2016

Fire in Alaska

Department of Public Safety
Division of Fire and Life Safety

Alaska State Fire Marshal

Fire In Alaska - 2016

David Tyler
State Fire Marshal

Department of Public Safety
Division of Fire and Life Safety

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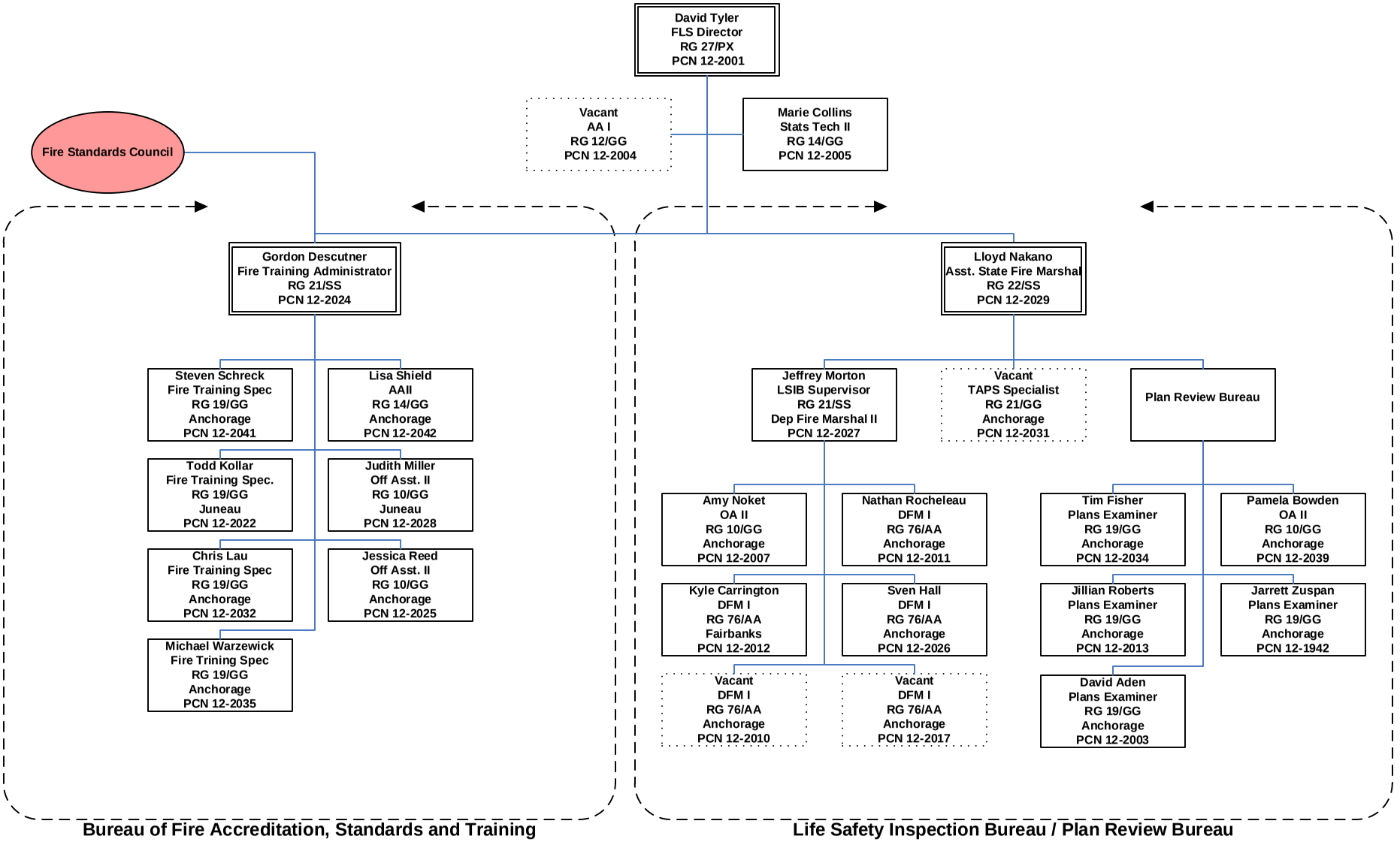
Department of Public Safety
DIVISION OF FIRE AND LIFE SAFETY
July 24, 2017



With this letter I am presenting the 2016 Fire in Alaska report.

The information from this report is compiled from data that you provide throughout the year. We sincerely appreciate your efforts in accurately completing your NFIRS reports. This year we had 179 departments reporting. This is down from 181 last year.

There were 18 confirmed fire deaths during 2016. This was a 6% increase over 2015. In 67% of the civilian fatalities, alcohol and/or drugs were a contributing factor. The leading causes of fire is cooking and heating. Cooking was at 23% and heating was 22% of the total structure fire causes for 2016.

Firefighter injuries is an area that should be a top priority for us.

There were 35 reported firefighter injuries in 2016. Of the reported firefighter injuries, 27% occurred during suppression efforts up from 22%. Overhaul stayed at 18%. No change from overexertion/strain at 33%. We need to stay vigilant. I would like to work with the AFCA, ASFA and APFFA to see what we can do together to reduce these numbers

Again, I thank everyone for taking the time to submit your reports, and then for reading these statistics. If there are some stats that you would like to see just let me know.

Thank you all! Working together we will 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 Administrator Assistant. 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 two 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. The Bureau currently has three 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 and multi-faceted. Deputy Fire Marshals have 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.

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.

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.

Division of Fire and Life Safety Office

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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.

Bureau of Fire Accreditation, Standards and Training -

In 2016 the Division combined its fire training and fire certification services into a single unit under the Bureau of Fire Accreditation, Standards and Training (BFAST). This unit coordinates statewide fire service training, manages fire service professional qualifications, and provides public fire and life safety education services. The BFAST offices are located in Anchorage and Juneau and are staffed by a Fire Training Administrators, Fire Training Specialists, and Administrative/Office Assistant personnel.

The BFAST offers a wide range of fire training services that support the division's mission to keep communities safe and prevent the loss of life and property from fire and explosion. All of the Bureau offices coordinate training and response preparedness services to firefighters and emergency responders throughout the state and provide fire service training support to Alaska's first responders in the areas of leadership, training coordination, fire prevention programs, fire department accreditation, and firefighter certification.

Each bureau office has an area of operational focus. The Central Fire Training Office governs in-state training program accreditation, administers federal fire grants for Alaska, and provides fire department technical support. The Juneau office oversees the operation of the William Hagevig Regional Fire Training Center and offers a variety of live fire and specialty training. The Fire and Life Safety Education Office offers community outreach to reduce the loss of life and property to fire and promotes fire and life safety issues through education focused on fire prevention. The Office of Rural Fire Protection specializes in fire training in rural/remote communities, coordinates basic firefighter/Rural Fire Chief training seminars, and conducts all Rural Fire Protection Specialist training for the Village Public Safety Officer (VPSO) Academy in Sitka. The Alaska Fire Standards Council (AFSC) administrative office governs fire service professional standards, manages the fire certification examination process, and maintains third party accreditation requirements under the International Fire Service Accreditation Congress (IFSAC) and the National Board on Fire Service Professional Qualifications (ProBoard®).

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.

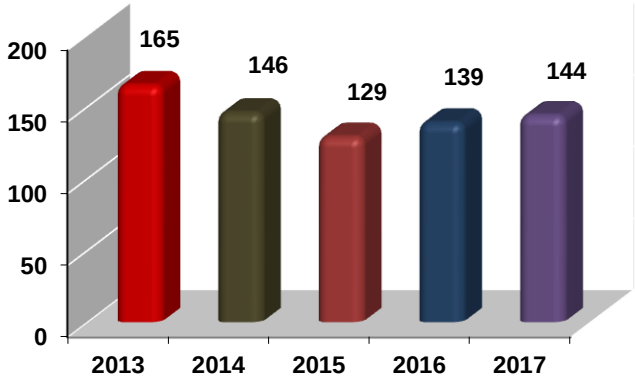
In order to become a newly registered fire department a fire department must submit the following:

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.

2017 totals are inclusive of all fire departments registration received by March 31, 2017.

Total Registered Fire Departments 2013 - 2017

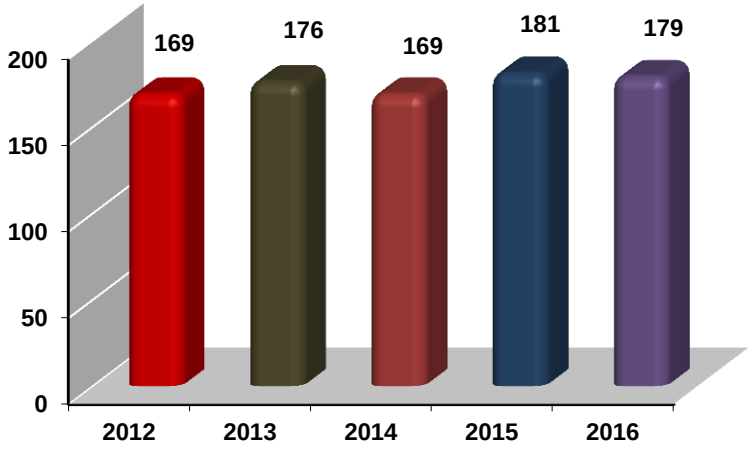


Division Programs

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.

ANFIRS Fire Department Participation 2012 - 2016



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 2016 Fire Picture at a Glance

Fire departments reporting to Alaska National Fire Incident Reporting System (ANFIRS) had 67,397 responses in 2016, with 1,427 of these responses reporting mutual aid assistance.

2016 State Incident Summary

Total Responses	67**,397**
Less Mutual Aid Responses	***-1,427***
Total Fire Department Incidents	**65,970**

2016 State Fire Incident Breakdown:

Structure Fires	730
Confined and/or Contained Inside Structure Fires	425
Motor Vehicle Fires	446
Tree, Brush, or Grass Fires	476
Outside Rubbish or Trash Fires	438
Other Outside Fires	51
Other Fires	0
Total Fires	**2,566**

2016 State Non-Fire Incident Breakdown:

Rescue/EMS	44,718
Explosion – No After Fire	42
Hazardous Conditions	1,271
Service Calls	3,805
Good Intent Calls	8,817
Other Calls	95
False Alarms	4,656
Total Non-Fires	**63,404**

Alaska's 2016 Time Clock. Every. . .

- 1 minute a fire caused $115.83 damage
- 8 minutes a fire department responded to a call
- 12 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
- 20 hours a fire department responded to a vehicle fire
- 11 hours a fire department responded to a residential fire
- 14 hours a fire department responded to a unauthorized burning incident

Alaska 2016 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 decreased from the year of 2015 by 16% to 2566.
- Fires in structures decreased from the year of 2015 by 21% to 1155.
- Grass/Brush/Wildland fires decreased from the year of 2015 by 19% to 476.
- Residential properties accounted for 70% or 805 of all structure fires.

Fire Deaths

- Civilian fire deaths increased from the year of 2015 by 6% to 18.
- In 67% of all civilian fatalities, alcohol and/or drugs was a contributing factor to the fire and/or victim.

Fire Injuries

- Civilian fire injuries increased from the year 2015 by 6% to 66.
- Firefighter fire injuries increased from the year 2015 by 3% to 35.

Property Damage

- Property loss increased from the year 2015 by 11% to $60,881,922.
- Structure fires caused $55,571,731 or 91% of all property damage.
- Residential property losses were $26,411,988 or 48% of all structure property loss.

