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NATIONAL CENSUS OF FATAL OCCUPATIONAL INJURIES IN 2021

There were 5,190 fatal work injuries recorded in the United States in 2021, an 8.9-percent increase from 4,764 in 2020, the U.S. Bureau of Labor Statistics reported today. (See chart 1 and table 1.) The fatal work injury rate was 3.6 fatalities per 100,000 full-time equivalent (FTE) workers, up from 3.4 per 100,000 FTE in 2020 and up from the 2019 pre-pandemic rate of 3.5. (See chart 2.) These data are from the Census of Fatal Occupational Injuries (CFOI).

Chart 1. Number of fatal work injuries, 2011-21

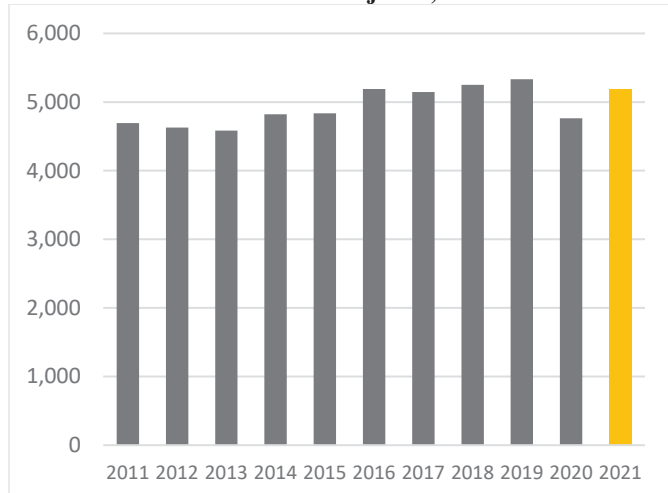
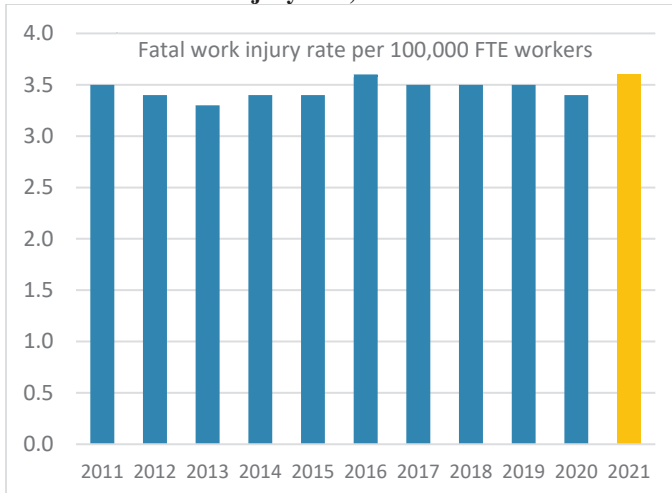


Chart 2. Fatal work injury rate, 2011-21



Key findings from the 2021 Census of Fatal Occupational Injuries

- The 3.6 fatal occupational injury rate in 2021 represents the highest annual rate since 2016.
- A worker died every 101 minutes from a work-related injury in 2021.
- The share of Black or African American workers fatally injured on the job reached an all time high in 2021, increasing from 11.4 percent of total fatalities in 2020 to 12.6 percent of total fatalities in 2021. Deaths for this group climbed to 653 in 2021 from 541 in 2020, a 20.7-percent increase. The fatality rate for this group increased from 3.5 in 2020 to 4.0 per 100,000 FTE workers in 2021.
- Suicides continued to trend down, decreasing to 236 in 2021 from 259 in 2020, an 8.9-percent decrease.
- Workers in transportation and material moving occupations experienced a series high of 1,523 fatal work injuries in 2021 and represent the occupational group with the highest number of fatalities. This is an increase of 18.8 percent from 2020.
- Transportation incidents remained the most frequent type of fatal event in 2021 with 1,982 fatal injuries, an increase of 11.5 percent from 2020. This major category accounted for 38.2 percent of all work-related fatalities for 2021.

