State of California
Department of Industrial Relations

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Fatal Occupational Injuries in California

2015 – 2024

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California Department of Industrial Relations

Division of Occupational Safety and Health

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Message from Cal/OSHA Chief Debra Lee

This annual report was prepared by the Census of Fatal Occupational Injuries (CFOI) Program, which operates within the Department of Industrial Relations' Division of Occupational Safety and Health, commonly known as Cal/OSHA.

Within these pages, you will find key insights into the numbers and demographics of occupational fatalities in California. Each statistic represents a life lost on the job and underscores the importance of workplace protections designed to prevent such tragedies.

At Cal/OSHA, we analyze this data to identify opportunities to strengthen and improve workplace safety across the state. This work includes outreach, education, rulemaking, and enforcement, among other efforts. It is a shared responsibility, one that involves employers, industry groups, safety professionals, worker organizations, and workers themselves.

As you review this report, I encourage you to pause and reflect on those who have been impacted by workplace fatalities, and consider how, together, we can work to prevent future loss of life.

Introduction

Cal/OSHA collects comprehensive statistics on work-related fatalities through the Census of Fatal Occupational Injuries (CFOI) Program. Established by the U.S. Bureau of Labor Statistics (BLS) in 1992, the CFOI Program compiles state and national data to support public health practitioners, researchers, regulators, and safety and health policy analysts in their efforts to prevent work-related deaths. The program aims to identify all workers fatally injured on the job, regardless of their employment status or coverage under state and federal laws.

The California Department of Industrial Relations (DIR) oversees the CFOI Program, utilizing a wide range of sources to identify and validate work-related fatalities. These sources include death certificates, workers' compensation records, news articles, Cal/OSHA incident reports, OSHA Information System (OIS) records, coroner and police reports, and records from agencies such as the National Highway Traffic Safety Administration (NHTSA) and National Transportation Safety Board (NTSB). Additional sources like military reports, social media, and obituaries are also used to cross-reference information.

The program uses multiple data sources to compile detailed information on each fatality, including demographics, circumstances, and contributing factors such as whether equipment was involved. This information is analyzed to inform safety initiatives aimed at reducing workplace fatalities.

Scope

The CFOI Program focuses exclusively on fatalities caused by work-related traumatic injuries. These injuries are defined as any harm or damage to the body resulting from acute exposure to energy, such as heat or electricity, impact from a crash or fall, or the absence of vital essentials like heat or oxygen, all caused by a specific event or incident within a single workday or shift. Examples of injuries include heatstroke, intracranial and internal injuries, open wounds, hypothermia, asphyxiation, acute poisoning from short-term exposures limited to the worker's shift, suicides, homicides, and work injuries listed as underlying or contributory causes of death. Workplace drug overdoses are included, regardless of where the drugs were consumed.

Deaths from fatal occupational illnesses are excluded unless they result from an acute injury or exposure event. Fatal diseases caused by prolonged exposure, such as asbestos-related illnesses, silicosis, heart disease, and cancers are not included in the Census.

Cases are included in CFOI if the injury or injuries played a contributing role in the death, even if they were not the sole or primary cause. For instance, while deaths solely caused by COVID-19 are excluded, fatalities resulting from a traumatic injury complicated by COVID-19 are included.

A fatal injury is considered work-related if the event or exposure:

1. Occurred on the employer’s premises while the person was present to work, or
2. Took place off the employer’s premises and either involved work-related activities or was connected to the worker’s employment.

Details about CFOI’s scope are made publicly available by the U.S. Bureau of Labor Statistics.

This report provides a comprehensive analysis of occupational fatalities within the scope of CFOI that occurred in California between 2015 and 2024. CFOI data prior to 2015 can be accessed online at the Bureau of Labor Statistics Profiles search.

Tables and graphs in this report are sourced from Cal/OSHA’s CFOI page and the California Workplace Fatality Dashboard.

Revision of Classification Systems

The 2022 updates to the North American Industry Classification System (NAICS) and the Occupational Injury and Illness Classification System (OIICS) were introduced with the release of 2023 data. The NAICS 2022 update included minor revisions across five industries and significant changes within the Retail Trade and Information sectors; detailed information about these updates is available online. A list of major changes implemented in the comprehensive OIICS revision is also available online.

