

2017

Fire in Alaska

Department of Public Safety
Division of Fire and Life Safety



Alaska State Fire Marshal

Fire In Alaska - 2017



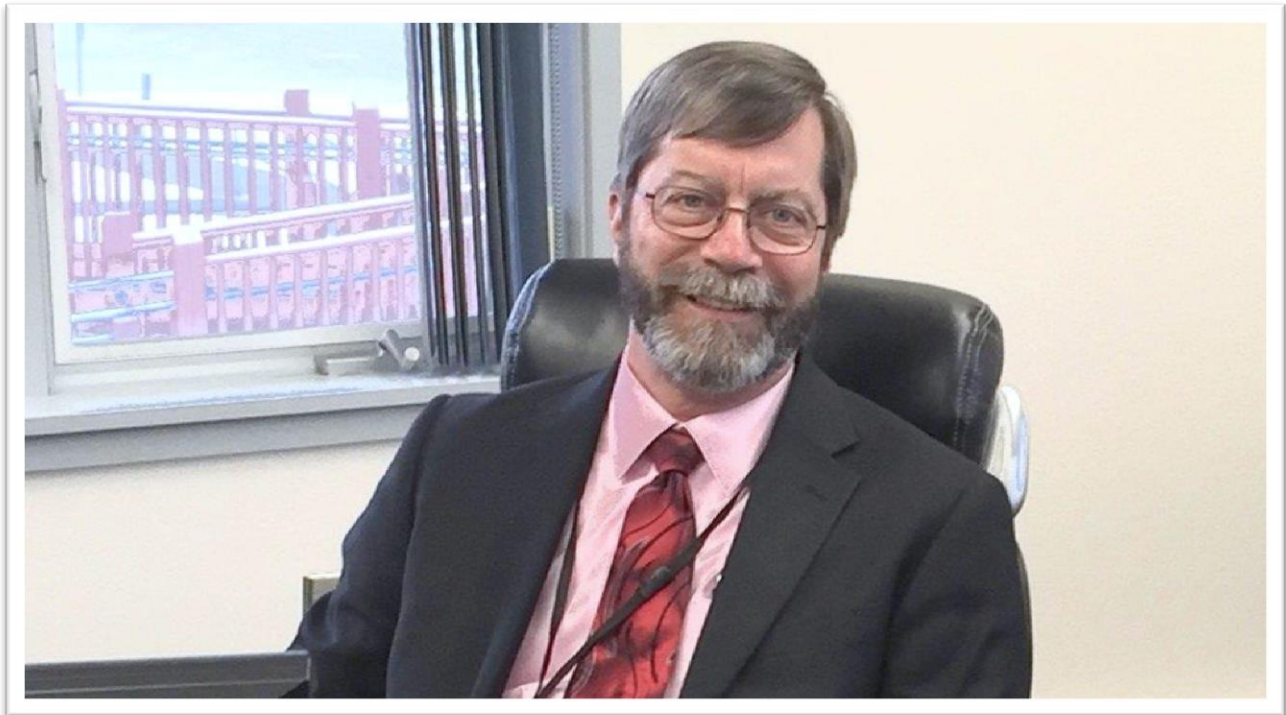
David Tyler State Fire Marshal

Department of Public Safety
Division of Fire and Life Safety

5700 East Tudor Road
Anchorage, Alaska 99507-1225
Phone: 907-269-5491
Web site: www.burny.alaska.gov

Table of Contents

- Division of Fire and Life Safety Organizational Chart 3
- Letter of Introduction from State Fire Marshal, David Tyler 4
- Division of Fire and Life Safety Office 5 - 6
- Fire Department Registration 7
- Alaska National Fire Incident Reporting System (ANFIRS) 8
 - Fire Picture at a Glance 9 - 10
 - Non-Fire Incidents 11
 - Alaska's 2017 Fires 12
 - Statewide Fire Dollar Loss 13
 - Motor Vehicle Fires 14
 - Structure Fires 15
- Residential Structure Fires 16
 - Occupancy and Leading Causes 16
 - Heat Source and Area of Origin 17
 - Smoke Alarm Presence and Performance 18
 - When Residential Structure Fires Occur 19
- Intentionally Set Fires 20
- Juveniles Involved with Fire 21
- Fire Injuries and Fatalities 22
 - Firefighter Injuries 22
 - Civilian Fire Injuries 23 – 25
 - Alcohol and Drug Related Fire Fatalities 26
- Burn Injuries 27 - 29
- ANFIRS Participants 30
 - List of Fire Department Participation 31 – 44
- Per Capita, Rates and Comparisons 45



Thank you for your interest in this 2017 edition of “Fire in Alaska”. The information presented is a compilation of the individual fire reports, as provided to the Division of Fire Prevention by local fire departments. This year we had 170 fire departments reporting.

In 2017, Alaska saw a 167% increase in high risk fire fatalities which are fire fatalities between the ages of 0 – 10 and over 65. One high risk fire fatality is a tragedy but we saw eight with six of the victims being under the age of 10. This demonstrates a need for education to both parents and children on the danger of matches, lighters, and other open flames.

The number of reported firefighter injuries increased by 34% from 2016. I am sure that there are still more injuries out there than are reported. Of those injuries that were reported, 32% didn't report the type of injury and 7% reported “other”. The most frequent reported injury cause was strains and/or overexertion and slipped or tripped. We would really like to receive more accurate reporting on firefighter injuries so we can determine root cause and attack it head on. Chiefs, please help us retrieve the needed data.

“Intentionally Set Fires” is an area where our trends show an increase. Between the years of 2016 and 2017, there was a 57% increase of reported intentionally set fires. In 2016, we saw a 15% reduction. We are watching this statistic closely trying to determine what is causing this fluctuation. I feel the large swings have more to do with reporting issues than actual shifts in the numbers of incendiary fires.

Thank you all!

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 Bureaus: Life Safety Inspection Bureau, Plan Review Bureau and Bureau of Fire Accreditation, Standards and Training.

Director's Office –

The staff of the Director's Office is comprised of The Alaska's State Fire Marshal, an Assistant State Fire Marshal, a Statistical Technician, and an 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 and public policy 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 -

The 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 five Deputy Fire Marshal l's. Deputy Fire Marshals conduct fire inspections, fire investigations and assist with training throughout the state. LSIB has two support staff and a supervisor.

Building inspections are 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 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 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.

Division of Fire and Life Safety Office

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 value 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 the approved plans.

Bureau of Fire Accreditation, Standards and Training -

In 2017, 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 Fire Training Administrators, Fire Training Specialists, and Administrative/Office Assistant personnel.

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. 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 are also provided by BFAST.

Each BFAST 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 trainings. 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 performing duties as a fire department to be registered with the Division of Fire and Life Safety.

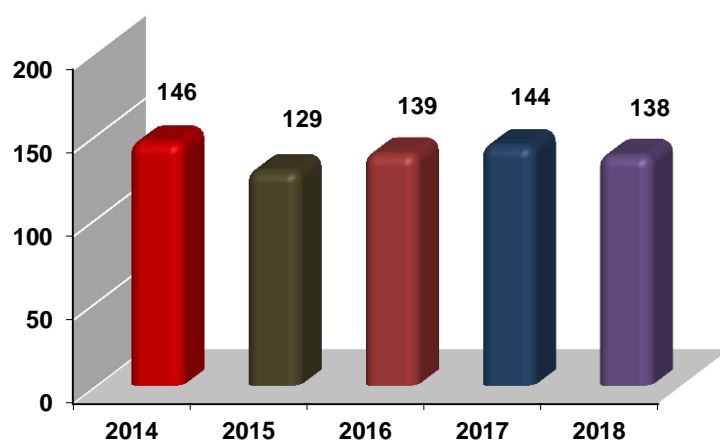
In order to become a newly registered fire department, a fire department must submit all of the following:

1. Enabling Authority - A copy of its enabling authority document.
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 agency’s response area, a Mutual Aid or Memorandum of Agreement between those two agencies is required.
3. Annual Summary Report - A summary report must be completed annually by using information from the previous calendar year.
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.
5. Public Education – The number of public fire safety and burn prevention education programs conducted in the community.
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.
7. ANFIRS - In order for a fire department to continue its 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 its registered status if it fails to 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.

Total Registered Fire Departments March 2014 – March 2018

2018 totals are inclusive of all fire departments registration received by March 31, 2018.

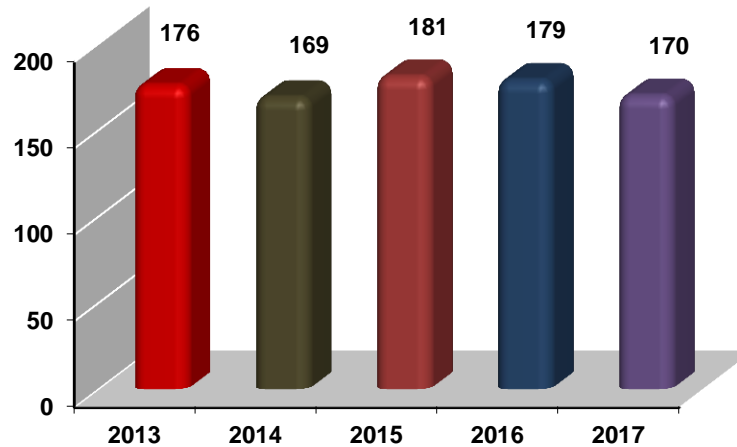


Division Programs

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 2013 - 2017



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 2017 Fire Picture at a Glance

Fire departments reporting to Alaska National Fire Incident Reporting System (ANFIRS) reported 69,415 incidents in 2017 with 1,450 of these responses reporting mutual aid assistance and 97 exposures.



2017 State Incident Summary:

Total Non-Fire Incidents	64,980
Total Fires	2,985
Mutual Aid Given Incidents	1,450
<i>Less Exposures</i>	<i>-97</i>
Total Fire Department Responses	69,415

2017 State Fire Loss Breakdown:

Structure Fires	841
Confined and/or Contained Inside Structure Fires	293
Motor Vehicle Fires	581
Tree, Brush, or Grass Fires	373
Outside Rubbish or Trash Fires	820
Other Outside Fires	77
Total Fires	2,985

2017 State Non-Fire Incident Breakdown:

Rescue/EMS	45,529
Explosion – No After Fire	71
Hazardous Conditions	1,434
Service Calls	3,837
Good Intent Calls	9,556
Other Calls	103
False Alarms	4,450
Total Non-Fires	64,980

Alaska's 2017 Time Clock. Every. . .

- 1 minute a fire caused \$181.17 of property 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
- 2 hours a fire department responded to a service call
- 3 hours a fire department responded to a fire call
- 6 hours a fire department responded to a hazardous call
- 11 hours a fire department responded to a structure fire
- 16 hours a fire department responded to a vehicle fire
- 11 hours a fire department responded to a residential fire
- 27 hours a fire department responded to a unauthorized burning incident

Alaska 2017 Fire Picture at a Glance

The following information was 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. The information does not show a complete picture of the fire problem in Alaska.

*The comparisons are between the years of 2016 and 2017.

Fires

- Fires attended by Alaska Fire Departments increased by 16% to 2985.
- Fires in and/or on structures decreased from by 2% to 1134.
- Grass/Brush/Wildland fires decreased by 22% to 373.
- Residential properties accounted for 70%, or 799, of all structure fires.

