

2015

# Fire in Alaska

Department of Public Safety  
Division of Fire and Life Safety





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# Alaska State Fire Marshal

## Fire In Alaska - 2015

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### David Tyler State Fire Marshal

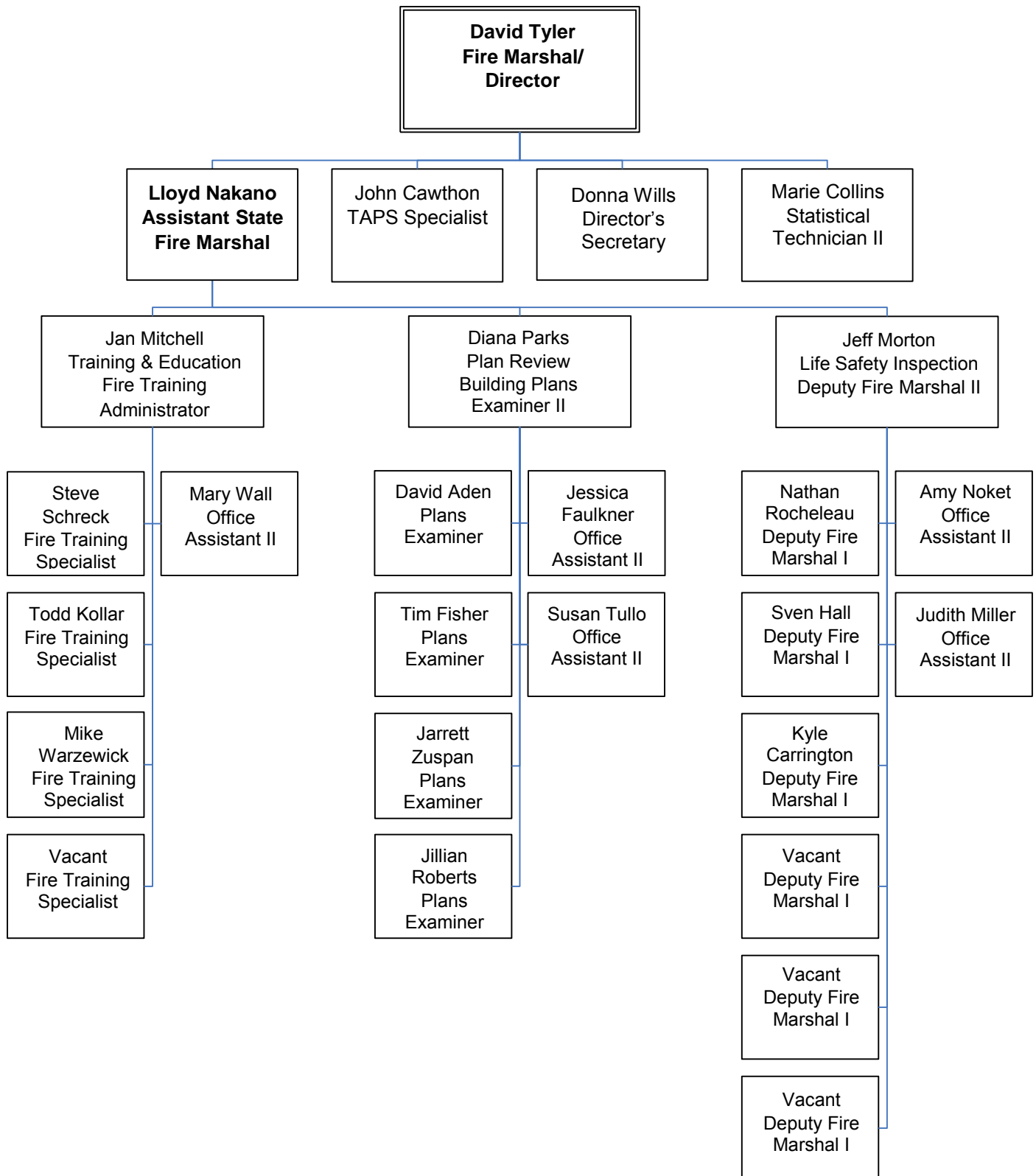
Department of Public Safety  
Division of Fire and Life Safety

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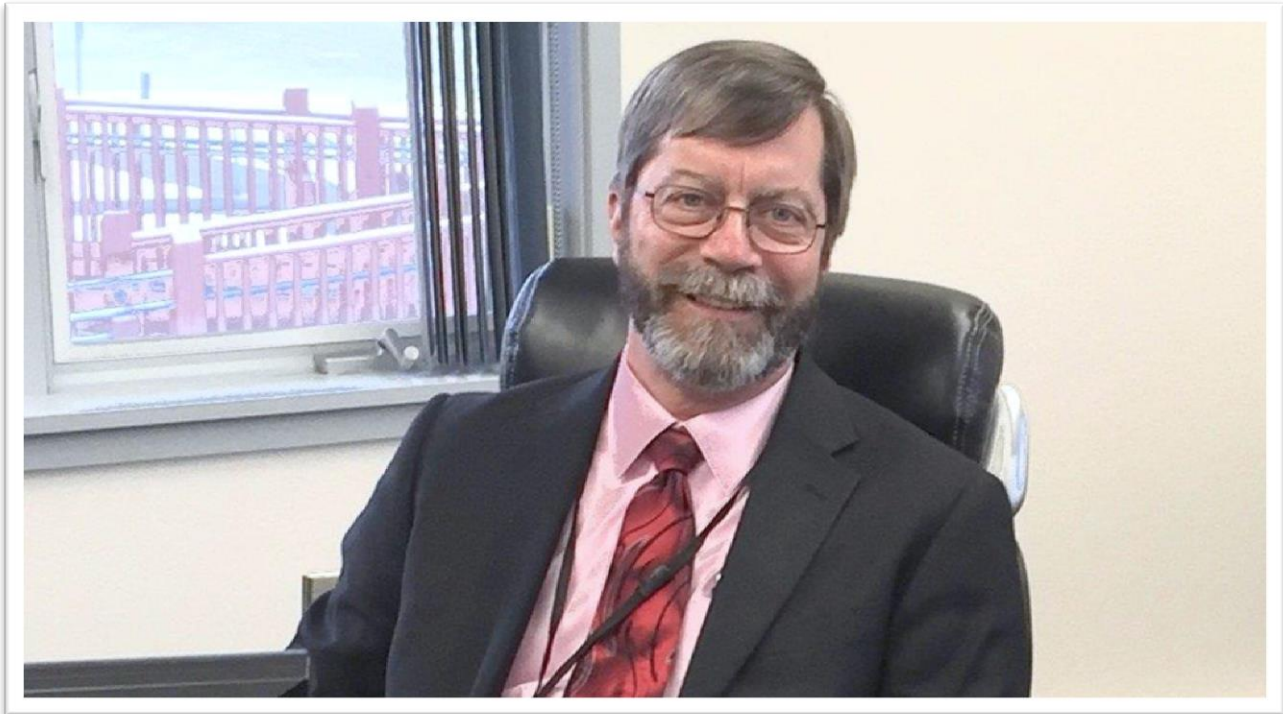
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## Division of Fire and Life Safety Organizational Chart (2016)



## Letter from Alaska State Fire Marshal, David Tyler



After a brief period of retirement I once again have the honor of being your State Fire Marshal. It was refreshing to return and see all of the good work that this division has done for so many years continuing at such a high level.

This report is derived from calendar year 2015 statistics. I would like to thank the 181 fire departments from across the state that submitted their ANFIRS reports so that we can compile these stats.

There were 17 fire fatalities in Alaska in 2015. This is a 42% increase over 2014. Of special note 7 of these victims were 70 + years old, 4 were 19 years or younger. These continue to be age groups that need to be targeted to further reduce our fire fatality rate.

Firefighter injuries are another area we all should monitor continuously. In 2015 there were 34 "reported" firefighter injuries. Of the reported firefighter injuries, 21% occurred during suppression efforts, 18% during overhaul and 33% were from overexertion/strain. We need to look at the potential causes of these injuries. We need to consider if these injuries due to poor physical conditioning of the firefighters, or is inadequate staffing with the resulting inadequate rehab time causing overexertion. Our firefighters are much more effective (and happy) in a "response" status rather than an "injured reserve" status. I thank the departments that reported firefighter injuries. Historically these were not reported. Armed with this information we can make a safer, better work environment for our firefighters.

Thank you all! Working together we can continue to make a difference.

Sincerely,  
David Tyler  
State Fire Marshal

## Division of Fire and Life Safety Office

The Division of Fire and Life Safety office is composed of the Director's Office and three Bureau's. Fire safety is improved through these means and our office is formed on that basis.

### Director's Office –

The staff of the Director's Office is comprised of Alaska's State Fire Marshal, Assistant State Fire Marshal, Statistical Technician, and Executive Secretary. These individuals are responsible for establishing the vision, direction, operations and policies to accomplish the Division of Fire and Life Safety's mission, "To prevent the loss of life and property from fire and explosion". They work to achieve this mission by providing funding mechanisms, budgetary priorities and bureau work production. They advise, educate and collaborate with legislative and executive contacts on fire and life safety issues, public policy and safety throughout Alaska.

Working directly for the Director is the Trans-Alaska Pipeline System (TAPS) Fire Safety Specialist. This position provides fire protection education, engineering, inspection and investigative oversight of the Trans-Alaska oil pipeline facilities, regulated and unregulated oil, as well as gas pipeline facilities and refineries.

### Life Safety Inspection Bureau -

Life Safety Inspection Bureau (LSIB) has three offices. The Fairbanks Office (aka Northern Region) is located at 1979 Peger Road in Fairbanks. The Anchorage Office (aka Southcentral Region) is located at 5700 E. Tudor in Anchorage and the Juneau Office (aka Southeast Region) is located at 2760 Sherwood Lane in Juneau. The Bureau currently has six Deputy Fire Marshals. Deputy Fire Marshals conduct fire inspections, fire investigations, and assist with training throughout the state. LSIB has two support staff and a one supervisor.

Building inspections are a customer-oriented, multi-faceted unit with statutory authority to conduct fire safety inspections in commercial properties and applicable regulated industries throughout the state. These occupancies include, but are not limited to; restaurants, bars, churches, schools, daycare facilities, prisons, jails, hospitals, nursing homes, assisted living homes, apartments and hotels with more than 15 rooms and high impact facilities which include major fish processing plants.

Prioritizing of building inspections continues to be based upon those occupancies that are at greatest risk of fire-related injuries, fatalities, property loss and high community impact. The Division strives to increase owner/occupancy awareness of hazards so a greater number of buildings will be found in compliance with legal standards at time of inspection. Each deficiency needing correction is issued on an Order to Correct. Deficiencies must be followed up to completion.

Fires normally investigated by the Division of Fire and Life Safety are; fires that result in a fatality or serious injuries, that involve a substantial loss of property (\$500,000 or more), appear to be intentionally caused as part of an insurance fraud or other criminal activity, have a significant public impact, indicate trends or a serious consumer safety problem and any fire that involves Department of Public Safety facilities or equipment.

### Plan Review Bureau –

The objective of the Plan Review Bureau (PRB) is to ensure the public's safety by identifying building and fire code violations during the design phase of construction. This process increases public safety and reduces overall construction cost and field inspection time.

## Division of Fire and Life Safety Office

To best serve the needs of the State, the Bureau has offices in Anchorage, Fairbanks and Juneau. Each office has at least one Plans Examiner or Deputy Fire Marshal and an Office Assistant. The Anchorage headquarters consists of three Plans Examiner's, an Office Assistant and the Bureau Supervisor.

PRB ensures the public's safety by identifying building and fire code violations during the building construction design phase, which decreases deficiencies, eases construction costs and reduces field inspection time. To ensure current building and fire code requirements are being met, the Bureau is responsible for examining building plans for new construction, renovations, additions, occupancy changes, fuel systems and fire suppression, alarm and detection systems. During the early stages of the design process, the Bureau assists design professionals to meet the minimum code requirements, which also saves the customer time and money by eliminating significant reengineering later on. Each year, PRB receives over 1,200 applications ranging from small home daycares to large oil and gas projects.

The Bureau performs construction inspections at 60% (framing) and 90% (before enclosure) of project completion. Inspections are limited to special interest facilities and buildings with a valuation that exceeds \$5,000,000. Construction inspections are a recurring part of PRB's objective to ensure public safety by determining if buildings are built properly and according to their approved plans.

### **Training and Education Bureau -**

The Training and Education Bureau (TEB) provides training for the fire service and also provides education for the public. TEB has offices in Anchorage and Juneau. The Bureau currently has four Fire Service Training Specialists, one Office Assistant II and the TEB Supervisor.

TEB offers training for the fire services that face the challenge of keeping their communities safe from the devastation of fire. The public education section provides a variety of opportunities in community outreach to reduce the loss of life and property to fire.

The Anchorage office houses the Supervisor, Office of Rural Fire Protection (ORFP), Public Education and a Fire Training Specialist. Administrative support is provided through Office Assistants located in Anchorage and Fairbanks. The Southern Office, located in Juneau, is staffed by a Fire Training Specialist and is provided administrative support by an Office Assistant II, whose services are shared with PRB and LSIB. ORFP provides training, equipment and education for the rural fire departments. Working closely with the Alaska State Trooper Village Public Safety Officer (VPSO) program, ORFP teaches a segment on fire safety at the State Trooper Academy located in Sitka. VPSO's complete the program with knowledge of fire behavior, hazardous materials, front line firefighting skills and the ability to present public education programs when they return to their community. The Fire Training Specialists provide operational, leadership and technical training throughout Alaska.



# Division Programs

## FIRE DEPARTMENT REGISTRATION

The Division of Fire and Life Safety, Director’s Office, manages the registration of local fire and emergency response agencies in Alaska. Alaska state regulations require that every local organization that is performing duties as a fire department to be registered with the Division of Fire and Life Safety.

