

Oregon Office of State Fire Marshal
90 YEARS *of* SERVICE TO OREGON

2006 Annual Report

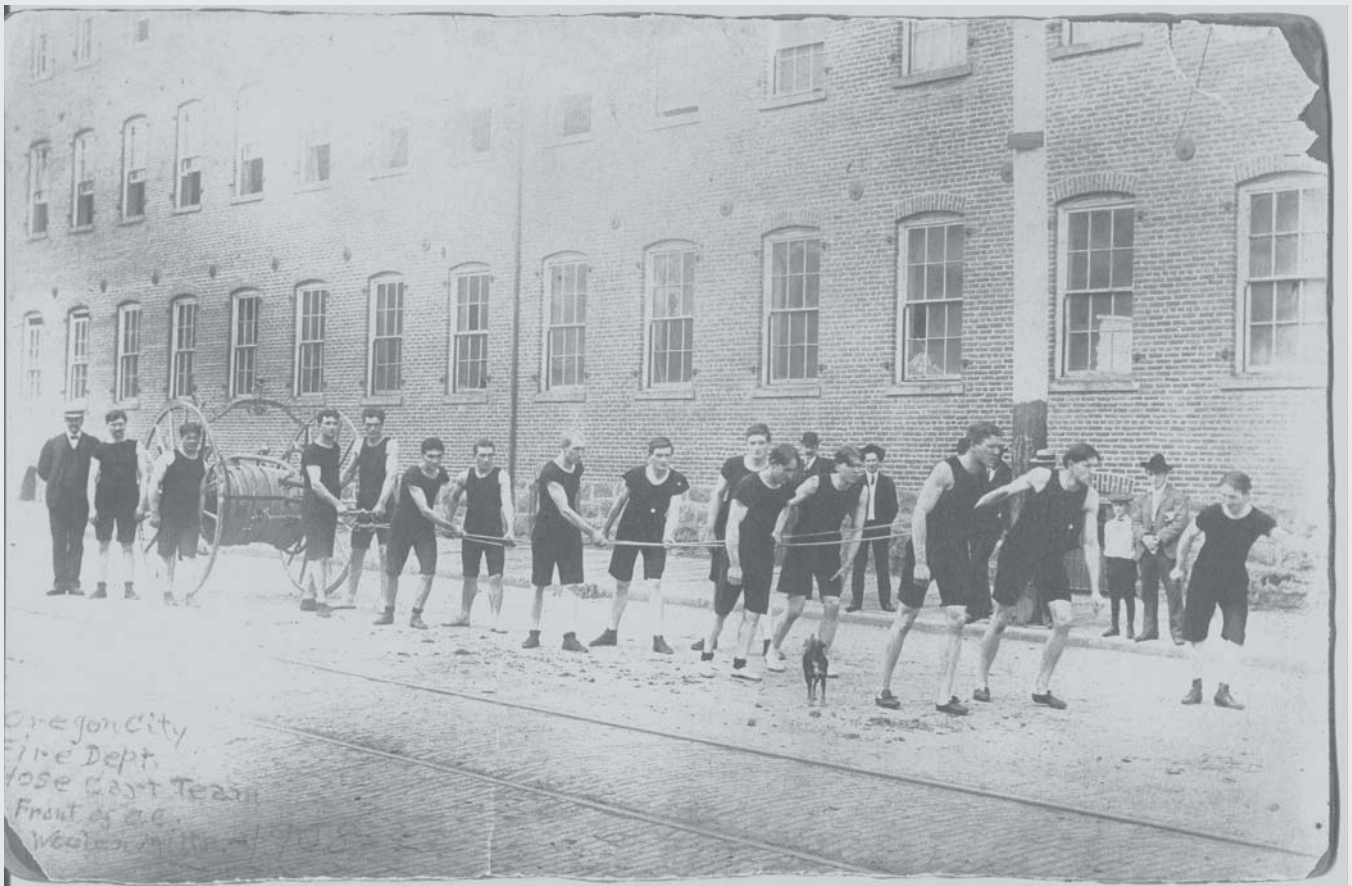


Cover photo courtesy of ODOT Photo and Video Services

June 2007

THEN ...

For centuries, people carried water to fight fires, first on foot with buckets, later with increasingly sophisticated water-bearing and water-moving equipment. The Oregon City Fire Department hose team (1908) pictured below pulling a hose cart (most likely in a competition) demonstrates the use of manpower to move water and hoses to a fire. Later, horses would replace men. The horses, in their turn, were replaced by steam, then gasoline-powered engines.





In 1917, the Office of State Fire Marshal (OSFM) was established to prevent the loss of life and property from fires and explosions through education, inspection and investigation.

We have been steadfast in our mission for ninety years. It seems appropriate that, as the OSFM celebrates our 90th anniversary, we tell the story of how the agency has evolved over time. We searched the archives to bring you tidbits of information on how our predecessors viewed fire prevention and fire education. In many ways we have changed, but the dedication to keeping men, women, and especially children, fire-safe has stayed the same.

It is my pleasure to give you and your department a DVD on the history of moving water in the fire service. This DVD is included as a component of our new elementary school curriculum to be debuted this year.

It was in 1921 that J. A. Churchill, Superintendent of Public Instruction, wrote, "In order that the causes of fires and their prevention may be presented to the boys and girls of Oregon and that they may have their realization of the responsibility of each individual in this matter, a bulletin on 'Fire Prevention' is being placed in the schools of the state and the teachers are urged to present the materials in a way that will be of interest to the children."

The focus on personal responsibility was paramount then as it is today. The focus on fire education is as crucial today as it was in 1921.

I am so very proud to bring you this year's annual report and the story we have to tell.

Nancy Orr

Nancy Orr
State Fire Marshal

2006 in review

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Methodology used in the development of this report

Analyses in this research report are based primarily on data from the Oregon All Incident Reporting System (OAIRS). OAIRS is a data system maintained by the OSFM. Oregon fire departments provide a report of each fire incident to which they respond. The report includes a description of the fire incident, including fire cause and other information.

In 2006, 89 percent of the 323 active Oregon fire departments reported. The thirty-six non-reporting departments experience between 0 and 10 fires each year. Even though the database is missing between 0 and 360 fire reports, for purposes of this report, we consider the data set to be complete. No estimates are used.

Other sources of data have been used in the preparation of this analysis. These include the National Fire Protection Association's (NFPA) annual fire department survey; United States Fire Administration reports; population data from the Bureau of the Census; population estimates from Portland State University's Center for Population Research.

Trend analyses are based primarily on data from OAIRS as provided by Oregon fire departments in previous years. This data provides insight into Oregon's fire "picture," guiding the direction of fire prevention and education efforts to reduce fire deaths, injuries and property losses.

Additional data is available on the OSFM website at www.oregon.gov/OSP/SFM

R *Note: This report contains some data calculated as a rate based on a specified unit of population. A rate is a method of making comparisons of the number of occurrences between groups of different sizes. For example, using rate as the measure allows us to compare national with state data. Other data in the report uses raw numbers, i.e. the actual count. (The symbol above will appear beside rate charts to identify them.)

New this year In some places in the report, "sparklines" are used to display data. Sparkline is a name proposed by Edward Tufte for "small, high resolution graphics embedded in a context of words, numbers, images" or "data-intense, design-simple, word-sized graphics." (See page 26 for an example of their use.)

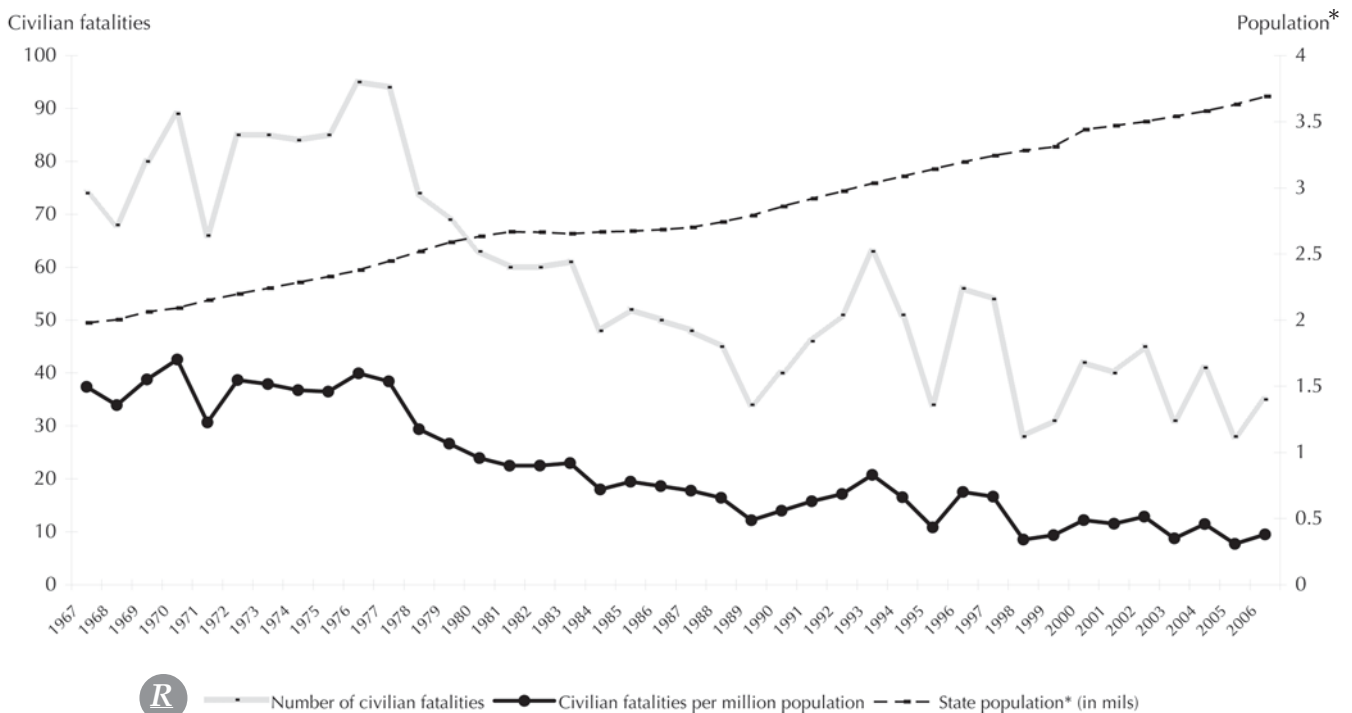
Looking at fire data over time

Overall, the data covering a thirty-nine year period (1967-2006) indicate that, despite a consistently growing population, the death rate for civilians has trended downward. The Oregon fire death rate — deaths per million population — has been declining over the last four decades, as has the national fire death rate. Even though the overall trend has been downward, any given year may exhibit a spike in the numbers such as is seen in 2004. The 2006 death rate is 9.5 per million population.

Proactive efforts in fire safety and prevention have contributed to this positive trend. Public education messages have raised public awareness. However, there are likely other contributing factors such as a change in fire and building codes. Improved technology in smoke alarms and fire suppression systems has also likely had a positive impact.

Oregon civilian fire deaths and death rate (1967-2006)

The death rate is calculated by dividing the number of Oregon civilian fire deaths by the estimated Oregon population as reported by Portland State University's Center for Population Research. The July 1, 2006 estimate of Oregon's population, 3,690,505, has been used to calculate the 2006 death rate.

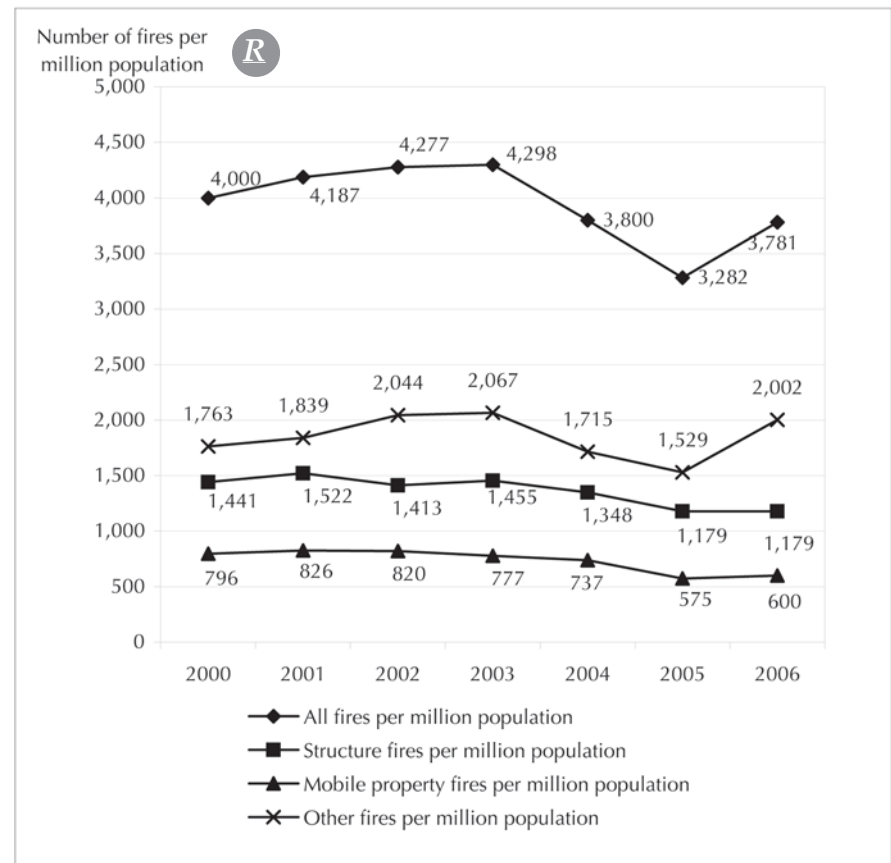
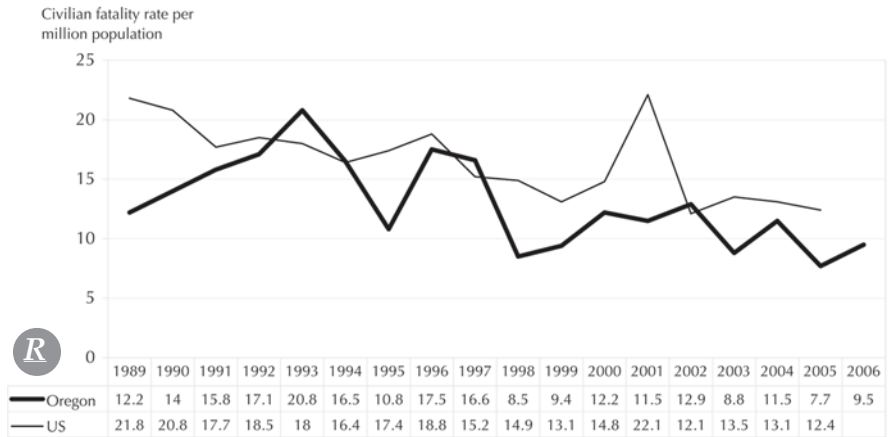


Oregon civilian fire deaths and death rate (1989-2006) compared to national data

U.S. rates are based on estimates from the National Fire Protection Association's (NFPA) annual fire department survey. The estimates fall within 95 percent confidence intervals and are statistically significant at the .05 level. NFPA does not follow up on vehicle fire deaths with smaller fire departments to ensure the deaths were caused by fire, not trauma. The 2001 rate, 22.1 percent, includes the 9/11 terrorist incident; without it, the rate is 13.4 percent. At the time of publication, the U.S. 2006 rate was not available. Oregon rates are based upon fire department reports in the Oregon All Incident Reporting System (OAIRS). Eighty-nine percent of Oregon fire departments reported in 2006.

Number of fires per million population by year

In 2006, the number of fires per million population in Oregon increased 15 percent from 2005. Most of this increase is from Other Fires. Other Fires is a broad category consisting of five different types of reportable fires: fires in cultivated vegetation, natural vegetation, refuse fires including dumpster fires, other outside fires with value, and fires not classified elsewhere. As shown in the graph at the right, Other Fires increased 31 percent above 2005, nearly reaching the previous 2002 and 2003 peaks.



[1947]

from the archives

“It will be noted that the preponderant loss of life from fire in the State of Oregon continues to result from preventable fires occurring in homes ...”

Fire's impact on people

Who is most likely to die in a fire? A disproportionate number of mature adults die in Oregon fires each year. Mature adults have a relative risk of dying in a fire that is two and a half times higher than for the population as a whole.