Fire Deaths

- Civilian fire deaths increased by 6% to 19.
- In 11% of all civilian fatalities, alcohol and/or drugs was a contributing factor to the fire and/or victim.

Fire Injuries

- Civilian fire injuries increased by 24% to 82.
- Firefighter fire injuries increased by 34% to 47.

Property Damage

- Property loss increased by 56% to \$95,223,575.
- Structure fires caused 92% of all reported property damage, totaling \$87,283,980.
- 39% of all structural property loss was from residential property loss, which totaled \$33,604,670.

Intentional Fires

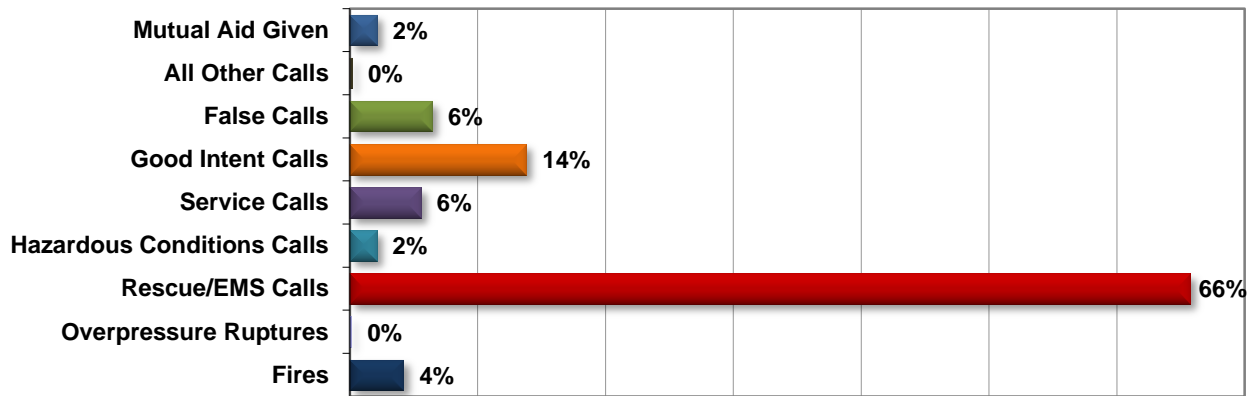
- Structure fires that were reported as intentional increased by 77% from the year of 2016 to 85.
- Intentionally set non-confined structure fires accounted for 10% of all non-confined reported in 2017.
- Intentionally set structure fires accounted for \$6,515,788 of all structure property dollar loss.
- Of the 2,888 reported fires, 7%, or 215, were reported as intentional.
- Intentional fires resulted in five civilian fire fatalities.
- Intentional fires resulted in 14 fire injuries.
- Juvenile firesetters were responsible for igniting 22% of all intentionally set fires.

Non-Fire Incidents

Fire departments in Alaska do much more than fight fires. Over the past several decades fire departments have branched out and taken on the added responsibilities for EMS response, many types of specialized rescue, hazardous materials incidents, natural disasters response, as well as the typical service calls, good intent calls, false alarms and 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 reporting with more complete data sent 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.

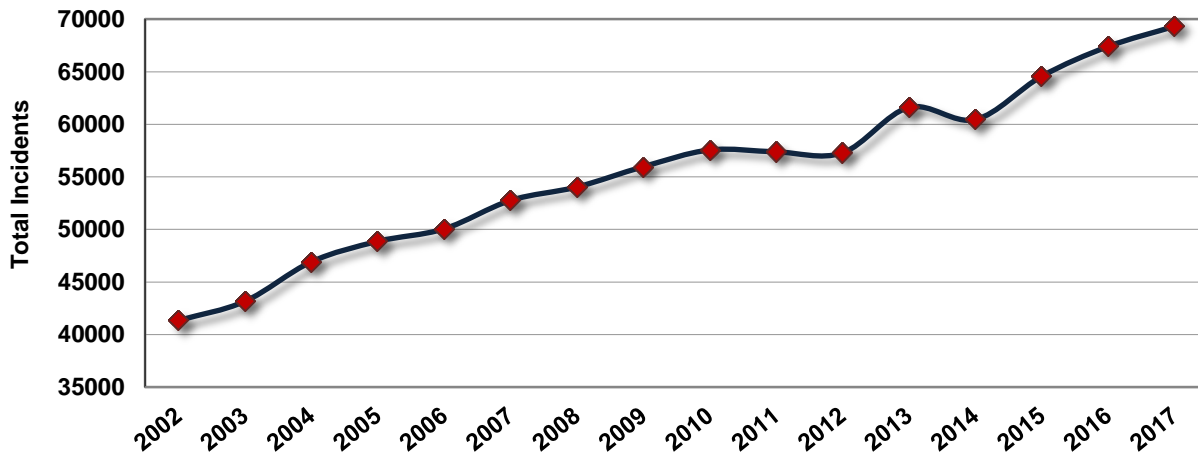
In 2017, 170 fire departments/agencies and/or communities in Alaska reported 69,415 responses to ANFIRS. Of the reported incidents, 66,430 were non-fire calls and/or mutual or incidents where automatic given aid.

2017 Reported Incidents by Incident Type



Fire departments in Alaska 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 169% more incidents in 2017 from 1999.

All Incidents Reported 2002 - 2017



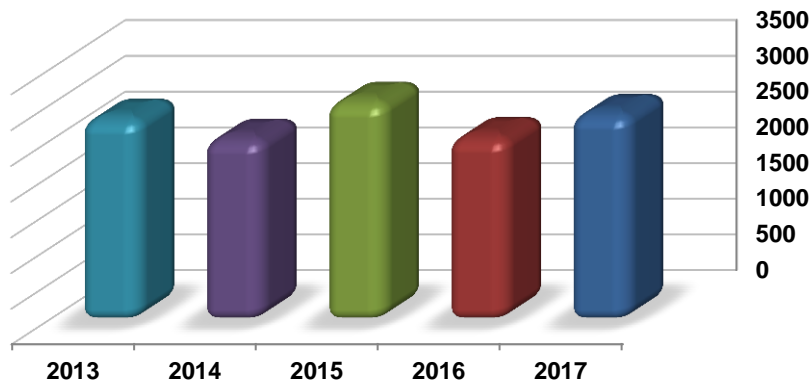
Alaska's 2017 Fires

Fire departments in Alaska reported 2,985 fire incidents to the ANFIRS in 2017. The total number of fire incidents increased 16% from the 2,566 reported incidents in 2016.

The following table indicates a breakdown of fire types (including exposures) into structure fires, motor vehicle fires and other fires for the years 2013 through 2017.

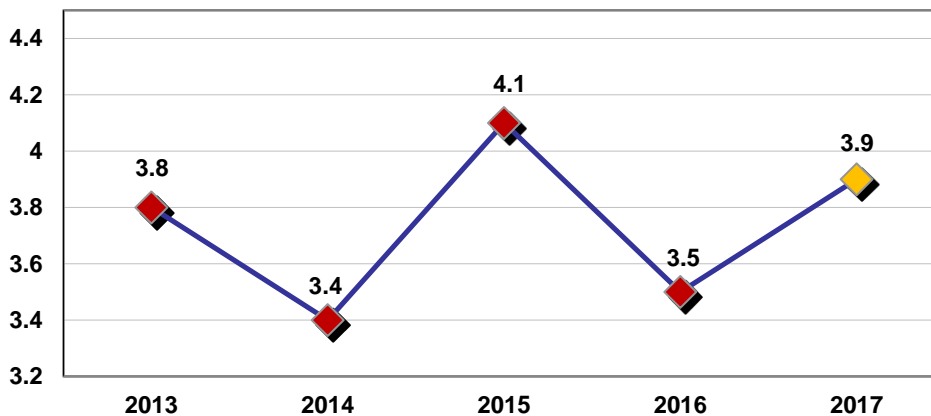
Year	Total Fires	Structure Fires	Vehicle Fires	Other Fires
2017	2,985	1,134	581	1,270
2016	2,566	1,155	446	945
2015	3,061	1,466	528	1,066
2014	2,543	1,228	486	739
2013	2,823	1,236	487	1,100

Alaska's Reported Fires 2013 - 2017



In 2017, fire departments responded to 3.9 fires per 1,000 people. According to the U.S. Census Bureau, Alaska's estimated population in 2017 was 739,795.

Alaska Fires Per 1,000 People 2013 - 2017



Statewide Fire Dollar Loss

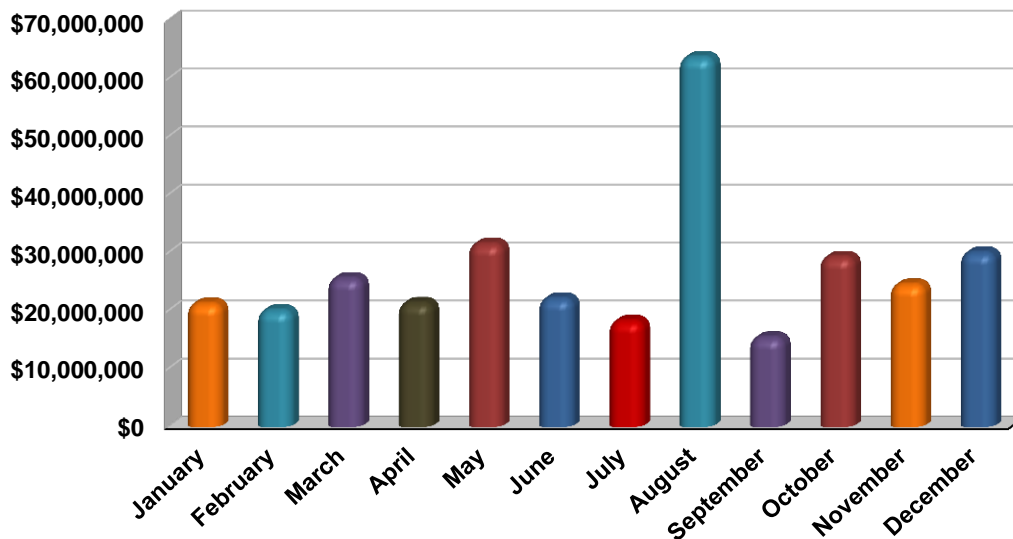
Estimated dollar losses are an indicator of the magnitude of the fire problem and can be used to evaluate progress in fire prevention. This information helps communities, states and the nation determine the dollar amount that should be spent on fire prevention. Fire loss estimates take into consideration 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	2014	2015	2016	2017
Structure Fire	\$60,626,394	\$49,610,022	\$55,571,731	\$87,283,980
Mobile Property (Vehicles) Fire	\$5,209,405	\$4,326,738	\$5,064,191	\$7,742,514
Trees, Brush, or Grass Fire	\$8,732	\$64,800	\$8,045	\$19,555
Outside Rubbish or Trash Fire	\$18,613	\$56,112	\$8,425	\$11,741
Other Fires	\$321,348	\$588,250	\$229,530	\$165,785
Total Fire Dollar Loss	\$66,184,492	\$54,645,922	\$60,881,922	\$95,223,575

The reported value of structural property lost due to fire during 2017 was \$87,283,980. The reported incidents with a structural total dollar losses over \$1,000,000 or more were:

