

Oregon State Fire Marshal · 2004 Annual Report





## *Mission*

Serving Oregon to protect life, property  
and the environment  
from fire and hazardous materials.

## *Vision*

An Oregon free of injury, loss of life or property,  
or damage to the environment by fire  
or hazardous materials for Oregonians  
of all ages where they live, work, recreate  
and go to school.

## *Values*

### **Dedicated to Mission**

Believe the Office of State Fire Marshal's  
mission is worthy  
of the effort to accomplish.

### **Leadership**

Building and fostering an environment for success.

### **Proactive Customer Focus**

Customers' needs for safe communities are our priority.

### **Competence**

Ability to use knowledge and skills  
to effectively and efficiently  
meet the Office of State Fire Marshal's mission.

### **Credibility**

Performing in a manner that inspires the citizens of Oregon  
to believe our mission is valuable.

### **Collaboration**

Partnering and cooperatively working with others  
to achieve our goals.

### **Trust**

An expectation of competency, reliability and sincerity.

### **Statutory Authority**

Oregon Revised Statutes:

Chapters 336, 453, 470,

476, 478, 479, 480

Oregon Administrative Rules:

Chapter 837



**In 1917, the Office of State Fire Marshal**

was established to reduce the loss of life and property from fires and explosions. Over eighty years later, this mission continues.

The Office of State Fire Marshal staff has put a new face—and a different focus—on the 2004 annual report. The program managers are presenting their successes rather than primarily listing activities. They are sharing their goals and results with you, because each of you has been instrumental in the agency's achievements.

Oregon state government is driven by results-based budgeting and program policy. Our primary partner in achieving our results is you, the Oregon fire service. We could accomplish little without your support, advice and counsel, and commitment to and engagement in state level programs and initiatives.

Working with you, we made huge strides last year in meeting our mission to protect Oregonians and our beautiful state from fire and hazardous materials. I am very proud to present the OSFM employees' contributions to our shared successes.

Nancy Orr  
State Fire Marshal

# 2004 in review

A transition to Oregon Office of Homeland Security .....	5
Changing Oregon demographics .....	6-7
Fire's impact on people .....	8-12
Fire's impact on property .....	13-17
School fires .....	18-20
Juveniles and fire .....	21-22
2004 highlights .....	23-29
OSFM organizational chart .....	30
Administrative Services .....	31-32
Code and Technical Services .....	33
Community Education Services .....	34-35
Data Services .....	36-37
Fire and Life Safety Services .....	38-40
Hazardous Materials Services .....	41-45
License and Permit Services .....	46-47
Information Systems Services .....	48
OSFM staff phone list .....	49
OSFM contribution to community .....	50-51
OSFM budget .....	52-53
Grants awarded to Oregon fire departments .....	54-57
Glossary .....	58-59
Reporting and non-reporting departments .....	60-61

**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 Office of State Fire Marshal (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 2004, 93 percent of the 327 active Oregon fire departments reported. The twenty-two non-reporting departments experience between 0 and ten fires each year. Even though the database is missing between 0 and 220 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 and Census.

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.sfm.state.or.us](http://www.sfm.state.or.us)

**R** Note: This report contains 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. (The symbol above will appear beside rate charts to identify them.) Other data in the report use raw numbers, i.e. the actual count.



# A transition...

## to Oregon Office of Homeland Security

With the creation of the Federal Office of Homeland Security, the need for similar

coordination efforts specific to Oregon was apparent. Oregon Governor Ted Kulongoski established the Oregon Office of Homeland Security (OOHS) by executive order on May 11, 2004.

The mission of this new state office is to provide leadership in the protection of Oregonians, their property, the environment, and Oregon's economy from disasters and acts of terrorism through prevention, preparedness, responsiveness and recovery efforts.

At the Governor's direction, the Office of Emergency Management, the Office of Public Safety and Security, the Criminal Justice Services Division, and the Office of the State Fire Marshal (OSFM) became part of the Office of Homeland Security.

The Office of State Fire Marshal, under the leadership of State Fire Marshal Nancy Orr, supports and enhances the OOHS mission with its own mission to protect Oregonians' lives and property from fire and hazardous materials through many of its programs:

- OSFM maintains a critical role in emergency response support for state fire service mobilizations during conflagrations and assistance to the fire service during major emergency operations, including urban search and rescue, incident management and control, local emergency planning committees and the development of fire service policy for emergency and disaster response.
- Community Right to Know Services collects, validates, and distributes hazardous materials information, tracks hazardous materials incident

tracking, advises on planning and preparation for hazardous materials emergencies, and provides technical assistance and training for the fire service, industry and the public.

- Oregon's Regional Hazardous Materials Emergency Response Teams positioned throughout the state to respond to hazardous material spills beyond the capability of local jurisdictions.
  - License and Permit Services protects property through effective regulation of liquefied petroleum gas, fireworks, explosives and cardlock.
  - Fire and Life Safety Services enforces and develops Oregon's fire codes which are applied in factories, schools, hospitals, nursing homes, public assembly facilities and other buildings.
  - Community Education Services provides technical assistance and model programs to local, state and public groups working collaboratively to reduce fire losses. Community Education Services is a strong state leader, helping to meet the Governor's focus on improving Oregonians' quality of life and building safer communities.
- As a division of the OOHS, the Office of State Fire Marshal is dedicated to the vision of cooperative relationships combined under a unified governing body and providing the citizens of Oregon specific and pertinent information regarding all emergencies in order to ensure protection of Oregon's citizens and resources—both economic and natural.

The Governor's reorganization has made Oregon the only state to have police, fire and civilian services under one umbrella agency.



# Changing Oregon demographics

**The impact of a growing population** The state's growth has continued to put pressure on our service capacity. This pressure places increased and new demands on business and government in the areas of emergency response and regulation. Population growth is the major state government budget driver. Demands for public resources, as well as a state's economic health, depend upon the size, composition, structure and characteristics of its population.

Oregon's population was 3.4 million on the last census date (April 1, 2000), an increase of 579,000 or 20.4 percent, since the 1990 Census. It is expected to reach 3.7 million in the year 2007, adding an average of 44,400 persons annually between 2005 and 2007. Although growth has slowed in recent years, Oregon's population growth rate for the period 1990 to 2000 was eleventh fastest in the nation. In fact, high rates of population growth have been a regional characteristic. Population in all of our neighboring states, except California, grew faster than in Oregon during this period.

After a net decline during the early 1980s, population has grown steadily since 1990, averaging 42,000 people annually during the decade of the 1990s. Nearly 73 percent of this population growth was due to net migration—where the number of in-migrants exceeds the out-migrants. Oregon's growing economy during this period and a shortage of workers attracted job seekers from other states and countries.

Due to the slow, but recovering economy and existing pool of workers because of the high unemployment rate, net migration during 2005-2007 period is expected to be at 26,000 annually.

**The good news** Overall, the data covering a thirty-eight year period (1966-2004) 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

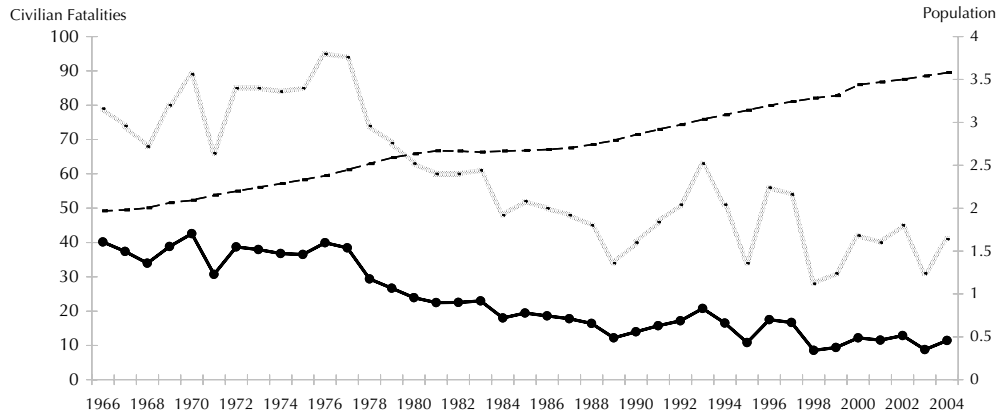
though the overall trend has been downward, any given year may exhibit a spike in the numbers such as is seen in 2004. The 2004 death rate is 11.5, slightly higher than the five year average of 11.4. In 2003, the death rate was 8.76.

A variety of proactive efforts in the arena of fire safety have undoubtedly contributed to this positive trend. Public education messages have raised public awareness. Code requirements have changed over time because construction methods and building materials changed. Also, an incident of destruction or tragedy can drive a change to the fire code—people learn from tragic experiences and fire codes often evolve in reaction to a disaster. Technology in alarm, detection and suppression systems has evolved and improved.

**Challenges ahead** A look at Oregon's population, current land use laws, urban growth boundaries and future growth pattern indicates that populations are being concentrated in smaller areas. In the past, a fire may have affected only a single home, but now, with a shift to multi-unit dwellings, smaller building lots, developments with minimum width streets and multi-use zoning, a single fire may affect several families and a large number of people. State Fire Marshal Orr will continue to address environmental factors in the budget by directing resources toward reducing the number of fire deaths in Oregon.

## Oregon Civilian Fire Deaths and Death Rate (1966-2004)

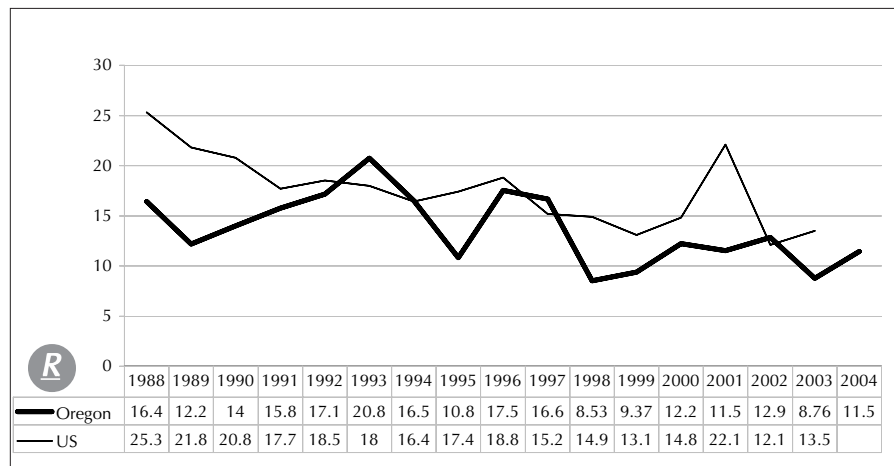
The death rate is calculated by dividing the number of Oregon civilian fire deaths by the estimated Oregon population as reported by Portland State University's Center for Population Research and Census. The July 1, 2004, estimate of Oregon's population, 3,582,600, has been used to calculate the 2004 death rate.



**R** ..... Number of Civilian Fatalities —●— Civilian Fatalities per Million Population - - - State Population\* (in mils)

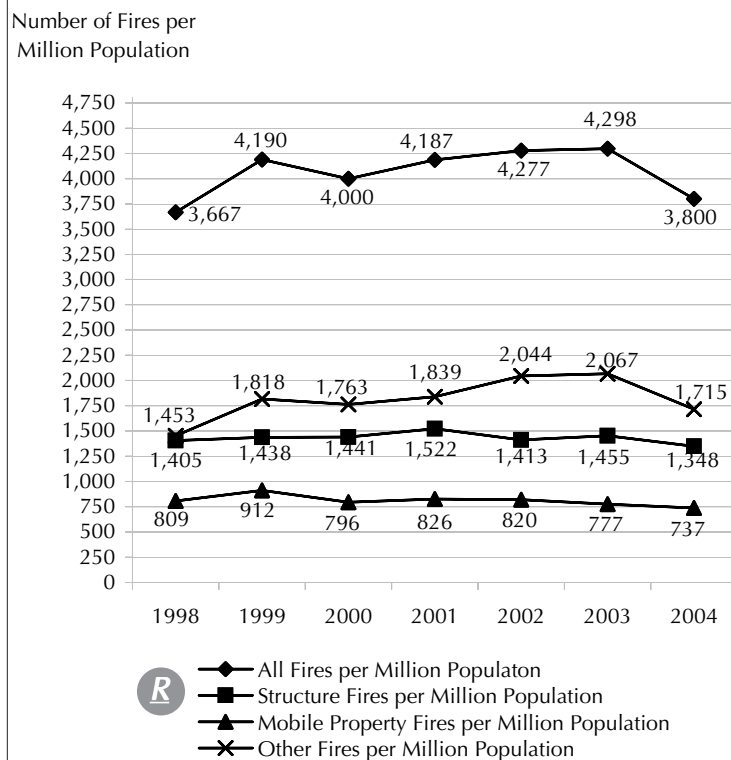
## Oregon and U.S. Civilian Fire Death Rate (1988-2004)

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, includes the 9/11 incident, without it, the rate is 13.4. At the time of publication, the U.S. 2004 rate was not available.



## Number of Fires per Million Population by Year

In 2004, the number of fires per million population in Oregon decreased 11.6 percent from 2003. All types of fires show a decrease; however, the greatest decrease is seen in Other Fires. "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. As shown in the graph at right, Other Fires have been increasing since 1998; however, a 17 percent decline from the previous year is seen in 2004.



**R** ◆ All Fires per Million Population  
 ■ Structure Fires per Million Population  
 ▲ Mobile Property Fires per Million Population  
 ✕ Other Fires per Million Population

# 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. Currently, mature adults and young children can expect a relative risk of dying in a fire that is approximately two times higher than for the population as a whole.

While children younger than five years and adults sixty-five years or older comprise 19 percent of Oregon's population, data shows a disproportionate number of people in these age groups die in fires. From 1998 through 2004, 39 percent of Oregon fire deaths involved the very young and mature adults. People in these age groups are almost twice as likely to die in a fire.

For every age group, the greatest number of fire-related deaths occur in homes (includes one and two family dwellings, manufactured homes, and apartments).

**Mature adults** The U.S. Census Bureau (as of July 1, 2004) estimates that adults over age sixty-four comprise 12.8 percent of Oregon's population. A trend analysis of OAIRS data (1998 through 2004) shows that a disproportionate number of mature adults aged sixty-five and older died in Oregon fires. People over age sixty-four represented 28.4

percent of all Oregon fire deaths in the seven year period studied.

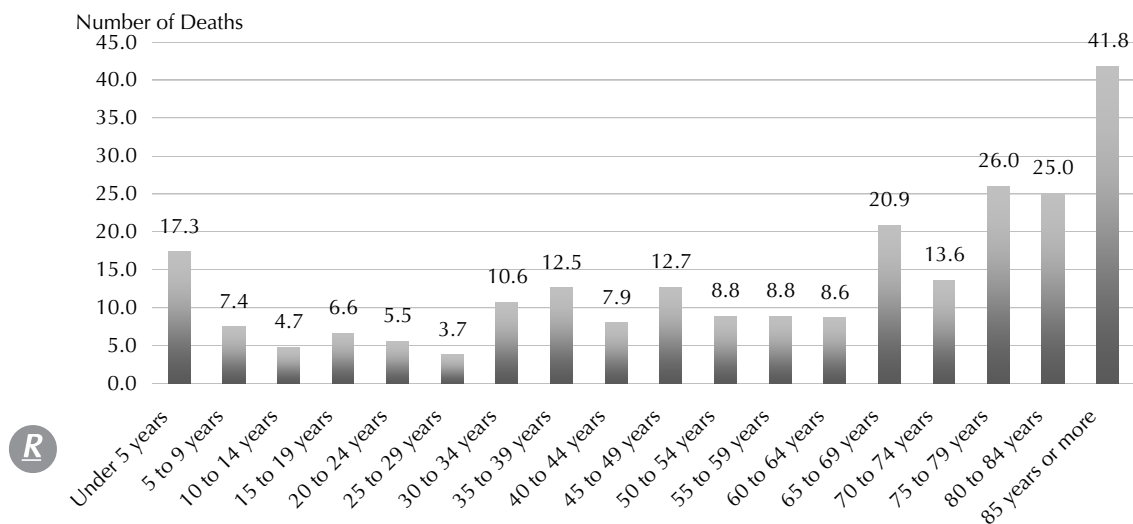
This trend will likely continue as it is anticipated that the number of adults over age sixty-five will rise sharply between 2010 and 2030 when the baby-boom generation enters retirement.

Over the last seven years, 85 percent of all fire-related deaths of people over sixty-four years occurred in their homes. Two deaths occurred in assisted living residences and one in a nursing home.

Additional findings of the over sixty-four years age groups:

- Almost one of every four, 24.8 percent, was under the influence of alcohol.
- The heat source was a cigarette in almost one of every five, or 19% of these fires. (In only two instances were alcohol and cigarettes combined.)

Oregon fire deaths per 10,000 population by age group 1998-2004





- The gender mix is 45 percent female and 55 percent male. It is interesting to note the gender ratio shifts significantly to 80 percent male in the group that was influenced by alcohol.
- Over half of these deaths occurred in five counties—Multnomah (20 percent), Lane (11 percent), Douglas (9 percent), Clackamas (8 percent), and Jackson (8 percent).

**Children under five years** According to the July 1, 2004, U.S. Census Bureau, children younger than five years comprise 6.3 percent of Oregon’s population. As shown in the age group graph, 17.3 in every 10,000 Oregon children within this age group die in a fire. These very young children are at higher risk of dying in a fire situation than other age groups (except those over sixty-four years).

One out of every four deaths of children less than five years are caused by these children being involved in firesetting activities such as trying to use a lighter or matches. As with fire deaths of all ages, most of these children, 89 percent, died in homes.

**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.

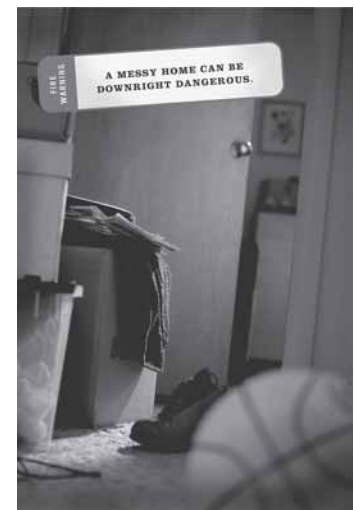


Oregon civilian fire deaths and death rate by year data table

Year	Deaths	Deaths per Million Population	State Population* (in mils)
2004	41	11.5	3.58
2003	31	8.8	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
1967	74	37.4	1.98
1966	79	40.1	1.97

\* Estimates from Portland State University's Center for Population Research and Census.