Key Insights

This report highlights key trends in workplace fatalities in California from 2015 to 2024:

- California maintained a lower average fatality rate (2.5 per 100,000 workers) than the national rate (3.3 per 100,000 workers) over the ten-year period from 2015 to 2024. The state's rate increased between 2018 and 2022, followed by declines in 2023 and 2024.
- Occupational fatalities peaked at 504 cases in 2022 and declined to 419 in 2024, representing two consecutive years of decreases and an overall reduction of nearly 17% from the peak.
- Men accounted for approximately 92% of all workplace fatalities, consistent with prior years.
- Hispanic and Black or African American workers experienced disproportionately higher fatality rates compared to White and Asian workers. Hispanic workers had the highest estimated fatality rate, followed by Black or African American workers.
- Workers aged 45 and older accounted for more than half of workplace fatalities annually during the ten-year period examined in this report.
- The trade, transportation, and utilities sector reported the highest number of fatalities, averaging over 100 deaths per year.
- Transportation incidents remained the leading cause of workplace fatalities, accounting for approximately 32% of all cases.
- Fatalities related to exposure to harmful substances, including drug overdoses, increased significantly in recent years, emerging as a major contributing factor in workplace deaths.

General Trends

This report presents a comprehensive analysis of CFOI data, examining trends and changes over time. It includes a focused review of subpopulations across the state, highlighting differences in outcomes and identifying areas where certain groups may face increased risk.

The analysis considers a range of factors, including industry, employment status, and demographic characteristics, to provide a clearer understanding of how these variables relate to fatality outcomes. The report also examines causes of death, identifying patterns and key risk factors.

In addition, the report highlights notable trends that Cal/OSHA continues to monitor, providing context on emerging issues and areas of focus.

The report begins with an analysis of overall fatality rates and total fatality counts. It then examines subpopulation distributions, starting with gender.

