

2023 Injury Report

An Annual Summary of Fire Fighter Injuries, Exposures, and Cancer Diagnoses Reported to the Texas Commission on Fire Protection in Calendar Year 2023

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*This publication can be downloaded free of charge on-line:
<https://www.tcfp.texas.gov/services/injury-reports>*

Table of Contents

Mission	3
Executive Summary	4
Abstract.....	6
State of Texas vs. NFPA	7
Fire Protection Personnel Injuries	9
Injuries/Exposures by Activity	10
Fatalities	12
Emergency vs. Non-Emergency Injuries.....	13
Types of Injuries	15
Task at Time of Injury.....	16
Injuries by Body Part.....	18
Individuals by Age Group.....	20
Activities Resulting in Lost Time.....	21
Types of Injuries with Lost Time	23
Burn Injuries	24
Exposures	26
Cancer.....	28
SOP Issues; PPE and PASS Failures	30
Recommendations.....	31
Commission-Adopted Standards.....	32

Mission

The commission shall gather and evaluate data on fire protection personnel injuries and develop recommendations for reducing injuries.

Why we are collecting injury data

Under Texas Government Code §419.048, the Texas Legislature charged the commission with gathering and evaluating data on injuries. The rules requiring regulated entities to report injuries to the commission are in Texas Administrative Code §435.23. The commission encourages volunteer entities to report injuries so that it can gain as accurate a picture as possible concerning injury trends in the Texas fire service. The injury reporting program began in March 2010.

Information the commission collects

- Minor, serious, and fatal injuries,
- Exposures (toxic and pathogenic)
- Cancer diagnoses
- Activities where fire personnel are injured
- Types of injuries (burns, strain-sprains, wounds, etc.)
- Body parts being injured
- Tasks performed at the time of injury
- Missed time
- Work assignment after injury
- Malfunctions/failures of personal protective equipment (PPE), self-contained breathing apparatus (SCBA), personal alert safety systems (PASS devices) and standard operating procedures (SOPs)

How this will help the fire service

- Identify common injuries and exposures
- Identify trends in injuries and exposures
- Identify needed training
- Evaluate and find improvements in procedures

Executive Summary

The information in this report is collected by the Texas Commission on Fire Protection (TCFP) via an on-line injury reporting application.

Under Texas Government Code §419.048, the Texas Commission on Fire Protection is charged with developing and establishing criteria to receive and analyze injury information pertaining to Texas fire fighters. The commission reviews this information to develop recommendations to help reduce injuries to fire protection personnel. The commission provides this information to the State Fire Marshal's Office (SFMO) by September 1 of each year for inclusion in the SFMO's annual Firefighter Fatality Investigations Report. The commission has enacted rules about reporting injuries in the Texas Administrative Code (TAC) Title 37, Chapter 435, and has established the criteria and policies for reporting and analyzing the information.

This report is a comprehensive analysis of injuries and exposures to Texas fire fighters. These injuries and exposures were reported to the TCFP in 2023 by fire departments throughout the state, and this report contains charts and graphs depicting the results of the information that was collected. The report also compares Texas fire fighter injury statistics with national statistics that were gathered by the National Fire Protection Association (NFPA) in 2022.

39,287 = The number of "associated" individuals in our database, meaning those who are currently employed by a regulated fire department.

1,778 = Total number of departments

825 = Regulated departments

953 = Nonregulated departments (due to being deactivated or not meeting the criteria to be regulated).

475 = Regulated training facilities (fire department-based, online-based, and private)

1,300 = Total number of departments and training facilities that are inspected and regulated by TCFP. *

**Please note: A department may be listed as both a regulated fire department/fire marshal's office (FMO) and as a regulated training facility if the department possesses training facility certification(s). The biennial compliance inspection of a fire department/FMO is separate from the inspection of a department with a training facility designation, and thus would require separate compliance inspections.*

The commission originally built the data systems necessary to gather this information in 2010. In 2017 the data systems were migrated from a Microsoft Access database structure to a new system which was developed in-house and designed specifically to meet the information resource needs of the TCFP. The reporting process is

accomplished online via TCFP's FIDO system. Fire departments regulated by the commission have been notified of the requirement to report. Several volunteer departments, which are not regulated by the commission, are also participating voluntarily.

This report concludes with recommendations from the commission to help reduce the number of fire fighter injuries in Texas and to improve the injury reporting program.

Abstract

This report contains data submitted by regulated and non-regulated entities.

Grand Totals - 2023

Total number of incidents (injury reports) submitted: 4,772

Total number of individuals who sustained an injury or exposure: 4,657* (A)

Total number of injuries reported: 3,421 (B)

Total number of exposures reported: 1,400 (C)

**Note that an individual could have more than one injury or could have an injury and an exposure. This explains why the total number of individuals who sustained an injury is less than the total number of injuries + total number of exposures. ($A < B + C$)*

It's important to remember that one incident report can have multiple individuals involved, and each of those individuals can have one or more injuries. For example:

Joe and Bob were burned in a fire while on duty. This resulted in:

- One incident (one injury report), with
- Two individuals who...
- Sustained three injuries
 - Joe was burned on the hand and arm (two injuries)
 - Bob was burned on the leg (one injury)

State of Texas vs. NFPA

Comparison between the State of Texas (2022) and National Fire Protection Association (NFPA) U.S. Firefighter Injuries (2022)

For the purposes of comparison, the commission has mapped its categories to the NFPA categories as follows:

- “Fireground” includes the commission’s Fire Suppression and Rescue - Fire Related categories.
- “Non-Fire” includes Rescue Non-Fire, EMS and Hazmat.
- “Other On-Duty” includes Fire Prevention, Station Duties and Wellness/Fitness.

The NFPA’s “Responding and Returning” and “Training” categories appear to correspond closely to the commission’s categories. (The NFPA numbers include Texas statistics, although the reporting populations may not be the same.)

Please keep in mind that the comparisons between Texas and the NFPA are using numbers from 2022, and not 2023 data as in the remainder of this report. NFPA’s 2023 injury data will not be published and available until 2025.