Images to the right are from the statewide education campaign, "Home Fire Safety is Up to You." Materials are available for download: <http://egov.oregon.gov/OOHS/SFM/>



## 2004 Fatal Fires

Type of Fire	# of Deaths	# of Fires	Cause of Ignition
One & two family dwelling fires	10	9	Undetermined
	2	2	Abandoned, discarded cigarette
	1	1	Unlawful incendiary (intentionally set)
	1	1	Combustible too close to electric heater
	1	1	Falling asleep with cigarette
	1	1	Abandoned, discarded smoking material
	1	1	Cigarette too close to combustible material
	1	1	Open flame/spark/smoking material too close to combustible
	1	1	Person impaired by drug or alcohol
	1	1	Mechanical failure/malfunction of fluorescent light ballast
	1	1	Other part failure, leak, break of gas fueled central furnace
	1	1	Human caused operational deficiency, candle
	1	1	Solid fueled factory built fireplace not being operated properly
	1	1	Installed too close to properly operating equipment
<b>One &amp; two family dwelling total</b>	<b>25</b>	<b>24</b>	Heat from hot object (not determined)
Apartment building fires	3	1	Reckless act (cigarette)
	1	1	Failure to use ordinary care (cigarette)
	1	1	Abandoned, discarded cigarette
	1	1	Design/construction/install deficiency
	1	1	Cigarette too close to combustible
	1	1	Undetermined
<b>Apartment building total</b>	<b>8</b>	<b>6</b>	
<b>Nursing home building fire</b>	<b>1</b>	<b>1</b>	<b>Heat source too close to combustible</b>
<b>Vehicle fires</b>	<b>5</b>	<b>5</b>	<b>Vehicle fires resulting from motor vehicle accidents</b>
<b>Outside fires</b>	<b>2</b>	<b>2</b>	<b>Suicide</b>
<b>Total 2004 fatal fires</b>	<b>41</b>	<b>39</b>	

## How are people injured in a fire?

**Civilian injuries** There were 210 civilian injuries caused by reportable fires in Oregon in 2004. As with firefighters injured by fire, the majority (83 percent) of the civilian injuries in 2004 were the result of structure fires. Another 8 percent of the injuries reported involved fires in mobile property.

Civilian injuries by type of fire and year				
	Structure Fires	Mobile Property Fires	Other Fires	Totals
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
1998	109	38	7	154

**Firefighter injuries** There were ninety-eight firefighter injuries and no firefighter deaths associated with the reportable fires in 2004. As in previous years, the majority of the injured were men, while the age of the injured ranged from eighteen to sixty-nine. These injuries were related to eighty-three structural fires, one mobile property fire and fourteen other types of fires.

Firefighter injuries by type of fire and year				
	Structure Fires	Mobile Property Fires	Other Fires	Totals
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
1998	30	11	7	48

### Type of civilian injury

Burn: thermal	42.86%
Asphyxiation	16.19%
Difficulty breathing (shortness of breath)	10.95%
Burns / asphyxiation	5.71%
Apparent symptom unknown/not reported	4.76%
Laceration, cut	4.29%
No apparent symptom	3.81%
Burn: scald	2.86%
Apparent symptom not classed above	0.95%
Pain only	0.95%
Disorientation	0.95%
Abrasion	0.95%
Burn: electrical	0.48%
Cardiac symptoms	0.48%
Dislocation	0.48%
Swelling	0.48%
Fracture: closed	0.48%
Frostbite	0.48%
Puncture wound (penetrating)	0.48%
Shock: electrical	0.48%
Sprain, strain	0.48%
Contusion / bruise - minor trauma	0.48%
	100.00%

### Type of firefighter injury

Sprain, strain	24.5%
Pain only	20.4%
Dizziness or fainting - weakness	7.1%
Apparent symptom unknown / not reported	6.1%
Contusion / bruise - minor trauma	6.1%
Burn: thermal	5.1%
Laceration, cut	5.1%
Dehydration	3.1%
Difficulty breathing (shortness of breath)	3.1%
Apparent symptom not classed above	2.0%
Avulsion (of eye)	2.0%
Foreign body, obstruction	2.0%
Fracture: closed	2.0%
No apparent symptom	2.0%
Abrasion	1.0%
Burn: chemical	1.0%
Burn: scald	1.0%
Cardiac symptoms	1.0%
Crushing	1.0%
Internal trauma (closed blunt)	1.0%
Sickness	1.0%
Swelling	1.0%
Unconscious	1.0%
	100.0%

**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 \$95.9 million in 2000 to \$129.6 million in 2004. (These estimated losses are not adjusted for inflation and do not reflect actual total loss, insurance settlement or loss of business.)

Most of the financial loss is related to the loss of structures. In 2004, direct structure fire loss accounted for \$110.5 million of the total \$129.6 million estimated fire loss.

**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 non-residential.

“Residential Structures” includes one and two family dwellings, apartments, manufactured homes, and other residences (motels, hotels, boarding houses and dormitories).

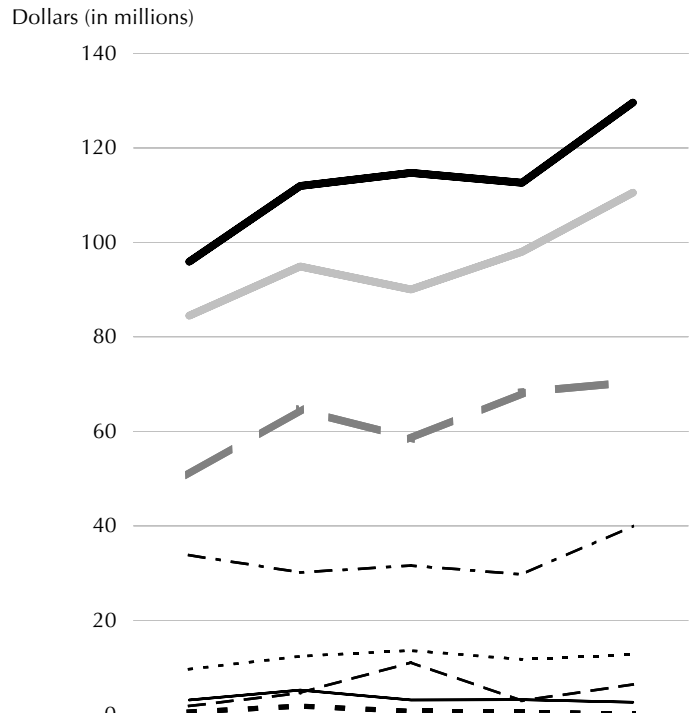
“Non-Residential Structures” includes manufacturing, business and office, education, health care, storage and other commercial buildings.

“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 juveniles seventeen years and younger.

Oregon estimated direct fire dollar loss by year



	2000	2001	2002	2003	2004
<b>— All Fire Losses</b>	95.9	111.9	114.7	112.6	129.6
<b>— All Structure Fire Losses</b>	84.5	94.9	90.0	98.0	110.5
<b>— Residential Structure Losses</b>	50.7	64.7	58.4	68.2	70.5
<b>- - - Non-Residential Structure Losses</b>	33.8	30.1	31.6	29.7	40.0
<b>· · · · · Mobile Property Losses</b>	9.6	12.4	13.6	11.7	12.7
<b>- · - · - Other Fire Losses</b>	1.8	4.6	11.1	2.9	6.4
<b>— Youth Involved Fire Losses</b>	3.1	5.2	3.1	3.2	2.6
<b>■ ■ ■ Fireworks-Related Fire Losses</b>	0.6	1.8	0.7	0.5	0.2

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.

# Fire's impact on property

**Structure fires** Structure fires per capita remained relatively constant over the last five years, ranging from 1.4 to 1.5 per thousand population. In 2004, a slight decline to 1.35 occurred.

The number of structure fires per million population remained about the same over seven years; however, the lowest number of fires per million population occurred in 2004.

**Mobile property fires** The 2,639 fires in this class represent 19.4 percent of the reportable fires and an estimated loss of \$12.7 million in 2004. The Other and Unidentified category includes buses, trackless trolleys, and motorcycles. The 2004 mobile property fires resulted in seventeen civilian injuries, five deaths and one firefighter injury. Mobile property fires declined slightly over the last seven years.

**Other fires** Other fires dipped downward to 1.7 fires per capita, after a 40 percent increase from 1.5 in 1998 to 2.1 in 2003.

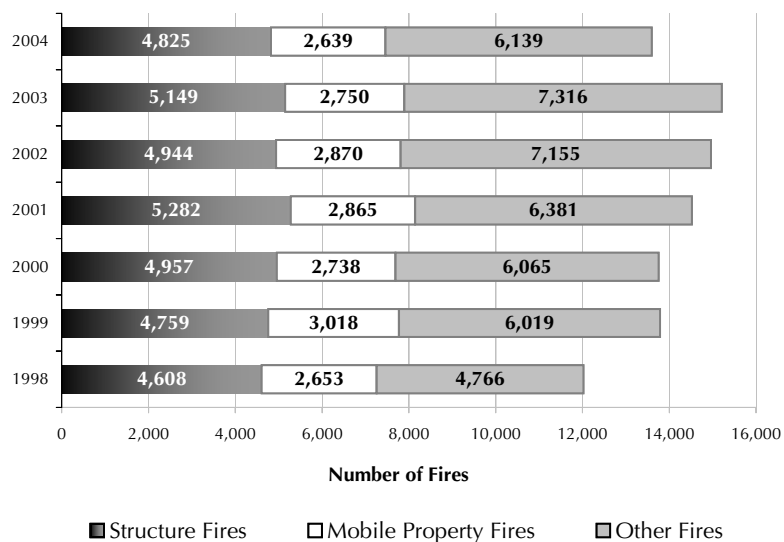
The current "Other Fire" rate is still higher than the 1998 rate. Establishing fire-resistant homes and landscaping, promoted by OSFM's new Wildland Urban Interface (WUI) program, directly impact the occurrence of these types of fires. Continuing to involve more communities in WUI activities will aid in further reduction.

2004 summary statistics				
	Mobile			Totals
	Structure Fires	Property Fires	Other Fires	
Number of fires	4,825	2	6,139	13,603
Civilian deaths	34	5	2	41
Civilian injuries	176	17	17	210
Firefighter injuries	83	1	14	98
Estimated dollar loss	\$110,460,641	\$12,685,138	\$6,455,095	\$129,600,874
Mutual aid given*				1,813
Non-fire incidents				288,388
Total 2004 reported incidents				303,804

\*extinguish or investigate

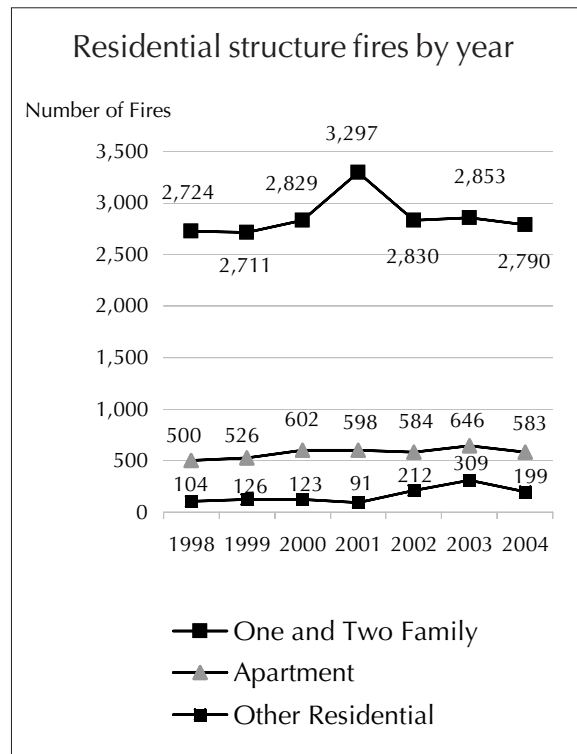
Seven year trends						
Year	Total Fire Service Activities	Non-Fire Activities	All Fires	Structure Fires	Mobile	
					Property Fires	Other Fires
1998	214,630	201,488	12,027	4,608	2,653	4,766
1999	212,369	197,119	13,868	4,759	3,018	6,019
2000	192,854	177,738	13,760	4,957	2,738	6,065
2001	237,545	221,224	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

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. In 2004, the Oregon Life Safety Team studied the data and developed a state-wide educational campaign to address the major causes of residential fires. The campaign is described in more detail in the Highlights section of this report.



### R Loss rates for Oregon structure fires

Loss Rates	All Non-Residential Structure Fires	Residential Structure Fires
\$Loss/Fire	\$25,470	\$19,744
Civilian Injuries/1,000 Fires	20.2	46.2
Fatalities/1,000 Fires	1.4	9.2

### Number of residential structure fires by cause and year

	1997	1998	1999	2000	2001	2002	2003	2004
<b>Fire Causes:</b>								
Failure to clean	684	532	482	504	480	468	474	418
Abandoned, discarded material	187	125	166	181	190	184	211	262
Heat source too close	166	186	188	171	226	212	217	250
Unattended heat source	410	241	218	250	214	198	234	178
Other electrical failure	180	159	157	142	176	164	145	156
Short circuit, ground fault	311	211	208	187	200	152	157	151
Failure to use ordinary care	41	99	113	118	120	86	110	115
Youth-caused fires	108	98	86	91	151	124	94	106
Unlawful incendiary or suspicious	218	200	191	142	159	80	91	99
Combustible too close	183	168	164	134	104	73	70	61
<b>Additional Data:</b>								
Number of residential structure fires	3,490	3,328	3,455	3,544	3,986	3,755	3,808	3,572
Estimated dollar loss (in millions)	\$40	\$45	\$64	\$51	\$65	\$58	\$68	\$71
Number of civilian injuries	183	101	192	191	176	180	159	165
Number of civilian deaths	36	23	26	35	32	30	21	33
Number of firefighter injuries	57	132	142	117	149	98	51	67
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 2004

County	# of Fires	Civilian Deaths	Civilian Injuries	Est. Dollar Loss
Baker	12	0	0	16,510
Benton	46	0	0	2,415,925
Clackamas	287	2	5	7,953,500
Clatsop	43	1	1	322,370
Columbia	77	0	2	816,120
Coos	67	1	4	1,788,110
Crook	30	0	1	333,354
Curry	28	0	0	214,025
Deschutes	116	1	5	2,670,820
Douglas	112	1	3	743,085
Gilliam	3	0	0	15,000
Grant	16	1	0	317,000
Harney	4	1	0	14,000
Hood River	25	0	1	465,950
Jackson	106	2	7	2,888,165
Jefferson	17	0	0	66,800
Josephine	91	2	9	2,322,265
Klamath	72	0	0	990,200
Lake	2	0	0	0
Lane	302	2	25	6,960,606
Lincoln	71	0	1	1,650,705
Linn	135	1	1	2,168,815
Malheur	29	0	2	313,300
Marion	294	4	16	6,538,610
Morrow	8	0	0	103,050
Multnomah	699	6	54	17,251,445
Polk	32	0	0	446,050
Tillamook	43	0	1	345,800
Umatilla	77	0	0	1,326,010
Union	27	1	2	275,830
Wallowa	3	0	0	0
Wasco	23	0	0	94,159
Washington	396	1	13	4,848,306
Wheeler	1	2	0	50,000
Yamhill	78	4	4	2,247,600
<b>Oregon Totals</b>	<b>3,372</b>	<b>33</b>	<b>157</b>	<b>\$68,973,485</b>

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.

This year, for the first time, data about home and apartment fires for each Oregon county are provided. 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 a tool for fire departments to use in planning educational campaigns.

**Non-residential structure fires** Non-residential structure fires accounted for 26 percent of the reported structure fires in 2004. One out of every ten fires was reported as incendiary/suspicious. These 1,253 fires resulted in an estimated loss of \$39.9 million and caused eleven civilian injuries, sixteen firefighter injuries, and one civilian death. These structures are reported in seven major general property use categories. The highest number of fires, injuries and estimated dollar loss involved manufacturing structures. Statewide initiatives to improve the quality of fire code administration and enforcement for commercial structures at the local level are key to reducing non-residential fires.

## Non-residential structure fires 2004

General Type of Property	Number of Fires	Estimated Dollar Loss	Civilian Injuries	Civilian Deaths	Firefighter Injuries	Firefighter Deaths
Manufacturing	154	12,333,975	4	0	8	0
Public Recreation	139	3,012,491	0	0	2	0
Business & Office	136	8,303,499	1	0	2	0
Education	87	1,062,702	0	0	0	0
Basic Utility/Agriculture	66	2,448,724	0	0	1	0
Storage	65	5,445,610	0	0	3	0
Health Care	32	180,010	1	1	0	0
Other Uses	183	3,487,531	2	0	0	0
Not identified	391	3,675,431	3	0	0	0
<b>Totals</b>	<b>1,253</b>	<b>39,949,973</b>	<b>11</b>	<b>1</b>	<b>16</b>	<b>0</b>

## Mobile property fires 2004

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

Mobile Property	Fires	Estimated Dollar Loss	Civilian Injuries	Civilian Deaths	Firefighter Injuries
Automobiles	1,752	3,821,202	10	4	0
Pickup and Vans	70	133,665	0	0	0
General Use Trucks, Over 1 Ton	61	1,597,870	0	0	0
Semi-trucks	50	1,311,625	1	1	0
Heavy Industrial and Agricultural Equip.	78	1,603,673	0	0	0
Motorhomes	75	546,550	2	0	0
Travel Trailers and Camping Trailers	39	440,400	0	0	0
Boats (motorized,commercial, other)	40	783,562	0	0	0
Aircraft	3	25,000	0	0	0
Other or Unidentified Type	471	2,421,591	4	0	1
<b>Total Mobile Property Fires</b>	<b>2,639</b>	<b>12,685,138</b>	<b>17</b>	<b>5</b>	<b>1</b>

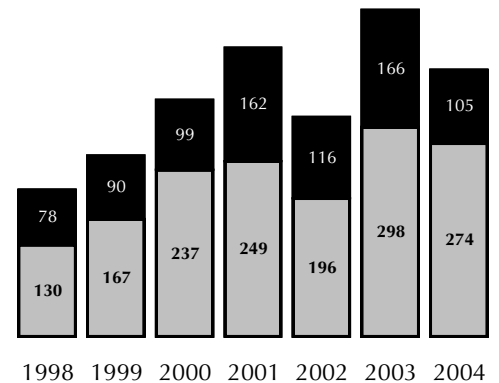
**Other fires** Although these fires represent less than 5 percent or \$6,455,095 of the total estimated loss from reportable fires in 2004, they represent over 45 percent of the fires reported. They are also responsible for seventeen civilian injuries, two civilian deaths and four firefighter injuries. Therefore, they are a critical part of Oregon's fire suppression activities.