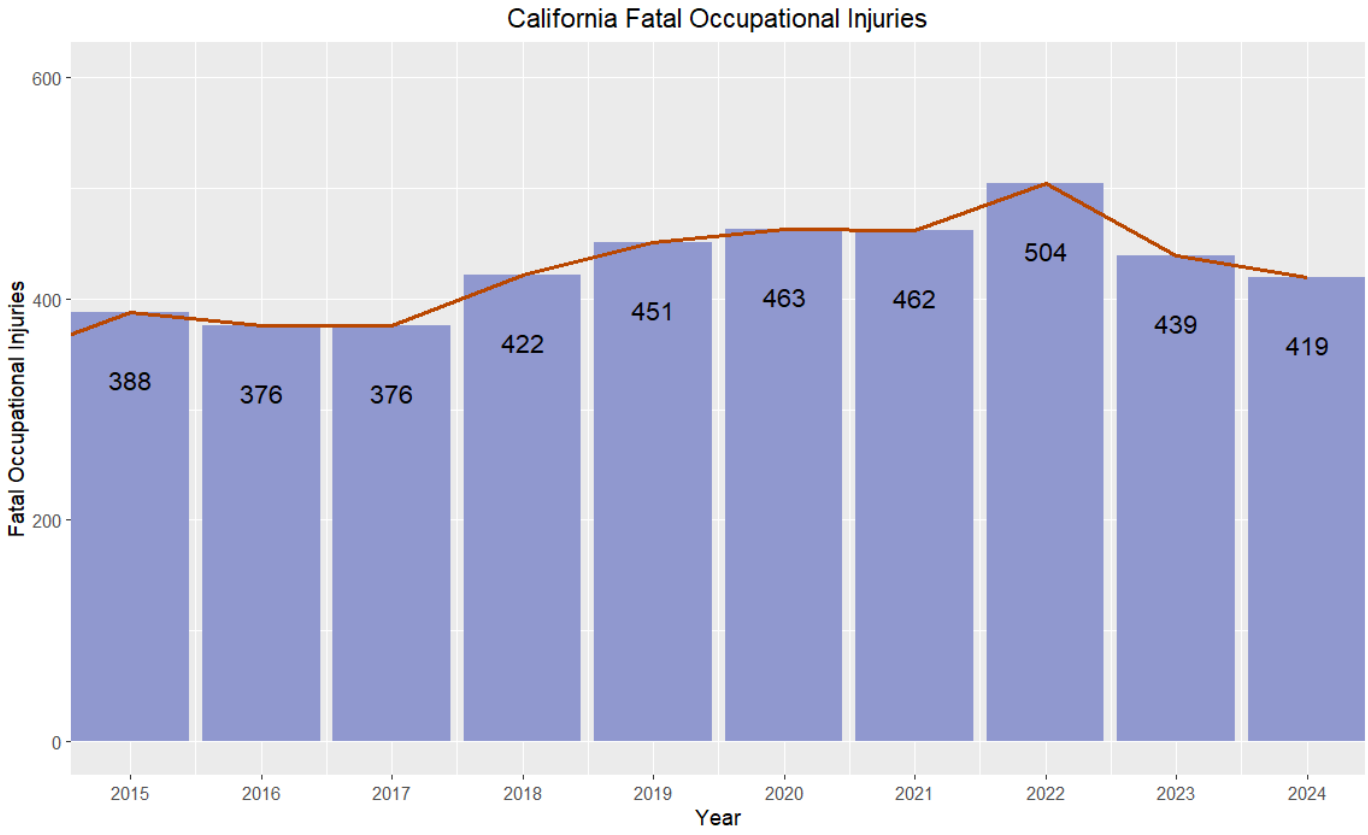
Fatality Rates

From 2015 to 2017, the state reported fewer than 400 fatal work-related injuries annually under the scope of CFOI, falling from 388 in 2015 to 376 in 2017. However, this trend reversed in 2018, with California recording 422 fatal occupational injuries—a significant increase. The following years saw a continued rise in such fatalities: 451 deaths in 2019, 463 in 2020, 462 in 2021, and culminating in a peak of 504 deaths in 2022. In 2023, for the first time since 2018, the number of fatal occupational injuries decreased. CFOI recorded 419 fatalities in 2024, marking a reduction of 85 deaths compared to the recent peak in 2022 (Figure 1).

Table 1. California Fatal Occupational Injuries (2015–2024)

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total CA Fatalities	388	376	376	422	451	463	462	504	439	419

Figure 1. California Fatal Occupational Injuries (2015–2024)



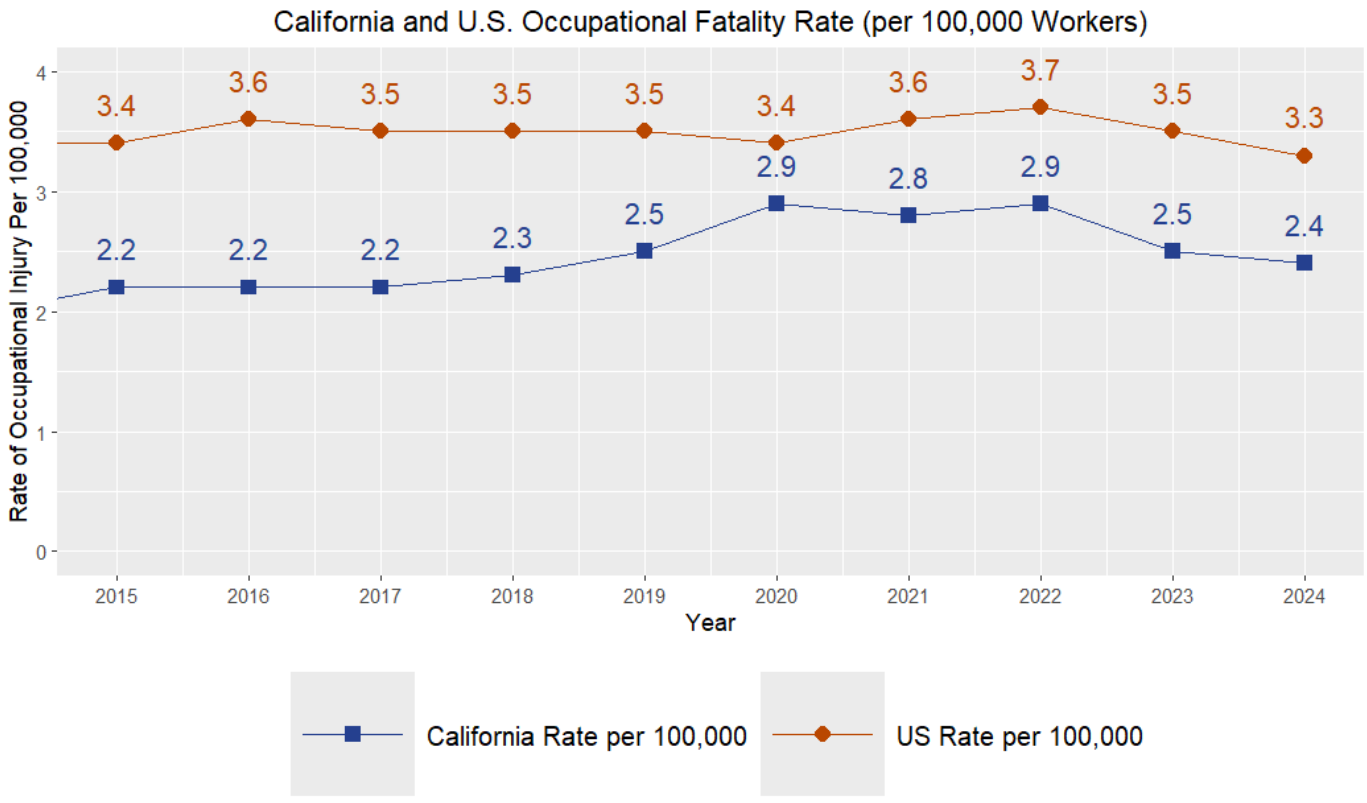
The rate of fatal occupational injuries per 100,000 California workers remained stable at 2.2 fatalities per 100,000 workers from 2015 to 2017. In 2018, the rate began to climb alongside the increase in total fatalities. The rate peaked at 2.9 fatalities per 100,000 workers in both 2020 and 2022, before declining to 2.5 fatalities per 100,000 workers in 2023 and 2.4 fatalities per 100,000 workers in 2024. (Figure 2).