Comparing Texas 2022 and NFPA 2022

Table 1: Comparison of Texas 2022 and NFPA 2022

Category	Texas 2022		NFPA 2022	
	Count	Percent	Count	Percent
Fireground	906	12%	21,325	32%
Non-Fire	2,696	37%	13,200	20%
Other On-Duty	2,971	41%	14,850	23%
Training	491	7%	9,050	14%
Responding and Returning	189	3%	7,225	11%
Total	7,253	100%	65,650	100%

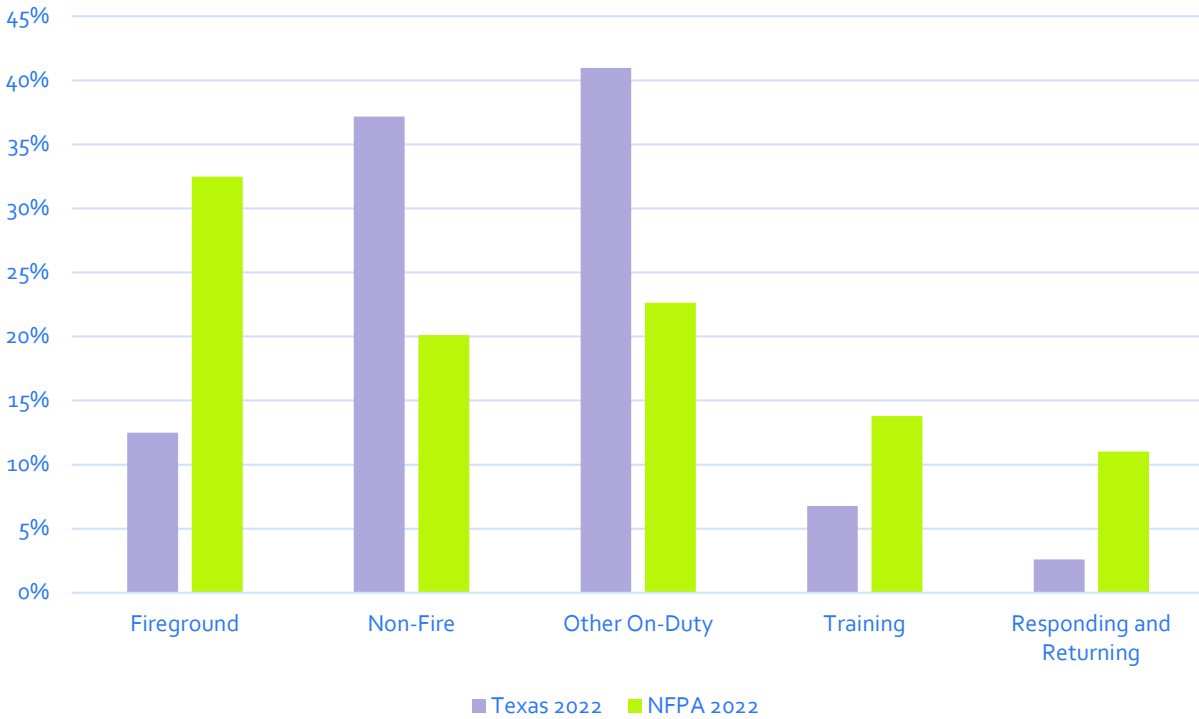
Fatalities in 2022

NFPA: 96 on-duty firefighter fatalities

Texas: 2 reported fatalities (a possible stroke and a suicide)

All NFPA data in this report is from the [United States Firefighter Injuries](#) webpage, copyright 2023, National Fire Protection Association, Quincy, MA.

Figure 1: Injuries by Activity, percentages
(Comparing Texas 2022 and NFPA 2022)

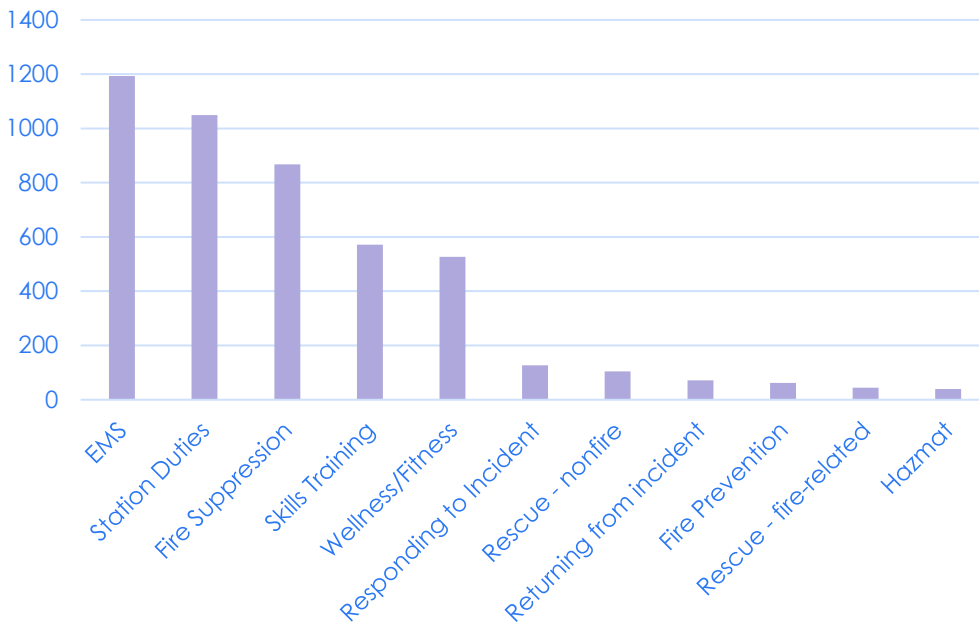


Fire Protection Personnel Injuries

Table 2: Total Injured or Exposed Individuals by Activity and Severity, 2023

Activity	Minor	Serious	Fatal	Total	2022	2021
EMS	929	264	0	1,193	2,528	2,852
Station Duties	610	437	2	1,049	2,449	1,594
Fire Suppression	677	190	0	867	846	691
Skills Training	416	155	0	571	491	423
Wellness/Fitness	378	149	0	527	422	450
Responding to incident	92	35	0	127	137	158
Rescue - nonfire	86	19	0	105	142	116
Returning from incident	61	11	0	72	52	158
Fire prevention	45	17	0	62	100	51
Rescue - fire-related	38	6	0	44	52	51
Hazmat	36	4	0	40	26	44
Total	3,368	1,287	2	4,657	7,245	6,588

Figure 2: Total Injured or Exposed Individuals by Activity, 2023



Injuries/Exposures by Activity

EMS activities resulted in the highest number of minor injuries in 2023 (see Table 3), which is consistent with the previous five years. The effects of the COVID-19 pandemic can be seen starting in 2020.

Definitions	
Minor	= An injury/exposure that does not result in the employee missing a full duty period.
Serious	= An injury/exposure that results in the employee missing one or more full duty periods.
Fatal	= The injured/exposed individual did not survive.