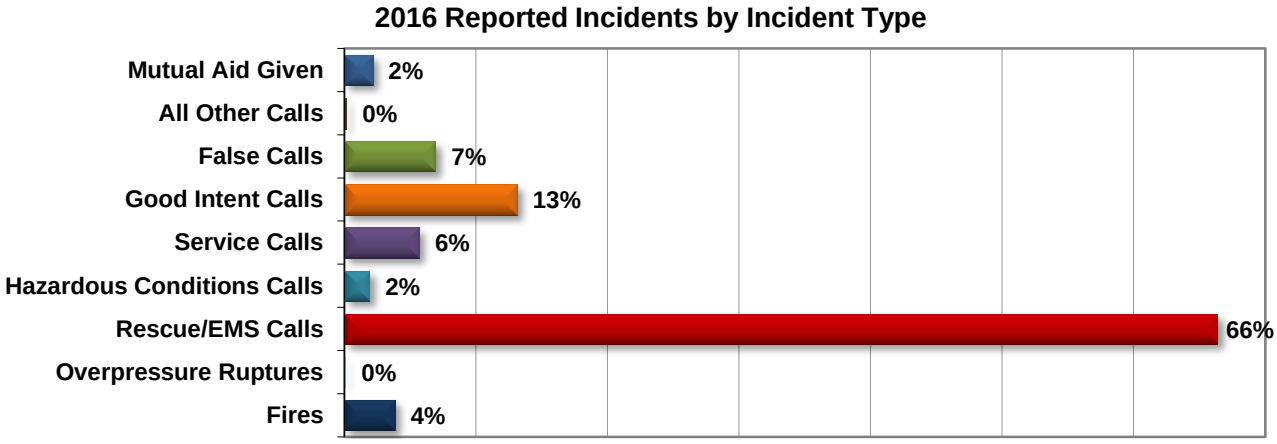
Intentional Fires

- Structure fires that were reported as intentional decreased by 30% from the year of 2016 which to 48.
- Intentionally set non-confined structure fires accounted for 6% of all non-confined reported 2016 structure fires.
- Intentional structure fires accounted for 7% or $4,101,760 of all structure property dollar loss.
- In all 2,566 reported fires, 5% or 137 were reported as intentional.
- Intentional fires resulted in 6 civilian fire injuries.
- Intentional fires resulted in 2 firefighter injury.
- Juvenile firesetters resulted in 25 or 18% of all intentionally set fires.

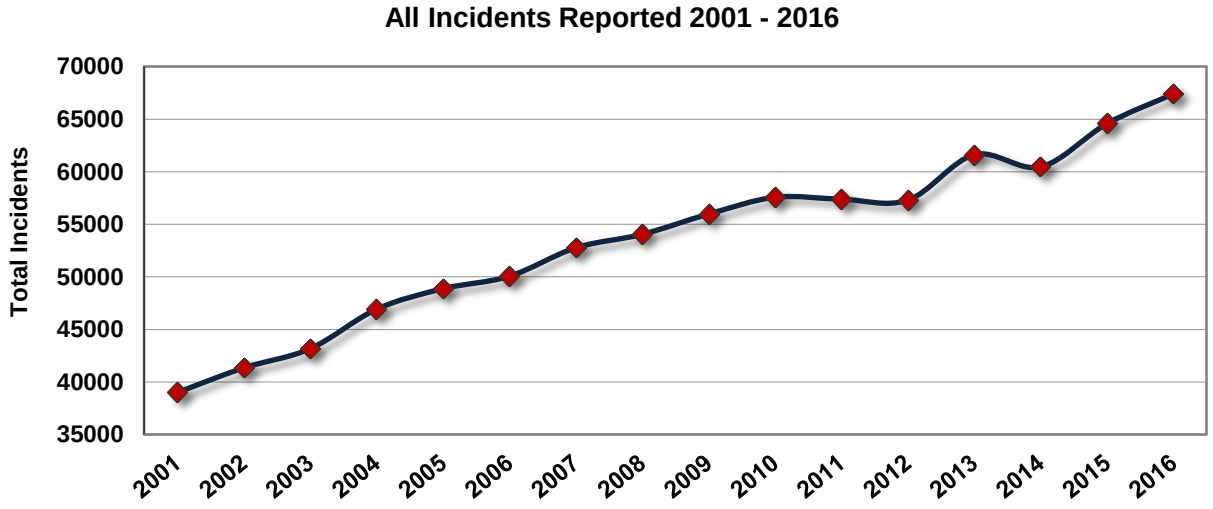
Non-Fire Incidents

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 2016, 179 fire departments/agencies and/or communities in Alaska reported 67,397 responses to ANFIRS. Of these 67,397 responses, 64,831 non-fire calls and/or mutual or automatic aid given were voluntarily reported.



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 162% more incidents in 2016 from 1999.



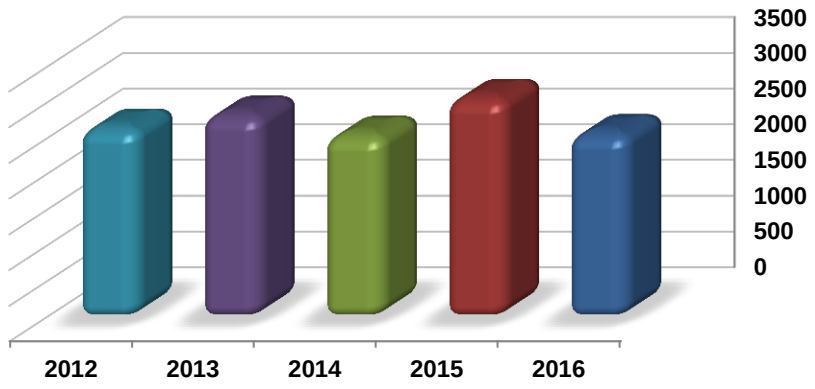
Alaska's 2016 Fires

Alaskan departments reported 2,566 fire incidents to the Alaska Fire Incident Reporting System (ANFIRS) in 2016. The total number of fire incidents decreased 16% from the 3,061 incidents reported in 2015.

The following table indicates a breakdown of fire types into structure fires, motor vehicle fires and other fires for the years 2012 through 2016.

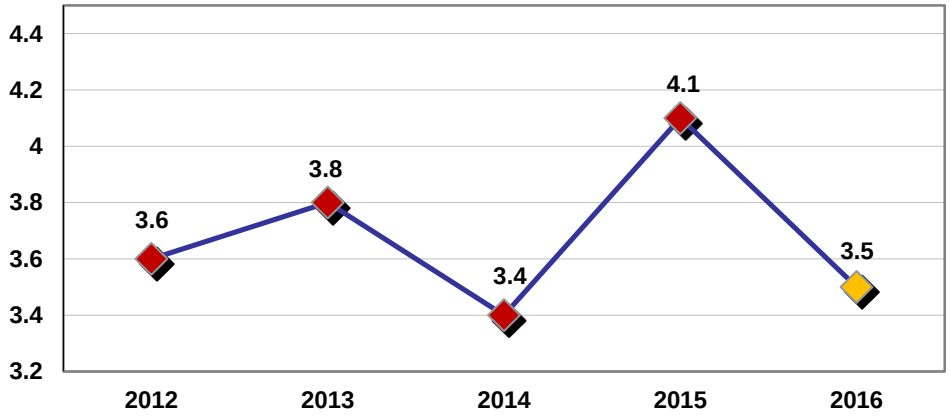
Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires
2016	2,566	1,155	446	945
2015	3,061	1,466	528	1,066
2014	2,543	1,228	486	739
2013	2,823	1,236	487	1,100
2012	2,644	1,237	455	952

Alaska's Reported Fires 2012 - 2016



In 2016 Alaskan fire departments responded to 3.5 fires per 1,000 people. According to the U.S. Census Bureau, Alaska's estimated population in 2016 was 739,828.

Alaska Fires Per 1,000 People 2012 - 2016



Statewide Fire Dollar Loss

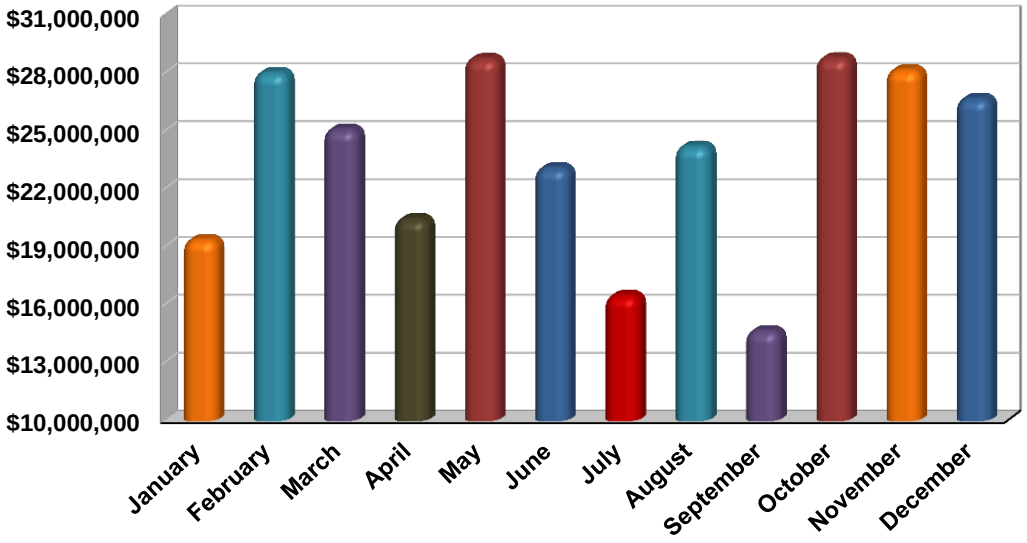
Estimated dollar losses are an indicator of the magnitude of the fire problem and can be used to evaluate progress in fire prevention. This information helps local communities; states and the nation determine the amount that should be spent on fire prevention. Fire loss estimates take into consideration 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	**2013**	**2014**	**2015**	**2016**
Structure Fire	$42,219,474	$60,626,394	$49,610,022	$55,571,731
Motor Vehicle Fire	$4,539,986	$5,209,405	$4,326,738	$5,064,191
Trees, Brush, or Grass Fire	$311,650	$8,732	$64,800	$8,045
Outside Rubbish or Trash Fire	$17,825	$18,613	$56,112	$8,425
Other Fires	$96,855	$321,348	$588,250	$229,530
Total Fire Dollar Loss	**$47,185,790**	**$66,184,492**	**$54,645,922**	**$60,881,922**

The reported value of structural property lost due to fire during 2016 was $55,571,731. The reported structural total dollar losses over $1,500,000 or more were in:

Emmonak – Manufacturing (Multiple Buildings Exposed) - $3,000,000
Kodiak – Manufacturing/Office/Residential (Mixed Use Bldg.) - $2,750,000
Anchorage – Restaurant - $2,500,000
Kotlik – Educational (Multiple Buildings Exposed) - $2,300,000
Fairbanks – Mercantile (Strip Mall) - $2,284,685
Fairbanks – Mercantile (Repair Shop) - $2,000,000
Fairbanks – Assembly - $1,575,000

Five Year Trend Total Dollar Loss by Month
2012 - 2016

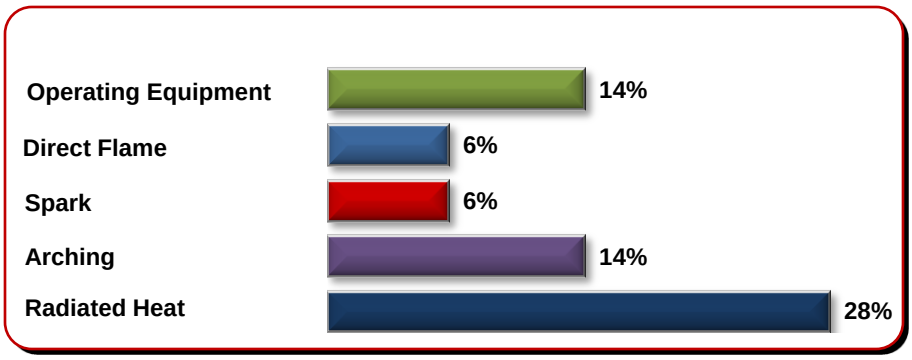


Mobile Property Fires

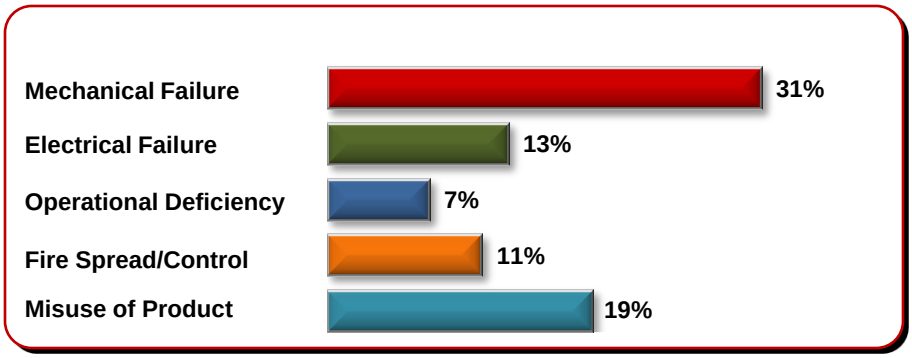
446 motor vehicle fires were reported in 2016. This accounted for 17% of all reported fires, 3 or 5% civilian injuries, 3 or 17% civilian fire fatalities, and an estimated property damage of $5.2 million. The 446 mobile property fires in 2016 is an16% decrease from the 528 motor vehicle fires in 2015.