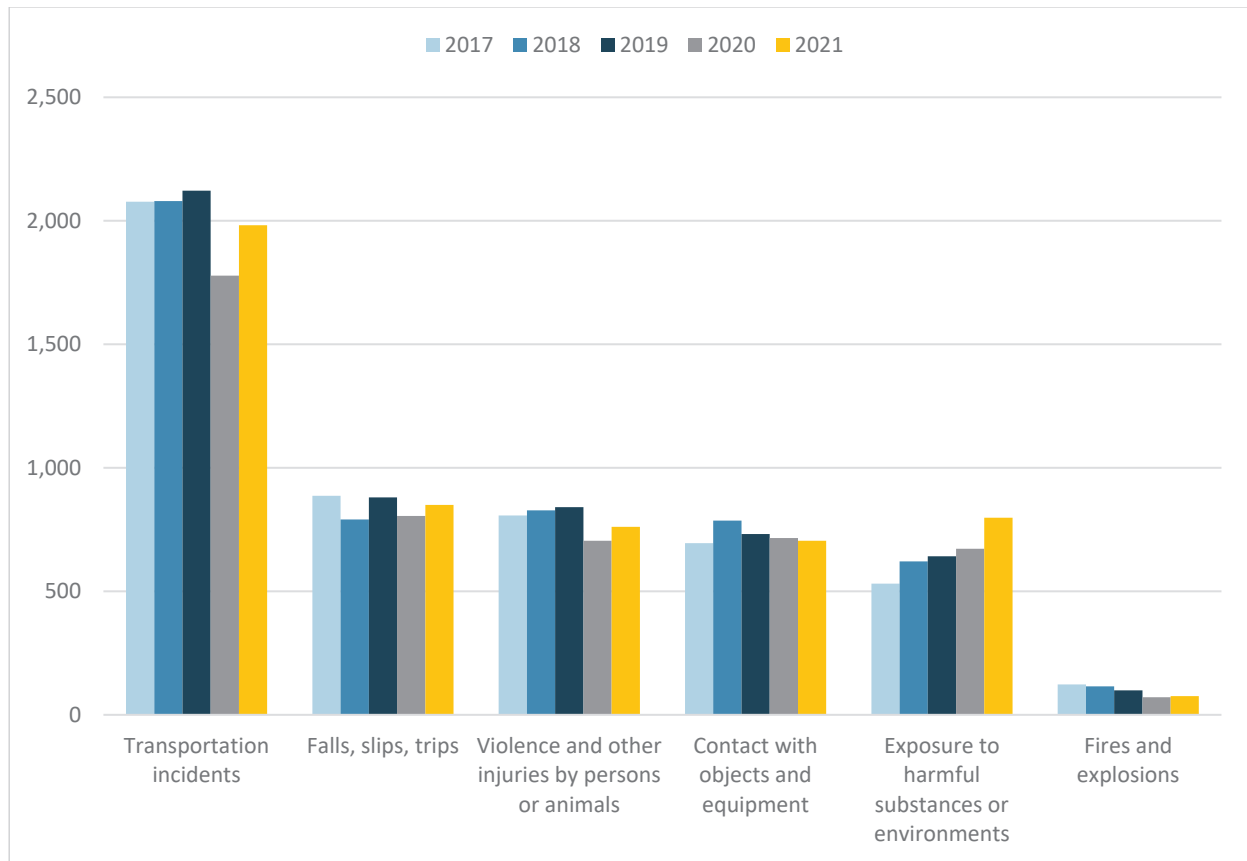
Worker characteristics

- Black or African American workers, as well as Hispanic or Latino workers had fatality rates (4.0 and 4.5 per 100,000 FTE workers, respectively) in 2021 that were higher than the all worker rate of 3.6. Transportation incidents were the highest cause of fatalities within both of these groups (267 for Black or African American workers and 383 for Hispanic or Latino workers).
- The second highest cause of fatalities to Black or African American workers were injuries due to violence and other injuries by persons or animals (155), whereas for Hispanic or Latino workers it was falls, slips, or trips (272). Almost a quarter of Black or African American workplace fatalities (23.7 percent) are a result of violence and other injuries by persons or animals as opposed to 14.7 percent for all workers.
- Women made up 8.6 percent of all workplace fatalities but represented 14.5 percent of intentional injuries by a person in 2021.
- In 2021, workers between the ages of 45 and 54 suffered 1,087 workplace fatalities, a 13.9-percent increase from 2020. This age group accounted for just over one-fifth of the total of fatalities for the year (20.9 percent).