- Port Moller – Seafood Processing (Multiple Buildings Exposed) - \$40,000,000
- Anchorage – Multifamily Dwelling (54 Units) - \$3,034,000
- North Star Borough – Warehouse - \$1,580,000
- North Pole – Mercantile (Welding & Fabrication) - \$9,998,218
- Prudhoe Bay – Warehouse - \$1,500,000
- Nome – Hotel/Motel (36 Units) - \$1,200,000
- Mendeltna – Lodge - \$1,100,000

**Five Year Trend Total Dollar Loss by Month
2013 - 2017**

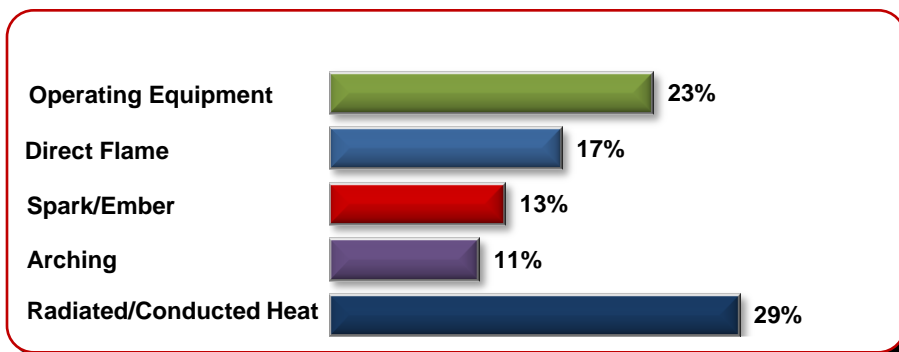


Mobile Property Fires

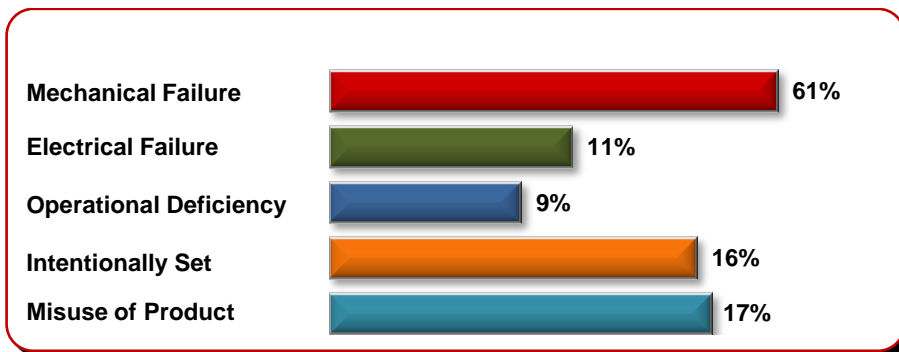
According to NFIRS, a mobile property fire is defined as any fire involving a car, truck, boat, airplane, snow machine, four wheeler, construction equipment or other mobile property (not being used as a permanent structure) that occurs outside of a structure.

In 2017, 581 mobile property fires were reported. This accounted for 20% of all reported fires, 10 civilian injuries, 17% civilian fire fatalities; and an estimated property damage of \$7.7 million. The 581 mobile property fires in 2017 represents a 30% increase from the 446 motor vehicle fires reported in 2016.

The majority of mobile property fires involved passenger vehicles. There were 362 fires involving cars, small trucks and vans. Passenger vehicle fires accounted for \$2,186,150 or 28% of property damage for all reported motor vehicle fires. Half of all motor property fires reported the area of fire origin to be in the engine area, running gear or wheel area was reported as the fire area or origin in 50% of all reported vehicle fires.

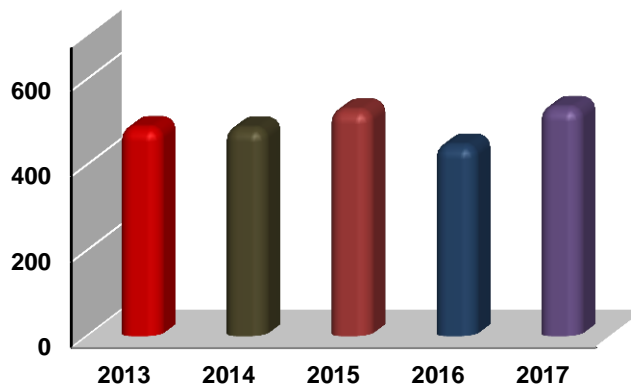


This bar chart indicates the most frequently reported heat source in vehicles excluding undetermined.



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

Mobile Property Fires 2013 - 2017



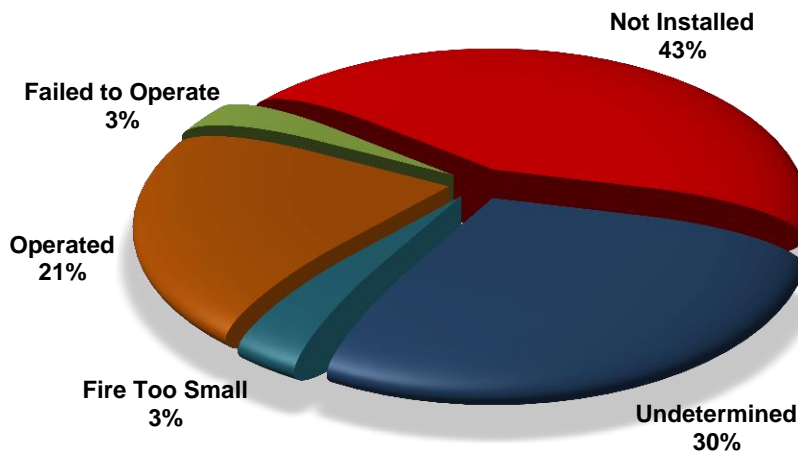
Structure Fires

The 1,134 reported structure fires in 2017 caused 18 civilian deaths, 64 civilian injuries, 35 fire service injuries, and an estimated dollar loss of \$87 million. Structure fires accounted for 63% of reported fires and 95% of the civilian fire deaths in 2017.

The number of structure fires decreased by 2% from the 1,155 reported in 2016.

2017 Structure Fires by Property Use	Count	%	Civ. Deaths	Civ. Injuries	FF Injuries	Total Dollar Loss
Educational	12	1%	0	0	0	\$78,250
Health Care	9	1%	0	2	0	\$25,005
Industrial	25	3%	0	0	0	\$143,845
Manufacturing, Processing	8	0%	0	0	0	\$40,212,600
Mercantile	61	5%	0	0	0	\$4,565,849
Other or Special	91	8%	0	3	0	\$381,452
Public Assembly	32	3%	0	1	0	\$1,058,120
Residential	799	71%	18	53	31	\$33,604,670
Storage	97	8%	0	4	5	\$7,214,189
Total	1,134	100%	18	63	36	\$87,283,980

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	7	0	1	1	1	10
Health Care	3	0	1	2	1	7
Industrial	1	0	0	9	9	19
Manufacturing, Proc.	3	1	0	1	2	7
Mercantile	10	2	4	18	12	46
Other or Special	0	0	0	34	43	78
Public Assembly	5	0	2	4	14	25
Residential	143	23	21	208	133	528
Storage	2	0	0	60	18	80
Total	174	26	29	337	233	799

Residential Structure Fires

The majority of structure fires in Alaska occur in the home. In 2017, there were 799 **reported residential structure fires (included structures confined and/or contained inside the structure)**. These fires caused an estimated direct loss of over **\$34 million**. There were **53 civilian injuries, 18 civilian deaths and 31 firefighter injuries** caused by these fires. The total number of reported residential structure fires decreased by less than 1% from the 805 reported in 2016.

Occupancy	Count	%	Civ. Deaths	Civ. Injuries	FF Injuries	Total Dollar Loss
Multifamily	185	22%	6	10	6	\$6,136,866
Board and Care	6	1%	2	2	4	\$530,000
Hotels & Motels	9	1%	1	0	0	\$2,450,400
1 & 2 Family Homes	589	74%	9	41	21	\$24,485,304
Dormitories	4	1%	0	0	0	\$1,500
Unclassified	6	1%	0	0	0	\$600
Total	799	100%	15	52	20	\$33,604,670

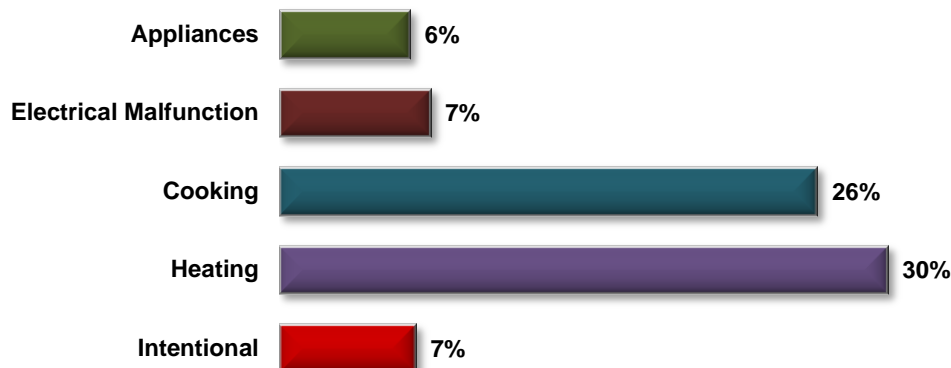
Residential Occupancy Sub-Group

- **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 FIRE CAUSES

The leading causes of residential structures (excluding unknown which was a reported 13% of all residential structure fires) in 2017 were heating, cooking and tied for third, electrical malfunction and intentionally set fires.