Although not directly comparable due to differences in industrial composition, California's fatality rate has consistently been lower than the U.S. national rate throughout the ten-year period. While the national rate remained stable at approximately 3.5 fatalities per 100,000 workers over the past five years, California's rate rose closer to the national average. Despite this increase, California's rate remains below the nationwide rate.

Table 2. California and U.S. Occupational Fatality Rate (2015–2024, per 100,000 workers)

Rate per 100,000	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
U.S. Rate	3.4	3.6	3.5	3.5	3.5	3.4	3.6	3.7	3.5	3.3
California Rate	2.2	2.2	2.2	2.3	2.5	2.9	2.8	2.9	2.5	2.4

Figure 2. California and U.S. Occupational Fatality Rate (2015–2024, per 100,000 workers)



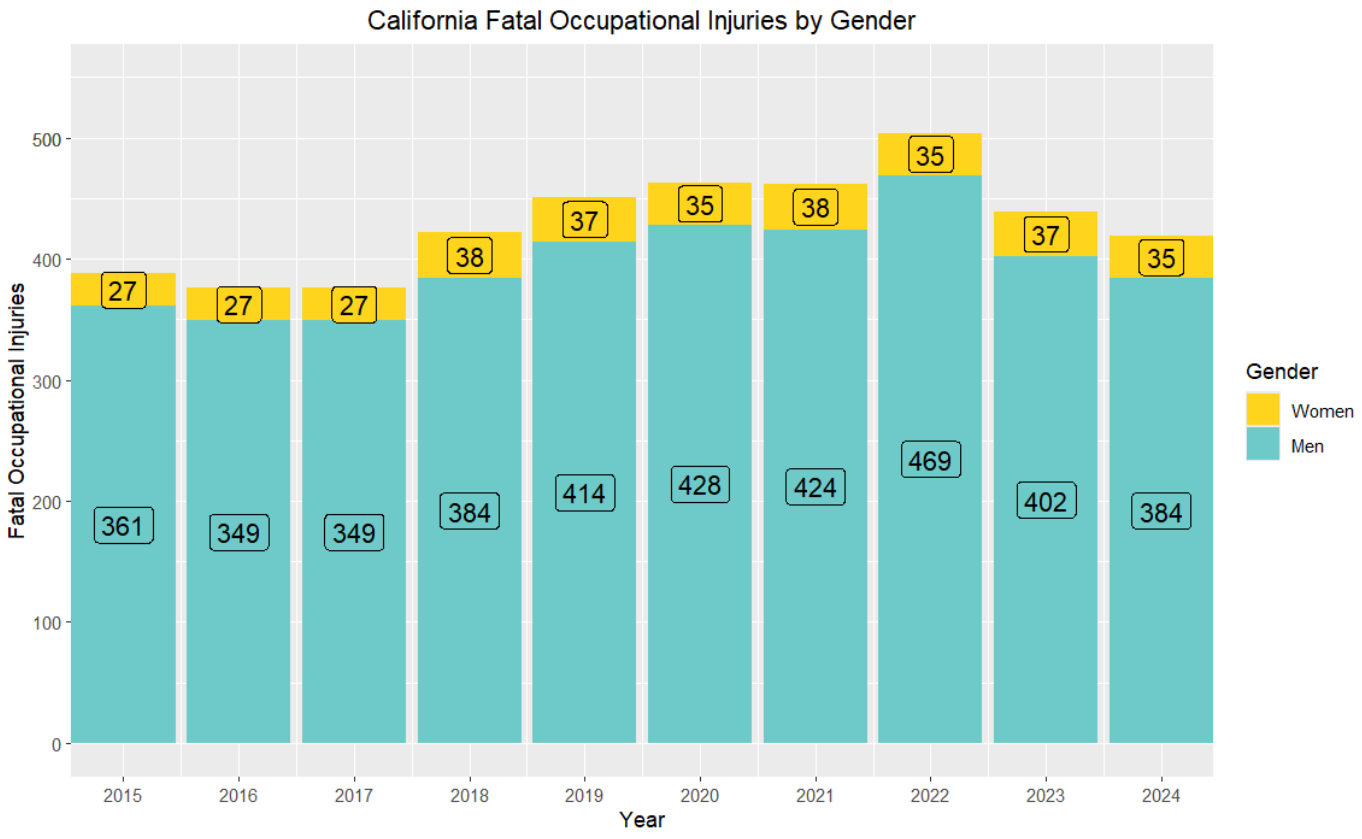
Gender