## Other fires 2004

Type of Fire	Number of Fires	Estimated Dollar Loss	Civilian Injuries	Civilian Deaths	Firefighter Injuries
Fire in natural vegetation, trees, brush, grass	2,738	1,729,172	6	0	8
Refuse fire outside, including dumpsters	1,506	605,210	2	0	2
Other outside fires, where property has value	809	998,864	3	*2	3
Fire in cultivated vegetation, crops, orchards	688	203,615	0	0	0
Fire, explosion; not classified above	398	2,918,234	6	0	1

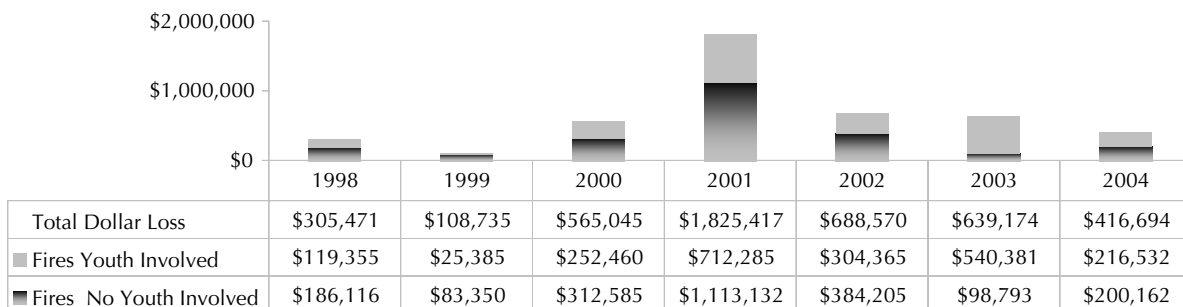
\*Note: These 2 civilian deaths were suicides.

**Fireworks-related fires** The 379 reported fireworks-related fires for the year 2004 show an 18 percent decrease from the 464 fireworks-related fires reported for the year 2003. Of the fireworks-related fires, 341 occurred from June 1 through July 31, 2004, and resulted in an estimated dollar loss of \$416,694. Youths, seventeen years or younger, were responsible for 105 or 28 percent of the 379 fireworks-related fires. This same age group was responsible for \$206,532, or 52 percent of the total estimated dollar loss.



■ Fires Youth Involved  
 □ Fires No Youth Involved

## Fireworks-related estimated loss by year



## Large loss fires

In 2004, 13,603 reported fires in Oregon caused 41 deaths and an estimated direct loss of \$129.6 million. There were 12 major fires in 2004 with an estimated loss of \$1 million or more for each fire. Nine firefighter injuries resulted from three of the 13 fires. The largest loss of \$8,500,000 resulted from a fire occurring in a building housing multiple businesses. These 12 fires represent an estimated loss of \$30.2 million or 23% of the total reported fire loss for 2004.

**Josephine Co.** – Dutch Brothers Coffee Company. The area of origin for this fire was a dumpster on the west wall of the building. The cause of fire is under investigation. Seven firefighters injured.

Estimated Loss - \$1,900,000

**Klamath Co.** – L & M Produce. This fire started in a product storage area when packing material was ignited by heat from cutting torch. This structure had no sprinkler protection.

Estimated Loss – \$2,500,000

**Linn Co.** – Sweet Home Plywood Division Mill Building and Site. This was a fire in a vacant mill building extending to other buildings on the mill site, and surrounding wildland areas. Cause of fire was reported as incendiary.

Estimated Loss – \$1,000,000

**Marion Co.** – Auto TK Accessories. This structure housed an automotive accessory business and a small home interior products business. Several vehicles and a utility trailer were inside the building. There was no sprinkler protection.

Estimated Loss - \$1,250,000

**Marion Co.** –Tibia Inc. The first item ignited was hay or straw in this agricultural products storage facility fire. This structure had no sprinkler protection and the cause was undetermined after investigation.

Estimated Loss – \$1,100,000

**Multnomah Co.** – Freeway Land Co. Inc. Several businesses were operating from this building. Fire ignited by welder's cutting torch which was being used to cut I-Beam near open oil pit. Sparks ignited oil in oil pit. Not enough agent discharged from the dry pipe system.

Estimated Loss – \$8,500,000

**Multnomah Co.** – Forest Creek Apartments (under construction). Fire began in an unconnected apartment building and spread to six additional apartments, one storage unit, one garage, and three bordering, existing single family dwellings. Cause of fire was undetermined by investigation. One firefighter was injured.

Estimated Loss - \$4,504,200

**Multnomah Co.** – Truax Door and Window. Possible overheating of older style lighting ballast was not ruled out, but a definite cause was not determined. This building had no sprinkler protection

One firefighter was injured.

Estimated Loss – \$3,000,000

**Multnomah Co.** – Rinkler Materials Inc. The fire at this asphalt manufacturing plant was caused by an automatic control failure of an asphalt coating machine. There was no sprinkler protection.

Estimated Loss – \$1,500,000

**Multnomah Co.** – XPEDEX. In the shipping, receiving, loading area of a paper products facility, a Hyster forklift caught fire. Cause of the fire was undetermined after investigation. The open construction and combustibles were factors contributing to flame travel. The wet pipe system operated and controlled the fire.

Estimated Loss – \$1,208,200

**Tillamook Co.** – Kimmels Sporting Goods. This fire started in the supply storage area when materials were ignited by heat from an overloaded electric compressor. The open construction structure had a hard wired alarm system with battery backup, but no sprinkler protection.

Estimated Loss – \$1,081,000

**Yamhill Co.** – McDonalds Restaurant. This fire started in the ceiling/area roof assembly. The cause of fire is under investigation.

Estimated Loss - \$2,000,000

# School fires



OSFM published comprehensive data about fires in schools for the first time in a 1990 report about juvenile firesetting in Oregon and again in 2000. Staff have continued to track school data and,

recognizing the size of the problem, have worked with partners to develop informational campaigns. These efforts are described in more detail in the Highlights section of this report.

In 2004, the United States Fire Administration presented national statistics about fires in schools for the first time. Oregon and national data show similar patterns. National data cover 2002 and Oregon data cover 2000 through 2004 in order to have a large enough sample for purposes of comparison.

## **Oregon findings (2000-2004)**

- 33.5 percent of all school structure fires and 25.3 percent of middle and high school structure fires were incendiary or suspicious. Youths are involved in one out of every three of these fires.
- The leading area of fire origin was the school lavatory.
- School fires peaked in July, increasing at the end of the academic year and declining at the beginning. The month of December shows the lowest number of reported fires.

There were an estimated 1,448 fires at non-adult schools from 2000-2004, causing \$16.1 million in property damage and nine civilian injuries. Of these, 578 were structure fires.

Nearly a quarter of school structure fires were confined to the object where the fire started, such as a fire confined to a trash can (22 percent) or a small cooking fire (3 percent).

The majority of school fires occurred outdoors on school property, including open areas or fields (21 percent), trash fires (5 percent), vehicle fires (3 percent) and other outdoor fires.

## **National findings (2002)\***

- 37 percent of all school structure fires and 52 percent of middle and high school structure fires were incendiary or suspicious.
- The lavatory was the leading area of fire origin.
- Fires peaked in July, driven by a sharp increase in fires at elementary schools. Elementary, middle, and high schools had above average fire incidence in the spring and fall. Fire incidence was lowest during November through February.

There were an estimated 14,300 fires at non-adult (day care through high) schools in 2002, causing \$103.6 million in property damage and 122 injuries. Six thousand (42 percent) were structure fires.

Nearly half of school structure fires were confined to the object where the fire started, such as a small cooking fire (17 percent) or a fire confined to a trash can (26 percent).

The majority of school fires occurred outdoors on school property and include trash fires (23 percent), other outdoor fires, including open fields or woods (18 percent), and vehicle fires (7 percent).

Fatalities from school fires are rare, but injuries per fire were higher in school structure fires than non-residential structure fires on average.

Educational institutions are governed by strict inspection and fire and life safety codes. Most schools built since the late 1970s are required to have sprinkler and other protection systems. This is a likely explanation why no deaths from school structure fires were reported in these last five years.

*\*School Fires, Topical Fire Research Series, Volume 4 - Issue 6, December 2004, FEMA/USFA/National Fire Data Center (using data from NFIRS).*

<b>School fires - comparison overview</b>	<b>Oregon (2000-04)</b>	<b>National (2002)</b>
School type - Middle, Junior, High	49%	48.3%
School type - Kindergarten or Elementary	40%	36.9%
School type - non-adult other	7%	6.5%
School type - Preschool or day care	4%	8.4%
Incendiary/suspicious all school structure fires	33.5%	37%
Incendiary/suspicious middle & high school structure fires	25.3%	52%
Bathroom leading area of origin, structure fires	38%	23%
Injuries/1,000 school structure fires	10.4	22.0
Fatalities/1,000 fires	0.0	0.0
Fires at non-adult schools	1,448	14,300
Property damage	\$16.1 million	\$103.6 million

## School fires in Oregon - 2000-2004 data

As shown in the table below, the highest percentage of school structure fires originate in the bathroom. Forty-nine percent of bathroom fires are incendiary or suspicious and are typically set in the trash can. Bathrooms present youths with a place to set a fire without having constant adult supervision.

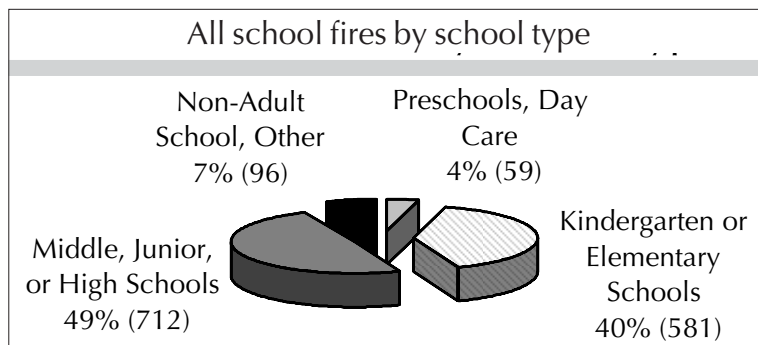
Exterior wall surfaces, and hallways and corridors are the second leading area of origin for school structure fires. Open areas or fields are the leading area of origin for all school fires.



### Leading areas of origin of school fires

Structure Fires		All School Fires	
Bathroom*	38%	Open Area, Field	23%
Exterior Wall Surface	5%	Bathroom	17%
Hallway, Corridor	5%	On or Near Roads/Parking Lots	7%
Kitchen	4%	Trash/Rubbish Area	6%

\*One out of five bathroom fires are in trash cans.



### Loss rates for school structure fires

Civilian injuries/1,000 fires	10.4
Fatalities/1,000 fires	0.0
\$ Loss/fire	\$27,375
Total estimated dollar loss for 2000-2004	\$11,032,125



**Causes of school structure fires** The leading cause of school structure fires, on average, was incendiary/suspicious activity. Arson fires accounted for 33.5 percent of all school structure fires and 25.3 percent of middle and high school structure fires. The data show that youths were involved in one out of every three incendiary/suspicious school structure fires.

The greatest percentage, 49 percent, of fires occurs in middle and high schools.

Leading causes of school structure fires 2000-2004

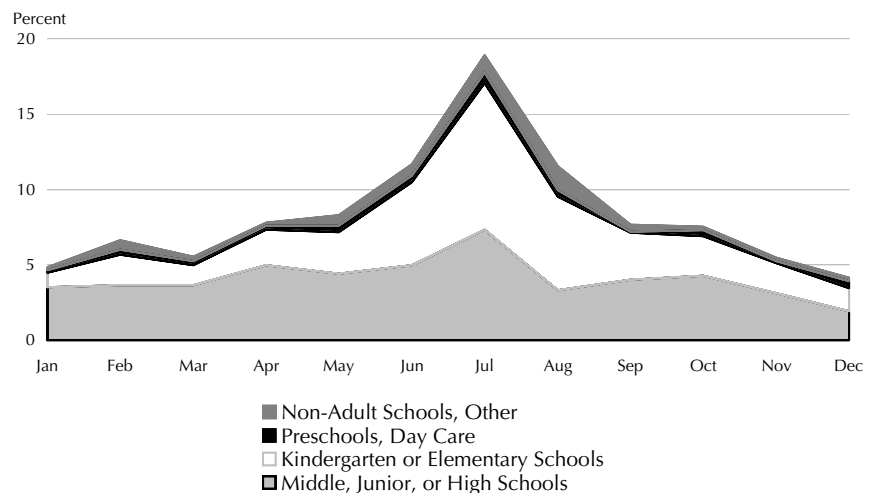
Ignition Factor	Preschools Day Care	Kindergarten or Elementary Schools	Middle, Junior, or High Schools
Reckless Act	0.5%	1.0%	1.6%
Operational Deficiency (Human Caused)	0.7%	0.5%	2.1%
Mechanical Failure, Malfunction	1.4%	2.1%	2.2%
Misuse of Material (existing heat source)	0.2%	1.9%	3.6%
Misuse of Heat Source	1.4%	1.6%	8.0%
Incendiary/Suspicious	0.0%	8.0%	25.3%

**When fires start** July is the peak month for school fires. Elementary schools had above-average fire incidence during June through August. Over half of all fires in elementary schools occurred in these months. Middle and high schools had above-average incidents during April through October. Fire incidence was at its lowest in December.

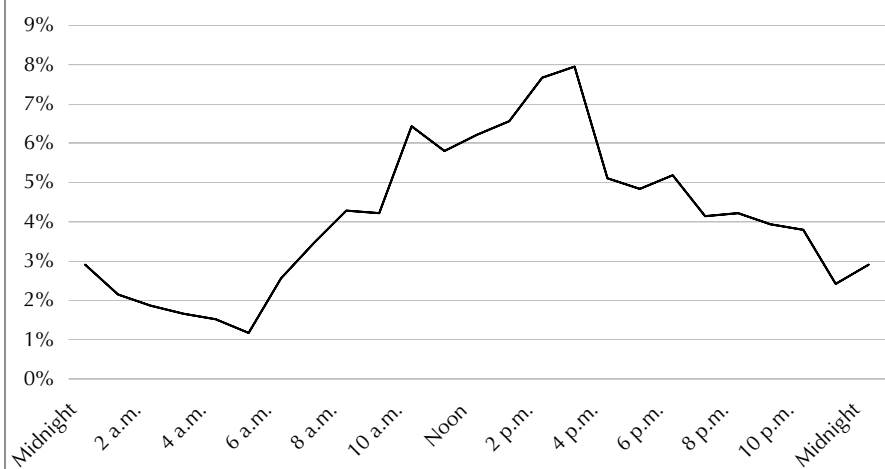
Seventy-five percent of school fires occurred during the school week and 25 percent occurred on weekends. Fifty-four percent of fires occurred between 8 a.m. and 5 p.m., the hours students are most likely to be in school. Forty-one percent occurred during a six-hour peak time interval, between 10 a.m. and 4 p.m.

Like most fires, those in schools are largely preventable through increased supervision, education and technological innovation.

Cumulative 2000-2004 Oregon school fires by month and type



Oregon all school fires by time of day 2000-2004





# 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. Staff will continue to monitor the number of youths involved with fire in 2005.

**Ages of youths** The age distribution for youths involved in fire incidents has remained constant for the last five years. Youth over the age of ten continue to set the majority of fires reported to fire departments either from community referrals or from engine companies. The average number of prior fires set by a youth before becoming involved with the fire department was 3.5.

**Gender** An analysis of gender indicates boys are eight times more likely than girls to be involved in firesetting incidents reported to the fire department.

**Ignition sources** A lighter was used 44 percent of the time as the ignition source. A match was used in 25 percent of the fire incidents. The ignition source was obtained from home 72 percent of the time.

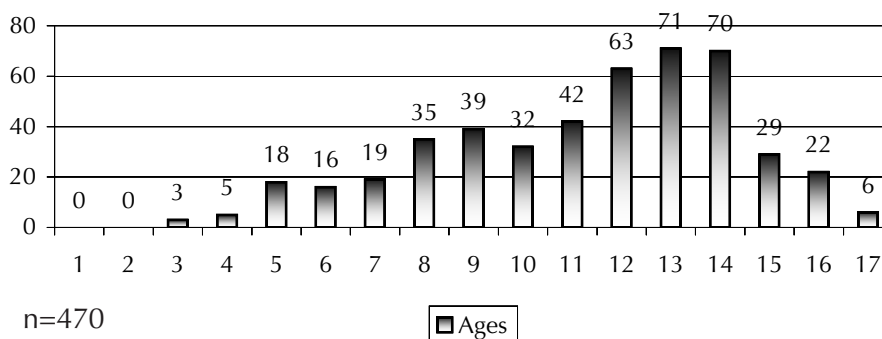
Juveniles with fire

Juveniles & fire	2000	2001	2002	2003	2004
Total juveniles	1314	1698	1556	1233	<b>964</b>
Form 10	275	787	792	*473	<b>*423</b>
Form 10J	1039	911	764	519	<b>350</b>
ODF	71	100	34	39	<b>27</b>
Fire incidents	1000	1225	1325	992	<b>773</b>

\*Incidents reported on both Form 10 and 10J have been removed from the Form 10 database to avoid duplication.

Age groups	2000	2001	2002	2003	2004
9 years & under	38%	38%	37%	33%	29%
10 years & older	62%	62%	63%	67%	71%

Age distribution of youths involved with fire 2004



Gender factors	1998	1999	2000	2001	2002	2003	2004
Female	92	128	127	111	88	89	69
Male	595	780	814	751	696	628	516
Percentage							
Female	9%	13%	12%	12%	11%	12%	12%
Male	61%	80%	78%	83%	89%	88%	88%
n=585 (2004)							

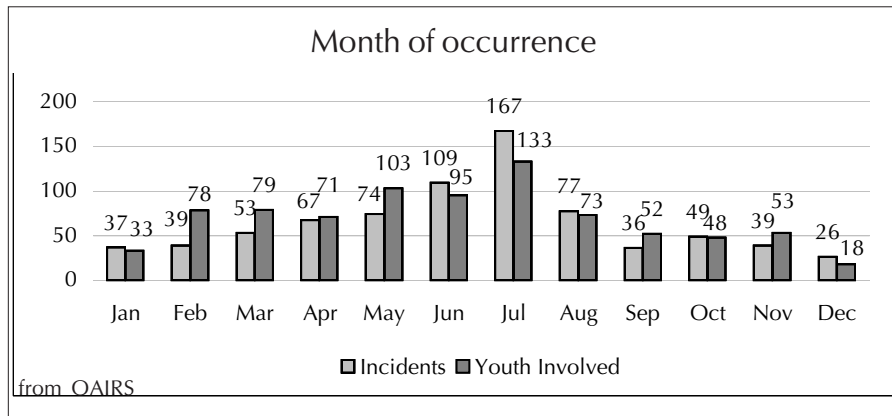
**Incident location** There were 500 fires with juveniles involved reported in the OAIRS program in 2004. These fires resulted in six civilian injuries and one firefighter injury and an estimated \$2.6 million in property loss. Of the 500 reported fires involving youths, almost 65 percent occurred outside.

