OSHA®

SEVERE INJURY REPORT
A SEVEN YEAR LOOKBACK

A summary of employer-reported inpatient hospitalizations, amputations, and eye losses from 2015 - 2021

Every year, thousands of workers in the United States are injured on the job, sometimes with permanent injuries or disabilities. This report summarizes hospitalizations, amputations, and eye losses reported by employers to OSHA from 2015 to 2021 with analysis by geographic region and industry sectors. OSHA estimates that this report covers approximately half of U.S. workers.

OSHA has resources to help employers and workers prevent injuries on the job. Learn about the most commonly reported severe injuries reported in your industry and how you can prevent these injuries from happening at your workplace by identifying and controlling hazards.

Severe Injury Reports are submitted by employers to OSHA and describe severe injuries or illnesses resulting in inpatient hospitalization, amputation, or eye loss that occurred at the workplace among workers in the U.S. and its territories.

Severe Injury Reporting—
A seven year summary of reports by employers covered under federal OSHA

Since January 2015, employers have been required to report any work-related amputation, inpatient hospitalization, or eye loss within 24 hours of the event. Employers report these events by calling OSHA's toll-free number, using OSHA's online reporting form, or in person at an OSHA office. Once notified of these severe injury reports (SIRs), OSHA follows-up with the employer to collect additional information and discuss how to control hazards and prevent future injuries.

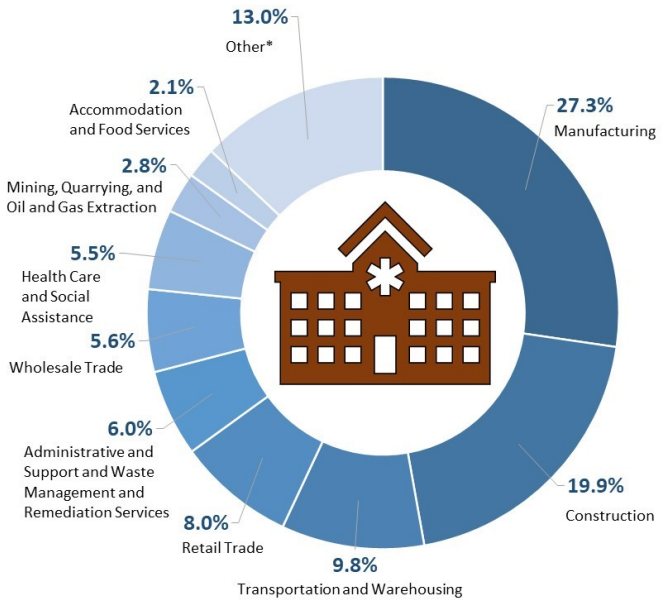
Since reporting began, OSHA received a total of 70,206 severe injury reports from employers under federal OSHA in all U.S. states, the District of Columbia, and U.S. territories. All employers, regardless of size, subject to federal enforcement authority, are included in this report. Private sector employees in State Plans and State and Municipal employees are excluded from this report. This report summary covers approximately half of the U.S. workforce.

OSHA received 56,696 inpatient hospitalization SIRs and 18,559 amputation SIRs from 2015 to 2021. Many amputations are so severe they require inpatient hospitalization; a total of 5,049 reported amputations also required inpatient hospitalization. SIRs involving amputation and inpatient hospitalization are counted as one despite being categorized separately here. Although the loss of an eye is also required to be reported to OSHA, there were no eye losses reported during this period.

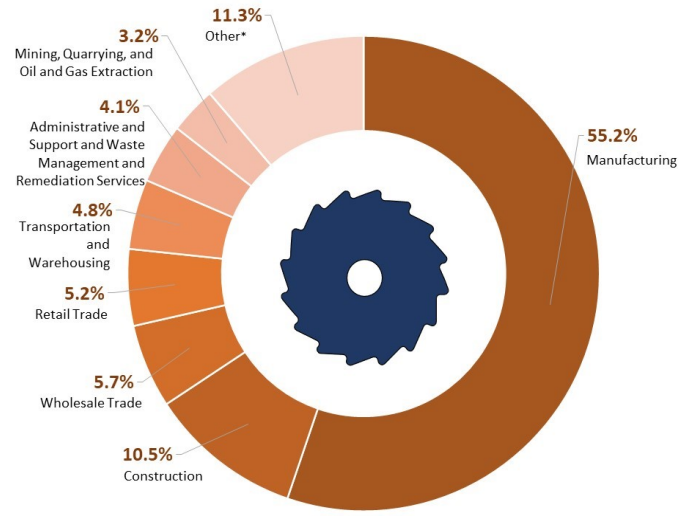
This report summarizes severe injuries reported by employers over the past seven years by industry, geography, and injury type, with a focus on select injuries and illnesses.

Figure 1. SIR type by industry sector, 2015— 2021

56,696 Hospitalization reports

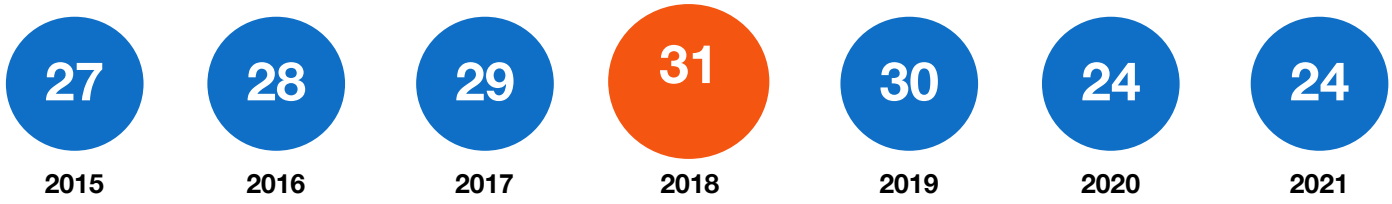


18,559 Amputation reports



*Other industry sectors include: Other services (except Public Administration); Agriculture, Forestry, Fishing, and Hunting; Professional, Scientific, and Technical Services; Arts, Entertainment, and Recreation; Utilities; Public Administration; Real Estate and Rental and Leasing; Information; Educational Services; Finance and Insurance; Management of Companies and Enterprises; Non-classifiable Establishments.

Average number of severe injuries reported to OSHA per day



From 2015 to 2018 the average number of SIRs reported per day increased from 27 to 31. The COVID-19 pandemic likely contributed toward the 20% decrease from 2019 to 2020 due to shutdowns or changes to employment status for millions of workers. Because the Recording and Reporting Occupational Injuries and Illnesses standard (29 CFR 1904.39) only requires employers to report inpatient hospitalizations that occur within 24 hours of the work-related incident that caused the inpatient hospitalization, and the mean incubation period for SARS-CoV-2 ranges from 3-6 days from exposure to onset, COVID-19 hospitalizations were generally not required to be reported.

Table 1 below shows the distribution of employer-reported SIRs across industry sectors. While the manufacturing and construction sectors reported the highest proportion of SIRs overall, the mining, quarrying, and oil and gas exploration sector had the highest rate of SIRs per 100,000 Full Time Equivalent (FTE) workers. Mining and quarrying operations are subject to the reporting requirements of the Mine Safety and Health Administration (MSHA), not OSHA.