Each year, men account for a substantially higher number of fatal occupational injuries compared to women. In 2024, 384 men and 35 women lost their lives due to work-related injuries. From 2015 to 2024, 3,964 of the victims in California were men, while 336 victims were women (Figure 3).

Table 3. Total Number of Fatal Occupational Injuries by Gender

Gender	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Men	361	349	349	384	414	428	424	469	402	384
Women	27	27	27	38	37	35	38	35	37	35

Figure 3. California Fatal Occupational Injuries by Gender (2015–2024)



Age

Fatal occupational injuries across all age groups every year are reported in Table 4. Since 2015, the age group with the highest number of work-related fatalities shifted from middle-aged workers

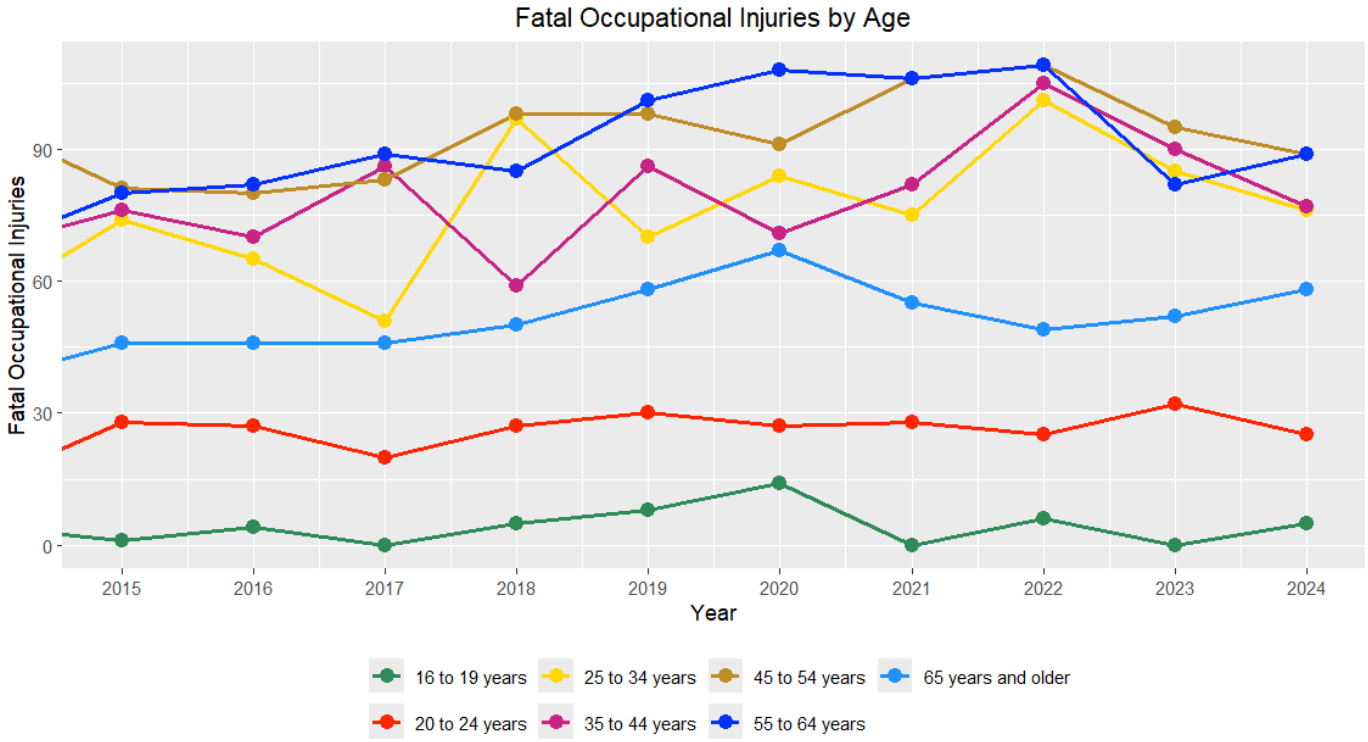
to older workers. In 2015, workers aged 45–54 made up the largest group of fatalities, followed by those aged 35–44 and 55–64 (Table 4).