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

**Screening scores** OSFM began collecting the youth and parent scores on the *Juveniles With Fire* screening tool this year. In 2004, 56 percent of the youths involved with fire were referred for further evaluation and community services. The other 44 percent were determined to need fire education as the only intervention for their behavior.

### Locations of youth-involved fires 2004

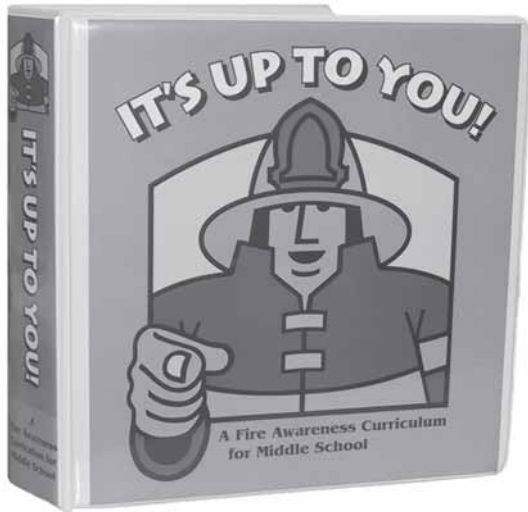
Type of Fires	# of Fires	Civilian Deaths	Civilian Injuries	Firefighter Injuries	Estimated Dollar Loss
Structure Fires	164	0	5	1	2,568,271
Mobile Property Fires	13	0	0	0	25,481
Other Fires	323	0	0	1	26,735
Totals	500	0	5	2	2,620,487



### Juvenile incidents by county

County	10J	OAIRS	Total
Baker	0	3	3
Clackamas	34	16	50
Clatsop	1	5	6
Columbia	4	26	30
Coos	6	8	14
Crook	1	3	4
Curry	4	4	8
Deschutes	33	20	53
Douglas	4	10	14
Harnery	1	1	2
Hood River	3	2	5
Jackson	10	18	28
Jefferson	0	2	2
Josephine	13	7	20
Klamath	5	4	9
Lake	1	0	1
Lane	35	21	56
Lincoln	6	5	11
Linn/Benton	21	16	37
Malheur		5	5
Marion	25	44	69
Multnomah	20	140	160
Polk	4	5	9
Tillamook	0	2	2
Umatilla	2	9	11
Union	6	3	9
Wasco	9	1	10
Washington	98	37	135
Yamhill	4	6	10
<b>Totals</b>	<b>350</b>	<b>423</b>	<b>773</b>

# It's Up to You!



Community Education Services developed *It's Up to You!*, a fire awareness curriculum specifically for students in middle school.

In 2000, the Institute for Violence and Destructive Behavior at the University of Oregon conducted a survey of 1,500 students in grades seven and eight. Students reported setting unsupervised fires: for fun (35 percent), to destroy something (31 percent), boredom (29 percent), to see what would happen (25 percent), peer group pressure (12 percent), anger (10 percent), and wanted attention (8 percent). (Students could select more than one answer, thus total equals more than 100 percent.)

Data about juveniles and fire, collected by OSFM since 1997, typically show around 1,000 juveniles per year. Data for 2004 is consistent with this trend.

*It's Up to You!* is built around four core concepts:

- Accurate knowledge about fire is essential.
- Human-caused fires can be prevented.
- Fire and life safety skills can be learned.
- Fire and life safety is a personal responsibility

The Office of State Fire Marshal is taking a proactive approach to teaching youths in middle school about the reality of fire, how the media influences their attitudes and behaviors toward fire, the physical and legal consequences of misusing fire and how to make responsible and safe decisions in fire prevention and survival.

The curriculum has six units with three lessons—one each for grades six through eight. The lessons are sequential, each building on the preceding lesson, and the contents develop increasingly sophisticated understandings.

The lessons can be taught within a class period of forty-five minutes to one hour, thus requiring a time commitment of six hours per grade level. Pilot test teachers were enthusiastic about the curriculum and felt it could be realistically integrated into their teaching schedules.

Staff worked in partnership with the Oregon Department of Education staff to align *It's Up to You!* with the new health standards adopted by the State Board of Education on February 17, 2005. Schools will have two years to align their curriculum to the standards. *It's Up to You!* is well-positioned to satisfy the new school requirements.

Several Oregon Revised Statutes (ORS) and Oregon Administrative Rules (OAR) that require instruction typically done in the health education classroom pertain particularly to fire issues. Three of them are: 1) OAR 581-022-1420, Emergency Plans and Safety Programs; 2) OAR 581-022-1210, District Curriculum, K-12 Instructional Programs; and 3) ORS 336.071, Emergency Drills and Instruction, Maintenance of Exit Doors.

Staff will conduct curriculum trainings in 2005 for Oregon health educators. The curriculum is available to Oregon middle schools at no charge.

### Juveniles with Fire in 2004

total incidents reported	773
total incidents requiring an engine response	500
total juveniles involved	954
total juveniles ages 11-14	240

## School arson campaigns

In 2003, the Fire Marshals Round Table hosted a panel discussion with the Oregon School Board, Department of Education staff, law enforcement and school safety officers to discuss the school arson problem.

In 2004, OSFM staff consulted with two insurance carriers who were concerned about the rising costs of property loss due to fires in schools they insured. Through a proactive partnership between the fire service, the school community and private industry, two new and innovative arson prevention programs are now available.

### Special Districts Association of Oregon (SDAO) insures

both school and fire districts for property loss. They awarded \$500 to thirty fire departments as an incentive for fire departments to partner with their local school districts on a school arson prevention program. SDAO provided an informational videotape and brochure covering fire reporting, risk reduction and evacuation procedures, a checklist on smoke alarm maintenance and a reward poster. They also provided a reward for information relating to the arrest of person(s) involved in setting a fire on a school campus.

The fire districts selected for the grant were: Alsea RFPD, Amity Fire District, Banks Fire District #13, Brownsville RFPD, Canby RFPD, Clatskanie RFPD, Colton RFPD, Columbia River Fire and Rescue, Dayton FD, Harrisburg Fire/Rescue, Helix RFPD #7-411, Jackson County FD, #5, LaGrande RFPD, Lakeview RFPD, Lebanon FD, Mapleton FD, Molalla RFPD #73, North Lincoln Fire & Rescue District #1, Polk County FD #1,



Scott Neufeld, Risk Consultant,  
Special Districts Association of Oregon

Rogue River RFPD, Scappoose RFPD, Siletz RFPD, South Gilliam County RFPD VI-301, Stanfield FD #7-402, Stayton FD, Tillamook FD, Umatilla RFPD #7-405, Vernonia RFPD, Willamina FD, Yamhill Fire Protection District.

**Marsh USA Inc.**, a property/casualty insurer for 140 of Oregon's 235 school districts, developed an on-line training course to help school administrators identify risk, the characteristics of youth-set fires, the costs of school arson, available resources and prevention measures. The School Arson Vulnerability Assessment Tool helps schools develop action plans to prevent the opportunity for arson.

School arson is one of the highest causes of property loss in school districts in Oregon. In 2004, the school property loss for Marsh USA Inc. amounted to over \$11,000,000. Through the proactive partnership between the fire service, the school community and private industry, this problem is being addressed.

### For more information on these programs

School districts insured by Marsh, USA Inc., can obtain information about the on-line training program from Mark Runyon, 503-248-6196, [Mark.L.Runyon@marsh.com](mailto:Mark.L.Runyon@marsh.com).

School districts insured by Special Districts Association of Oregon can obtain information about the grant and arson award program from Scott Neufeld, 503-371-8667, [neufeld@adao.com](mailto:neufeld@adao.com)

# Planning/Training/Assistance Program



In 2004, Community Right to Know (CR2K) launched the Planning Assistance to Fire Service (PATFS) program. Staff developed these program components:

- Hazardous Substance Information System (HSIS) CD, contains information collected on the Hazardous Substance Information Survey from over 48,000 facilities statewide.
- Hazardous Materials Planning Priority Program (HMPPP), an interactive program that enables the user to quickly prioritize those facilities for pre-emergency planning within a specified geographic area based on the types and quantities of hazardous substances possessed.
- Hazardous Materials Training Resource Information Center (HazTRIC), an internet-based tool used for researching and identifying hazardous materials planning and response training opportunities.

The program includes a six-step process that provides emergency responders with the tools necessary to effectively plan for and respond to hazardous material emergencies at facilities within their jurisdiction.

**Initial contact and scheduling** Program liaisons contact fire departments to discuss participation in the program. Liaisons work with the fire departments to customize training to fit the unique needs of the jurisdiction.

**Training** On-site, hands-on training is provided on how to use the HSIS CD and on how to use the HMPPP. Facilities are prioritized based on the types and quantities of hazardous substances and geographic area the user is concerned about.

**Compliance audit** Fire department personnel are invited to accompany the liaison on an on-site audit of a facility to understand how the information on the HSIS CD relates to the facility and learn how to identify reporting errors.

**Phase I plan interface evaluation** The evaluation fosters discussion on response activities between the facility and first responder and helps ensure that facility and first responder plans interface effectively.

**Referral program and HazTRIC training** The referral program is a formalized process that assists fire departments in getting facilities that are misreporting back into compliance. This ensures the HSIS information used for pre-emergency planning is accurate.

**Follow-up** Follow-up contact is performed to identify any areas where the fire department may need additional training or assistance.

Staff completed this six-step process with five fire departments in 2004.

Staff promoted the Planning Assistance to Fire Service program by providing ten one-day workshops throughout the state. The workshops included “hands-on” computer training to use the HSIS CD, and the HMPPP.

During these workshops, 107 personnel from fifty-four organizations received training. In addition, staff provided customized on-site training to fit the unique requirements of five fire departments and trained an additional forty-seven personnel.



## Door-to-door smoke alarm program

Community Education Services partnered with local fire departments and community organizations to deliver a door-to-door smoke alarm program in four communities.

Communities selected for the program showed a high incidence of fire-related deaths and injuries per capita over a five-year period as shown in data from the OAIRs and local statistics.

The program's goal was to install smoke alarms in selected high-risk areas within the pilot communities. The program educated citizens about the proper maintenance of smoke alarm and other fire safety information.

Tillamook, John Day, Roseburg and Stayton were the communities selected to pilot the program. Rainier, Gaston, Scotts Mills, Estacada, Harrisburg, Grants Pass, Lakeview, La Grande, and Aumsville participated in a train-the-trainer program.

A tool kit describing a five-step community planning process and materials needed to deliver the program will be distributed in 2005. The program was funded by a USFA FY '02 Assistance to Firefighters Grant.



Target Community	# of Homes Targeted	# of Alarms Installed	# of Participating Community Members
Tillamook	206	140	20 (fire service only)
John Day	439	222	16
Roseburg	547	240	42
Stayton	1009	177	59
<b>Totals</b>	<b>2201</b>	<b>779</b>	<b>137</b>

### Smoke alarm presence and performance in 2004 residential structure fires

	Number of Fires in 1 & 2 Family Dwellings	Number of Fires in Apartments	Number of Fires in Other Residential Dwellings*	Totals
Alarm present and working	1006	371	111	1488
Alarm present but not working	358	67	21	446
Alarm present but performance unknown	169	27	5	201
No alarm present	408	59	18	485
Alarm presence unknown	849	59	44	952
<b>Total residential structure fires</b>	<b>2790</b>	<b>583</b>	<b>199</b>	<b>3572</b>

\*Other residential dwellings includes motels, hotels, boarding houses and dormitories.



## Urban Search and Rescue

The federal government established twenty-eight federal Urban Search and Rescue (USAR) teams for responding to disasters that exceed local capacity for emergency response. Federal teams will respond to presidentially declared disasters.

In 2001, since Oregon had not been assigned a federal USAR team, then-State Fire Marshal Bob Garrison formed an Oregon USAR task force. The task force, which included geologists, emergency managers and fire service leaders, recognized the potential for structural collapse from catastrophic earthquakes. State Fire Marshal Nancy Orr continues team development.

Oregon USAR supports the interval between immediate services provided by local fire service agencies and the service the federal USAR team would provide once operational. Oregon's USAR team also provides technical search and rescue assistance to local jurisdictions.

Oregon's USAR team includes technicians from Portland Fire Rescue and Emergency Services, Springfield Fire and Life Safety, Eugene Fire and EMS, Clackamas County Fire District #1, City of Salem, City of Gresham and Tualatin Valley Fire and Rescue and Hillsboro Fire Department.

**Vision** The task force envisions communities served by a statewide network of trained and equipped, multi-disciplinary teams providing timely technical disaster search and rescue services.

Oregon USAR objectives are to focus on training, equipment, funding, governance and partnerships supported by public-private resources.

Oregon's USAR task force is developing capabilities to enable an immediate response during critical early hours.

**Funding for training and equipment** Oregon's USAR task force is currently funded by three federal grants. During 2004, a total of \$784,544 was used to purchase three caches and specialized rescue equipment.

Purchases for rescue equipment are complete: Each fifty-three foot trailer includes equipment such as hydraulic rescue tools for cutting, drilling and prying concrete and steel, listening device systems, video scope search cameras, airbag systems for stabilizing large debris or structures, and ventilation fans for safer confined space environments.

A second grant for \$150,000 helped provide a Structural Collapse Rescue class.

The third grant for \$293,973 will be used for communications equipment (interoperability resources, portable radios, telephones and satellite phones) and personal protective equipment.

**Training** In 2004, USAR Collapse Rescue Technician Schools were held at Portland Fire Bureau and Eugene Fire and EMS. There are 205 trained responders.

A training matrix for 2005 has been developed and approved.

**Operations** An operations manual was drafted to provide each team member information on operations, equipment cache, logistics, demobilization, and post-incident procedures.



## The Oregon Life Safety Team

Fire hits us where we live. Every year three-fourths of all structure fires in Oregon occur in the places we call home...houses, apartments, condos, mobile homes, even houseboats. Oregon experiences its largest dollar loss fires in businesses and institutions. However, it is in the home where fire injures and kills. Fires are not random...they are recurring, predictable and preventable.

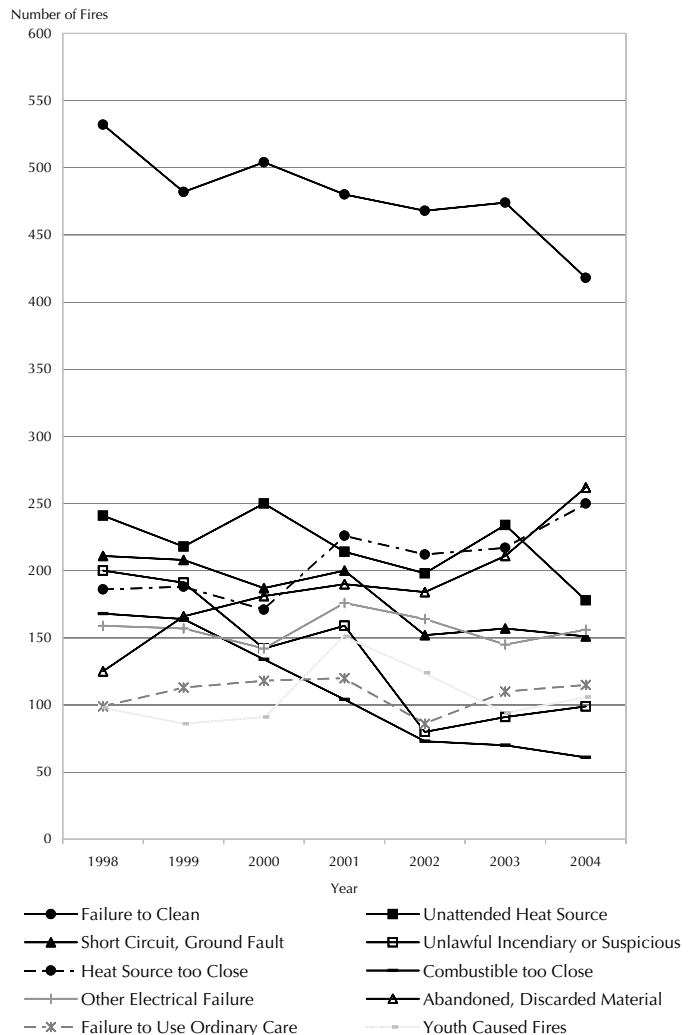
Based on data from OAIRS, the Oregon Life Safety Team (OLST) began formulating a statewide campaign. The team's mission is to change society's attitudes about fire, increase personal responsibility about fire safety and coordinate statewide fire prevention efforts.

The team determined through a study of trend data covering a seven year period that the same top fire causes were consistent. Data points for like categories were combined and translated from National Fire Protection Association code language to lay language. The team decided to conduct a back-to-basics safety campaign focused on the leading causes of home fires and how to prevent them. The campaign theme, *Home Fire Safety is Up to You!* stresses personal responsibility.

OSFM provided a public education grant to the Insurance Information Service of Oregon and Idaho to fund the development of a tool kit which included posters, safety cards, TV and radio PSAs, and news releases. Over thirty posters and 300,000 safety cards were printed and distributed to fire departments across the state. The intent of the campaign was to include those fire departments with little or no funding for prevention education materials.



Oregon residential structure leading fire causes by year



The campaign roll-out date was April 26, 2005, during Fire Service Day at the Capitol.

Posters and safety cards addressed the following leading causes of home fires:



**Cooking fires (includes “unattended heat source”)** Most home fires start in the kitchen. The safety card provides tips on how to prevent and extinguish them.

**Cigarettes and fire (includes “abandoned, discarded materials”)** Studies show that many fires caused by cigarettes are not the result of simple carelessness, but of smokers who are impaired by alcohol, fatigue, or drugs—either illegal or prescription. Smoking is also a cause of fire-related injuries and deaths.

**Housekeeping (includes “failure to clean”)** A messy home is not a fire-safe home. Fires can start in chimneys and stove flues. Items piled in hallways can block or trip someone trying to flee a fire. The safety card provides tips on how to clean house with an eye toward fire safety.

**Kids and fire (includes “youth-caused fires”)** Juveniles who do not understand the power of fire can be seriously injured. Whether it’s a child misusing a cigarette lighter or a teen setting a fire for fun, these behaviors are risky and can be fatal.