Table 1. Number and Average Annual Employer-Reported Rate of SIRs per 100,000 FTE workers*

Sector	NAICS	2015	2016	2017	2018	2019	2020	2021	TOTAL	Rate per 100,000 FTE workers*
Manufacturing	31-33	3,430	3,371	3,433	3,614	3,483	2,836	2,948	23,115	26.5
Construction	23	1,714	1,868	1,862	1,969	1,956	1,729	1,528	12,626	25
Transportation and Warehousing	48-49	821	894	901	949	965	808	816	6,154	16.2
Retail Trade	44-45	673	756	720	824	887	716	678	5,254	4.8
Wholesale Trade	42	516	549	573	616	654	517	529	3,954	9.7
Administrative and Support and Waste Management and Remediation Services	56	557	502	587	649	630	514	457	3,896	6.1
Health Care and Social Assistance	62	440	479	478	539	545	409	407	3,297	2.4
Mining, Quarrying, and Oil and Gas Extraction	21	330	239	377	403	367	149	162	2,027	45.3
Accommodation and Food Services	72	202	216	236	209	203	171	159	1,396	1.5
Other Services (except Public Administration)	81	175	169	188	212	219	158	180	1,301	2.6
Agriculture, Forestry, Fishing, and Hunting	11	174	189	192	207	211	171	143	1,287	13
Professional, Scientific, and Technical Services	54	146	193	172	160	190	148	134	1,143	1.8
Arts, Entertainment, and Recreation	71	111	140	140	180	141	92	115	919	5.9
Utilities	22	119	133	138	123	149	138	109	909	23.6
Public Administration	92	123	123	143	129	143	120	113	894	0.5
Real Estate and Rental and Leasing	53	89	88	106	134	120	104	94	735	4.7
Information	51	123	96	103	122	99	63	70	676	3.4
Educational Services	61	44	45	48	60	62	39	35	333	1.3
Finance and Insurance	52	37	29	39	45	40	22	21	233	0.5
Management of Companies and Enterprises	55	8	3	3	3	4	6	4	31	0.2
Non-classifiable Establishments	99	1	2	4	9	4	5	1	26	N/A
Total		9,833	10,084	10,443	11,156	11,072	8,915	8,703	70,206	

*From 2015-2021. Rates were calculated using data from the U.S. Bureau of Economic Analysis, "Table 6.4D. Full-Time and Part-Time Employees by Industry" (accessed March 27, 2023).

Geography of Workplace Severe Injury Reports

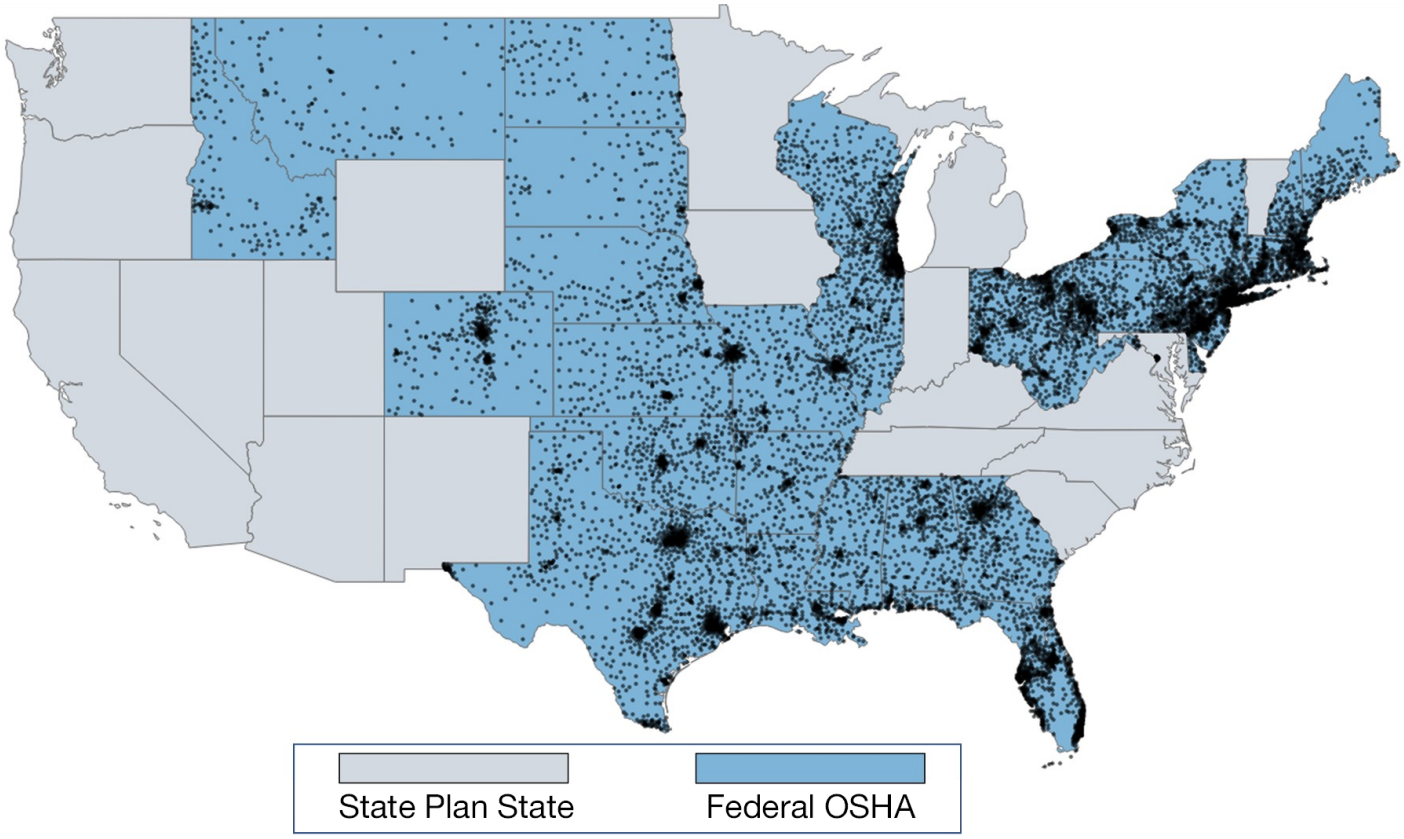


Figure 2. Map of employer-reported SIRs reported within jurisdictions covered by federal OSHA, 2015 to 2021.

SIRs reported from OSHA State Plan States are excluded from geographic analyses but have been included elsewhere on the report. Some employers located in State Plan states (e.g., USPS) are covered under federal OSHA. See page 13 for more information.

U.S. Territories not pictured: American Samoa (n=10); Guam (n=28), Northern Mariana Islands (n=7), Puerto Rico (n=11), and the U.S. Virgin Islands (n=16). See page 4 for a breakdown of SIRs reported by states covered by federal OSHA.

OSHA covers most private sector employers and their workers in all 50 states, the District of Columbia, and the other United States (U.S.) jurisdictions—either directly through OSHA or through an OSHA-approved State Plan. State Plans are OSHA-approved job safety and health programs operated by individual states rather than federal OSHA. There are 29 State Plans; 22 State Plans cover both private sector and state and local government workers, and seven State Plans cover only state and local government workers.