2017 Residential Structure Fire Causes
Top Five

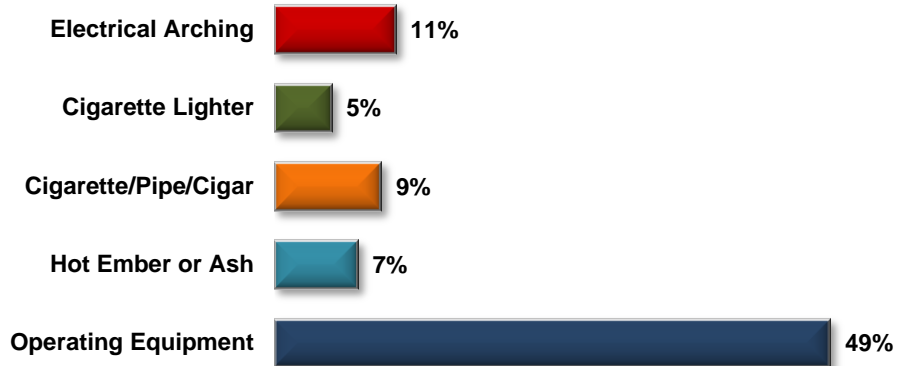


Residential Structure Fires

HEAT SOURCE

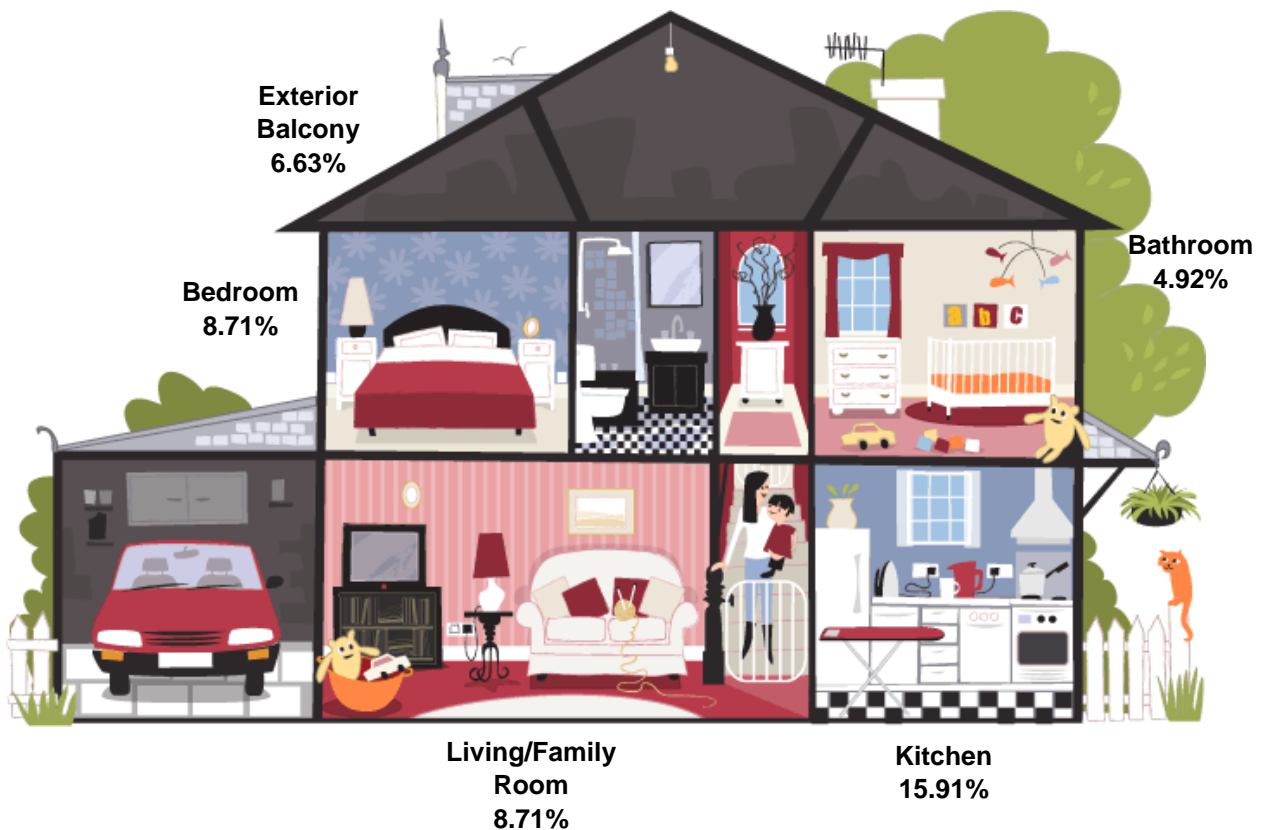
The two most common heat sources in residential structure fires resulted from human acts of intention, error or carelessness. Radiated/conducted heat from operating equipment was the number one heat source with electrical arching being the second (this excludes undetermined/under investigation which accounted for 35% reported heat sources).

This graph shows the top five heat source's in residential structure fires in 2017.



AREA OF FIRE ORIGIN

The "area of fire origin" element describes the room or area where the fire originated in the structure. The most common areas of fires in residential structures for 2017 were the kitchen/cooking area, bedroom and living/family room area.

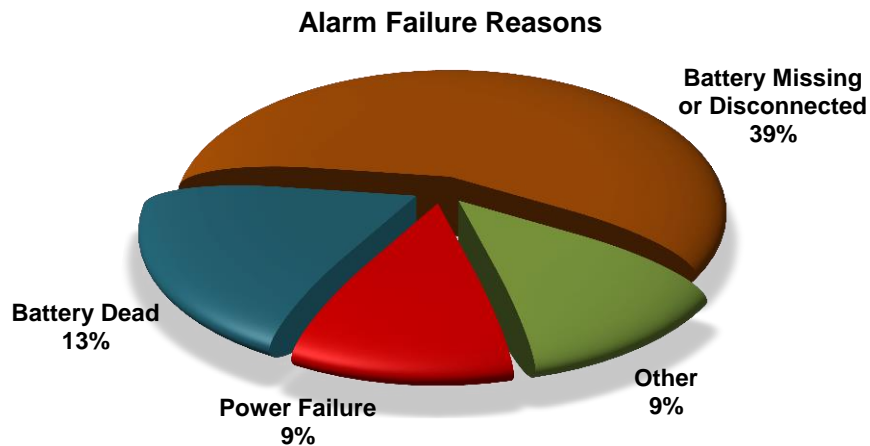


Residential Structure Fires

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 2017, 27% of all reported residential structure (non-confined) fires, the alarm operated. In 39% of residential structure fires reported, no alarm was present. The alarm failed to operate in 4% of the incidents. Smoke alarms did not activate in 4% of the incidents due to the fire being too small to activate the alarm. In 26% of the incidents, the smoke alarm presence was not able to be determined.



SMOKE ALARM PERFORMANCE IN RESIDENTIAL NON-CONFINED FIRES

Smoke Alarm Operation	Count	%	Civ. Deaths	Civ. Injuries	FS Injuries
Failed to Operate	23	7%	2	3	0
Operated	144	44%	7	17	16
Fire too Small to Operate	21	6%	0	0	0
Undetermined	140	43%	1	3	0
Total	328	100%	10	23	16

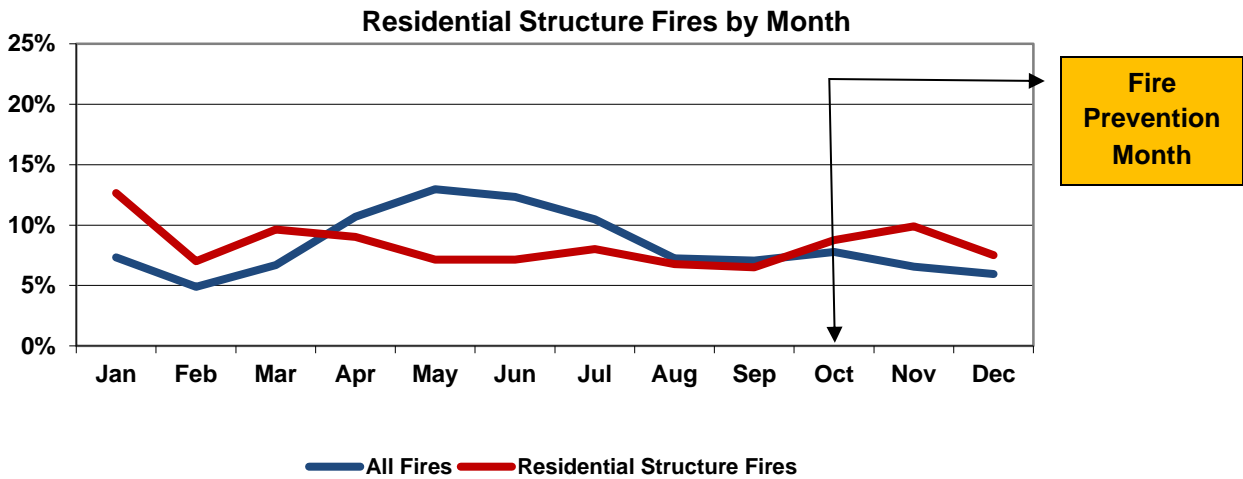
Smoke Alarm Failure Reason	Count	%	Civ. Deaths	Civ. Injuries	FS Injuries
Battery Discharged/Dead	3	13%	0	0	0
Battery Missing/Disconnected	9	39%	2	0	0
Other	2	9%	0	1	0
Defective	0	0%	0	0	0
Power Failure	2	9%	0	0	0
Undetermined	7	30%	0	2	0
Total	23	100%	2	3	0

Residential Structure Fires

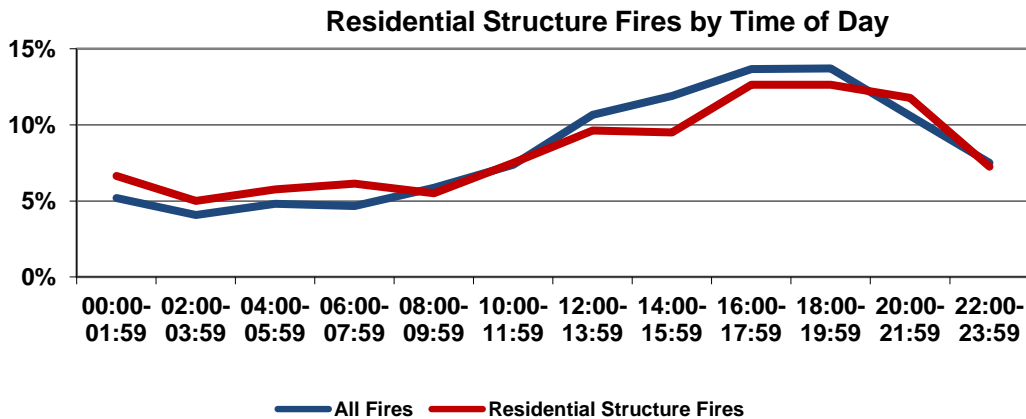
WHEN RESIDENTIAL FIRES OCCUR

Fires in residential structures were more common in the winter than in the summer during 2017. 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 heating – perhaps a greater propensity to stay at home.

For 2017, the most residential structure fires, 13%, occurred in the month of January. The month of September had the least amount of residential structure fires, accounting for only 7% of incidents.



When analyzed by time of day, as illustrated below, the highest number of residential structure fires occurred during the evening, which is consistent for other types of fires as well. Cooking, the second leading cause of residential structure fires in the Alaska during 2017, contributes significantly to this as many people prepare dinner at home between six and eight pm. The public should be aware that cooking fires can be extinguished by a pot or pan lid or by dousing with baking soda. Wearing loose-fitted clothing is also dangerous around cooking areas.



Intentionally Set Fires

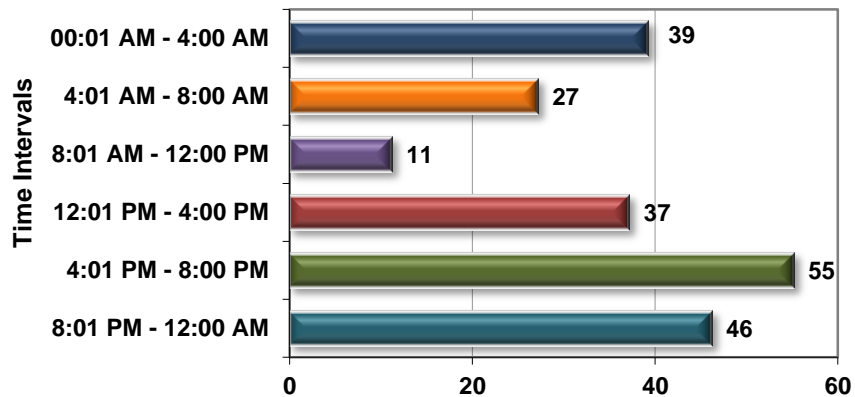
Of all the fires reported in 2017, **215 were reported as intentionally set**. That is an increase of 57% fires reported as intentionally set fires from 2016; however, it is known that intentionally set fires continue to be severely under reported.

A substantial increase of 48% in reported property loss, which was due to intentionally set fires occurred from 2016 to 2017.

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 \$6,822,549.