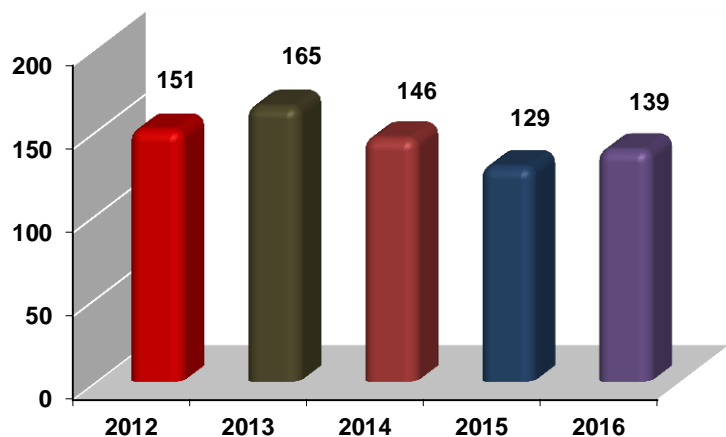
In order to become a newly registered fire department a fire department must submit the following:

1. Enabling Authority - A copy of their enabling authority document and
2. Response Areas/Boundaries - A description of the boundaries or response areas of the department. This can include either a map or a general description of the limits of the response. Also a description under what circumstances and under whose authority the department will respond outside those boundaries. If the response area is within or overlaps another agencies response area a Mutual Aid or Memorandum of Agreement between those two agencies is required and
3. Annual Summary Report - A summary report must be completed annually by using information from the previous calendar year and
4. Membership Roster - Fire Departments are required under the registration process to forward a current list of all members. Any changes in membership must be sent within 10 days of these changes taking place and
5. Public Education – The number of public fire safety and burn prevention education programs conducted in the community and
6. Personnel – Within 30 days of change, submit every addition or deletion from the membership list. This must be forwarded to the State Fire Marshal and
7. ANFIRS - In order for a fire department to continue their registration status, they must report every fire and fire related incident Division of Fire and Life Safety monthly per 13 AAC 52.020. The fire department may lose their registered status if they fail report.

*\*Note\** To continue fire department registration, departments must submit the Annual Summary Report, Membership Roster, annual fire prevention/burn injury prevention education programs, membership changes and monthly ANFIRS, authority per 13 AAC 52.030.

2016 totals are inclusive of all fire departments registration received by March 31, 2016.

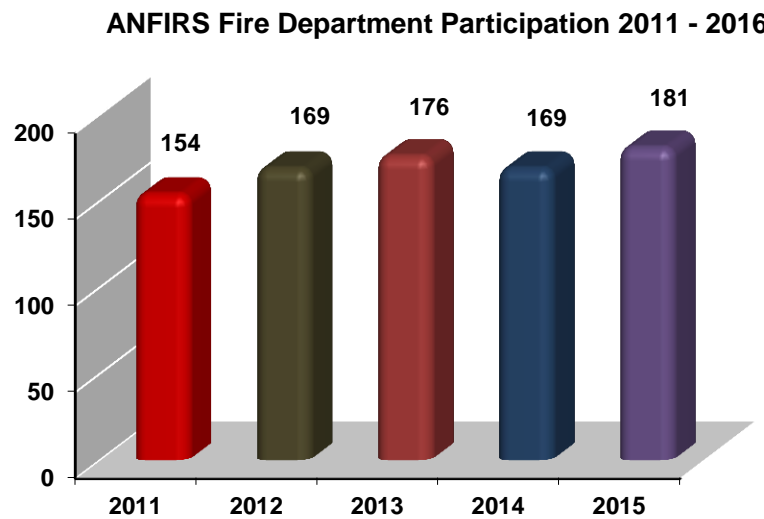
**Total Registered Fire Departments 2011 - 2015**



## Division Programs

### ALASKA NATIONAL FIRE INFORMATION REPORTING SYSTEM (ANFIRS)

Alaska has seen an increase in fire department participation in the ANFIRS program. The number of fire departments reporting should be considered when reviewing data comparisons between years.



Fire departments use this reporting system to uniformly code incident information. Accurate and complete information about fires and other incidents can provide a fire department with a valuable reference to:

- help allocate limited resources
- justify budget needs
- review the need for personnel training
- focus the direction of fire education/prevention programs

State lawmakers, the press, the general public, insurance companies, and fire service administrators and leaders request ANFIRS summary reports to help address fire safety concerns and new legislation issues. ANFIRS data is forwarded to the National Fire Data Center (NFDC) at the U.S. Fire Administration (USFA) each year. The NFDC can then compare and contrast statistics from states and large metropolitan departments to:

- develop national fire and life safety education campaigns
- make recommendations for national codes and standards
- guide allocation of federal grants
- ascertain consumer product failures
- identify the focus for research efforts
- support federal legislation

National Fire Information Reporting System (NFIRS) data is used as the basis for the USFA's publication *Fire in the United States*, which is the single most comprehensive reference on the nature and scope of the fire problem in the United States.

## Alaska 2015 Fire Picture at a Glance

Fire departments reporting to Alaska National Fire Incident Reporting System (ANFIRS) had 64,569 responses in 2015, with 1,474 of these responses reporting mutual aid assistance and 377 being exposures.



### 2015 State Incident Summary

<b>Total Responses</b>	<b>64,569</b>
<i>Less Mutual Aid Responses</i>	<i>-1,474</i>
<b>Total Fire Department Incidents</b>	<b>63,095</b>

### 2015 State Fire Incident Breakdown:

Structure Fires	1,000
Confined and/or Contained Inside Structure Fires	466
Motor Vehicle Fires	528
Tree, Brush, or Grass Fires	587
Outside Rubbish or Trash Fires	420
Other Outside Fires	60
Other Fires	0
<b>Total Fires</b>	<b>3,061</b>

### 2015 State Non-Fire Incident Breakdown:

Rescue/EMS	41,526
Explosion – No After Fire	44
Hazardous Conditions	1,302
Service Calls	4,009
Good Intent Calls	8,497
Other Calls	130
False Alarms	4,526
<b>Total Non-Fires</b>	<b>60,034</b>

## Alaska's 2015 Time Clock. Every. . .

- 1 minute a fire caused \$103.97 damage
- 8 minutes a fire department responded to a call
- 13 minutes a fire department responded to a rescue call
- 1 hour a fire department responded to a good intent call
- 2 hours a fire department responded to a false call
- 3 hours a fire department responded to a fire call
- 2 hours a fire department responded to a service call
- 7 hours a fire department responded to a hazardous call
- 12 hours a fire department responded to a structure fire
- 21 hours a fire department responded to a vehicle fire
- 9 hours a fire department responded to a residential fire
- 10 hours a fire department responded to a unauthorized burning incident

## Alaska 2015 Fire Picture at a Glance

The following information has been submitted by fire departments to the Division of Fire and Life Safety. The primary source of data used is the Alaska National Fire Incident Reporting System (ANFIRS).

*Important: The data presented in this profile does not represent 100% of the fires that occurred in the state. Rather, it is a sum of the fires reported to the Division of Fire and Life Safety from the fire departments participating in ANFIRS.*

This information may be used to give a general picture of the fire incidents in the State of Alaska. Without everyone's cooperation the information does not show a complete picture of the fire problem in Alaska.

### Fires

- Fires attended by Alaska Fire Departments increased from the year of 2014 by 20% to 3061.
- Fires in structures increased from the year of 2014 by 19% to 1466.
- Grass/Brush/Wildland fires increased from the year of 2014 by 69% to 587.
- Residential properties accounted for 66% or 963 of all structure fires.

### Fire Deaths

- Civilian fire deaths increased from the year of 2014 by 42% to 17.
- In 13% of all civilian fatalities, alcohol and/or drugs was a contributing factor to the fire and/or victim.

### Fire Injuries

- Civilian fire injuries decreased from the year 2014 by 22% to 62.
- Firefighter fire injuries decreased from the year 2014 by 48% to 34.

### Property Damage

- Property loss decreased from the year 2014 by 17% to \$54,645,922.
- Structure fires caused \$49,610,022 or 91% of all property damage.
- Residential property losses were \$31,915,878 or 64% of all structure property loss.

### Intentional Fires

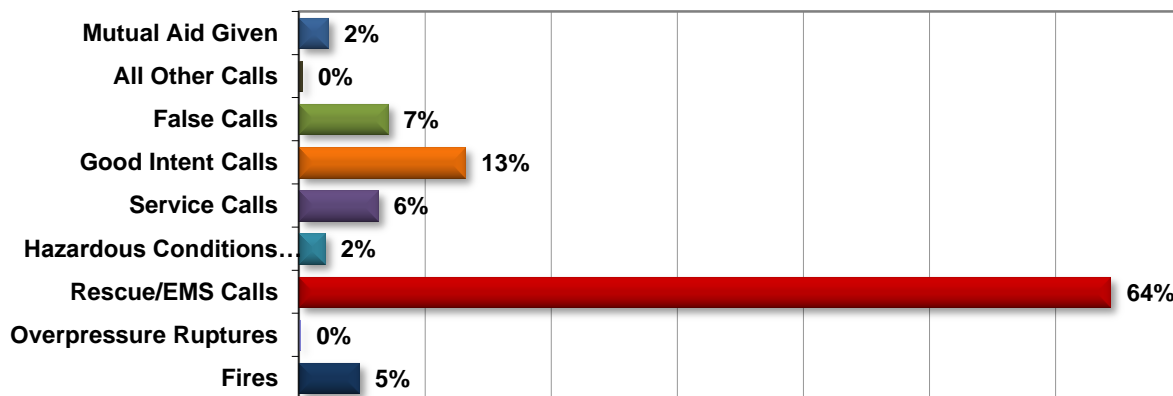
- Structure fires that were reported as intentional increased from the year of 2015 which is 69.
- Intentionally set structure fires accounted for 5% of all reported 2015 structure fires.
- Intentional structure fires accounted for 4% or \$1,815,230 of all structure property dollar loss.
- In all 3,061 reported fires, 5% or 161 were reported as intentional.
- Intentional fires resulted in 4 civilian fire injuries.
- Intentional fires resulted in 1 civilian fire deaths.
- Intentional fires resulted in 1 firefighter injury.
- Juvenile firesetters resulted in 46 or 29% of all intentionally set fires.

## Non-Fire Incidents

Alaska fire departments do much more than fight fires. Over the past several decades they have branched out and taken on the added responsibilities for EMS response, many types of specialized rescue, hazardous materials incidents, responding during and after natural disasters, as well as the typical service calls, good intent calls, false alarms and the special types of incidents that do not fit neatly into any of the other categories. We expect these numbers to rise as more fire departments automate their reporting and begin reporting all of their incidents to Alaska National Fire Information Reporting System (ANFIRS). Only then will we have a more complete understanding of the amount of work the Alaska fire service does on a day-to-day basis.

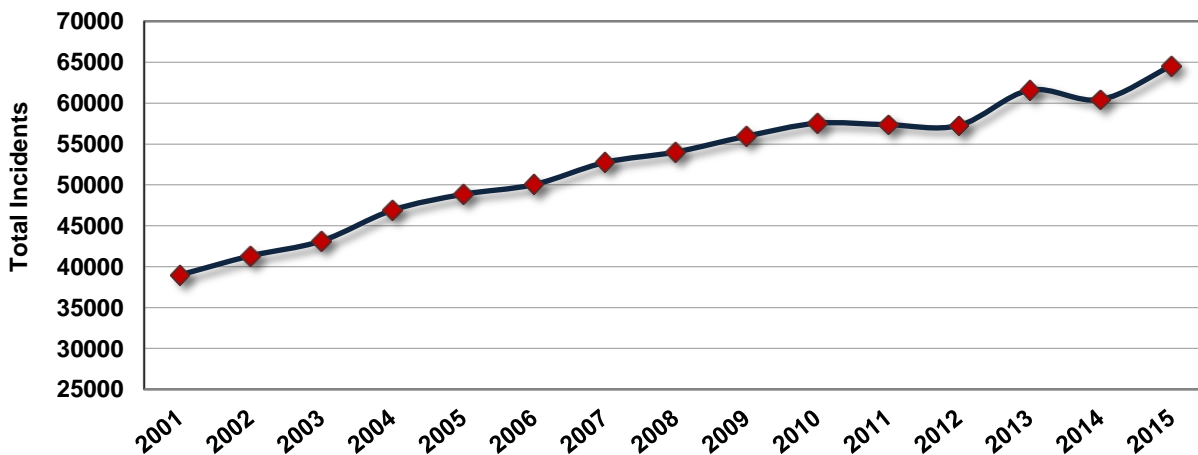
In 2015, 181 fire departments/agencies and/or communities in Alaska reported 64,569 responses to ANFIRS. Of these 64,569 responses, 60,034 non-fire calls and/or mutual or automatic aid given were voluntarily reported.

2015 Reported Incidents by Incident Type



Alaska fire departments began using the National Fire Information Reporting System (NFIRS) in January 2000. NFIRS 5.0 captures information on all incidents, not just fires, to which a fire department responds. As a result of changes in the reporting system and an increase in reporting departments, Alaska fire departments reported 151% more incidents in 2015 from 1999.

All Incidents Reported 2001 - 2015



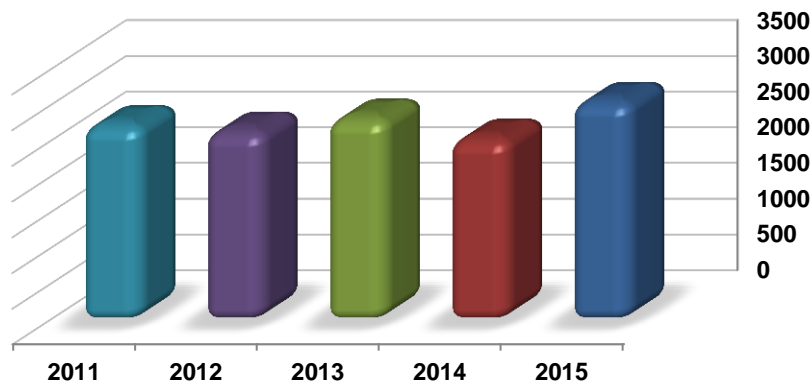
## Alaska's 2015 Fires

Alaskan departments reported 3,061 fire incidents to the Alaska Fire Incident Reporting System (ANFIRS) in 2015. The total number of fire incidents increased 20% from the 2,543 incidents reported in 2014.

