



# MEDFORD FIRE-RESCUE PREVENTION BUREAU

www.medfordfirerescue.org

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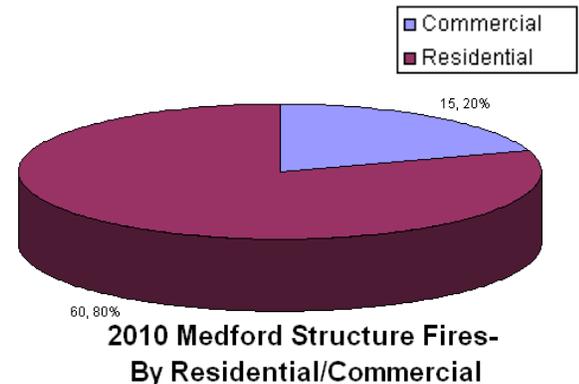
## 2010 Fire Marshal Report

The Medford Fire-Rescue Prevention Bureau serves a population of 90,000 people that reside within a geographic area covering over 58 square miles. The Bureau is responsible for conducting business fire and life safety compliance inspections, performing origin and cause fire investigations, providing public education encompassing all aspects of fire and life safety issues, issuing fire code permits and conducting related inspections, reviewing land development projects for access and water supply requirements, and conducting plan review/inspections for fire protection systems in both new and existing structures. The following highlights events and summarizes the Bureau's 2010 activities.

### 2010 in Retrospect

#### Fires

Medford Fire-Rescue responded to 277 fire incidents in 2010, with 246 fire incidents occurring within its jurisdiction. Fire incidents accounted for 3.5% of the total call volume. Medford experienced 75 structure fire incidents in 2010 causing \$2,574,750 in total losses. Over \$20.5 million in potential losses were associated with these incidents. There were four civilian injuries associated with these fires. Of the structure fires that occurred, 80% occurred in residential occupancies (80% in single family dwellings and 20% in multi-family dwellings) and 20% occurred in commercial occupancies. Medford was fortunate to experience zero civilian fatalities in 2010. Medford also responded to 62 wildfires (including grass fires) during the year. The Bureau investigated 60 fires in 2010.

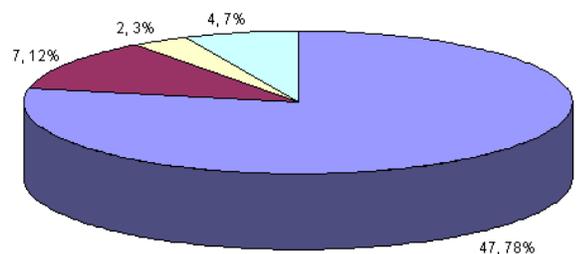
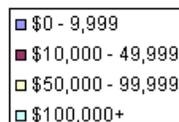


### Residential Structure Fire Statistics

**Number of Fires: 60**

**Total \$ Loss: \$ 982,550**

- 78% \$0 - 9,999
- 12% \$10,000 – 49,999
- 3% \$50,000 – 99,999
- 7% \$100,000 +



2010 Medford Residential Structure Fires- By Property Loss

**Areas of Origin:**

- 33% kitchens
- 8% courtyard, patio, porch
- 7% bedrooms
- 7% common rooms (living, den, family rooms)
- 7% laundry areas

**Initial Ignition Heat Sources:**

- 12% radiated/conducted heat from operating equipment
- 12% heat from powered equipment
- 12% heat from hot ember or ash

**Causes:**

- 80% unintentional
- 15 % intentional
- 5 % undetermined
- 0% act of nature

**Time of Alarm:**

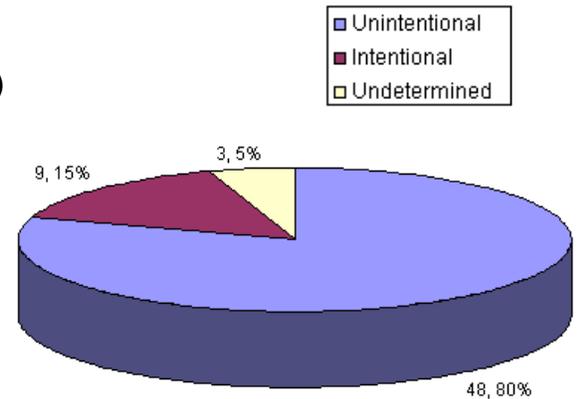
- 5% between 12:00 AM and 3:59 AM
- 1.5% between 4:00 AM and 7:59 AM
- 17% between 8:00 AM and 11:59 AM
- 30% between 12:00 PM and 3:59 PM
- 35% between 4:00 PM and 7:59 PM
- 11.5% between 8:00 PM and 11:59 PM