The majority of these fires involved passenger vehicles. There were 237 fires involving cars, small trucks and vans. Passenger vehicle fires accounted for $1,477,875 or 29% 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 50% 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.

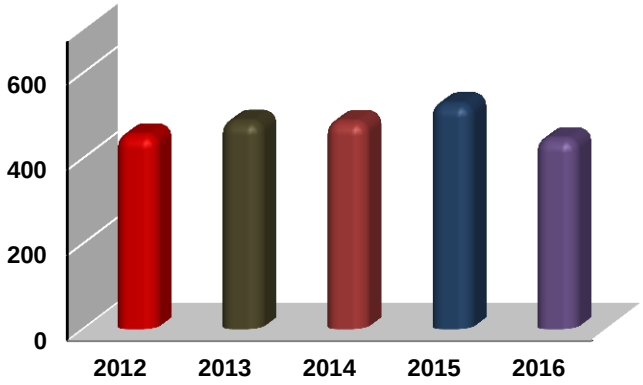


This bar chart indicates the most frequently reported heat source in vehicles excluding undetermined.



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

Total Vehicle Fires 2012 - 2016



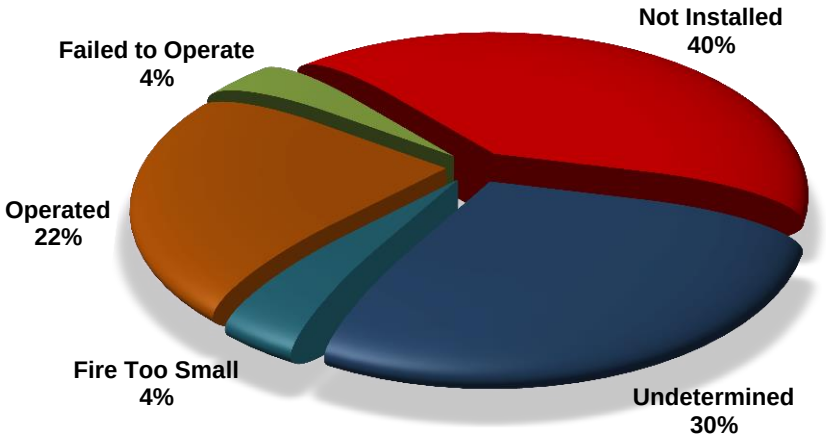
Structure Fires

The 1,155 reported structure fires in 2016 caused 15 civilian deaths, 63 civilian injuries, 30 fire service injuries, and an estimated dollar loss of $56 million. Structure fires accounted for 45% of reported fires and 83% of the civilian fire deaths in 2016.

The number of structure fires decreased by 21% from the 1,466 reported in 2015.

2016 Structure Fires by Property Use	Count	%	Civ. Deaths	Civ. Injuries	FF Injuries	Total Dollar Loss
Educational	11	1%	0	0	0	$2,361,400
Health Care	13	1%	0	2	0	$557,785
Industrial	8	1%	0	0	0	$2,604,500
Manufacturing, Processing	5	1%	0	0	0	$5,776,200
Mercantile	58	5%	0	0	2	$8,336,060
Other or Special	124	10%	0	4	3	$349,445
Public Assembly	31	3%	0	2	1	$4,718,290
Residential	805	70%	15	52	23	$26,411,988
Storage	100	8%	0	3	1	$4,456,063
Total	**1,155**	**100%**	**15**	**63**	**30**	**$55,571,731**

ALARM PERFORMANCE FOR NON-CONFINED STRUCTURE FIRES



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

Property Use Type	Alarm Operated	Did Not Operate	Fire Too Small	None Present	Unknown	Total
Educational	4	1		1	1	**7**
Health Care	3	0	1	1	1	**6**
Industrial	3	0	0	1	3	**7**
Manufacturing, Proc.	0	0	0	2	3	**5**
Mercantile	7	2	2	17	12	**40**
Other or Special	1	0	0	33	22	**56**
Public Assembly	3	0	2	6	5	**16**
Residential	142	25	24	158	147	**496**
Storage	1	0	1	73	22	**97**
Total	**164**	**28**	**30**	**292**	**216**	**760**

Residential Structure Fires

The majority of structure fires in Alaska occur in the home. In 2016, there were 805 **reported residential structure fires (included structures confined and/or contained inside the structure)**. These fires caused an estimated direct loss of over **$26 million**. There were **52 civilian injuries, 15 civilian deaths and 23 firefighter injuries** caused by these fires. The total number of reported residential structure fires decreased by 16% from the 963 reported in 2015.

Occupancy	Count	%	Civ. Deaths	Civ. Injuries	FF Injuries	Total Dollar Loss
Multifamily	162	20%	3	10	3	$3,888,637
Board and Care	3	1%	0	0	0	$500
Hotels & Motels	20	2%	0	0	1	$142,469
1 & 2 Family Homes	595	74%	11	38	16	$21,644,157
Dormitories	14	2%	1	4	0	$302,225
Unclassified	11	1%	0	0	0	$434,000
Total	**805**	**100%**	**15**	**52**	**20**	**$26,411,988**

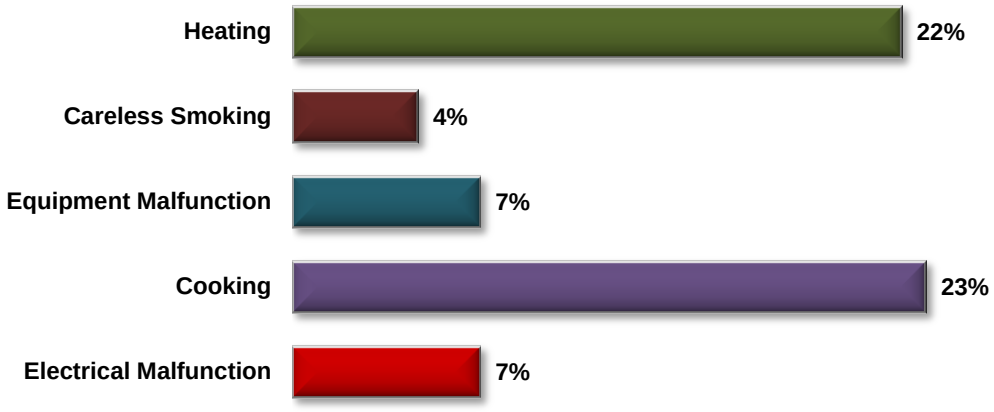
Residential Occupancy Sub-Group

- **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 15% of all residential structure fires) in 2016 were cooking, heating and tied for third, electrical and equipment malfunction.

2016 Residential Structure Fire Causes

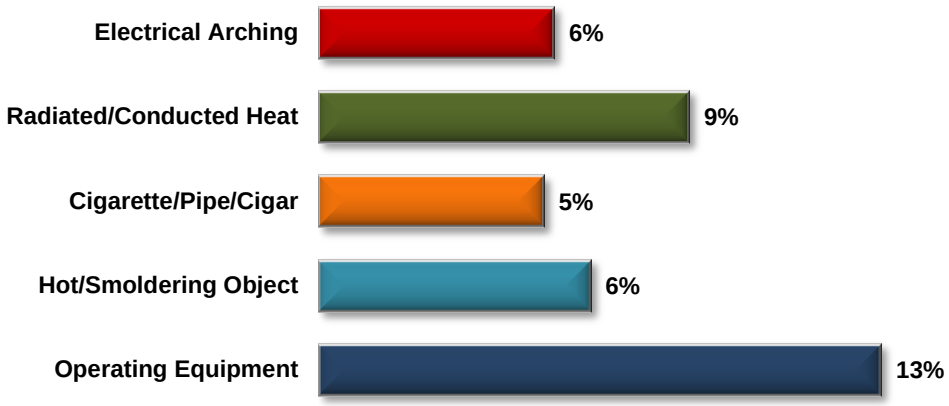


Residential Structure Fires

HEAT SOURCE

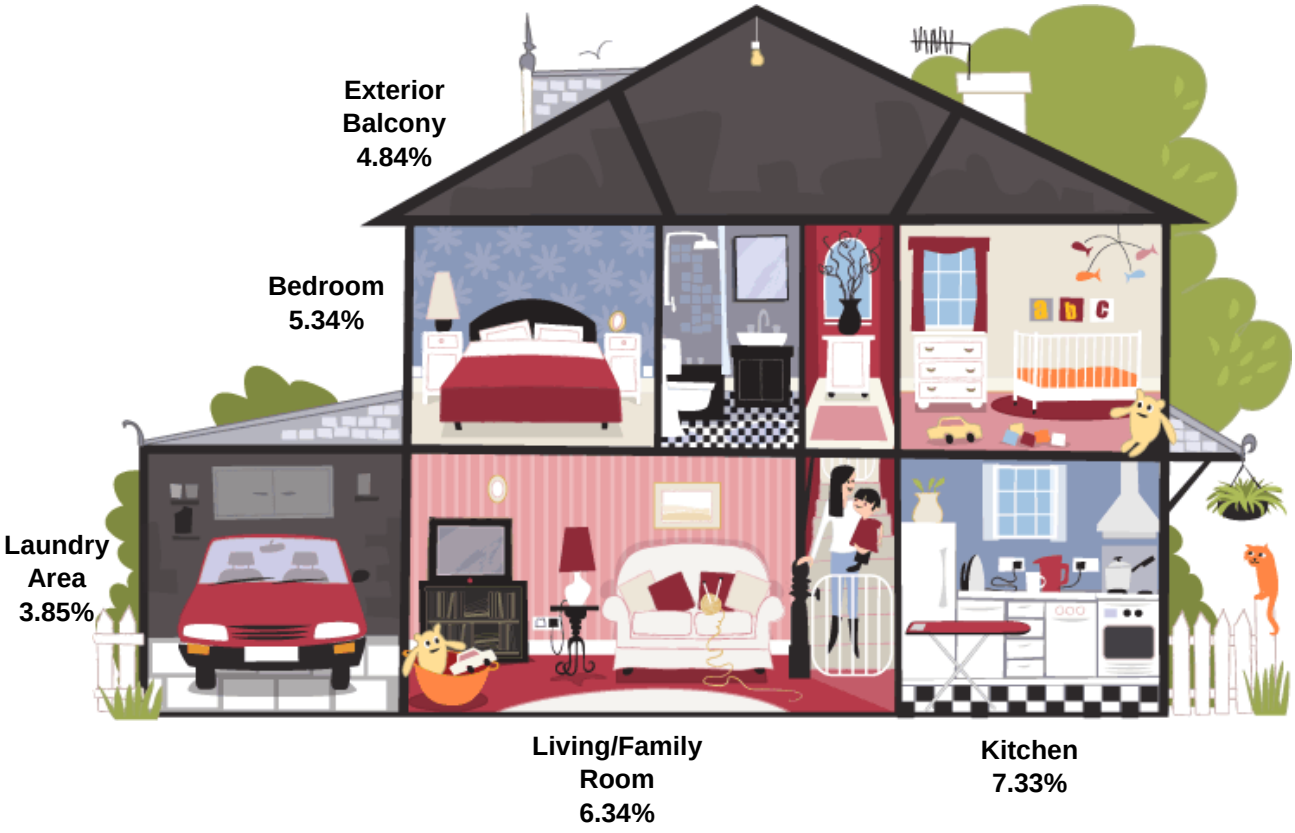
The two most common heat sources in residential structure fires resulted from human acts of intention, error or carelessness. Operating equipment was the number one heat source with radiated/conducted heat from equipment being the second (this excludes undetermined/under investigation which accounted for 48% 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 2016 were the kitchen, living/family room area and the bedroom.