Table 3: Minor Injury/Exposure Activities, 2019 - 2023

Activity	2019		2020		2021		2022		2023	
	Count	%	Count	%	Count	%	Count	%	Count	%
EMS	776	26%	2,529	56%	2,095	48%	1,461	34%	929	27%
Fire Suppression	616	21%	397	9%	537	12%	653	15%	677	20%
Station Duties	591	20%	722	16%	828	19%	1,132	27%	610	18%
Skills Training	330	11%	304	7%	303	7%	362	9%	416	12%
Wellness/Fitness	290	10%	306	7%	311	7%	293	7%	378	11%
Responding to Incident	114	4%	68	2%	123	3%	97	2%	127	4%
Rescue - Non-Fire	140	5%	89	2%	94	2%	110	3%	86	3%
Returning from Incident	39	1%	28	1%	41	1%	31	1%	61	2%
Fire Prevention	46	2%	49	1%	40	1%	39	1%	45	1%
Rescue - Fire Related	37	1%	26	1%	41	1%	55	1%	38	1%
Hazmat	24	1%	22	0%	41	1%	22	1%	36	1%
Total	2,942	100%	4,492	100%	4,372	100%	4,255	100%	3,403	100%

(Numbers in red above = lowest number of injuries for the five-year period.)

Table 4: Serious Injury/Exposure Activities, 2019 - 2023

Activity	2019		2020		2021		2022		2023	
	Count	%	Count	%	Count	%	Count	%	Count	%
Station Duties	147	19%	731	39%	766	38%	1,316	44%	437	34%
EMS	146	19%	660	35%	755	37%	1,067	36%	264	21%
Fire Suppression	145	19%	127	7%	153	8%	192	6%	190	15%
Skills Training	139	18%	125	7%	120	6%	129	4%	155	12%
Wellness/Fitness	117	15%	116	6%	139	7%	129	4%	149	12%
Responding to Incident	28	4%	23	1%	35	2%	40	1%	35	3%
Rescue - Non-Fire	17	2%	29	2%	22	1%	32	1%	19	1%
Fire Prevention	14	2%	27	1%	11	1%	61	2%	17	1%
Returning from Incident	14	2%	13	1%	24	1%	21	1%	11	1%
Rescue - Fire Related	2	0%	3	0%	10	0%	5	0%	6	0%
Hazmat	4	1%	7	0%	3	0%	4	0%	4	0%
Total	773	100%	1,861	100%	2,038	100%	2,996	100%	1,287	100%

(Numbers in red above = lowest number of injuries for the five year period.)

Fatalities

Table 5: Number of Individuals Who Sustained Fatal Injuries/Exposures, 2023

Activity	Count	Percent
Station Duties	2	100%
Total	2	100%

The TCFP's "2023 Injury Report" includes two fatalities: one from a possible stroke and the other, a suicide. Fatalities noted in this report include only those that were reported to the Texas Commission on Fire Protection (TCFP) by the entities it regulates.

According to the Texas State Fire Marshal's Office's "Firefighter Fatality Investigation Annual Report" dated October 2023, they conducted ten Texas fire fighter fatality incident investigations during their *fiscal year* 2023. Three of those ten deaths occurred in 2022, and of the remaining seven deaths, five were from volunteer departments which the TCFP does not regulate.

Comprehensive information about the fatality investigations may be found on the State Fire Marshal's Office's website at the following address:
<https://www.tdi.texas.gov/fire/fmloddannuals.html>

Emergency vs. Non-Emergency Injuries

Table 6: Number of Injured Individuals by Emergency Activity and Severity, 2023

Activity	Minor	Serious	Fatal	Total
EMS	929	264	0	1,193
Fire Suppression	677	190	0	867
Rescue - Non-fire related	86	19	0	105
Responding to Incident	92	35	0	127
Returning from Incident	61	11	0	72
Hazmat	36	4	0	40
Rescue - Fire related	38	6	0	44
Total	1,919	529	0	2,448

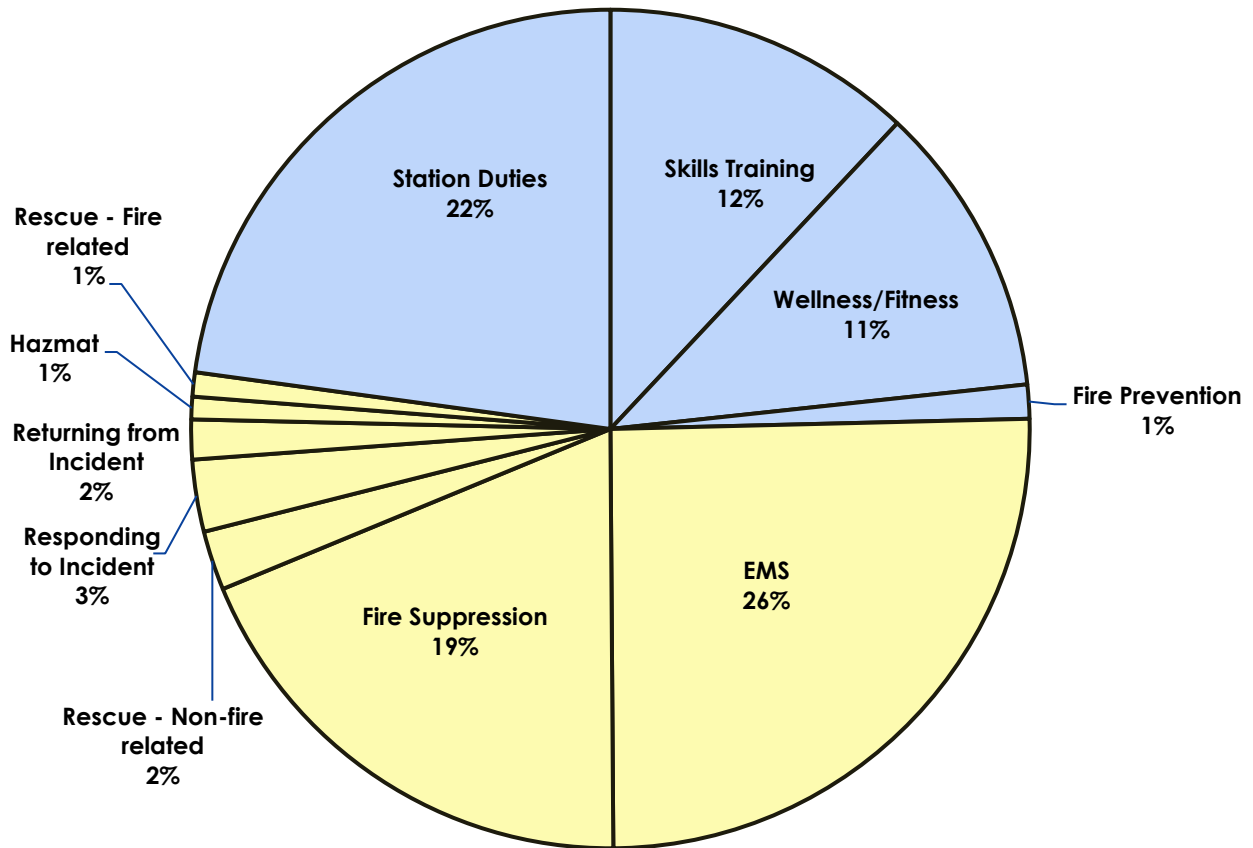
Table 7: Number of Injured Individuals by Non-Emergency Activity and Severity, 2023