Figure 2 above shows that although SIRs are more concentrated in highly populated cities, severe workplace injuries happen everywhere. All employers covered by federal OSHA must report these incidents to OSHA, even employers who are exempt from routinely keeping OSHA records due to company size or industry. See OSHA's reporting and recording requirements for more information.

Although the geographic distribution of SIRs in North Dakota appears sparse, this state had the highest average annual rate of SIRs per 100,000 FTE workers (21.9 per 100,000 FTE workers) - see Table 2 on Page 6. There are many factors which may contribute to SIR rate differences between states, including employer reporting practices, differences in industry operations and/or hazard exposures, or these states may have fewer work-related injuries.

A list of work-related SIRs by states covered by federal OSHA and by year with average annual rates of SIRs per 100,000 FTE workers are provided on the next page in Table 2.

Table 2. Number and average annual rate per 100,000 FTE workers of SIRs by calendar year and federal OSHA states.

	2015	2016	2017	2018	2019	2020	2021	Total	Avg. SIRs per year per 100,000 workers*
Alabama	305	323	302	393	362	294	336	2,315	17.4
American Samoa	3	2	0	0	1	3	1	10	N/A
Arkansas	247	234	199	234	236	178	190	1,518	17.8
Colorado	294	301	343	383	362	297	237	2,217	11.7
Connecticut	90	98	125	118	129	99	97	756	6.7
Delaware	40	44	42	40	43	53	25	287	9.9
District of Columbia	27	36	46	34	32	22	23	220	3.7
Florida	934	1,058	1,099	1,133	1,163	998	1,026	7,411	12.2
Georgia	507	561	576	580	623	531	532	3,910	12.3
Guam	1	2	5	4	7	4	5	28	N/A
Idaho	86	99	118	102	109	77	94	685	14.1
Illinois	609	640	628	666	662	488	531	4,224	10.5
Kansas	215	231	178	207	231	193	169	1,424	14.8
Louisiana	266	242	250	268	265	194	194	1,679	12.4
Maine	61	75	92	66	82	76	67	519	12.7
Massachusetts	236	240	249	251	233	198	195	1,602	6.9
Mississippi	207	207	209	204	222	162	122	1,333	17.3
Missouri	299	320	292	344	364	260	259	2,138	11.1
Montana	39	54	60	46	67	48	43	357	11.1
Nebraska	155	170	154	175	173	164	140	1,131	16.8
New Hampshire	53	48	58	73	70	59	86	447	10.3
New Jersey	270	241	239	284	286	230	207	1,757	6.8
New York	493	490	538	579	560	451	430	3,541	5.6
North Dakota	129	80	110	106	108	52	67	652	21.9
Northern Mariana Islands	1	2	1	0	2	1	0	7	N/A
Ohio	727	817	801	861	846	682	712	5,446	15.2
Oklahoma	218	203	223	257	216	158	208	1,483	12.6
Pennsylvania	798	797	847	923	791	739	680	5,575	14.2
Rhode Island	34	34	38	46	36	35	29	252	8.0
South Dakota	56	70	79	69	80	62	44	460	15.6
Texas	1,671	1,556	1,748	1,883	1,922	1,446	1,317	11,543	13.0
U.S. Virgin Islands	1	0	2	4	6	1	2	16	N/A
West Virginia	96	102	89	115	115	92	78	687	14.8
Wisconsin	403	438	467	465	409	362	357	2,901	15.3

* Annual average SIR rates per 100,000 FTE workers by state calculated using the American Community Survey, Public Use Microdata Survey Data, 2015—2019.

Although work-related severe injuries and illnesses are required to be reported by all employers, OSHA recognizes that these totals are significantly underreported. Average annual SIR rates by state per 100,000 FTE workers should be interpreted carefully. Average rates of SIRs per 100,000 FTE workers by state were calculated using the American Community Survey's Public Use Microdata Survey, 2015 to 2019. Differential reporting patterns by state, employer, or over time may affect the accuracy of these rates. Readers should consider underreporting while reviewing these data.

Although researchers have estimated how much occupational severe injury and illness underreporting occurs, it is unknown how underreporting varies across states and industries; over time; by injury type; or by employer size (e.g., <10 employees vs 100 or more).

Despite these limitations to the SIR data, the distribution of SIRs across states covered by federal OSHA is notable. Many states had a significant drop in the number of SIRs reported at the onset of the COVID-19 pandemic, with the total number of SIRs remaining steady in the following year, despite workplaces returning to in-person staffing.

In some cases, federal OSHA covers employers working in State Plan States (e.g., USPS, other employers State Plan States have decided not to cover). These employers reported an additional 1,675 SIRs. OSHA has excluded these SIRs from geographic analysis as state-level results would misrepresent the actual burden of SIRs in these states.

OSHA inspectors investigate severe injuries that employers report to OSHA and help to control hazards and prevent future injuries. OSHA compliance officers respond with either an onsite inspection or a Rapid Response Investigation with an abatement certification requirement.

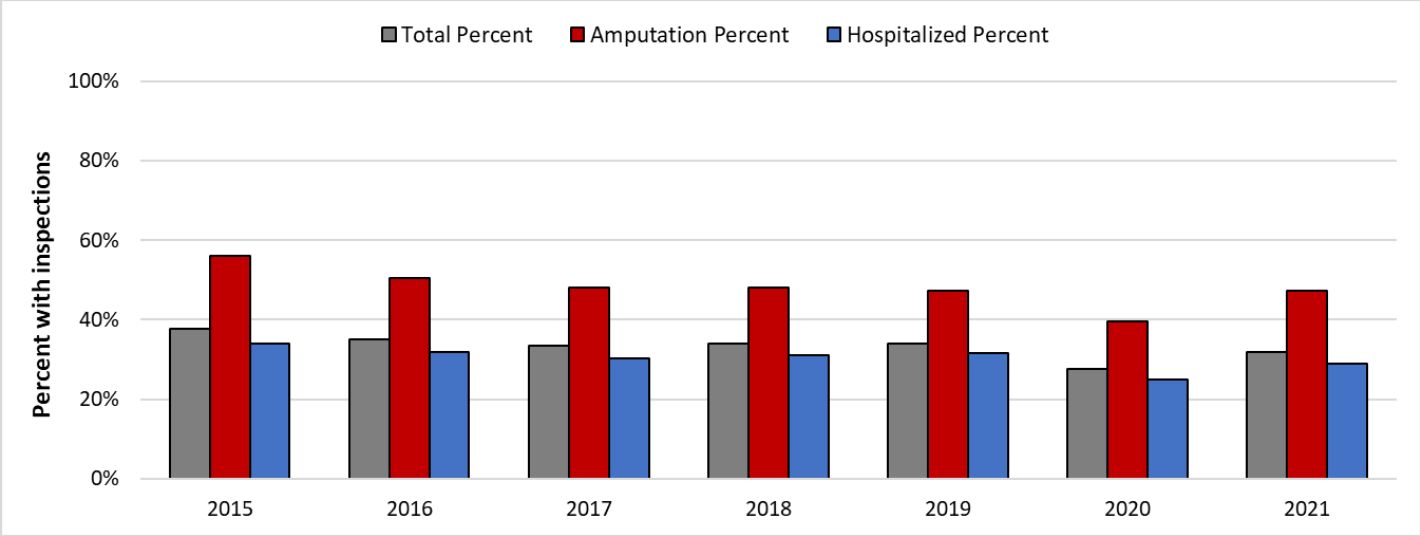


Figure 3. Proportion of employer-reported SIRs inspected by SIR type.