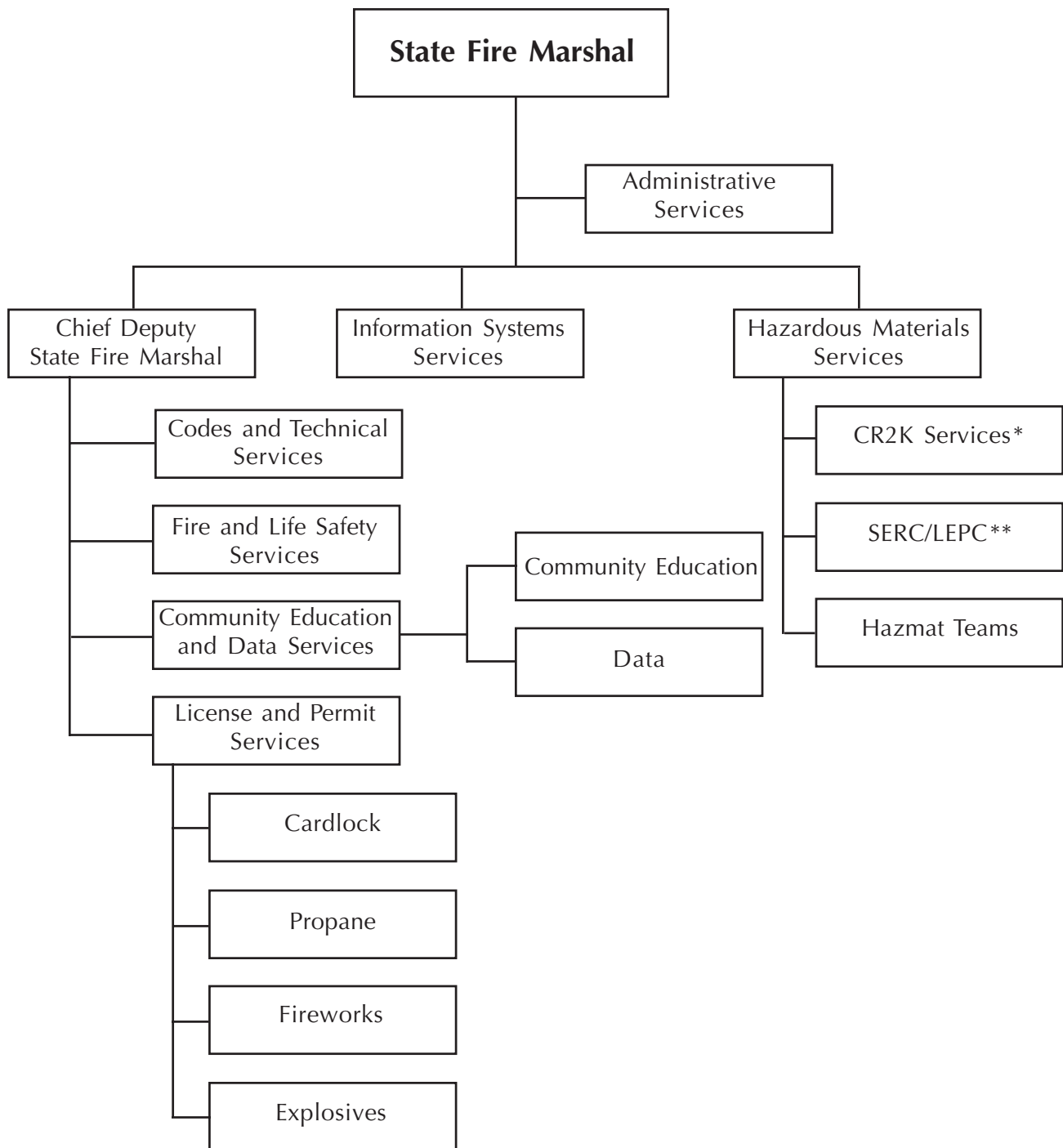
**Electrical fires (includes “short circuit, ground fault and other electrical failures”)** Oregonians are adding more and more electrical appliances which is great if the home’s electrical system can handle it. But what if it can’t? The safety card provides tips on how to lessen the possibility of an electrical fire.

**Combustibles too close (includes “combustibles too close” and “heat source too close”)** Oregon homes are filled with sources of heat...fireplaces, space heaters, candles and wood/pellet stoves. It could be a space heater or a candle left burning on a dresser. These fires can be devastating during the day when no one is home to detect them and fatal at night when family members are sleeping.

The Oregon Life Safety Team has coalition members from the following organizations:

- Consumer Product Safety Commission
- Insurance Information Service of Oregon and Idaho
- Oregon Department of Forestry
- Oregon Fire Chiefs Association
- Oregon Fire District Directors Association
- Oregon Fire Education Association
- Oregon Fire Instructors Association
- Oregon Fire Marshals Association
- Oregon Fire Service Office Administrators
- Oregon Volunteer Firefighters
- Fifteen regional representatives
- Office of State Fire Marshal





\*CR2K - Community Right to Know  
 \*\*SERC - State Emergency Response Commission  
 \*\*LEPC - Local Emergency Planning Committee



# Administrative Services

## Division-wide support

Administrative Services provides division-wide support in administrative rules, legislative tracking, adoption and interpretation of the state fire code, administration of the State Fire Net, records management, fire service mobilization support, and administrative support to the Governor's Fire Service Policy Council, the Urban Search and Rescue Team, the Oregon Fire Code Committee and areas including reception, budget and facilities services.

### **Conflagration preparedness**

Oregon was fortunate not to experience any fires that warranted invoking the Conflagration Act in 2004, although the OSFM was amply prepared. The *State Fire Service Mobilization Plan* was revised and streamlined in cooperation with the state's Fire Defense Board Chiefs. The Emergency Response Center (ERC) reference materials and *Operations Guide* were updated, and OSFM staff received training on working in the ERC during an incident.

### **Incident Management Teams**

Oregon's three Incident Management Teams (IMTs) continue their role in providing management support and direction on conflagration fires. The

IMTs meet and train together with the Oregon Department of Forestry (ODF) teams each year and 2004 was no exception. The teams met and worked on improving their ability to integrate their operations with each other and to focus on critical safety areas for the management teams. The teams met individually, in groups, and by functional specialty to address integration issues and problem solve to improve their ability to work together as a cohesive unit.

During the Booth and B&B fires in central Oregon in 2003, the Amateur Radio Emergency Service Mutual Aid Team (ARES/MAT) was called upon to set up a cross-band repeater system to maintain communication between the deployed structural firefighters and their incident command. The increased safety for firefighters and improved communications reliability was a clear

demonstration of the effectiveness of ARES/MAT. Based on this experience, Communications Unit Leader positions were added to the teams in 2004. These volunteer members are among the elite of ham radio operators in Oregon.



**For further information about Administrative Services resources  
and the State Fire Service Mobilization Plan  
Please contact Laura Drager, Support Services Supervisor  
at 503-373-1540, extension 211 or [laura.drager@state.or.us](mailto:laura.drager@state.or.us)**



In preparation for the 2004 season, the OSFM purchased three small trailers, that were stocked with communications equipment. The IMTs will use the equipment to establish and maintain communication with all deployed fire service personnel assigned to the incident. These new communication capabilities will improve fire-fighter safety as well as the ability of the incident commanders to direct the assigned suppression forces to where they will do the most good.

### **Governor's Fire Service Policy Council**

Chief Jeff Johnson, Tualatin Valley Fire and Rescue, is the chair of the Governor's Fire Service Policy (GFSPC). State Fire Marshal Nancy Orr serves as executive director.



In 2004 the GFSPC heard issues related to:

- **Unprotected Areas Policy** A task force met in February of 2004 and established principles that focus on prevention and fuels mitigation rather than only funding suppression response in unprotected areas. The group agreed that protection should be provided only if the county is 1) completing a community wildfire protection plan; 2) has adopted the Department of Land Conservation and Development's Goal 4 requiring fire defense standards for new construction in forest zones; and 3) is changing property tax statement language for ODF assessment from "fire protection" to ODF "non-structural fire suppression" so homeowners and insurers are not led to believe they have structural fire protection.

State Fire Marshal Orr facilitated additional meetings with the counties and the result is

criteria that counties must meet for their unprotected lands to be considered for conflagration response.

- **Fire Code Application Task Force** This task force determined there are widespread problems related to inconsistent building/fire code application and enforcement. The issue is inextricably correlated with building code application and administration. The problems identified were: Lack of communication between building and fire officials, lack of understanding related to scope of authority, code competency/interpretation, end user not understanding building/fire official relationship, and code administration.

- **Fire Code Solutions Task Force** The council appointed a task force to find appropriate solutions for the problems identified by the previous task force. They developed a matrix of solutions that will eventually resolve most of the problems. OSFM will monitor the status of each solution.

- **Fire Service Stratification Task Force** This task force was chartered to research the value and practicality of stratifying fire departments based upon response capabilities. The many aspects of the task were divided among subcommittees for study. By the end of 2004, they had a good start and were headed toward a completion time of July, 2005.

### **Urban Search and Rescue**

Oregon began forming an Urban Search and Rescue team in 2002 to respond to structural collapse emergencies or other incidents where collapse rescue capabilities are needed.

See the Highlights section of this report for a description of the team.

# Codes and Technical Services

## Fire code administration

Codes and Technical Services promotes the application and use of effective and uniform fire and life safety codes through code development and adoption, code interpretation, technical research, and legislative input. Staff partner with the Building Codes Division and local fire jurisdictions in maintaining code consistency.

Staff review plans and issue permits for above-ground flammable and combustible liquid tanks and liquefied petroleum gas tanks. Staff is responsible for maintenance of the state-wide FireNet radio system. They ensure that new equipment is purchased, existing equipment is repaired, and maintain a list of individuals authorized to use the system.

### **New Oregon fire code**

In 2004 staff coordinated with the Oregon Fire Code Committee for the adoption of the new state fire code that became effective on October 1, 2004. This year-long process included reviewing forty-five chapters of the 2003 International Fire Code (IFC) and over two hundred code change requests.

### **Fire Marshals Round Table**

Deputy State Fire Marshal John Caul chaired the annual Fire Marshal's Round Table in October and coordinated the event with the Oregon Fire Marshal's Association. At this year's Round Table, several issues related to sprinkler systems were discussed. Discussions included: requirements for sprinkler

systems in new low rise residential buildings, determining fire flow calculations and required hydrant numbers based on the use of sprinkler systems, and clarification on when and where final plan review and inspections of sprinkler systems should be done.

Attendance at the Round Table reached an all-time high of ninety-eight participants. The featured speaker was Ted Lemoff, a contributing author of the *Fire Safety Analysis Manual* on the National Fire Protection Association 58 Liquefied Petroleum Gas Code.

### **International Code Council Committees**

Deputy State Fire Marshal John Caul serves on two International Code Council committees as a representative of the National Association of State Fire Marshals: the International Fire Code Action Committee and the International Fire Code Action Coordinating Committee. Members testify at code hearings and discuss challenges to hearing results.

OSFM partners with Tualatin Valley Fire and Rescue to teach an Oregon Fire Code Amendment class. This class serves as the only review of the Oregon amendments made to the IFC.

Caul also serves as a hearings officer for the OSFM's License and Permit Services when changes are proposed to the Oregon Administrative Rules regarding unit programs.



**For clarification on fire code issues  
Please contact Deputy State Fire Marshal John Caul  
at 503-373-1540, extension 269 or [john.caul@state.or.us](mailto:john.caul@state.or.us)**

# Community Education Services

Fire safety education with a statewide focus

Community Education Services works toward reducing residential fire deaths through educational initiatives, through the development and distribution of model programs and resource materials, and through the provision of fire safety information, emergency response and wildfire mitigation resources to the public and local fire safety partners.

Specific programs within Community Education Services are the Juvenile Firesetter Intervention Program and the Wildland Urban Interface Program. Staff publish *The Gated Wye*, a monthly newsletter for the fire service, and *Hot Issues*, a quarterly newsletter about juvenile firesetting issues.

## Juvenile Firesetter Intervention Program

This program partners with community-based organizations and state and federal agencies to develop a continuum of care for firesetting youths and their families. In 2004, the program focused heavily on curriculum development. With support from a FY 02 Assistance to Firefighter Grant, juvenile firesetter intervention staff Judith Okulitch and Carol Baumann, finalized the middle school fire awareness curriculum. See the Highlights section of this report for a description of the curriculum.

OSFM was named a strategic partner in the development of a youth fire

investigation curriculum with the International Association of Arson Investigators (IAAI). Juvenile Firesetter Intervention Program Coordinator Judith Okulitch chaired the curriculum development committee composed of fire and arson experts from across the country, the Bureau of Alcohol, Tobacco, Firearms and Explosives and the Criminal Justice Institute at Florida State University. The goal of the curriculum is to provide law enforcement and fire investigators with the tools needed to investigate and identify youth who set fires. The curriculum was pilot tested in Indiana and Massachusetts.

As a commissioned officer of the Consumer Product Safety Commission (CPSC), Judith Okulitch surveyed twenty retail outlets, inspecting novelty lighters for compliance with federal safety standards. CPSC awarded Okulitch a state and local award for "outstanding success in promoting awareness and compliance with the safety standard for cigarette lighters in the State of Oregon."

Staff continued to deliver training classes to meet the National Fire Protection Association 1035 Juvenile Firesetter Intervention Specialist I standard. Another twenty-five fire and community personnel completed a sixteen-hour training class.



**For further information about Community Education Services programs and resources  
Please contact Tari Glocar, Manager  
at 503-373-1540, extension 273 or [tari.glocar@state.or.us](mailto:tari.glocar@state.or.us)**

### **Wildland Urban Interface (WUI) Program**

OSFM is proactive in creating effective community fire protection and mitigation plans in wild-fire-prone communities and providing technical advice at the regional, state and local level. The goal is to reduce risk and structural fire loss in Oregon's wildland areas, especially those with little or no structural fire protection.

During 2004 Community Education Program Coordinator Donna Disch served on the Pacific Northwest Wildfire Coordinating Group and chaired the Prevention Working Team. This team is tasked with increasing interagency wildfire suppression and prevention effectiveness through a coordinated effort. Wildfire prevention issues common to federal natural resource agencies, Oregon Department of Forestry, Washington Department of Natural Resources and both the Washington and Oregon Offices of State Fire Marshal are addressed. Staff are also active on the National Fire Plan Strategic Planning Team. Staff initiated and partnered with federal, state, local and non-governmental organizations in the creation of Community Wildfire Protection Plans. Most Oregon counties are actively developing plans to reduce wildfire risk by addressing fuel reduction, community involvement, and structural ignitability. Staff partnered with the Insurance Information Service of Oregon and Idaho in the development of a media kit for the 2004 Wildfire Awareness Week.

### **Community Education activities**

Staff with expertise in grant writing assisted numerous fire departments that applied for FEMA Assistance to Firefighter grants. In 2004, ninety-six departments in Oregon received federal grant monies totaling \$10.1 million. A list of fire depart-

ments and the amount of their grant award is at the end of this report.

In 2004, one out of every four residential structure fires had no working smoke alarm present or the alarm did not work.

Of the thirty-four fire deaths in homes during 2004, one out of three persons died in homes that did not have a working smoke alarm. To address the problem, with funding from a FY 02 Assistance to Firefighter Grant, staff developed a door-to-door smoke alarm installation and maintenance program. Staff worked with four Oregon communities to develop the program and handed off the materials to an additional nine fire departments through a train-the-trainer class. See the Highlights section of this report for a description of the program.

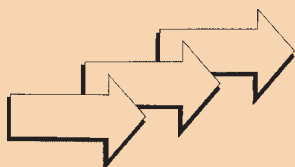
With a state government decision to give state agency Web sites a consistent look, and because of OSFM's transition to the Oregon Office of Homeland Security (OOHS), staff moved the OSFM Web site to the OOHS site and aligned the site's look with the state template.

The children's fire safety house was used by eight communities statewide and over 3,800 children learned how to safely exit a home in the case of a fire.

The Oregon Life Safety Team (OLST) is composed of representatives from fire service associations and community partners, both private and public, from across the state. OSFM provided public fire education grant funds to support the OLST statewide prevention campaign, *Home Fire Safety is Up to You*. See the Highlights section of this report for a description of the campaign.

## **Community Education resources on the Web...**

Community Education Services has resources available for download on the Web.



- **Gated Wye and Hot Issues newsletters**  
<http://egov.oregon.gov/OOHS/SFM/>
- **Fire safety information and brochures**  
[http://egov.oregon.gov/OOHS/SFM/Community\\_Education](http://egov.oregon.gov/OOHS/SFM/Community_Education)
- **Wildfire mitigation**  
[http://egov.oregon.gov/OOHS/SFM/Conflag\\_and\\_Wildland](http://egov.oregon.gov/OOHS/SFM/Conflag_and_Wildland)
- **Juvenile firesetter intervention resources**  
[http://egov.oregon.gov/OOHS/SFM/JFSI\\_Home](http://egov.oregon.gov/OOHS/SFM/JFSI_Home)



# Data Services

## Data drives programs

Data Services collects fire report information from all Oregon fire departments through the Oregon All Incident Reporting System (OAIRS) and the Juvenile with Fire Reporting System (JFSI). OAIRS helps satisfy Oregon Revised Statute chapter 476 that requires every fire chief to provide information on all reportable fires occurring in their area of responsibility to the OSFM. The goal of Data Services is provide complete and accurate fire incident data to identify and evaluate educational, engineering, and code enforcement solutions to Oregon's fire problems.

Data Services also provides information and analysis of fire data in response to specific requests from citizens, fire departments, local, state and federal government agencies, insurance companies, the media or other interested parties. Last year, 289 requests for OAIRS data and information were provided.

Data Services converts and transfers all Oregon fire departments' reports to the National Fire Incident Reporting

System database. This ensures that all Oregon fire departments meet the requirement for United States Fire Administration (USFA) Assistance to Firefighters Grants to report fire incidents to the National Fire Incident Reporting System. Data from OAIRS was requested by many of these fire departments and used in their grant applications. In 2004, \$10.1 million in grants was awarded to ninety-six Oregon fire departments by USFA.

### Rate of reporting

Last year more fire departments reported than in any other previous year. Of the 327 Oregon fire departments, plus eighty contracting departments (407 total active), 93 percent reported in 2004. The percentage of reporting departments was 87 percent in 2003, 80 percent in 2002, and 82.8 percent in 2001.

Given the high reliance on volunteers for this activity—it is even more noteworthy. In 2004,

Oregon fire departments reported 7,624 volunteer and 3,072 paid firefighters statewide.



**For further information about Data Services programs and resources  
Please contact Linda Palmer, Manager  
at 503-373-1540, extension 244 or [linda.palmer@state.or.us](mailto:linda.palmer@state.or.us)**



The report describes the fire, including its cause and origin, any injuries to civilians and firefighters, any juvenile firesetter involvement and an estimation of the direct dollar loss. Determination of probable fire cause is critical for providing direction for fire prevention and education efforts to reduce loss of life and property.

In 2004 almost three out of every four fires, or 75.7 percent, included the probable fire cause. This is up from 65 percent in 2003.

### Data collection

In 2004, two out of every three departments used electronic software for reporting. Of the 327 reporting departments, 225 reported electronically and the remainder used paper forms.