In 2023, workers aged 45–54 experienced the highest number of fatalities, closely followed by those aged 25-34 and 35–44 (Figure 4b). In 2024, workers aged 45 to 64 years old experienced the highest number of fatalities (Figure 4a). Workers aged 35-44 and 55-64 faced a notable increase in fatalities between 2018 and 2019, 45% and 19% respectively. (Table 4).

Table 4. Total Number of Fatal Occupational Injuries by Age

Age	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
16 to 19 years	1	4	N/A	5	8	14	N/A	6	N/A	5
20 to 24 years	28	27	20	27	30	27	28	25	32	25
25 to 34 years	74	65	51	97	70	84	74	101	85	76
35 to 44 years	76	70	86	59	86	71	82	105	90	77
45 to 54 years	81	80	83	98	98	91	106	109	95	89
55 to 64 years	80	82	89	85	101	108	106	109	82	89
65 years and older	46	46	46	50	58	67	55	49	52	58

Figure 4. California Fatal Occupational Injuries by Age



Race and Ethnicity

The CFOI program collects comprehensive data on race and ethnicity for all fatal occupational injury cases, displayed in Table 5a.

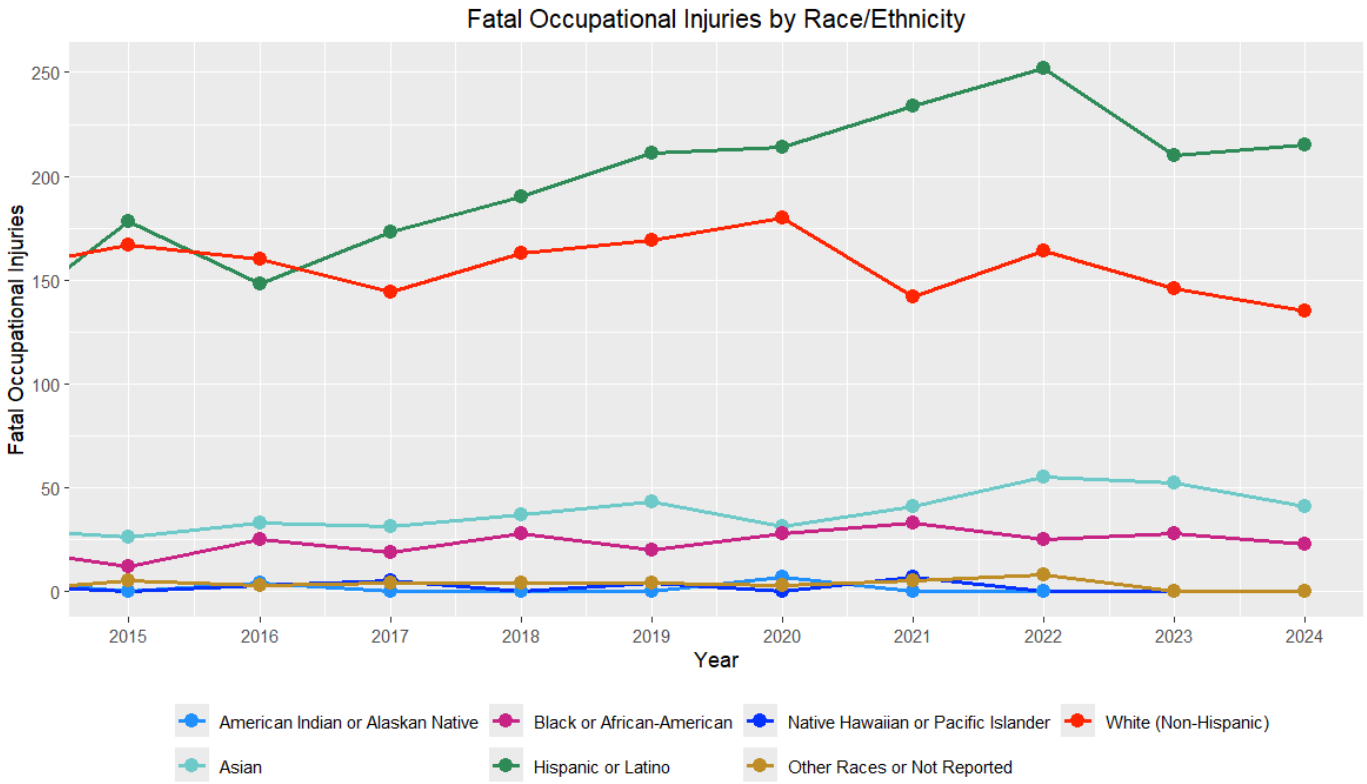
Table 5a. Total Number of Fatal Occupational Injuries by Race/Ethnicity

