



**RESEARCH**

# **Brush, Grass and Forest Fires – Firefighter Injuries Supporting Tables**

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Marty Ahrens

## Supporting Tables for Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires: Supporting Tables

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**Table 1.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Incident Type: 2011-2015 Annual Averages**

<b>Incident Type</b>	<b>Firefighter Injuries</b>		<b>Fires</b>		<b>Injuries per 1,000 Fires</b>
Brush or brush and grass mixture fire	700	(52%)	123,700	(40%)	5.6
Grass fire	80	(6%)	38,300	(13%)	2.1
Forest, woods or wildland fire	340	(26%)	30,600	(10%)	11.3
Unclassified natural vegetation fire	210	(16%)	113,400	(37%)	1.9
<b>Total</b>	<b>1,330</b>	<b>(100%)</b>	<b>306,000</b>	<b>(100%)</b>	<b>4.4</b>

**Table 2.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Acres Burned: 2011-2015 Annual Averages**

<b>Incident Type</b>	<b>Firefighter Injuries</b>		<b>Fires</b>		<b>Injuries per 1,000 Fires</b>
Less than an acre	280	(21%)	184,700	(60%)	1.5
1-10 acres	680	(51%)	102,600	(34%)	6.7
11-50 acres	180	(14%)	12,500	(4%)	14.5
More than 50 acres	190	(14%)	6,100	(2%)	30.6
<b>Total</b>	<b>1,330</b>	<b>(100%)</b>	<b>306,000</b>	<b>(100%)</b>	<b>4.4</b>

Note: These are national estimates of fires reported to U.S. municipal fire departments and so exclude fires reported only to Federal or state agencies or industrial fire brigades. National estimates are projections. Sums may not equal totals due to rounding errors. Injuries are rounded to the nearest ten and fires are rounded to the nearest hundred.

Source: NFIRS 5.0 and NFPA fire experience survey.

**Table 3.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Month: 2011-2015 Annual Averages**

<b>Month</b>	<b>Firefighter Injuries</b>		<b>Fires</b>	
January	60	(4%)	21,900	(7%)
February	90	(7%)	22,200	(7%)
March	170	(13%)	36,600	(12%)
April	180	(13%)	38,000	(12%)
May	150	(11%)	28,800	(9%)
June	110	(9%)	27,200	(9%)
July	170	(13%)	36,300	(12%)
August	140	(10%)	26,400	(9%)
September	100	(7%)	20,100	(7%)
October	70	(5%)	18,100	(6%)
November	70	(5%)	19,200	(6%)
December	30	(2%)	11,200	(4%)
<b>Total</b>	<b>1,330</b>	<b>(100%)</b>	<b>306,000</b>	<b>(100%)</b>
<b>Average</b>	<b>110</b>	<b>(8%)</b>	<b>25,500</b>	<b>(8%)</b>

**Table 4.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires vs. All Fires**  
**by Affiliation: 2011-2015 Annual Averages**

<b>Affiliation</b>	<b>Firefighter Injuries at Brush, Grass and Forest Fires</b>		<b>Firefighter Injuries at All Fires</b>	
Career	820	(61%)	23,430	(79%)
Volunteer	520	(39%)	6,150	(21%)
<b>Total</b>	<b>1,330</b>	<b>(100%)</b>	<b>29,580</b>	<b>(100%)</b>

Note: These are national estimates of fires reported to U.S. municipal fire departments and so exclude fires reported only to Federal or state agencies or industrial fire brigades. National estimates are projections. Sums may not equal totals due to rounding errors. Injuries are rounded to the nearest ten.

Source: NFIRS 5.0 and NFPA fire experience survey.