Reporting Can Save Lives and Prevent Additional Injuries

From 2015 to 2021, OSHA inspected an average of 33% of the workplaces where SIRs occurred following the report of the severe injury. As Figure 3 above shows, OSHA generally inspects SIRs with amputations associated with those reports, with OSHA inspecting an average of 48% of all amputation reports. On average, OSHA inspected about 33% of SIRs where the employee was admitted to an inpatient ward of a hospital.

Not all SIRs reported will lead to an OSHA inspection or violation. Depending on the circumstances of the report, OSHA inspectors may conduct a rapid response investigation (RRI) in lieu of an onsite inspection. In these instances, employers are expected to conduct their own investigation into the work-related incident and share their findings with OSHA. When an RRI is conducted, an abatement certification or document must be provided. The abatement certification is signed by an official of the company and details the abatement measures that have been implemented to correct the conditions that caused the SIR. This strategy involves all responsible parties to ensure that proper mitigation measures are established to keep workers safe.

The SIR narratives often provide great insight into the circumstances of the injury and potential control measures that could be implemented to prevent future injuries of a similar nature or from a similar cause. Here are some SIR narratives that led to an inspection:

- *An employee was attempting to stuff cardboard back into the chamber of a horizontal baler when it crushed their right hand.*
- *An employee was climbing a scaffold when it collapsed. The employee fell onto the ground and was struck by falling parts of the scaffold, suffering a broken leg and forehead laceration.*
- *An employee fell down an unmarked, open elevator shaft, hitting the ground and sustaining a back injury that required surgery.*
- *An employee was welding when there was a dust flash fire and explosion. The employee sustained burns on the hand and the upper torso.*

Reporting SIRs is required and is an important step to achieve a safe workplace free from hazards. OSHA compliance assistance staff are available across the country and U.S. territories to help employers.

Workers get injured on the job every day. Some experience amputations. Every worker has a right to a safe and healthful workplace. All occupational injuries are preventable with proper precautions in place.

The federal SIR dataset available on the OSHA webpage includes the injured body part(s). Upper extremities (e.g., arms, hands, fingers) accounted for 40% of all employer-reported SIRs from 2015 to 2021. Looking closer, fingertips alone accounted for over a fourth of all upper extremity injuries (8,246, 29%). Lower extremities (e.g., legs, feet, toes) accounted for 20% of all SIRs reported; of those, 3,270 injuries to legs were reported, accounting for 23% of all lower extremity injuries. Table 3 below provides an overall summary of body parts injured by industry sector.

Employers and workers are encouraged to visit OSHA's Hazard Identification Training Tool webpage for resources on how to recognize and prevent work hazards that could lead to workplace injuries.

Table 3. Body parts injured by Occupational Injury and Illness Classification System (OIICS) by industry sector, 2015 to 2021.

	NAICS	Upper extremities	Lower extremities	Trunk	Multiple body parts	Head	Body systems	Other body parts	Neck, including throat	Total
Manufacturing	31-33	14,000	3,365	1,932	1,390	1,054	651	645	78	23,115
Construction	23	3,646	2,601	1,823	1,797	1,102	675	891	91	12,626
Transportation and Warehousing	48-49	1,554	1,892	944	475	532	430	280	47	6,154
Retail Trade	44-45	1,615	1,278	1,040	419	492	137	237	36	5,254
Wholesale Trade	42	1,542	1,020	493	305	300	125	152	17	3,954
Administrative and Support and Waste Management and Remediation	56	1,272	868	519	346	367	322	181	21	3,896
Health Care and Social Assistance	62	638	813	769	279	341	297	134	26	3,297
Mining, Quarrying, and Oil and Gas Extraction	21	863	354	211	210	153	112	116	8	2,027
Accommodation and Food Services	72	479	268	236	159	112	56	80	6	1,396
Other Services (except Public Administration)	81	506	230	187	129	124	51	68	6	1,301
Agriculture, Forestry, Fishing and Hunting	11	506	239	167	123	104	84	56	8	1,287
Professional, Scientific, and Technical Services	54	378	272	172	97	74	75	66	9	1,143
Arts, Entertainment, and Recreation	71	261	226	161	92	89	34	52	4	919
Utilities	22	281	169	107	134	61	94	58	5	909
Public Administration	92	273	176	130	77	71	104	56	7	894
Real Estate and Rental and Leasing	53	229	160	116	71	72	36	45	6	735
Information	51	171	165	110	79	40	55	50	6	676
Educational Services	61	81	77	58	28	34	25	26	4	333
Finance and Insurance	52	44	68	41	21	31	15	12	1	233
Management of Companies and Enterprises	55	9	8	6	1	3	2	2	0	31
Non-classifiable Establishments	99	9	5	5	1	3	1	2	0	26
Total		28,357	14,254	9,227	6,233	5,159	3,381	3,209	386	70,206
Percent		40%	20%	13%	9%	7%	5%	5%	1%	

Leading Types of Injuries in Workers

Body parts being caught in running equipment or machinery (12,930, 18%) and falls (10,485, 15%) were the most frequently cited causes of severe injuries from 2015 to 2021. A summary of these two common types of injuries is provided below with narratives.

CAUGHT IN EQUIPMENT

The manufacturing (8,904, 69%) and wholesale trade (738, 6%) sectors reported the highest proportion of SIRs associated with body parts being caught in machinery. The plastics product manufacturing (701, 5%) industry reported the highest proportion of injuries in this category.

Year	SIRs
2015	1,764
2016	1,833
2017	2,016
2018	2,038
2019	1,959
2020	1,634
2021	1,686

- *While operating an unguarded conveyor, an employee's glove became entangled between the conveyor belt and the belt tensioning roll, causing a finger amputation.*
- *An employee's right finger was partially amputated while the employee was unjamming a de-tailer in a packing house.*
- *An employee was removing pizza from a conveyor line when their gloved finger became caught between the conveyor belt and a belt roller, resulting in a fractured finger, a fingertip amputation, and a nail avulsion.*
- *An employee was working on a wood waste belt when their arm was caught in the power transmission drive. The arm was amputated at the bicep area.*

OSHA's **Control of Hazardous Energy (Lockout/Tagout) (29 CFR 1910.147)** for general industry outlines measures for controlling different types of hazardous energy. Following the requirements of this standard will help employers and workers avoid these injuries and create a safer workplace.

FALLS

The construction (4,678, 31%) and manufacturing (3,240, 22%) sectors reported the highest proportion of SIRs associated with falls. Fall protection in construction (29 CFR 1926.501) is the most frequently violated OSHA standard.