Activity	Minor	Serious	Fatal	Total
Station Duties	610	437	2	1,049
Skills Training	416	155	0	571
Wellness/Fitness	378	149	0	527
Fire Prevention	45	17	0	62
Total	1,449	758	2	2,209

Figure 3: Percentages of Injured Individuals in Emergency and Non-Emergency Activities, 2023

Emergency Activities = 54%

Non-emergency Activities = 46%

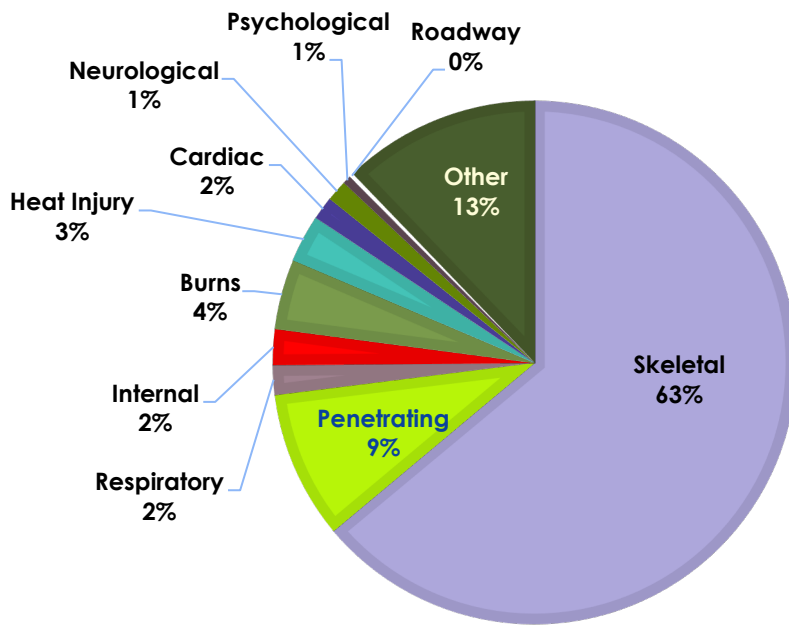


Types of Injuries

Table 8: Types of Injuries, 2023

Type of Injury	2023	
	Count	Percent
Skeletal	2,168	63%
Penetrating	314	9%
Burns	144	4%
Heat Injury	99	3%
Internal	75	2%
Respiratory	59	2%
Cardiac	50	1%
Neurological	43	1%
Psychological	18	1%
Roadway	9	0%
Other	442	13%
Total	3,421	100%