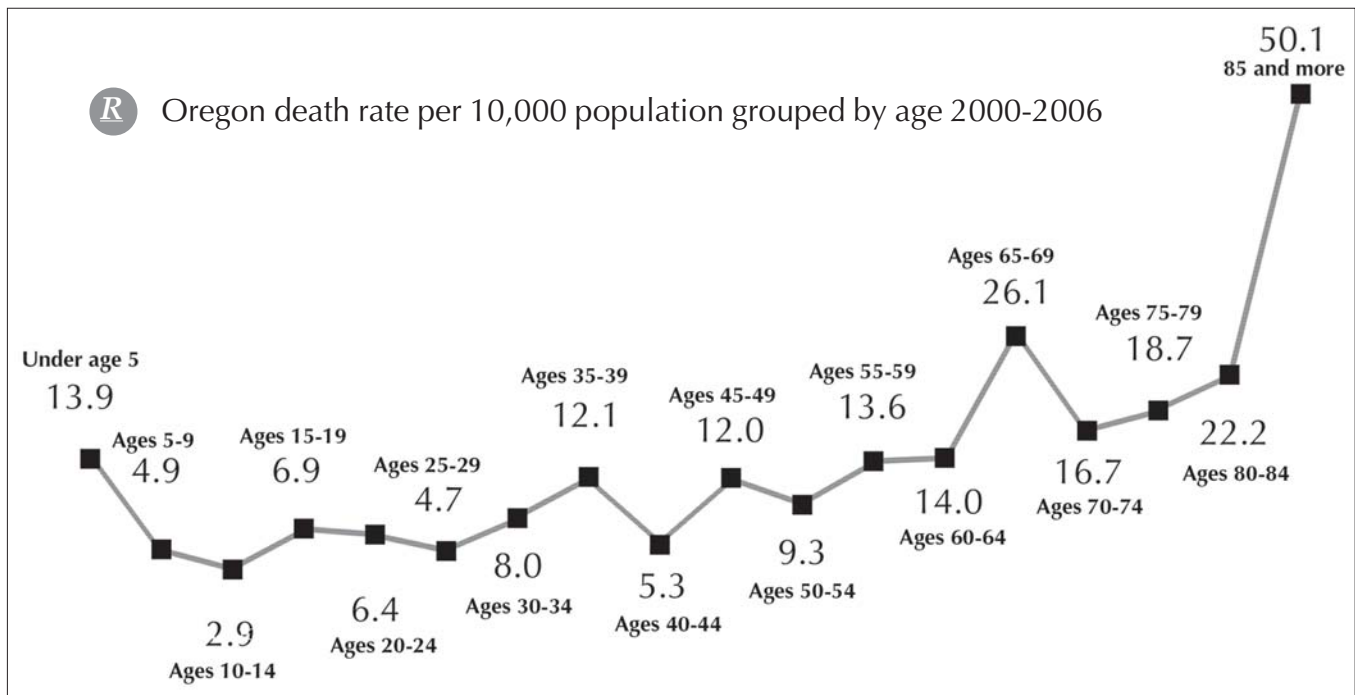
Mature adults The Population Research Center at Portland State University estimates (as of July 1, 2006) that adults over age sixty-four comprise 12.5 percent of Oregon's population. A trend analysis of OAIRS data (2000 through 2006) shows that a disproportionate number of mature adults aged sixty-five and older died in Oregon fires. People over age sixty-four represented 30 percent of all Oregon fire deaths in the seven year period.

From 2000 through 2006, almost one out of every three fire deaths involved mature adults.

This trend will likely continue as it is anticipated that the number of adults over age sixty-four will rise sharply between 2010 and 2030 when the baby boom generation ages.

For 2006 alone, in the over sixty-four year age groups:

- Two out of every three fire deaths of people aged sixty-five or older occurred in a single-family dwelling.
- The heat source was a candle in one of every four, or 25 percent of residential fires.
- The heat source was a cigarette in one of every four, or 25 percent of residential fires.
- For all types of fires involving deaths of people age sixty-five or older, the gender mix was 64 percent female and 36 percent male.



Injuries and fire

Note: In the table to the right, the greatest number of civilian fire deaths occurred in 1976 and 1977. In both years, several fires involved multiple deaths. One fire, in 1977, took five lives.

Civilian injuries There were 287 civilian injuries caused by reportable fires in Oregon in 2006. The majority of civilians injured in 2006 were injured in structure fires (82.5 percent). Another 5.5 percent of reported injuries involved fires in mobile property.

Civilian injuries by type of fire and year

	Structure fires	Mobile property fires	Other fires	Totals
2006	237	16	34	287
2005	251	21	29	301
2004	176	17	17	210
2003	172	33	19	224
2002	203	28	17	248
2001	208	26	30	264
2000	252	21	25	298
1999	236	30	7	273

Firefighter injuries There were 109 firefighter injuries and no firefighter deaths associated with reportable fires in 2006. As in prior years, the majority of injured were men. The injured ranged in age from eighteen to sixty-seven. These injuries were related to ninety-one structural fires, five mobile property fires and thirteen other types of fires. An additional eighteen non-fire related firefighter injuries were reported in 2006.

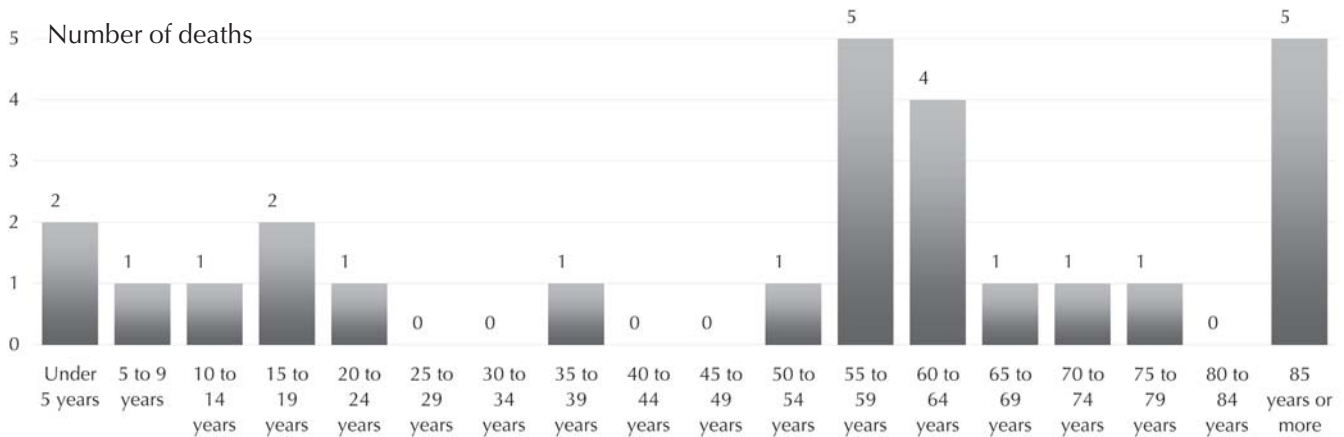
Firefighter injuries by type of fire and year

	Structure fires	Mobile property fires	Other fires	Totals
2006	91	5	13	109
2005	81	7	17	105
2004	83	1	14	98
2003	69	4	8	81
2002	83	3	8	94
2001	100	2	17	119
2000	100	7	8	115
1999	104	8	18	130

R Oregon civilian fire deaths and death rate by year data table

Year	Deaths	Deaths per million population	State population (in mils)
2006	35	9.5	3.69
2005	28	7.7	3.63
2004	42	11.7	3.58
2003	30	8.5	3.54
2002	45	12.9	3.50
2001	40	11.5	3.47
2000	42	12.2	3.44
1999	31	9.4	3.31
1998	28	8.5	3.28
1997	54	16.6	3.24
1996	56	17.5	3.20
1995	34	10.8	3.14
1994	51	16.5	3.09
1993	63	20.8	3.03
1992	51	17.1	2.97
1991	46	15.8	2.92
1990	40	14.0	2.86
1989	34	12.2	2.79
1988	45	16.4	2.74
1987	48	17.8	2.70
1986	50	18.6	2.68
1985	52	19.5	2.67
1984	48	18.0	2.67
1983	61	23.0	2.65
1982	60	22.5	2.66
1981	60	22.5	2.67
1980	63	23.9	2.63
1979	69	26.7	2.59
1978	74	29.4	2.52
1977	94	38.4	2.45
1976	95	39.9	2.38
1975	85	36.5	2.33
1974	84	36.8	2.29
1973	85	37.9	2.24
1972	85	38.7	2.20
1971	66	30.7	2.15
1970	89	42.6	2.09
1969	80	38.8	2.06
1968	68	33.9	2.00

Ages of persons dying in residential fires in 2006



2006 civilian deaths			
Type of fire	# of deaths	# of fires	Cause of ignition
One & two family dwelling fires	6	3	Undetermined after investigation
	2	2	Reckless act, cigarette
	2	2	Abandoned, discarded material, cigarette
	2	2	Heat source too close to combustible, cigarette
	2	1	Children with heat source, candle
	1	1	Liquid or gas spilled/accidental release, hot plate
	2	1	Source of heat unattended, candle
	1	1	Reckless act, woodstove
	1	1	Equipment not used properly, propane heater
	1	1	Equipment not used properly, extension cord
	1	1	Failure to use ordinary care, candle
One & two family dwelling total	21	16	
Apartment building fires	2	2	Undetermined after investigation
	1	1	Combustible too close to electrical stove in kitchen
	1	1	Incendiary/Suspicious
Apartment building total	4	4	
Shed/storage building	1	1	Undetermined after investigation
Welding area of college	1	1	Undetermined after investigation, involved arc welder
Outside fires	1	1	Improper fueling at municipal airport
	1	1	Reckless act, accelerant thrown on refuse fire in residential yard
	1	1	Failure to use ordinary care, cigarette in dumpster
	1	1	Heat source too close to combustible, warming fire
Outside fire totals	4	4	
Car fire	2	2	Car crashes
Motor home fire	1	1	Car crash
Recreational vehicle fire	1	1	Propane heater not operated properly
Total 2006 fatal fires	35	30	

Smoke alarms and fire in

Oregon Residential fire fatalities continue to occur in residences without smoke alarms or where alarms are present but do not work. In 2006, of the eighteen fire fatalities who died in homes where smoke alarm presence and performance were known, eight, or 44 percent, died in homes without a smoke alarm or one that was not working.

	1 & 2 family dwelling deaths	Apartment deaths	Other residential dwelling deaths*	Total residential dwelling deaths
No alarm present	5	1	0	6
Alarm present/not working	2	0	0	2
Alarm present/working	8	2	0	10
Alarm presence unknown	4	0	0	4
Alarm present performance unknown	3	1	0	4
Totals	22	4	0	26

*Other residential dwelling includes nursing homes and motels

2006 residential fire deaths and smoke alarms

- Twenty-three percent of all home fire deaths occurred in homes without a smoke alarm. (19 percent were in one- and two-family dwellings while 4 percent were in apartments.)
- Eight percent of the deaths were in homes that had smoke alarms but the alarms were not working because the battery was missing or disconnected.
- Thirty-eight percent of home fire deaths occurred in homes with working smoke alarms. (31 percent were in one- and two-family dwellings and 7 percent in apartments.)
- The remaining 31 percent of fatalities occurred in homes where alarm presence or performance was unknown. (15.5 percent of these unknowns occurred in one- and two-family dwellings and 15.5 percent occurred in apartments.)

What do the terms used to report fires mean?

- “All Fires” includes structure fires, mobile property fires, and other fires.
- “All Structure Fires” includes both residential and nonresidential.
- “Residential Structures” includes one- and two-family dwellings, apartments, manufactured homes, and other residences (motels, hotels, boarding houses and dormitories).
- “Nonresidential Structures” includes manufacturing, business and office, education, health care, storage and other commercial buildings.
- “Mobile Property” includes passenger vehicles, trucks, boats, aircraft, farm, and construction vehicles.
- “Other Fires” is a broad category made up of five different types of reportable fires; fires in cultivated vegetation, fires in natural vegetation, refuse fires including dumpster fires, other outside fires with value, and other fires not classified elsewhere.
- “Youth Involved Fires” includes children seventeen years and younger.
- “Fireworks-Related Fires” includes fires involving both legal and illegal fireworks.

[1979]

from the archives

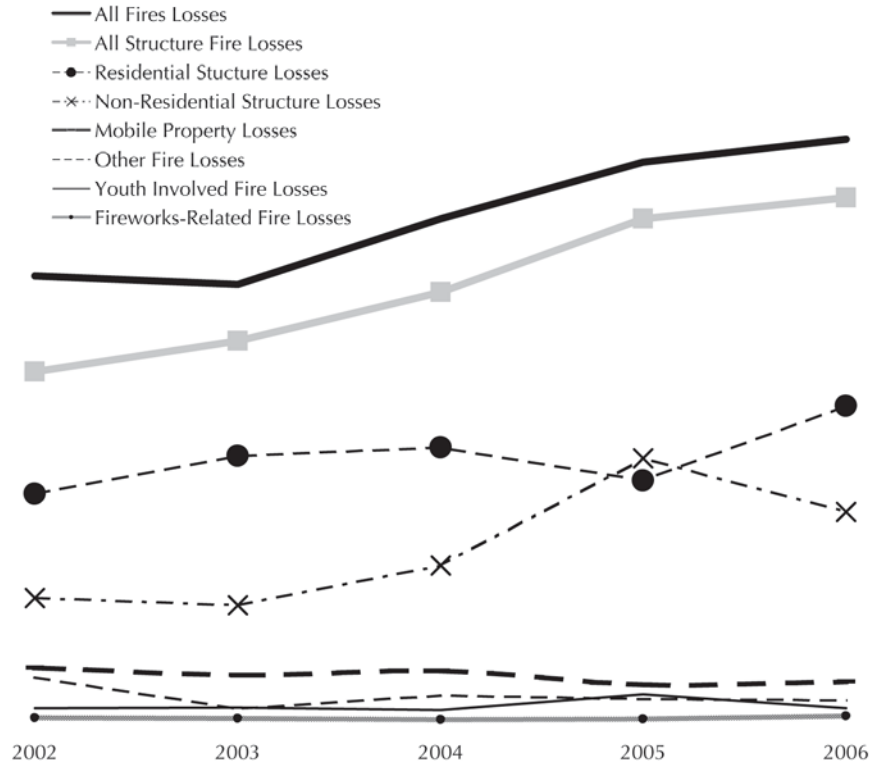
“The Legislature this year passed legislation making smoke detectors in all residential occupancies that are rentals mandatory, and also to require the installation of smoke detectors in owner occupied residences when they are sold.”

Financial losses In addition to injuries and loss of life, Oregonians experience financial losses from fires.

Estimated direct dollar loss, as provided by the firefighter on the scene, has risen over the last five years from \$114.7 million in 2002 to \$150.1 million in 2006. (These estimated losses are not adjusted for inflation and do not reflect actual loss, insurance settlement or loss of business.)

Most of the financial loss is related to the loss of structure. In 2006, direct structure fire loss accounted for \$135 million of the total \$150.1 million estimated loss.

Trend of dollar losses 2002-2006



Figures below are in millions of dollars

	2002	2003	2004	2005	2006
All Fires Losses	114.7	112.6	129.6	144.1	150.1
All Structure Fire Losses	90.0	98.0	110.5	129.5	135.0
Residential Structure Losses	58.4	68.2	70.5	61.9	81.2
Non-Residential Structure Losses	31.6	29.7	40.0	67.6	53.8
Mobile Property Losses	13.6	11.7	12.7	9.1	9.9
Other Fire Losses	11.1	2.9	6.4	5.5	5.2
Youth Involved Fire Losses	3.1	3.2	2.6	6.7	3.1
Fireworks-Related Fire Losses	0.7	0.5	0.2	0.3	1.1

[1938]

from the archives

“A study of the experience of an individual community or a city will show that some one major fire such as a manufacturing plant, a hotel, a sawmill, a conflagration involving a group of mercantile buildings or dwellings, has often produced a loss

in excess of all other fires which occurred in the community or city for the whole year. ... A study of the major fires shows conditions which increase the chances of probability of fires occurring because of construction principles used

and the nature and arrangement of contents. ...To a large extent these conditions can be corrected by building codes and for that reason every community should enact and enforce such codes.”

Fire's impact on people and property

Structure fires Structure fires per capita remained the same as in 2005, 1.2 structure fires per thousand population. The last seven years shows a downward trend in the number of structure fires per capita, from a high of 1.5 in 2001 to a low of 1.2 in the last two years.

Mobile property fires The 2,213 fires in this class represent 15.9 percent of the reported fires and an estimated loss of \$9.9 million in 2006. This category includes cars, trucks, recreational vehicles, airplanes and motorcycles.

The 2006 mobile property fires resulted in four civilian deaths, sixteen civilian injuries and five firefighter injuries.

Mobile property fires have declined over the last seven years.

Other fires The number of other fires per capita increased to 2.0 in 2006, up from 1.5 in 2005. Even with this increase, the seven year trend remains level.

Establishing fire-resistant homes and landscaping directly impacts the occurrence of these types of fires.