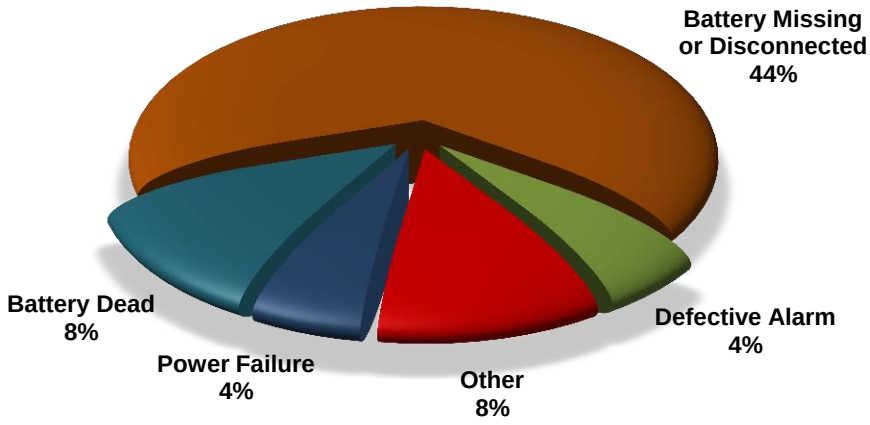
Residential Structure Fires

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 2016, 29% of all reported residential structure (non-confined) fires the alarm operated, 32% there was no alarm present, 5% the alarm failed, 5% the fire was too small to activate the alarm, and 29% was reported as undetermined.

Alarm Falure Reasons



SMOKE ALARM PERFORMANCE IN RESIDENTIAL NON-CONFINED FIRES

Smoke Alarm Operation	Count	%	Civ. Deaths	Civ. Injuries	FS Injuries
Failed to Operate	25	7%	0	4	1
Operated	142	42%	3	12	8
Fire too Small to Operate	24	7%	1	0	0
Undetermined	147	44%	10	20	4
Total	**338**	**100%**	**14**	**36**	**13**

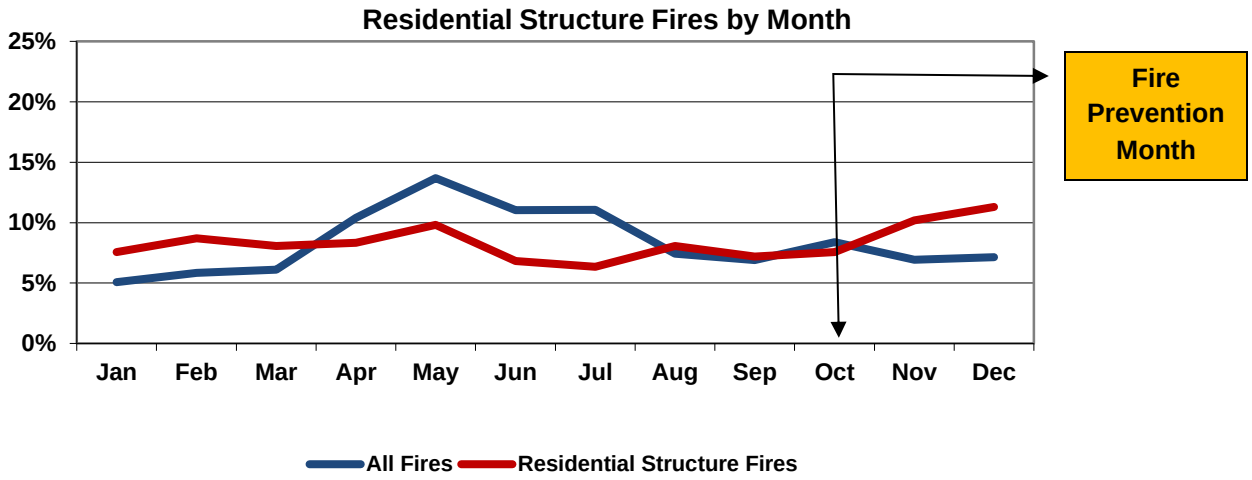
Smoke Alarm Failure Reason	Count	%	Civ. Deaths	Civ. Injuries	FS Injuries
Battery Discharged/Dead	2	8%	0	2	0
Battery Missing/Disconnected	11	44%	0	1	0
Other	2	8%	0	1	0
Defective	1	4%	0	0	0
Power Failure	1	4%	0	0	1
Undetermined	8	32%	0	0	0
Total	**25**	**100%**	**0**	**4**	**1**

Residential Structure Fires

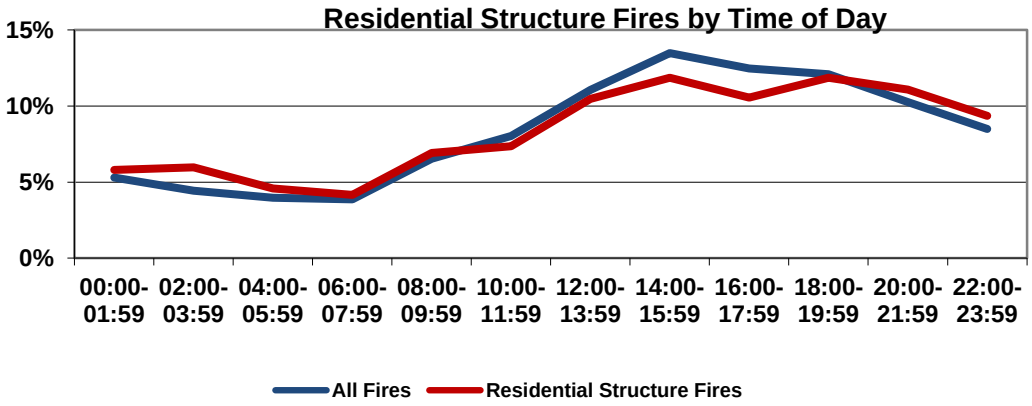
WHEN RESIDENTIAL FIRES OCCUR

Fires in residential structures were more common in the summer than in the winter in 2016. This trend is related to one of the leading cause of all residential structure fires, heating. Clearly there are other seasonal factors in addition to winter residential fires – perhaps a greater propensity to stay at home.

For 2016, there were more residential structure fires in the month of December (12%) with the month of July (6%) 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 evening, similar to the trend for fires generally. The residential structure fire time trend is related to the leading cause of residential structure fires in Alaska in 2016 – cooking fires – since many people prepare dinner in their homes during the early evening. 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

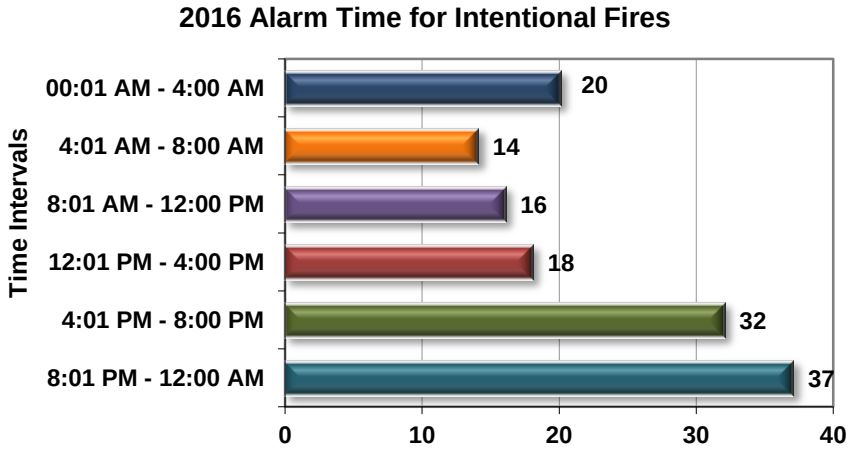
One hundred and thirty-seven **(137) or 5% of all reported fires were reported as intentionally set**. Alaska seen a small decrease in intentionally set fires from (percentage of intentionally set fires) previous years; however, it is known that intentionally set fires continue to be severely under reported.

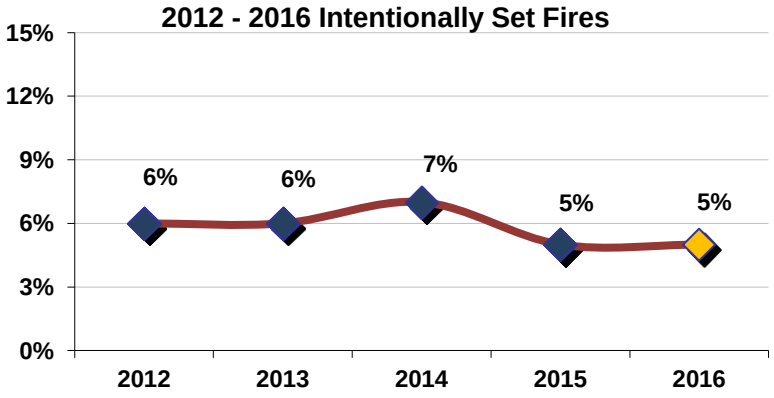
It has been reported there was a substantial increase in property loss due to intentionally set fires from 2015 to 2016 (137%).

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 $4,608,935.

Almost 35% of all reported intentionally set fires occurred in structure fires. Mobile vehicle fires came in second at 28%. The main areas of origin for intentionally set fires in a structure were in the bathroom, bedroom, and the common room, den, family room, living room areas. Cigarette lighters and matches were the heat source in over 29% of the incidents.

This chart shows the time for all reported intentional fires.



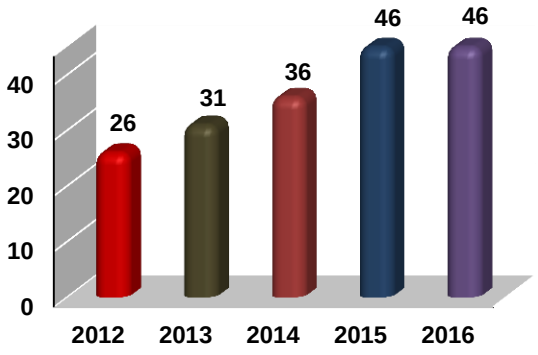


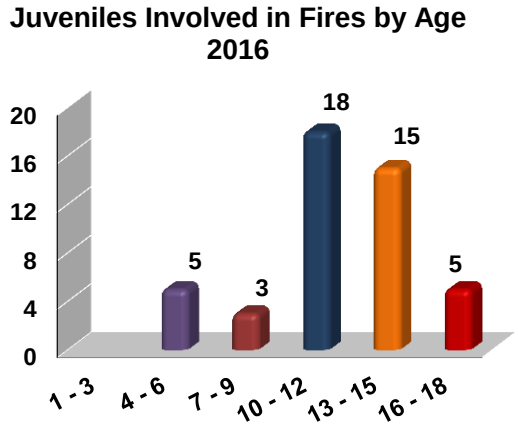
This chart indicates the percentage of fires that have been reported as intentional for the indicated year.