The following table indicates a breakdown of fire types into structure fires, motor vehicle fires and other fires for the years 2011 through 2015.

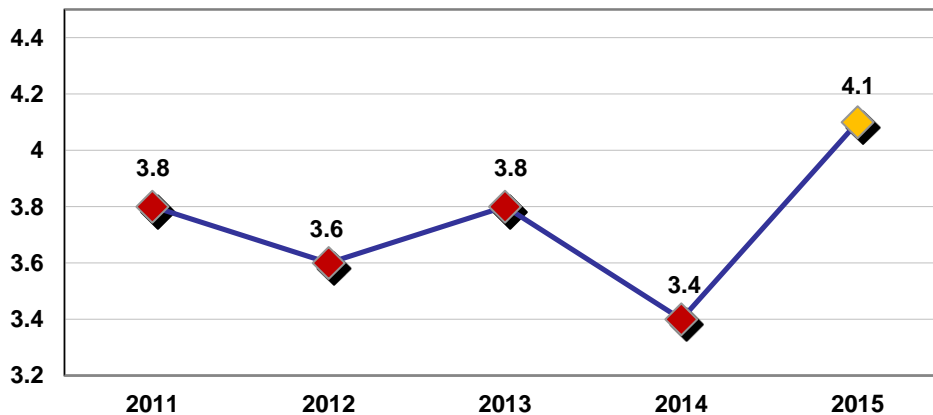
Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires
2015	3,061	1,466	528	1,066
2014	2,543	1,228	486	739
2013	2,823	1,236	487	1,100
2012	2,644	1,237	455	952
2011	2,731	1,238	515	978

Alaska's Reported Fires 2011 - 2015



In 2015 Alaskan fire departments responded to 4.1 fires per 1,000 people. According to the U.S. Census Bureau, Alaska's estimated population in 2015 was 736,625.

Alaska Fires Per 1,000 People 2011 - 2015



## Statewide Fire Dollar Loss

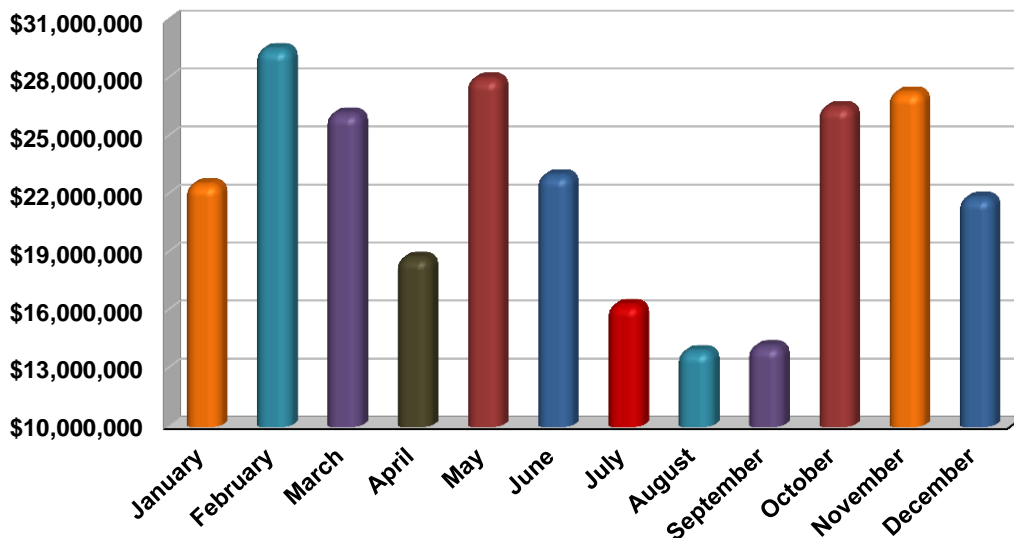
Estimated dollar losses are an indicator of the magnitude of the fire problem and can be used to evaluate progress in fire prevention. This information helps local communities; states and the nation determine the amount that should be spent on fire prevention. Fire loss estimates take into consideration material damaged during extinguishment, as well as material actually damaged by the fire. Estimates are calculated in the total estimated loss.

Fire Dollar Loss by Year				
Type of Fire	2012	2013	2014	2015
Structure Fire	\$49,651,005	\$42,219,474	\$60,626,394	\$49,610,022
Motor Vehicle Fire	\$4,993,171	\$4,539,986	\$5,209,405	\$4,326,738
Trees, Brush, or Grass Fire	\$278,525	\$311,650	\$8,732	\$64,800
Outside Rubbish or Trash Fire	\$19,923	\$17,825	\$18,613	\$56,112
Other Fires	\$214,739	\$96,855	\$321,348	\$588,250
<b>Total Fire Dollar Loss</b>	<b>\$55,157,363</b>	<b>\$47,185,790</b>	<b>\$66,184,492</b>	<b>\$54,645,922</b>

The reported value of structural property lost due to fire during 2015 was \$49,610,002. The reported structural total dollar losses \$750,000 or more were in:

- Bethel – Educational - \$2,500,000
- Kotzebue – Warehouse - \$2,250,000
- Craig – Restaurant - \$1,800,000
- Seldovia (SVT Barabara Heights) – Storage/Boats - \$1,500,000
- Galena – Water Utility - \$1,000,000
- Anchorage – Residential Home - \$750,000
- Juneau - Garage - \$750,000

Five Year Trend Total Dollar Loss by Month  
2011 - 2015

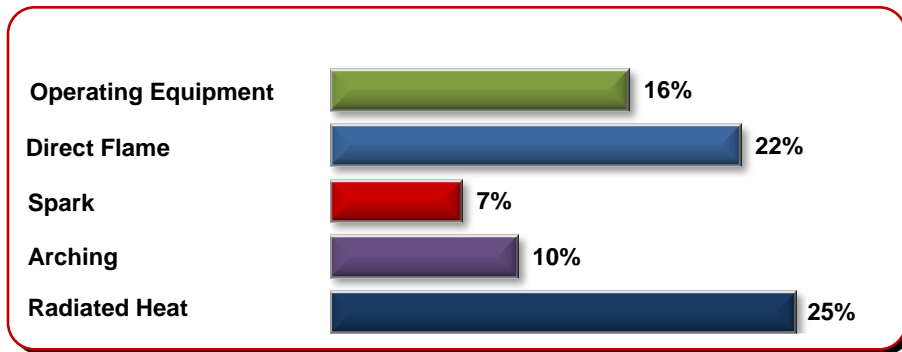


## Mobile Property Fires

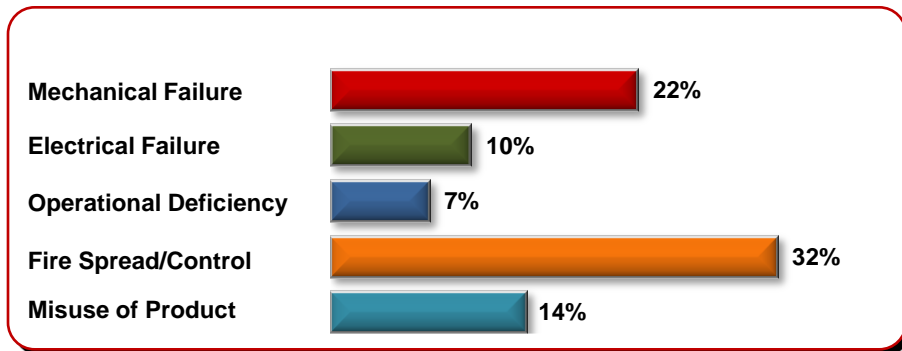
414 motor vehicle fires were reported in 2015. This accounted for 17% of all reported fires, 7 or 11% civilian injuries, 1 or 6% civilian fire fatalities, and an estimated property damage of \$5.2 million. The 486 mobile property fires in 2014 is less than 1% increase from the 487 motor vehicle fires in 2013.

The majority of these fires involved passenger vehicles. There were 317 fires involving cars, small trucks and vans. Passenger vehicle fires accounted for \$4,326,738 or 8% of property damage for all reported motor vehicle fires. The engine area, running gear or wheel area was reported as the fire area or origin in 40% of all reported vehicle fires.

According to NFIRS, a motor vehicle fire is defined as any fire involving a car, truck, boat, airplane, snow machine, four wheeler, construction equipment or other mobile property (not being used as a permanent structure) that occurs outside of a structure.

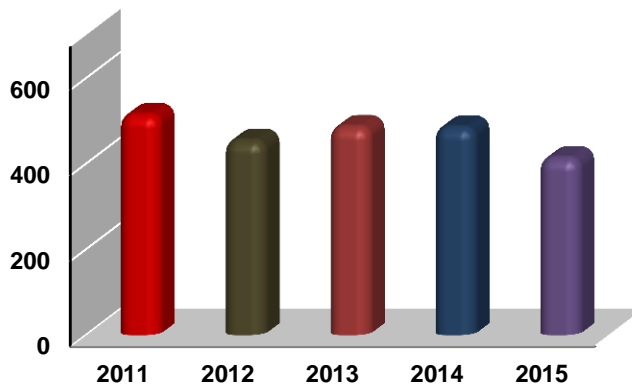


This bar chart indicates the most frequently reported heat source in vehicles excluding undetermined.



This bar chart gives an overview of the ignition factors of mobile property fires excluding undetermined.

Total Vehicle Fires 2011 - 2015





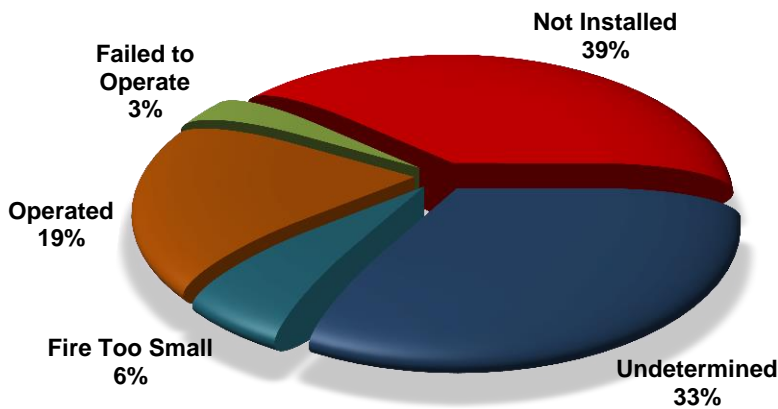
## Structure Fires

The 1,466 reported structure fires in 2015 caused 16 civilian deaths, 54 civilian injuries, 29 fire service injuries, and an estimated dollar loss of \$50 million. Structure fires accounted for 48% of reported fires and 94% of the civilian fire deaths in 2015.

The number of structure fires increased by 19% from the 1,228 reported in 2014.

2015 Structure Fires by Property Use	Count	%	Civ. Deaths	Civ. Injuries	FF Injuries	Total Dollar Loss
Educational	8	1%	0	0	0	\$2,517,800
Health Care	12	1%	0	0	0	\$3,600
Industrial	12	1%	0	0	0	\$1,351,200
Manufacturing, Processing	2	0%	0	0	0	\$17,500
Mercantile	49	3%	0	0	0	\$3,388,850
Other or Special	59	10%	0	1	0	\$451,885
Public Assembly	56	4%	0	2	0	\$2,939,100
Residential	963	66%	16	50	27	\$31,915,878
Storage	205	14%	0	1	2	\$7,024,209
<b>Total</b>	<b>1,466</b>	<b>100%</b>	<b>16</b>	<b>54</b>	<b>29</b>	<b>\$49,610,022</b>

### ALARM PERFORMANCE



This pie graph gives an overview of the alarm performance/presence for all non-confined enclosed structure fires.

Property Use Type	Alarm Operated	Did Not Operate	Fire Too Small	None Present	Unknown	Total
Educational	3	1	0	0	0	4
Health Care	2	0	3	0	2	7
Industrial	1	0	0	5	1	7
Manufacturing, Proc.	0	0	0	1	0	1
Mercantile	5	0	3	18	13	39
Other or Special	0	0	1	28	7	36
Public Assembly	9	1	3	11	11	35
Residential	149	27	45	151	236	608
Storage	3	1	1	138	39	182
<b>Total</b>	<b>172</b>	<b>30</b>	<b>56</b>	<b>352</b>	<b>309</b>	<b>919</b>

## Residential Structure Fires

The majority of structure fires in Alaska occur in the home. In 2015, there were 963 **reported residential structure fires (included structures confined and/or contained inside the structure)**. These fires caused an estimated direct loss of **\$32 million**. There were **50 civilian injuries, 16 civilian deaths and 27 firefighter injuries** caused by these fires. The total number of reported residential structure fires increased by 14% from the 845 reported in 2014.

Occupancy	Count	%	Civ. Deaths	Civ. Injuries	FF Injuries	Total Dollar Loss
Multifamily	161	17%	0	10	5	\$3,283,280
Board and Care	6	1%	0	0	1	\$176,300
Hotels & Motels	6	1%	0	1	1	\$418,850
<b>1 &amp; 2 Family Homes</b>	<b>765</b>	<b>78%</b>	<b>16</b>	<b>36</b>	<b>20</b>	<b>\$27,711,798</b>
Dormitories	7	1%	0	0	0	\$6,000
Unclassified	18	2%	0	3	0	\$319,650
<b>Total</b>	<b>963</b>	<b>100%</b>	<b>16</b>	<b>50</b>	<b>27</b>	<b>\$31,915,878</b>

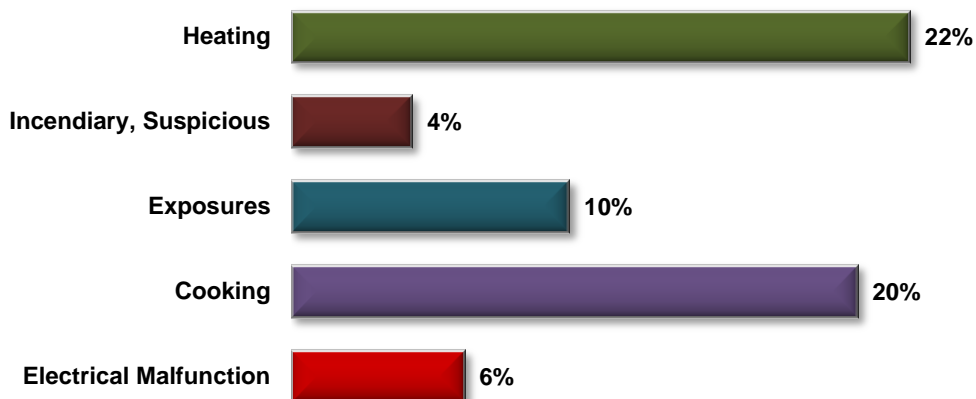
### Residential Occupancy Sub-Group

- **Multi-family dwellings:** This category includes apartments, condominiums, townhouses, row houses and tenements.
- **Board Care:** This category includes long-term care facilities, halfway houses and assisted care housing facilities.
- **Hotels & Motels:** This occupancy group includes commercial hotels, motels or inns.
- **1 & 2 Family Homes:** This category includes one or two family homes, manufactured homes, cabins and mobile homes.
- **Dormitories:** This category includes dormitory type residences and sorority or fraternity houses. It also includes barracks; nurses' quarters, military barracks, monastery/convent, dormitories, bunk houses and workers' barracks.
- **Unclassified:** Any type of residential occupancy that is not defined above.