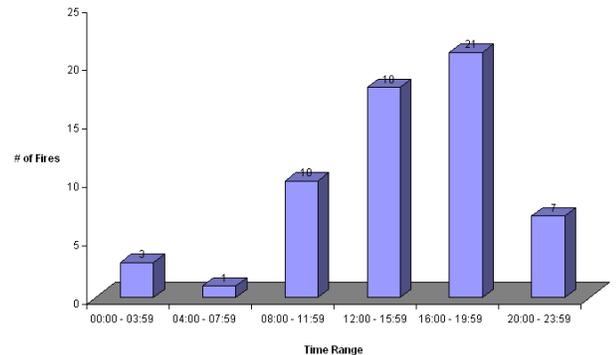
**Smoke alarms:**

- 53% present and alerted the residents
- 35% did not alert or were not present

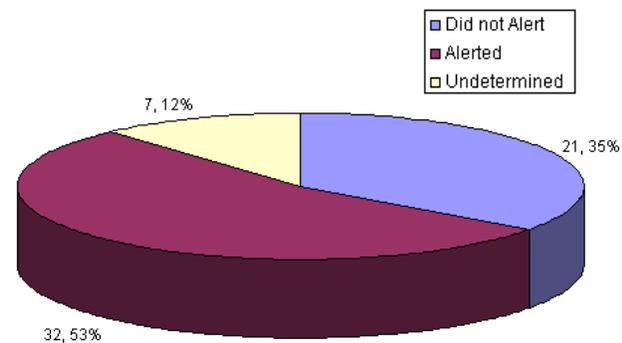
Although national surveys have shown that 96% of all households have at least one smoke alarm, it is troubling that smoke alarms did not alert or were not present in over a third of Medford’s residential fires. One explanation for this is that, in some cases, the smoke alarms may not have been a factor in the fire (chimney/flue fires, exterior fires, etc.). While Medford’s statistics in this area are not out of the ordinary, (NFPA reported that “Smoke alarms sounded in roughly half of the home fires reported to U.S. departments”), we know that having properly placed and maintained smoke alarms in the home reduces the risk of dying in a house fire by 50%. National statistics also show that



**2010 Medford Residential Structure Fires- By Cause of Ignition**



**2010 Medford Residential Structure Fires- By Time of Alarm**



**2010 Medford Residential Structure Fires- By Smoke Alarm Alert**

smoke alarms are missing in 2/3 of fatal residential fires. Having an early warning in a house fire is essential for effective evacuation; increasing the possibility that someone may make it out alive. In 2007 Medford Fire-Rescue implemented a program where smoke alarms were checked during any incident (including medicals) occurring at a residence. We will continue to target this area and also promote home evacuation planning and residential fire sprinklers. The chance of surviving a residential fire approaches 100% when smoke alarms and a residential fire sprinkler system are installed in a home.

**Commercial Structure Fire Statistics**

**Number of Fires: 15**

**Total \$ Loss: \$1,682,200**

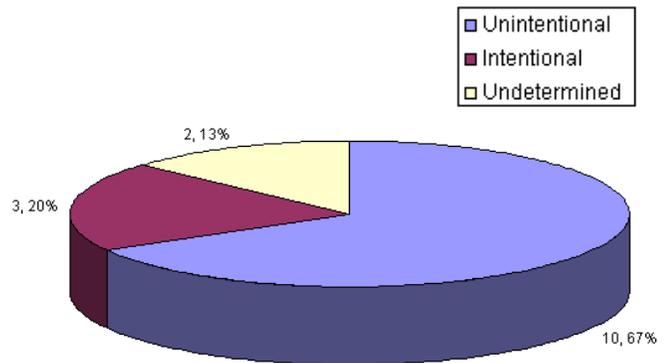
- 60% \$0 – 9,999
- 20% \$10,000 – 49,000
- 7% \$50,000 – 99,999
- 13% \$100,000+