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.

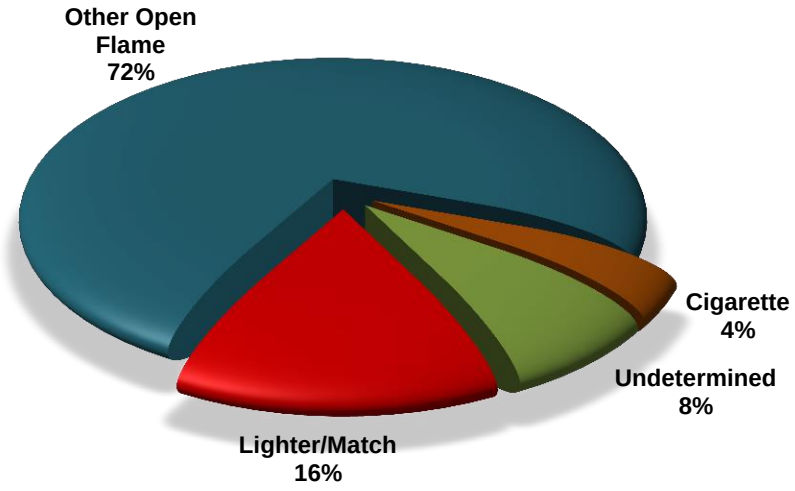
In 2016, children playing with matches, lighters and other heat sources caused 25 reported fires and estimated dollar loss of $2,925,700. The fires set by children in 2016 included: 8 structure fires, 11 natural vegetation fires (consuming a total of approximately 8 acres of land), 2 mobile vehicle fires 1 outside rubbish fire and 3 special outside fires.





Heat Source

In 2016, sixteen (16%) of juvenile-set fires were started by lighters or matches. Thirty-two (32%) were started with some type of other open flame, forty (40%) were started by some sort of smoking material, four (4%) were started with some type of conducted heat, and the remanding eight (8%) 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 2016, Alaskans suffered 101 injuries and 18 deaths directly caused by fire.

2016 FIREFIGHTER INJURIES

There were 35 reported firefighter injuries associated with the suppression of fires in 2016. 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 35 firefighter injuries where the primary symptom was known, 39% reported strains or sprains as their primary symptom, 9% reported cardiac symptoms, 6% reported contusion/bruises, with the remaining incidents were miscellaneous or multiple symptoms.

Cause of Injury	
Contact with Object	3%
Exposure to Hazard	13%
Fall	15%
None Reported/Undetermined	12%
Other	9%
Overexertion/Strain	33%
Slip/Trip	9%
Struck or Assaulted	6%

Types of Fires	
Motor Mobile Property	12%
Outside Fires	3%
Structure Fires	85%

Severity of Injury	
First Aid Only	3%
Moderate (Lost Time)	27%
Report Only	55%
Treated by Physician	15%
Life Threatening	0%

FF Activity at Time of Injury	
Extinguishing	27%
Handling Charged Hose	18%
Moving Tools or Equipment	3%
Using Hand Extinguishers	0%
Operating Engine or Pumper	3%
Incident Investigation/During	0%
Overhaul	18%
Laying Hose	3%
Operating Portable Pump	7%
Other Activity	3%
Picking Up Tools	0%
Salvage	0%
Using Hand Tools, Other	9%
Suppression Support, Other	9%

Time of Day	
00:00 – 06:00	30%
06:01 – 12:00	24%
12:01 – 18:00	21%
18:01 – 23:59	24%

Age of FF	
18 – 29	12%
30 – 39	16%
40 – 49	45%
50 – 59	27%
60+	0

Fire Injuries and Fatalities

2016 CIVILIAN FIRE INJURIES

There were 66 civilians injured by fire in Alaska in 2016. The majority, 89%, were the result of structure fires. Almost 34% 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	89%
Fire, Other	0%
Motor Mobile Property (Vehicle)	11%
Outside Fire	0%

Severity of Injury	
Minor	53%
Moderate	19%
Severe	17%
Life Threatening	11%
Not Reported	0%

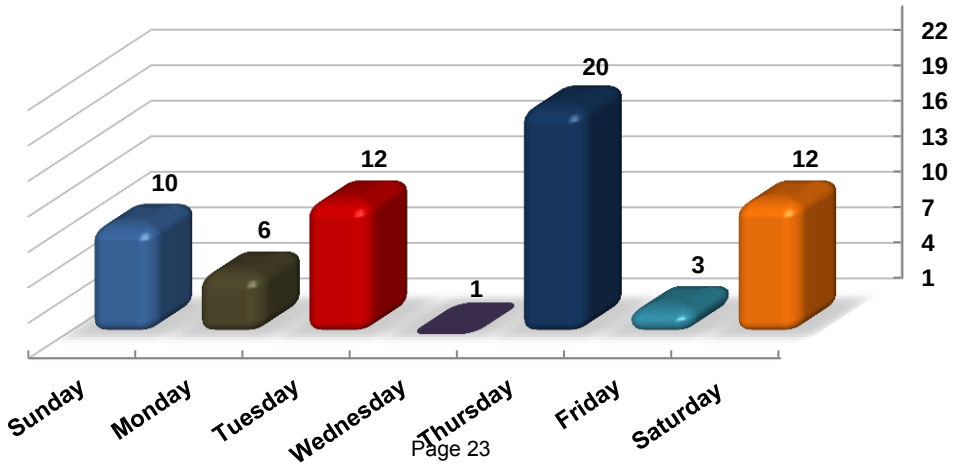
Human Factors	
Asleep	16%
Impaired by Alcohol/Drugs	13%
Unconscious	14%
Physically Restrained	3%
Physically or Mentally Disabled	0%
None Reported	54%

Cause of Injury	
Struck by Object	2%
Exposed to Fire Products	72%
Exposed to Haz. Materials	3%
Fell, Slipped, or Tripped	3%
Multiple Causes	6%
Overexertion or Strain	0%
None Reported	14%

Age of Injured Civilian	
0 – 17	8%
18 - 29	20%
30 – 39	25%
40 – 49	8%
50 – 59	16%
60+	30%

Time of Day	
00:00 – 06:00	23%
06:01 – 12:00	15%
12:01 – 18:00	39%
18:01 – 23:59	23%

Civilian Injuries by Day of Week

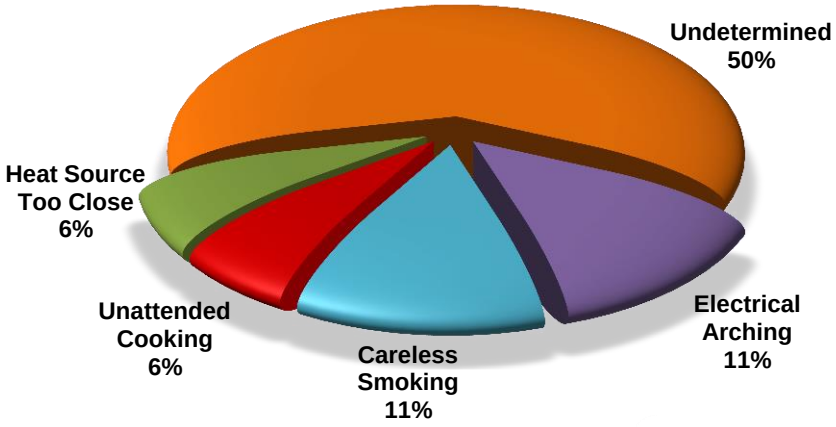


Fire Injuries and Fatalities

2016 CIVILIAN FATALITIES

Even though Alaska experienced 101 fire injuries and almost $61 million in estimated losses, the real tragedy was the loss of 18 Alaskans from fire in 2016. Alaska experienced 7 fire deaths for each 1,000 fires during this year. In terms of Alaska's increasing population, the 2016 fire death rate was 2.4 deaths for each one hundred thousand Alaskans.

Causes of Fire Fatalities

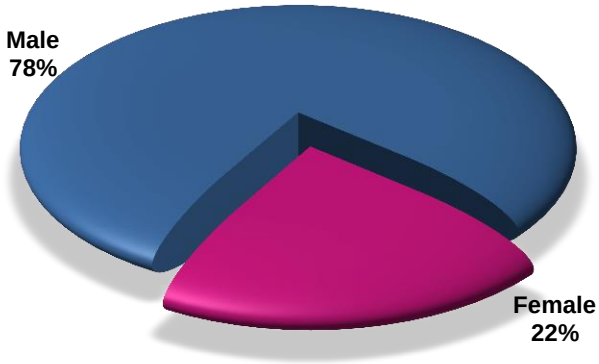


In **67%** percent of Alaska's 2016 civilian fatalities, alcohol and/or drugs were contributing factor to the fire.

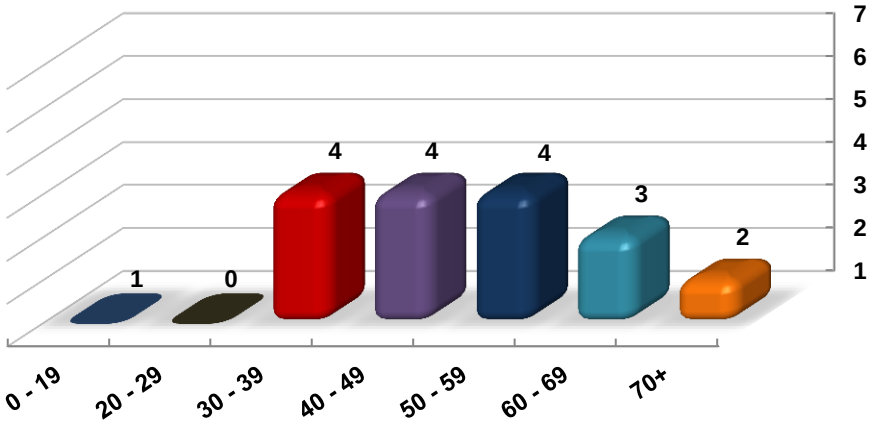
In 2016, 78% percent of all civilian fire fatalities were male.

From 2012 – 2016, 72% of all civilian fire fatalities were male.

Fire Fatalities by Gender



Number of 2016 Fire Fatalities by Age Group

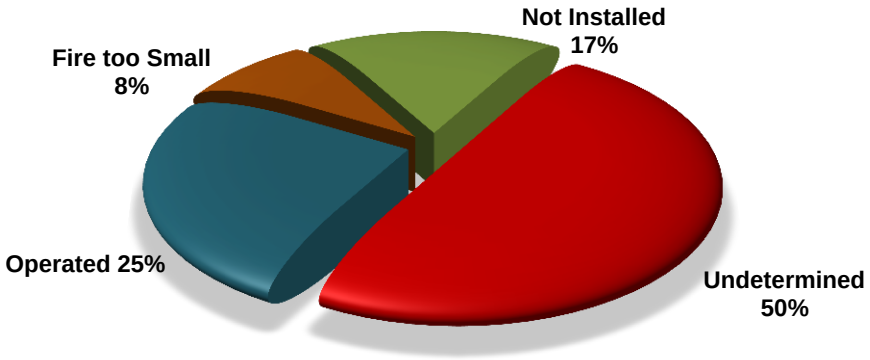


Fire Injuries and Fatalities

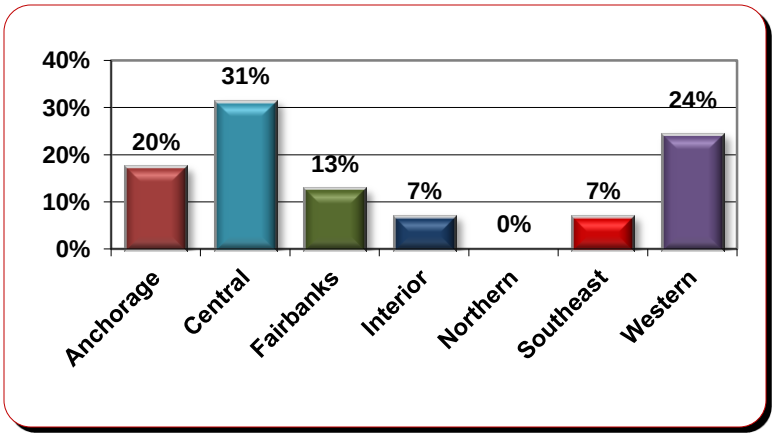
Eighty-three or 83%, of civilian fire fatalities occurred in residential structures with the remaining 17% occurred in outside areas. Of the 15 fire deaths that occurred in residential structures, there were 4 single residential homes, 7 residential trailers, 1 bunkhouse and 3 multi-family dwellings.