Figure 4: Types of Injuries, 2023

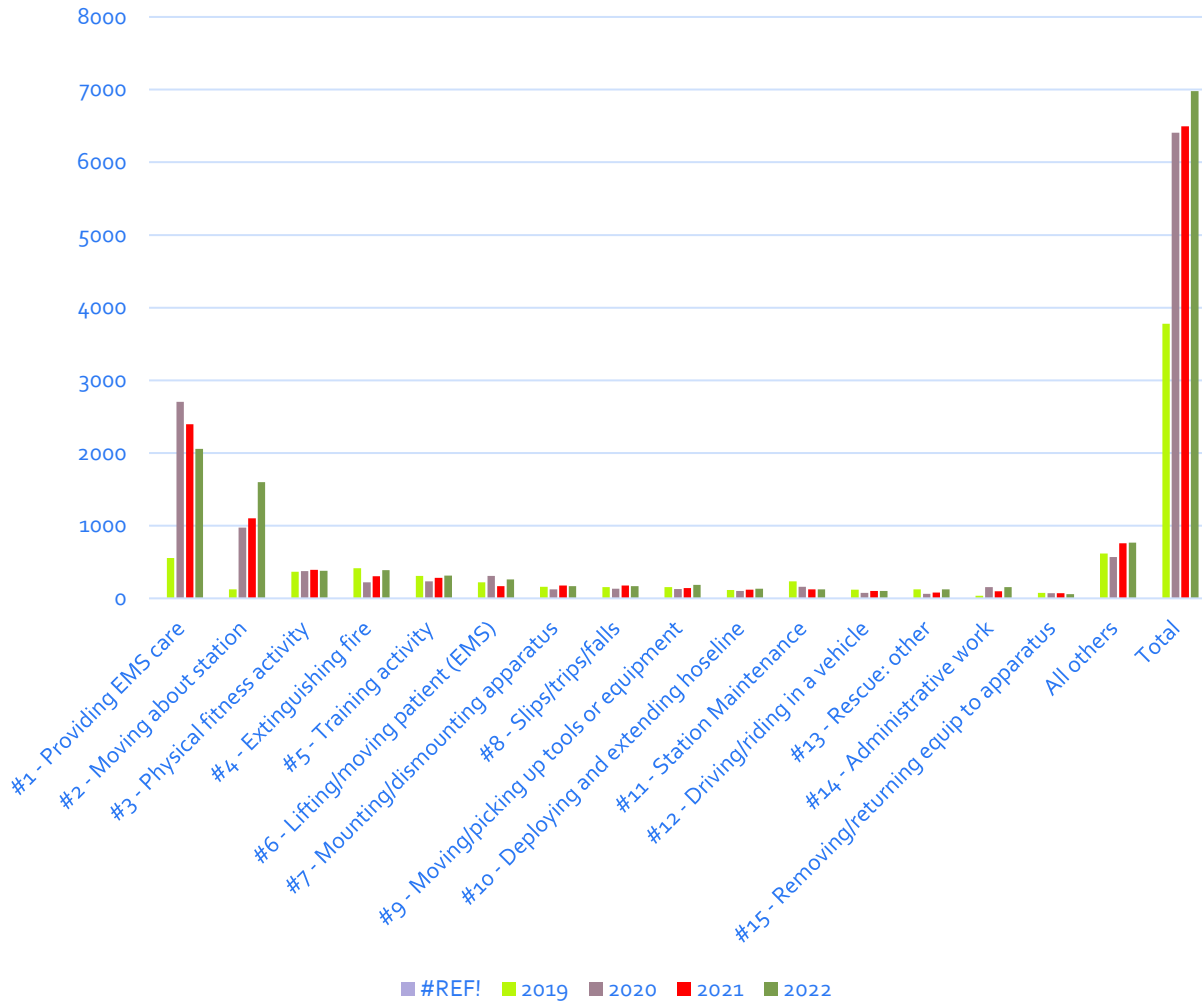


Task at Time of Injury

Table 9: Top 15 Tasks at Time of Injury, 2019 - 2023 (ordered by 2023, descending)

Task	2019	2020	2021	2022	2023
#1 - Providing EMS care	556	2,704	2,398	2,057	743
#2 - Moving about station	122	975	1,100	1,599	565
#3 - Physical fitness activity	364	376	394	378	471
#4 - Extinguishing fire	416	222	306	389	430
#5 - Training activity	309	236	284	312	355
#6 - Lifting/moving patient (EMS)	220	307	168	260	229
#7 - Mounting/dismounting apparatus	159	125	175	168	187
#8 - Slips/trips/falls	154	132	177	168	177
#9 - Moving/picking up tools or equipment	153	130	142	187	155
#10 - Deploying and extending hoseline	117	100	119	133	153
#11 - Station Maintenance	235	161	123	124	113
#12 - Driving/riding in a vehicle	119	77	100	101	106
#13 - Rescue: other	126	64	79	123	97
#14 - Administrative work	37	156	98	156	83
#15 - Removing/returning equip to apparatus	76	71	72	59	69
All others	617	570	760	766	724
Total	3,780	6,406	6,495	6,980	4,657

Figure 5: Top 15 Tasks at Time of Injury, 2019 - 2023



Injuries by Body Part

Table 10: Injuries by Body Part Type, 2019 - 2023

Injured Body Part	2019	2020	2021	2022	2023
Upper Extremities	795	700	812	859	975
Lower Extremities	684	616	724	787	882
Back	466	445	492	511	547
Head	327	197	248	323	315
Multiple Parts	255	281	284	389	327
Internal	125	144	402	337	158
Chest	108	107	124	146	109
Neck	56	33	38	50	77
Hip	33	29	35	24	31
Total	2,849	2,552	3,159	3,426	3,421

Table 11: Injuries by Body Part Sub-Type, 2019 - 2023

Body Part by Sub-Type	2019	2020	2021	2022	2023
Back: Back	194	191	191	214	283
Back: Buttocks	3	2	2	1	3
Back: Lower Back	258	248	287	284	247
Back: Neck	4	1	8	5	4
Back: Spine	7	3	4	7	10
Chest: Abdomen	4	2	3	3	1
Chest: Abdominal Area	4	9	5	9	5
Chest: Chest	100	96	116	134	103
Head: Brain	n/a	n/a	7	24	20
Head: Cheek	7	4	7	7	4
Head: Chin	1	4	2	3	5
Head: Ear	117	50	52	50	71
Head: Eye	60	44	50	58	50
Head: Face	112	78	57	32	34
Head: Forehead	n/a	n/a	3	31	40
Head: Jaw	6	2	2	0	0

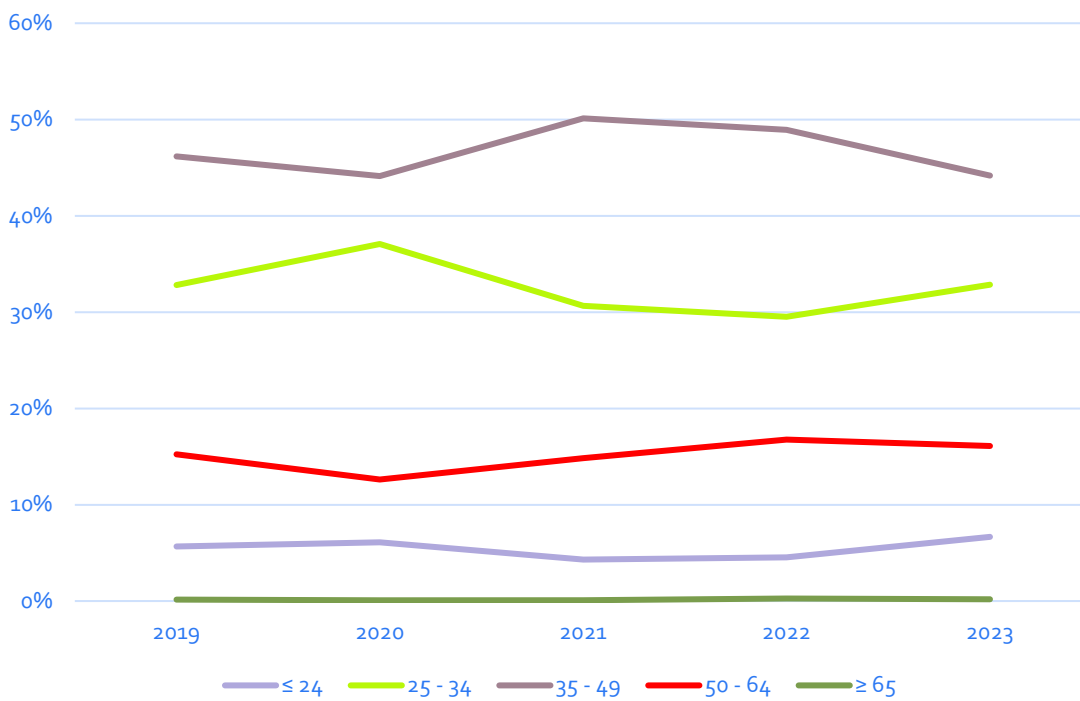
Head: Mouth	16	10	8	7	14
Head: Nose	8	3	9	60	45
Head: Skull	n/a	2	51	51	32
Hip: Groin	14	9	12	6	8
Hip: Hip	18	18	23	16	18
Hip: Pelvis	1	2	0	2	5
Internal: Genito-urinary	11	4	1	2	7
Internal: Heart	7	4	6	16	10
Internal: Internal	71	74	264	156	64
Internal: Intestinal tract	4	3	2	1	4
Internal: Lungs	11	51	114	150	47
Internal: Stomach	20	8	14	12	26
Internal: Trachea	1	0	1	0	0
Lower Extremities: Ankle	163	135	171	162	201
Lower Extremities: Foot	88	78	78	95	100
Lower Extremities: Knee	273	252	316	357	372
Lower Extremities: Lower leg	97	95	104	59	133
Lower Extremities: Toes	22	13	14	17	18
Lower Extremities: Upper Leg	41	43	41	67	58
Multiple Parts: Lower Body	19	20	15	16	33
Multiple Parts: Unknown	11	27	22	39	31
Multiple Parts: Upper Body	76	65	74	65	82
Multiple Parts: Whole Body	149	169	173	269	181
Neck: Neck	49	30	37	49	73
Neck: Throat	7	3	1	1	4
Upper Extremities: Elbow	44	34	44	63	69
Upper Extremities: Hands	326	319	315	356	356
Upper Extremities: Lower Arm	59	55	55	49	84
Upper Extremities: Shoulder	235	170	270	245	311
Upper Extremities: Upper Arm	72	45	68	94	88
Upper Extremities: Wrist	59	77	60	52	67
Total	2,849	2,552	3,159	3,396	3,421

