

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.

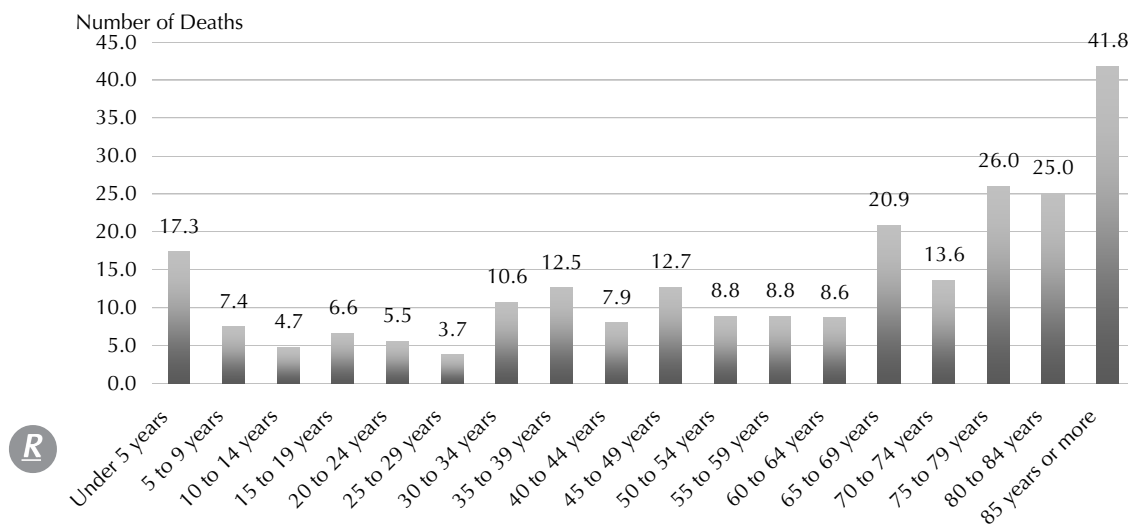
This trend will likely continue as it is anticipated that the number of adults over age sixty-five will rise sharply between 2010 and 2030 when the baby-boom generation enters retirement.

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.

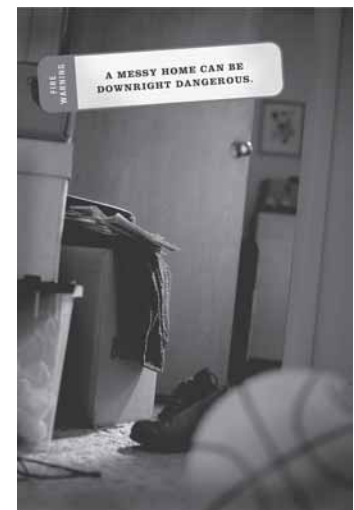
Note: In the table to the right, the greatest number of civilian fire deaths occurred in 1976 and 1977. In both years, several fires involved multiple deaths. One fire, in 1977, took five lives.

R 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/>

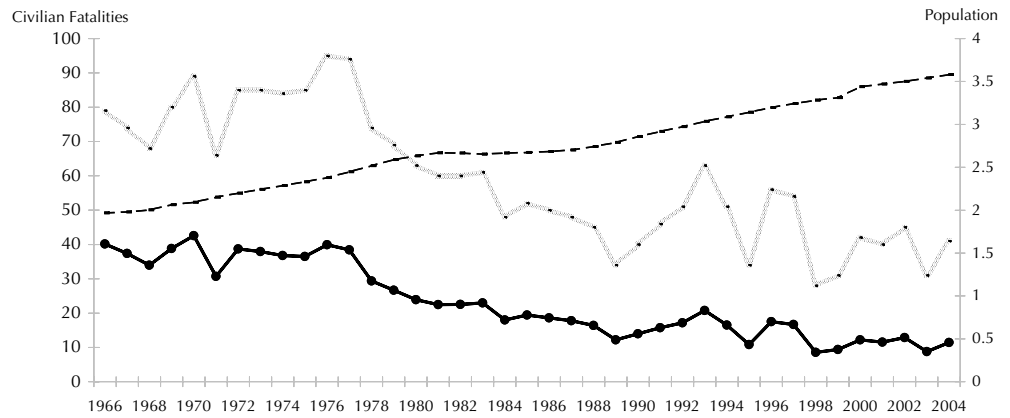


2004 Fatal Fires

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
One & two family dwelling total	25	24	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
Apartment building total	8	6	
Nursing home building fire	1	1	Heat source too close to combustible
Vehicle fires	5	5	Vehicle fires resulting from motor vehicle accidents
Outside fires	2	2	Suicide
Total 2004 fatal fires	41	39	

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.