**Table 5.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Affiliation and Gender: 2011-2015 Annual Averages**

<b>Gender</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>	
Career	790	(97%)	30	(3%)	820	(100%)
Volunteer	450	(87%)	70	(13%)	520	(100%)
<b>Total</b>	<b>1,240</b>	<b>(93%)</b>	<b>90</b>	<b>(7%)</b>	<b>1,330</b>	<b>(100%)</b>

**Table 6.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Injury Severity: 2011-2015 Annual Averages**

<b>Severity</b>	<b>Firefighter Injuries</b>	
Minor	960	(72%)
Report only, including exposure	390	(29%)
First aid only	240	(18%)
Treated by physician, not a lost-time injury	330	(25%)
Moderate	350	(26%)
Lost time injury, moderate severity	350	(26%)
Severe	20	(2%)
Lost time injury, severe	20	(1%)
Lost time injury, life threatening	10	(1%)
<b>Total</b>	<b>1,330</b>	<b>(100%)</b>

Note: These are national estimates of fires reported to U.S. municipal fire departments and so exclude fires reported only to Federal or state agencies or industrial fire brigades. National estimates are projections. Sums may not equal totals due to rounding errors. Injuries are rounded to the nearest ten.

Source: NFIRS 5.0 and NFPA fire experience survey.

**Table 7.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Factor Contributing to Injury: 2011-2015 Annual Averages**

Factor Contributing to Injury	Firefighter Injuries	
Slippery or uneven surface	390	(29%)
Uneven surface, including holes in the ground	260	(20%)
Loose material on surface	40	(3%)
Wet surface, including water, soap, foam, etc.	20	(1%)
Fire development	280	(21%)
Fire progress, including smoky conditions	240	(18%)
Unclassified fire development	40	(3%)
Unclassified factor contributed to injury	220	(16%)
Vehicle or apparatus	60	(4%)
Firefighter standing on apparatus	20	(2%)
Unclassified vehicle or apparatus	30	(2%)
Holes	50	(3%)
Collapse or falling objects	30	(2%)
Other known injury factor	10	(1%)
No injury factor	290	(22%)
<b>Total</b>	<b>1,330</b>	<b>(100%)</b>

Note: These are national estimates of fires reported to U.S. municipal fire departments and so exclude fires reported only to Federal or state agencies or industrial fire brigades. National estimates are projections. Sums may not equal totals due to rounding errors. Injuries are rounded to the nearest ten.

Source: NFIRS 5.0 and NFPA fire experience survey.

**Table 8.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Cause of Firefighter Injury: 2011-2015 Annual Averages**

Cause of Injury	Firefighter Injuries	
Overexertion or strain	370	(27%)
Exposure to hazard	250	(19%)
Slip or trip	220	(16%)
Contact with object (firefighter moved into/onto)	150	(11%)
Unclassified cause	140	(11%)
Fall	130	(10%)
Struck or assaulted by person, animal or object	70	(5%)
Jump	10	(1%)
<b>Total</b>	<b>1,330</b>	<b>(100%)</b>

Note: These are national estimates of fires reported to U.S. municipal fire departments and so exclude fires reported only to Federal or state agencies or industrial fire brigades. National estimates are projections. Sums may not equal totals due to rounding errors. Injuries are rounded to the nearest ten.

Source: NFIRS 5.0 and NFPA fire experience survey.

**Table 9.**  
**Local Fire Department Firefighter Injuries at Brush, Grass and Forest Fires**  
**by Primary Apparent Symptom: 2011-2015 Annual Averages**

Cause of Injury	Firefighter Injuries	
Strain or sprain	330	(25%)
Pain only	140	(10%)
Exhaustion or fatigue, including heat exhaustion	130	(10%)
Smoke inhalation	80	(6%)
Thermal burns	80	(6%)
Cut or laceration	70	(5%)
Swelling	50	(4%)
Unclassified symptom	50	(4%)
Contusion or bruise from minor trauma	40	(3%)
Allergic reaction, including anaphylactic shock	40	(3%)
Breathing difficulty or shortness of breath	30	(3%)
Cardiac symptoms	30	(2%)
Dizziness, fainting or weakness	30	(2%)
Fracture	30	(2%)
Dehydration	20	(2%)
Stab or puncture wound	20	(2%)
Abrasion	20	(2%)
Eye trauma or avulsion	20	(2%)
Other known symptom	110	(8%)
Total	1,330	(100%)

Note: These are national estimates of fires reported to U.S. municipal fire departments and so exclude fires reported only to Federal or state agencies or industrial fire brigades. National estimates are projections. Sums may not equal totals due to rounding errors. Injuries are rounded to the nearest ten.

Source: NFIRS 5.0 and NFPA fire experience survey.

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 E-mail: [research@nfpa.org](mailto:research@nfpa.org).  
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