A continuing problem is the lack of working smoke alarms in homes and other residential property. The 15 civilian residential fire deaths occurred in 12 separate fire incidents. Of these 12 residential structures 7 had a smoke alarm present and only 3 operated. In the remaining 9 residential homes, the smoke alarm presence was not installed, fire too small to activate or was reported as undetermined.

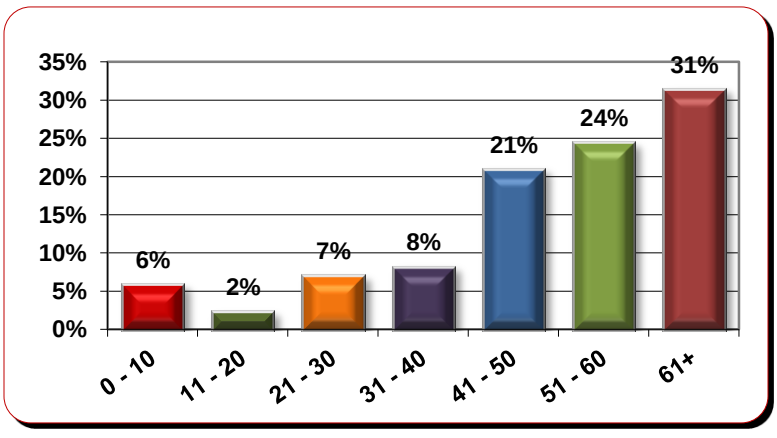
Smoke Alarm Presence/Operation



FIVE-YEAR (2012 – 2016) 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.



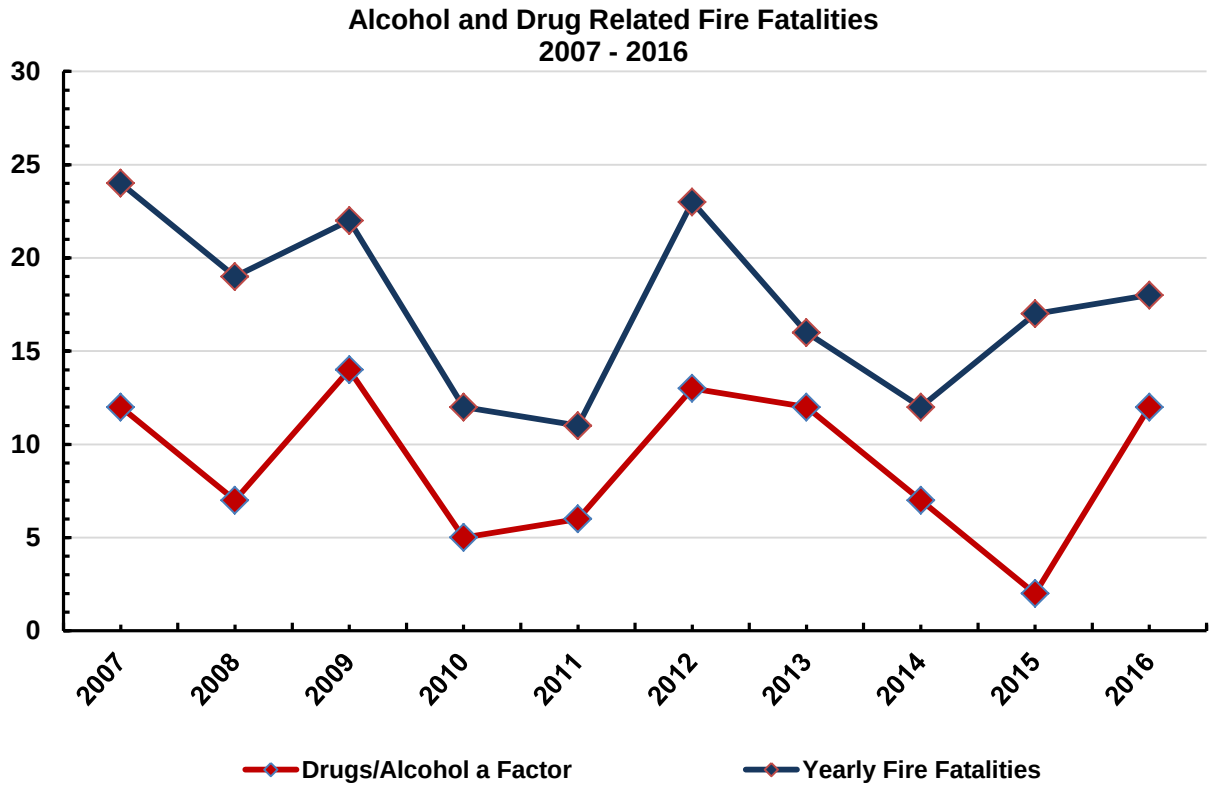
By Age
Alaska's highest death age group is 60 years old and older.

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 174 fire fatalities. Out of these unfortunate victims, 52% 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 72% percent of these victims were male.



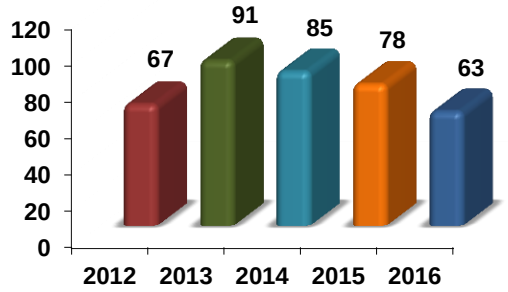
Fire fatalities and injuries can be prevented if a concerted effort is made to identify and modify high-risk drinking patterns. It also may be possible to minimize fire risk by increasing the awareness of those who drink and those who are surrounded by regular drinkers.

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 2016, health care professionals reported 63 burn injuries. This is a decrease of 9% from the 78 incidents that was reported in 2015.

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 2012 - 2016



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 2016

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 40% of all burn incidents were fire/flame related, 47% were related to scalding, while another 5% came from contact with a hot object.

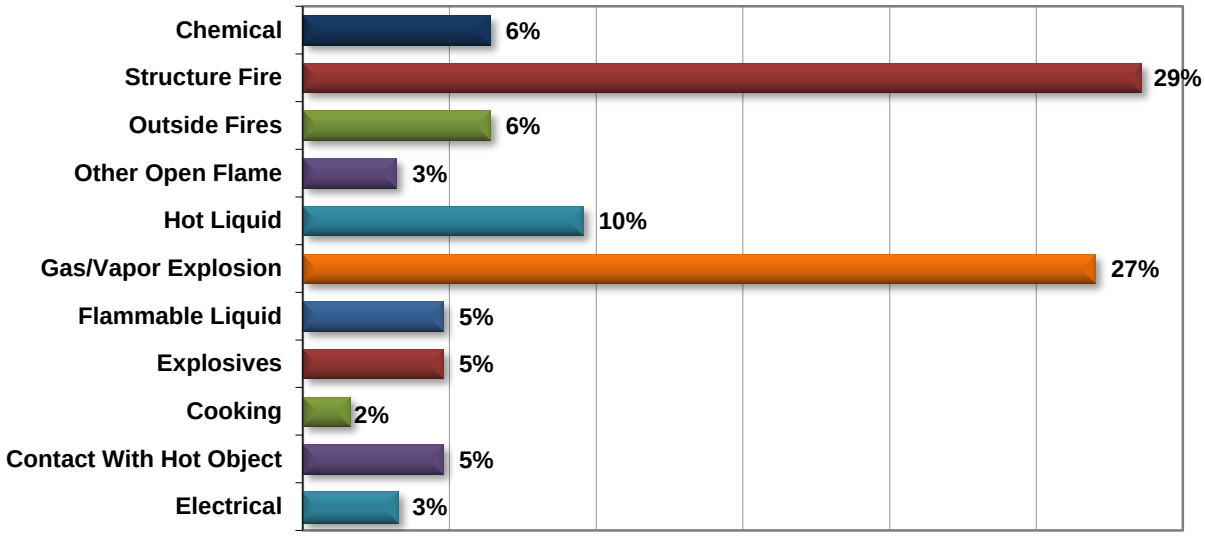
Electrical Burns – Electrical burns occur when electric currents pass through the body. A significant part of the damage is done under the surface of the skin. Some of the factors that affects the extent of the injury include the duration of exposure, type of current, intensity of the current, amount 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 5% 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 2016, there was no burn injuries reported with this type of burn injury.

Burn Injuries

Causes of 2016 Reported Burn Injuries:

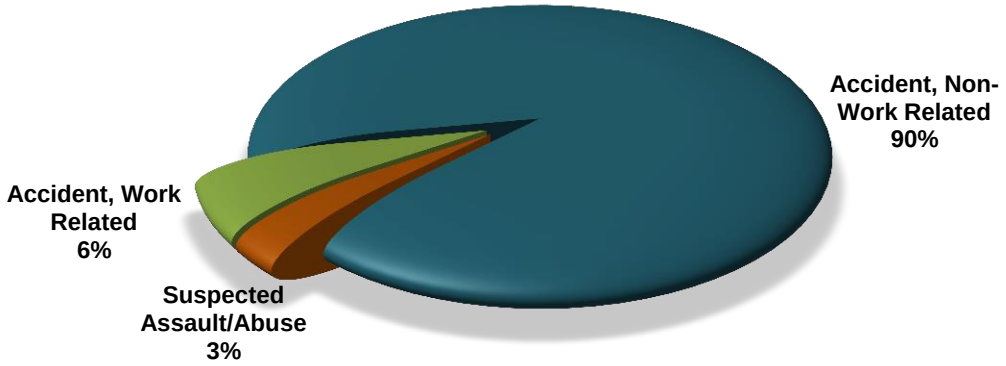


Top Two Causes of Reported Burn Injuries by Age Group in 2015:

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

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 (90%), followed by work related injuries (6%).



Burn Injuries

Levels of Burn Severity

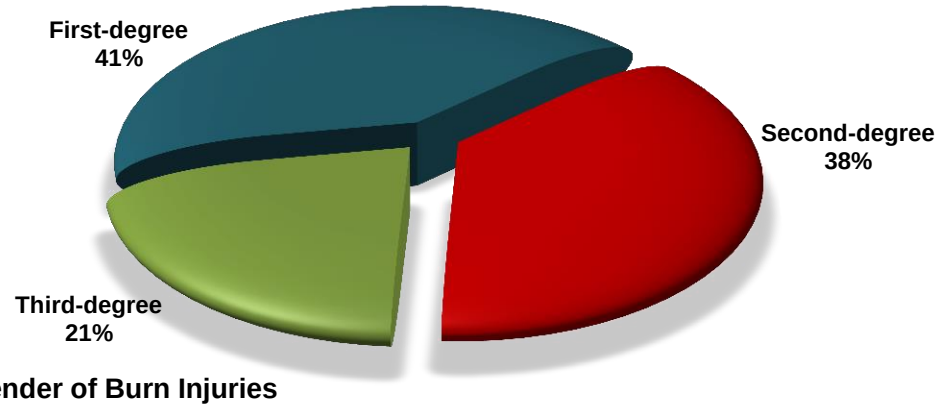
Burns are classified by level of severity.