Individuals by Age Group

Table 12: Individuals by Age Group, 2019 - 2023

Age Group	2019		2020		2021		2022		2023	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
≤ 24	210	5.65%	389	6.10%	279	4.31%	329	4.54%	317	6.86%
25 - 34	1,220	32.82%	2,365	37.07%	1,986	30.65%	2,141	29.52%	1,519	32.87%
35 - 49	1,716	46.17%	2,815	44.13%	3,248	50.12%	3,548	48.92%	2,039	44.12%
50 - 64	566	15.23%	805	12.62%	961	14.83%	1,216	16.77%	735	15.91%
≥ 65	5	0.13%	5	0.08%	6	0.09%	19	0.26%	11	0.24%
Totals	3,717	100.00%	6,379	100.00%	6,480	100.00%	7,253	100.00%	4,621	100.00%

Figure 6: Individuals by Age Group, percentages, 2019 - 2023



Activities Resulting in Lost Time

Table 13: Activities Individuals Were Doing that Resulted in Lost Time, 2023 Totals

Activity	Count	Days Missed	
		Average	Sum
Station Duties	274	15	4,186
EMS	224	21	4,760
Fire suppression	123	32	3,972
Skills training	100	53	5,365
Wellness/fitness	97	49	4,763
Responding to incident	23	17	410
Rescue - nonfire-related	16	47	760
Fire prevention	15	17	261
Returning from incident	6	30	183
Rescue - fire-related	5	74	373
Hazmat	2	23	46
Total	885	34	25,079

Table 14: Activities Individuals Were Doing that Resulted in Lost Time, 2023 Between 1 and 30 Days

Activity	Count	Days Missed	
		Average	Sum
Station Duties	259	10	2,614
EMS	197	9	1,779
Fire Suppression	89	9	804
Skills Training	68	9	663
Wellness/Fitness	54	12	656
Responding to incident	20	11	234
Fire Prevention	12	9	117
Rescue - nonfire-related	10	7	77
Returning from incident	5	18	91
Rescue - fire-related	2	6	13
Hazmat	1	12	12
Total	717	10	7,060

**Table 15: Activities Individuals Were Doing that Resulted in Lost Time, 2023
Between 31 and 90 Days**

Activity	Count	Days Missed	
		Average	Sum
Wellness/Fitness	28	49	1,388
Fire Suppression	20	54	1,099
EMS	16	48	768
Station Duties	10	51	516
Skills Training	8	62	500
Fire Prevention	3	48	144
Rescue - nonfire-related	3	69	207
Responding to incident	2	36	73
Hazmat	1	34	34
Rescue - fire-related	1	72	72
Total	92	52	4,801

**Table 16: Activities Individuals Were Doing that Resulted in Lost Time, 2023
91+ Days**

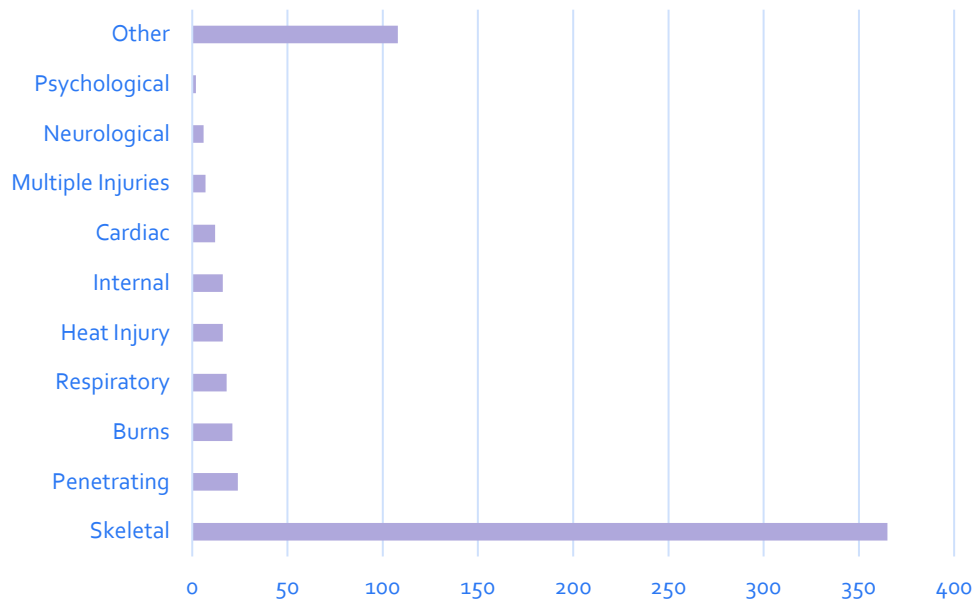
Activity	Count	Days Missed	
		Average	Sum
Skills Training	24	175	4,202
Wellness/Fitness	15	181	2,719
Fire Suppression	14	147	2,069
EMS	11	201	2,213
Station Duties	5	211	1,056
Rescue - nonfire-related	3	158	476
Rescue - fire-related	2	144	288
Responding to incident	1	103	103
Returning from incident	1	92	92
Total	76	157	13,218