Fatal event or exposure

- Despite experiencing an increase from 2020 to 2021, transportation incidents are still down 6.6 percent from 2019 when there were 2,122 fatalities.
- Fatalities due to violence and other injuries by persons or animals increased to 761 fatalities in 2021 from 705 fatalities in 2020 (7.9 percent). The largest subcategory, intentional injuries by person, increased 10.3 percent to 718 in 2021.
- Exposure to harmful substances or environments led to 798 worker fatalities in 2021, the highest figure since the series began in 2011. This major event category experienced the largest increase in fatalities in 2021, increasing 18.8 percent from 2020. Unintentional overdose from nonmedical use of drugs or alcohol accounted for 58.1 percent of these fatalities (464 deaths), up from 57.7 percent of this category's total in 2020.
- Work related fatalities due to falls, slips, and trips increased 5.6 percent in 2021, from 805 fatalities in 2020 to 850 in 2021. Falls, slips, and trips in construction and extraction occupations accounted for 370 of these fatalities in 2021, and an increase of 7.2 percent from 2020 when there were 345 fatalities. Despite the increase this is still down 9.3 percent from 2019 when construction and extraction occupations experienced 408 fatalities due to this event.

Chart 3. Fatal work injuries by major event or exposure, 2017-21

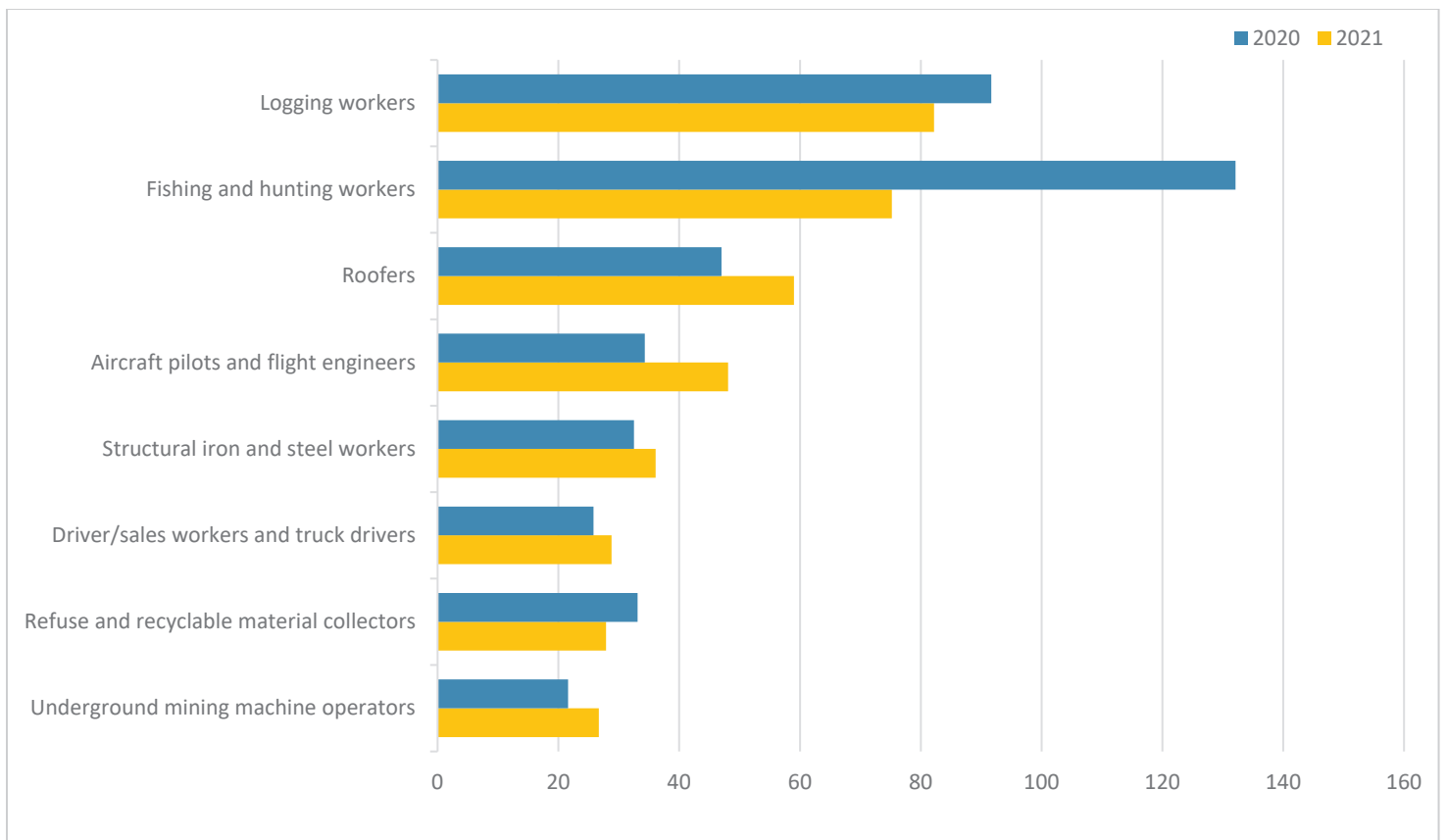


Occupation

- There was a 16.3-percent increase in deaths for driver/sales workers and truck drivers which went up to 1,032 deaths in 2021 from 887 deaths in 2020. This was the primary factor behind the increase in fatalities to workers in transportation and material moving occupations which reached a series high in 2021.
- Construction and extraction occupations had the second most occupational deaths (951) in 2021, despite experiencing a 2.6-percent decrease in fatalities from 2020. The fatality rate for this occupation also decreased from 13.5 deaths per 100,000 FTE workers in 2020 to 12.3 in 2021.
- Protective service occupations (such as firefighters, law enforcement workers, police and sheriff’s patrol officers, and transit and railroad police) had a 31.9-percent increase in fatalities in 2021, increasing to 302 from 229 in 2020. Almost half (45.4 percent) of these fatalities are due to homicides (116) and suicides (21). About one-third (33.4 percent) are due to transportation incidents, representing the highest count since 2016.
- Installation, maintenance, and repair occupations had 475 fatalities in 2021, an increase of 20.9 percent. Almost one-third of these deaths (152) were to vehicle and mobile equipment mechanics, installers, and repairers.
- The fatal injury rate for fishing and hunting workers decreased from 132.1 per 100,000 FTEs in 2020 to 75.2 in 2021.