### LEADING CAUSES (Top Five)

The top three leading causes of residential structures (excluding unknown which was a reported 11% of all residential structure fires) in 2015 were heating, cooking and exposure fires.

#### 2015 Residential Structure Fire Causes

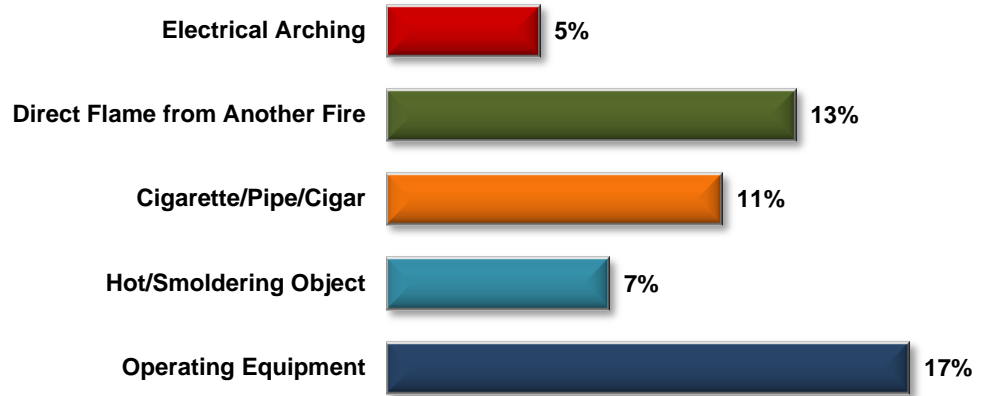


# Residential Structure Fires

## HEAT SOURCE

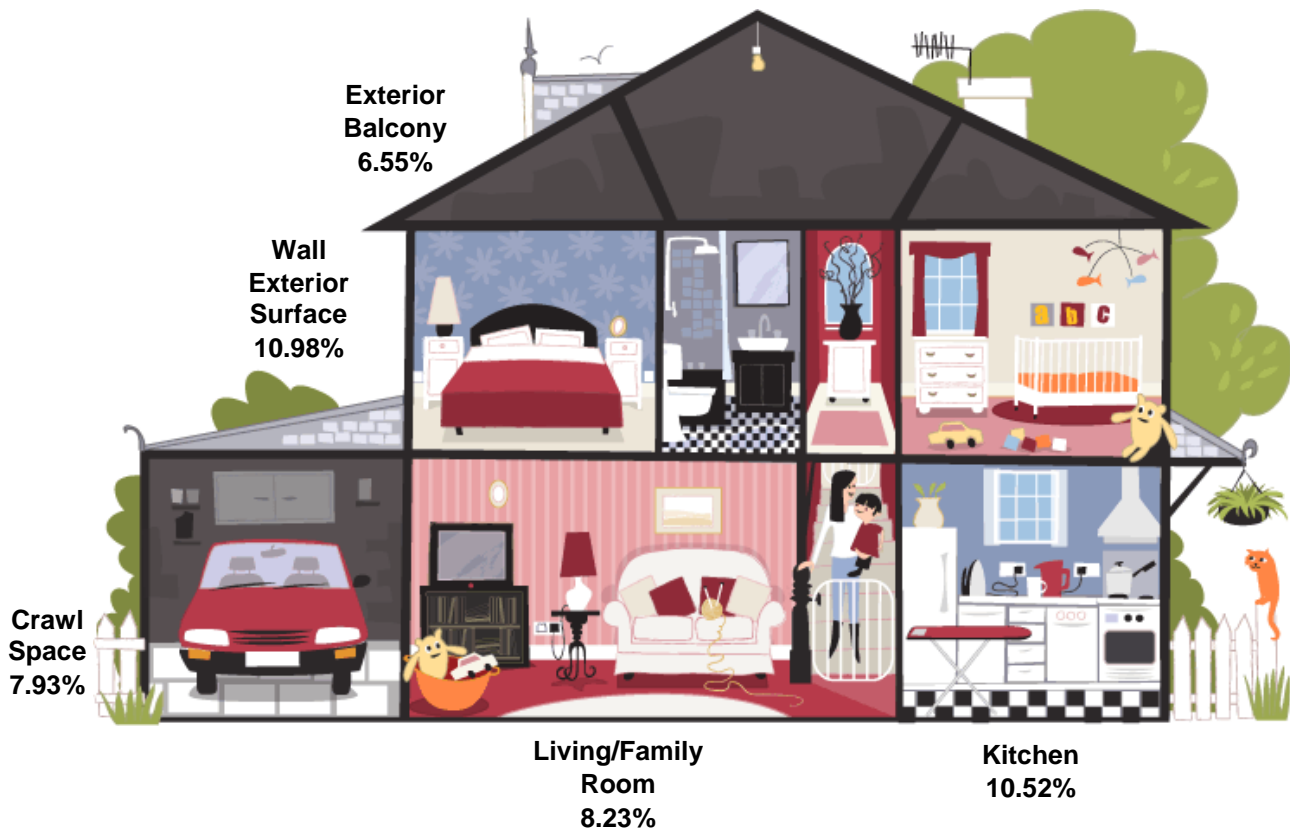
The two most common heat sources in residential structure fires resulted from human acts of intention, error or carelessness. Operating equipment was the number one heat source with direct flame from an exposure of another fire being the second (this excludes undetermined/under investigation which accounted for 47% reported heat sources).

This graph shows the top five heat source's in residential structure fires.



## AREA OF FIRE ORIGIN

The “area of fire origin” element describes the room or area where the fire originated in the structure. The three most common areas of fires in residential structures for 2015 were the exterior wall surface, kitchen, and living/family room areas.

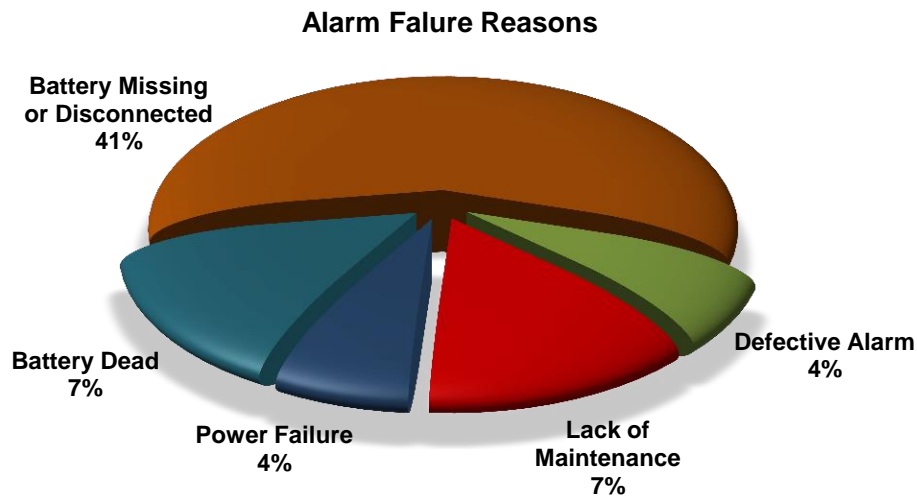


## Residential Structure Fires

### SMOKE ALARM PRESENCE AND PERFORMANCE

Smoke alarm performance shows the existence and location of smoke detection equipment relative to the area of fire origin and whether the detection equipment worked. The purpose is to provide information on the usage, reliability and effectiveness of automatic detection equipment. Even though modern codes require all new dwellings to have smoke alarms, the performance relies on proper maintenance by the occupant/owner.

In 2015, 25% of all reported residential structure (non-confined) fires the alarm operated, 25% there was no alarm present, 4% the alarm failed, 7% the fire was too small to activate the alarm, and 34% was reported as undetermined.



### SMOKE ALARM PERFORMANCE IN RESIDENTIAL NON-CONFINED FIRES

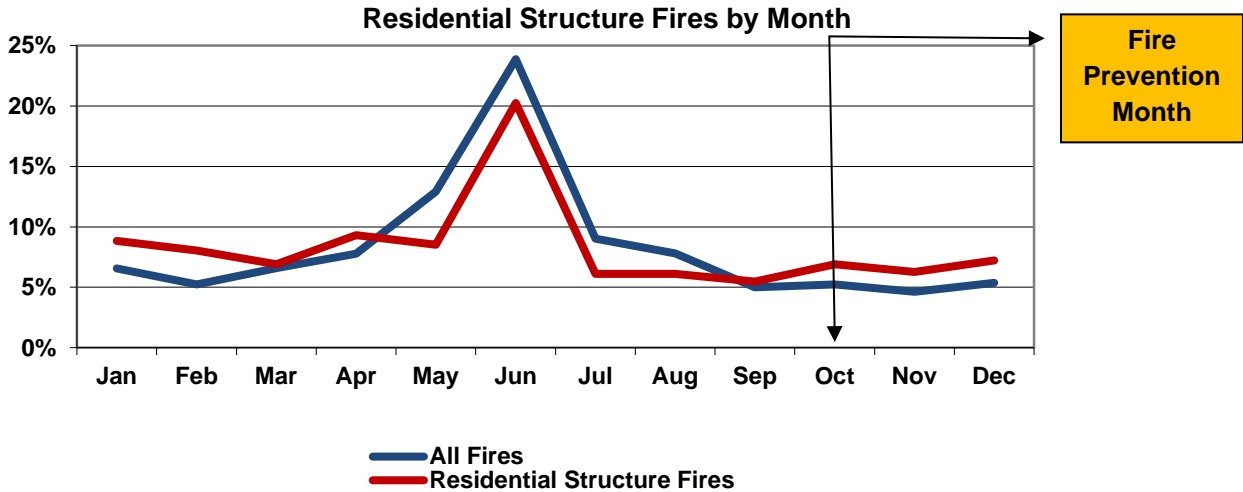
Smoke Alarm Operation	Count	%	Civ. Deaths	Civ. Injuries	FS Injuries
Failed to Operate	27	11%	3	4	1
Operated	149	60%	2	11	8
Fire too Small to Operate	45	18%	0	2	4
Undetermined	29	12%	2	2	3
<b>Total</b>	<b>250</b>	<b>100%</b>	<b>7</b>	<b>19</b>	<b>16</b>

Smoke Alarm Failure Reason	Count	%	Civ. Deaths	Civ. Injuries	FS Injuries
Battery Discharged/Dead	2	7%	0	0	0
Battery Missing/Disconnected	8	30%	1	0	0
Other/Defective	4	15%	0	0	1
Lack of Maintenance	1	4%	0	1	0
Power Failure	1	4%	0	0	0
Undetermined	11	41%	2	3	0
<b>Total</b>	<b>27</b>	<b>100%</b>	<b>3</b>	<b>4</b>	<b>1</b>

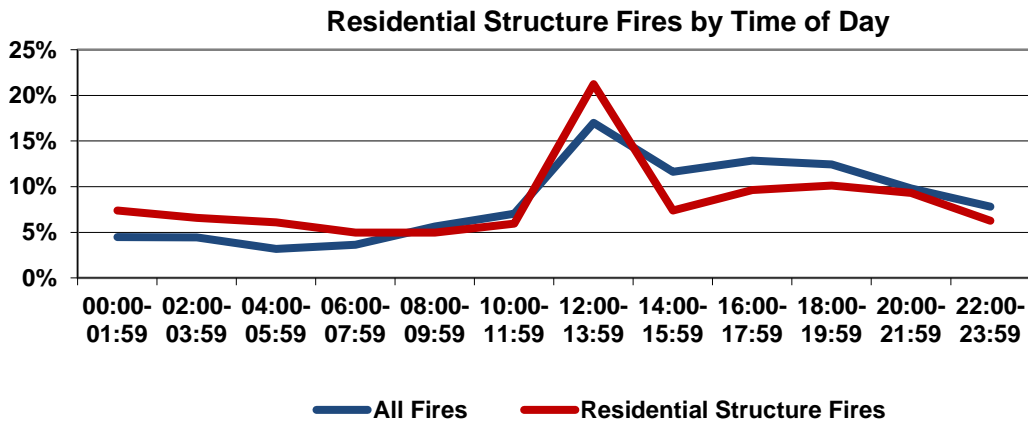
## Residential Structure Fires

### WHEN RESIDENTIAL FIRES OCCUR

Fires in residential structures were more common in the summer than in the winter in 2015. This is not a surprise due to the multiple devastating wildland fires that occurred in June, 2015 exposing over 281 structures and vehicles. With that, it's an easy guess to report that there were more residential structure fires in the month of June (20%) with the month of September (5%) being the least amount of fires.