Of the 225 electronically reporting departments: 198 departments use OAIRS and JFSI software. Twenty-seven departments use five different brands of commercial, NFIRS 5-compliant, software packages that have been successfully tested and run through the OSFM approval process by the department. Reports submitted using commercial products account for 26.8 percent of 2004 reports.

### Availability of OAIRS and JFSI software

A new version of OAIRS and JFSI was distributed in 2004. The OAIRS and JFSI software and support are provided free to all Oregon fire departments. This new software was redesigned based on fire department input and recommendations of the OAIRS Task Force.

The OAIRS program now provides tools for measuring performance for departments wanting to pursue Oregon's Deployment Standards: built-in, user-friendly, quality assurance tools and many other new features.

OAIRS may be used for all types of situations so reports included in the software provide more meaningful information for fire departments.

Many forms and reports may be downloaded from the OSFM Web site (<http://egov.oregon.gov/OOHS/SFM/>): OAIRS version 3.0b update, paper reporting forms, manuals, fire data reports, fire department lists and further data analysis.

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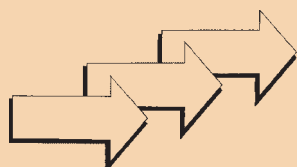
### Oregon fire departments by the numbers

327	Oregon fire departments
7,624	volunteer firefighters
3,072	paid firefighters
93%	fire departments reporting in 2004
75.5%	probable fire cause determined on report
225	fire departments reporting electronically
96	fire departments receiving USFA grants

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## Do you have questions about Oregon fire reporting?

Data Services has resources available for download on the Web.



### Juvenile with Fire and HAZMAT reports available.

Oregon's fire reporting policy contains reporting requirements for departments and commercial software vendors. This policy provides guidelines for reporting and may be downloaded at [http://egov.oregon.gov/OOHS/SFM/JFSI\\_Home](http://egov.oregon.gov/OOHS/SFM/JFSI_Home)

# Fire and Life Safety Services

## Investigation, code enforcement and consultation

Fire and Life Safety Services delivers statewide services through inspections, fire investigations, and extensive involvement and partnering with community organizations, industry associations, and local fire and building officials.

In 2004, the unit consisted of twenty-two full-time employees.

Fire and Life Safety Services staff conduct fire and life safety inspections to maintain compliance with fire and life safety regulations; provide fire code consultation services to assist design professionals and builders to construct code compliant buildings; assist building and fire officials with fire code issues to ensure consistent code enforcement statewide; conduct fire incident investigations to ensure accurate and thorough reporting of fire related incidents and identify high risk behaviors and conditions; to coordinate emergency response resources to assist in fire related emergencies or other disasters that are beyond local control capabilities; and survey health care facilities to insure compliance with federally mandated fire and life safety regulations on behalf of high risk residents who are incapable of self-preservation.



### Fire and Life Safety Services goals

- Plan, develop and implement processes and policies to improve the quality and consistency of fire code administration and application statewide.
- Promote the installation and maintenance of built-in protection systems in buildings in compliance with fire safety codes.
- Improve the quality of fire cause determination.

### Code enforcement

Code enforcement directly impacts the preservation of life, property and the environment in Oregon and is the primary objective for Fire and Life Safety Services. Staff invested 42 percent of their work time on inspections, code consultations and plan reviews. Deputy state fire marshals conducted 2,956 inspections in 2004 in accordance with nationally recognized codes and standards including the Oregon Fire Code (OFC), Oregon Structural Specialty Code, Oregon Mechanical Specialty Code, Oregon Electrical Specialty Code, and NFPA 101 Life Safety Code.

**For further information about Fire and Life Safety Services programs and resources  
Please contact Stacy Warner, Manager  
at 503-373-1540, extension 252 or [stacy.warner@state.or.us](mailto:stacy.warner@state.or.us)**

By statute, a deputy state fire marshal may inspect any structure, except private residences. Structures with the greatest potential for loss of life receive priority. It is interesting to note the correlation between structures that are inspected and structures that burn. Most fires occur in private residences, where fire marshals do not inspect. According to the National Fire Protection Association, 77 percent of all fires occur in private residences nationally (the rate is 75 percent in Oregon). Nationally, 80 percent of all fire fatalities and 69 percent of the dollar loss from structure fires are related to private residential properties. Clearly, inspections, code expertise, and plan review are valuable tools in fire prevention.

### **Fire investigation**

Deputy state fire marshals committed 14 percent of their work time to conduct 241 fire investigations in 2004. Deputies investigate to determine the origin and cause, and whether the fire was the result of carelessness or design.

Deputies provided twelve fire investigation classes to over 170 fire service personnel and conducted numerous presentations on investigation protocols and evidence preservation. Investigation classes were delivered in Baker, Coos, Crook, Umatilla, Wasco, Washington and Yamhill counties.

### **Fire service training**

Deputy state fire marshals deliver training to the fire service and local communities. Training with fire agencies opens lines of communication and fosters consistent practices within Oregon's fire service.

Fire and Life Safety Services added a training and development specialist position this past year. This position will produce curriculums to be delivered to chiefs and fire marshals who, under ORS 476.060, are deemed assistants to the State Fire Marshal. Curriculums will be developed related to fire inspection and investigation.

In 2004, the Fire and Life Safety Awareness Curriculum was developed. It includes the following topics:

- **Scope of Authority** provides a foundational training about ORS(s) and Oregon's Attorney General Opinions related to: powers and duties of the State Fire Marshal (SFM) and assistants to SFM, inspection procedures, due process and

investigation of fires. Additionally, fire and life safety concerns associated with Assembly Group A occupancies.

- **Fire Department Access** provides the information needed to determine fire department access as established in the 2004 OFC including: parameters for permits, construction documents and timing of installation, fire department access road specifications, fire department access into buildings and fire hydrant systems.

- **Water Supplies and Fire Flows** provides training about various sources of water supplies, state and national regulations pertaining to water supply and fire flows, how to calculate water supply per NFPA 1142 and fire flows per OFC appendix B, and determine the required number and distribution of fire hydrants per OFC Appendix C.

**Community education and firesetter intervention** with Oregon's citizens is an effective way to educate and encourage people to take responsibility for themselves to be fire safe in their own homes and places of business.

In 2004, deputies delivered training or made presentations at over 100 public events, including safety fairs, babysitter trainings, fire drills, fire extinguisher trainings, and formal classroom settings. Deputies demonstrated fire and life safety skills while staffing the children's fire safety house at a dozen county fairs and public events.

Deputy state fire marshals provide expertise on cases involving juvenile firesetters. They interview juveniles and parents using the Oregon Screening Tool. They recommend a course of action, and direct citizens to resources. Some deputies participate with juvenile firesetter intervention networks.

### **Partnerships**

Deputy state fire marshals partner with numerous organizations to accomplish their work. Some of the groups they participate with include local Fire Investigation Teams, the International Association of Arson Investigators, wildfire mitigation committees, the Oregon Fire Marshals Association and the Oregon Fire Code Committee.

**2004 inspections and reinspections**

School	1154
Day Care	261
Business, factory, hazardous operation, merchandise	256
Residence for elderly, disabled, or minors	241
Liquefied Petroleum Gas Tanks and Bulk Plants	206
Place of assembly	237
Institution (hospitals, prisons)	267
Congregated Residence (hotel, lodge, apartment)	127
Licensed Children's Group Home	207

<b>Technical input only</b>	<b>Assist others</b>	<b>Investigate or act as a team leader</b>	<b>Dollar Loss all fires</b>
66	65	110	\$22,983,435



**Fire investigations with major dollar loss (est.) where DSFM assisted or investigated:**

Yoncalla Food Center	Yoncalla	09/18/04	\$450,000
Waste Management Inc	Forest Grove	06/18/04	\$770,000
Dutch Bros. Coffee	Grants Pass	08/08/04	\$1,900,000
Kimmel's Sporting Goods & Gifts	Tillamook	02/01/04	\$1,500,000
McDonalds Restaurant	Newberg	03/24/04	\$2,000,000



# Hazardous Materials Services

## Hazardous materials tracking, planning and response

The Hazardous Materials Services Section is comprised of two units—Community Right to Know and Regional Emergency Hazardous Materials Response Teams. These units have been nationally recognized as leaders within their respective disciplines and are held up as models for the rest of the nation.

Community Right to Know launched several new and innovative programs that simplify the reporting of hazardous materials and the prioritizing and accessing of the information.

Regional Emergency Hazardous Materials Response Teams provided new response technologies, equipment and training to the fifteen Regional HazMat Teams with a focus on weapons of mass destruction and events of terrorism.

### Community Right to Know

Community Right to Know (CR2K) collects, validates and distributes information about hazardous substances used, stored, manufactured and disposed of in Oregon. This information is necessary to protect public health and safety by providing information that is easily accessible to emergency planners,

emergency responders and the public. In addition, staff is responsible for providing hazardous materials planning and response training assistance to all local and state agencies.

Staff coordinates the distribution of over 35,000 *Emergency Response Guidebooks* to public safety agencies throughout the state. This guide for first responders helps them to quickly identify the hazards of materials involved in an incident and to protect themselves and the general public during an initial response phase.

### 2004 accomplishments

*Hazardous Materials Information Surveys* were collected from 49,848 facilities. Facilities receiving the survey are required to identify reportable quantities of hazardous substances, amounts on site and storage locations, and other substance and demographic information.

CR2K introduced the electronic survey submission this year. Facilities have reported this to be an efficient way to complete the survey. In addition, the time required to perform data entry has been cut by approximately 95 percent. Approximately 650 facilities submit electronically.



**For further information about Hazardous Materials Services programs and resources  
Please contact the hazardous substance information hotline  
at 503-378-6835 or [sfm.cr2k@state.or.us](mailto:sfm.cr2k@state.or.us)**



CR2K continued to monitor industry growth in Oregon and added 4,486 new facilities to the Hazardous Substance Information System.

Compliance staff responded to 9,306 requests for technical assistance related to CR2K reporting requirements, hazardous substance possession fees and other program areas.

### **Auditing Program**

Staff conducted audits to ensure that facilities are in compliance with CR2K reporting requirements and to verify facilities requesting a review of their Hazardous Substance Possession Fee.

Compliance specialists conducted 1,908 facility records reviews, ninety-seven audits of facilities requesting an appeal to Notices of Non-Compliance, 182 fee reviews and 491 on-site audits.

Auditing activities were conducted on 5.4 percent of the facilities surveyed, surpassing a CR2K goal by .4 percent. Of the facilities audited, 34 percent were found to be in compliance with the reporting requirements. This is an increase from 26 percent of facilities found to be in compliance in 2001.

Staff provided assistance and information on the reporting requirements through the Hazardous Substance Information Hotline, the CR2K Web page, informational packets, flyers and informational presentations.

The program seeks to increase the percentage of facilities submitting the Hazardous Substance Information Survey (HSIS) in a timely manner to 92 percent by 2006. Because of the CR2K activities and outreach programs, the percentage has increased each year, and 91 percent of the facilities submitted in a timely manner in 2004.

### **Material Safety Data Sheets**

Material Safety Data Sheets (MSDS) and specific hazardous substance information are important tools to emergency responders, planners and the general public. Emergency planners and responders can use the information to target their planning needs. Responders can use the information to decide appropriate action, equipment and techniques that may be needed during a response to an incident. The public can use the information for assessing health hazards, first aid measures and general information.

CR2K continued updating the database with hazardous substance information provided by facilities in Oregon. Hazardous ingredients, first aid measures, tracking numbers and characteristics of the substance are collected. Over 3,238 new hazardous substances were added to the database, bringing the chemical count to 33,600 unique hazardous substances.

### **Information distribution**

Staff distributes information collected by CR2K. The information can be technical in nature, so emphasis is placed on a useable, easy-to-understand format. Staff provided ninety-one individuals with customized information requests.

Information is distributed in four main ways: The HSIS CD, CR2K Web site, annual program reports and customized reports.

The HSIS CD was distributed to over 308 who requested it or received training on it, and to 825 fire departments, hazmat teams, emergency managers and health administrators.

Staff created and distributed 1,625 copies of the *2003 Annual Survey Report* and *2003 Annual Incident Report*. (These are available on the OSFM Web site.)

## **Do you have questions about hazardous substances?**

Community Right to Know has three interactive online databases which are updated every thirty days.



- **Hazardous Substance Information Survey Database**  
Searchable database with seventeen pre-set searches
- **HazMat Incident Database**  
Searchable database with twelve pre-set searches
- **Material Safety Data Sheet Database**  
MSDS information for over 15,000 substances.

[http://egov.oregon.gov/OOHS/SFM/CR2K\\_Databases\\_Intro.shtml](http://egov.oregon.gov/OOHS/SFM/CR2K_Databases_Intro.shtml)

### **Planning/Training/Assistance Program (PTAP)**

CR2K launched the Planning Assistance to Fire Service (PATFS) program. The PATFS program is featured in the Highlights section of this report.

### **Hazardous Materials Training Resource Information Center**

The Oregon Community Right to Know and Protection Act (ORS 453.347) requires the OSFM to provide hazardous materials planning and response training assistance to all local and state agencies. One way this is accomplished is by serving as a hazardous materials planning and response training information clearinghouse.

To facilitate the distribution of training opportunities, Hazardous Materials Services developed the Hazardous Materials Training Resource Information Center and placed this interactive database on the agency Web site ([http://egov.oregon.gov/OOHS/SFM/CR2K\\_Databases\\_Intro.shtml](http://egov.oregon.gov/OOHS/SFM/CR2K_Databases_Intro.shtml)).

### **Hazardous Materials Emergency Preparedness (HMEP) Grant**

In 1990, the U.S. Department of Transportation established the HMEP grant program. In Oregon, this program primarily provides for the training of emergency responders to increase local effectiveness, to safely and efficiently respond to hazardous materials incidents, and to enhance Local Emergency Planning Committee planning activities required by the Emergency Planning and Community Right-to-Know Act (EPCRA a.k.a. SARA Title III).

In order to use the grant funds more effectively, the Hazardous Materials Training and Planning Assistance Program was created to solicit projects from local agencies. During the 2004 grant cycle, projects completed through the HMEP grant include two commodity flow studies, one emergency response plan update and one hazardous materials exercise.

Staff working with local agencies trained 1,041 personnel. Classes covered awareness, operations, HazMat On-Scene Incident Command, Incident Command System, Medical Radiological Emergency Response, HazMat Catching for First Responders, Radiological Emergency Preparedness and Advanced HazMat Life Support.

## **Teams**

(Regional Hazardous Material Emergency Response Teams)



In 1989 the legislature directed the Office of State Fire Marshal to establish a statewide hazardous materials emergency response system to respond to hazardous materials incidents beyond the capability and resources of local communities. The system creates a partnership between industry, which funds the system; local governments that provide response services and resources; and the state, which provides administration and support for the system.

To date, Oregon is one of the few states that has been able to establish and maintain a program of this type. There are fifteen teams statewide, strategically located to provide a maximum two-hour response time.

### **Incident summary**

Teams responded to over 150 hazardous material incidents. Teams also provided additional resources through telephone advisories to local responders and industry in their response areas.

Teams conducted forty-eight outreach trainings across the state. The majority of the trainings were conducted at local fire departments within the individual response regions. They often included representatives from local industry within the region. Teams participated in training and exercises with local law enforcement, the Oregon State Police Bomb Squad, the Federal Bureau of Investigation and local, county and state emergency management agencies.



### **Community Right to Know 2004 by the numbers**

- 49,848 Facilities issued Hazardous Materials Information Surveys
- 35,000 Emergency Response Guidebooks distributed to Oregon public safety agencies
- 4,486 New facilities added to the Hazardous Substance Information System
- 3,238 New hazardous substances added to the information system database
- 2,678 Facility audits completed
- 1,908 Facility records reviews completed
- 650 Facilities registered to submit surveys electronically
- 491 On-site audits
- 182 Fee reviews
- 97 Audits of facilities requesting an appeal to Notices of Non-Compliance
- 91 Customized information requests provided

### **Planning Assistance to Fire Service (PATFS) Program 2004 by the numbers**

- 48,000 Facilities included on the Hazardous Substance Information Survey
- 1,133 Hazardous Substance Information Survey CDs distributed
- 1,625 2003 Annual Survey Report and 2003 Annual Incident Report distributed
- 10 One-day training workshops provided on the PATFS Program
- 107 Received PATFS training
- 54 Organizations represented at PATFS training



**Hazardous Materials Emergency Preparedness (HMEP) Grant**

- 4 Grant projects completed through the HMEP Grant
- 50 Training classes provided
- 1,041 Personnel from local agencies trained

**Regional Hazmat Emergency Response Teams**

- HM01 Roseburg Fire Department
- HM08 Medford Fire Department  
Winston-Dillard RFPD  
Ashland Fire and Rescue
- HM02 Eugene Public Safety
- HM09 Tualatin Valley Fire & Rescue
- HM03 Gresham Fire Department
- HM10 Hermiston Fire & Emergency  
Multnomah County Services
- HM04 Klamath Co. Fire District #1
- HM11 Astoria Fire Department
- HM05 Albany Fire Department
- HM12 LaGrande Fire Department  
Corvallis Fire Department
- HM13 Salem Fire Department  
Lebanon Fire Department
- HM14 Ontario Fire Department
- HM06 Portland Fire and Rescue
- HM15 Coos Bay Fire and Rescue
- HM07 Redmond Fire Department  
Charleston RFPD

Photos:

(Top left) A joint on-site compliance audit of a selected facility by OSFM personnel and local fire department.  
 (Top right) Plan interface evaluation between facility and first responder.  
 (Lower right) Training to use the Hazardous Substance Information System CD and Hazardous Materials Planning Priority Program

**Regional Hazmat Emergency Response Teams**

- 150 Hazardous materials incidents responded to by teams
- 48 Outreach trainings conducted in Oregon



# License and Permit Services

## Certificates, permits and licenses

License and Permit Services administers four statewide programs: Cardlock, Explosives, Fireworks, and Liquefied Petroleum Gas.

Staff enforce fireworks and explosives storage, use and possession regulations; conduct fire and life safety inspections for liquefied petroleum gas tanks, explosives storage magazines and cardlock fuel dispensing facilities; and issue notices and orders of correction when deficiencies are found.

Staff issue a variety of licenses, permits and certifications. License and Permit Services establishes licensing standards and processes, assists with statute revision, promulgates administrative rules, assists with Office of State Fire Marshal code development and provides written and oral code interpretation.

Staff provide stakeholders with technical and administrative support to assist them in compliance with program requirements.

Staff conduct stakeholder group meetings to provide opportunities for input into programs. Each industry represented has a stakeholder group that meets periodically. Group membership is unlimited and open to

anyone interested in participating in the meetings. Representation has historically come from industry members, fire service, law enforcement, Consumer Product Safety Commission and the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE).