Fatal injury counts by occupation will be available at www.bls.gov/iif/fatal-injuries-tables.htm. Fatality rates by occupation, industry, and worker demographics will be available at www.bls.gov/iif/fatal-injuries-tables/fatal-occupational-injuries-hours-based-rates-2021.xlsx.

Chart 4. Fatal work injury rates per 100,000 full-time equivalent workers by selected occupations, 2020-21



TECHNICAL NOTES

Background

The Census of Fatal Occupational Injuries (CFOI), part of the Bureau of Labor Statistics (BLS) Occupational Safety and Health Statistics (OSHS) program, is a count of all fatalities resulting from workplace injuries occurring in the U.S. during the calendar year. The CFOI uses a variety of state, federal, and independent data sources to identify, verify, and describe fatal work injuries. This ensures counts are as complete and accurate as possible. For the 2021 data, over 23,900 unique source documents were reviewed as part of the data collection process. For technical information and definitions for the CFOI, see the BLS Handbook of Methods on the BLS website at www.bls.gov/opub/hom/cfoi/home.htm and the CFOI definitions at www.bls.gov/iif/definitions/occupational-safety-and-health-definitions.htm. Fatal injury rates are subject to sampling error as they are calculated using employment data from the Current Population Survey, a sample of households, and the BLS Local Area Unemployment Statistics. For more information on sampling error, see www.bls.gov/iif/additional-resources/reliability-of-estimates.htm.

The Survey of Occupational Injuries and Illnesses (SOII), another component of the OSHS program, presents frequency counts and incidence rates by industry, detailed case circumstances, and worker characteristics for nonfatal workplace injuries and illnesses for cases that result in days away from work. For these data, access the BLS website: www.bls.gov/iif.

Identification and verification of work-related fatalities

In 2021, work relationship could not be independently verified by multiple source documents for 31 fatal work injuries. However, the information on the initiating source document for these cases was sufficient to determine that the incident was likely to be job-related. Data for these fatalities are included.

Federal/State agency coverage

The CFOI includes data for all fatal work injuries, some of which may be outside the scope of other agencies or regulatory coverage. Comparisons between CFOI counts and those released by other agencies should account for the different coverage requirements and definitions used by each agency. For more information on the scope of CFOI, see www.bls.gov/iif/overview/cfoi-scope.htm and www.bls.gov/opub/hom/cfoi/concepts.htm.