Year	SIRs
2015	1,998
2016	2,199
2017	2,304
2018	2,401
2019	2,287
2020	1,972
2021	1,883

- *An employee was installing screws and clips in insulation when they slipped and fell approximately 45 feet to a lower level, requiring hospitalization for multiple broken bones.*
- *An employee had ascended approximately 21 feet up a grain elevator. While descending, the employee fell to the ground and sustained multiple fractures and a concussion.*
- *An employee fell into a trench while chipping concrete and was impaled by a piece of rebar.*
- *An employee was laying metal decking and fell approximately 15 feet. They suffered a fractured left hip and fractures to both arms, the jaw, and cheekbones.*

Falls are the leading cause of fatalities and serious injuries in all industries. In May 2023 OSHA announced a **Falls National Emphasis Program** to prevent and reduce workplace falls. Additionally, OSHA has several resources to help employers and workers prevent falls. Visit **OSHA's Fall Protection page** for more information, including training videos, posters, fact sheets, and more.

Millions of workers are exposed to indoor and outdoor heat on the job. Although heat-related injuries and illnesses are preventable, thousands become sick every year from occupational heat exposure, and some lose their lives. Occupational risk factors for heat-related illness include heavy physical activity, warm or hot environmental conditions, lack of acclimatization, and wearing clothing that holds in body heat.

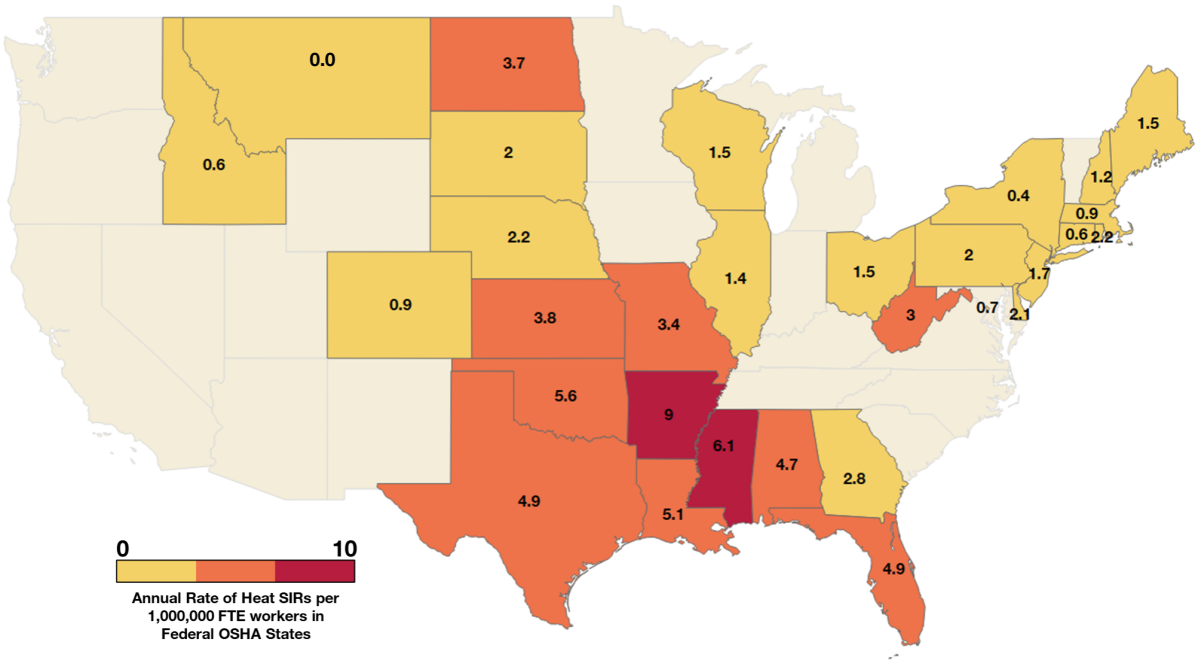


Figure 4. Average rate of heat-related SIR inpatient hospitalizations per 1,000,000 FTE workers at contiguous U.S. states covered by federal OSHA, 2015 to 2021. State plan states have been excluded. Rates are presented with caution as heat illnesses are likely underreported.

The Bureau of Labor Statistics reports that exposure to environmental heat caused **292 occupational deaths** between 2015 and 2021. Workplace safety experts believe the actual number of heat-related injuries, illnesses, and fatalities may be higher due to underreporting or misdiagnosis.

In April 2022, OSHA established a National Emphasis Program (NEP) on Outdoor and Indoor Heat-Related Hazards to protect employees from these hazards and the resulting heat -related injuries and illnesses. The Heat NEP expands on the agency's ongoing heat-related injury and illness prevention campaign by setting forth a targeted enforcement component and expanding its compliance assistance and outreach efforts. This approach is intended to encourage early interventions by employers to prevent injuries, illnesses, and deaths among workers working outside or inside.

Heat-related hospitalizations are preventable with known interventions. Early interventions workers and employers should consider include, but are not limited to, implementing **water, rest, shade, training, emergency response procedures, and acclimatization** for new or returning employees. These efforts can help prevent heat-related occupational illnesses and injuries.

From 2015 to 2021, a total of 1,743 heat-related SIRs were reported from workplaces covered by federal OSHA, averaging 249 workers hospitalized for heat-related illness per year. Figure 4 above shows the average annual rate of heat-related illnesses per 1,000,000 FTE workers reported to OSHA. Although Texas and Florida had the highest proportion of heat illnesses, accounting for 25% and 17% of all heat illnesses, respectively, Arkansas had the highest rate of heat illnesses per 1,000,000 FTE workers. **States with low heat illness rates should not be misinterpreted as having no risk of heat-related illnesses, as these illnesses can happen anywhere.**

See OSHA's Heat Safety and Health Topics page for more information about how to recognize and prevent heat-related injuries and illnesses in workers.

SEVERE INJURY REPORT SPOTLIGHT ISSUES

Accidental Ingestion of Hazardous Substances

From 2015 to 2021, employers reported 58 SIRs associated with the ingestion of hazardous substances that required hospitalization. Almost half (48%) of these SIRs involved drinking a fluid that was mistakenly believed to be a beverage.

Most of these ingestion incidents could have been avoided if secondary containers were properly labeled and storing chemicals in beverage containers was prohibited.

Cleaning and Polishing Agents

- *An employee was using a hose with a cleaning solution when the hose nozzle came loose. The solution then pumped out and entered the employee's eyes and mouth, causing internal injuries.*
- *An employee mistakenly drank cleaning fluid that had been placed in an unlabeled water bottle.*

Methanol

- *An employee mistakenly drank methanol that was in a soft drink bottle and was hospitalized for poisoning.*
- *An employee drank methanol from an unlabeled bottle.*

Sodium and Potassium Hydroxide (Lye, Caustic Soda, and Caustic Potash)

- *While conducting a taste test, an employee mistakenly grabbed a sample cup that contained sodium hydroxide, incurring chemical burns to the mouth and lip.*

Solvents and Degreasers

- *An employee drank from a bottle that contained a diluted cleaning chemical (degreaser).*

Curing Compound

- *An employee was siphoning curing compound and inadvertently swallowed some, causing vomiting. The employee suffered chemical burns to the mouth and lungs.*

Unidentified

- *An employee took a drink from a water bottle that contained a chemical instead and the employee suffered chemical burns to the mouth, throat, and esophagus.*

Workplace Injuries Causing Paralysis

Workplace injuries can happen instantly and unexpectedly and can lead to life-long consequences. Safety should be a top priority every day on the job as these hazards exist and can happen anywhere. From 2015 to 2021, 16 workers were paralyzed as a result of workplace injuries. Violations cited included those related to ladders, fall protection, fall protection systems, and handling materials, among others.