When analyzed by time of day, as illustrated below, the highest number of residential structure fires occurred in the early afternoon, similar to the trend for fires generally. The residential structure fire time trend is related to the third leading cause of residential structure fires in Alaska in 2015 – exposure fires – where 80% of all residential structure exposure fires occurred around 1:30 pm. The second leading cause of residential structure fires - cooking fires which most can often be prevented by teaching people to be more vigilant while cooking. Also, the public should be aware that cooking fires can be extinguished by a pot or pan lid or by dousing with baking soda. The wearing of loose-fitted clothing can also be dangerous around cooking areas.



## Intentionally Set Fires

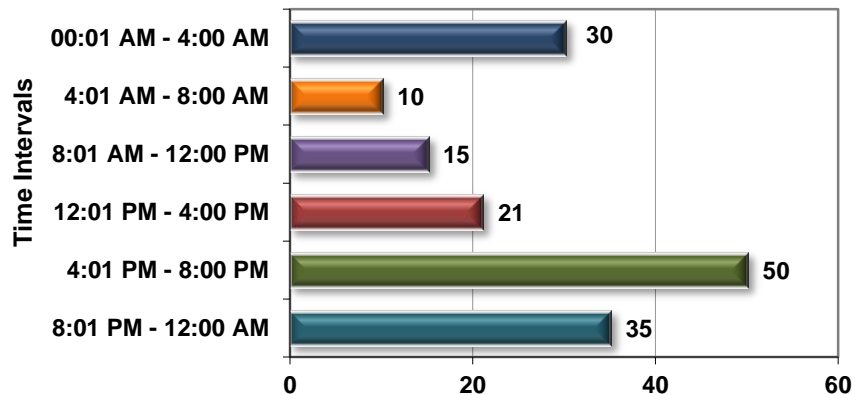
One hundred and sixty-one (161) or 5% of all reported fires were reported as intentionally set. Alaska seen a small decrease in intentionally set fires from (percentage of intentionally set fires) previous years; however, it is known that intentionally set fires continue to be severely under reported.

It has been reported there was an decrease in property loss due to intentionally set fires from 2014 to 2015 (59%).

In accordance with NFIRS, intentionally set fires are those fires set deliberately by the misuse of a heat source or the intentional ignition of property. Intentionally set fires result in hundreds of thousands dollars in our state each year. The total dollar loss in intentionally set fires was \$1,943,330.

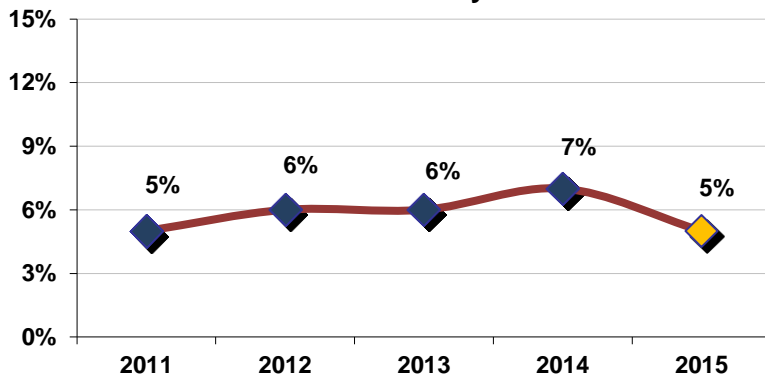
Almost 43% of all reported intentionally set fires occurred in structure fires. Natural vegetation fires came in second at 27%. Intentionally set fires in structures caused a property loss of \$1,943,330 in 2015. The main areas of origin for intentionally set fires in a structure were in the bathroom, bedroom, and the exterior wall surface areas. Cigarette lighters and matches were the heat source in over 32% of the incidents.

2015 Alarm Time for Intentional Fires



This chart shows the time for all reported intentional fires.

2011 - 2015 Intentionally Set Fires



This chart indicates the percentage of fires that have been reported as intentional for the indicated year.

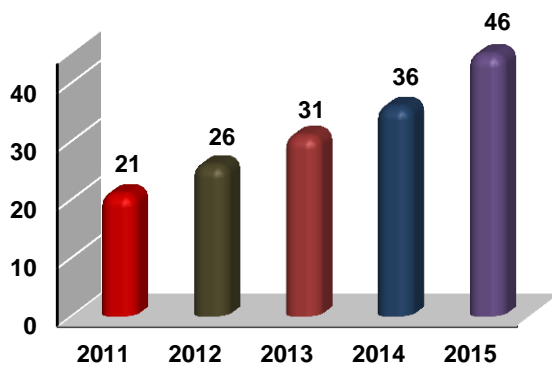
## Juveniles Involved With Fire

Juvenile firesetting is best defined as any unsanctioned use of or involvement with ignition materials with the intent to produce a flame or fire.

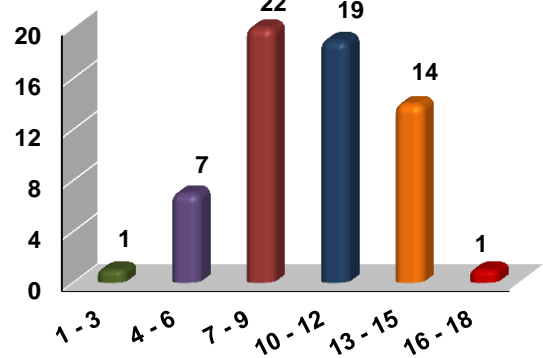
In 2015, children playing with matches, lighters and other heat sources caused 46 reported fires and estimated dollar loss of \$1,334,315.

The fires set by children in 2015 included: 21 structure fires, 21 natural vegetation fires (consuming a total of approximately 16 acres of land), 3 mobile vehicle fires 1 outside rubbish fire.

Juvenile Set Fires by Year

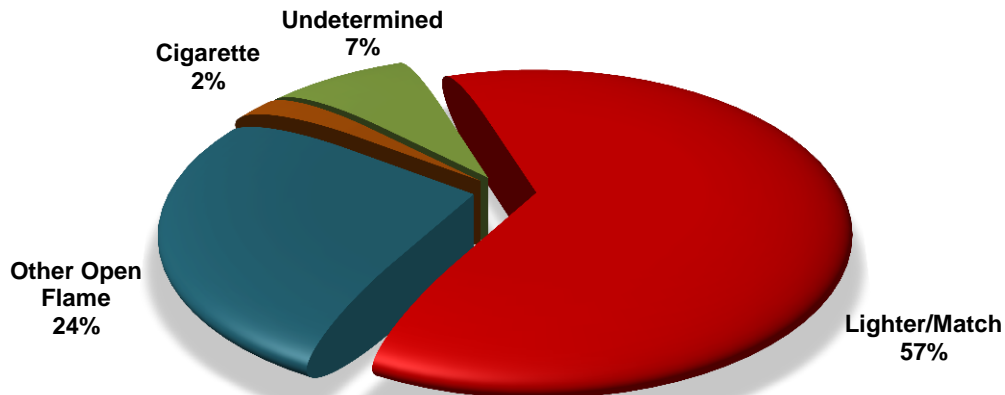


Juveniles Involved in Fires by Age 2015



### Heat Source

In 2015, fifty-seven (57%) of juvenile-set fires were started by lighters or matches. Twenty-four (24%) were started with some type of other open flame, two (2%) were started with a cigarette, and the remaining seven (7%) was reported as undetermined. This demonstrates a need for education to both parents and children on the danger of matches, lighters and other open flame devices.



## Fire Injuries and Fatalities

In primitive times, people discovered fire and learned the benefits it could provide. Unfortunately, they also learned the troubles it could cause when it was not controlled. In many ways, we have advanced in our use of fire since those distant times; however, we still continue to be troubled by the threat it can present. In 2015, Alaskans suffered 96 injuries and 17 deaths directly caused by fire.

### 2015 FIREFIGHTER INJURIES

There were 34 reported firefighter injuries associated with the suppression of fires in 2015. As in previous years, the majority of the injured were men, while the age of the injured ranged from 20 to 59.

Firefighters were injured more frequently at structure fires than any other fire incident type.

Of the 34 firefighter injuries where the primary symptom was known, 40% reported strains or sprains as their primary symptom, 13% reported thermal burn, 10% reported electrical shock, 10% reported with the remaining incidents were miscellaneous or multiple symptoms.

Cause of Injury	
Contact with Object	7%
Exposure to Hazard	13%
Jump	7%
None Reported/Undetermined	13%
Other	4%
Overexertion/Strain	33%
Slip/Trip	13%
Struck or Assaulted	10%

Types of Fires	
Motor Mobile Property	0%
Outside Fires	3%
Structure Fires	97%

Severity of Injury	
First Aid Only	7%
Moderate (Lost Time)	17%
Report Only	67%
Treated by Physician	10%
Life Threatening	0%

FF Activity at Time of Injury	
Extinguishing	21%
Handling Charged Hose	6%
Moving Tools or Equipment	6%
Using Hand Extinguishers	7%
Operating Engine or Pumper	4%
Incident Investigation/During	3%
Overhaul	18%
Lifting/Carrying Patient	6%
Operating Portable Pump	3%
Other Activity	6%
Picking Up Tools	5%
Salvage	4%
Shutting Off Gas Lines/Utilities	6%
Suppression Support, Other	5%

Time of Day	
00:00 – 06:00	43%
06:01 – 12:00	19%
12:01 – 18:00	19%
18:01 – 23:59	19%

Age of FF	
18 – 29	17%
30 – 39	23%
40 – 49	43%
50 – 59	17%
60+	0%



## Fire Injuries and Fatalities

### 2015 CIVILIAN FIRE INJURIES

There were 62 civilians injured by fire in Alaska in 2015. The majority, 68%, were the result of structure fires. Almost 22% of these injuries took place on the weekend.

The top causes of fires that resulted in injuries continue to be:

- Misuse of Material or Product
- Intentional
- Operational Deficiency

#### The Top Categories

Type of Fire	
Structure Fire	86%
Fire, Other	0%
Motor Mobile Property (Vehicle)	12%
Outside Fire	2%

Cause of Injury	
Struck by Object	1%
Exposed to Fire Products	72%
Exposed to Haz. Materials	5%
Fell, Slipped, or Tripped	4%
Multiple Causes	4%
Overexertion or Strain	0%
None Reported	14%

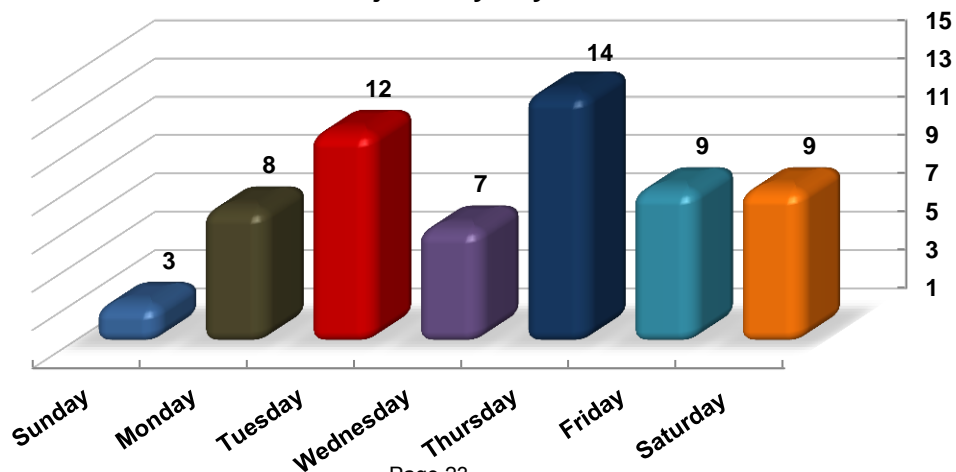
Severity of Injury	
Minor	46%
Moderate	36%
Severe	13%
Life Threatening	5%
Not Reported	0%

Age of Injured Civilian	
0 – 17	13%
18 - 29	18%
30 – 39	8%
40 – 49	14%
50 – 59	17%
60+	30%

Human Factors	
Asleep	13%
Impaired by Alcohol/Drugs	6%
Unconscious	16%
Physically Restrained	12%
Physically or Mentally Disabled	3%
None Reported	50%

Time of Day	
00:00 – 06:00	35%
06:01 – 12:00	20%
12:01 – 18:00	14%
18:01 – 23:59	31%

Civilian Injuries by Day of Week

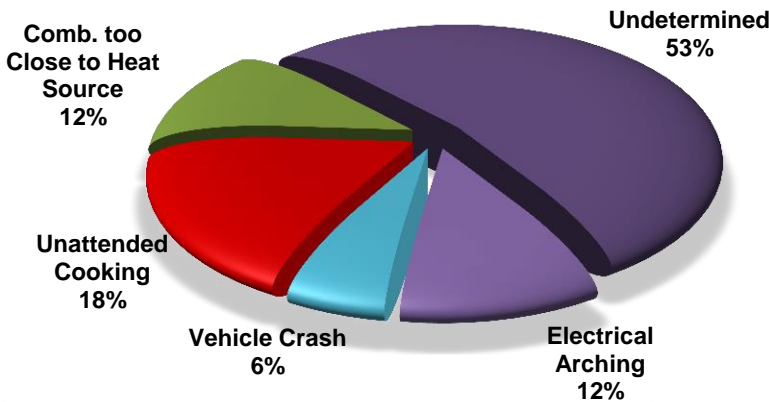


## Fire Injuries and Fatalities

### 2015 CIVILIAN FATALITIES

Even though Alaska experienced 96 fire injuries and \$55 million in estimated losses, the real tragedy was the loss of 17 Alaskans from fire in 2015. Alaska experienced 5.5 fire deaths for each 1,000 fires during this year. In terms of Alaska's increasing population, the 2015 fire death rate was 2.3 deaths for each one hundred thousand Alaskans.

#### Causes of Fire Fatalities

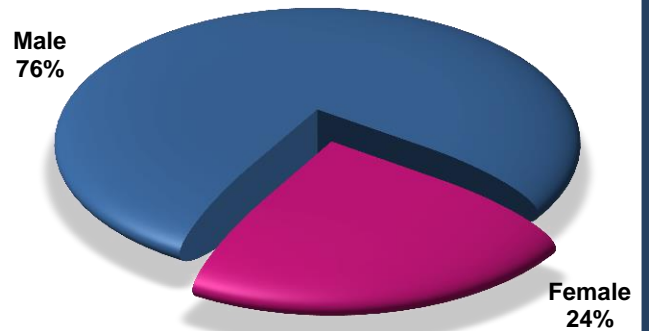


In 12% percent of Alaska's 2015 civilian fatalities, alcohol and/or drugs were contributing factor to the fire.