### Explosives

The program provides industry regulation through testing and issuing of certificates to those individuals who have met the requirements necessary to possess and store explosives. Staff provide technical assistance and educational materials to enable the industry to meet state requirements. Staff inspect explosives magazines throughout the state.

Background checks and, in some cases passing an exam, are required to obtain a certificate of possession of explosives. Staff administered thirty-six exams and issued 162 certificates of possession.

Explosives magazines must also be inspected by either the BATFE or the OSFM. Staff inspected 119 magazines.

To assist in streamlining processes, major changes to the explosives program database were completed in 2004 and will be implemented in 2005.



**For further information about License and Permit Services programs and resources  
Please contact Anita Phillips, Manager  
at 503-373-1540, extension 264 or [anita.phillips@state.or.us](mailto:anita.phillips@state.or.us)**





### **Fireworks**

Staff issues permits for fireworks wholesalers, retailers, public fireworks displays, and agricultural fireworks. Staff provide technical assistance, training and educational resources to the fireworks industry to assist them in meeting state requirements.

Staff processed and issued approximately thirteen wholesale, 900 retail, 327 display, and 171 agricultural fireworks permits. During the retail fireworks sales period, staff inspected retail fireworks stands and assisted fire department personnel inspecting stands in their jurisdictions.

The procedures for issuing permits were streamlined. As a result, permits were issued more timely, and positive comments were received from industry members.

Advisory committee meetings were held to gain input on the administration of the fireworks program. Oregon administrative rules and administrative rule hearings were held to update fireworks rules as necessary.

### **Liquefied Petroleum Gas (LPG)**

Staff issue company, fitter, and truck equipment operator licenses, and inspect tank installations.

Staff provide training, educational resources, and technical assistance to the propane industry to assist them in meeting state requirements.

Staff inspected 609 tanks with 77 percent of tanks meeting all requirements. Staff also administers exams and issues licenses that allow companies to install and repair propane equipment and operate truck delivery units. Staff administered 318 examinations and issued 545 licenses.



Staff updated examinations and developed partnerships with fire departments to allow permit testing in other areas of the state.

### **Non-Retail Fuel Dispensing (Cardlock)**

Staff provide training, educational resources, and technical assistance to the cardlock industry and assist them in meeting state requirements.

Staff inspected 159 cardlock operators' records, 265 cardlock facilities, and investigated two retail and twelve cardlock fueling complaints.

Staff updated the administrative rules, procedures, and created a safety training video.

### **Goals**

- Reduce the number of fireworks related injuries and fires in Oregon through effective regulation
- Provide appropriate information and services
- Strengthen partnerships of fire and law enforcement, building codes, local governments, industries
- Improve fire and life safety in Oregon through effective regulation

# Information Systems Services

## Internal computer programming and technical support

### System upgrades

Over the past year, Information Systems Services (ISS) has worked to improve and maintain the networking infrastructure and end user desktop environment. Server operating systems were upgraded to the latest versions and outdated servers and server-related equipment were replaced. Anti-virus protection for internal users and external customers and clients was improved. ISS also replaced PCs in order to maintain compatibility with newer software. In addition, OSFM was updated with the latest version of the Windows operating system and Office Suite.

Internal and external security has been emphasized, providing layers of protection for data storage.

### Programming

In addition to these upgrades, ISS has improved existing software and created new programs to improve services to customers.

OAIRS has been completely rewritten. The new version is more stable, robust and manageable for all users.

A new program for Hazardous Materials Services designed to assist emergency

responders in planning for response to emergencies in areas with higher quantities of hazardous materials was created.

ISS also enhanced the Investigation and inspection software used by the deputy state fire marshals. These enhancements improved the speed at which information is passed between the deputies and Salem.

ISS completely re-wrote the explosives software for License and Permit Services. This program tracks certificates for the storage, possession and use of explosives. Certificates are processed faster with these improvements.

ISS created the HazTric program. This program provides a central location to submit and view

training classes associated with hazardous materials. This Web-based program allows anyone to view training courses and makes it possible for a person to submit a training course of their own.

During 2005, ISS will continue to maximize and improve computer technology, applications and services.



**Office of State Fire Marshal**  
**503-373-1540    FAX 503-373-1825**  
**Phone extensions BY UNIT as of 5/15/05**

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**Administration**

<b>Orr, Nancy</b>	<b>State Fire Marshal</b>	<b>209</b>
Drager, Laura	Support Svcs. Supv.	211
Garfoot, Sue	Reception	200
Norman, Evelyn	Reception	200
Scott, Shauneen	Human Resource Analyst	210
Toney, Tina	Admin. Specialist	212
Wakefield, John	Sr. Budget Analyst	202
Warner, Stacy	Interim Chief Deputy	252
Simpson, Randy	Chief Deputy 6/6/2005	216

**Information Systems Services**

<b>Showers, Scott</b>	<b>Info. Systems Spec.</b>	<b>423</b>
Bradley, Lisa	Computer User Support	235
Wright, Stephan	Programmer/Analyst	203

**Codes**

Caul, John	Codes Deputy	269
Carroll, Pat	Admin. Specialist	276

**Community Education & Data Services**

<b>Glocar, Tari</b>	<b>C. Ed./Data Svcs. Mgr.</b>	<b>273</b>
Baumann, Carol	Training & Dev. Spec.	240
Disch, Donna	C. Ed. Program Coord.	275
Gneckow, Tera	Web Support	266
Hoover, Richard	Public Info. Rep.	217
Morgan, Dee Anna	Admin. Specialist	416
Okulitch, Judy	Juv. FS Program Coord	230
Olson, Colleen	Training & Dev. Spec.	228
Samuel, Terry	Program Rep.	366

Data Services

<b>Palmer, Linda</b>	<b>Data Services Mgr.</b>	<b>244</b>
Pelley, Vi	Admin. Specialist	237
Wagner, Sheila	Reporting Asst.	236

**Fire & Life Safety**

<b>Warner, Stacy</b>	<b>Manager</b>	<b>252</b>
Dalke, Connie	Office Mgr.	204
Johnson, Gayle	Compl. Specialist	257
Turner, Michelle	Support	256
Olson, Mary	Training & Dev. Spec.	251
<b>Fields, Dave</b>	<b>Supv. Dep</b>	<b>541-388-6113</b>
Davis, Greg	Deputy	541-883-5713x255
Goff, Scott	Deputy	541-276-4076
Poet, Sarah	Deputy	541-296-9363 x24
Smith, Richard	Deputy	541-889-7735

**Jones, David**

Crosiar, George	Deputy	541-967-2043
Lyman, Chris	Deputy	541-435-0366
Megert, Ted	Deputy	503-731-3020 x250
Nees, Paul	Deputy	289
Pedersen, Tad	Deputy	503-325-5515 x 24
<b>Wright, Bob</b>	<b>Supv. Dep.</b>	<b>541-440-3389</b>
Brown, Keith	Deputy	541-267-3434
Chase, Charlie	Deputy	541-776-6114 x237
Deschaine, Kristina	Deputy	541-726-2572
Stevens, Michelle	Deputy	541-776-6114 x272

**Supv. Deputy**

**255**

**Hazardous Materials Services**

<b>Albers, Bob</b>	<b>Hazmat Svcs. Mgr</b>	<b>262</b>
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Community Right to Know

<b>Miller, Dave</b>	<b>CR2K Operations Mgr</b>	<b>261</b>
Baker, Judi	Survey Processor	291
Brooks, Bob	CR2K Auditor	297
Burdett, Evelyn	Survey Processor	294
Claypool, Kathy	Program Asst.	265
Harrison, Debbie	Info. Spec.	282
Johnston, Mark	CR2K Auditor	246
Reighard, Pat	Survey Processor	292
Stams, Patty	Survey Processor	293
Thaler, Jim	CR2K Auditor	213
Thiessen, Moria	CR2K Auditor	263
Wolfe, Terry	CR2K Program Coord.	219
<b>Ruiz-Temple, Mariana</b>	<b>Hazmat Info. Mgr.</b>	<b>238</b>
Brauer, Bill	CR2K Liasion	233
Kendrick, Shelly	Info Assistant	239
Kuenzi, Chris	CR2K Liasion	214
Mazza, Jim	CR2K Liaison	242

Hazmat Teams

<b>Otjen, Sue</b>	<b>Operations Mgr.</b>	<b>227</b>
Armstrong, Bruce	Teams Resource Coord.	222
Kometz, Jamie	Teams Training Coord.	280

**License & Permit Services**

<b>Phillips, Anita</b>	<b>L&amp;P Mgr.</b>	<b>264</b>
Beebe, Kathy	L&P Support	272
Daugherty, Becky	L&P Program Asst.	274
DeVilliers, Anita	L&P Admin. Spec.	285
Divine, Charissa	L&P Support	270
King, Tom	Cardlock Inspector	287
Noffsinger, Joann	Cardlock Inspector	286
Ohmart, Nicole	L&P Support	271
Simeral, Gordon	L&P Inspector	278





Employees at the Office of State Fire Marshal donate generously to the community.

## ***Business partnership***

In November, OSFM entered into a business partnership with Lake Labish Elementary School located just ten minutes north of the office. This small school of 120 students thanked our employees for 1) donations for Thanksgiving baskets, 2) reading tutors, 3) gifts of books, "prizes," and balloon sculptures, and 4) our encouraging presence among them this last year. The school, in return, has provided drawings by the children to decorate our office display board and wants to assist our office in any possible way they can. Their sunny dispositions and time spent together has made the benefit ours.

## ***Toy drive***

In addition to fulfilling their responsibilities to help protect the citizens of Oregon the staff of the Hazardous Materials Services Section went above and beyond to help their fellow citizens. In 2004, the staff of Hazardous Materials Services spent many hours of their own time raising funds for the Governor's Toy Drive. They did so by conducting numerous fundraising events, which included making and selling many craft items, spaghetti and pizza feeds, auctions, bake sales, car washes and more. The outcome of these activities was the delivery of \$6,200 worth of toys to the State Capitol. These toys were later presented to many needy children.

## ***Governor's food drive***

Each February, state employees participate in a governor-sponsored fund raiser for the Oregon Food Bank (OFB) Network. In 2004, OSFM collected forty-one pounds of food and \$104 cash. Oregon remains among the top states in the nation in hunger. According to the 2002 Census, 13.7 percent of Oregon households are classified as food insecure, and 5 percent are classified as hungry. This compares to the national figures of 10.8 percent insecure and 3.3 percent hungry. For more information on ways to help, visit the OFB Web site <http://www.oregonfoodbank.org/>





## 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 fire, hazardous materials, and structural collapse emergency services and support specialized and 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 developing 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* Workforce development 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.

# Oregon State Fire Marshal

## 2004 Financial Report

For the period January 1, 2004 through December 31, 2004

<b>Program Related Revenues</b> <sup>1</sup> : Fire Programs	\$	8,443,301
Fireworks		97,179
Cardlock		272,155
Liquefied Petroleum Gas		296,617
Explosives		17,720
Community Right to Know		1,597,031
Hazardous Materials Response Teams		1,453,993
Grants <sup>2</sup>		1,127,351
Conflagrations (reimbursements from 2003 fires) <sup>2</sup>		1,000,740
<b>Total Revenues</b>	\$	<u>14,306,087</u>
<b>Expenditures for:</b>	\$	4,506,973
Payroll		240,840
Travel		228,054
Training		365,732
Office Services and Supplies		133,555
Intra-Governmental Services		150,139
Information Services Software and Equipment		147,651
Professional Services		539,423
Facilities Rent, Utilities and Maintenance		36,398
Hazardous Materials Teams Medical Monitoring		302,860
Hazardous Materials Equipment, non-grant		11,859
Office Furniture and Equipment		
Grant Expenditures <sup>2</sup>		
- Hazardous Materials Equipment and Supplies		941,250
- Urban Search and Rescue Equipment and Supplies		548,022
- Hazardous Materials Emergency Planning & Training		161,570
2003 fire costs from Herman Creek, Booth and B&B Fires <sup>2</sup>		3,845
Arson Investigation <sup>3</sup>		974,878
Department of Public Safety, Standards and Training		642,300
<b>Total Expenditures</b>	\$	<u>9,935,369</u>
<b>Operating Funds carried forward to 2005</b>	\$	<u>4,370,718</u>

### (Footnotes)

<sup>1</sup> Program Related revenues consist of, but are not limited to, all of the following major user funded resources: Fire Insurance Premium Tax; Mental Health Facility Inspection billings; Fireworks Permits; Cardlock Licenses and Fees; Liquefied Petroleum Gas Licenses, Examination, Installation and Fees; Explosives Certificates, Possession and Examination Fees; Hazardous Substance Possession Fees

<sup>2</sup> 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.

<sup>3</sup> Although this 2004 Financial Report is prepared using the "Cash Basis" an exception was made for Arson Investigation. A one-time payment of \$1,949,755 was made during November 2004, however, only an amount equivalent to 12 months has been reported here.

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

<u>Fire Department</u>	<u>Federal Share</u>	<u>Activity Level</u>
<b>Adair RFPD</b> Adair Village	\$124,509	<u>Operations/Firefighter Safety</u> Equipment (\$28,010) PPE (\$108,833)
<b>Amity FD</b> Amity	\$43,845	<u>Operations/Firefighter Safety</u> Equipment (\$48,717)
<b>Applegate Valley FD #9</b> Jacksonville	\$66,114	<u>Operations/Firefighter Safety</u> Equipment (\$9,000) PPE (\$64,460)
<b>Astoria FD</b> Astoria	\$96,648.	<u>Operations/Firefighter Safety</u> Equipment (\$17,576) PPE (\$89,810)
<b>Aurora RFPD</b> Aurora	\$74,605	<u>Operations/Firefighter Safety</u> Equipment (\$65,034) Wellness/Fitness (\$17,860)
<b>Azalea RFPD</b> Azalea	\$47,700.	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$53,000)
<b>Bend Fire &amp; Rescue</b> Bend	\$195,208	<u>Fire Prevention</u> Fire Prevention Programs (278,868)
<b>Boring RFPD #59</b> Boring	\$250,397	<u>Operations/Firefighter Safety</u> Equipment (\$52,885) PPE (\$225,334)
<b>Bridge Vol. Fire</b> Myrtle Point	\$26,973	<u>Operations/Firefighter Safety</u> PPE (\$29,970)
<b>Brookings F&amp;R</b> Brookings	\$55,080	<u>Operations/Firefighter Safety</u> Equipment (\$12,000) PPE (\$49,200)
<b>Camas Valley RFD</b> Camas Valley	\$29,610	<u>Operations/Firefighter Safety</u> PPE (\$32,900)
<b>Canby FD</b> Canby	\$225,000	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$250,000)
<b>Cannon Beach RFPD</b> Cannon Beach	\$44,982	<u>Operations/Firefighter Safety</u> Equipment (\$44,480)
<b>Chiloquin-Agency Lake RFPD</b> Chiloquin	\$93,354	<u>Operations/Firefighter Safety</u> Equipment (\$13,780) PPE (\$72,556) Training (\$17,390)
<b>City of La Grande FD</b> La Grande	\$214,200	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$238,000)
<b>City of Powers FD</b> Powers	\$145,193	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$160,000)
<b>City of Spray Vol. FD</b> Spray	\$13,500	<u>Operations and Firefighter Safety</u> Equipment (\$15,000)
<b>Clackamas County FD #1</b> Milwaukie	\$396,200	<u>Operations and Firefighter Safety</u> Equipment (\$1,250) PPE (\$564,750)
<b>Colton RFPD #70</b> Colton	\$84,372	<u>Operations and Firefighter Safety</u> Equipment (\$8,304) PPE (\$85,443)
<b>Coos Bay Fire &amp; Rescue</b> Coos Bay	\$192,218	<u>Operations and Firefighter Safety</u> Equipment (\$43,044) PPE (\$170,532)
<b>Coquille Fire &amp; RFPD</b> Coquille	\$69,084	<u>Operations and Firefighter Safety</u> PPE (\$76,760)
<b>Crescent RFPD</b> Crescent	\$68,316	<u>Operations and Firefighter Safety</u> PPE (\$48,888) Training (\$27,018)
<b>Crescent-Odell Lakes RFPD</b> Crescent Lake	\$182,700	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$203,000)
<b>Crook Co. Fire &amp; Rescue #1</b> Prineville	\$331,107	<u>Operations and Firefighter Safety</u> Modify Facilities (\$292,238) PPE (\$75,658)



<b>Crooked River Ranch RFPD</b> Terrebonne	\$80,343	<u>Operations and Firefighter Safety Equipment (\$89,270)</u>
<b>Dexter RFPD</b> Dexter, OR	\$92,725	<u>Operations and Firefighter Safety Equipment (\$48,423)</u> <u>PPE (\$37,215)</u> <u>Training (\$17,390)</u>
<b>Douglas County FD #2</b> Roseburg	\$101,187	<u>Operations and Firefighter Safety PPE (\$112,430)</u>
<b>Echo RFPD 7-403</b> Echo	\$63,761	<u>Operations and Firefighter Safety Equipment (\$20,255)</u> <u>PPE (\$50,590)</u>
<b>Elgin RFPD</b> Elgin	\$37,149	<u>Operations and Firefighter Safety Equipment (\$21,196)</u> <u>PPE (\$11,300)</u> <u>Training (\$8,780)</u>
<b>Elkton RFPD</b> Elkton	\$35,566	<u>Operations and Firefighter Safety PPE (\$39,517)</u>
<b>Estacada Rural FD #69</b> Estacada	\$137,241	<u>Operations and Firefighter Safety Equipment (\$2,300)</u> <u>PPE (\$150,189)</u>
<b>Eugene Fire &amp; EMS Dept.</b> Eugene	\$348,703	<u>Operations and Firefighter Safety Modify Facilities (\$498,146)</u>
<b>Evans Valley FD #6</b> Rogue River	\$12,543	<u>Operations and Firefighter Safety Equipment (\$2,622)</u> <u>PPE (\$11,314)</u>
<b>Goshen FD</b> Eugene	\$86,040	<u>Operations and Firefighter Safety PPE (\$95,600)</u>
<b>Grnts Pass Dept. Pub. Safety</b> Grants Pass	\$71,017	<u>Operations and Firefighter Safety Equipment (\$42,040)</u> <u>Wellness and Fitness Programs (\$36,867)</u>
<b>Greater Bowen Valley RFPD</b> Baker City	\$34,486	<u>Operations and Firefighter Safety PPE (\$38,317)</u>
<b>Greenacres RFPD</b> Coos Bay	\$60,203	<u>Operations and Firefighter Safety PPE (\$66,892)</u>
<b>Halsey-Shedd RFPD</b> Halsey	\$50,292	<u>Fire Prevention</u> <u>Fire Prevention Programs (\$55,879)</u>
<b>Harriman RFPD</b> Klamath Falls	\$38,160	<u>Operations and Firefighter Safety Equipment (\$1,400)</u> <u>PPE (\$41,000)</u>
<b>Hazeldell Rural FD</b> Oakridge	\$26,939	<u>Operations and Firefighter Safety Equipment (\$4,932)</u> <u>PPE (\$25,000)</u>
<b>Helix RFPD</b> Helix	\$116,100	<u>Firefighting Vehicle</u> <u>Firefighting Vehicles (\$129,000)</u>
<b>Hermiston Fire &amp; Emer. Svcs.</b> Hermiston	\$112,887	<u>Operations and Firefighter Safety Equipment (\$50,329)</u> <u>PPE (\$75,100)</u>
<b>Hines Volunteer FD</b> Hines	\$80,258	<u>Operations and Firefighter Safety PPE (\$89,175)</u>
<b>Huntington Volunteer FD</b> Huntington	\$202,500	<u>Firefighting Vehicle</u> <u>Firefighting Vehicles (\$225,000)</u>
<b>Irrigon RFPD</b> Irrigon	\$225,000	<u>Firefighting Vehicle</u> <u>Firefighting Vehicles (\$250,000)</u>
<b>Jackson County FD No. 3</b> White City	\$34,554	<u>Operations and Firefighter Safety Modify Facilities (\$38,393)</u>
<b>Jacksonville FD</b> Jacksonville	\$80,822	<u>Operations and Firefighter Safety PPE (\$64,440)</u>
<b>Jefferson RFPD</b> Jefferson	\$125,532	<u>Operations and Firefighter Safety Equipment (3,500)</u> <u>PPE (135,980)</u>
<b>Juniper Flat RFPD</b> Maupin	\$135,000	<u>Firefighting Vehicle</u> <u>Firefighting Vehicles (\$150,000)</u>



