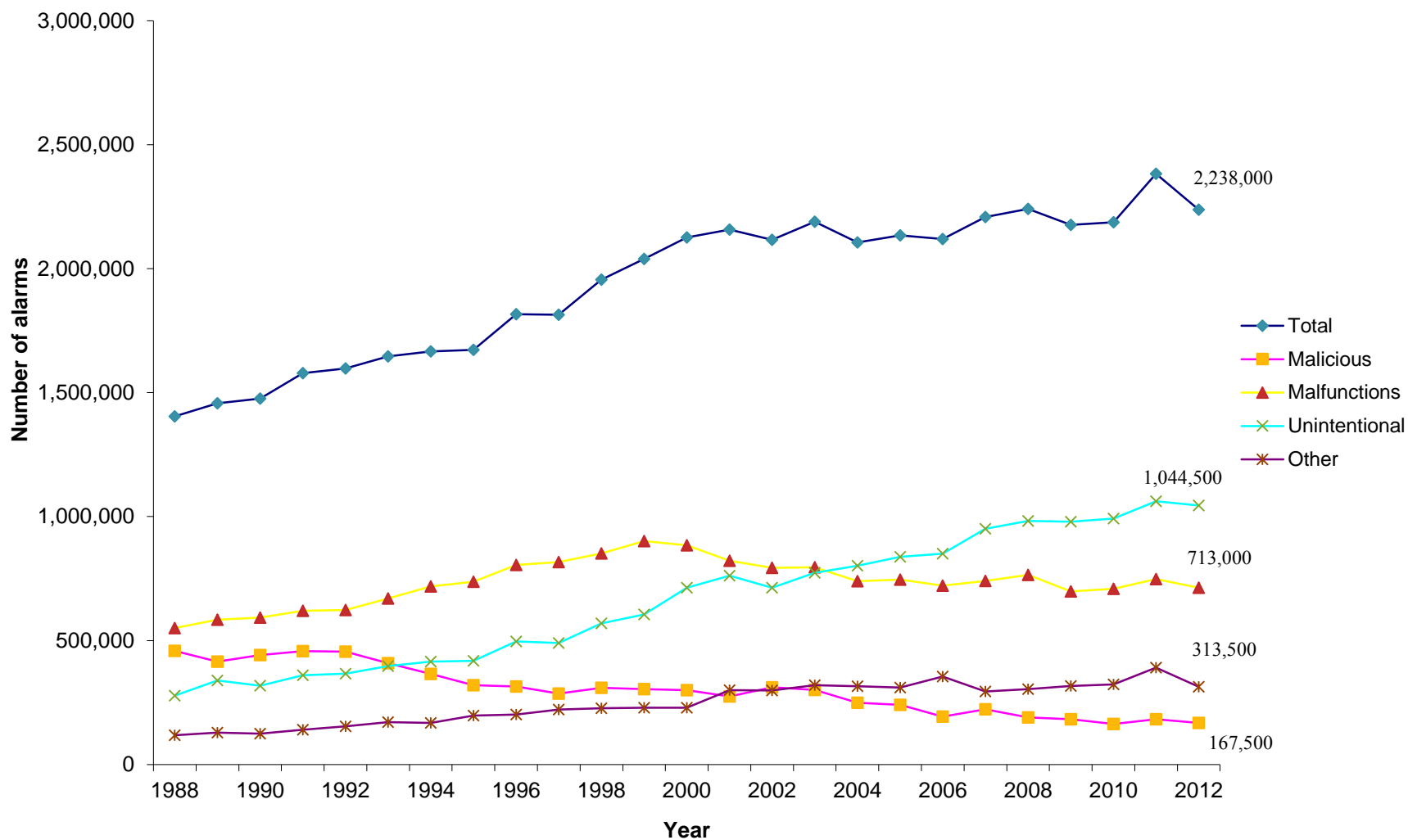
Source: NFPA's Survey of Fire Departments for 2012 U.S. Fire Experience.

Table 2
Estimates of False Alarms by Type, 1988-2012

Year	Total	Malicious Mischievous	System Malfunctions	Unintentional Calls	Other
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
2007	2,208,500	222,500	740,500	951,000	294,500
2008	2,241,500	190,000	765,000	982,500	304,000
2009	2,177,000	183,000	698,000	979,500	316,500
2010	2,187,000	163,000	708,500	992,000	323,500
2011	2,383,000	182,500	748,000	1,061,500	391,000
2012	2,238,000	167,500	713,000	1,044,500	313,500