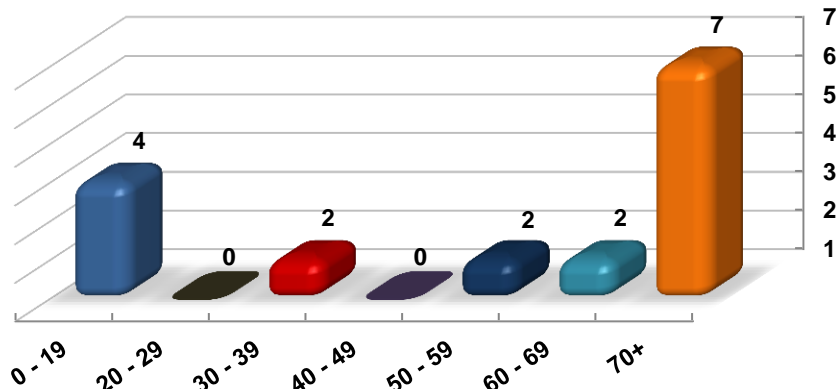
In 2015, 76% percent of all civilian fire fatalities were male.

From 2011 – 2015, 68% of all civilian fire fatalities were male.

#### Fire Fatalities by Gender



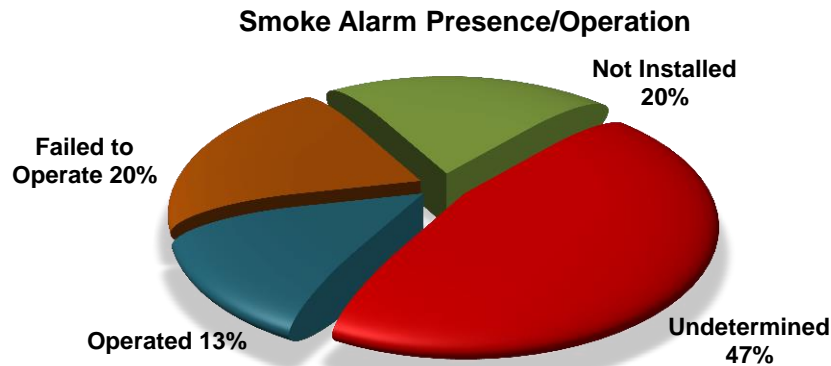
#### Number of 2015 Fire Fatalities by Age Group



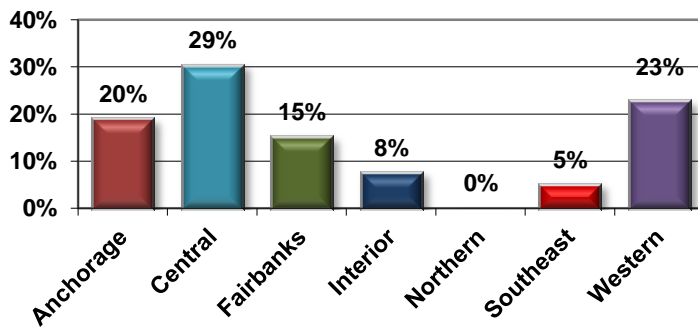
## Fire Injuries and Fatalities

Ninety-four or 94%, of civilian fire fatalities occurred in residential structures with the remaining six or 6% occurred in a vehicle. Of the 1 fire deaths that occurred in residential structures, there were 11 single residential homes, 3 residential trailers and 1 multi-dwelling (20 residential units).

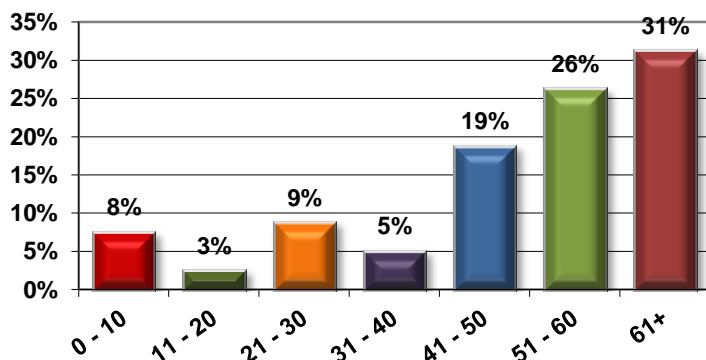
A continuing problem is the lack of working smoke alarms in homes and other residential property. The 16 civilian residential fire deaths occurred in 15 separate fire incidents. Of these 15 residential structures 6 had a smoke alarm present and only 2 operated. In the remaining 9 residential homes, the smoke alarm presence was not installed, did not operate, or was reported as undetermined.



### FIVE-YEAR (2011 – 2015) TRENDS (By Count)



**By Region**  
 Central Region had the most fatalities over the rest of the state, however, per 500 capita; Western Alaska has a higher rate.



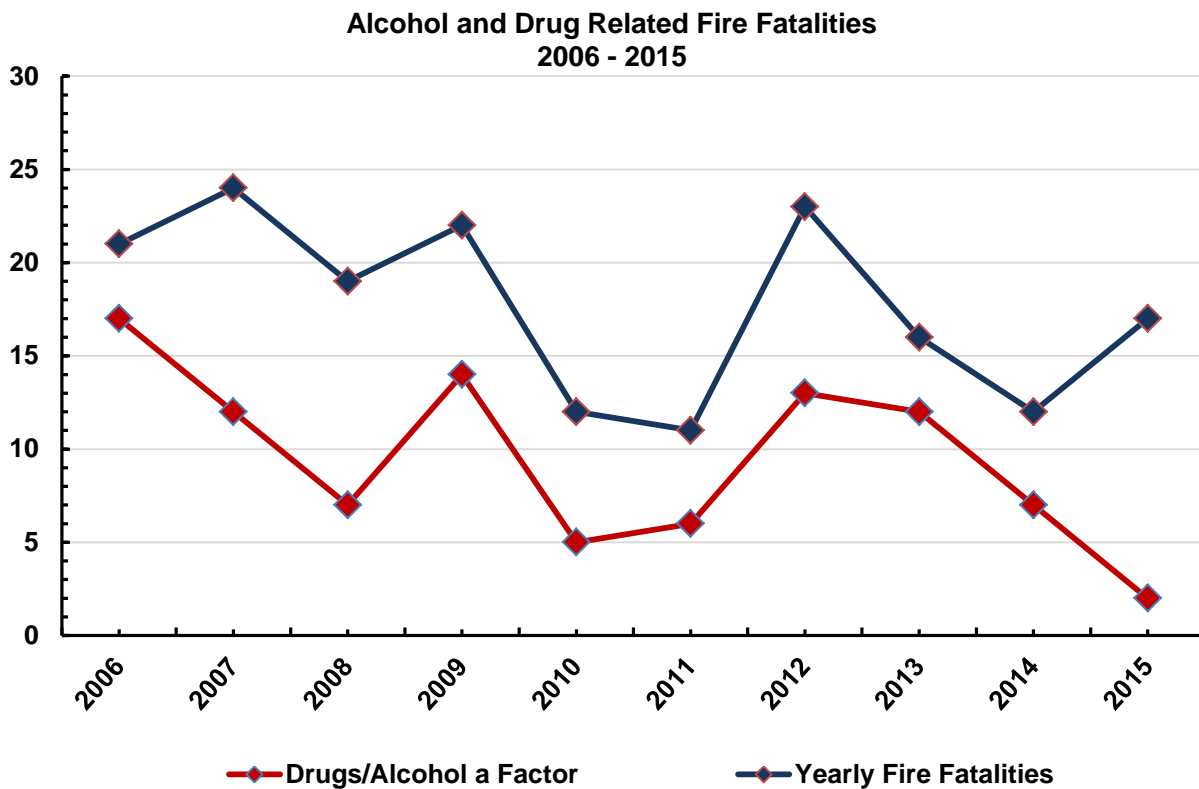
**By Age**  
 Alaska's highest death age group is 60 years old and older.

## Alcohol and Drug Related Fire Fatalities

Alcohol is a major human contributing factor to fire fatalities in Alaska. Studies have estimated that over half of alcohol-related deaths are the result of injuries sustained from not only fires but also motor vehicle crashes, falls, drowning's, homicides and suicides.

Alcohol intoxication may increase the risk of initiating a fire by impairing one's judgment and coordination. An intoxicated individual who is smoking may also succumb to the depressant effects of alcohol, fall asleep and drop a lit cigarette on upholstery or clothing. Intoxication also acutely diminishes one's ability to detect a fire. Under the sedative effects of alcohol, an alcohol-impaired person may fail to notice the smell of smoke, or fail to hear a smoke alarm. Escape from a fire can be hampered by the loss of motor coordination and mental clarity caused by alcohol, even when warning signs are heeded. Furthermore, burns are more physiologically damaging in the presence of alcohol.

In the last decade, Alaska has seen 209 fire fatalities. Out of these unfortunate victims, 53% percent were reported as being under the influence alcohol and/or drugs. Statistically, men have been found to consistently outnumber women among fire casualties and do so with even greater disparity for fire victims under the influence of alcohol. This holds true to Alaskan's as 71% percent of these victims were male.



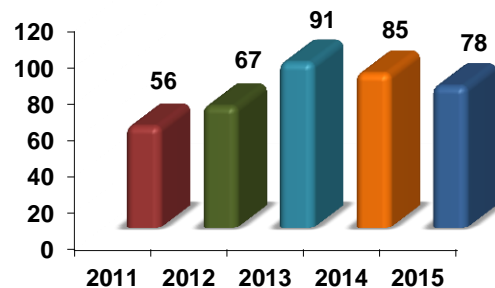
Fire fatalities and injuries can be prevented if a concerted effort is made to identify and modify high-risk drinking patterns. It also may be possible to minimize fire risk by increasing the awareness of those who drink and those who are surrounded by regular drinkers.

## Burn Injuries

All burn injuries that have been treated by a health care professional must be reported to the Division of Fire and Life Safety within three working days. In 2015, health care professionals reported 78 burn injuries. This is a decrease of 9% from the 85 incidents that was reported in 2014.

The data is being collected to identify problems that need to be addressed by public education or development of appropriate intervention strategies. To develop and implement effective prevention programs, we need to know what type of activity injures whom, if the injuries are seasonal and how old the victims are. We appreciate the efforts of the many dedicated doctors, nurses, health aides, paramedics, and clerical personnel who report the burn injuries promptly and completely. They make the program work.

**Burn Injuries Reported 2011 - 2015**



Burn injuries are among some of the most catastrophic injuries that a person can suffer. Depending on the type and severity of the burn, there can be internal injuries, skin damage, infections, cardiac arrest, and other complications. Aside from emergency care, many burn victims require continuous medical treatment, counseling, and rehabilitation.

### Types of Burn Injuries Reported in 2015

**Thermal Burns** – This is the result of direct contact with heat sources such as hot liquids, fire, steam, hot metals, or any other hot objects. An estimated 46% of all burn incidents were fire/flame related, 41% were related to scalding, while another 4% came from contact with a hot object.

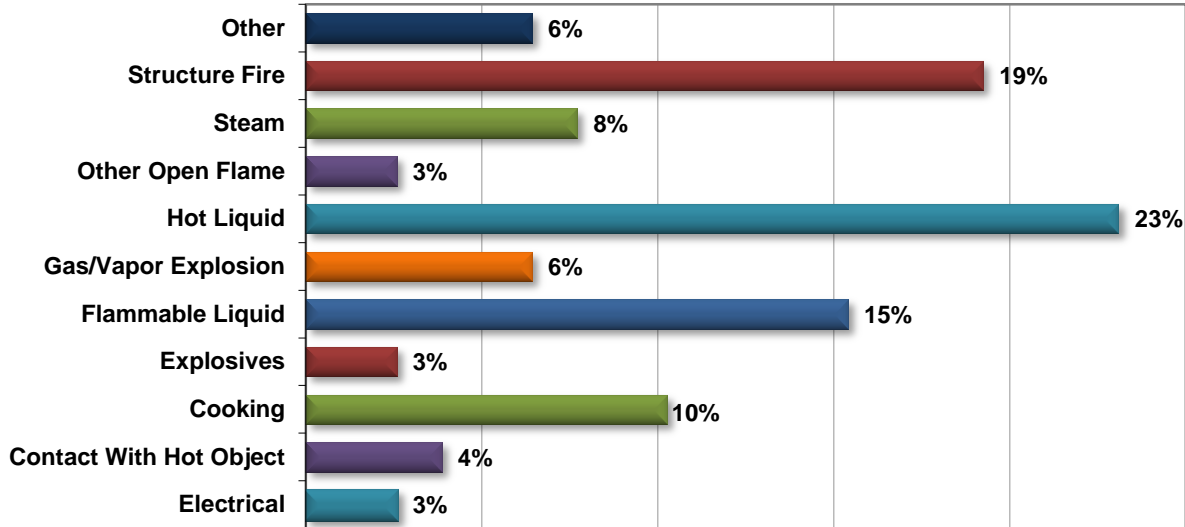
**Electrical Burns** – Electrical burns occur when electric currents pass through the body. A significant part of the damage is done under the surface of the skin. Some of the factors that affects the extent of the injury include the duration of exposure, type of current, intensity of the current, amount of moisture on the body, and the area of the body where the current passed through. Some consequences include cardiac problems, muscle spasms, oral burns, severe skin burns, fractures, and seizures/coma. It can also result to neurological deficits and even death. An estimated 3% was reported with an electrical burn.

**Chemical Burns** – This type represented 6% of burn injury cases. Chemical burns occur when alkaloids, acids, and other types of chemicals come into contact with human skin. There are caustic chemicals that are used in certain industries such as agriculture, construction, medical, and automotive industries. Most cases occur in the workplace. But it is important to note that household cleaners that contain sulfuric acid, phenol, lye, and sodium hypochlorite are also dangerous.