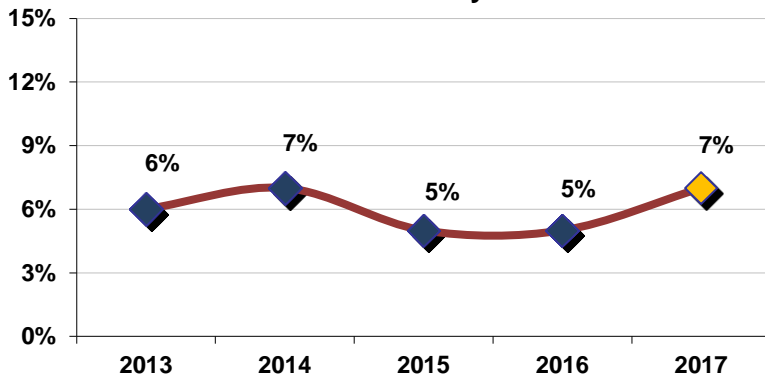
Almost 55% of all reported intentionally set fires occurred as structure fires. Mobile property fires came in second at 23%. The main areas of origin for intentionally set fires in a structure were in the bathroom, bedroom, and on the exterior siding of the structure. Cigarette lighters and matches were the heat source in over 29% of the incidents.

2017 Alarm Time for Intentional Fires



This chart shows the time for all reported intentional fires.

2013 - 2017 Intentionally Set Fires

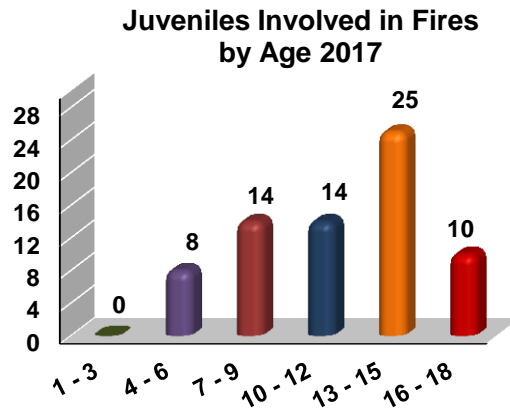
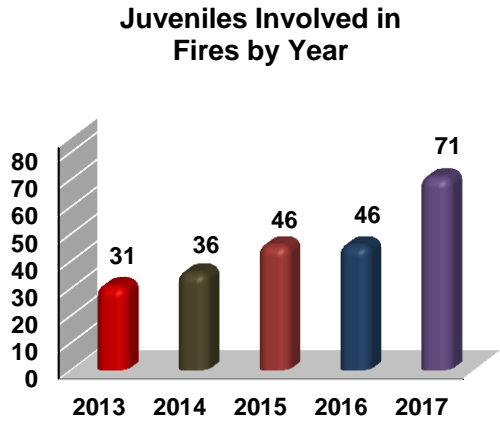


This chart indicates the percentage of fires that have been reported as intentional for the indicated year.

Juveniles Involved With Fire

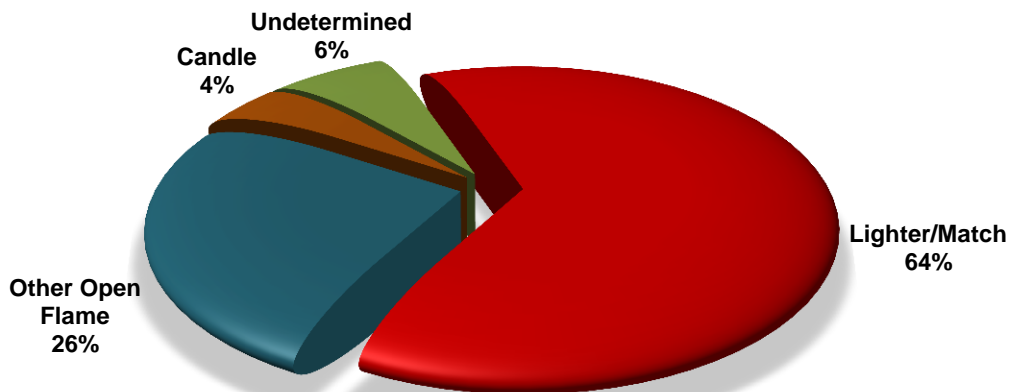
Juvenile firesetting is best defined as any unsanctioned use of, or involvement with, ignition materials with the intent to produce a flame or fire.

In 2017, children playing with matches, lighters and other heat sources caused 48 reported fires with an estimated dollar loss of \$805,390. The fires set by children in 2017 included: 24 structure fires, 18 natural vegetation fires (consuming a total of approximately seven acres of land), three mobile property fires and three special outside fires.



Heat Source

As stated, in 2017, 64% of juvenile-set fires were started by lighters or matches. Additionally, 26% of juvenile set fires were started with some type of other open flame, 4% were started by candles. In the remaining 6% of these fires, the heat source 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 2017, Alaskans suffered 19 deaths and 129 injuries directly caused by fire.

2017 FIREFIGHTER INJURIES

There were 47 reported firefighter injuries associated with the suppression of fires in 2017. As in previous years, the majority of the injured were men. The age of the injured ranged from 20 to 59 years old.

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

Of the 47 firefighter injuries where the primary symptom was known, 50% reported strains or sprains as their primary symptom, 27% reported smoke inhalation, 9% reported pain only, with the remaining incidents listed as miscellaneous or multiple symptoms.

Cause of Injury	
Contact with Object	9%
Exposure to Hazard	9%
Fall	9%
None Reported/Undetermined	32%
Other	7%
Overexertion/Strain	19%
Slip/Trip	11%
Struck or Assaulted	4%

Types of Fires	
Mobile Property Fires	4%
Outside Fires	20%
Structure Fires	76%

Severity of Injury	
First Aid Only	6%
Moderate (Lost Time)	21%
Report Only	53%
Treated by Physician	17%
Life Threatening	3%

FF Activity at Time of Injury	
Extinguishing	30%
Handling Charged Hose	4%
Moving Tools or Equipment	2%
Using Tools for Ext.	6%
Operating Engine or Pumper	4%
Catching Hydrant	2%
Directing Traffic	2%
Getting off Dept. Vehicle	2%
Laying Hose	2%
Other Activity	26%
Picking Up Tools	2%
Salvage	2%
Rescue	6%
Suppression Support, Other	10%

Time of Day	
00:00 – 06:00	34%
06:01 – 12:00	17%
12:01 – 18:00	21%
18:01 – 23:59	28%

Age of FF	
18 – 29	19%
30 – 39	23%
40 – 49	30%
50 – 59	24%
60+	4%

Fire Injuries and Fatalities

2017 CIVILIAN FIRE INJURIES

There were 82 civilians injured by fire in Alaska in 2017. The majority, 78%, were the result of structure fires. Almost 35% 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	78%
Fire, Other	0%
Mobile Property (Vehicle)	19%
Outside Fire	3%

Cause of Injury	
Struck by Object	2%
Exposed to Fire Products	71%
Exposed to Haz. Materials	2%
Fell, Slipped, or Tripped	1%
Multiple Causes	3%
Jumped in Escape Attempt	5%
None Reported	16%

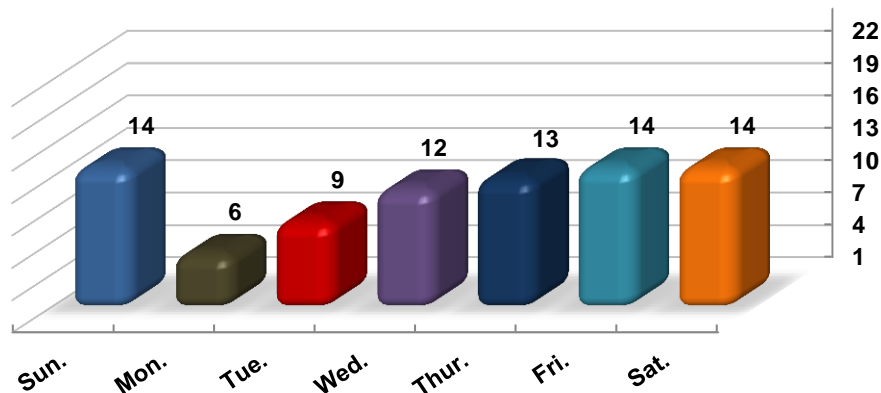
Severity of Injury	
Minor	54%
Moderate	27%
Severe	12%
Life Threatening	7%
Not Reported	0%

Age of Injured Civilian	
0 – 17	15%
18 - 29	20%
30 – 39	26%
40 – 49	9%
50 – 59	16%
60+	14%

Human Factors	
Asleep	9%
Impaired by Alcohol/Drugs	4%
Unconscious	12%
Physically Restrained	11%
Physically or Mentally Disabled	3%
None Reported	61%

Time of Day	
00:00 – 06:00	27%
06:01 – 12:00	26%
12:01 – 18:00	23%
18:01 – 23:59	24%

Civilian Injuries by Day of Week

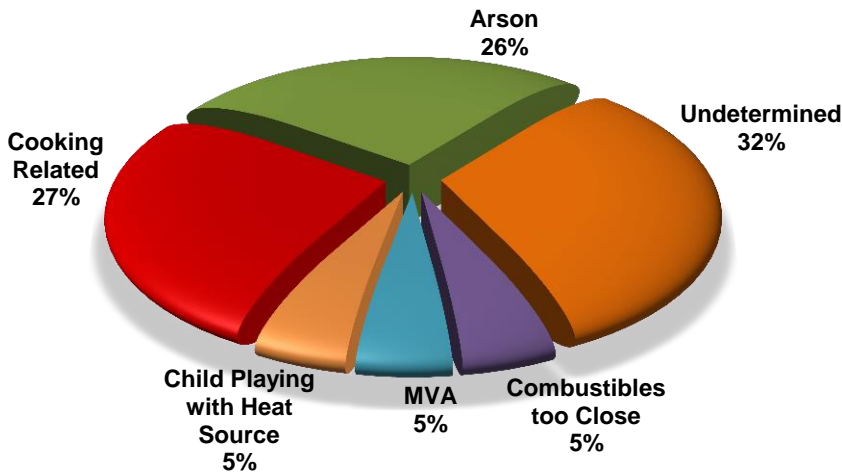


Fire Injuries and Fatalities

2017 CIVILIAN FATALITIES

Even though Alaska experienced 129 fire injuries and over \$95 million in estimated losses, the real tragedy was the loss of 19 lives from fire in 2017. Alaska experienced almost seven fire deaths for each 1,000 fires during this year. In terms of Alaska's increasing population, the 2017 fire death rate was 2.6 deaths for each 1,000,000 Alaskans.

Causes of 2017 Fire Fatalities



In 11% percent of Alaska's 2017 civilian fatalities, alcohol and/or drugs were contributing factor to the fire.

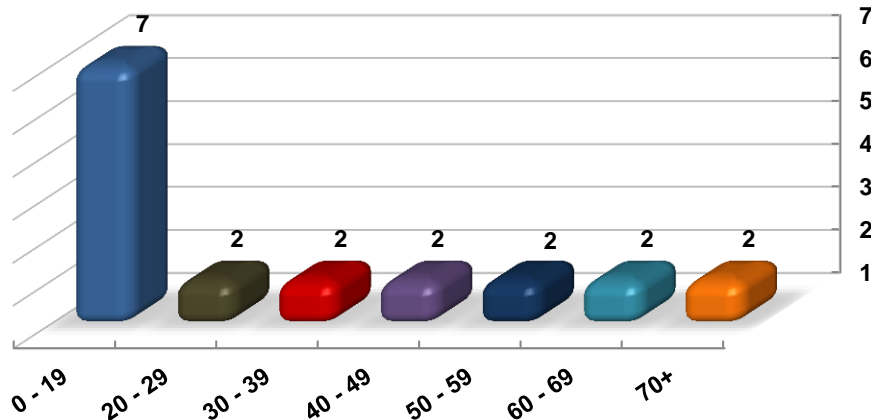
In 2017, 63% percent of all civilian fire fatalities were male.