<b>Keno RFPD</b> Keno	\$114,750	<u>Fire Prevention</u> Fire Prevention Programs (\$127,500)
<b>Lane County FD #1</b> Veneta	\$10,800	<u>Operations and Firefighter Safety</u> Equipment (\$12,000)
<b>LaPine RFPD</b> LaPine	\$66,582	<u>Operations and Firefighter Safety</u> Equipment (\$73,980)
<b>Lebanon FD</b> Lebanon	\$229,500	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$255,000)
<b>Lyons Rural FD</b> Lyons	\$19,440	<u>Operations and Firefighter Safety</u> PPE (21,600)
<b>McMinnville FD</b> McMinnville	\$90,000	<u>Operations and Firefighter Safety</u> Modify Facilities (\$100,000)
<b>Medford FD</b> Medford	\$236,793	<u>Operations and Firefighter Safety</u> Equipment (\$338,275)
<b>Medical Springs RFPD</b> Medical Springs	\$66,375	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$62,500)
<b>Mill City RFPD</b> Mill City	\$79,110	<u>Operations and Firefighter Safety</u> Equipment (\$16,900) PPE (\$71,000)
<b>Mist-Birkenfeld RFPD</b> Mist	\$102,596	<u>Operations and Firefighter Safety</u> Equipment (\$32,595) PPE (\$79,000) Training (\$2,400)
<b>Molalla RFPD # 73</b> Molalla	\$238,500	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$265,000)
<b>Multnomah County RFPD 14</b> Corbett	\$171,102	<u>Operations and Firefighter Safety</u> Equipment (\$49,838) PPE (\$139,045) Training (\$1,230)
<b>Myrtle Point FD</b> Myrtle Point	\$34,096	<u>Operations and Firefighter Safety</u> PPE (\$37,884)
<b>Nehalem Rural FD</b> Nehalem	\$59,220	<u>Operations and Firefighter Safety</u> PPE (\$65,800)
<b>North Gilliam County RFPD</b> Arlington	\$23,053	<u>Operations and Firefighter Safety</u> Equipment (\$11,154) PPE (\$14,460)
<b>N. Lincoln F &amp; R Dist. #1</b> Lincoln City	\$58,964	<u>Operations and Firefighter Safety</u> Equipment (\$12,000) PPE (\$53,515)
<b>Oakland Rural FD</b> Oakland	\$135,000	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$150,000)
<b>Oakridge FD</b> Oakridge	\$41,472	<u>Operations and Firefighter Safety</u> Equipment (\$27,000) PPE (\$19,080)
<b>Odell RFPD</b> Hood River	\$81,248	<u>Operations and Firefighter Safety</u> Equipment (\$3,800) PPE (\$84,975)
<b>Parkdale RFPD</b> Parkdale	\$84,668	<u>Operations and Firefighter Safety</u> Equipment (\$7,600) PPE (\$84,975)
<b>Pendleton Fire &amp; Ambulance</b> Pendleton	\$136,588	<u>Operations and Firefighter Safety</u> Modify Facilities (\$151,764)
<b>Phoenix FD</b> Phoenix	\$17,100	<u>Operations and Firefighter Safety</u> Equipment (\$19,000)
<b>Pine Grove RFPD</b> Hood River	\$79,695	<u>Operations and Firefighter Safety</u> Equipment (\$3,800) PPE (\$83,250)
<b>Port of Portland Airport FD</b> Portland	\$31,964	<u>Operations and Firefighter Safety</u> Wellness and Fitness Programs (\$35,515)
<b>Portland Fire &amp; Rescue</b> Portland	\$242,354	<u>Fire Prevention</u> Fire Prevention Programs (\$346,220)





<b>Roseburg FD</b> Roseburg	\$148,399	<u>Operations and Firefighter Safety Equipment (\$12,388)</u> PPE (\$150,000) Training (\$2,500)
<b>Rufus Volunteer FD</b> Rufus	\$18,528	<u>Operations and Firefighter Safety Equipment (\$3,366)</u> PPE (\$17,220)
<b>Salem FD</b> Salem	\$253,752	<u>Operations and Firefighter Safety PPE (\$362,502)</u>
<b>Seal Rock RFPD</b> Waldport & Seal Rock	\$32,753	<u>Operations and Firefighter Safety Equipment (\$36,392)</u>
<b>Silverton FD</b> Silverton	\$112,500	<u>Firefighting Vehicle</u> Firefighting Vehicles (\$125,000)
<b>Sisters-Camp Sherman RFPD</b> Sisters	\$50,400	<u>Operations and Firefighter Safety Equipment (\$42,800)</u> PPE (\$13,200)
<b>Southwestern Polk Co. RFPD</b> Dallas	\$171,107	<u>Operations and Firefighter Safety Equipment (\$2,919)</u> PPE (\$187,200)
<b>Springfield Fire &amp; Life Safety</b> Springfield	\$31,920	<u>Operations and Firefighter Safety Equipment (\$45,600)</u>
<b>St Paul FD</b> St Paul	\$69,773	<u>Operations and Firefighter Safety PPE (\$77,525)</u>
<b>Stayton RFPD</b> Stayton	\$208,620	<u>Operations and Firefighter Safety Equipment (\$26,200)</u> PPE (\$205,600)
<b>Sunriver FD</b> Sunriver	\$52,434	<u>Operations and Firefighter Safety Equipment (\$32,024)</u> PPE (\$26,235)
<b>Tualatin Valley Fire &amp; Rescue</b> Aloha	\$139,355	<u>Fire Prevention</u> Fire Prevention Programs (\$199,078)
<b>Turner RFPD</b> Turner	\$180,123	<u>Operations and Firefighter Safety Equipment (\$74,202)</u> PPE (\$125,934)
<b>Union Emer. Services-Fire</b> Union	\$32,589	<u>Operations and Firefighter Safety PPE (\$36,210)</u>
<b>Warrenton FD</b> Warrenton	\$75,240	<u>Operations and Firefighter Safety Equipment (\$5,600)</u> PPE (\$78,000)
<b>Westfir FD</b> Westfir	\$16,470	<u>Operations and Firefighter Safety Equipment (\$10,920)</u> PPE (\$7,380)
<b>Westside FD</b> Hood River	\$111,117	<u>Operations and Firefighter Safety PPE (\$122,463)</u> Training (\$1,000)
<b>Willamina FD</b> Willamina	\$142,266	<u>Operations and Firefighter Safety Equipment (\$46,200)</u> PPE (\$111,873)
<b>Williams RFPD</b> Williams	\$41,980	<u>Operations and Firefighter Safety PPE (\$46,644)</u>
<b>Woodburn FD</b> Woodburn	\$146,773	<u>Operations and Firefighter Safety PPE (\$98,560)</u> Wellness and Fitness Programs (\$64,522)
<b>YACHATS RFPD</b> Yachats	\$18,936	<u>Operations and Firefighter Safety Equipment (\$10,140)</u> PPE (\$4,200) Wellness and Fitness Programs (\$6,700)
<b>Yamhill Fire Protection Dist.</b> Yamhill	\$126,540	<u>Operations and Firefighter Safety Equipment (\$17,500)</u> PPE (\$123,100)



# 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.

**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 2004**

Adair RFPD  
Adrian RFPD  
Agness-Illahe Volunteer  
Albany FD  
Amity Fire District  
Applegate RFPD #9  
Arlington FD  
Ashland F&R  
Astoria FD  
Athena FD  
Aumsville RFPD  
Aurora RFPD  
Azalea Vol  
Baker City FD  
Baker RFPD  
Bandon RFPD #8  
Banks Fire District #13  
Bay City FD  
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 FD  
Butte Falls Vol FD  
Camas Valley Vol RFD  
Canby RFPD  
Cannon Beach RFPD  
Canyon City FD  
Canyonville South Umpqua FD  
Cape Ferrello RFPD  
Carlton FD  
Cascade Locks FIRE & EMS  
Central Oregon Coast F&R  
Charleston RFPD  
Chemult RFPD  
Chiloquin-Agency Lake RFPD  
Christmas Valley RFPD  
Clackamas County Fire Dist #1  
Clatskanie RFPD  
Cloverdale RFPD  
Coburg RFPD  
Colestin RFPD  
Colton RFPD #70  
Columbia RFPD  
Columbia River F&R  
Condon FD  
Coos Bay F&R  
Coquille FD  
Cornelius FD  
Corvallis FD  
Cove RFPD  
Crescent RFPD  
Crescent-Odell Lakes RFPD  
Crook County F&R  
Crooked River Ranch RFPD  
Dallas FD  
Days Creek RFD

Dayton Fire District  
Dayville FD  
Deadwood Creek Fire Service  
Dee RFPD  
Depoe Bay RFPD  
Dexter RFPD  
Dora-Sitkum RFPD  
Douglas County Fire District #2  
Drakes Crossing RFPD  
Dufur Vol FD  
Dundee FD  
East Umatilla County RFPD  
Echo RFPD  
Elgin RFPD  
Elkton RFPD  
Elsie-Vinemapple RFPD  
Enterprise FD  
Estacada RFD #69  
Eugene Fire & EMS  
Evans Valley Fire District #6  
Fair Oaks RFPD  
Fairview RFPD  
Falls City FD  
Forest Grove F&R  
Fossil Vol FD  
Gardiner RFPD  
Garibaldi FD  
Gaston RFPD  
Gates RFPD  
Gearhart Vol FD  
Gladstone FD  
Glendale RFPD  
Glide RFPD  
Gold Beach FD  
Goshen RFPD  
Granite City FD  
Grants Pass Dept of Public Safety  
Greater Bowen Valley RFPD  
Greenacres RFPD  
Gresham Fire & Emergency Services  
Haines Fire Protection District  
Halsey-Shedd RFPD  
Hamlet Vol FD  
Harbor RFPD  
Harriman RFPD  
Harrisburg F&R  
Hauser RFPD  
Helix RFPD  
Hermiston Fire & Emergency Services  
Hillsboro FD  
Hines FD  
Hood River FD  
Hoodland RFPD  
Hubbard RFPD  
Huntington FD  
Idanha-Detroit RFPD  
Illinois Valley RFPD  
Irrigon RFPD  
Jackson County FD #3  
Jackson County RFPD #5  
Jacksonville FD  
Jefferson County RFPD #1  
Jefferson RFPD  
John Day FD  
John-Day-Fernhill RFPD

Jordan Valley FD  
Joseph FD  
Junction City RFPD  
Juniper Flats RFPD  
Keating RFPD  
Keizer Fire District  
Kellogg RFD  
Keno RFPD  
Klamath County FD #3  
Klamath County FD #4  
Klamath County FD #5  
Klamath County Fire District #1  
Knappa-Svensen-Burnside RFPD  
La Grande FD  
La Grande RFPD  
Lafayette FD  
Lake Creek RFPD  
Lake Creek RFPD #8  
Lake Oswego F&R & Life Safety  
Lakeview FD  
Lane County Fire District #1  
Lane Rural F&R  
Langlois RFPD  
LaPine RFPD  
Lebanon FD  
Lewis & Clark RFPD  
Lexington FD  
Long Creek FD  
Lookingglass RFD  
Lorane RFPD  
Lostine FD  
Lowell RFPD  
Lyons RFPD  
Malin RFPD  
Manzanita Dept of Public Safety  
Mapleton FD  
Marion County RFPD #1  
Maupin FD  
McKenzie F&R  
McMinnville FD  
Meacham RFPD  
Medford F&R  
Medical Springs RFPD  
Merrill RFPD  
Mid-Columbia F&R  
Mill City RFPD  
Millington Fire District #5  
Milo RFPD  
Milton-Freewater FD  
Milton-Freewater Rural FD  
Mist-Berkenfeld RFPD  
Mitchell Vol FD  
Mohawk Valley RFD  
Molalla RFPD #73  
Monitor RFPD #58  
Monroe RFPD  
Monument FD  
Moro FD, City of  
Moro RFPD  
Mt. Angel Fire District  
Multnomah County FD #8 PDX  
Multnomah County RFPD #14  
Myrtle Creek FD  
Myrtle Point FD  
Nehalem Vol FD

Nestucca RFPD  
Netarts-Oceanside RFPD  
New Pine Creek RFPD  
Newberg FD  
Newport FD  
North Bay RFPD  
North Bend FD  
North Douglas County FIRE & EMS  
North Gilliam County RFPD  
North Lincoln F&R District #1  
North Powder FD  
North Sherman County RFPD  
Nyssa FD  
Oakland RFPD  
Oakridge FD  
Odell RFPD  
Olney Walluski F&R  
Ontario F&R  
Ontario RFPD #7-302  
Ophir RFPD  
Paisley VOL FD  
Parkdale RFPD  
Payette RFPD-OREGON  
Pendleton Fire & Ambulance  
Philomath F&R  
Phoenix FD  
Pilot Rock RFPD  
Pine Grove RFPD  
Pine Hollow Vol  
Pine Valley RFPD  
Pistol River Fire District  
Pleasant Hill RFPD  
Polk County Fire District #1  
Port Orford Vol FD  
Portland F&R  
Powder River RFPD  
Powers FD  
Prairie City FD  
Prospect RFPD  
Redmond F&R  
Reedsport Vol FD  
Rockaway FD  
Rogue River RFPD  
Rogue Valley Intl Airport FD  
Roseburg FD  
Rufus Vol FD  
Rural Metro FD  
Salem FD  
Sandy RFPD #72  
Santa Clara RFPD  
Sauvie Island Vol FD  
Scappoose RFPD  
Scio RFPD  
Scottsburg RFD  
Seal Rock RFPD  
Seaside F&R  
Seneca Vol FD  
Shaniko Vol FD  
Sheridan FD  
Siletz RFPD  
Silver Lake RFPD  
Silverton RFPD  
Sisters-Camp Sherman RFPD  
Siuslaw Valley F&R  
Sixes RFPD

South Lane County F&R  
South Sherman FPD  
Spray Vol FD  
Spring Valley RFPD  
Springfield Fire Life Safety  
Squaw Valley N Bank RFPD  
St. Paul RFPD  
Stanfield RFPD  
Stayton FD  
Sublimity RFPD  
Sumner RFPD  
Sumpter FD  
Sunriver FD  
Surprise Springs Rural F&R  
Sutherlin FD  
SW Polk County RFPD  
Sweet Home Fire & Ambulance District  
Swishome-Deadwood RFPD  
Tangent RFPD  
Tenmile RFPD  
Thomas Creek/Westside RFPD  
Three Rivers Vol FD  
Tillamook Fire District  
Tiller RFD  
Toledo FD  
Tualatin Valley F&R  
Turner FD  
Tygh Valley Vol FD  
Umatilla RFPD  
Union Emergency Services  
Upper McKenzie RFPD  
Vale FD  
Vale Rural Fire Inc.  
Vernonia RFPD  
Walla Walla County FD #4  
Wallowa FD  
Warrenton FD  
Washington County FD #2  
West Side RFPD  
West Valley FD  
Westfir FD  
Westport-Wauna RFPD  
Williams RFPD  
Winchuck RFPD  
Wolf Creek RFPD  
Woodburn Fire District  
Yachats RFPD  
Yamhill FPD

Lakeside RFPD  
Mosier FD  
Mt Vernon FD  
Riddle RFPD  
Sprague River Vol  
Tri City Fire District #4 (Douglas)  
Ukiah FD  
Wheeler Point Volunteer Fire Assoc  
Winchester Bay RFPD  
Winston-Dillard RFPD #5

#### **Non-Reporting Departments in 2004**

These non-reporting departments had not yet submitted fire reports as of April 1, 2004. Their reports may have had an effect on the statistics.

Alsea RFPD  
Burnt River Fire & EMS Dept  
Diamond Lake Volunteers  
Eagle Valley RFPD  
Grants Pass Rural FD  
Heppner FD  
Hoskins-Kings Valley RFPD  
Imbler RFPD  
Ione FD  
Jackson County RFPD #4





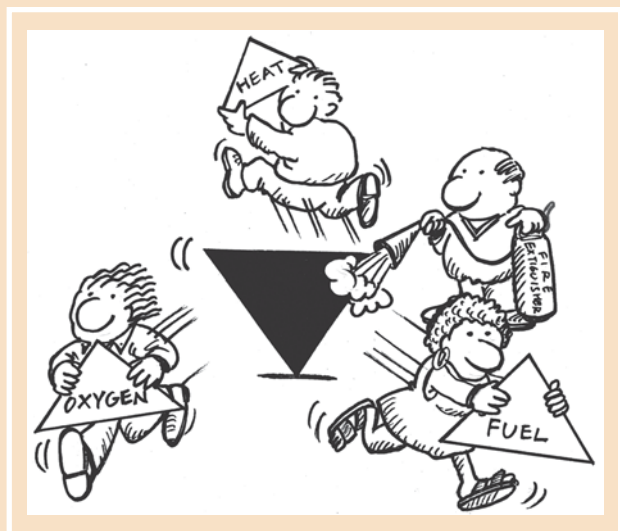


Illustration from *It's Up to You!* by James Cloutier