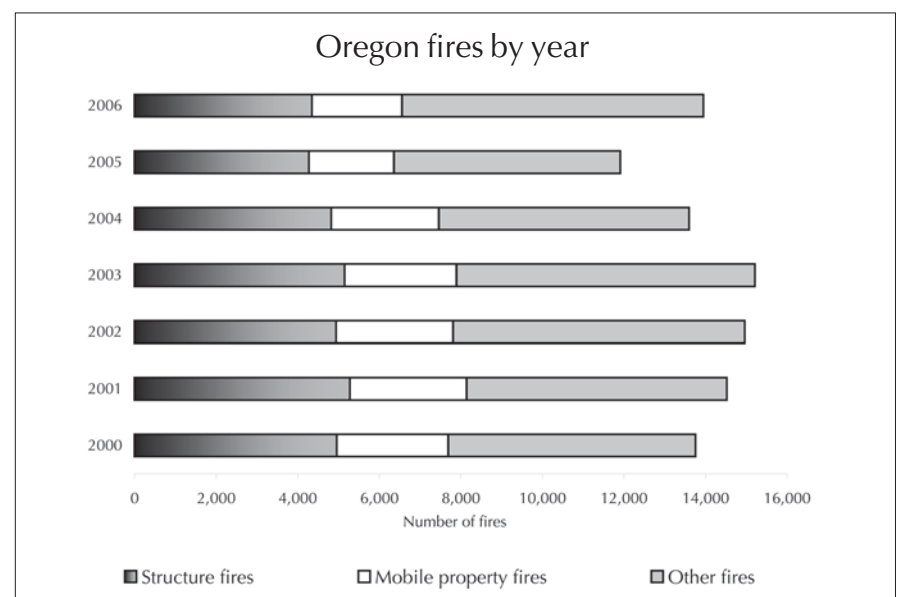
2006 summary statistics

	Structure Fires	Mobile Property Fires	Other Fires	Totals
Number of Fires	4,351	2,213	7,389	13,953
Civilian Deaths	27	4	4	35
Civilian Injuries	237	16	34	287
Firefighter Injuries	91	5	13	109
Estimated Dollar Loss	\$135,018,505	\$9,890,830	\$5,205,908	\$150,115,243
Mutual Aid Given				1,510
Non-Fire Incidents				278,100
Total Reported 2006 Incidents				293,563

Seven year trends

Year	Total fire service activities	Non-fire activities	All fires	Structure fires	Mobile property fires	Other fires
1998	214,630	201,488	12,027	4,608	2,653	4,766
1999	212,369	197,119	13,868	4,759	3,018	6,019
2000	192,854	177,738	13,760	4,957	2,738	6,065
2001	237,545	221,224	14,528	5,282	2,865	6,381
2002	207,715	190,916	14,969	4,944	2,870	7,155
2003	244,359	227,172	15,215	5,149	2,750	7,316
2004	303,804	288,388	13,603	4,825	2,639	6,139
2005	286,011	274,097	11,914	4,278	2,086	5,550
2006	293,563	278,100	13,953	4,351	2,213	7,389

Oregon fires by year

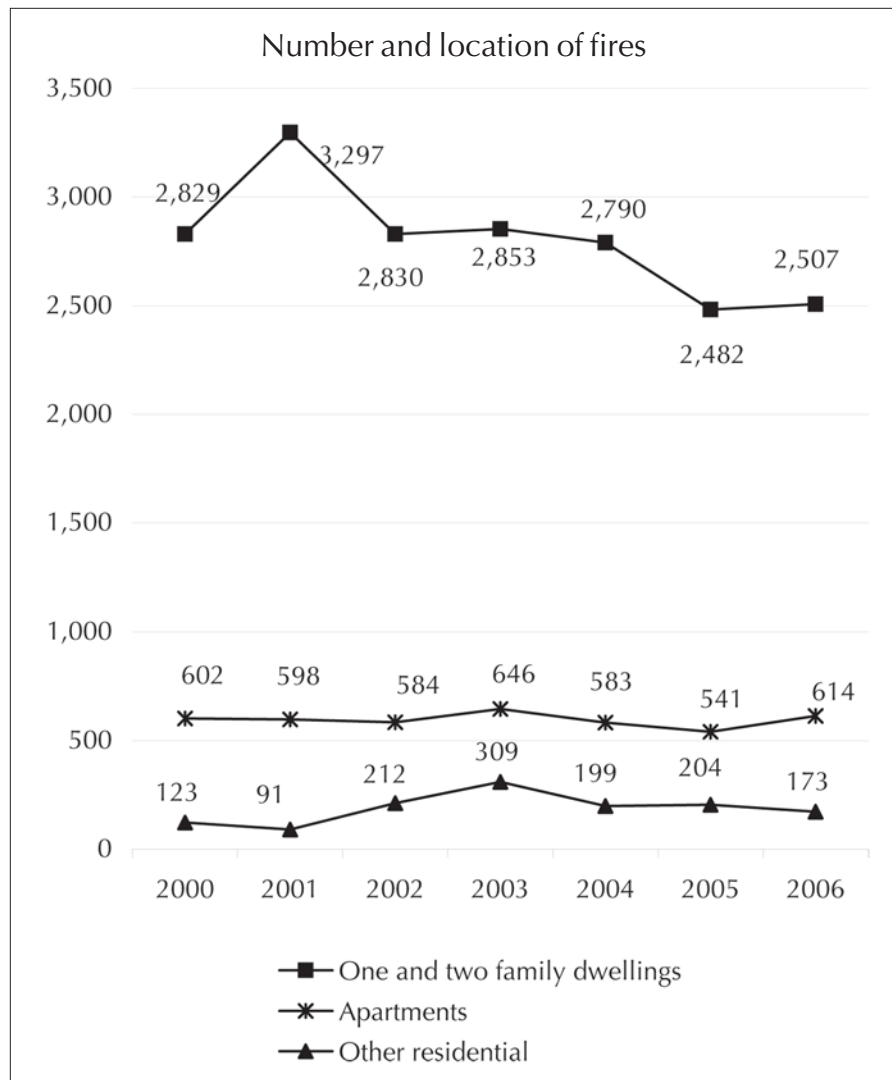


Residential structure fires

The majority of structure fires in Oregon occur in homes. The leading fire causes are shown in the table below.

The chart to the right shows the number and location of residential structure from 2000 to 2006.

In 2006, members of the Oregon fire service continued to distribute thousands of safety cards and posters containing educational information and safety tips for Oregonians about the top six causes of residential fires.



Number of residential structure fires by cause and year

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Fire Causes:									
Failure to clean	532	482	504	480	468	474	418	392	347
Abandoned, discarded material	125	166	181	190	184	211	262	242	237
Heat source too close	186	188	171	226	212	217	250	257	228
Other electrical failure	159	157	142	176	164	145	156	152	166
Unattended heat source	241	218	250	214	198	234	178	190	163
Short circuit, ground fault	211	208	187	200	152	157	151	121	134
Youth-caused fires	98	86	91	151	124	94	106	55	91
Unlawful incendiary or suspicious	200	191	142	159	80	91	99	99	91
Failure to use ordinary care	99	113	118	120	86	110	115	88	87
Combustible too close	168	164	134	104	73	70	61	49	50
Additional Data:									
Number of residential structure fires	3,328	3,455	3,544	3,986	3,755	3,808	3,572	3,336	3,294
Estimated dollar loss (in millions)	\$45	\$64	\$51	\$65	\$58	\$68	\$71	\$62	\$81
Number of civilian injuries	101	192	191	176	180	159	165	221	213
Number of civilian deaths	23	26	35	32	30	21	33	21	25
Number of firefighter injuries	132	142	117	149	98	51	67	61	72
Note: Estimated dollar loss is provided by the fire fighter on the scene and does not reflect actual total loss, insurance settlement or loss of business.									

Fires in homes and apartments by county 2006

County	# of fires	Civilian deaths	Civilian injuries	Est. dollar loss
Baker	25	0	0	67,725
Benton	38	0	1	453,150
Clackamas	328	2	20	11,089,412
Clatsop	40	2	2	833,210
Columbia	69	0	6	944,990
Coos	64	0	1	1,801,642
Crook	16	0	0	775,100
Curry	22	0	0	77,850
Deschutes	123	0	2	8,332,585
Douglas	78	2	2	825,248
Gilliam	4	0	0	790,000
Grant	6	0	0	18,000
Harney	2	0	0	95,000
Hood River	16	0	1	528,050
Jackson	153	3	19	2,172,526
Jefferson	27	0	0	664,700
Josephine	76	1	6	1,746,900
Klamath	63	0	0	751,150
Lake	2	0	0	0
Lane	239	2	10	7,213,655
Lincoln	55	0	4	1,654,710
Linn	104	2	3	1,884,760
Malheur	32	1	5	376,400
Marion	217	4	17	3,862,387
Morrow	8	0	0	313,800
Multnomah	659	4	69	15,425,878
Polk	59	0	3	945,070
Sherman	1	0	0	200,000
Tillamook	47	0	0	1,092,450
Umatilla	60	0	2	666,250
Union	17	0	0	517,500
Wallowa	5	0	0	0
Wasco	26	0	1	539,150
Washington	368	1	22	10,214,524
Wheeler	3	0	0	15,000
Yamhill	69	1	4	915,350
Oregon Totals	3121	25	200	\$77,804,122

There is a tendency for fires and associated losses to cluster in the most populated areas of the state. These data, combined with the known causes of residential structure fires, are tools fire departments can use in planning educational campaigns.

The number of fires in homes and apartments increased by 3 percent from 2005.

Non-residential structure fires accounted for 23 percent of the reported structure fires in 2006. These 1,057 fires resulted in an estimated loss of almost \$54 million and caused two civilian deaths, twenty-four civilian injuries and nineteen firefighter injuries. The highest number of fires and estimated dollar loss occurred in business and office structures.

The highest number of civilian injuries in non-residential structure fires in 2006 involved manufacturing and other types of properties.

Statewide initiatives to improve the quality of fire code administration and enforcement for commercial structures at the local level are crucial to reducing non-residential fires.

Note: Estimated dollar loss is provided by the firefighter on the scene and does not reflect actual total loss, insurance settlement or loss of business. One and two family dwellings, apartments, mobile homes, and manufactured housing are included.

Non-residential structure fires 2006

General type of property	Number of fires	Estimated dollar loss	Civilian injuries	Civilian deaths	Firefighter injuries	Firefighter deaths
Public Recreation	143	8,570,916	3	0	2	0
Education	105	302,423	1	1	0	0
Health Care	39	1,949,037	2	0	0	0
Business & Office	214	15,463,712	4	0	7	0
Basic Utility & Agriculture	75	5,225,451	3	0	1	0
Manufacturing	160	11,808,602	5	0	0	0
Storage	146	6,654,301	1	0	0	0
Other Uses	175	3,870,590	5	1	9	0
Totals	1,057	\$53,845,032	24	2	19	0

Mobile property fires Car fires represent the greatest number of mobile property fires. Most of these occur as a result of motor vehicle accidents.

Other fires Although these fires represent less than 4 percent, or \$5.2 million, of the total estimated dollar loss from reportable fires in 2006, they represent 53 percent of the fires reported. They were also responsible for four civilian deaths, thirty-four civilian injuries, and thirteen firefighter injuries. These fires represent a sizeable portion of Oregon's fire suppression activities.

Fireworks-related fires The 283 reported fireworks-related fires for the year 2006 show almost a 46 percent increase from the 194 fireworks-related fires for the year 2005.

Of the 283 fires reported in 2006, 191 (67.4 percent) occurred from June 1 through July 31, 2006, and resulted in an estimated dollar loss of \$1,095,857. Youths, seventeen and younger, were responsible for ninety-two (32.5 percent) of the 283 fireworks related fires.

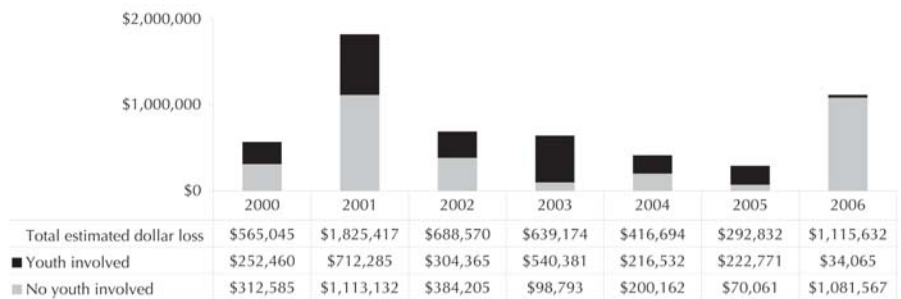
Mobile property fires 2006

Mobile property	Fires	Estimated dollar loss	Civilian injuries	Civilian deaths	Firefighter injuries
Cars	1,343	3,602,405	10	2	0
Pickup and vans	56	195,300	0	0	0
General use trucks, over 1 ton	37	319,250	1	0	0
Semi-trucks	105	1,907,166	0	0	2
Heavy industrial and agricultural equip.	75	513,740	0	0	0
Motorhomes	66	613,650	0	2	2
Travel trailers and camping trailers	48	141,450	0	0	0
Boats (motorized, commercial, other)	24	114,475	0	0	0
Aircraft	1	0	0	0	0
Other or unidentified type	458	2,483,394	5	0	1
Total mobile property fires	2,213	\$9,890,830	16	4	5

Other fires 2006

Type of fire	Number of fires	Estimated dollar loss	Civilian injuries	Civilian deaths	Firefighter injuries
Fire in natural vegetation, trees, brush, grass	3,699	761,713	9	0	8
Refuse fire outside, including dumpsters	1,467	143,582	3	2	1
Fire in cultivated vegetation, lawns, crops, orchards	884	222,119	2	0	0
Other outside fires, with or without \$ value	806	3,170,198	2	2	2
Fire, explosion; not classified above	533	908,296	18	0	2
Total Other fires	7,389	\$5,205,908	34	4	13

Fireworks-related estimated dollar loss by year



[1955]

from the archives

“Under Oregon law fireworks in the hands of the public are prohibited; however, the State Fire Marshal may issue permits for the supervised display of fireworks.”

Loss rates for Oregon structure fires

	All non-residential structure fires	Residential structure fires
Loss rates		
\$Loss/fire	\$50,941	\$24,643
Civilian injuries/1,000 fires	22.7	64.7
Fatalities/1,000 fires	1.9	7.6

Large loss fires by county

(losses are estimated)

In 2006, 13,953 reported fires in Oregon caused thirty-five deaths and an estimated direct fire loss of \$150.1 million. There were sixteen major fires in 2006 with an estimated loss of \$1 million or more. One civilian died and another three civilians and four firefighters were injured in six of the sixteen fires. The death resulted from an apartment building fire. The largest dollar loss, estimated at \$6.45 million, resulted from a fire in a furniture store. The sixteen fires represent \$39.5 million or 26 percent of the total estimated fire loss for 2006. Fires with an asterisk were investigated by OSFM deputy state fire marshals, either alone or with partners.

Clackamas

* Four-story, sixteen-unit apartment building. Cause: undetermined by fire investigation. Area of origin: living room of a unit. One civilian died. The fire extended to three other units. \$1,600,000

Deschutes

* Bend Plating Robotics. Metals polishing company. Cause: sparks/smoldering debris in contact with dust in the dust-control unit. Mutual aid was received. \$1,200,000

* Single family dwelling. Cause: failure of the automatic control in an electric water heater. \$2,502,000

* JTS Shavings. Wood shavings packaging company. Cause: incendiary. Area of origin: exterior wall. One department provided mutual aid. \$1,500,000

Jackson

* Callahan's Lodge. Cause: undetermined by investigation. Area of origin: kitchen from a commercial kitchen range/grill. Four departments provided mutual aid. \$3,600,000

Lane

* Log Cabin Inn. Historic building used as a lodge, restaurant, gift shop and bar. Cause: electrical short circuit in a commercial clothes dryer. The fire extended to three other units. Five departments provided mutual aid and one firefighter received minor injuries. \$1,450,000



Lincoln

* Single family dwelling, seasonal use. Cause: sock that ignited in a properly working microwave. It was thought to be extinguished and thrown into a trash can in the garage. The fire extended to two other homes, three cars and one boat. Two departments provided mutual aid. \$1,177,700

Marion

- McMahan's Furniture. Cause: undetermined by investigation. Area of origin: substructure crawl space. Two departments provided mutual aid; two firefighters received minor injuries. The fire extended to one other clothing store. \$6,450,000

Morrow

* Cascade Specialties Inc. Onion curing and drying facility. Cause: buildup of debris in a large commercial natural gas dryer/oven. Two civilians were injured. \$3,130,000

* Nomad Restaurant. Cause: electrical failure in a radiant heater. Area of origin: ceiling space. Mutual aid was provided. \$2,000,000

Multnomah

- Rexel Taylor Electric. Wholesale/retail industrial supplier. Cause: undetermined by investigation. Pallets burning outside extended to the building. One firefighter received minor injuries. \$4,700,500

- Columbia River Yacht Club. Cause: undetermined by investigation. Area of origin: a boat house and extended to six other boathouses. Three stored boats were a total loss. Mutual aid was received. \$2,807,000

- Design Craft Door Inc. Door manufacturing plant. Cause: incendiary. Area of origin: exterior wall. One department provided mutual aid. \$2,390,000

Washington

- St. Mary's Substation. Cause: equipment failure in a 20,000 gallon oil-filled transformer. One department provided mutual aid. \$2,050,000

- Far West Fiber. Recycling facility. Cause: unidentified object that got stuck in the large paper recycler. The fire damaged the machine and extended to the building roof. One civilian was injured. \$1,000,000

Yamhill

- Monroe Oak. Saw mill. Cause: undetermined after investigation. Area of origin: undetermined by investigation. Mutual aid was provided. \$2,000,000

Photos page 16

Top: Jackson County/Callahan's Lodge

Middle: Lane County/Log Cabin Inn

Bottom: Morrow County/Cascade Specialties

Office of State Fire Marshal provides statewide investigative assistance

Deputy state fire marshals are often called to assist local jurisdictions with various aspects of a fire investigation. Where the scope of the investigation is beyond the local jurisdiction's capabilities, deputies will conduct the investigation. Deputies investigate to determine origin and cause and whether the fire was the result of carelessness or design. The process includes diagramming, photographing, and digging the fire, as well as conducting interviews and producing investigation reports. A fire case may require the investigator to testify in court.