Race or Ethnic Origin	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Hispanic or Latino	178	148	173	190	211	214	234	252	210	215
White (Non-Hispanic)	167	160	144	163	169	180	142	164	146	135
Asian (Non-Hispanic)	26	33	31	37	43	31	41	55	52	41
Black or African American (Non-Hispanic)	12	25	19	28	20	28	33	25	28	23
Native Hawaiian or Pacific Islander (Non-Hispanic)	**	3	5	**	4	**	7	**	**	**
American Indian or Alaska Native (Non-Hispanic)	**	4	**	**	**	7	**	**	**	**
Other Races or Not Reported	5	3	4	4	4	3	5	8	**	**

(**: Double starred values in table indicates data that does not meet BLS publication criteria.)

From 2015 to 2024, Hispanic or Latino workers accounted for 2,025 (47%) of all occupational fatalities in California. Non-Hispanic white workers represented 1,570 (37%) of the fatalities in this period, while Asian workers accounted for 390 (9%). Black or African American workers accounted for 241 fatalities (6%) of the total during this period.

Figure 5a. California Fatal Occupational Injuries by Race/Ethnicity (2015–2024)



In 2023, Hispanic/Latino workers accounted for 210 (48%) fatal occupational injuries in California, followed by white workers with 146 (33%). Black or African American workers accounted for 28 fatal occupational injuries (6%), and Asian workers accounted for 52 (12%) (Figure 5b2).

In 2024, Hispanic/Latino workers accounted for 215 (52%) fatal occupational injuries in California. White workers accounted for 135 (33%), while Black or African American workers accounted for 23 (6%) and Asian workers accounted for 41 (10%) (Figure 5b1). Hispanic/Latino workers have consistently accounted for half of all fatal occupational injuries in the past two years.

Figure 5b1. California Fatal Occupational Injuries by Race/Ethnicity (2024)