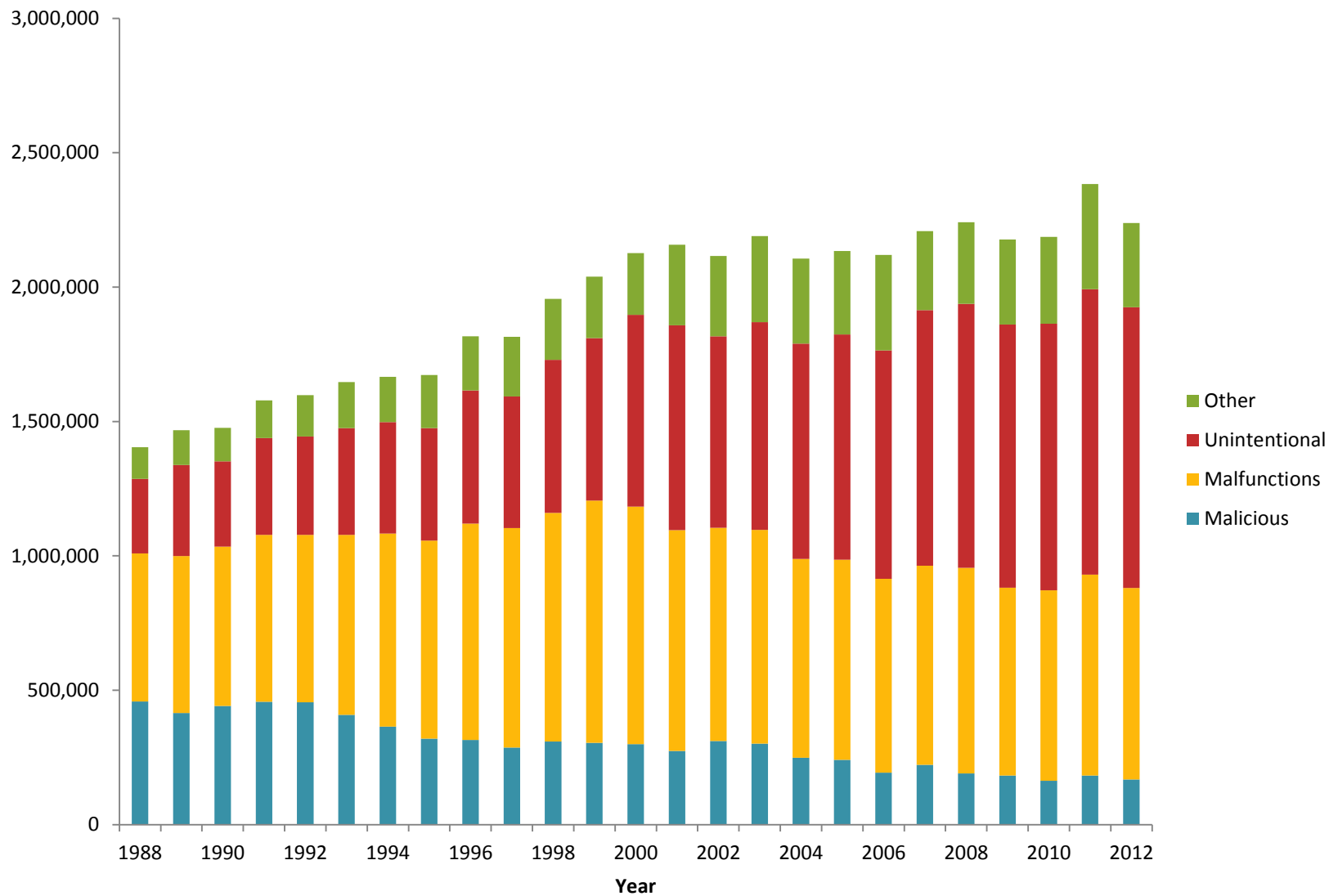
Source: NFPA Annual Fire Experience Survey (1988-2012)

Figure 1. False Alarms by Type, 1988-2012



Source: NFPA Annual Fire Experience Survey (1988-2012)

Figure 2. False Alarms by Type, 1988-2012



Appendix A

Fire Department Calls

Year	Total	Fires	Medical Aid	False Alarms	Mutual Aid	Other		
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		
						Hazardous Material	Other Hazardous Condition	Other
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

Fire Department Calls (Continued)

Year	Total	Fires	Medical Aid	False Alarms	Mutual Aid	Hazardous Material	Other Hazardous Condition	Other
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
2007	25,334,500	1,557,500	15,784,000	2,208,500	1,109,500	395,500	686,500	3,593,000
2008	25,252,500	1,451,500	15,767,500	2,241,500	1,214,500	394,500	697,500	3,485,500
2009	26,534,500	1,348,500	17,104,000	2,177,000	1,296,000	397,000	625,500	3,586,500
2010	28,205,000	1,331,500	18,522,000	2,187,000	1,189,500	402,000	660,000	3,913,000
2011	30,098,000	1,389,500	19,803,000	2,383,000	1,252,000	379,000	720,000	4,171,500
2012	31,854,000	1,375,000	21,705,500	2,238,000	1,326,500	360,000	694,000	4,155,000