In 2006, deputy state fire marshals received 263 requests to perform fire investigations. Of those investigations, ninety-three were conducted primarily by the deputies; ninety-five were conducted collaboratively with partners such as other fire agencies, law enforcement and/or Oregon State Police arson staff. The remaining

seventy-five involved technical consultations with local authorities.

In 2006, deputies conducted investigations and provided technical assistance for a total of 3,412 hours — an average of eighteen hours per fire.



Juveniles and fire

Since 2002, reporting from OAIRS and Form 10 J has shown a slight decrease in the number of youth-set fires and the number of fire incidents.

In 2006, the average number of prior fires set by a youth before becoming involved with the fire department was four.

Gender Gender factors have remained constant for the last five years, with males accounting for 86 percent to 88 percent. Boys are significantly more likely than girls to be involved in firesetting incidents reported to the fire department.

Age In 2006, youths eight and over set the majority of fires. For the years 2002 to 2004, the age group of nine and under was between 31 and 37 percent. In 2005, the percentage peaked sharply to 49 percent followed by a sharp decline in 2006.

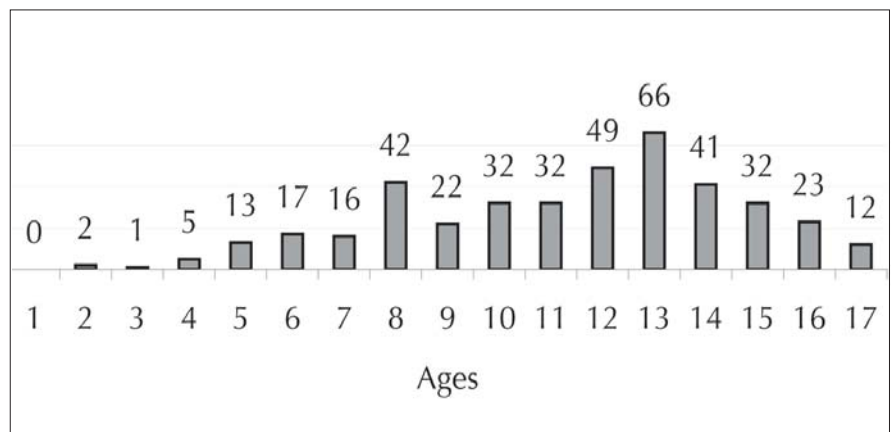
The age group of ten and over, from 2002 to 2004, rose steadily from 63 percent to 69 percent. In 2005, it declined sharply to 51 percent and rose sharply again to 71 percent in 2006.

Juveniles & fire	2002	2003	2004	2005	2006
Form 10	792	490	436	444	458
Form 10J	764	804	599	467	457
ODF (included in 10J)	34	39	28	21	37
Total juveniles	1556	1294	1035	911	915

Gender factors	2002	2003	2004	2005	2006
Male	696	697	485	382	366
Female	88	101	81	64	52
Percentage					
Male	89%	87%	86%	86%	88%
Female	11%	13%	14%	14%	12%

Age groups	2002	2003	2004	2005	2006
9 years & under	37%	34%	31%	49%	29%
10 years & older	63%	66%	69%	51%	71%

Age distribution of youths involved with fire 2006



Ignition source From 2003-2006, the data show a growing preference for lighters over matches. A match was used in 16 percent of the fire incidents and a lighter in 42 percent. The ignition source was obtained from home 48 percent of the time.

This year, for the first time, we have broken the data out into ignition source by region of the state. Note the tables below and to the left. The higher numbers overall in the Northwest region reflect the greater density of population residing in the region.

Northwest region *				
	Fireworks	Matches	Lighters	Explosives
2003	109	64	89	5
2004	81	42	90	3
2005	54	48	95	4
2006	72	34	102	5
Totals	316	188	504	17

*Benton, Clackamas, Clatsop, Columbia, Hood River, Lincoln, Linn, Marion, Polk, Tillamook, Washington, Yamhill

Eastern region **				
	Fireworks	Matches	Lighters	Explosives
2003	30	16	11	2
2004	25	8	7	3
2005	7	3	17	1
2006	6	8	15	5
Totals	68	35	103	11

**Baker, Crook, Deschutes, Gilliam, Grant, Harney, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler

Ignition source

	2003	2004	2005	2006
Matches	228	142	132	104
Lighters	367	288	282	269
Fireworks	194	134	76	93
Explosives	13	12	7	19
Smoking materials	29	21	35	37
Other (misc.)	119	126	135	114
Total incidents	950	723	667	636

Southwest region***				
	Fireworks	Matches	Lighters	Explosives
2003	11	8	8	0
2004	6	7	13	2
2005	6	4	16	0
2006	2	9	11	2
Totals	25	28	53	4

***Coos, Curry, Douglas, Jackson, Josephine, Lane

Incident location There were 553 fires with juveniles involved reported in the OAIRS program in 2006. These fires resulted in twenty-two civilian injuries and one firefighter injury and an estimated \$2.98 million in property loss. Of the 553 reported fires involving youths, 67 percent occurred outside.

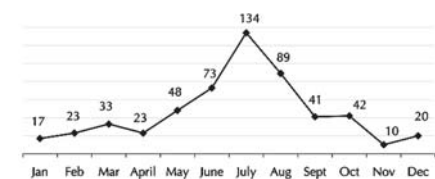
Locations of youth-involved fires have been consistent over the years that OSFM has been tracking juveniles and fire. They are locations that youths have access to: homes and apartments, schools, and yards and parks.

Incident location

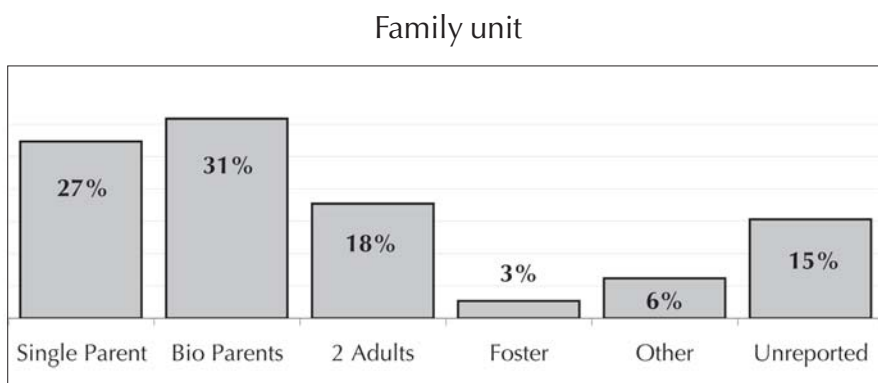
Incident location	2006
Single family/duplex	217
School	110
Street/alley/sidewalk	71
Apartment	65
Wildland & agricultural land	63
Yard/park/landscaping	55
Other	53
Other structure	36
Commercial building	24
Vacant lot	21
Vehicle	7
Church	6
Dumpster/trash	6
Other residence	5
Mailbox	0
n=739	

Month of occurrence As in previous years, the months of highest fire department involvement with youths are the summer months, peaking in July.

In July, seventy youth-involved fires were caused by fireworks, twenty-two by lighters, six by matches, and the remainder by a variety of other causes.

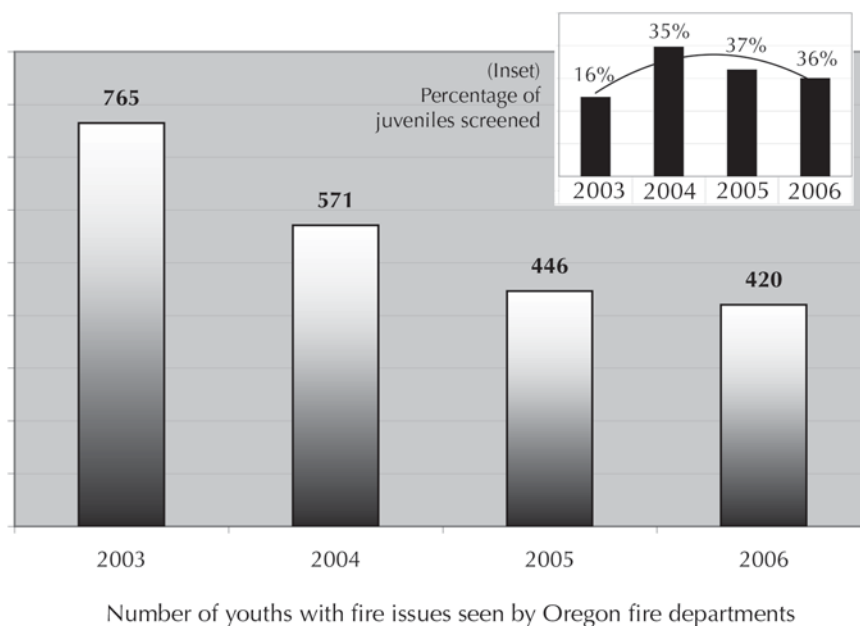


Family unit OSFM has been collecting data on family unit for several years and the findings remain consistent. In 2006, 49 percent of juveniles involved with fire lived in a two-adult family. Twenty-seven percent lived in a single parent situation.



Screening scores Forty-one percent of the youths involved with fire and seen by Oregon fire departments were referred for further evaluation and community services. The other 59 percent were determined to need fire education as the primary intervention for their behavior.

Youths reported to OSFM by the Oregon Department of Forestry (ODF) are not sent to fire departments for intervention. For this analysis of youths seen and screened, youths reported by ODF have been removed from the annual totals.



Impact of youth-involved fires

OAIRS data

- 139 structure fires resulted in ten civilian injuries and \$2.8 million estimated dollar loss;
- 373 outdoor fires resulted in two civilian injuries one firefighter injury, and nearly \$24,000 estimated dollar loss;
- 13 mobile property fires resulted in nearly \$55,000 estimated dollar loss; and
- 28 other fires resulted in two civilian injuries and over \$14,000 estimated dollar loss.

Total fires: 553

Total injuries: 23

Total estimated dollar loss (does not include suppression cost):

\$2,981,060.00

ODF data

- 37 juvenile-caused fires
 - 6 in Northwest area
 - 22 in Southern area
 - 9 in Eastern area
- 17 acres total burned
- Cost to suppress: \$36,360

Total fires: 37

Total suppression cost:

\$36,360

County juvenile incident data The table below shows the number of juvenile incidents with fire that came to the attention of fire departments. The OAIRS column details the number of fires requiring an engine response. The 10J column shows the number of youths receiving a fire department intervention. The total column reflects engine runs (if reported on Form 10J) and fire department interventions where an engine response may not have been needed.

County	Total	Intervention provided at fire dept 10J	Engine run reported on OAIRS
Baker	3		3
Benton	15	12	5
Clackamas	47	19	32
Clatsop	8	7	8
Columbia	61	6	56
Coos	10	5	7
Crook	3	2	1
Curry	2	1	1
Deschutes	35	21	17
Douglas	13	2	13
Gilliam	1		1
Grant	1		1
Hood	2		2
Jackson	16	4	14
Josephine	10	2	9
Klamath	20	10	15
Lane	71	18	58
Lincoln	8	3	7
Linn	27	1	27
Malheur	4	2	2
Marion	63	28	46
Morrow	3	1	2
Multnomah	204	83	146
Polk	6		6
Sherman	2		2
Tillamook	4		4
Umatilla	13	9	8
Union	4	2	3
Wasco	3	2	1
Washington	80	45	49
Yamhill	7	3	7
Total	746	288	553

[1918]

from the archives

“There have been several instances of suspicious fires reported to the department which, upon investigation, were traced to the depredations of juvenile offenders ranging in age from seven to sixteen years. It is not the policy or province of this department to deal harshly with youngsters of tender years, where, in the majority of cases, the parents are more to blame than the child, but some legal method of procedure should be devised whereby wayward minors, accompanied by their parents could be summoned to appear before a juvenile officer or magistrate of competent jurisdiction for cross-examination. No such authority exists under the present statutes for such examination, except upon formal complaint and warrant of arrest. Instances are rare which, under present limited authority of investigation, develop sufficient corroborative evidence to justify such extreme measures. Crafty parents of waywardly inclined children invariably take advantage of these statutory hobbles to thwart the investigations and lend encouragement to the embryo criminals who might otherwise be corrected and saved to law-abiding citizenship.”

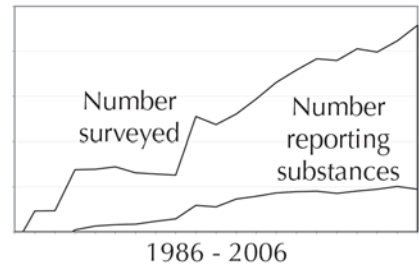
Hazardous materials tracking/response

Hazardous materials tracking The Community Right to Know Unit has collected information through the Hazardous Substance Information Survey since 1986. The survey is sent to covered employers, owners, and operators of fixed facilities where hazardous substances or wastes are likely to be used, stored, manufactured, disposed of, possessed or generated.

In 2006, surveys were mailed or sent electronically to 55,759 businesses. Since 1986, the number of facilities surveyed has grown sharply from 6,694 (1986) to 55,759 (2006). Of the 36,472 facilities that submitted the survey, 19,466 reported they had a reportable quantity of hazardous substances and 17,006 reported they did not have a reportable quantity. The remaining 19,287 (of the total 55,759 surveyed) had no reportable substances in prior years and their status was unchanged, so they were not required to submit a survey.

The North American Industry Classification System (NAICS) is a code used by business and government to classify and measure economic activity in the United States, Canada and Mexico. Industries that do similar things — such as using similar raw materials, equipment and labor — are classified together and most likely have reportable substances. Oregon NAICS having the most facilities reporting are shown in the table above.

Use of hazardous materials information Information about hazardous materials (hazmat) and hazmat incidents is made available by the Emergency Planning and Response Section. The majority of organizations seeking information are environmental organizations, general government, fire service personnel and private businesses. Survey databases are available on-line or on a CD. For security purposes, the CD available to the public and the on-line database do not contain secured information; the version for emergency responders contains the secured information. Incident data is available only on the Web or by request for unique data sets. In 2006, 693 CDs were distributed to 494 emergency responders and 199 public requestors.



NAICS #	NAICS Description	Count
611110	Elementary & secondary schools	1507
517212	Cellular & other wireless telecommunication	1395
811111	General automotive repair	1188
921190	Other general government support	1080
561730	Landscaping services	845

[1921]

from the archives

“RULES AND REGULATIONS GOVERNING STORAGE OF EXPLOSIVES IN THE UNINCORPORATED CITIES AND TOWNS OF THE STATE OF OREGON.

Section 1. It shall be unlawful to store or keep any dynamite, nitroglycerine, giant powder, or any other explosives, other than gunpowder, in any storeroom, wareroom, building or on any premises within the city limits.”