Due to challenges related to obtaining key source documents for Arizona, CFOI case counts may be underrepresented.

Latency Cases

Latent fatal occupational injury cases occur when the date of injury differs from the date of death. In some cases, the death occurs in a different year than the occupational injury and are known as cross-year latent cases. In 2021, there were 197 cases where this occurred, and 174 of these latent cases occurred more than 30 days prior to the start of 2021. For more information on latent cases, see www.bls.gov/opub/btn/volume-10/latency-in-fatal-occupational-injuries.htm.

CFOI Methodology

Starting with the reference year 2019, CFOI modernized its disclosure methodology further strengthening its protection of confidential data. Individually identifiable data collected by the CFOI are used exclusively for statistical purposes and are protected under the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA). These data are collected under a pledge of confidentiality and therefore require BLS to prevent disclosure of identifying information of decedents. For more information see www.bls.gov/iif/questions-and-answers.htm.

Coronavirus (COVID-19) Pandemic and the Census of Fatal Occupational Injuries

CFOI reports fatal workplace injuries only. These may include fatal workplace injuries complicated by an illness such as COVID-19. Fatal workplace illnesses not precipitated by an injury are not in scope for CFOI. CFOI does not report any illness related information, including COVID-19. Additional information is available at www.bls.gov/covid19/effects-of-covid-19-on-workplace-injuries-and-illnesses-compensation-and-occupational-requirements.htm.

Acknowledgements

BLS thanks the participating states, New York City, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam for their efforts in collecting accurate, comprehensive, and useful data on fatal work injuries. Although data for Puerto Rico, the U.S. Virgin Islands, and Guam are not included in the national totals, results for these jurisdictions are available. Participating agencies may be contacted to request more detailed state results. Contact information is available at www.bls.gov/iif/state-data.htm.

BLS also appreciates the efforts of all federal, state, local, and private sector entities that provided source documents used to identify fatal work injuries. Among these agencies are the Occupational Safety and Health Administration; the National Transportation Safety Board; the U.S. Coast Guard; the Mine Safety and Health Administration; the Office of Workers' Compensation Programs (Federal Employees' Compensation and Longshore and Harbor Workers' Compensation divisions); the Federal Railroad Administration; the National Highway Traffic Safety Administration; state vital statistics registrars, coroners, and medical examiners; state departments of health, labor, and industrial relations and workers' compensation agencies; state and local police departments; and state farm bureaus.

If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Table 1: Fatal occupational injuries by selected demographic characteristics, 2017-21

Characteristic	2017	2018	2019	2020	2021
Total ¹	5,147	5,250	5,333	4,764	5,190
Employee status					
Wage and salary workers ²	4,069	4,178	4,240	3,864	4,284
Self-employed ³	1,078	1,072	1,093	900	906
Gender					
Women	386	413	437	387	448
Men	4,761	4,837	4,896	4,377	4,741
Age					
Under 16 years	15	13	17	14	7
16 to 17 years	7	9	17	12	17
18 to 19 years	62	56	50	66	85
20 to 24 years	293	282	325	260	289
25 to 34 years	872	946	866	833	882
35 to 44 years	907	966	967	898	977
45 to 54 years	1,059	1,114	1,082	954	1,087
55 to 64 years	1,155	1,104	1,212	1,051	1,140
65 years and over	775	759	793	676	702
Race or ethnic origin⁴					
White (non-Hispanic)	3,449	3,405	3,297	2,898	3,103
Black or African-American (non-Hispanic)	530	615	634	541	653
Hispanic or Latino	903	961	1,088	1,072	1,130
American Indian or Alaskan Native (non-Hispanic)	38	42	30	32	41
Asian (non-Hispanic)	144	153	181	150	178
Native Hawaiian or Pacific Islander (non-Hispanic)	17	10	14	8	18
Multiple races (non-Hispanic)	9	14	22	14	11
Other races or not reported (non-Hispanic)	57	50	67	49	56

¹ The Census of Fatal Occupational Injuries (CFOI) has published data on fatal occupational injuries for the United States since 1992. During this time, the classification systems and definitions of many data elements have changed. See the CFOI Definitions page (www.bls.gov/iif/definitions/census-of-fatal-occupational-injuries-definitions.htm) for a more detailed description of each data element.

² May include volunteers and workers receiving other types of compensation. Cases where employment status is unknown are included in the counts of wage and salary workers.