- *An employee was putting a bridge beam in place. When the beam struck the pier, the employee was knocked off the pier and fell over 40 feet to the ground, resulting in two broken arms and a fractured back that left the employee paralyzed from the waist down. The employee's harness was not connected at the time.*
- *An employee was on an extension ladder, which slid out and hit the ground. The employee fell from the ladder and suffered broken vertebrae and paralysis.*
- *An employee was standing on the completed deck floor of the second story of a house when he fell to the dirt ground, sustaining a spinal cord injury that resulted in paralysis from the chest down.*
- *An employee was operating an edger at a lumber mill. His clothing was caught in the machine and he suffered severe facial and neck injuries, a crushed arm, a broken arm, and a back injury causing paralysis from the waist down.*
- *An employee was hit by a collapsing concrete boom truck, suffering trauma including a severed spine, and paralysis.*
- *An employee fell from an elevated lift platform while installing wall sheeting on a residential property, suffering paralysis.*

Every worker has the right to go home safe and healthy every day and every employer has the responsibility to provide a safe work environment.

SEVERE INJURY REPORT SPOTLIGHT ISSUES

Industry Focus: Warehousing and Storage

Warehousing and Storage is a fast-paced, growing industry where several hazards may be present. Potential hazards include those associated with industrial trucks (forklifts), ergonomics, material handling, hazardous chemicals, slips/trips/falls, and robotics. **From 2015 to 2021, employers in this industry reported 1,336 severe injuries, equal to approximately 190 injuries in this industry per year.** While the type of injuries reported varied, nearly 20% of injuries reported in these seven years involved part of the worker's body caught between a vehicle (such as a forklift) and another object.

- *While operating an electric powered industrial truck, an employee backed into a metal table edge that lacerated his left leg.*
- *An employee fractured his foot when it was caught between a concrete curb and the forklift he was operating.*
- *A stand-up forklift operator was picking orders from racking systems inside a warehouse and became pinned between the forklift truck and the rack, resulting in a fractured pelvis.*
- *An employee was operating a forklift. Its cage crushed his left hand against a nearby storage rack, degloving the thumb and crushing the fingers.*

OSHA's **Warehousing Safety and Health Topics Page** provides many resources to help employers and workers prevent injuries like these from occurring on the job. In July 2023, OSHA announced a **National Emphasis Program on Warehousing and Distribution Center Operations**; OSHA will conduct comprehensive safety inspections focused on hazards related to warehousing such as powered industrial vehicles, material handling and storage, and more.

Who Submits Severe Injury Reports?

All employers are required to report work-related severe injuries and illnesses within 24 hours.

Inpatient hospitalizations | Amputations | Eye loss

Employees killed on the job must be reported to OSHA within 8 hours.

Occupational injuries and illnesses are reportable per the Recording and Reporting Occupational Injuries and Illnesses standard (29 CFR 1904.39). OSHA has several resources to help guide employers to better understand this requirement and ensure that they are in compliance with the law.

In general, it is better to report an incident than to not report. Failure to do so may result in an OSHA citation.

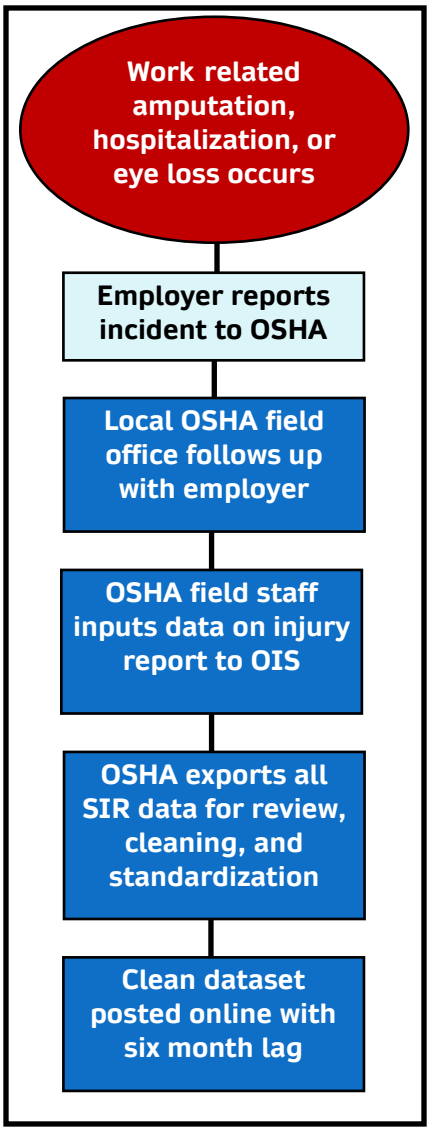
- Have questions about this requirement? Go to OSHA's Frequently Asked Questions about the Recording and Reporting Requirements.
- See OSHA's Standard Interpretations to learn more about the requirements.
- Go to osha.gov/report to learn how you can report a fatality or severe injury or illness to OSHA.

Severe Injury Report Methodology

Figure 5 describes the SIR process from the time of the incident to the availability of the data on the OSHA website. OSHA provides and updates this dataset for the public to encourage employers, workers, and any other interested parties to do their own analysis to help identify hazards and improve safety in their own workplace.

All employers covered by the OSH Act are required to report any workplace incident that results in a fatality, inpatient hospitalization, amputation, or loss of an eye. Depending on the type and circumstances of the injury or illness reported, OSHA will either request that employers conduct their own incident investigations and report back on their proposed remedies, or OSHA will open an on-site inspection of the establishment. The OSHA representative will then enter data about the injury report to the OSHA Information System (OIS), the internal database OSHA uses to track all inspections, violations, and incident reports. The OIS data includes some personally identifiable information on injured workers including name or age that is removed prior to publication to protect worker privacy. The data available on OSHA's website has a six month lag that allows time for OSHA field staff to complete investigations and follow-up. Then, OSHA statisticians will post the latest available data to OSHA's website. The data that OSHA staff collect is coded in the public data into Occupational Injury and Illness Classification System (OIICS) codes, and establishments are coded into North American Industry Classification System (NAICS) codes.

Figure 5. Summary of SIR process



SIR case reports are removed if the case was not reportable. Examples of severe work injuries that are not reportable would include incidents that occur on public highways; incidents occurring on mass transportation; or if the employee had an injury but it did not result in an amputation, inpatient hospitalization, or loss of an eye. Although SIRs are reported to OSHA from State Plan States, non-federal-related cases are not included in the SIR public dataset as those states administer their own safety and health programs.

Rates in this report were calculated using multiple data sources for denominators. The American Community Survey was used for state-based rates; the U.S. Bureau of Economic Analysis provides annual data of full time workers by industry sector. **Rates presented in this report are to be interpreted with caution due to underreporting of SIRs.**

Data Limitations:

This data can provide much insight into the most common causes of reported severe injuries and illnesses, the industries and sectors with the most severe injuries, and what body parts are most affected. However, this data is subject to several limitations, which prevent further analysis or cross-reference to other health data sources, such as Workers Compensation. The limitations to this data have been listed below.