Counties with the most facilities

Multnomah	9,884
Washington	5,926
Clackamas	5,440
Lane	5,015
Marion	4,184
Jackson	3,194
Deschutes	3,143
Douglas	1,906
Linn	1,752
Yamhill	1,310



The top ten cities surveyed

City	Number of facilities surveyed	Facilities reporting substances	Total substances reported
Portland	9,622	3,323	23,437
Beaverton	1,326	1,043	2,129
Eugene	2,747	987	5,475
Salem	2,591	909	5,810
Bend	2,087	522	2,266
Medford	1,382	455	2,748
Hillsboro	1,203	400	2,537
Grants Pass	1,039	318	1,209
Roseburg	885	338	1,557
Klamath Falls	873	362	1,800

Chemicals reported

The chemicals reported in the largest single quantities are detailed in the table below.

Chemical name	Range amount	NAICS	NAICS description
Orienie, asphalt cement	500,000,000-749,999,999	324110	Petroleum refineries
Hazardous waste solid	250,000,000-499,999,999	324110	Petroleum refineries
Chlorine	100,000,000-249,999,999	221320	Sewage treatment facilities
Urea	100,000,000-249,999,999	424910	Farm supplies whsle
Jet fuel A	100,000,000-249,999,999	447190	Other gasoline stations

[1972]

from the archives

Chemicals reported The table below shows the number of casualties that occurred for each chemical, how many times the chemical was reported in the Hazardous Substance Information Survey (HSIS), how many times an incident was reported involving the chemical and how many incidents with casualties occurred involving that chemical. Not all casualties are directly caused by the hazardous chemicals. In some cases, the casualty was the cause of the incident. Some incidents involved more than one chemical. Where this is the case, the duplicate data is identified with an asterisk.

In 2006, there were no deaths caused by hazmat incidents and twelve natural gas incidents without casualties were reported.

The top five hazard classes and the number of incidents reported were miscellaneous hazardous materials (27), flammable gases (18), combustible materials (13), flammable liquid (10), and acute health hazard (9).

Behavior of chemical upon release

More than one behavior may have been reported for any one incident.

Contaminated area ... 26

Became airborne ... 24

Dispersed ... 21

No reaction ... 14

No release ... 12

Absorbed ... 11

Evaporated ... 9

Entered waterway ... 7

Caused fire ... 6

Contributed to fire ... 3

Caused explosion ... 2

Property loss 2001-2006

2001	\$6,684,229
2002	\$5,222,035
2003	\$1,655,628
2004	\$1,582,679
2005	\$4,254,603
2006	\$1,237,450

Reported most often in HSIS were:

Propane ... 5487

Diesel ... 4755

Oxygen ... 4564

Acetylene ... 3932

Motor oil ... 3826

Gasoline ... 3189

Lead acid batteries/wet ... 2625

Antifreeze ... 2369

Argon ... 1589

“This also appears to be a most encouraging sign since it would seem to indicate that the public is growing more aware of the total value to the community of this emergency service and is making greater use of the body of men in their fire departments who are trained, responsive and immediately available for any initial emergency action involving drownings, cave-ins, floods, explosions, wind storms, fires and the many other situations requiring immediate action.”

Chemicals involved where casualty occurred

Chemical name	Reported in HSIS	Number of incidents	Incidents w/casualty	Incident ID	Who	Injury due to exposure	Injury due to other	Hospitalized
Ammonia	237	6	6	060027	Civilian	1	0	0
				060031	Civilian	0	1	1
				060057	Civilian	3	0	0
Bifenthrin Pro	1	1	1	060021	Civilian	0	1	1
Diesel	4755	9	3	060011	Civilian	0	1	1
				060012	Civilian	0	3	0
				060029	Civilian	0	1	0
Gasoline	3189	6	2	060011*	Civilian*	0	1*	1*
				060033	Civilian	0	1	0
Liquid Nitrogen/Phosphorus	2	1	1	060016	Civilian	1	0	0
Propane	5487	5	1	060026	Civilian	1	0	1
Trichloroethylene	29	1	1	060023	Other responders	1	0	0
Unknown Chemical	0	11	2	060050	Civilian	0	2	0
				060065	Civilian	1	0	0

[1959]

from the archives



Photo: Douglas County Museum

“August 7 — (Roseburg) A fire in the Gerretsen Building Supply warehouse touched off the devastating explosion of a truck loaded with ammonium nitrate fertilizer* parked nearby, causing the death of thirteen people, one of them a fireman.

One hundred and twenty-five persons suffered injuries, some serious, in the fire and explosion ... the source of the initial ignition will probably never be determined.”

**Other accounts list the contents of the truck as eighty cases of 40 percent special gelatin and 180 bags of the blasting agent, CAR-PRILL, for a total of 6.5 tons of explosives.*

Some of the damages sustained by the city of Roseburg included a crater in the ground approximately fifty-two feet wide and twenty feet deep; the destruction of all buildings in an eight-block area; and heavy damage to structures in twenty-three surrounding blocks. Windows were broken as far as nine miles away and earthquake-like tremors were felt seventeen miles away. Damages were estimated at between \$10 million and \$12 million.

Fire crews from Roseburg Rural FPD, Myrtle Creek, U.S. Veterans Administration facility, Winston-Dillard Rural, Eugene and Springfield responded to Roseburg’s call for help. National Guard units from Roseburg and Cottage Grove worked to cordon off a thirty-block area from public access.



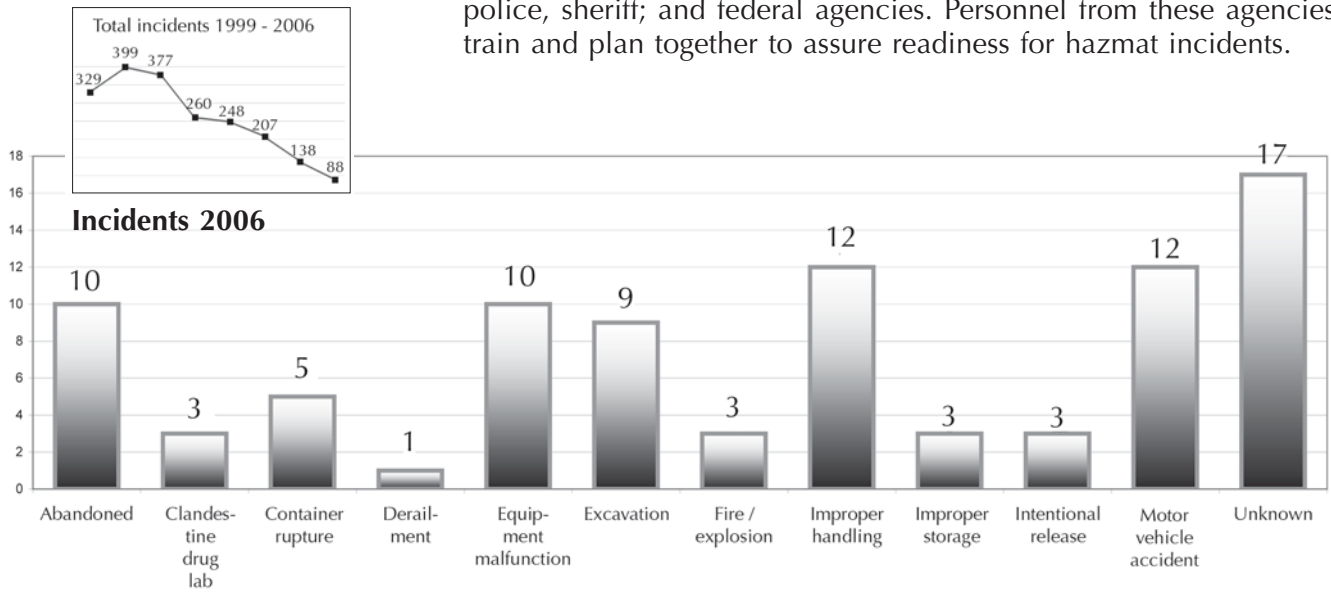
Former Deputy State Fire Marshals Ed Harris and Don Mills provided further information about the Roseburg Blast based on their memories from that time.

Don Mills Mills’ father, William E. Mills, was the Roseburg fire chief at the time and Don (age twelve) was at the scene. Don recounted that Roseburg Assistant Fire Chief McFarland was killed by a beam falling on his head as he was connecting a hose. A policeman, James Knight, was killed as he attempted to move the truck. Only his badge was found.



Ed Harris Ed recalled that Leonard Stender, a former OSFM deputy state fire marshal, was a paid firefighter working in the area. The blast blew his helmet off, but he didn’t realize it until thirty minutes later.

Hazmat incidents response Responding to a hazardous materials incident requires the coordination of the Hazardous Materials Response Teams and other state agencies; local fire department, police, sheriff; and federal agencies. Personnel from these agencies train and plan together to assure readiness for hazmat incidents.



Causes of incidents During 2004, the incident database was redesigned; hence, some of the cause categories are new and were not previously tracked.

2004 - 2006

- 21 \ 3 Clandestine drug lab
- 5 ^ 5 Container rupture
- 0 ^ 1 Derailment
- 14 \ 10 Equipment malfunction
- 6 \ 3 Fire/explosion
- 2 / 12 Improper handling
- 4 \ 3 Intentional release
- 71 \ 17 Unknown

1999 - 2006

- 26 \ 10 Abandoned
- 24 \ 9 Excavation
- 38 \ 3 Improper storage
- 28 \ 12 Motor vehicle accident

Agencies responding 2001-2006

Actions taken at the scene

Secure area	76
Identify hazardous material	67
Evaluate	57
Hot zone determined	57
Containment	32
Traffic control	29
Crowd control	23
Remove hazard	22
Evacuation	15
Public information release	15
Clean-up	14
On-site EMS	14
Decontaminate	9
Transport patient	6
Extinguishment	6

	2001	2002	2003	2004	2005	2006
Local fire dept	528	395	469	105	137	99
Hazmat team	200	128	137	120	94	63
Local police	359	224	242	47	52	19
Local other	158	88	52	23	18	5
Private other	57	63	46	7	33	31
State agency	54	40	35	13	46	28
Local sheriff				4	15	7
Federal agency	19	12	9	3	9	1
Total responses	1375	950	990	322	404	253

2006 // Results through collaboration

*OSFM values collaboration: partnering and cooperatively working with others to achieve our goals.**

Fire and Life Safety Services

Enforcement of Oregon's fire code remains our number one activity for deputy state fire marshals, however Oregon's rapid population growth and consequent building boom have presented special challenges to fire inspection, protection and prevention activities.

Fire and Life Safety Services staff spent over 6,100 hours on code enforcement, conducting 2,051 inspections and re-inspections in 2006.

Deputy staff concentrate their inspection activity on those occupancy classifications with our most vulnerable populations — the young, the old and those incapable of self preservation. The most frequently inspected facilities included schools, day care centers, assisted living, residential care, nursing homes, hospitals, and public assembly occupancies. During these inspections staff identified and abated over 2,000 fire and life safety deficiencies.

Construction in some areas of the state is outstripping the capabilities of local fire authorities to conduct plan reviews. For example, from 2002-2006, there were 133,600 housing starts in Oregon. Those developments needed review for fire department access and water supply, and many of those homes were built in areas without the usual infrastructure to support them. The lack of adequate water for fire suppression in many of these areas is a major issue. In an effort to address these and other issues relating to some of the discretionary parts of the Oregon Fire Code, OSFM began to work on the issues with local fire services and their planning and building departments.

In Wasco County, the fire service teamed up with the planning department and conducted specific on-site visits. By taking county personnel on a fire apparatus to these locations, they were able to illustrate the difficulties the fire department was having with access and water supply issues. The OSFM then presented the Fire and Life Safety

Awareness class on fire department access and water supply to the planning department and emphasized the need for improved communication with the planning department and the fire service at the county level.

This resulted in a collaborative effort between the fire services, land managers, technical advisors, contractors, and the planning department hired through Title III funding.

The eighteen-month process incorporated SB 360 requirements for property evaluation and fuels reduction, community wildfire protection plans (CWPP), current statutory requirements, Oregon Fire Code requirements and local ordinances. The requirements of these statutes, rules, codes, and ordinances were combined into a document that provides choices and alternatives for property owners and developers, and reduces the work load for county officials, planning department staff, the building department and the fire service.

Through a public process including hearings and public testimony, fire siting standards were formalized which address the issues of fire department access and water supply related to development and new construction throughout the county. This is accomplished by specifically addressing survivable space for structures and dwelling placement on the property, use of non-combustible construction materials, fire department access and water supply with a process for accepting alternate methods and materials when projects may become cost-prohibitive or impractical based on local conditions.

Josephine County has a similar program in effect and programs are under consideration in Sherman, Gilliam, Wheeler and Morrow counties.

**For more information about OSFM programs and services, see the agency brochure attached.*

Governor's Fire Service Policy Council In 2006, under the direction of newly elected chair Gary Marshall, the council continued providing advice and guidance on issues of common interest, policies and affairs that affect the fire protection and life safety of the citizens of Oregon. As a non-legislative year, the council met on a quarterly basis in January, April, July and October.

Code 3 / At-fault best practices The council will follow through on task force recommendations addressing standard guidelines and training for investigation of all Code 3 crashes, consistent crash investigation and reporting policies, regular collection and review of crash statistics, initial/ongoing training for emergency vehicle operators, and appropriate guidance and related educational initiatives for citizen drivers.

Fire sprinklers in manufactured housing A work group has been working to gain approval from local and national systems to meet standards for manufactured housing. Endorsement for status as a program from the Western Fire Chiefs Association is being sought. Contact with the Department of Housing and Urban Development is integral for completion causing the sunset date to be extended to December of 2007.

May Day A 2005 task force identified and defined eight critical yet common terms as standard emergency terminology and audible signaling in response to a need voiced from the fire service for a universal system of hazardous area evacuation, rescue notification and verbal/audible communications signals that can be used by all Oregon fire agencies. Since then the goal has been to inform the Oregon fire service.

Fire service stratification The council appointed a task force in July of 2004 to research the value and practicality of stratifying fire departments based upon response capabilities. The task force report made in May of 2005 identified issues with corresponding courses of action. The council consensus was to forward these recommendations to the Oregon Fire Chiefs Association in January, 2006 with the expectation they work with the Department of Safety Standards and Training to create a deployment model and training standard. OFCA has agreed to develop the recommendations into a best practice. A training standard will be developed once the best practice is finished. Their goal for completion is 2007.

Uniform and awards standards A task force was chartered in 2006 to develop a standard for Class A uniforms and meritorious award ribbons. Membership included representatives of Oregon Fire Chiefs' Association, Oregon Volunteer Firefighters Association, Oregon Fire Marshals Association, Portland Fire & Rescue, Tualatin Valley Fire and Rescue (TVF&R), the Honor Guard, Oregon Fire Medical Administrators Association and Oregon Fire District Directors Association.

A model guideline was created covering Authority and Responsibility, Class A Uniforms, Class B Uniforms, Class C Uniforms-Safety/Turnouts, Class D-Wildland Uniforms, Class C Uniforms-Exercise Clothing/Sleep Wear, Requesting Replacement of Worn out Uniform Items, Lost or Stolen Uniform Items, and Disposition of Uniform Items on Termination of Employment. In October, the report was accepted and forwarded to the Oregon Fire Chiefs Association for adoption as a best practice.

Statewide apparatus numbering A request was made to consider creating a statewide numbering plan for apparatus. After discussion, group consensus was that the expense of repainting apparatus and reprogramming CADs would be high, numbers would be long and cumbersome for radio time, systems currently in place work well, and that the system should remain regional.

IMT qualification standards In April, all-hazard Incident Management Team (IMT) training was brought to the council for standardization. A charter was created and accepted in July with a mission to provide Oregon all-risk incident management team qualifications. Representatives of Department of Public Safety Standards and Training (DPSST), Oregon Department of Forestry, Oregon Fire Chiefs' Association, Oregon Fire District Directors Association, Oregon Emergency Management and Pacific Northwest Coordinating Group are meeting to identify training and qualification standards for type 1, 2 and 3 IMTs, achieve consensus from major stakeholders, and attain adoption of the standards by DPSST.

System development charges (SDC) At the January meeting discussion began on system development charges. SDCs have not been specifically addressed in discussions attempting to resolve new water supply requirements in the Oregon building and fire code. At the April meeting the scope of the project was widened to include obtaining information on commercial fire sprinkler systems. With the assistance of TVF&R, Wilson-Heirgood Associates and Western Advocates, the OSFM gathered SDC information specifically as it relates to upsize charges for the installation of a residential fire sprinkler system. Survey results were discussed and the council is forming a task force to create a tool box to sell residential fire sprinklers to local water purveyors showing the benefit to reduce water usage.

Informational Reports

Water supply conflict resolution In April, a code expert provided background on the conflicting water supply appendices in the state fire and building codes. The Oregon Fire Code Committee has been looking at the issues with new 2007 code discussion. A new fire code was created — Appendix B on *Fire-Flow Requirements for Build-*

ings which is an amalgamation of Appendices B and K. This outcome is an important step forward in relations between building and fire code authorities.