**Other Types of Burns** – Friction, cold, and radiation (from the sun, tanning beds, or radiation therapy) can cause burn injuries. In 2015, there were no burn injuries reported with this type of burn injury.

## Burn Injuries

### Causes of 2015 Reported Burn Injuries:

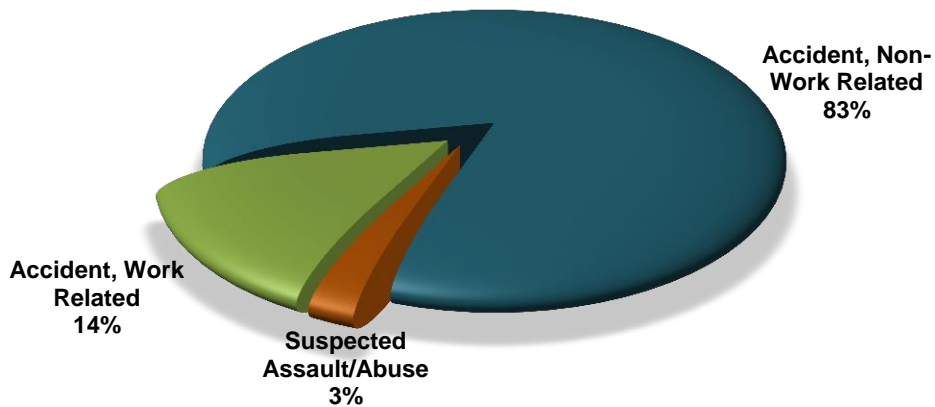


### Top Two Causes of Reported Burn Injuries by Age Group in 2015:

Age Group	# 1 Injury Cause	#2 Injury Cause
0 - 4	Hot Liquid	Structure Fire
5 - 9	Hot Liquid	Contact With Hot Object
10 - 19	Flammable Liquids	Hot Liquid
20 - 29	Flammable Liquids	Hot Liquid
30 - 39	Hot Liquid	Cooking
40 - 49	Flammable Liquids	Steam
50 - 59	Cooking	Structure Fire
60 - 69	Hot Liquids	Outside Fire
70+	Structure Fire	Steam

### Circumstances of Injury:

The circumstances surrounding flame burns are the highest risk to all other burn injuries. The circumstances surrounding flame burns are most commonly non-work related accidents (83%), followed by work related injuries (14%).



# Burn Injuries

## Levels of Burn Severity

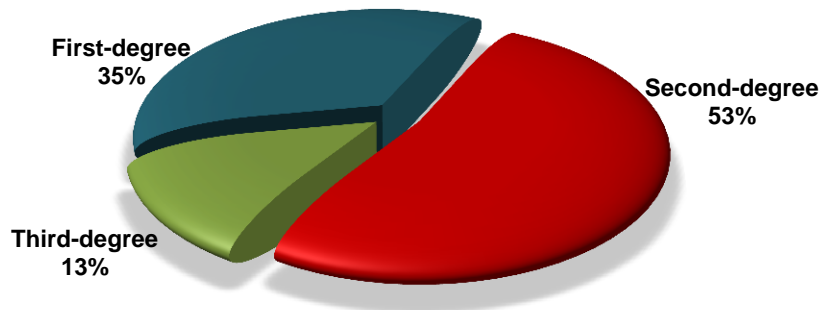
Burns are classified by level of severity.

**First Degree** – Most common are first-degree or superficial burns which are the least serious and cause tenderness that is similar to sunburn.

**Second Degree** – Second-degree burns, known as partial thickness burns, are deeper than first-degree burns and are characterized by blotchy white, pink or red patches which cause blisters.

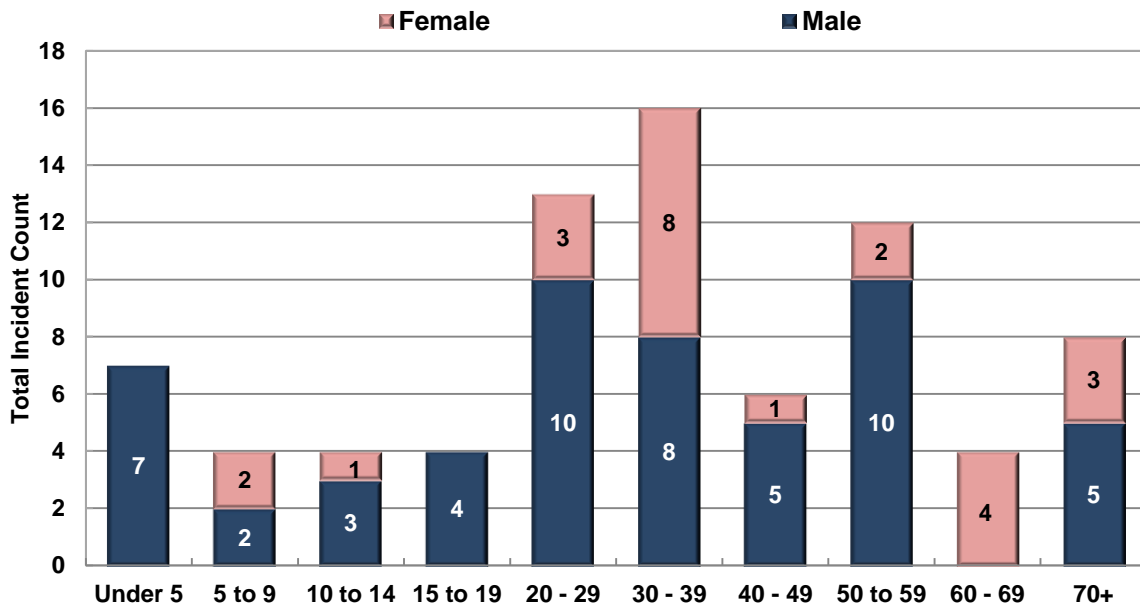
**Third Degree** – The most severe type of burn, a third-degree, known as a full thickness burn, penetrates through all layers of the skin and may injure tissue beneath skin, so the skin is not capable of healing itself. The skin is leathery and dry and has a white, brown, charcoal-gray or deep red appearance.

Levels of Burn Severity Reported in 2015



## Age Group and Gender of Burn Injuries

Alaska is unique in the age of group burn injuries. While most states have more reported burn injuries in vulnerable age groups (0 –9 and over 70) Alaska’s highest burn injury age group in 2015 was 30 – 39 years old.

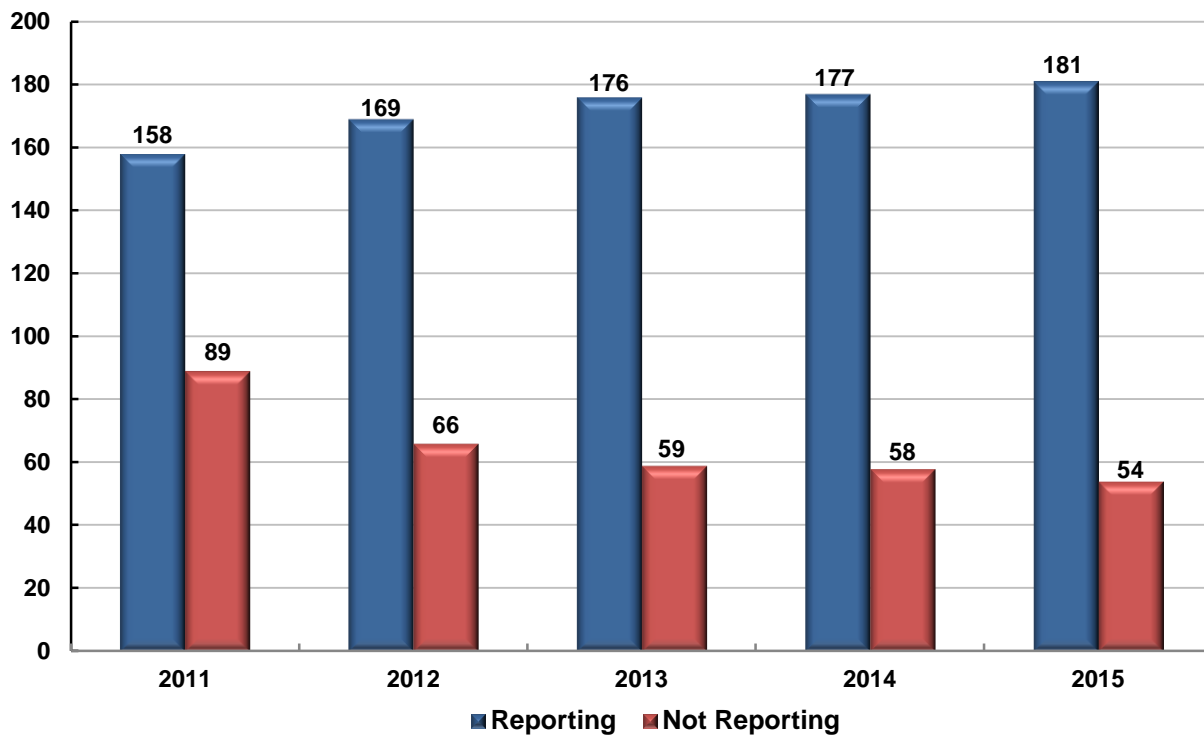


## ANFIRS Participants

The following pages are a listing of fire department fire responses submitted to the Alaska National Fire Incident Reporting System (ANFIRS) during 2015. Totals are inclusive of all reports received by May 1, 2015. Department name will **NOT** appear on the listing if they failed to submit ANFIRS for the full year of 2015.

This annual report is a compilation of the information that the State of Alaska, Department of Public Safety, Division of Fire and Life Safety received from reporting departments and/or agencies. Without the input from each of the individual fire departments, this report would not be possible and we appreciate all of their support. If any fire department is not reporting and/or has questions regarding ANFIRS, please call (907) 269-5625.

**ANFIRS Fire Department Participation 2011 – 2015 Comparison**





## 2015 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Akhiok VFD	1	1	0	0	0	0	0	0
Akutan VFD	0	0	0	0	0	0	0	0
**Aleknagik Fire & EMS Dept.	1	1	0	0	0	0	0	2,000
Anchor Point Fire & Emerg. Medical Service Area	24	11	13	0	0	0	0	249,000
Anchorage FD	782	433	349	6	27	0	23	12,063,240
Angoon VFD	5	5	0	0	0	0	0	0
Aniak VFD	1	0	1	0	0	0	0	0
Anton Anderson Mem Tun. FD	0	0	0	0	0	0	0	0
Atka VFD	0	0	0	0	0	0	0	0
Bear Creek Fire/EMS Dept.	7	5	2	0	0	0	0	32,750
Bethel FD	40	33	7	0	2	0	0	2,587,050
Brevig Mission FD	4	2	2	0	0	0	0	1,510
Bristol Bay Borough Emerg. Svs.	10	5	5	0	0	0	0	538,500
Butte VFD	31	10	21	0	0	0	0	678,000
Cantwell VFD	0	0	0	0	0	0	0	0
Capital City Fire/Rescue	75	42	33	0	3	0	1	1,595,750
Caswell Lakes FSA #135	8	6	2	0	0	0	0	142,500
Central Emergency Services	65	32	33	1	1	0	0	1,184,850
Central Mat-Su FD	139	46	93	0	2	0	1	1,233,420
Chena Goldstream Fire & Res.	37	13	24	0	0	0	0	525,439
Chenega Bay FD	0	0	0	0	0	0	0	0
Chickaloon Fire Service, Inc.	0	0	0	0	0	0	0	0
**Chitina VFD	0	0	0	0	0	0	0	0
Chugiak Vol. Fire & Rescue	83	24	59	0	1	0	0	534,300
City of Anderson FD	2	1	1	0	0	0	0	300
City of Fairbanks FD	112	48	64	0	3	0	0	698,430
City of False Pass VFD	1	0	1	0	0	0	0	200
City of Fort Yukon VFD	4	2	2	0	0	0	0	98,500

\*\* Indicates the Department did NOT report for the full year of 2015.

\*\*\* Indicates report(s) was completed by the Division of Fire and Life Safety after a serious incident.

## 2015 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	49	1	3	16	0	11	7	111
4	22,581	410	2,046	5,336	34	2,166	25	33,384
0	0	0	0	0	0	0	0	5
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	83	0	17	18	3	2	10	140
1	2	16	54	16	1	41	0	171
0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	10
0	75	5	17	59	0	10	23	220
0	0	0	0	0	0	0	0	0
2	3,069	66	174	332	15	279	0	4,012
0	11	0	1	3	0	0	17	40
1	2,028	50	93	280	0	155	19	2,691
4	651	61	175	511	3	186	71	1,801
1	284	19	16	52	1	8	52	470
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
3	574	21	65	96	4	53	9	908
0	0	0	0	0	0	0	0	2
3	3,226	67	144	244	11	325	83	4,215
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	4

## 2015 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
City of Kasaan VFD	0	0	0	0	0	0	0	0
City of Kodiak FD	28	16	12	0	0	0	0	136,700
City of Kotzebue FD	20	13	7	1	4	0	0	2,422,400
City of Palmer FD	21	14	7	0	0	0	0	175,900
Coffman Cove VFD	1	0	1	0	0	0	0	0
ConocoPhillips Alaska Alpine	1	0	1	0	0	0	0	500,000
ConocoPhillips Alaska Kuparuk	3	0	3	0	0	0	0	70,000
Cooper Landing VFD	4	0	4	0	0	0	0	0
Cordova VFD	9	7	2	0	0	0	0	22,800
Craig VFD	8	8	0	0	0	0	0	2,654,000
Delta Junction VFD	1	1	0	0	0	0	0	5,000
Dillingham VFD & Rescue	10	5	5	0	0	0	0	129,900
Dillingham Area, Other	1	1	0	0	1	0	0	20,000
Division of Forestry	258	0	258	0	0	0	0	10,000
Eagle VFD	1	0	1	0	0	0	0	0
Edna Bay VFD	0	0	0	0	0	0	0	0
Egegik VFD	0	0	0	0	0	0	0	0
Elfin Cove FD	0	0	0	0	0	0	0	0
Elim VFD	1	0	1	0	0	0	0	0
Emmonak VFD	3	2	1	0	0	0	0	251,900
Ester VFD	18	5	13	1	0	0	0	404,600
ExxonMobile (Non-FD)	6	3	3	0	0	0	0	0
Fairbanks Airport Police & Fire	2	0	2	0	2	0	0	153,825
***Fairbanks Area, Other	4	2	2	1	0	0	0	279,900
Fire Protection Area No. 1	25	9	16	0	0	0	0	9,000
Gakona VFD	1	1	0	0	0	0	0	125,000
Galena VFD	2	2	0	0	0	0	0	1,250,000
Girdwood FD	27	6	21	0	0	0	0	219,195

\*\* Indicates the Department did NOT report for the full year of 2015.