From 2013 – 2017, 65% of all civilian fire fatalities were male.

Fire Fatalities by Gender



Number of 2017 Fire Fatalities by Age Group

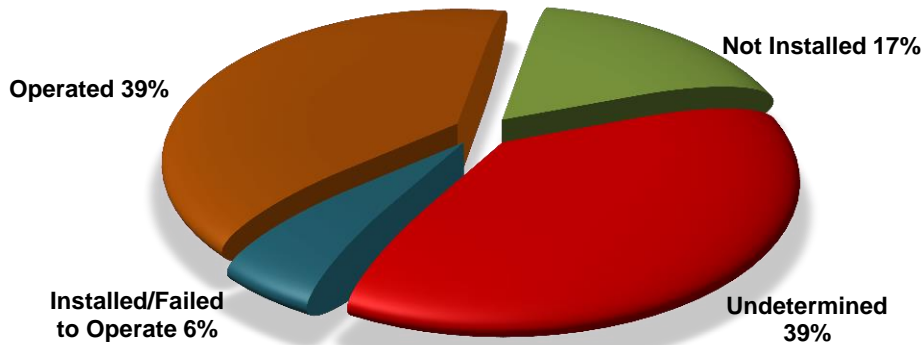


Fire Injuries and Fatalities

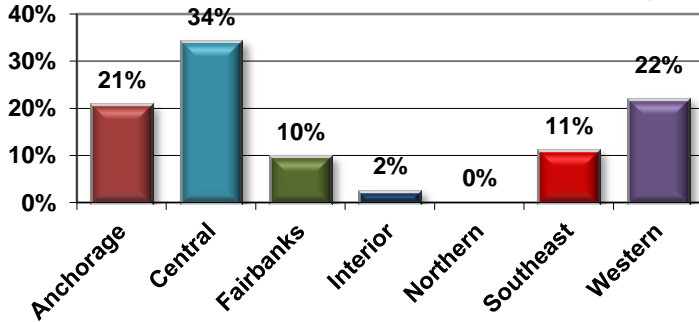
Eighteen civilian fire fatalities, or 95%, occurred in residential structures. The remaining 5% occurred as a result of a motor vehicle crash. Of the 18 fire deaths that occurred in residential structures, there were three deaths in single family residential homes, six in residential trailers, two in a bed and breakfast, one in a hotel and six deaths in 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, seven had a smoke alarm present and only three of which operated. In the remaining nine residential homes, the smoke alarm presence was not installed. The fire was too small to activate the alarm or the presence of an alarm was reported as undetermined.

Smoke Alarm Presence/Operation

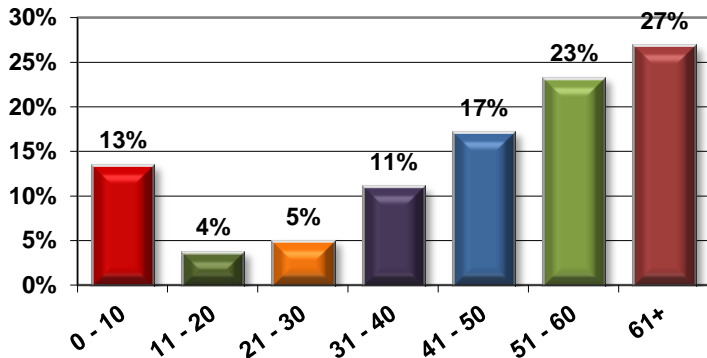


FIVE-YEAR (2013 – 2017) TRENDS (By Percentage)



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.

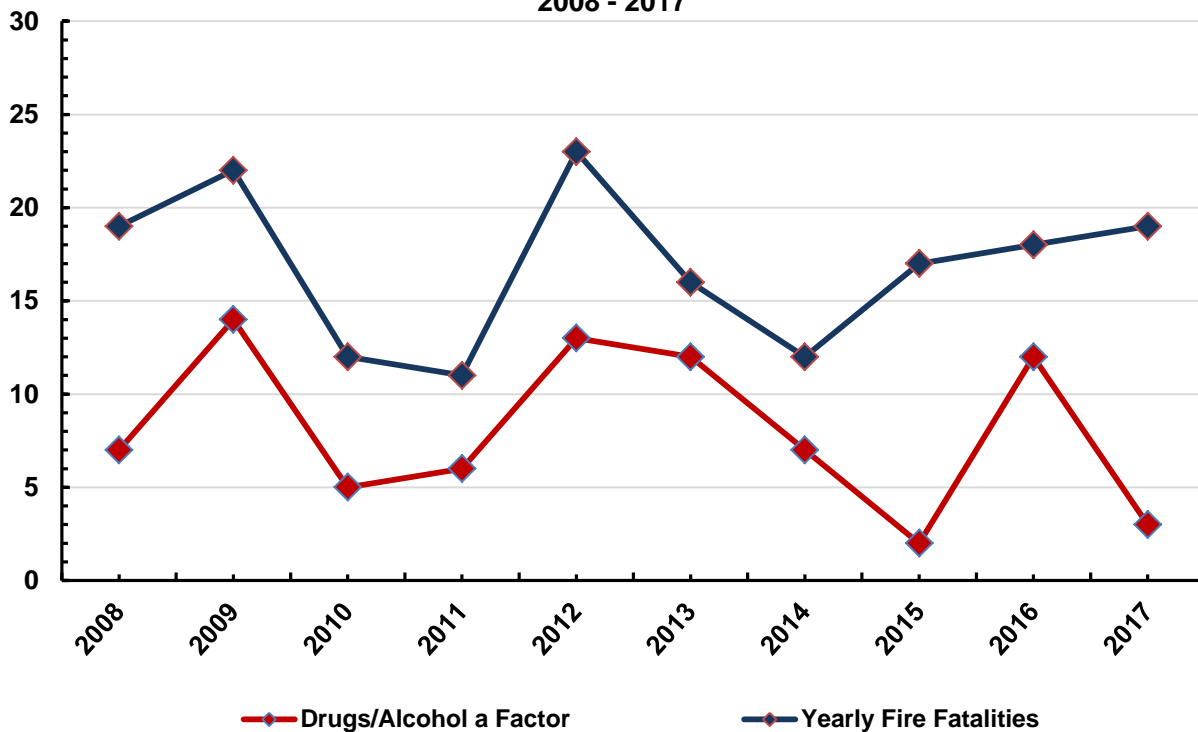
Alcohol and Drug Related Fire Fatalities

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, drownings, 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, a 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 169 fire fatalities. Out of these unfortunate victims, 47% 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 in Alaska as 67% percent of these victims were male.

**Alcohol and Drug Related Fire Fatalities
2008 - 2017**



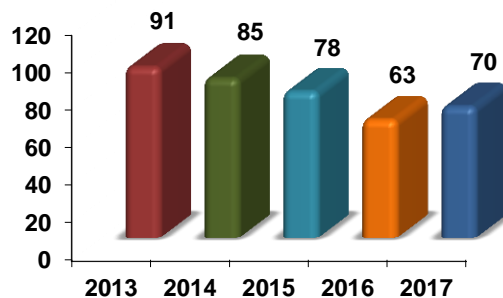
Fire fatalities and injuries can be prevented if a concerted effort is made to identify and modify high-risk drinking patterns. It also may be possible to minimize fire risk by increasing the awareness of those who drink and those who are surrounded by regular drinkers.

Burn Injuries

All burn injuries treated in Alaska by a health care professional must be reported to the Division of Fire and Life Safety within three working days. In 2017, health care professionals reported 70 burn injuries. This is an increase of 11% from the 63 incidents that was reported in 2016.

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 2013 - 2017



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 2017

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 59% of all burn incidents were fire/flame related, 29% were related to scalding, while another 7% came from contact with a hot object.

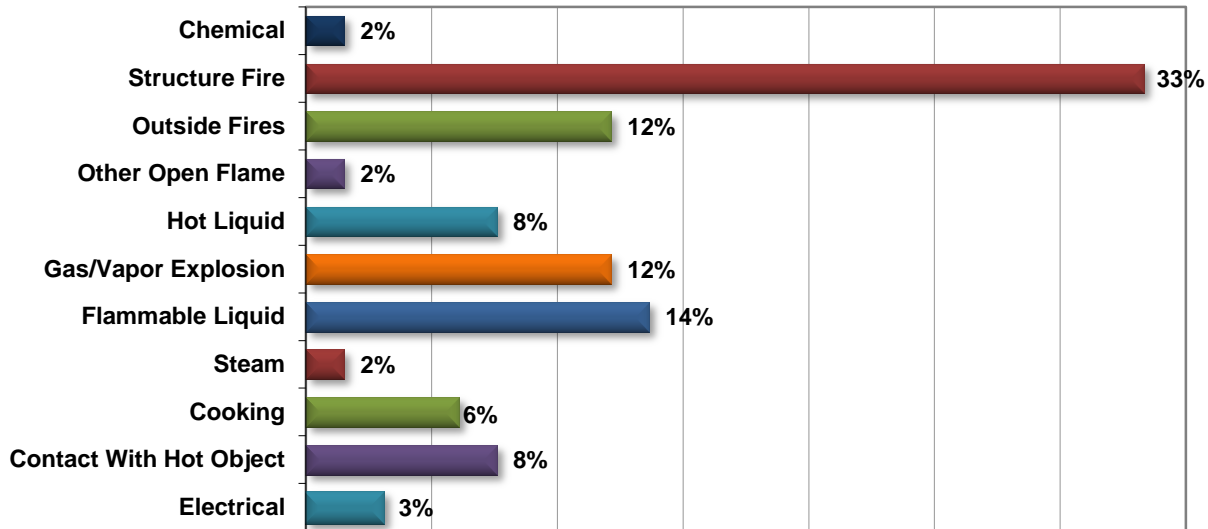
Electrical Burns – Electrical burns occur when electric currents pass through the body. A significant part of the damage is done under the surface of the skin. Some of the factors that affects the extent of the injury include the duration of exposure, type of current, intensity of the current, amount 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 2% 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 2017, there was no burn injuries reported with this type of burn injury.

Burn Injuries

Causes of 2017 Reported Burn Injuries:

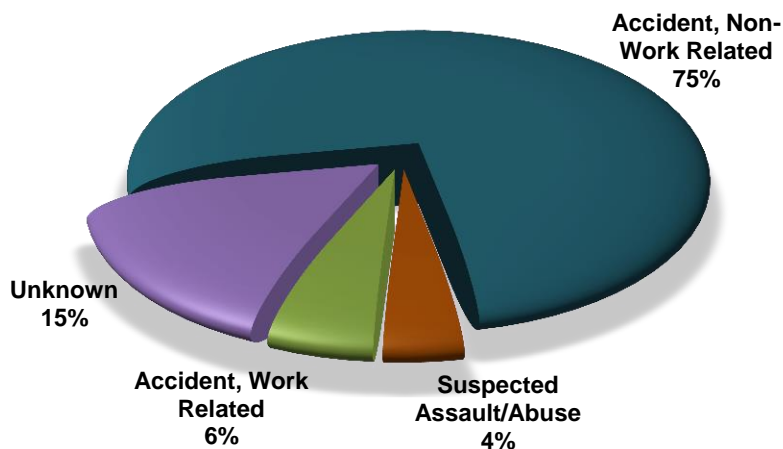


Top Two Causes of Reported Burn Injuries by Age Group in 2017:

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

Circumstances of Injury:

The circumstances surrounding flame burns are most commonly non-work related accidents followed by work related injuries.