Types of Injuries with Lost Time

Table 17: Types of Injuries Resulting in Lost Time, 2023

Type of Injury	Count
Skeletal	365
Penetrating	24
Burns	21
Respiratory	18
Heat Injury	16
Internal	16
Cardiac	12
Multiple Injuries	7
Neurological	6
Psychological	2
Other	108
Total	595

Figure 7: Types of Injuries Resulting in Lost Time, 2023



Burn Injuries

Table 18: All Burns, 2019 - 2023

All Burns - Types	2019	2020	2021	2022	2023
Heat/Fire (thermal)	72	80	66	83	120
Scald or Steam	10	11	12	19	18
Chemical	6	2	3	6	6
Electrical	2	3	4	4	0
Totals	90	96	85	112	144

Table 19: Burns by Body Part Sub-Type, 2019 - 2023

Body Part Sub-Type	2019	2020	2021	2022	2023
Back: Back	0	0	2	2	2
Back: Buttocks	0	0	0	n/a	1
Back: Lower Back	0	0	0	0	0
Back: Neck	0	0	0	0	0
Back: Spine	0	0	0	0	0
Chest: Abdomen	2	0	0	0	0
Chest: Abdominal Area	0	0	0	0	0
Chest: Chest	0	0	0	3	0
Head: Brain	n/a	n/a	0	0	0
Head: Cheek	1	1	1	4	2
Head: Chin	1	3	0	1	2
Head: Ear	17	12	13	9	23
Head: Eye	5	3	2	0	2
Head: Face	7	8	2	6	4
Head: Forehead	n/a	n/a	1	2	2
Head: Jaw	0	0	0	n/a	n/a
Head: Mouth	1	0	0	0	1
Head: Nose	0	0	1	0	1
Head: Skull	n/a	0	0	1	1
Hip: Groin	0	0	0	0	0
Hip: Hip	0	0	1	0	0

Hip: Pelvis	0	0	n/a	0	0
Internal: Genito-urinary	0	0	0	0	0
Internal: Heart	0	0	0	0	0
Internal: Internal	0	0	0	0	0
Internal: Intestinal tract	0	0	0	0	0
Internal: Lungs	0	0	0	0	1
Internal: Stomach	0	0	0	0	0
Internal: Trachea	0	n/a	0	n/a	n/a
Lower Extremities: Ankle	0	1	1	1	0
Lower Extremities: Foot	3	4	3	4	2
Lower Extremities: Knee	1	1	0	0	2
Lower Extremities: Lower Leg	3	1	3	5	4
Lower Extremities: Toes	1	0	0	0	0
Lower Extremities: Upper Leg	0	1	0	1	3
Multiple Parts: Lower Body	0	0	0	1	2
Multiple Parts: Unknown	0	0	0	1	1
Multiple Parts: Upper Body	6	11	7	7	11
Multiple Parts: Whole Body	4	0	3	4	4
Neck: Neck	2	2	2	5	6
Neck: Throat	0	0	0	0	0
Upper Extremities: Elbow	0	1	2	2	1
Upper Extremities: Hands	16	20	24	21	22
Upper Extremities: Lower Arm	5	14	8	10	22
Upper Extremities: Shoulder	1	4	3	12	7
Upper Extremities: Upper Arm	3	0	3	8	8
Upper Extremities: Wrist	11	9	3	2	7
Totals	90	96	85	112	144

Exposures

Table 20: Exposures by Sub-type, 2019 - 2023

Exposure + Sub-Type	2019	2020	2021	2022	2023
Chemical: Ammonia	3	0	6	0	1
Chemical: Battery Acid	4	0	2	1	0
Chemical: Benzene	15	1	1	0	1
Chemical: Bleach	11	0	2	0	0
Chemical: Not listed	160	70	40	25	72
Chemical: Unidentified	55	27	34	42	42
Physical: Animal venom	17	5	7	3	8
Physical: Meningitis	40	33	3	3	41
Physical: Not listed	201	42	27	35	27
Physical: Plant toxin	14	12	24	22	17
Physical: Radiation	4	1	0	0	5
Physical: Unidentified	66	13	17	24	28
Physical: UV Light	2	1	0	1	0
Respiratory: Blood	73	78	54	48	94
Respiratory: COVID 19	1	1,715	2,878	3,466	630
Respiratory: Influenza	19	7	2	2	1
Respiratory: Not listed	118	56	8	9	7
Respiratory: Saliva	22	28	15	23	22
Respiratory: Tuberculosis	76	31	16	29	55
Respiratory: Unidentified	37	6	19	13	62
Respiratory: Vomit	8	13	4	4	9
Other: Asbestos	3	1	109	30	31
Other: Carbon Monoxide	1	6	2	11	15
Other: Carcinogenic Substances	1	13	15	21	75
Other: Contaminated Water/Sewage	4	11	8	21	4
Other: Chlorine	n/a	n/a	6	3	1
Other: Heavy Metals	0	1	0	1	3
Other: Mold	0	9	4	29	42
Other: Smoke/Products of Combustion	5	19	37	81	46
Other: Virus	3	1,878	266	203	61
Total	963	4,077	3,606	4,150	1,400

Table 21: Exposure by Route, 2023

Route	Count
Inhalation	1,048
Absorption	227
Injection/Puncture	60
Ingestion	65
Total	1,400

Figure 8: Exposure by Route, 2023, percentages

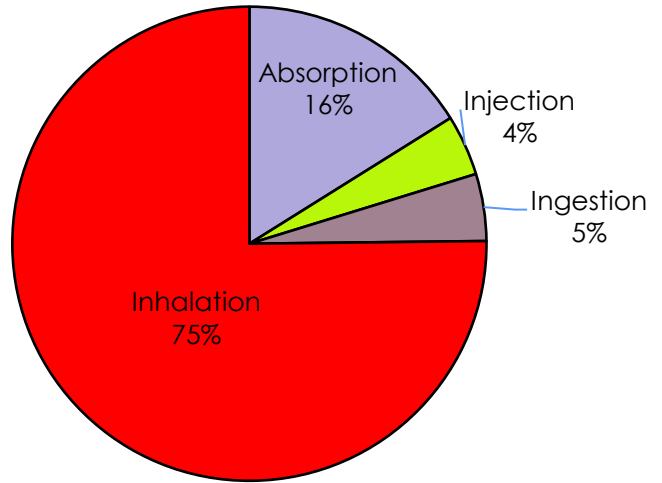
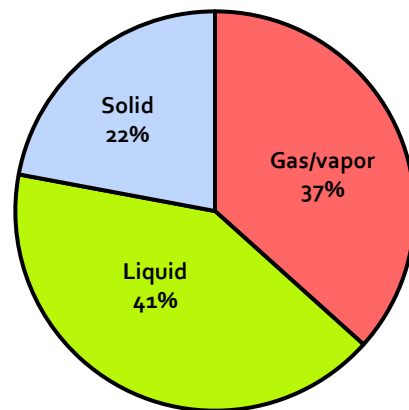