³ Includes self-employed workers, owners of unincorporated businesses and farms, paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships.

⁴ Persons identified as Hispanic or Latino may be of any race. The race categories shown exclude data for Hispanics and Latinos. Cases where ethnicity is unknown are included in counts of non-Hispanic workers.

Note: Data for all years are revised and final. Totals for major categories may include subcategories not shown separately. Dashes indicate no data reported or data that do not meet publication criteria. N.e.c. means "not elsewhere classified." CFOI fatal injury counts exclude illness-related deaths unless precipitated by an injury event.

Source: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with state, New York City, District of Columbia, and federal agencies, Census of Fatal Occupational Injuries

Table 2: Fatal occupational injuries for selected events or exposures, 2017-21

Characteristic	2017	2018	2019	2020	2021
Total ¹	5,147	5,250	5,333	4,764	5,190
Event or exposure²					
Violence and other injuries by persons or animals	807	828	841	705	761
Intentional injury by person	733	757	761	651	718
Homicides	458	453	454	392	481
Shooting by other person—intentional	351	351	363	304	387
Stabbing, cutting, slashing, piercing	47	44	42	50	45
Suicides	275	304	307	259	236
Transportation incidents	2,077	2,080	2,122	1,778	1,982
Aircraft incidents	126	133	152	80	100
Rail vehicle incidents	48	48	47	32	33
Pedestrian vehicular incident	313	325	341	330	337
Pedestrian struck by vehicle in work zone	56	58	56	57	49
Water vehicle incident	68	58	63	74	39
Roadway incident involving motorized land vehicle	1,299	1,276	1,270	1,038	1,253
Roadway collision with other vehicle	663	677	729	537	649
Roadway collision moving in same direction	189	183	194	142	184
Roadway collision moving in opposite directions, oncoming	214	243	258	198	218
Roadway collision moving perpendicularly	149	141	153	106	129
Roadway collision with object other than vehicle	377	373	325	302	319
Vehicle struck object or animal on side of roadway	348	345	301	275	283
Roadway noncollision incident	252	222	212	196	279
Jack-knifed or overturned, roadway	197	170	164	155	207
Nonroadway incident involving motorized land vehicle	209	225	236	206	201
Nonroadway noncollision incident	166	164	193	167	153
Jack-knifed or overturned, nonroadway	111	105	128	101	100
Fire or explosion	123	115	99	71	76
Fall, slip, trip	887	791	880	805	850
Fall on same level	151	154	146	136	145
Fall to lower level	713	615	711	645	680
Fall from collapsing structure or equipment	48	50	37	36	51
Fall through surface or existing opening	85	83	95	63	77
Exposure to harmful substances or environments	531	621	642	672	798
Exposure to electricity	136	160	166	126	152
Exposure to temperature extremes	38	60	53	62	43
Exposure to other harmful substances	317	355	379	448	551
Inhalation of harmful substance	43	42	59	50	72
Contact with objects and equipment	695	786	732	716	705
Struck by object or equipment	503	566	518	468	473
Struck by powered vehicle nontransport	197	215	205	174	169
Struck by falling object or equipment	237	278	241	217	227
Struck by discharged or flying object	28	32	26	37	24
Caught in or compressed by equipment or objects	108	137	120	142	143
Caught in running equipment or machinery	76	106	93	89	93
Struck, caught, or crushed in collapsing structure, equipment, or material	70	73	83	93	79

¹ The Census of Fatal Occupational Injuries (CFOI) has published data on fatal occupational injuries for the United States since 1992. During this time, the classification systems and definitions of many data elements have changed. See the CFOI Definitions page (www.bls.gov/iif/definitions/census-of-fatal-occupational-injuries-definitions.htm) for a more detailed description of each data element.

² Based on the BLS Occupational Injury and Illness Classification System (OIICS) 2.01 implemented for 2011 data forward.