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. They 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. These type of burns 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.

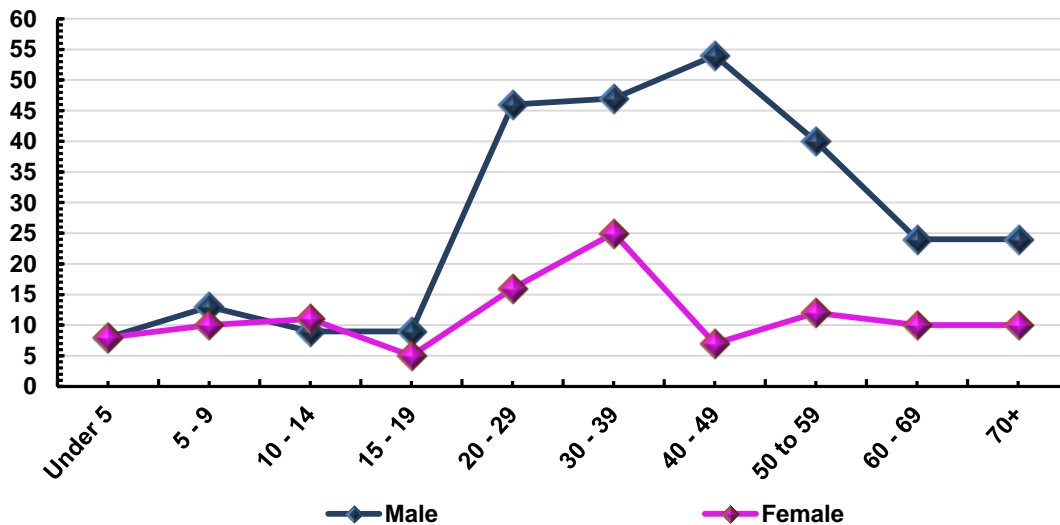
Levels of Burn Severity Reported in 2017



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 2017 was 30 – 39 years old.

Reported Burn Injury Reports by Age and Gender
2008 - 2017

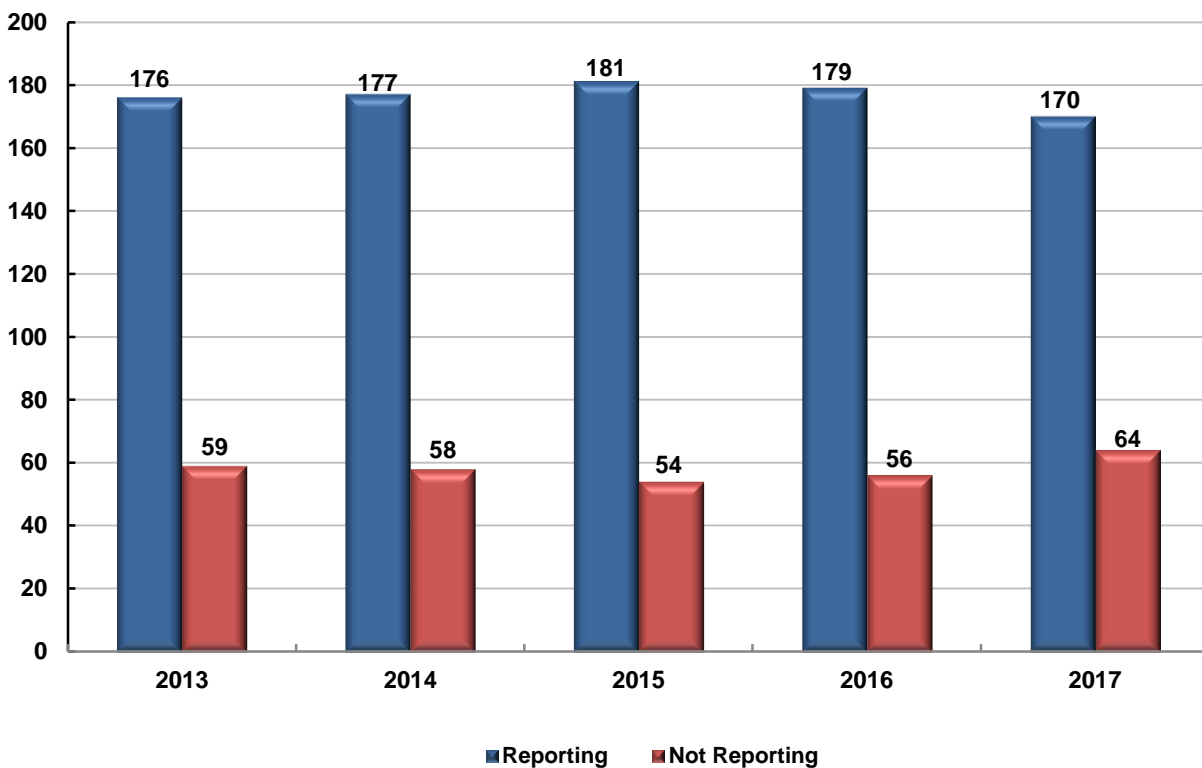


ANFIRS Participants

The following pages are a listing of fire department fire responses submitted to the Alaska National Fire Incident Reporting System (ANFIRS) during 2017. Totals are inclusive of all reports received by May 1, 2017. Department name will **NOT** appear on the listing if they failed to submit ANFIRS for the full year of 2017.

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 2013 – 2017 Comparison



2017 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
Akutan VFD	2	1	1	0	0	0	0	20,035
***Aleutian Islands, Other Areas	1	1	0	0	0	0	0	40,000,000
Anchor Point Fire & Emergency Medical Service Area	24	9	15	0	0	0	0	162,000
Anchorage FD	870	344	526	5	22	0	30	13,659,631
Angoon VFD	2	0	2	0	0	0	0	0
Aniak VFD	2	1	1	0	0	0	0	3,000
Anton Anderson Mem Tun. FD	0	0	0	0	0	0	0	0
***Anvik	1	0	1	0	0	0	0	0
***Arctic Village	4	4	0	0	0	0	0	237,800
Atka VFD	1	0	1	0	0	0	0	15,000
Bear Creek Fire/EMS Dept.	18	6	16	0	0	0	0	519,700
Bethel FD	43	16	27	0	1	0	0	386,040
Birch Creek VFD	0	0	0	0	0	0	0	0
Brevig Mission FD	0	0	0	0	0	0	0	0
Bristol Bay Borough Emerg. Svs.	6	3	3	0	0	0	0	227,200
Butte FD	36	10	26	6	1	0	0	157,400
Cantwell VFD	1	0	1	0	0	0	0	21,000
Capital City Fire/Rescue	138	51	87	2	3	0	8	1,903,367
Caswell Lakes FSA #135	7	3	4	0	0	0	0	252,500
Central Emergency Services	88	49	39	0	3	0	2	1,535,712
Central Mat-Su FD	221	56	165	0	7	0	0	1,583,665
Chena Goldstream F/R	46	17	29	0	0	0	0	817,090
Chenega Bay FD	0	0	0	0	0	0	0	0
***Chevak	1	1	0	0	1	0	0	30,000
Chignik Lagoon VFD	0	0	0	0	0	0	0	0
Chinik VFD (Golovin)	0	0	0	0	0	0	0	0
**Chistochina VFD	1	1	0	0	0	0	0	37,000

** Indicates the Department did NOT report for the full year of 2017.

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

2017 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
1	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	1
0	187	5	3	25	0	3	12	259
23	24,972	523	2,106	5,585	34	2,221	15	36,349
0	0	0	0	0	0	0	0	2
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	1
0	0	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	1
0	95	2	5	17	0	0	46	183
2	4	7	33	12	0	31	0	132
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	6
0	71	7	4	50	0	11	12	191
0	0	0	0	0	0	0	0	1
1	3,952	91	185	607	20	283	2	5,279
0	4	0	2	7	0	2	14	36
0	1,838	77	113	280	0	126	23	2,545
11	578	109	48	394	4	206	45	1,616
0	266	21	11	46	1	10	52	453
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	1

2017 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.	59	18	41	0	1	0	0	1,596,320
City of Anderson FD	3	1	2	0	0	0	0	20,000
City of Fairbanks FD	104	43	61	0	2	0	0	461,568
City of False Pass VFD	0	0	0	0	0	0	0	0
City of Kasaan VFD	1	0	1	0	0	0	0	0
City of Kodiak FD	27	12	15	0	0	0	0	709,900
City of Kotzebue FD	9	4	5	0	0	0	0	179,525
City of Palmer FD	30	10	20	0	7	0	0	314,695
Coffman Cove VFD	0	0	0	0	0	0	0	0
ConocoPhillips Alaska Alpine	2	0	2	0	0	0	0	5,800
ConocoPhillips Alaska Kuparuk	8	3	5	0	0	0	0	305,500
Cooper Landing VFD	4	1	3	0	0	0	0	438,750
Cordova VFD	6	4	2	0	0	0	0	170,400
Craig VFD	9	5	4	0	0	0	0	2,090,700
Delta Junction VFD	2	2	0	0	0	0	0	520,000
Dillingham VFD & Rescue	9	8	1	0	0	0	0	15,500
Division of Forestry	179	2	177	0	0	0	0	110,000
Eagle VFD	1	1	0	0	0	0	0	50,000
Edna Bay 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	8,100
** Emmonak VFD	3	2	1	0	0	0	0	30,000
Ester VFD	16	11	5	0	0	0	0	38,700
Fairbanks Airport Police & Fire	5	1	4	0	0	0	0	2,600
***Fairbanks, Other Areas	13	6	7	0	2	0	0	374,096
Fire Protection Area (Bayside)	27	8	19	0	0	0	0	408,100
Gakona VFD	3	1	2	0	0	0	0	48,000
Galena VFD	2	2	0	1	0	0	0	770,000

** Indicates the Department did NOT report for the full year of 2017.

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

2017 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	672	33	42	117	0	58	5	986
0	0	0	0	0	0	0	2	5
5	3,304	58	272	1,004	21	320	91	5,179
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
2	123	23	30	13	0	42	5	265
0	0	0	2	1	0	48	0	60
0	81	19	27	59	1	42	221	480
0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	3
1	0	0	0	1	0	0	0	10
0	0	0	0	0	0	0	0	4
1	2	8	2	4	0	24	0	47
0	2	2	1	2	1	0	2	19
0	0	0	0	0	0	0	10	12
0	0	0	0	5	0	2	0	16
0	0	0	17	7	0	0	0	203
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	1
0	0	0	0	0	0	0	0	3
0	101	7	14	14	0	21	18	191
0	68	27	0	1	0	5	1	107
0	0	0	0	0	0	0	0	13
0	79	4	6	10	1	22	5	154
0	0	0	0	1	0	0	9	13
0	0	0	0	0	0	0	0	2