Governor's Fire Service Summit A presentation was made showcasing the summit held at Portland Community College for the fire service. Approximately seventy people attended and many issues facing the fire service were discussed: state fire service structure, delivery methods, funding sources, homeland security, education and training, inspection, prevention and public education, urban interface and wildland fire, emergency medical service, and hazardous materials. The hope of the organizers is to continue this tradition with added sponsors and a different location.

DLCD and skinny streets SFM Orr reported the Department of Land Conservation and Development (DLCD) was amending their rules and trying to simplify street guidelines. The proposed street standard generated wide opposition. DLCD suspended rule adoption. A compromise was made by fire service supporters and DLCD.

Hazmat teams standard of cover The OSFM formed a work group to create a standard of cover for the state hazmat incident response system. They evaluated the team's present practices and regulatory requirements, built an historical base, and compiled a comprehensive risk analysis. Different risk studies were looked at and compiled to see if they are currently in sync with the levels of service expected. A sixteen-year history was documented. This will give the OSFM the information for determining response configuration and compliance to standard.

Code consistency initiative The OSFM is making considerable progress in steps toward consistency and competency. The goal was to reach 85 percent of all fire chiefs with the first competency level this year and that deadline will be met. The rules have been amended to require those who review plans meet a higher level of expertise. The recognitions are voluntary now. As training becomes more widely available, the rules will be amended to make them mandatory. The outcome is that those who have taken the training can interact better with local building officials and gain respect from them.

2006 // Results through collaboration

The Oregon Life Safety Team

The team coordinates and implements consistent statewide fire prevention education. Team partners include the community education staff, fire department representatives from each county and partner representatives from Oregon Fire Chiefs Association, Oregon Fire Marshals Association, Oregon Volunteer Firefighters Association, Oregon Fire District Directors Association, Oregon Fire Education Association, Oregon Fire Instructors Association, Oregon Fire Service Office Administrators, Oregon Department of Forestry, Oregon Burn Center, Consumer Product Safety Commission, the public at large, and the insurance industry — Oregon Mutual Insurance Company.

The Oregon Life Safety Team focused on smoke alarm installation and maintenance as the overall theme for the year. The team looked at successful marketing strategies and programs to reach the deaf and hard-of-hearing, landlords and tenants, the Spanish-speaking population, and the effective use of television and radio media.

The team also addressed the sale of non-compliant smoke alarms in Oregon with the Dupont Corporation.

The Oregon Life Safety Team supported:

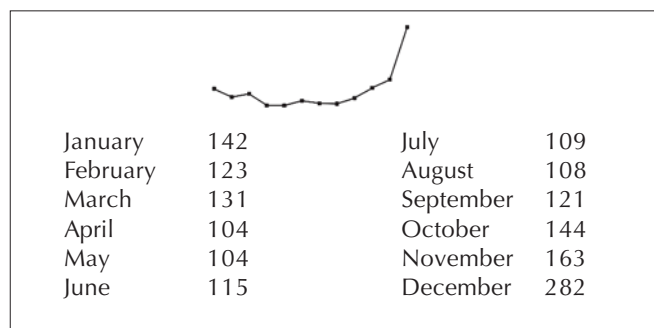
- the Oregon Fire Safety Coalition’s fire-safer cigarette legislation,
- State Fire Marshal Orr’s petition to the Consumer Product Safety Commission to re-evaluate the federal safety standard on novelty lighters.

In June 2006, the Oregon Life Safety Team partnered with the Office of State Fire Marshal to host a statewide public education conference at Western Oregon University. Over ninety-five fire personnel attended.

The Oregon Life Safety Team provided consistent prevention education messages by producing and distributing:

- The *Home Fire Safety Is Up to You* campaign materials in Spanish...
Materials included posters and flash cards depicting the leading causes of home fires (cooking, cigarettes, electrical, candles, combustible too close to a heating source, messy housekeeping, and kids and fire). They were distributed to fire departments serving the Hispanic community.
- New cooking safety tool kits ...
Kits included updated statistics, press release, fact sheet and PSAs. They were distributed to representatives for regional and association distribution in support of the national fire prevention week theme of kitchen safety.
- Posters making the public aware of the dangers of novelty lighters for young children.

Home candle fires are twice as likely to occur in December than any other month of the year (see chart below). Oregon data show that from 1990-2006, 17 percent of all home candle fires occur in December, twice the monthly average of 8 percent. This compares closely to the 2004 NFPA data which indicates that 14 percent occur in December, almost twice the monthly average of 8 percent.

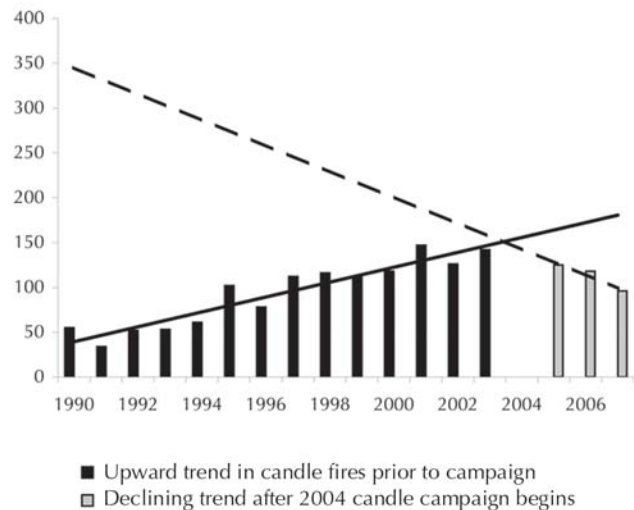


Home candle fires rose steadily from 1990 through 2003, becoming an increasingly prevalent cause of home fires. To address the problem, OSFM and the Oregon Life Safety Team initiated a statewide candle safety campaign in 2004.

Since then, the number of home candle fires in Oregon has trended downward. Education and prevention efforts have elevated Oregonians' awareness of the risks associated with candles, but the data show there is still much to be done — in 2006 five Oregonians died in candle fires.

In the Oregon data shown in the charts to the right, "homes" includes one- and two-family dwellings, duplexes, manufactured housing and apartments.

A comparison of national and Oregon candle fire data appears below.



Oregon Data 2006

In Oregon, candle fires caused:

- 20 percent of all home fire fatalities
- 5 deaths
- 15 injuries
- 7.5 percent of all home fires
- \$3.1 million estimated direct property loss

Home candle fire characteristics:

- 94 percent of all reported structure fires started by candles occurred in homes
- 34 percent started in the bedroom
- 36 percent occurred when some form of combustible material was left or came too close to the candle
- 25 percent occurred when the candle was left unattended or abandoned
- 8 percent were started by children involved with candles

National data 2004

Nationally, candle fires caused:

- 7 percent of all home fire fatalities
- 200 deaths
- 1,540 civilian injuries
- 4 percent of all home fires
- \$200 million estimated direct property loss

Home candle fire characteristics:

- 91 percent of all reported structure fires started by candles occurred in homes
- 38 percent started in the bedroom
- 54 percent occurred when some form of combustible material was left or came too close to the candle
- 20 percent occurred when the candle was left unattended or abandoned
- 4 percent were started by people (usually children) playing with the candle

[1918]

from the archives

"... the State Fire Marshal and his assistants have delivered eighty-seven lectures on fire prevention subjects, accompanied by moving pictures, showing how the fire fiend gets in his nefarious work through CARELESSNESS."

IMT Communications Unit

The Office of State Fire Marshal's Incident Management Team Communications Unit is a partnership of public and private organizations that permit their members and/or employees to deploy to emergencies and provide communications and interoperability for other responders.

All IMT Communications Unit members are licensed amateur radio operators with considerable experience and technical skills related to emergency communications. Combined with the communications equipment owned by OSFM, they develop ad hoc area communications systems where systems do not otherwise exist or have failed.

The individuals who participate in this unit come from all walks of life — business owners, police officers, bankers, retirees, university professors, public works professionals, teachers, and many more. With their diverse backgrounds and experience they are able to tackle a wide variety of challenges, from radio communications and wireless internet to satellite communications.

During the 2006 wildfire season, this group deployed for seven days to the Foster Gulch Fire in Halfway, Oregon. Virtually no communications were available as base camp was being set up on the first day. Within ten minutes of the communications unit's arrival, a satellite link was in place providing two voice-over internet (VoIP) telephone lines and a 5000' diameter wireless internet "hotspot" with internet access.

By the time the first conflagration responders arrived, the communications unit personnel had developed an initial communications plan and programmed enough radios to issue to arriving resources prior to deployment on the fires. In addition, a remote repeater site was established made it possible for firefighters to communicate with command from the bottom of Hells Canyon. While manning the repeater site they were able

to transmit photographs of the fire's progress over the radio system to base camp.

During that week, the Black Crater Fire near Sisters, Oregon, required additional members of the communications unit to respond. They were successful again at establishing emergency communications for firefighting efforts.

Oregon Fire Safety Coalition

The Oregon Fire Safety Coalition was formed in 2006 to focus on fire service issues that require a statewide partnership to achieve legislative change.

A highlight of the coalition's efforts in 2006 was working on the passage of Oregon's Fire-Safer Cigarette (reduced ignition propensity) legislation House Bill 2163. Their efforts resulted in Governor Kulongoski signing the bill into law on April 17, 2007.

The bill was supported statewide through a cooperative process with the Oregon Fire Safety Coalition, Office of State Fire Marshal, fire service organizations, Oregon legislators, insurance companies, labor unions and Philip Morris Tobacco Company.

Under the legislation, starting January 1, 2008, only reduced ignition propensity cigarettes will be legal for sale in Oregon. The cigarettes will be manufactured using a special cigarette paper that contains two porous lowered-permeability bands (speed bumps) in each cigarette to restrict the burning of the tobacco. When not puffed on, the burning tobacco will reach one of these speed bumps and self-extinguish. Additionally, the law allows the Office of State Fire Marshal to impose civil penalties for distribution or sale of cigarettes that do not have reduced ignition propensity or that are improperly marked as having reduced ignition propensity.

The Office of State Fire Marshal License and Permit Services Unit will be carrying out the program requirements of the legislation.

OAIRS Advisory Committee

The Office of State Fire Marshal and the Oregon Fire Chiefs Association collaborated to establish a statewide task force to assess Oregon's incident reporting requirements.

The task force identified areas of the current Oregon All Incident Reporting System (OAIRS) requiring revisions to improve the incident reporting system for the Oregon fire service.

Task force members represented the state's fire service associations, Oregon fire departments, insurance industry, Oregon Department of Human Services Health Division, Emergency Medical Services and Trauma Section and OSFM staff.

In 2006, the task force established a standing advisory committee to provide ongoing guidance and recommendations to the state fire marshal on development and implementation of the new incident reporting system. Committee members represent the Oregon Fire Chiefs Association, Oregon Fire Marshals Association, Oregon Fire Service Office Administrators, commercial software users, a previous OAIRS task force, fire departments using their own in-house reporting software and the OSFM.

The standing advisory committee approved recommendations from the codes subcommittee giving direction necessary for OSFM to prepare a request for proposal to obtain bids from contractors to complete the new OAIRS web-based reporting system. The new system will be compatible with NFIRS 5.0 codes, data elements and reporting standards, and include Oregon's additional requirements.

OAIRS Standing Advisory Committee initial findings include: OAIRS codes, data elements, and reporting standards are inconsistent with requirements of the United States Fire Administration (USFA) collected through NFIRS 5.0.

Some fire departments use NFIRS 5.0-compatible commercial software to report incident data to the OSFM. This data must be converted first into OAIRS then back into NFIRS 5.0 prior to submitting Oregon's data to USFA. Other fire departments use OAIRS software to report incident data to the OSFM. This data must also be converted to NFIRS 5.0.

The conversion process to make data NFIRS-compatible is time-consuming, generalizes the data and compromises data quality.

Novelty lighters call to action

State Fire Marshal Orr, in summer of 2006, issued a national call to action to encourage Consumer Product Safety Commission to reevaluate the standards for novelty lighters.

The juvenile firesetter intervention program has had a long history of being concerned about the dangers of lighters — including novelty lighters — in the hands of young children.

By statute, novelty lighters are subject to the safety standard that requires that at least 85 percent of children in a test group must be unable to operate the lighter. That standard is commendable and has saved thousands of lives. However, children cannot discriminate a toy from a fire tool that looks like a toy. For example, there are lighters on the market that resemble matchbox cars, animals and game pieces. Other lighters look like adult tools in miniature — a cell phone, hammer, bottle opener and felt-tip marker are just a few examples.

The summer edition of *Hot Issues* included State Fire Marshal Orr's call to action and a photo gallery of novelty lighters. This resulted in organizations such as the Governor's Fire Service Policy Council, NFPA, the Volunteer Fire Council, Western Fire Chiefs Association, Indiana and Texas state fire marshal offices, The Burn Institute in San Diego contacting the CPSC and asking that novelty lighters be banned in the United States. The list of supporters continues to grow.

License and Permit Services

This unit works with stakeholders in the areas of fireworks, explosives, liquefied petroleum gas and cardlock facilities. Regulatory streamlining projects were completed in fireworks and explosives, making process more efficient.

Fireworks License and Permit Services staff formed a successful partnership with Tualatin Valley Fire and Rescue, Portland Police, and Portland Fire Bureau to devise an illegal fireworks destruction project. Several burns were done in 2006 and burning the remainder of the long-standing cache of illegal fireworks will be completed by April 2007. This project will take place as needed each year, and will allow the OSFM to accept and destroy fireworks that Oregon fire departments have seized.

Permits for agricultural fireworks were extended from two to three years. This will decrease the paperwork agricultural fireworks users must complete. This was a regulatory streamlining project.

Explosives A new statute took effect January 1, 2006, and the License and Permit staff updated and changed the explosives administrative rules. The change allows explosives magazine inspection times to be aligned with the federal Bureau of Alcohol, Tobacco, Firearms and Explosives inspections. This regulatory streamlining will extend the state requirements from two to three years and eliminates duplication of inspections by the state and federal agencies.

Liquefied Petroleum Gas (LPG) – Compliance staff conducted 723 residential propane container installations across nineteen counties in 2006.

The LPG program built a stronger partnership with the Northwest Propane Gas Association (NWPGA) by submitting an article for their newsletter, *The Pineapple Connection*. The article was also published to the OSFM Web page. The article contained information on propane containers installed in recognized floodplains.

A successful collaboration with the Oregon Fire Code Committee and the Northwest Propane Gas Association (NWPGA) helped align fire code to better serve the industry and the LPG program.

The NWPGA offered training to our compliance staff through their certified employee training program. By completing the training, compliance staff received a certification of completion in "Vapor Distribution System Installation."

Industry partnerships were also strengthened when compliance staff developed a common residential LPG inspection elements general guideline as a resource to the industry.

Public partnerships were enhanced when multiple housing associations received information on our formal interpretation of the requirements for aesthetic fencing around propane containers.

Relationships with fire service partners grew as well with our open invitation to accompany our staff on residential LPG field inspections.

Cardlock Cardlock staff worked with the cardlock advisory committee and the Oregon Fire Code Committee to bring forward the International Fire Code, which will take effect April 1, 2007. Model code will require signage warning of the dangers of static electricity.

The budget reflects OSFM priorities and long-term strategies

The following criteria guide budget development.

- Develop budget needs based upon identified program priorities and goals.
- Provide mandated services effectively and efficiently.
- Measure outcomes.
- Coordinate delivery of emergency services and support for fire, hazardous materials response and structural collapse, emergency services and support specialized for extraordinary needs of local communities.
- Plan, develop and promote statewide fire prevention strategies, initiatives and models.
- Maintain involvement in and coordination of multi-jurisdictional teams and task forces in all program areas.
- Focus effort toward partnerships that produce results for community-based protection, education, and intervention needs.
- Continue development of and investment in automation and communication technology to improve services and meet our mission.

To accomplish its mission, OSFM has adopted these strategies.

Partnering - OSFM delivers community safety services that are comprehensive, effective and of high value through partnering with the fire service and others, including citizens, interest groups, and public safety and natural resource agencies at all levels of government.

Results-focused customer service - OSFM services are planned, developed and delivered collaboratively with stakeholders. All program managers strive for timely response and the development of competent, empowered, problem-solving employees. Each program has adopted performance measures for key mission areas, and each manager works with their employees to develop a biennial work plan to accomplish its goals. Process and outcome improvement is emphasized at all levels in all programs.

Workforce development - This is a key component to competent employees, effective problem identification and solving, effective communication, and leadership development. The success of our services in meeting our mission relies upon our employees.