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Source: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with state, New York City, District of Columbia, and federal agencies, Census of Fatal Occupational Injuries

Table 3: Fatal occupational injuries for selected occupations, 2017-21

Characteristic	2017	2018	2019	2020	2021
Total ¹	5,147	5,250	5,333	4,764	5,190
Occupation (SOC)²					
Management occupations	396	387	380	361	323
Business and financial operations occupations	29	38	29	23	27
Computer and mathematical occupations	11	12	15	8	6
Architecture and engineering occupations	23	30	43	31	29
Life, physical, and social science occupations	13	18	15	17	10
Community and social services occupations	37	23	31	26	40
Legal occupations	11	15	11	5	11
Educational instruction and library occupations	30	27	24	13	16
Arts, design, entertainment, sports, and media occupations	47	71	40	36	45
Healthcare practitioners and technical occupations	57	65	56	51	57
Healthcare support occupations	28	32	38	44	32
Protective service occupations	266	270	231	229	302
Fire fighting and prevention workers	35	33	24	-	-
Law enforcement workers	117	127	97	115	-
Food preparation and serving related occupations	89	100	99	82	101
Building and grounds cleaning and maintenance occupations	326	350	333	307	356
Building cleaning and pest control workers	68	66	63	61	80
Grounds maintenance workers	191	225	229	202	225
Personal care and service occupations	69	63	61	58	64
Sales and related occupations	232	241	240	200	200
Supervisors, sales workers	98	102	99	73	70
Retail sales workers	89	99	96	95	83
Office and administrative support occupations	101	69	92	69	91
Farming, fishing, and forestry occupations	264	262	291	264	218
Agricultural workers	155	158	183	148	133
Fishing and hunting workers	41	31	44	42	23
Forest, conservation, and logging workers	57	57	49	42	46
Construction and extraction occupations	965	1,003	1,066	976	951
Supervisors of construction and extraction workers	121	144	136	88	117
Construction trades workers	747	731	809	771	726
Extraction workers	41	64	50	59	54
Installation, maintenance, and repair occupations	414	420	438	393	475
Vehicle and mobile equipment mechanics, installers, and repairers	143	152	155	135	152
Production occupations	221	225	245	224	242
Transportation and material moving occupations	1,443	1,443	1,481	1,282	1,523
Air transportation workers	59	71	85	50	68
Motor vehicle operators	1,084	1,044	1,091	933	1,103
Material moving workers	235	255	238	218	284
Military occupations ³	72	82	65	-	-

¹ The Census of Fatal Occupational Injuries (CFOI) has published data on fatal occupational injuries for the United States since 1992. During this time, the classification systems and definitions of many data elements have changed. See the CFOI Definitions page (www.bls.gov/iif/definitions/census-of-fatal-occupational-injuries-definitions.htm) for a more detailed description of each data element.

² CFOI has used several versions of the Standard Occupation Classification (SOC) system since 2003 to define occupation. For complete information on the version of SOC used in these years, see our definitions page at <https://www.bls.gov/iif/definitions/census-of-fatal-occupational-injuries-definitions.htm>. Cases where occupation is unknown are included in the total.

³ Includes fatal injuries to persons identified as resident armed forces regardless of individual occupation listed.

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Source: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with state, New York City, District of Columbia, and federal agencies, Census of Fatal Occupational Injuries

Table 4: Fatal work injury rates¹ per 100,000 full-time equivalent workers by selected occupations, 2020-21

Characteristic	2020	2021
All workers ²	3.4	3.6
Occupation (SOC)³		
Logging workers	91.7	82.2
Fishing and hunting workers	132.1	75.2
Roofers	47.0	59.0
Aircraft pilots and flight engineers	34.3	48.1
Structural iron and steel workers	32.5	36.1
Driver/sales workers and truck drivers	25.8	28.8
Refuse and recyclable material collectors	33.1	27.9
Underground mining machine operators	21.6	26.7

¹ Fatal injury rates are per 100,000 full-time equivalent (FTE) workers. Fatal injury rates exclude workers under the age of 16 years, volunteers, and resident military. Complete national rates can be found at www.bls.gov/iif/fatal-injuries-tables.htm#rates. Complete state rates can be found at www.bls.gov/iif/state-data.htm. National and state rates are calculated using different methodology and cannot be directly compared. See www.bls.gov/opub/hom/cfoi/calculation.htm#comparisons-of-national-and-state-rates for more information on how rates are calculated and caveats for comparison. N/A means a rate was not published for this group.

² The Census of Fatal Occupational Injuries (CFOI) has published data on fatal occupational injuries for the United States since 1992. During this time, the classification systems and definitions of many data elements have changed. See the CFOI Definitions page (www.bls.gov/iif/definitions/census-of-fatal-occupational-injuries-definitions.htm) for a more detailed description of each data element.

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