2017 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Girdwood FD	11	3	8	0	0	0	0	56,300
Glennrich Fire Rescue	10	6	4	0	0	0	0	267,000
**Goodnews Bay VFD	1	0	1	0	0	0	0	0
Greater Palmer FSA	64	15	49	0	5	0	2	1,133,750
***Grayling	1	1	0	0	1	0	0	600
Greater Prudhoe Bay FD	3	1	2	0	0	0	0	1,540,000
Gulkana VFD	0	0	0	0	0	0	0	0
Gustavus VFD	0	0	0	0	0	0	0	0
Haines VFD	11	8	3	0	0	0	1	302,600
Hilcorp FD	3	1	2	0	0	0	0	0
Hollis VFD	1	1	0	0	0	0	0	100,000
Homer VFD	19	4	15	0	0	0	0	170,000
***Hooper Bay	1	1	0	0	0	0	0	55,000
Hope/Sunrise Emerg. Svs., Inc.	3	0	3	0	0	0	0	70,000
Houston FD	18	4	14	0	1	0	0	183,536
Huslia VFD	2	1	1	0	0	0	0	0
Hydaburg VFD	3	1	2	0	0	0	0	19,500
Iliamana VFD	1	1	0	0	0	0	0	2,500
***Joint Kwinhagak VFD	2	2	0	0	1	0	0	21,000
Kachemak Emergency Services	15	7	8	0	0	0	0	481,600
Kake VFD	0	0	0	0	0	0	0	0
Kenai FD	21	9	12	0	0	0	0	198,995
Kennicott/McCarthy VFD	1	1	0	0	1	0	0	50,000
Kenny Lake VFD	0	0	0	0	0	0	0	0
Ketchikan FD	45	22	23	1	4	0	0	106,855
Ketchikan Int'l Airport FD	1	0	1	0	0	0	0	0
King Cove Fire & Rescue	1	1	0	0	0	0	0	0
Klawock VFD	9	4	5	0	0	0	0	16,000

** Indicates the Department did NOT report for the full year of 2017.

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

2017 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Inc.
0	209	10	54	64	0	12	32	392
2	1	0	1	2	0	1	3	20
0	0	0	0	0	0	0	0	1
1	1	30	10	51	0	34	7	198
0	0	0	0	0	0	0	0	1
1	33	6	0	3	0	1	1	48
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	2	2	0	1	0	0	2	18
0	0	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	1
1	543	7	19	21	0	29	8	647
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	3
0	86	19	4	19	0	7	50	203
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	1
0	0	0	0	0	0	0	0	2
0	11	1	2	19	1	2	8	59
0	0	0	0	0	0	0	0	0
0	1,001	21	148	75	3	63	38	1,370
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
1	1,541	18	98	278	0	100	9	2,090
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
1	4	1	1	3	0	0	2	21

2017 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Klehini Valley VFD	3	3	0	0	0	0	0	25,000
***Kodiak Island, Other Area	3	0	3	0	0	0	0	0
** Kongiganak VFD	0	0	0	0	0	0	0	0
**Kwethluk VFD	5	2	3	0	0	0	0	100,200
***Kwigillingok VFD	1	1	0	0	0	0	0	75,000
***Larsen Bay	1	1	0	0	0	0	0	15,000
Louise, Susitna, Tyone VFD	0	0	0	0	0	0	0	0
Lowell Point VFD	0	0	0	0	0	0	0	0
Lower Kalskag VFD	0	0	0	0	0	0	0	0
***Lower Yukon, Other Areas	1	1	0	0	0	0	0	200,000
Manley Hot Springs VFD	1	0	1	0	0	0	0	0
**McGrath VFD	0	0	0	0	0	0	0	0
McKinley VFD	2	1	1	0	0	0	0	79,000
Mentasta VFD	0	0	0	0	0	0	0	0
Minto VFD	0	0	0	0	0	0	0	0
Moose Pass Vol. Fire Company	4	2	2	0	0	0	0	211,150
***Mountain Village	1	1	0	0	2	0	0	60,000
Nanwalek VFD	0	0	0	0	0	0	0	0
***Napaskiak	1	1	0	0	0	0	0	100,000
Naukati VFD	2	2	0	0	0	0	0	10,000
Nel/Mel VFD	1	1	0	0	0	0	0	1,100,000
Nelson Lagoon Fire & Rescue	0	0	0	0	0	0	0	0
Nenana Fire/EMS Dept.	4	2	2	0	0	0	0	80,500
New Stuyahok VFD	1	0	1	0	0	0	0	0
***Newtok	1	1	0	0	0	0	0	15,000
Nikiski FD	28	14	14	0	2	0	0	305,000
Ninilchik Emergency Services	4	4	0	0	0	0	0	76,600
Nome VFD	15	12	3	1	1	0	1	1,480,150

** Indicates the Department did NOT report for the full year of 2017.

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

2017 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	3
0	0	0	0	0	0	0	0	0
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	1
0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	3	5
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	2	1	0	3	0	1	6	15
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	3	8
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	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	1	5
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1
1	637	36	190	62	3	20	17	994
0	0	0	0	0	0	0	1	5
1	30	8	2	13	0	13	0	82

2017 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
North Pole FD	17	6	11	0	0	0	0	2,067,318
North Slope Borough FD	30	13	17	0	0	0	0	125,710
North Star FD	107	55	52	0	3	0	0	4,415,501
North Tongass VFD	13	6	7	0	0	0	0	21,400
Northway VFD	0	0	0	0	0	0	0	0
Northwest Arctic Borough FD	5	4	1	0	0	0	0	276,600
Nunapitchuk VFD	0	0	0	0	0	0	0	0
**Old Harbor VFD	1	1	0	0	0	0	0	1,000
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	1	0	1	0	0	0	0	120,000
Petersburg VFD	20	10	10	0	1	0	0	183,050
Pilot Point VFD	1	1	0	0	0	0	0	3,500
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	1	0	1	0	0	0	0	2,000
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	19	12	7	0	0	0	0	996,000
***Russian Mission	2	0	2	0	0	0	0	0
Salcha Fire & Rescue	14	4	10	0	0	0	0	323,200
Sand Point VFD	1	1	0	0	0	0	0	50,500
***Savoonga	2	2	0	0	0	0	0	0
Seldovia Vol. Fire & Rescue	0	0	0	0	0	0	0	0
Seward FD	8	4	4	0	1	0	0	160,200
***Shishmaref	1	0	1	0	0	0	0	0

** Indicates the Department did NOT report for the full year of 2017.

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

2017 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	968	4	32	65	1	56	40	1,183
0	1	21	5	21	0	67	0	145
2	731	21	38	207	2	40	54	1,202
0	202	1	2	8	0	12	7	245
0	0	0	0	0	0	0	0	0
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	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	1
0	1	8	5	8	0	28	0	70
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	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
0	0	0	0	0	0	0	0	19
0	0	0	0	0	0	0	0	2
0	51	4	20	7	0	0	0	96
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	1	2	3
1	238	8	25	20	0	32	14	346
0	0	0	0	0	0	0	0	1

2017 Experience by Fire Department

Fire Department Name	Total Fires	Structure Fires	Other Fires	Civilian		Fire Service		Fire Dollar Loss
				Dths.	Inj.	Dths.	Inj.	
Sitka FD	21	13	8	0	0	0	0	16,810
Skagway VFD	12	3	9	0	0	0	0	250,450
**Slana VFD	0	0	0	0	0	0	0	0
***Southeast Fbks., Other Areas	1	0	1	0	0	0	0	500
South Tongass VFD	9	6	3	0	0	0	0	332,000
St. George VFD	1	0	1	0	0	0	0	0
St. Mary's VFD	2	1	1	0	0	0	0	275,000
***St. Michael	1	1	0	0	0	0	0	23,000
St. Paul Dept. of Public Safety	1	0	1	0	0	0	0	60,000
***Stebbins	2	1	1	0	0	0	0	35,500
Steese Area VFD	45	16	29	1	0	0	1	1,595,978
Stony River VFD	0	0	0	0	0	0	0	0
Strelna VFD	0	0	0	0	0	0	0	0
Sutton VFD	9	4	5	1	1	0	1	111,850
SVT Barabara Heights FD	1	0	1	0	0	0	0	0
Talkeetna VFD	10	7	3	0	0	0	0	115,100
**Tanacross VFD	0	0	0	0	0	0	0	0
Tanana VFD	3	2	1	0	0	0	0	93,000
Ted Steven's Arpt. Police/Fire	6	1	5	0	0	0	0	1,100
Tenakee Springs VFD	0	0	0	0	0	0	0	0
***Tetlin VFD	1	0	1	0	0	0	0	0
Thorne Bay VFD	0	0	0	0	0	0	0	0
**Togiak VFD	0	0	0	0	0	0	0	0
Tok VFD	11	10	1	0	0	0	0	647,200
***Toksook Bay	1	1	0	1	0	0	0	30,000
Top Of The World VFD	0	0	0	0	0	0	0	0
***Tuntutuliak	1	1	0	0	0	0	0	85,000
***Unalakleet	2	1	1	0	0	0	0	0

** Indicates the Department did NOT report for the full year of 2017.

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

2017 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
2	24	10	23	8	2	58	0	148
0	141	0	5	1	0	60	0	219
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1
0	149	3	2	8	2	21	12	206
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	1
0	0	0	0	0	0	0	0	2
0	475	27	12	47	2	13	115	736
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	19	0	0	17	0	0	0	45
0	0	0	1	0	0	1	0	3
0	55	1	0	7	0	2	32	107
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	3
0	326	56	91	2	1	22	0	504
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	1	12
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	2

2017 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	6	4	2	0	0	0	1	5,000
University FD	55	21	34	0	2	0	0	976,768
Valdez FD	24	13	11	0	2	0	0	1,039,700
***Valdez/Cordova Other Areas	1	1	0	0	0	0	0	0
West Lakes FD	111	30	81	0	4	0	0	391,060
Whale Pass Emergency Svs.	0	0	0	0	0	0	0	0
Whittier VFD	2	0	2	0	0	0	0	60,000
Willow VFD	24	5	19	0	0	0	0	34,100
Womens Bay VFD	6	3	3	0	0	0	0	70,350
Wrangell VFD	9	7	2	0	0	0	0	1,053,500
Yakutat VFD	1	1	0	0	0	0	0	250
Yukon/Koyukuk Other Areas	2	1	1	0	0	0	0	230,150
Grand Total:								
	2,985	1,134	1,851	19	82	0	47	95,223,575

** Indicates the Department did NOT report for the full year of 2017.

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

2017 Experience by Fire Department

Pressure Ruptures	Rescue Calls	Haz. Cond.	Service Calls	Good Intent Calls	Special Inc.	False Calls	Aid Given	Total Calls
0	169	0	0	2	0	9	0	186
5	1,006	14	42	116	2	178	337	1,755
3	241	23	46	22	1	42	0	402
0	0	0	0	0	0	0	0	1
1	169	40	16	84	0	39	20	480
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2
0	52	8	16	19	0	3	21	143
0	6	1	1	4	0	0	15	33
0	5	1	1	7	0	5	0	28
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2
Grand Total:								
71	45,529	1,434	3,837	9,556	103	4,450	1,450	69,415

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 2017 estimated population has been taken from State of Alaska, Department of Labor and Workforce Development, Research and Analysis website.

Alaska's 2013 - 2017 Average Fires per Capita (by Region)