[1918]

from the archives

FINANCIAL STATEMENT

“The following statement covers the receipts and disbursements of the State Fire Marshal Department from April 1, 1917, to April 1, 1918:

RECEIPTS

Annual license fees from 147 insurance companies ...
\$8,834.59

DISBURSEMENTS

Salaries, field deputies and stenographers ... \$5,214.35
Office supplies, stamps, telegraph, telephone and incidentals ... \$1,580.75
Total expenditures ...
\$8,833.45

Balance on hand April 1, 1918
... \$8,834.59

Oregon State Fire Marshal

2006 Financial Report

For the period January 1, 2006 through December 31, 2006

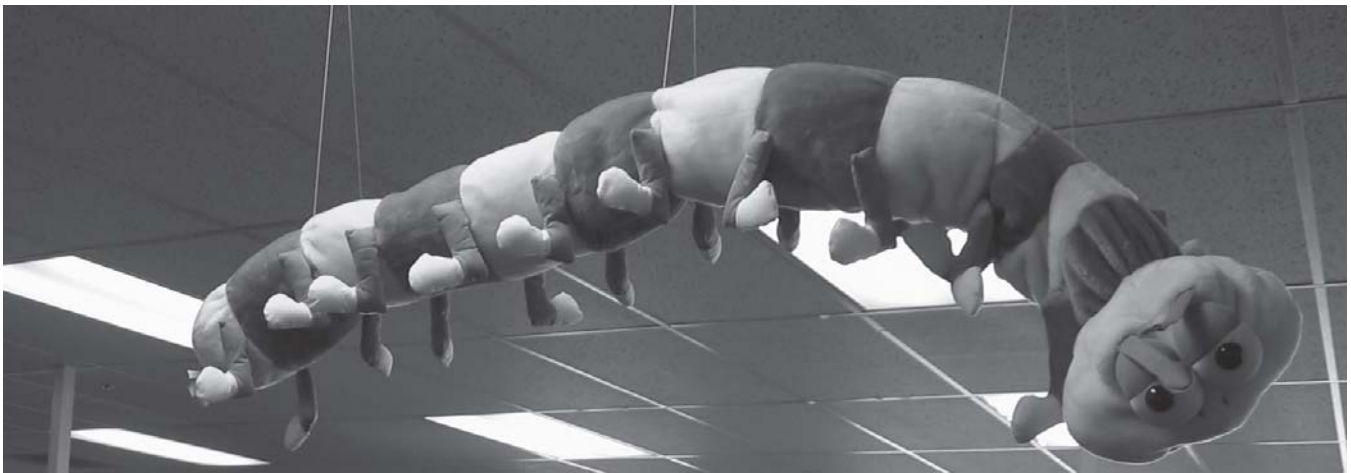
Program Related Revenues ²:	Fire Programs	\$ 8,017,231
	Fireworks	99,128
	Cardlock	299,273
	Liquefied Petroleum Gas	305,587
	Explosives	16,965
	Community Right to Know	1,586,606
	Hazardous Materials Response Teams	570,240
	Grants ³	1,486,709
	Conflagration Reimbursements ³	298,279
Total Revenues		\$ 12,680,018
Expenditures for:	Payroll	\$ 5,395,708
	Travel	147,116
	Training	219,309
	Office Services and Supplies	504,984
	Intra-Governmental Services	406,752
	Information Services Software and Equipment	157,432
	Professional Services	99,183
	Facilities Rent, Utilities and Maintenance	541,631
	Hazardous Materials Teams Medical Monitoring	78,961
	Hazardous Materials Equipment, non-grant	178,409
	Overhead Teams Equipment, non-grant	204,813
	Fire & Life Safety Equipment, non-grant	27,197
	Office Furniture and Equipment	12,966
	Grant Expenditures ³ :	
	- Hazardous Materials Equipment and Supplies	455,715
	- Urban Search and Rescue Equipment and Supplies	522,664
	- Hazardous Materials Emergency Planning & Training	180,590
	- Table Top Hazard House	17,580
	2006 fire costs from McLean Creek & Black Crater fires ³	1,798,281
	Arson Investigation	1,026,918
	Department of Public Safety, Standards and Training	2,192,065
Total Expenditures		\$ 14,168,274
Operating Funds increase/(decrease) carried forward to 2007		\$ (1,488,256)

Footnotes:

¹ The 2006 Financial Report is prepared using "Cash Basis" accounting.

² Program Related Revenues consist of but, are not limited to all of the following major user funded sources: Fire Insurance Premium Tax; Mental Health Facility Inspection billings; Fireworks Permits; Cardlock Licenses and Fees; Liquefied Petroleum Gas Licenses, Examination, Installation and Fees; Explosives Registration, Possession and Examination Fees; Hazardous Substance Possession Fees, Petroleum Load Fee; Grants and; Fire Reimbursements.

³ Grant or Fire revenues and expenditures normally do not match up during any one specific accounting period. Expenditures are made during one period, reported during a later period and normally reimbursed during a subsequent accounting period.



Employees at the Office of State Fire Marshal ...

Toy drive The OSFM staff, led by the Community Education Unit, made significant contributions to the 2006 Governor's Toy Drive. More than \$2,100 was raised through a variety of events including jeans days, popsicle days, bake sales, a plant sale, silent auction and an agency-wide barbecue.

In a change from the normal focus on toys during the holidays, the Community Education unit concentrated this year's efforts on the gift of reading by purchasing books to give to the children for the holidays. In partnership with national book retailer Borders Books, a price discount allowed the \$2,100 raised to purchase books valued at more than \$2,600. More than 570 books were displayed in the capitol rotunda along with a custom-made firehouse bookcase constructed and donated by Oregon Correctional Enterprises.

The OSFM staff discovered their own joy in remembering the books of their childhood while supporting the Governor's literacy program.

Business partnership Renewed energy marked activities in 2006 with our business partner Lake Labish Elementary School.

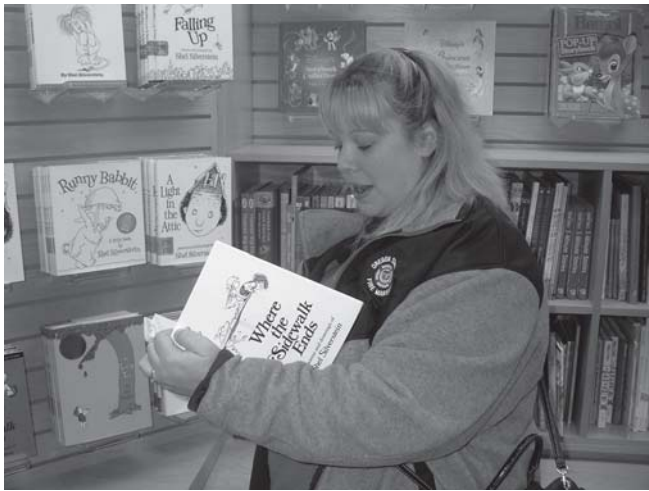
Following a school fire in 2004, the students and staff were displaced for the 2005-6 school year. In the fall of 2006 they returned to a refurbished and enlarged school, much to their delight.

Our office, with the support of State Fire Marshal Orr, formed a focus group to brainstorm new ways to assist the school. Many fund raising ideas were born, including a garden group. The group provided mini greenhouses and seeds, cleared and placed raised beds, and coached teachers on assisting the students as they experienced the wonder of nature.

Other projects we helped the school with were a Readathon, valentines for each child with a pencil attached, Dr. Seuss's Birthday "Read Across America" Day, tutoring students in

Photo above Read-a-Pede, Toy Drive mascot
Photo right Dr. Seuss Day at Lake Labish School





... donate generously to the community.

reading, “prizes” and personal items such as toothbrushes, combs, hotel shampoos, lotions as motivational gifts for students, and gathering plastic bags and Box Tops/Campbell Labels for Education.

The rewards are ours. We receive many thanks from the staff and students. All funds raised and time spent are donated by employees and separate from OSFM budget funds.

Governor’s food drive The Administration Section of OSFM was in charge of the annual food drive in 2006. Administration issued a challenge to all OSFM units: The unit that raised the most money during the month of February would be treated to an ice cream social, with State Fire Marshal Orr and Chief Deputy Simpson serving the ice cream. The challenge was won by License and Permit Services.

Employees raised over \$2,000, and donated 179 pounds of food. Together, the donation was equivalent to 12,214 pounds of food.

Photos above (left) Toy Drive, selecting books; (right) Toy Drive, books and bookcase

Photos below (left) Food Drive, ice cream social; (right) Toy Drive, firehouse bookcase donated to Lake Labish School



Grant awards to Oregon...Assistance to Firefighter Grant Program

Fire Department	Federal Share	Activity Level
Adair Rural Fire Protection District Adair Village	\$31,549	<u>Operations and Safety</u> Personal Protective Equipment (\$33,210)
Alsea Rural Fire Protection District Alsea	\$27,198	<u>Operations and Safety</u> Equipment (\$5,000) Personal Protective Equipment (\$15,000) Training (\$2,630) Wellness and Fitness Programs (\$6,000)
Ashland Fire & Rescue Ashland	\$312,000	<u>Operations and Safety</u> Training (\$390,000)
Astoria Fire Department Astoria	\$71,322	<u>Operations and Safety</u> Equipment (\$75,075)
Baker City Fire Department Baker City	\$423,700	<u>Vehicle Acquisition</u> Vehicle Acquisition (\$446,000)
Black Butte Ranch RFPD Black Butte Ranch	\$83,469	<u>Operations and Safety</u> Personal Protective Equipment (\$87,862)
Boring Fire District Boring	\$40,613	<u>Operations and Safety</u> Wellness and Fitness Programs (\$42,750)
Camas Valley RFD Camas Valley	\$59,522	<u>Operations and Safety</u> Equipment (\$62,655)
Canby Fire District Canby	\$186,268	<u>Operations and Safety</u> Modify Facility (\$78,066) Personal Protective Equipment (\$114,400) Wellness and Fitness Programs (\$14,498)
Canyon City Volunteer Fire Department Canyon City	\$19,000	<u>Operations and Safety</u> Modify Facility (\$20,000)
Central Cascades Fire & EMS Crescent Lake	\$112,323	<u>Operations and Safety</u> Equipment (\$80,235) Modify Facility (\$38,000)
City of La Grande Fire Department La Grande	\$40,090	<u>Operations and Safety</u> Personal Protective Equipment (\$30,700) Wellness and Fitness Programs(\$11,500)
City of Redmond Fire & Rescue Redmond	\$371,574	<u>Operations and Safety</u> Modify Facility (\$203,860) Personal Protective Equipment (\$209,000)
City of Reedsport Volunteer Fire Department Reedsport	\$15,503	<u>Operations and Safety</u> Equipment (\$16,318)
Coos Bay Fire & Rescue Coos Bay	\$60,165	<u>Operations and Safety</u> Modify Facility (\$66,850)
Coquille Fire & RFPD Coquille	\$71,250	<u>Operations and Safety</u> Equipment (\$75,000)
Dexter Rural Fire Protection District Dexter	\$136,186	<u>Operations and Safety</u> Equipment (\$44,663) Personal Protective Equipment (\$51,940) Training (\$46,750)
Elkton Rural Fire Protection District Elkton	\$33,296	<u>Operations and Safety</u> Equipment (\$35,048)
Estacada Rural Fire District #69 Estacada	\$137,180	<u>Operations and Safety</u> Equipment (\$45,400) Personal Protective Equipment (\$99,000)

Grant awards to Oregon...Assistance to Firefighter Grant Program

Eugene Fire & EMS Department Eugene	\$770,376	<u>Operations and Safety</u> Equipment (\$579,650) Personal Protective Equipment (\$383,320)
Evans Valley Fire District #6 Rogue River	\$17,100	<u>Operations and Safety</u> Equipment (\$18,000)
Forest Grove Fire & Rescue Forest Grove	\$175,499	<u>Operations and Safety</u> Equipment (\$194,998)
Gaston Rural Fire District Gaston	\$103,999	<u>Operations and Safety</u> Equipment (\$1,050) Personal Protective Equipment (\$108,423)
Gates Rural Fire Protection District Gates	\$41,444	<u>Operations and Safety</u> Equipment (\$15,000) Personal Protective Equipment (\$27,625)
Greensprings Fire and Rescue Ashland	\$30,780	<u>Operations and Safety</u> Equipment (\$10,800) Personal Protective Equipment (\$21,600)
Gresham Fire & Emergency Services Gresham	\$106,400	<u>Operations and Safety</u> Modify Facility (\$133,000)
Halsey-Shedd Rural Fire Protection District Halsey	\$75,525	<u>Operations and Safety</u> Personal Protective Equipment (\$79,500)
Hood River Fire Department Hood River	\$26,514	<u>Operations and Safety</u> Training (\$9,150) Wellness and Fitness Programs (\$18,760)
Hoodland Fire District #74 Welches	\$72,479	<u>Operations and Safety</u> Personal Protective Equipment (\$76,294)
Illinois Valley Rural Fire Protection District Cave Junction	\$199,500	<u>Vehicle Acquisition</u> Vehicle Acquisition (\$210,000)
Illinois Valley Rural Fire Protection District Imbler	\$245,100	<u>Vehicle Acquisition</u> Vehicle Acquisition (\$255,000)
Jackson County Fire District No. 3 White City	\$527,760	<u>Operations and Safety</u> Equipment (\$659,700)
Jefferson County Fire District #1 Madras	\$61,370	<u>Operations and Safety</u> Personal Protective Equipment (\$64,600)
John Day Volunteer Fire Department John Day	\$422,304	<u>Operations and Safety</u> Equipment (\$105,751) Personal Protective Equipment (\$338,780)
Junction City Fire Department Junction City	\$72,675	<u>Operations and Safety</u> Personal Protective Equipment (\$76,500)
Keizer Fire District Keizer	\$80,100	<u>Operations and Safety</u> Modify Facilities (\$89,000)
Keno Rural Fire Protection District Keno	\$159,540	<u>Operations and Safety</u> Equipment (\$6,400) Personal Protective Equipment (\$161,537)
Knappa-Svensen-Burnside RFPD Astoria	\$115,140	<u>Operations and Safety</u> Equipment (\$11,400) Personal Protective Equipment (\$109,800)
Lafayette Fire Department Lafayette	\$31,608	<u>Operations and Safety</u> Equipment (\$33,272)

Grant awards to Oregon...Assistance to Firefighter Grant Program

Lake Oswego Fire Department Lake Oswego	\$59,274	Operations and Safety Personal Protective Equipment (\$65,860)
Lakeview Disaster Unit Lakeview	\$21,213	Operations and Safety Personal Protective Equipment (\$22,330)
Lebanon Fire District Lebanon	\$223,317	Operations and Safety Equipment (\$110,500) Personal Protective Equipment (\$137,630)
Lorane Rural Fire Protection District Lorane	\$39,835	Operations and Safety Modify Facility (\$41,931)
Marion County Fire District #1 Salem	\$348,390	Operations and Safety Equipment (\$14,100) Personal Protective Equipment (\$373,000)
Mill City Rural Fire Protection District Mill City	\$213,750	Vehicle Acquisition Vehicle Acquisition (\$225,000)
Mist-Birkenfeld Rural Fire Protection District Mist	\$147,346	Vehicle Acquisition Vehicle Acquisition (\$133,000)
Monitor Rural Fire District #58 Monitor	\$164,730	Operations and Safety Equipment (\$53,400) Personal Protective Equipment (\$120,000)
Mosier Rural Fire Protection District Mosier	\$37,050	Vehicle Acquisition Vehicle Acquisition (\$38,100)
Newberg Fire Department Newberg	\$59,403	Operations and Safety Personal Protective Equipment (\$66,003)
Newport Fire Department Newport	\$41,068	Operations and Safety Training (\$43,229)
North Bend Fire Department North Bend	\$224,770	Operations and Safety Equipment (\$236,600)
Parkdale Rural Fire Protection District Parkdale	\$19,413	Operations and Safety Training (\$20,434)
Phoenix Fire Department Phoenix	\$49,890	Operations and Safety Modify Facilities (\$52,516)
Pilot Rock RFPD Pilot Rock	\$140,847	Operations and Safety Personal Protective Equipment (\$148,260)
Portland Fire & Rescue Portland	\$399,783	Operations and Safety Equipment (\$76,000) Modify Facilities (\$252,240) Personal Protective Equipment (\$8,400) Training (\$163,089)
Rogue River Fire District Gold Hill	\$132,840	Operations and Safety Equipment (\$41,120) Personal Protective Equipment (\$91,512) Training (\$7,200)
Sandy Rural Fire Protection District No. 72 Sandy	\$180,500	Operations and Safety Equipment (\$140,000) Modify Facility (\$50,000)
Scappoose Rural Fire Protection District Scappoose	\$47,500	Operations and Safety Equipment (\$32,000) Personal Protective Equipment (\$15,000) Training (\$3,000)