- This report and the dataset available on the website do not include all SIRs reported from State Plan States. Any cases reported from State Plan States included in this report are those that are covered by federal OSHA (e.g., USPS).
- Records lack worker identifiers that could be used to link to other datasets (e.g., worker social security number, date of birth). Additionally, race/ethnicity is not collected, which limit demographic analyses.
- The dataset may include some hospitalizations where there was not enough information to confirm that the worker was actually admitted as an inpatient, which is the threshold for being reportable. For example, some SIRs may indicate an inpatient hospitalization, however, the worker may only have been seen in the Emergency Department as an outpatient.
- OSHA does not collect data on the degree of injury (e.g., number of days hospitalized).
- Eye loss is not well reported; eye injuries are mostly reported under this category. However, eye injuries that do not require inpatient hospitalization are reportable only if the eye is lost (i.e., enucleation).
- SIRs are likely underreported. Underreporting and undercounting of health-related data is not a problem unique to OSHA and is a well-documented limitation for local health departments and other federal agencies.
- The data collected for this report should not be considered statistically representative of the population due to these limitations. Users of these data should take caution when making conclusions about the results.

OSHA Severe Injury Reporting 2015 to 2021

Severe Injury Reports by Calendar Year in Industries Covered by Federal OSHA

2022 NAICS US Title	NAICS	2015	2016	2017	2018	2019	2020	2021	Total
Foundation, Structure, and Building Exterior Contractors	2381	382	451	473	511	480	452	365	3,114
Building Equipment Contractors	2382	328	333	367	389	349	335	318	2,419
Support Activities for Mining	2131	293	217	347	369	334	135	145	1,840
Nonresidential Building Construction	2362	262	296	273	264	292	239	195	1,821
General Medical and Surgical Hospitals	6221	208	248	246	249	283	196	193	1,623
Animal Slaughtering and Processing	3116	212	227	231	228	213	211	198	1,520
Grocery and Convenience Retailers	4451	197	212	206	223	218	215	175	1,446
Services to Buildings and Dwellings	5617	180	165	197	207	216	205	172	1,342
Warehousing and Storage	4931	149	176	193	219	220	174	205	1,336
Plastics Product Manufacturing	3261	190	195	210	191	195	165	144	1,290
General Freight Trucking	4841	139	171	189	205	209	174	168	1,255
Utility System Construction	2371	194	194	168	197	214	148	130	1,245
Architectural and Structural Metals Manufacturing	3323	138	170	175	197	201	161	163	1,205
Postal Service	4911	189	197	153	162	165	130	126	1,122
Other Specialty Trade Contractors	2389	156	170	156	177	173	148	141	1,121
Highway, Street, and Bridge Construction	2373	159	142	142	158	165	152	119	1,037
Other Wood Product Manufacturing	3219	135	124	125	173	150	101	128	936
Building Finishing Contractors	2383	121	127	139	140	138	132	119	916
Grocery and Related Product Merchant Wholesalers	4244	105	113	139	134	166	116	130	903
Employment Services	5613	163	118	131	151	110	71	66	810
Electric Power Generation, Transmission and Distribution	2211	95	107	114	102	125	100	90	733
Other Fabricated Metal Product Manufacturing	3329	112	112	109	108	100	88	101	730
Other Food Manufacturing	3119	76	88	107	115	113	87	85	671
Converted Paper Product Manufacturing	3222	92	101	110	99	91	85	82	660
Cement and Concrete Product Manufacturing	3273	74	104	98	95	94	106	86	657
Building Material and Supplies Dealers	4441	78	100	88	93	90	72	70	591
Residential Building Construction	2361	59	87	92	76	91	75	96	576
Bakeries and Tortilla Manufacturing	3118	79	99	83	96	79	64	73	573
Sawmills and Wood Preservation	3211	102	85	79	77	81	72	74	570
Motor Vehicle Parts Manufacturing	3363	82	87	71	95	93	51	71	550
Foundries	3315	80	71	74	83	80	72	62	522
Department Stores	4521	75	72	65	92	104	71	39	518
Lumber and Other Construction Materials Merchant Wholesalers	4233	64	72	65	85	84	75	60	505
Ship and Boat Building	3366	89	80	66	63	62	64	62	486
Waste Collection	5621	53	65	75	72	81	64	62	472
Other General Purpose Machinery Manufacturing	3339	69	69	59	66	70	53	81	467
Miscellaneous Durable Goods Merchant Wholesalers	4239	80	52	76	69	76	48	64	465
Automotive Repair and Maintenance	8111	52	53	54	78	88	59	77	461
Steel Product Manufacturing from Purchased Steel	3312	71	55	78	74	67	59	54	458
Fruit and Vegetable Preserving and Specialty Food Manufacturing	3114	74	63	67	64	71	39	62	440

OSHA Severe Injury Reporting 2015 to 2021

Severe Injury Reports by Calendar Year in Industries Covered by Federal OSHA—Continued

2022 NAICS US Title	NAICS	2015	2016	2017	2018	2019	2020	2021	Total
Architectural, Engineering, and Related Services	5413	48	83	59	75	74	55	45	439
Nursing Care Facilities (Skilled Nursing Facilities)	6231	55	61	69	68	80	55	50	438
Agriculture, Construction, and Mining Machinery Manufacturing	3331	73	44	70	79	57	44	53	420
Traveler Accommodation	7211	72	72	65	63	73	35	36	416
Couriers and Express Delivery Services	4921	48	45	54	66	57	81	64	415
Machinery, Equipment, and Supplies Merchant Wholesalers	4238	51	60	56	70	69	51	48	405
Other Amusement and Recreation Industries	7139	43	53	59	80	64	51	54	404
Restaurants and Other Eating Places	7225	45	52	57	49	54	64	78	399
Specialized Freight Trucking	4842	58	68	61	51	58	53	44	393
Other Miscellaneous Store Retailers	4539	47	53	61	53	71	47	46	378
Other Miscellaneous Manufacturing	3399	50	65	65	45	60	42	49	376
Forging and Stamping	3321	63	48	76	64	47	35	42	375
Iron and Steel Mills and Ferroalloy Manufacturing	3311	49	51	61	61	65	42	45	374
Other Merchandise Stores	4529	49	57	43	63	70	51	40	373
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	3371	51	54	54	71	48	42	48	368
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	3327	67	56	53	55	56	43	36	366
Dairy Product Manufacturing	3115	53	47	58	51	46	55	50	360
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	8113	51	44	65	51	61	47	41	360
Other Heavy and Civil Engineering Construction	2379	47	65	46	55	52	48	45	358
Pulp, Paper, and Paperboard Mills	3221	56	55	44	59	56	46	42	358
Automotive Parts, Accessories, and Tire Retailers	4413	46	49	43	62	53	59	39	351
Basic Chemical Manufacturing	3251	64	53	51	57	51	35	38	349
Support Activities for Water Transportation	4883	49	63	52	61	44	44	33	346
Remediation and Other Waste Management Services	5629	52	38	45	64	54	43	46	342
Management, Scientific, and Technical Consulting Services	5416	36	58	48	30	68	45	50	335
Rubber Product Manufacturing	3262	51	47	43	57	56	33	47	334
National Security and International Affairs	9281	51	49	60	44	59	26	36	325
Printing and Related Support Activities	3231	53	57	48	52	45	30	33	318
Beverage Manufacturing	3121	50	53	38	44	39	39	36	299
Motor Vehicle Body and Trailer Manufacturing	3362	44	42	48	50	48	25	36	293
Boiler, Tank, and Shipping Container Manufacturing	3324	48	42	35	47	39	39	36	286
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	3334	45	38	36	35	41	47	34	276
Petroleum and Coal Products Manufacturing	3241	42	40	41	42	34	41	31	271
Cattle Ranching and Farming	1121	36	40	34	49	50	33	28	270
Metal and Mineral (except Petroleum) Merchant Wholesalers	4235	33	41	45	39	41	30	39	268
Amusement Parks and Arcades	7131	33	48	37	55	47	16	29	265