**Areas of Origin:**

- 32% cooking areas
- 12% shipping/receiving areas

**Causes:**

- 67% unintentional
- 20% intentional
- 13% undetermined
- 0% act of nature



**2010 Medford Commercial Structure Fires-  
By Cause of Ignition**

**Property Use**

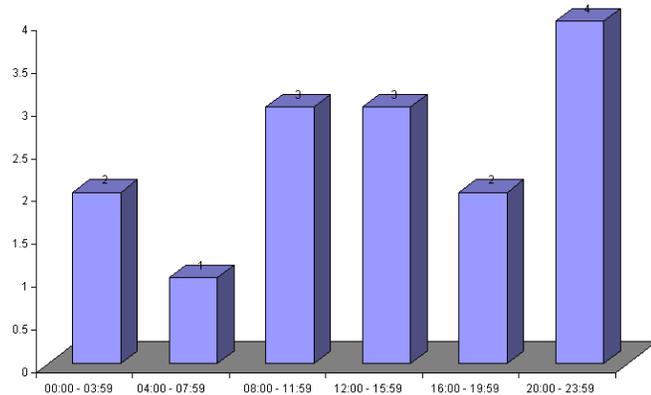
- 19% mercantile, business, other
- 19% motor vehicle, boat sales
- 13% household goods, sales, repairs

**Initial Ignition Heat Sources:**

- 33% radiated heat from operating equip.
- 20% heat from powered equipment
- 13% molten, hot material
- 13% undetermined

**Time of Alarm:**

- 13.3% between 12:00 AM and 3:59 AM
- 6.7% between 4:00 AM and 7:59 AM
- 20% between 8:00 AM and 11:59 AM
- 20% between 12:00 PM and 3:59 PM
- 13.3% between 4:00 PM and 7:59 PM
- 26.7% between 8:00 PM and 11:59 PM



**2010 Medford Commercial Structure Fires-  
By Time of Alarm**

Two large commercial buildings burned causing over \$1.5M in total losses in 2010. Neither of these buildings was equipped with fire sprinklers.

**Wildfires (Includes grass/vegetation)**

**Number of Fires: 62**

**Total Acres: 4**

**Causes:**

- 23% unintentional
- 7% intentional
- 33% undetermined

**Time of Alarm:**

- 9.5% between 12:00 AM and 3:59 AM
- 6.4% between 4:00 AM and 7:59 AM
- 17.5% between 8:00 AM and 11:59 AM
- 23.8% between 12:00 PM and 3:59 PM
- 31.7% between 4:00 PM and 7:59 PM
- 11.1% between 8:00 PM and 11:59 PM

Although there were 62 wildland/vegetation fire incidents in 2010, Medford experienced very little damage.

In 2010, Medford Fire-Rescue began the Wildland-Urban Interface Home Evaluation Program. This program is a chance for homeowners living in wildfire risk areas to receive free on-site advice about how they can make their properties more resistant to wildfires. The program goal is to ensure safe access into and out of the property, to reduce ignition hazards around the home, and to create effective defensible space.

**Juvenile Set Fires**

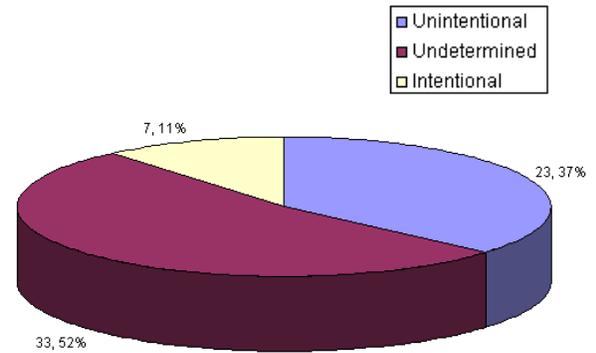
In 2010, there were 9 known juvenile set fires. These included 2 structure fires and 7 outside wildland/grass fires. The structure fires caused \$102,000 in damage. In addition to these, some of the undetermined wildland/grass fires likely involved juveniles.