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.

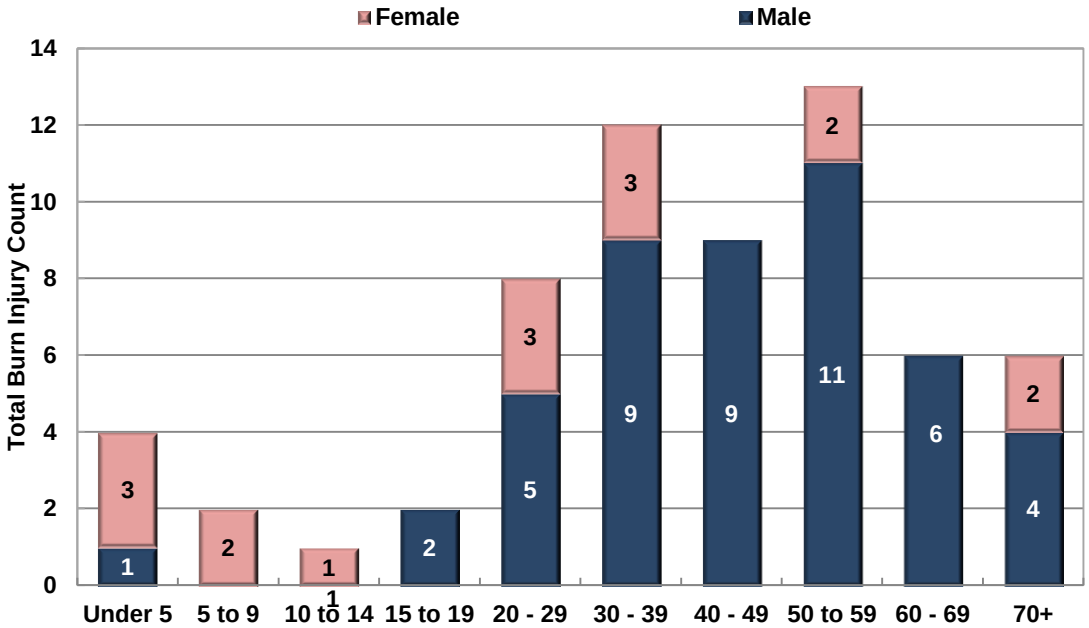
Third Degree – The most severe type of burn, a third-degree, known as a full thickness burn, penetrates through all layers of the skin and may injure tissue beneath skin, so the skin is not capable of healing itself. The skin is leathery and dry and has a white, brown, charcoal-gray or deep red appearance.

Levels of Burn Serverity Reported in 2016



Age Group and Gender of Burn Injuries

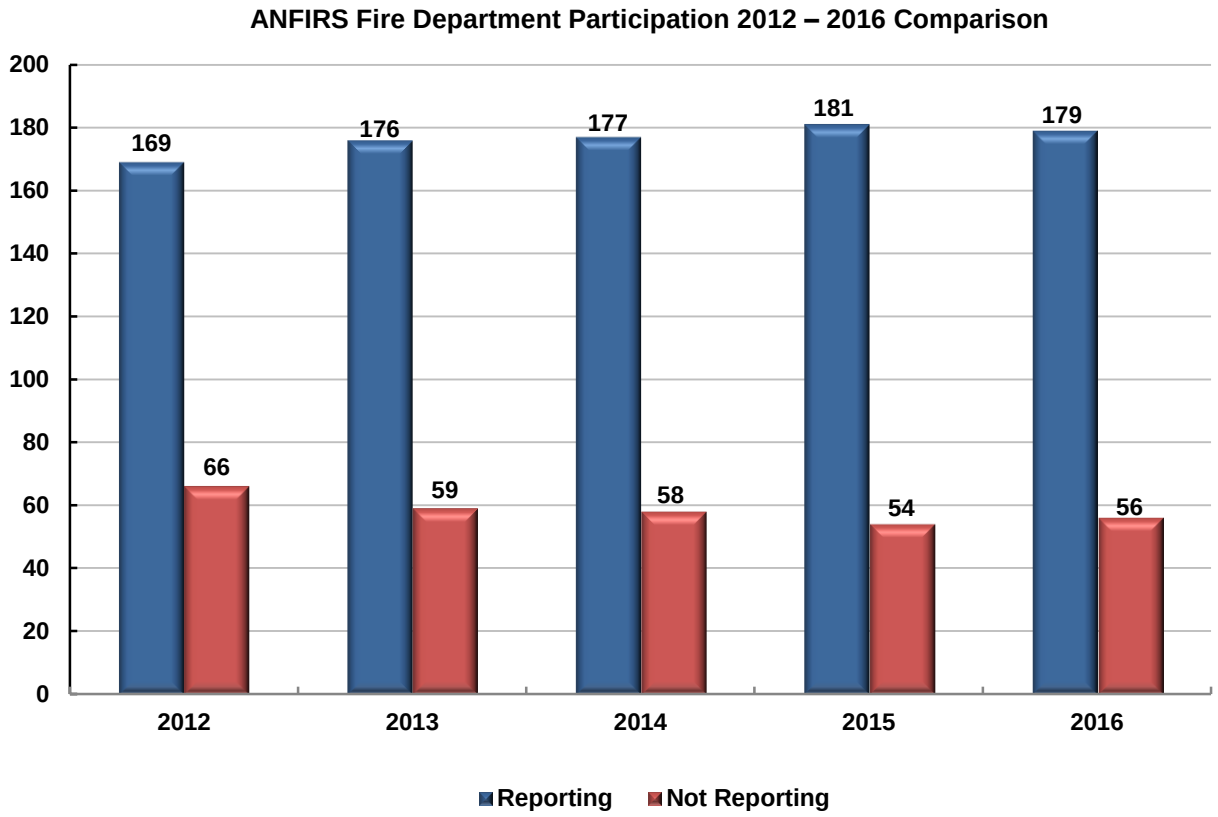
Alaska is unique in the age of group burn injuries. While most states have more reported burn injuries in vulnerable age groups (0 –9 and over 70) Alaska's highest burn injury age group in 2016 was 50 – 59 years old.



ANFIRS Participants

The following pages are a listing of fire department fire responses submitted to the Alaska National Fire Incident Reporting System (ANFIRS) during 2016. Totals are inclusive of all reports received by May 1, 2016. Department name will **NOT** appear on the listing if they failed to submit ANFIRS for the full year of 2016.

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.



2016 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	0	0	0	0	0	0	0	0
***Akiachak VFD	1	1	0	0	0	0	0	1,000
***Akiak VFD	4	4	0	0	0	0	0	50,500
Akutan VFD	0	0	0	0	0	0	0	0
Anchor Point Fire & Emergency Medical Service Area	17	11	6	0	0	0	0	425,500
Anchorage FD	823	406	411	2	17	0	21	13,021,384
Angoon VFD	6	0	6	0	0	0	0	1,300
Aniak VFD	5	2	3	0	0	0	0	243,500
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.	5	3	2	0	0	0	0	19,500
Bethel FD	26	16	10	2	0	0	0	344,770
Birch Creek VFD	0	0	0	0	0	0	0	0
Brevig Mission FD	1	0	1	0	0	0	0	0
Bristol Bay Borough Emerg. Svs.	12	6	6	1	0	0	0	419,500
Butte VFD	28	7	21	0	0	0	0	497,000
Cantwell VFD	2	1	1	0	0	0	0	237,600
Capital City Fire/Rescue	77	52	25	0	3	0	5	807,879
Caswell Lakes FSA #135	4	2	2	0	1	0	1	0
Central Emergency Services	72	30	42	4	0	0	0	694,850
Central Mat-Su FD	129	53	76	1	4	0	0	1,814,475
Chena Goldstream Fire & Res.	24	10	14	0	5	0	0	526,650
Chenega Bay FD	0	0	0	0	0	0	0	0
**Chickaloon Fire Service, Inc.	0	0	0	0	0	0	0	0
**Chignik Bay VFD	1	0	1	0	0	0	0	0
Chignik Lagoon VFD	0	0	0	0	0	0	0	0
Chinik VFD (Golovin)	0	0	0	0	0	0	0	0
**Chistochina VFD	0	0	0	0	0	0	0	0

** Indicates the Department did NOT report for the full year of 2016.

*** Indicates report(s) was completed by the Division of Fire and Life Safety.

2016 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	1
0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	0
0	159	2	5	28	0	1	6	218
7	24,186	380	2,030	5,438	36	2,379	11	35,284
0	0	0	0	0	0	0	0	6
0	0	0	0	0	0	0	0	5
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	83	2	11	23	1	6	25	156
3	3	11	27	14	1	27	0	112
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
1	0	0	0	0	0	1	0	14
0	78	4	7	23	2	14	23	179
0	0	0	0	0	0	0	0	2
0	3,406	71	227	485	9	242	0	4,517
0	12	2	0	8	1	3	19	49
1	2,057	51	85	290	0	160	18	2,734
4	496	73	87	521	5	203	71	1,589
2	232	8	9	53	0	10	47	385
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	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

2016 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Chugiak Vol. Fire/Rescue Co.	54	11	43	0	0	0	0	143,600
City of Anderson FD	1	1	0	0	0	0	0	0
City of Fairbanks FD	116	55	61	0	10	0	1	4,318,490
City of False Pass VFD	1	1	0	0	0	0	0	1,499,000
City of Fort Yukon VFD	4	0	4	0	0	0	0	3,000
City of Kasaan VFD	0	0	0	0	0	0	0	0
City of Kodiak FD	15	10	5	0	0	0	0	2,759,850
City of Kotzebue FD	7	3	4	0	0	0	0	323,810
City of Palmer FD	18	12	6	0	0	0	0	150,750
Coffman Cove VFD	0	0	0	0	0	0	0	0
ConocoPhillips Alaska Alpine	3	0	3	0	0	0	0	21,500
ConocoPhillips Alaska Kuparuk	3	0	3	0	0	0	0	0
Cooper Landing VFD	3	1	2	0	0	0	0	600
Cordova VFD	6	3	3	0	0	0	0	3,600
Craig VFD	3	3	0	0	2	0	0	95,000
***Crooked Creek	1	1	0	0	0	0	0	100,000
Delta Junction VFD	5	4	1	1	0	0	0	660,550
Dillingham VFD & Rescue	10	5	5	0	0	0	0	581,900
Division of Forestry	203	3	200	0	0	0	0	170,000
Eagle VFD	0	0	0	0	0	0	0	0
Edna Bay VFD	0	0	0	0	0	0	0	0
***Eek	2	0	2	0	0	0	0	0
Egegik VFD	1	1	0	0	0	0	0	1,500,000
Elfin Cove FD	0	0	0	0	0	0	0	0
Elim VFD	1	0	1	0	0	0	0	0
Emmonak VFD	7	6	1	0	0	0	0	3,000,300
Ester VFD	7	3	4	0	0	0	0	5,000
Fairbanks Airport Police & Fire	4	1	3	0	0	0	0	15,000

** Indicates the Department did NOT report for the full year of 2016.

*** Indicates report(s) was completed by the Division of Fire and Life Safety.

2016 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	549	28	46	117	1	45	5	845
0	0	0	0	0	0	0	0	1
1	3,854	70	162	257	6	349	110	4,925
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	0
1	138	31	29	34	2	47	5	302
1	1	1	21	3	0	40	0	74
0	72	8	27	54	1	28	118	326
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	4
1	0	0	0	0	0	0	0	4
0	0	0	0	0	0	1	1	5
0	4	2	4	2	0	17	0	35
0	10	1	1	3	0	8	4	30
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	16	21
0	0	0	1	3	0	0	0	14
1	0	2	23	30	0	0	121	380
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	2
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	7
0	75	6	13	28	2	22	23	176
0	55	28	2	1	0	4	1	95