\*\*\* Indicates report(s) was completed by the Division of Fire and Life Safety after a serious incident.

## 2015 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	0	0	0	0	0	0	0	0
0	116	9	15	24	5	63	2	262
0	6	3	74	2	0	50	0	155
2	95	17	33	77	3	49	206	503
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
1	1	5	0	1	0	1	1	13
0	4	0	0	2	0	0	0	10
0	7	0	1	1	0	17	0	35
0	2	0	0	0	0	3	1	14
0	0	0	0	0	0	0	12	13
1	1	3	0	5	0	9	0	29
0	0	0	0	0	0	0	0	1
0	0	2	29	31	0	3	111	434
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	3
1	29	1	8	10	0	12	82	161
0	0	0	0	0	0	0	0	6
0	69	42	1	3	0	0	3	120
0	0	0	0	0	0	0	0	4
1	0	0	3	0	0	13	1	43
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2
1	190	7	148	63	2	23	18	479

## 2015 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Glennrich Fire Rescue	13	8	5	0	0	0	0	468,300
Goodnews Bay VFD	0	0	0	0	0	0	0	0
Greater Prudhoe Bay FD	12	7	5	0	0	0	0	234,700
Gulkana VFD	0	0	0	0	0	0	0	0
Gustavus VFD	1	0	1	0	0	0	0	0
***Haines Other Area	2	2	0	0	0	0	0	295,000
Haines VFD	6	5	1	0	0	0	0	110,000
Hilcorp FD	0	0	0	0	0	0	0	0
Hollis VFD	0	0	0	0	0	0	0	0
Homer VFD	20	7	13	0	0	0	0	806,000
Hoonah VFD	0	0	0	0	0	0	0	0
Hope/Sunrise VFD	0	0	0	0	0	0	0	0
Houston FD	13	5	8	0	0	0	1	176,000
Huslia VFD	2	2	0	0	0	0	0	0
**Igiugig VFD	0	0	0	0	0	0	0	0
Iliamana VFD	4	1	3	0	0	0	0	33,500
Kachemak Emergency Services	12	7	5	0	0	0	0	304,600
**Kake VFD	2	0	2	0	0	0	0	0
Kenai FD	30	8	22	0	0	0	0	278,480
***Kenai Peninsula Other Area	0	0	0	0	0	0	0	0
Kennicott/McCarthy VFD	0	0	0	0	0	0	0	0
Kenny Lake VFD	2	1	1	1	0	0	0	26,000
Ketchikan FD	37	24	13	1	1	0	0	196,052
Ketchikan Int'l Airport FD	0	0	0	0	0	0	0	0
King Cove Fire & Rescue	1	1	0	0	0	0	0	200
Klawock VFD	3	1	2	0	0	0	0	300
Klehini Valley VFD	1	0	1	0	0	0	0	0
***Kodiak Borough Other Area	10	5	5	0	0	0	0	256,500

\*\* Indicates the Department did NOT report for the full year of 2015.

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## 2015 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Inc.
0	9	1	0	7	0	0	3	33
0	0	0	0	0	0	0	0	0
1	27	7	0	6	0	1	1	55
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2
0	1	0	0	9	0	6	1	23
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	530	13	13	37	0	12	3	628
0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2
1	139	4	27	19	0	4	77	284
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4
0	2	5	4	22	1	5	19	70
0	0	0	0	0	0	0	0	2
0	963	30	148	61	8	73	46	1,359
0	0	0	4	0	0	0	0	4
0	0	0	1	0	0	0	0	1
0	0	0	0	0	0	0	0	2
3	1,420	30	90	224	2	135	6	1,947
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	1	4
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	10

## 2015 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
**Kokhanok Village Council	0	0	0	0	0	0	0	0
**Koyuk VFD	0	0	0	0	0	0	0	0
Kwethluk VFD	3	1	2	0	0	0	0	100
***Lake & Peninsula Other Area	1	1	0	0	0	0	0	50,200
Louise, Susitna, Tyone VFD	0	0	0	0	0	0	0	0
Lowell Point VFD	1	1	0	0	0	0	0	500
Lower Kalskag VFD	0	0	0	0	0	0	0	0
***Lower Kuskokwim Other Area	10	8	2	1	1	0	0	451,000
***Lower Yukon Other Area	8	6	2	1	2	0	0	77,700
Manley Hot Springs VFD	1	1	0	0	0	0	0	100
***Mat-Su Borough Other Area	4	3	1	1	0	0	0	458,100
McGrath VFD	1	0	1	0	0	0	0	1,000
McKinley VFD	2	2	0	0	0	0	0	30,500
Minto VFD	0	0	0	0	0	0	0	0
Moose Pass Vol. Fire Company	1	0	1	0	0	0	0	0
Nanwalek VFD	0	0	0	0	0	0	0	0
Naukati VFD	1	1	0	0	0	0	0	1,600
Nel/Mel VFD	1	0	1	0	0	0	0	550
Nelson Lagoon Fire & Rescue	1	0	1	0	0	0	0	0
Nenana Fire/EMS Dept.	9	4	5	0	0	0	1	102,900
Nikiski FD	24	14	10	0	0	0	0	548,150
Ninilchik Emergency Services	9	5	4	0	1	0	0	436,500
Nome VFD	16	9	7	0	0	0	0	43,000
Nome Area, Other	1	1	0	0	0	0	0	115,000
North Pole FD	15	3	12	0	0	0	0	3,000
North Slope Borough FD	26	10	16	0	0	0	0	5,000
North Star VFD	103	41	62	0	0	0	0	553,060
North Tongass VFD	10	5	5	0	0	0	0	10,500

\*\* Indicates the Department did NOT report for the full year of 2015.

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## 2015 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	10
0	0	0	0	0	0	0	0	8
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	1
0	2	1	0	3	0	0	4	12
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
0	0	2	0	0	0	0	0	12
1	570	13	185	121	1	24	20	959
0	1	2	0	0	0	0	0	12
1	62	5	2	2	0	8	0	96
0	0	0	0	0	0	0	0	1
0	852	11	8	50	0	45	27	1,008
1	93	15	21	9	0	43	0	208
0	696	62	54	178	1	73	54	1,221
0	123	3	2	8	1	12	5	164



## 2015 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Northway VFD	3	1	2	0	0	0	0	80,000
Northwest Arctic Borough FD	8	3	5	0	3	0	0	220,200
Nunapitchuk VFD	0	0	0	0	0	0	0	0
Old Harbor VFD	0	0	0	0	0	0	0	0
Palmer Fire and Rescue	57	25	32	0	1	0	0	1,142,350
Panguingue VFD	1	1	0	0	0	0	0	0
Pedro Bay VFD	0	0	0	0	0	0	0	0
Pelican Vol. Fire & EMS	4	2	2	0	0	0	0	202,000
Petersburg VFD	6	5	1	0	0	0	0	29,000
Pilot Point VFD	6	0	6	0	0	0	0	0
**Pilot Station Dept.	2	2	0	0	0	0	0	95,000
Port Alexander VFD	0	0	0	0	0	0	0	0
Port Alsworth VFD	0	0	0	0	0	0	0	0
Port Graham VFD	0	0	0	0	0	0	0	0
**Port Heiden VFD	0	0	0	0	0	0	0	0
Port Lions VFD	1	1	0	1	0	0	0	125,000
***Prince of Wales Other Area	2	2	0	0	0	0	0	620,000
Red Dog Mine Emerg. Services	0	0	0	0	0	0	0	0
Rural Deltana VFD	16	10	6	0	0	0	0	817,000
Salcha Fire & Rescue	11	8	3	0	0	0	0	242,250
Sand Point VFD	2	1	1	0	0	0	0	95,000
Seldovia Vol. Fire & Rescue	2	2	0	0	0	0	0	0
Seward FD	6	2	4	0	1	0	0	10,800
Sitka FD	20	10	10	0	0	0	0	128,300
Skagway VFD	11	5	6	0	0	0	0	17,873
Slana VFD	0	0	0	0	0	0	0	0
South Tongass VFD	5	4	1	0	0	0	0	53,000
***Southeast Fbks. Other Area	2	1	1	0	0	0	0	400,505

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## 2015 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	8
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	21	24	79	1	51	61	294
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4
1	7	15	5	5	0	27	0	66
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0
0	6	1	1	6	0	3	0	33
0	0	0	0	1	0	1	0	13
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	2	4
0	220	7	33	41	0	58	13	378
1	17	25	20	13	6	58	1	161
0	134	1	8	5	0	47	0	206
0	0	0	0	0	0	0	0	0
1	107	4	3	5	3	16	12	156
0	0	0	0	0	0	0	0	2

## 2015 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
St. George VFD	0	0	0	0	0	0	0	0
St. Mary's VFD	0	0	0	0	0	0	0	0
***St. Michael, Community of	1	1	0	0	0	0	0	115,000
St. Paul Dept. of Public Safety	1	0	1	0	0	0	0	1,500
Steese Area VFD	49	17	32	0	1	0	2	1,045,125
Stony River VFD	1	1	0	0	1	0	1	18,000
Strelna VFD	1	0	1	0	0	0	0	0
Sutton VFD	9	5	4	0	0	0	0	400,000
SVT Barabara Heights FD	7	3	4	0	0	0	0	1,500,000
Talkeetna VFD	16	3	13	0	0	0	0	4,750
**Tanana VFD	1	0	1	0	0	0	0	0
Ted Steven's Arpt. Police/Fire	10	6	4	0	0	0	0	5,202
Tenakee Springs VFD	1	1	0	0	0	0	0	2,500
Tetlin VFD	0	0	0	0	0	0	0	0
Thorne Bay VFD	2	0	2	0	0	0	0	0
Togiak VFD	2	1	1	0	0	0	0	25,000
Tok VFD	10	5	5	0	0	0	0	161,000
Tolsona FD	0	0	0	0	0	0	0	0
**Tri-Valley VFD	0	0	0	0	0	0	0	0
Unalaska Fire/EMS	4	4	0	0	0	0	0	253,000
University FD	62	29	33	0	0	0	0	526,927
Valdez FD	15	11	4	0	1	0	0	68,925
***Valdez/Cordova Other Area	1	0	1	0	0	0	0	2,050
Venetie VFD	4	3	1	0	0	0	0	94,465
West Lakes FD	86	37	49	0	3	0	0	2,203,800
Whale Pass VFD	0	0	0	0	0	0	0	0
**White Mountain VFD	0	0	0	0	0	0	0	0
Whittier VFD	1	0	1	0	0	0	0	0

\*\* Indicates the Department did NOT report for the full year of 2015.

\*\*\* Indicates report(s) was completed by the Division of Fire and Life Safety after a serious incident.

## 2015 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
0	362	36	23	73	16	16	55	630
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
0	22	2	3	23	0	2	5	66
0	0	0	0	0	0	0	2	9
0	44	4	5	7	1	9	50	136
0	0	0	0	0	0	0	0	1
0	394	90	31	3	0	15	0	543
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	2
0	0	0	0	0	1	0	0	11
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	1
0	218	1	0	12	0	8	0	243
5	825	23	60	85	1	199	148	1,408
1	278	21	53	15	2	42	1	428
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	4
1	189	35	45	139	1	31	58	585
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1

## 2015 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Willow VFD	278	217	61	0	0	0	1	6,629,849
Womens Bay VFD	7	5	2	0	0	0	0	36,200
Wrangell VFD	16	13	3	0	0	0	0	40,350
***Wrangell Other Area	1	1	0	0	0	0	0	40,000
***Yukon/Koyukuk Other Area	4	3	1	0	0	0	0	114,050
<b>Grand Total:</b>								
	<b>3,061</b>	<b>1,466</b>	<b>1,595</b>	<b>17</b>	<b>62</b>	<b>0</b>	<b>31</b>	<b>54,645,922</b>

\*\* Indicates the Department did NOT report for the full year of 2015.

\*\*\* Indicates report(s) was completed by the Division of Fire and Life Safety after a serious incident.

## 2015 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	48	7	14	41	1	7	44	440
0	10	0	2	3	0	4	2	28
0	2	0	1	3	1	11	0	34
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	4
<b>Grand Total:</b>								
<b>44</b>	<b>41,526</b>	<b>1,302</b>	<b>4,009</b>	<b>8,497</b>	<b>130</b>	<b>4,526</b>	<b>1,474</b>	<b>64,569</b>

## Per Capita, Rates and Comparisons

Fire service leaders are often asked to show the effectiveness of the services that they perform. This is especially true in today's era of decreased budgets. All too often managers and leaders count "things" such as number of responses or number of hours spent doing key functions.

While counting the number of responses made, the number of inspections conducted, the number of inspection violations cited, or the numbers of hours spent on training are all important "things" to count, they really do not show effectiveness.

One method of showing effectiveness is to track fire rates over time. Are fires, deaths, or injuries going up or down? When doing so, one must be careful to use a large enough data set so as not to be impacted by an unusually high or low years' worth of data.

The fire problem within Alaska varies from area to area. This often is a result of climate, poverty, education, demographics, and other factors. Perhaps the most useful way to assess fires across the State is to determine the relative risk of having a fire. Relative risk compares the per capita rate for a particular fire department to the overall per capita rate for the area. This figure helps us compare values among groups of different size.

**NOTE:** The fire numbers exclude the fires reported from State of Alaska, Department of Natural Resources, Division of Forestry and exposure incidents.

The 2015 estimated population has been taken from State of Alaska, Department of Commerce, Community, and Economic Development, Community and Regional Affairs website.