**Arson Fires**

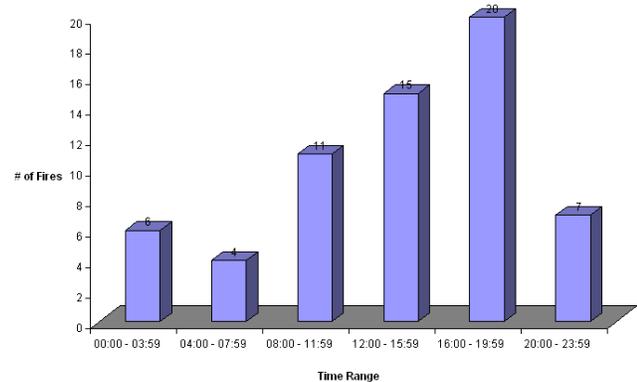
Medford Fire-Rescue has a close working relationship with law enforcement agencies when conducting fire investigations. In cooperation with the Medford Police Department, 39 arson fires were reported in 2010, resulting in 13 cases where suspects were charged for a total of 25 charges. The 25 charges included 20 juveniles and 5 adults.

**Public Education**

Medford Fire-Rescue took part in 362 public education events/sessions, reaching over 15,000 people. The Bureau took part in 45 of these public education events/sessions, reaching more than 3,400 individuals. The Bureau also spoke to the Media throughout the year about fires and prevention information. Medford Fire-Rescue continues to be the lead



**2010 Medford Wildfires-  
By Cause of Ignition**



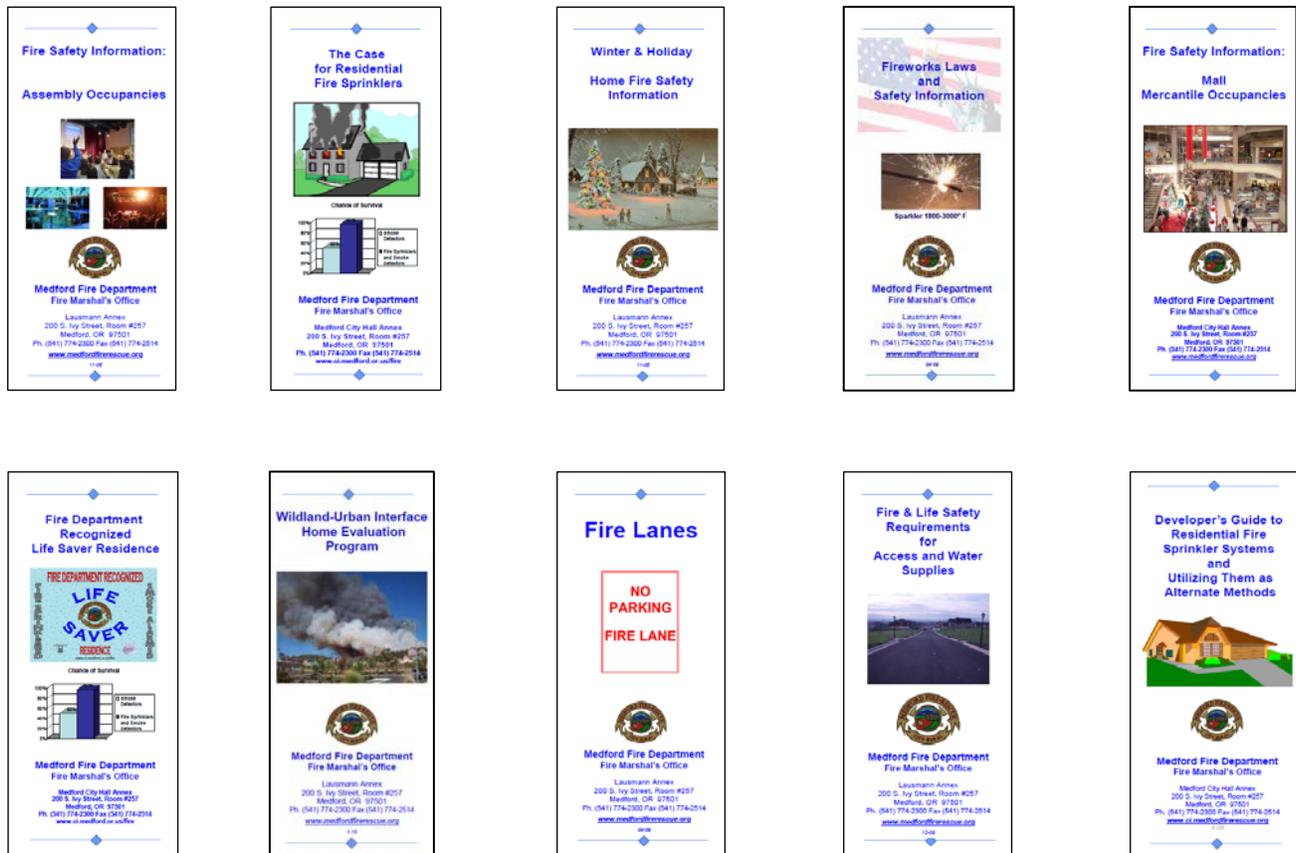
**2010 Medford Wildland/Vegetation Fires-  
By Time of Alarm**