Table 22: Exposure by Substance, 2023

Substance	Count
Liquid	578
Gas/vapor	514
Solid	309
Total	1,401

Figure 9: Exposure by Substance, 2023, percentages



Cancer

In June of 2019, the Governor of Texas signed Senate Bill 2551 (SB 2551) which expanded the scope of the law in which firefighters and EMTs who suffer from cancer are presumed to have developed the condition during the course and scope of their employment. The types of cancer this law addresses include:

- cancers that originate at the stomach, colon, rectum, skin, prostate, testis or brain
- non-Hodgkin's lymphoma
- multiple myeloma
- malignant melanoma
- renal cell carcinoma

Reports of cancer diagnoses:

2019	2020	2021	2022	2023
19	47	41	70	91

The TCFP received **91** reports of cancer diagnoses from fire departments in 2023:

Skin - 39

(Males - 27, 31, 32, 38, 41, 41, 41, 41, 41, 41, 42, 42, 43, 43, 44, 44, 44, 45, 46, 46, 47, 47, 47, 49, 50, 51, 52, 53, 54, 54, 54, 54, 55, 55, 55, 55, 57, 58, 59)

Prostate - 9

(Males - 50, 51, 53, 54, 55, 55, 60, 61, 62)

Lymphatic - 8

(Males - 18, 37, 49, 50, 51, 55, 55, 62)

Colon/rectum - 6

(Males - 41, 55, 56, 57, 57, 61)

Testicular - 9

(Males - 28, 32, 32, 33, 35, 41, 44, 44, 55)

Blood - 3

(Males - 47, 56, 60)

Thyroid - 4
(Males - 39, 41, 44, 45)

Brain - 2
(Male - 24, 55)

Appendix - 1
(Male - 43)

Kidney - 1
(Male - 51)

Lung - 1
(Male - 49)

Neuroendocrine - 1
(Male - 47)

Stomach - 1
(Male - 43)

Throat - 1
(Male - 56)

Unidentified - 5
(Males - 51, 52, 52, 67)
(Female - 54)

A Reminder for Fire Departments

Any injuries to fire protection personnel that are reported to the Texas Worker's Compensation Commission must be reported to the Texas Commission on Fire Protection. This includes cancer diagnoses.

The commission strongly encourages fire departments to report cancer diagnoses; the commission recognizes that the number of job-related cancers reported during this time-period represents only a fraction of the cases that Texas fire departments are currently managing. There is a growing awareness of the impact that cancer is having on fire protection personnel nationwide, and the commission urges departments to use this reporting tool to help contribute to the education and awareness of the issue in Texas.

SOP Issues; PPE and PASS Failures

In 2023 there were five injuries attributed to failures of fire protection personnel to follow their departments' standard operating procedures (SOPs). All but a few were instances where the individuals were not wearing their provided PPE/SCBA gear in an environment or situation in which they should have been wearing it.

In its compliance inspections, the Texas Commission on Fire Protection verifies that fire departments have written SOPs that cover the appropriate subject matter.

Table 23: Injuries Attributed to SOP Issues, 2023

Activity	Minor	Serious	Total	Previous years' totals			
				2022	2021	2020	2019
EMS	0	0	0	1	1	18	11
Fire Suppression	2	0	2	7	8	10	10
Skills Training	1	1	2	3	2	5	1
Fire related rescue	1	0	1	1	0	0	2
Station Duties	0	0	0	4	1	2	6
Nonfire related rescue	0	0	0	1	0	0	4
Totals	4	1	5	17	12	35	34

Table 24: Injuries Attributed to PPE and PASS Failures, 2023

Activity	Minor	Serious	Total	Previous years' totals			
				2022	2021	2020	2019
Fire Suppression	15	3	18	7	4	7	2
EMS	1	0	1	0	1	4	0
Skills Training	1	2	3	1	1	1	2
Nonfire related rescue	2	0	2	0	0	0	0
Station Duties	1	0	1	0	1	0	1
Totals	20	5	25	8	7	12	5

Recommendations

The commission would like to thank Texas fire departments for their ongoing participation in reporting fire protection personnel injuries. This report would not be possible without their efforts.

Based on their review of the data contained within this report, the commission offers the following recommendations and reminders for the Texas Fire Service:

1. Follow *NFPA 1851: Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting* as required by state law.
2. Continue to review and practice roadway safety and traffic incident management practices.
3. Review all of your department's SOPs with a focus on injury prevention, emphasizing skills training and wellness/fitness in the SOPs.
4. Annual cancer screenings for all Texas firefighters.
5. Report all cancer diagnoses through the injury reporting application in FIDO, as well as all suicides that the fire department is aware of.

Commission-Adopted Standards

The commission has adopted several NFPA and other nationally recognized standards to help keep Texas fire protection personnel safe. This list summarizes the relationships between some of the Texas laws and national standards and is not intended to be all-inclusive:

Texas Government Code

[§419.040, Protective Clothing](#)

[§419.041, Self-Contained Breathing Apparatus](#)

[§419.042, Personal Alert Safety Systems](#)

[§419.043, Applicable National Fire Protection Association Standard](#)

[§419.044, Incident Management System](#)

[§419.045, Personnel Accountability System](#)

[§419.046, Fire Protection Personnel Operating at Emergency Incidents](#)

[§419.047, Commission Enforcement](#)

Texas Administrative Code

[CHAPTER 425 FIRE SERVICE INSTRUCTORS](#)

[§443.9 National Fire Protection Association Standard](#)

[CHAPTER 435 FIRE FIGHTER SAFETY](#)

[§435.21 Fire Service Joint Labor Management Wellness-Fitness Initiative](#)

[§435.23 Fire Fighter Injuries](#)

[§435.25 Courage to be Safe So Everyone Goes Home Program](#)

[§435.27 Live Fire Training Structure Evolutions](#)

[CHAPTER 451 FIRE OFFICER](#)

[CHAPTER 457 INCIDENT SAFETY OFFICER CERTIFICATION](#)

Commission's web page

[NFPA Standards adopted by the commission](#)