Grant awards to Oregon...Assistance to Firefighter Grant Program

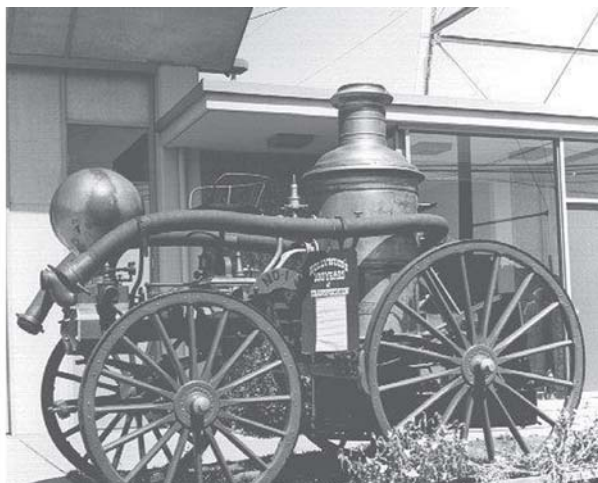
Sheridan Fire District Sheridan	\$190,000	<u>Vehicle Acquisition</u> Vehicle Acquisition (\$200,000)
Siletz Rural Fire Protection District Siletz	\$132,470	<u>Operations and Safety Equipment</u> (\$42,137) <u>Modify Facility</u> (\$97,305)
Sisters-Camp Sherman Rural Fire Protection District Sisters	\$93,908	<u>Operations and Safety Equipment</u> (\$98,850)
Sublimity Fire District Sublimity	\$154,584	<u>Operations and Safety Equipment</u> (\$30,000) <u>Modify Facility</u> (\$29,144) <u>Personal Protective Equipment</u> (\$103,575)
Sutherlin Fire Department Sutherlin	\$47,500	<u>Operations and Safety</u> <u>Modify Facility</u> (\$50,000)
Tangent Rural Fire Protection District Tangent	\$88,711	<u>Operations and Safety</u> <u>Personal Protective Equipment</u> (\$93,380)
Tillamook Fire District Tillamook	\$165,878	<u>Operations and Safety</u> <u>Personal Protective Equipment</u> (\$60,000) <u>Training</u> (\$114,608)
Washington County Fire District No. 2 North Plains	\$59,760	<u>Operations and Safety</u> <u>Personal Protective Equipment</u> (\$66,400)
West Valley Fire District Willamina	\$30,400	<u>Operations and Safety</u> <u>Equipment</u> (\$32,000)
Westfir Fire District Westfir	\$171,000	<u>Vehicle Acquisition</u> Vehicle Acquisition (\$180,000)

Early methods for getting water to a fire (left to right)

Leather bucket, *photo: Portland Fire & Rescue*

Clapper Jones horizontal steam pump (Junction City), 1897, *photo: Salem (Oregon) Public Library Historic Photograph Collections*

Stutz fire engine, 1925, engine in Dallas Fire Department collection



Early fire stations (left to right)

Fossil Fire House, ca 1900

Yew Park Hose Team (Salem), date unknown

Antelope Fire Station, date unknown

photo credits: Salem (Oregon) Public Library Historic Photograph Collections



Glossary

Abandoned, Discarded Material: Usually applies to tossed cigarette but includes other smoking materials, burning matter and hot ashes.

Civilian: Anyone other than a firefighter. This includes public service personnel such as police officers, civil defense staff, non-fire medical personnel and utility company employees.

Casualty: Reported injury or death, whether civilian or firefighter, as a direct result of a fire.

Combustible Too Close: Combustible material placed too close to a source of heat, such as a pillow placed against a baseboard heater or paper stored near a woodstove or furnace.

Death: A civilian or firefighter who dies; or is injured and becomes a fatality, within one year, as a direct result of a fire.

Death Rate: The number of civilian deaths per million population for a given year.

Estimated Dollar Loss: Loss provided by the firefighter on scene but does not reflect actual total loss, insurance settlement or loss of business.

Failure to Clean: Failure to clean chimneys, dryer lint trap, stove or oven grease/food build-up.

Failure to Use Ordinary Care: Failure to use ordinary care under the circumstances.

Fire: Any instance of uncontrolled burning.

Heat Source Too Close: Heat source used or placed too close to a combustible, such as candles in unsafe places, welding or cutting operations, or portable heaters.

Incendiary: Based on evidence, the conclusion made that a fire was deliberately set.

Injury: Physical damage suffered by a civilian or firefighter as a direct result of a fire and that requires treatment by a medical professional (physician, nurse, paramedic, EMT) within one year of the incident, or physical damage which results in at least one day of restricted activity immediately following the incident.

Injury Type: Injuries include, but are not limited to, chemical, electrical and thermal burns, cuts, asphyxiation, dehydration, sprains and bleeding.

Mechanical Failure, Malfunction: Includes, but not limited to, power surge or overheat, part failure, leak or break, and lack of maintenance or worn out.

Misuse of Heat Source: Includes, but not limited to, youth playing with matches or lighter, inadequate control of open fires such as burn barrels or vagrant warming and cooking fires.

Misuse of Material: Includes, but not limited to, youth putting paper to a stove burner, placing a candle close to a curtain, using a container improperly like ashes in a paper bag, or flammable liquid or gas spilled or released accidentally near fire.

Mobile Property: Mobile property includes any vehicle designed to operate normally on highways, e.g., automobiles, motorcycles, buses, trucks, trailers etc. Other mobile property includes trains, boats, ships, aircraft, farm and construction vehicles.

Mutual Aid: Assistance given to one fire department, whether fire or non-fire aid, by another fire department outside of its normal service area.

Non-Fire Incidents: Incidents include, but not limited to, steam, air, gas or chemical overpressure ruptures, emergency medical calls, rescues, hazardous conditions, service calls, animal problems, assist other governmental agencies, standby or move-up to out of service area fire stations, floods and other natural conditions.

Operational Deficiency: Includes but not limited to, unattended kitchen stove, insufficient sized extension cord for appliance, improper startup or shut down procedures such as woodstove flue closed or door left open, and collision, overturn, knockdown e.g. lamp overturned and motor vehicles accidents.

Other Electrical Failure: Power surge or heat from overloaded electrical equipment.

Other Fires With or Without Value: Can be fires in natural or cultivated vegetation such as trees, brush, grass, crops, orchards, nursery stock. Refuse fires outside, such as dumpsters or other outside receptacles, outside storage fire on industrial commercial property, not rubbish. Other outside fires include but are not limited to, barbecues, tree houses and port-a-potties.

Per Capita: Per person average.

Property: Anything of value. Includes but not limited to buildings, structures, mobile property, land, roadways, water.

Property Damage: All forms of damage to structures, contents, machinery, mobile property, vegetation or anything else involved in the fire but not indirect losses, such as business interruption or temporary shelter provision.

Rate: A rate is a method of making comparisons of the number of occurrences between groups of different sizes.

Reckless Act: The person responsible for the fire failed to use ordinary care and exercised wanton disregard for life and property.

Short Circuit, Ground Fault: Electrical short in a structure's fixed wiring, receptacles, outlets switches, ground fault interrupters, car wires or wires touching vegetation.

Residential Dwellings: Single family and duplexes which include mobile homes, manufactured homes and child and adult foster care dwellings with up to five people. Multifamily dwellings include condominiums, town houses, row house, tenements or flats. Other residential dwellings include motels, hotels, boarding houses, dormitories, sorority and fraternity houses.

Structure: This includes buildings, attached decks, open platforms, bridges, roof assemblies over open areas, tents, air-supported structures, and grandstands.

Structure Fire: Any fire inside, on, under, or touching a structure.

Suspicious: Evidence that indicates the possibility that a fire was deliberately set.

Trend: The general direction in which something tends to move.

Unlawful Incendiary or Suspicious: Fires intentionally set, or believed to be intentionally set.

Unattended Source of Heat: Unattended burning candle, food cooking on stove.

Youth Caused Fires: Youth through seventeen years, involved in fires. Includes, but not limited to, children misusing a heat source (lighters, matches, fireworks) or placing a combustible in a heat source (woodstove, fireplace, heater), or an incendiary, suspicious or reckless act.

Departments reporting in 2006

Adair RFPD
Adrian RFPD
Agness-Illahe Vol
Albany Fire Dept
Alsea RFPD
Amity Fire Dist
Applegate RFPD #9
Arlington FD
Ashland F&R
Astoria Fire Dept
Athena FD
Aumsville RFPD
Aurora RFPD
Azalea vols
Baker City Fire Dept
Baker RFPD
Bandon RFPD #8
Banks Fire District #13
Bay City Fire Dept
Bend FD
Black Butte Ranch RFPD
Blodgett-Summit RFPD
Blue River FD
Bly RFPD
Boardman RFPD
Bonanza RFPD
Boring Fire Dist
Bridge Vol RFPD
Brookings FD
Brownsville RFD
Burns Fire Dept
Burnt River Fire & EMS Dept
Butte Falls Vol FD
Canby RFPD
Cannon Beach RFPD
Canyon City Fire Dept
Canyonville South Umpqua FD
Cape Ferrelo RFPD
Carlton Fire Dept
Cascade Locks Fire & EMS
Cedar Valley N Banks RFPD
Central Cascades Fire & EMS
Central Oregon Coast F&R
Charleston RFPD
Chemult RFPD
Chiloquin-Agency Lk RFPD
Christmas Valley RFPD
Clackamas Co Fire Dist #1
Clatskanie RFPD
Cloverdale RFPD
Coburg RFPD
Colestin RFPD
Colton RFPD #70
Columbia River F&R
Condon FD
Coos Bay F&R
Coquille Fire Dept
Cornelius Fire Dept
Corvallis Fire Dept
Cove RFPD
Crescent RFPD
Crook Co F&R
Crooked River Ranch RFPD
Dallas FD
Dayton Fire Dist
Dayville FD
Deadwood Creek Fire Service
Depoe Bay RFPD
Dexter RFPD
Dora-Sitkum RFPD
Douglas Co Fire Dist #2
Drakes Crossing RFPD
Dufur Vol FD
Dundee Fire Dept
Eagle Valley RFPD
East Umatilla Co RFPD
Echo RFPD
Elgin RFPD
Elkton RFPD
Elsie-Vinemaple RFPD
Enterprise FD
Estacada RFD #69
Eugene Fire & EMS
Evans Valley Fire Dist #6
Fairview RFPD
Forest Grove F&R
Fossil Vol FD
Gardiner RFPD
Garibaldi FD
Gaston RFPD
Gates RFPD
Gearhart Vol Fire Dept
Gladstone FD
Glendale RFPD
Glide RFPD
Gold Beach Fire Dept
Goshen RFPD
Granite City FD
Grants Pass Dept Pub Safety
Greater Bowen Valley RFPD
Greenacres RFPD
Greensprings F&R
Gresham Fire & Emerg Svcs
Haines Fire Protection Dist
Halsey-Shedd RFPD
Hamlet Vol FD
Harbor RFPD
Harriman RFPD
Harrisburg F&R
Hauser RFPD
Hermiston Fire & Emerg Serv
High Prairies Vol FD
Hillsboro Fire Dept
Hines FD
Hood River Fire Dept
Hoodland RFPD
Hoskins-Kings Vly RFPD
Hubbard RFPD
Huntington FD
Idanha-Detroit RFPD
Illinois Valley RFPD
Irrigon RFPD
Jackson Co FD #3
Jackson Co RFPD #5
Jacksonville Fire Dept
Jefferson Co RFPD #1
Jefferson RFPD
John Day Fire Dept
John Day-Fernhill RFPD
Jordan Valley FD
Joseph Fire Dept
Junction City RFPD
Juniper Flats RFPD
Keating RFPD
Keizer Fire Dist
Kellogg RFD
Keno RFPD
Klamath Co FD #3
Klamath Co FD #4
Klamath Co FD #5
Klamath Co Fire Dist #1
La Grande Fire Dept
La Grande RFPD
Lafayette FD
Lake Creek RFPD #8
Lake Oswego F&R&Life Safety
Lakeside RFPD
Lakeview Fire Dept
Lane Rural F/R
Langlois RFPD
La Pine RFPD
Lebanon FD
Lookingglass RFD
Lorane RFPD
Lowell RFPD
Lyons RFPD
Malin RFPD
Manzanita Dept of Pub Sfty
Mapleton FD
Marion Co RFPD #1
Maupin FD
Mc Kenzie F&R
Mc Minnville Fire Dept
Meacham RFPD
MedFord F&R
Medical Springs RFPD
Merrill RFPD
Mid-Columbia F&R
Mill City RFPD
Millington Fire Dist #5
Milo RFPD

Milton-Freewater FD
Milton-Freewater Rural FD
Mist-Birkenfeld RFPD
Mohawk Valley RFD
Molalla RFPD #73
Monitor RFPD #58
Monroe RFPD
Monument FD
Moro Fire Dept, City of
Moro RFPD
Mt Angel Fire District
Mt Vernon FD
Multnomah Co FD #8 PDX
Multnomah Co RFPD #14
Myrtle Creek FD
Myrtle Point FD
Nehalem Vol Fire Dept
Nestucca RFPD
Netarts-Oceanside RFPD
New Pine Creek RFPD
Newberg FD
Newport Fire Dept
North Bend Fire Dept
North Douglas Co Fire & EMS
North Gilliam Co RFPD
North Lincoln F&R Dist #1
North Powder Fire Dept
North Sherman Co RFPD
Nyssa FD
Oakland RFPD
Oakridge FD
Odell RFPD
Olney Walluski F&R
Ontario F&R
Ophir RFPD
Oregon Outback RFPD
Parkdale RFPD
Pendleton Fire & Ambulance
Philomath Fire and Rescue
Phoenix Vol Fire Dept
Pilot Rock RFPD
Pine Grove RFPD
Pine Hollow Vol
Pistol River Fire Dist
Pleasant Hill RFPD
Polk County Fire Dist #1
Port Orford Vol FD
Portland Bureau of F&R&EMS
Powder River RFPD
Powers Fire Dept
Prairie City Fire Dept
Redmond Fire and Rescue
Reedsport Vol Fire Dept
Riddle RFPD
Rockaway FD
Rogue River RFPD
Rogue Valley Intl Airport FD

Roseburg Fire Dept
Rufus Vol Fire Dept
Rural Metro Fire Dept
S Gilliam Co RFPD
Salem FD
Sandy RFPD #72
Santa Clara RFPD
Scappoose RFPD
Scottsburg RFD
Seal Rock RFPD
Seaside F&R
Shaniko Vol FD
Sheridan FD
Siletz RFPD
Silverton RFPD
Sisters-Camp Sherman RFPD
Siuslaw Valley F&R
Sixes RFPD
South Lane County F & R
South Sherman FPD
Sprague River Vol
Spray Vol Fire Dept
Springfield Fire Life Sfty
St Paul RFPD
Stanfield RFPD
Stayton Fire Dept
Sublimity RFPD
Sumpter FD
Sunriver FD
Surprise Springs Rural F&R

Sutherlin Fire Dept
SW Polk Co RFPD
Sweet Home Fire & Amb Dist
Swishhome-Deadwood RFPD
Tangent RFPD
Thomas Creek/Westside RFPD
Tillamook Fire Dist
Toledo FD
Tualatin Valley F&R
Turner Fire Dept
Tygh Valley Vol FD
Union Emergency Services
Upper Mc Kenzie RFPD
Vernonia RFPD
Warrenton Fire Dept
Washington Co FD #2
West Side RFPD
West Valley Fire Dist
Westfir Fire Dept
Wheeler Point Vol Fire assoc
Williams RFPD
Winchester Bay RFPD
Winchuck RFPD
Winston-Dillard RFPD #5
Wolf Creek RFPD
Woodburn Fire Dist
Yachats RFPD
Yamhill FPD

Departments NOT reporting in 2006

These non-reporting departments had not yet submitted fire reports as of March 1, 2007. Their reports may have had an effect on the statistics.

Imbler RFPD
Ione FD
Jackson Co RFPD #4
Knappa-Svensen-Burnside RFPD
Lake Creek RFPD
Lane Co Fire Dist #1
Lewis & Clark RFPD
Lexington FD
Lostine FD
Mitchell Vol Fire Dept
Mosier FD
North Bay RFPD
Paisley Vol FD
Pine Valley RFPD
Prospect RFPD

Sauvie Island Vol FD
Scio RFPD
Seneca Vol Fire Dept
Silver Lake RFPD
Spring Valley RFPD
Sumner RFPD
Tenmile RFPD
Tiller RFD
Tri City Fire Dist #4
Ukiah FD
Umatilla RFPD
Vale FD
Wallowa FD
Westport-Wauna RFPD

NOW ...

The fire service is still prepared to fight fires, but the equipment of today is immeasurably more sophisticated than the leather buckets of the past and the tasks they do have expanded to include emergency medical services, urban search and rescue, and hazardous materials response.





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