agency in Southern Oregon Safe Kids Coalition. Medford also takes a prime role in the Juvenile Firesetter's Program. In addition, Medford takes an active role in several public education programs throughout the year, including:

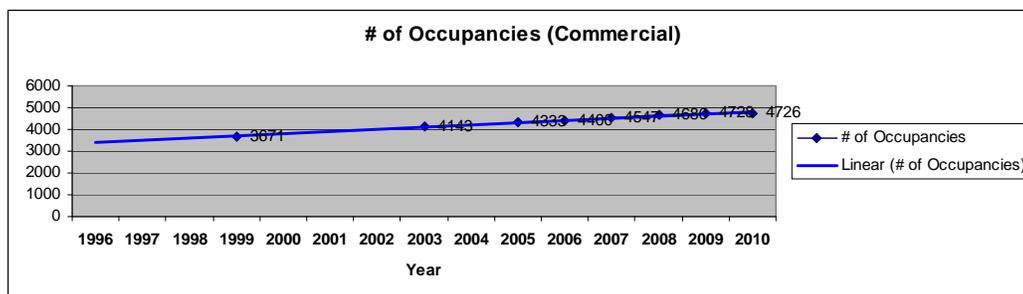
- The Hazard House program, where nearly 1,700 4<sup>th</sup> grade students in 18 schools were taught about smoke alarms, home fire safety, and home escape planning
- The Safe Kids Fair
- Multi-cultural Fair
- Fire Prevention Week Open House
- Child Safety Seat clinics
- Adult Foster Care Provider Classes
- Wildland-Urban Interface Home Evaluations

The Bureau maintains a wealth of information on the City's website and continues to develop educational materials to serve the public. The following are some of our brochures:



### Commercial Inspections and Enforcement

The number of commercial occupancies in Medford Fire-Rescue's jurisdiction grew to approximately 4,700 in 2010.

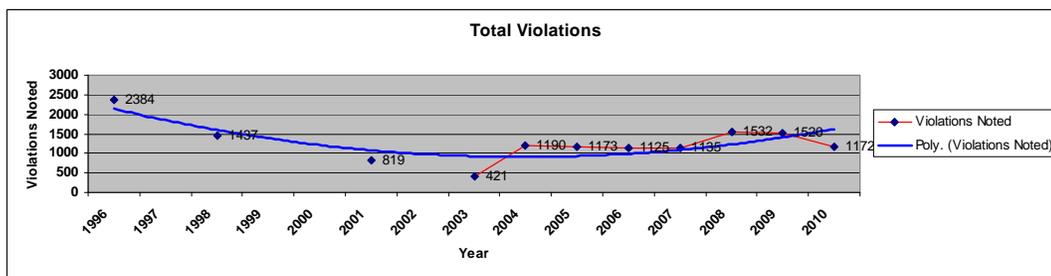


Our Oregon State Fire Marshal (OSFM) exemption (OAR 837-039) status requires specific occupancies to be inspected at set intervals. For all occupancies regulated by the Oregon Fire Code, we are required to inspect on a frequency deemed necessary to provide a reasonable level of fire and life safety.