OSHA Severe Injury Reporting 2015 to 2021

Severe Injury Reports by Calendar Year in Industries Covered by Federal OSHA—Continued

2022 NAICS US Title	NAICS	2015	2016	2017	2018	2019	2020	2021	Total
Support Activities for Crop Production	1151	33	41	45	45	44	34	22	264
Veneer, Plywood, and Engineered Wood Product Manufacturing	3212	43	36	38	36	43	28	39	263
Justice, Public Order, and Safety Activities	9221	30	30	42	44	38	30	44	258
Aerospace Product and Parts Manufacturing	3364	44	39	38	31	32	32	31	247
Support Activities for Air Transportation	4881	28	20	47	49	42	25	34	245
Commercial and Industrial Machinery and Equipment Rental and Leasing	5324	29	25	36	45	36	41	29	241
Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	3252	39	34	39	33	35	25	35	240
Scheduled Air Transportation	4811	37	43	36	36	42	22	24	240
Farm Product Raw Material Merchant Wholesalers	4245	39	43	32	30	31	28	36	239
Automobile Dealers	4411	36	31	31	41	39	22	33	233
Coating, Engraving, Heat Treating, and Allied Activities	3328	24	27	39	38	39	38	26	231
Other Electrical Equipment and Component Manufacturing	3359	35	26	34	36	45	26	29	231
Animal Food Manufacturing	3111	34	24	33	31	37	33	30	222
Nonferrous Metal (except Aluminum) Production and Processing	3314	35	31	28	44	27	29	26	220
Grain and Oilseed Milling	3112	25	29	30	37	38	32	27	218
Alumina and Aluminum Production and Processing	3313	27	35	33	30	42	26	25	218
Other Support Services	5619	26	26	32	33	35	38	28	218
Sugar and Confectionery Product Manufacturing	3113	30	32	37	31	35	22	30	217
Investigation and Security Services	5616	22	26	33	38	43	29	26	217
Colleges, Universities, and Professional Schools	6113	31	23	34	35	44	25	25	217
Other Chemical Product and Preparation Manufacturing	3259	30	27	34	33	32	19	36	211
Limited-Service Eating Places	7222	23	35	46	41	27	29	9	210
Motor Vehicle Manufacturing	3361	37	34	35	33	25	21	24	209
Special Food Services	7223	38	29	41	27	30	22	21	208
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	4231	27	25	28	36	33	26	32	207
Industrial Machinery Manufacturing	3332	26	33	25	36	31	30	23	204
Glass and Glass Product Manufacturing	3272	31	31	28	30	34	21	26	201
Waste Treatment and Disposal	5622	32	27	32	25	30	25	26	197
Gasoline Stations	4471	22	25	20	27	35	31	28	188
Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	6233	27	28	20	27	26	25	35	188
Activities Related to Real Estate	5313	17	22	22	36	31	26	28	182
Home Health Care Services	6216	27	20	23	34	28	24	25	181
Metalworking Machinery Manufacturing	3335	27	21	28	25	28	23	19	171
Miscellaneous Nondurable Goods Merchant Wholesalers	4249	11	29	25	28	28	27	20	168
Health and Personal Care Stores	4461	18	24	28	24	31	19	19	163
Other Nonmetallic Mineral Product Manufacturing	3279	13	31	22	32	24	19	20	161
Spring and Wire Product Manufacturing	3326	26	27	22	21	19	23	15	153
Electrical Equipment Manufacturing	3353	21	17	22	29	19	17	27	152

OSHA Severe Injury Reporting 2015 to 2021

Severe Injury Reports by Calendar Year in Industries Covered by Federal OSHA—Continued

2022 NAICS US Title	NAICS	2015	2016	2017	2018	2019	2020	2021	Total
Pharmaceutical and Medicine Manufacturing	3254	28	14	19	26	21	19	21	148
Other Professional, Scientific, and Technical Services	5419	26	14	25	19	22	22	18	146
Freight Transportation Arrangement	4885	19	13	26	21	25	20	21	145
Wired and Wireless Telecommunications (except Satellite)	5171	30	25	22	24	22	13	8	144
Poultry and Egg Production	1123	22	21	20	16	21	24	19	143
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	4237	16	25	16	25	21	22	13	138
Office Furniture (including Fixtures) Manufacturing	3372	19	23	22	18	19	18	18	137
Paint, Coating, and Adhesive Manufacturing	3255	9	23	24	22	25	13	20	136
Facilities Support Services	5612	9	10	19	31	34	16	17	136
Oil and Gas Extraction	2111	30	13	25	25	23	10	8	134
Executive, Legislative, and Other General Government Support	9211	16	16	17	16	24	27	15	131
Sporting Goods, Hobby, and Musical Instrument Stores	4511	14	19	19	21	24	13	18	128
Full Service Restaurants	7221	22	24	19	21	15	16	11	128
Clothing Stores	4481	18	11	20	19	25	16	15	124
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	3345	19	24	15	31	11	6	16	122
Medical Equipment and Supplies Manufacturing	3391	18	14	15	24	23	12	16	122
Automotive Equipment Rental and Leasing	5321	14	14	24	22	18	14	14	120
Drycleaning and Laundry Services	8123	18	21	16	16	19	12	15	117
Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	4248	12	12	21	18	20	20	13	116
Individual and Family Services	6241	19	16	13	20	20	13	13	114
Chemical and Allied Products Merchant Wholesalers	4246	20	12	17	19	20	11	14	113
Specialty Food Retailers	4452	16	15	9	16	20	12	25	113
Clay Product and Refractory Manufacturing	3271	24	16	8	14	21	15	11	109
Other Telecommunications	5179	13	10	20	25	18	10	13	109
Business Support Services	5614	15	19	15	17	17	16	10	109
Lessors of Real Estate	5311	16	15	15	17	21	14	10	108
Offices of Physicians	6211	13	9	22	24	11	15	14	108
Soap, Cleaning Compound, and Toilet Preparation Manufacturing	3256	17	7	12	17	24	14	15	106
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	3253	17	15	15	10	12	15	21	105
Engine, Turbine, and Power Transmission Equipment Manufacturing	3336	13	10	18	19	25	10	9	104
Other Ambulatory Health Care Services	6219	9	13	21	27	15	12	7	104
Semiconductor and Other Electronic Component Manufacturing	3344	15	18	13	15	19	14	9	103
Greenhouse, Nursery, and Floriculture Production	1114	14	13	11	17	19	17	11	102
Direct Selling Establishments	4543	11	14	17	12	18	21	9	102
Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities	6232	18	15	15	16	15	10	13	102

An additional 142 industries with fewer than 100 SIRs each reported in the seven year timeframe were excluded from this list.