2016 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
***Fairbanks, Other Areas	4	4	0	0	0	0	0	515,000
Fire Protection Area (Bayside)	15	6	9	0	0	0	1	353,000
Gakona VFD	1	0	1	0	0	0	0	65,000
Galena VFD	3	1	2	0	0	0	0	1,300
***Gambell	2	2	0	0	0	0	0	76,010
Girdwood FD	18	9	9	0	0	0	0	1,172,000
Glennrich Fire Rescue	9	5	4	0	0	0	0	695,530
Goodnews Bay VFD	0	0	0	0	0	0	0	0
Greater Prudhoe Bay FD	4	2	2	0	0	0	0	0
Gulkana VFD	0	0	0	0	0	0	0	0
Gustavus VFD	0	0	0	0	0	0	0	0
Haines VFD	10	5	5	0	0	0	0	153,800
Hilcorp FD	4	2	2	0	0	0	0	3,015
Hollis VFD	1	1	0	0	0	0	0	1,500
Homer VFD	25	10	15	0	0	0	1	1,891,500
**Hoonah VFD	0	0	0	0	0	0	0	0
Hope/Sunrise VFD	2	1	1	0	0	0	0	1,000
Houston FD	25	11	14	0	1	0	2	1,348,405
Huslia VFD	2	1	1	0	0	0	0	100
**Hydaburg VFD	3	2	1	0	0	0	0	0
Iliamana VFD	0	0	0	0	0	0	0	0
***Joint Kwinhagak VFD	1	1	0	0	2	0	0	100,000
Kachemak Emergency Services	14	3	11	0	0	0	0	185,850
Kake VFD	2	2	0	0	0	0	0	45,000
Kenai FD	33	19	14	0	0	0	0	1,374,835
***Kenai Peninsula Other Area	1	0	1	2	0	0	0	5,300
Kennicott/McCarthy VFD	1	0	1	0	0	0	0	0
Kenny Lake VFD	0	0	0	0	0	0	0	0

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2016 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Inc.
0	0	0	0	0	0	0	0	4
0	88	9	4	16	0	13	5	150
0	2	0	0	0	0	0	4	7
0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	2
0	215	9	151	49	2	28	43	515
0	0	0	0	1	0	0	1	11
0	0	0	0	0	0	0	0	0
2	9	4	0	4	0	2	0	25
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	6	0	0	11	0	3	2	32
0	0	0	0	0	0	0	0	4
0	0	1	0	0	0	0	0	2
1	522	11	17	36	0	23	2	637
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	3
0	122	9	9	33	0	6	61	265
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	1	2	5	9	0	2	14	47
0	0	0	0	0	0	0	0	2
1	1,112	28	179	76	4	77	39	1,549
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
0	1	0	0	0	0	0	3	4

2016 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Ketchikan FD	21	11	10	0	0	0	0	311,650
Ketchikan Int'l Airport FD	0	0	0	0	0	0	0	0
King Cove Fire & Rescue	0	0	0	0	0	0	0	0
Klawock VFD	13	9	4	1	2	0	0	210,000
Klehini Valley VFD	0	0	0	0	0	0	0	0
***Kodiak Island, Other Area	6	5	1	1	4	0	0	282,000
**Kokhanok Village Council	0	0	0	0	0	0	0	0
Kongiganak VFD	1	1	0	0	0	0	0	30,000
***Kotlik	5	5	0	0	0	0	0	3,435,000
**Kwethluk VFD	6	2	4	1	0	0	0	52,500
***Larsen Bay	1	1	0	0	0	0	0	0
Louise, Susitna, Tyone VFD	0	0	0	0	0	0	0	0
Lowell Point VFD	2	1	1	0	0	0	0	500
Lower Kalskag VFD	1	0	1	0	0	0	0	0
***Lower Kuskokwim Other Area	2	0	2	0	0	0	0	0
Manley Hot Springs VFD	1	1	0	0	0	0	0	15,000
***Mat-Su Borough Other Area	4	0	4	0	0	0	0	123,500
**McGrath VFD	1	1	0	0	0	0	0	0
McKinley VFD	6	4	2	0	0	0	0	100,000
Minto VFD	0	0	0	0	0	0	0	0
Moose Pass Vol. Fire Company	4	1	3	0	0	0	0	82,250
***Mountain Village	3	1	2	0	0	0	0	50,250
Nanwalek VFD	0	0	0	0	0	0	0	0
Naukati VFD	3	2	1	0	0	0	0	12,000
Nel/Mel VFD	0	0	0	0	0	0	0	0
Nelson Lagoon Fire & Rescue	1	0	1	0	0	0	0	3,200
Nenana Fire/EMS Dept.	6	2	4	0	1	0	0	600
Nikiski FD	24	16	8	0	0	0	0	340,450

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2016 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
5	1,527	25	93	280	3	125	9	2,088
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	26	7	8	7	0	4	1	66
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	6
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	5
0	0	0	0	0	0	0	0	6
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	1
0	0	0	0	0	0	0	0	2
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	5	0	1	1	0	3	2	18
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	3
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	0
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	6
1	591	25	182	126	1	17	20	987

2016 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
***Nikolai	1	1	0	0	0	0	0	225,000
Ninilchik Emergency Services	2	1	1	0	0	0	0	350,000
Nome VFD	14	5	9	0	0	0	0	617,200
***Nondalton	1	1	0	0	2	0	0	2,300
North Pole FD	17	7	10	0	0	0	0	25,250
North Slope Borough FD	36	13	23	0	0	0	0	12,000
North Star FD	54	32	22	0	0	0	0	1,114,825
North Tongass VFD	10	4	6	0	0	0	0	15,000
Northway VFD	2	1	1	0	0	0	0	95,000
Northwest Arctic Borough FD	8	8	0	0	3	0	0	914,035
Nunapitchuk VFD	4	2	2	0	0	0	0	60,100
Old Harbor VFD	0	0	0	0	0	0	0	0
Palmer Fire and Rescue	45	16	29	0	1	0	2	489,300
Panguingue VFD	0	0	0	0	0	0	0	0
Pedro Bay VFD	0	0	0	0	0	0	0	0
Pelican Vol. Fire & EMS	0	0	0	0	0	0	0	0
Petersburg VFD	9	7	2	0	0	0	0	42,550
Pilot Point VFD	0	0	0	0	0	0	0	0
Port Alexander VFD	0	0	0	0	0	0	0	0
Port Alsworth VFD	1	1	0	0	0	0	0	1,000
Port Graham VFD	1	1	0	0	0	0	0	0
Port Lions VFD	0	0	0	0	0	0	0	0
Red Dog Mine Emerg. Services	0	0	0	0	0	0	0	0
Ruby VFD	0	0	0	0	0	0	0	0
Rural Deltana VFD	18	10	8	0	0	0	0	1,088,000
***Russian Mission	1	1	0	0	0	0	0	500
Salcha Fire & Rescue	11	3	8	0	0	0	0	33,000
Sand Point VFD	2	2	0	0	0	0	0	10,200

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2016 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	1	0	0	0	1	0	4
0	52	0	0	3	0	10	0	79
0	0	0	0	0	0	0	0	1
0	1,034	8	14	33	3	41	33	1,183
0	4	38	10	25	0	52	0	165
0	802	31	45	151	5	63	42	1,193
0	160	2	1	9	1	7	5	195
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	8
0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	0
1	0	19	4	83	0	52	48	252
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	4	3	8	5	0	19	0	48
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	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	3	0	1	0	1	0	23
0	0	0	0	0	0	0	0	1
1	1	4	1	5	0	4	0	27
0	0	0	0	0	0	0	0	2

2016 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Seldovia VFD	0	0	0	0	0	0	0	0
Seward FD	10	2	8	0	0	0	0	133,975
***Shishmaref	3	2	1	0	0	0	0	94,000
Sitka FD	24	15	9	0	0	0	0	142,300
Skagway VFD	11	8	3	0	0	0	0	550
Slana VFD	0	0	0	0	0	0	0	0
South Tongass VFD	7	3	4	0	0	0	0	1,900
St. George VFD	0	0	0	0	0	0	0	0
St. Mary's VFD	4	2	2	0	0	0	0	17,225
St. Paul Dept. of Public Safety	2	1	1	0	0	0	0	140,000
***Stebbins	1	1	0	0	0	0	0	1,500
Steese Area VFD	47	19	28	1	1	0	1	429,575
Stony River VFD	0	0	0	0	0	0	0	0
Strelna VFD	0	0	0	0	0	0	0	0
Sutton VFD	5	0	5	0	0	0	0	5,000
SVT Barabara Heights FD	2	0	2	0	0	0	0	7,000
Talkeetna VFD	6	2	4	0	0	0	0	20,600
Tanacross VFD	2	0	2	0	0	0	0	0
Tanana VFD	1	1	0	0	1	0	0	40,000
Ted Steven's Arpt. Police/Fire	7	3	4	0	0	0	0	4,000
Tenakee Springs VFD	0	0	0	0	0	0	0	0
**Tetlin VFD	1	1	0	0	0	0	0	55,000
Thorne Bay VFD	0	0	0	0	0	0	0	0
Togiak VFD	3	1	2	0	0	0	0	100
Tok VFD	14	4	10	0	0	0	0	472,200
Tri-Valley VFD	2	1	1	0	0	0	0	0
***Tuluksak	1	1	0	0	0	0	0	40,000
***Tuntutuliak	1	0	1	0	0	0	0	0

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2016 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	2	0	0	0	2
0	244	3	23	18	0	56	5	359
0	0	0	0	0	0	0	0	3
2	16	22	14	4	2	72	0	156
0	126	1	3	0	0	39	0	180
0	0	0	0	0	0	0	0	0
0	108	3	2	9	0	31	21	181
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	1
0	398	25	13	75	4	13	79	654
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	18	2	2	37	0	1	3	68
0	0	0	0	0	0	0	1	3
2	21	4	1	4	0	5	64	107
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	1
0	385	70	67	5	0	18	1	553
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	3
0	0	0	0	0	0	0	2	16
0	4	1	0	1	0	1	3	12
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1

2016 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Unalaska Fire/EMS	5	2	3	0	0	0	0	110,194
University FD	47	20	27	0	0	0	0	4,241,600
Valdez FD	30	18	12	0	5	0	0	540,150
**Venetie	0	0	0	0	0	0	0	0
West Lakes FD	64	37	27	0	0	0	0	1,529,390
***White Mounain	3	2	1	0	0	0	0	15,000
Willow VFD	11	5	6	0	1	0	0	251,000
Womens Bay VFD	1	1	0	0	0	0	0	0
Wrangell VFD	10	8	2	0	0	0	0	0
Yakutat VFD	1	1	0	1	0	0	0	0
Grand Total:								
	2,566	**1,155**	**1,405**	**18**	**66**	**0**	**35**	**60,881,922**

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2016 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
1	214	1	1	7	0	11	0	240
1	953	27	28	118	1	187	221	1,583
0	385	70	67	5	0	18	1	576
0	0	0	0	0	0	0	0	0
0	147	15	29	117	2	32	38	444
0	0	0	0	0	0	0	0	3
1	30	4	5	30	0	6	28	115
0	15	1	0	1	0	0	2	20
0	0	1	1	5	0	5	0	22
0	0	0	0	0	0	0	0	1
Grand Total:								
42	**44,718**	**1,271**	**3,805**	**8,817**	**95**	**4,656**	**1,427**	**67,397**

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 2016 estimated population has been taking from State of Alaska, Department of Labor and Workforce Development, Research and Analysis website.