Inspections are prioritized into three categories, High Risk, Moderate Risk, and Low Risk.

- High Risk – Annual Inspection Goal (913 identified in Medford in 2008)
  - Characteristics:
    - Potential for high life loss (high concentrated occupant loads or significant public hazard)
    - Loss would be considered a significant economic impact to the community
    - May include processes or contents that are considered highly hazardous.
    - May include structures with required built-in fire protection systems, or may include State of Oregon mandated annual inspections.
  
- Moderate Risk – Bi-Annual Inspection Goal (958 identified in Medford in 2008)
  - Characteristics:
    - Potential for low life loss (low occupant loads and moderate public hazard)
    - Loss would be considered a moderate economic impact to the community
    - May include processes or contents that are considered moderately hazardous.
  
- Low Risk – Inspection Goal Every 3 Years (2803 identified in Medford in 2008)
  - Characteristics:
    - Potential for low life loss (low occupant loads and low public hazard)
    - May include processes or contents that are considered the least hazardous
    - Loss would be considered a minor economic impact to the community.

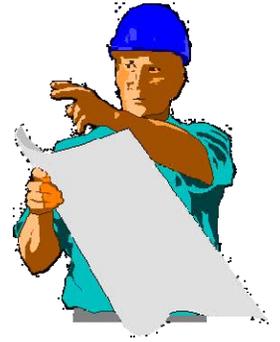
During 2010, Medford Fire-Rescue conducted 1,006 compliance inspections and 176 permitted inspections. These inspections resulted in 779 fire code violations noted during the regular business fire inspections and 393 violations noted during the permitted inspections.



We also continue to manage a Self-fire Inspection Program. The intent of this program is to educate low hazard businesses about fire code requirements, have them physically check their premises, and provide a safety check during the interim between longer inspection intervals.

## Permits and Development

The Bureau was responsible for 147 fire code operational and construction permits in 2010, overseeing 72 fire protection/detection permits. A total of 130 total plan reviews were conducted during this period, including 41 fire suppression systems, 19 fire alarm systems, and 70 site development reviews. This is an important part of fire prevention, to ensure that both public events are safe and buildings are constructed with the required fire and life safety essentials.



## Staffing and Personnel

In the beginning of 2010, The Bureau consisted of a Fire Marshal and three Fire Inspectors (one vacancy). Due to a retirement, from May through October the Bureau was down to a Fire Marshal and two Fire Inspectors (two vacancies). In October, the two Fire Inspector vacancies were filled and the Bureau has since been fully staffed.

Bureau personnel received 561 hours of training in 2010. Training is vital for personnel to keep up-to-date in their fields of expertise.

The professional achievements and qualifications that Bureau personnel have obtained continues to be impressive. Bureau qualifications include:

- All personnel are Fire Code Certified
- Two personnel possess Oregon State Fire Marshal competency recognition
- Two personnel are IAAI Certified Fire Investigators (CFI)
- Two personnel are certified in Oregon as Fire Plans Examiners
- Three personnel are ICC certified as Building Plans Examiners
- One person is certified in Oregon as Plans Examiner-Fire and Life Safety

## 2011

In 2011 we will continue to work diligently to educate the public about fire and life safety issues and target occupancies for inspections based on the hazard. Also, we will continue to take an active role in new development and construction, ensuring new buildings have adequate access, water supply, required fire suppression and detection systems, and the code required life safety systems and features in place. Our goal is to protect people by being proactively involved in preventing tragedies, with the goal of making this one of the safest communities to reside in.

***For more information about the Fire Prevention Bureau, visit our website at:***

<http://www.ci.medford.or.us/SectionIndex.asp?SectionID=21>