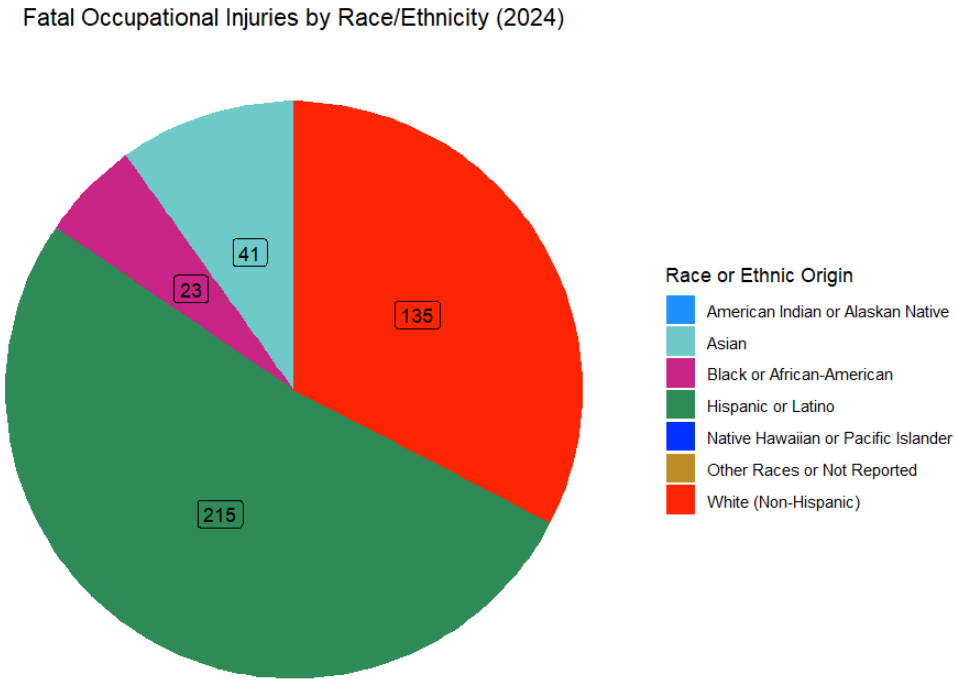
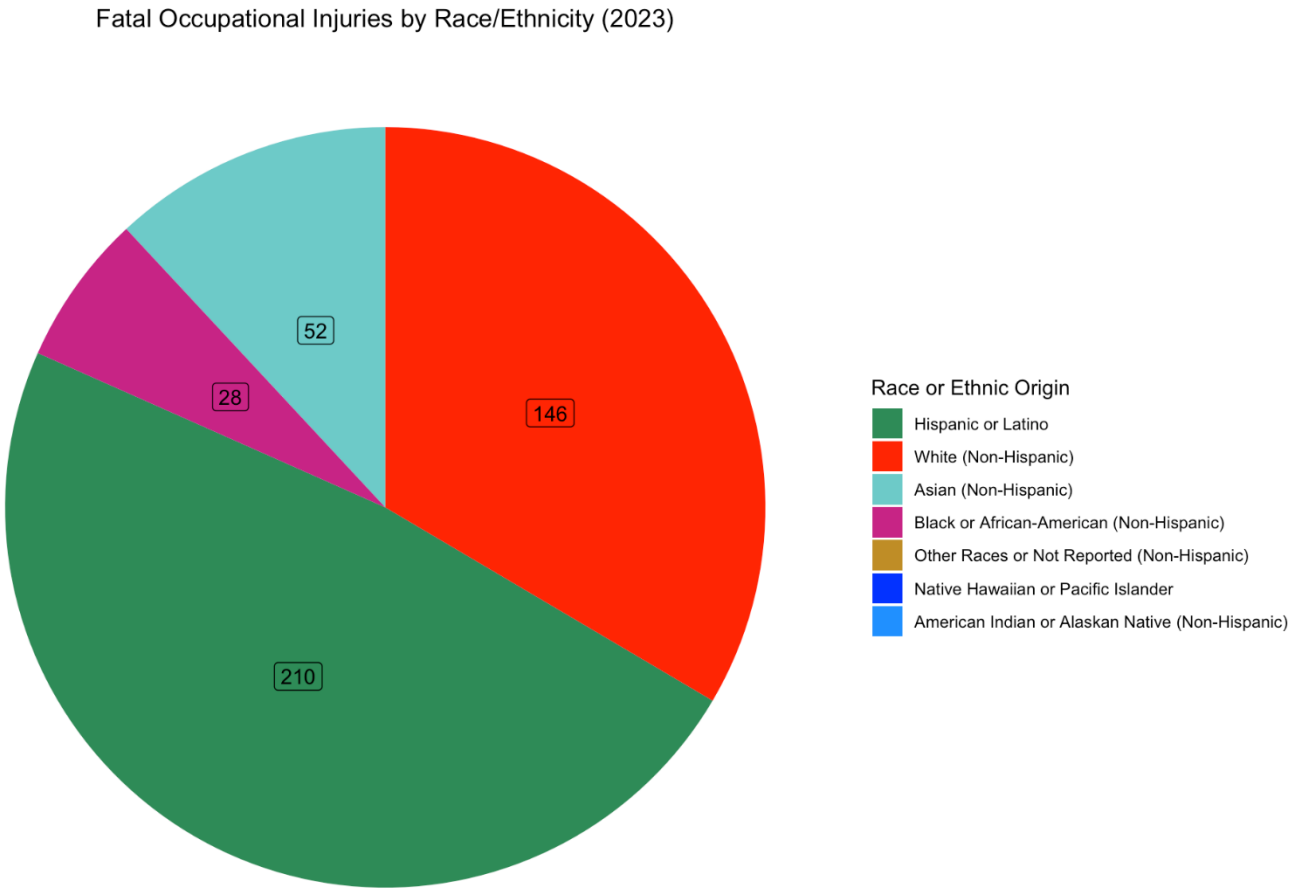


Figure 5b2. California Fatal Occupational Injuries by Race/Ethnicity (2023)



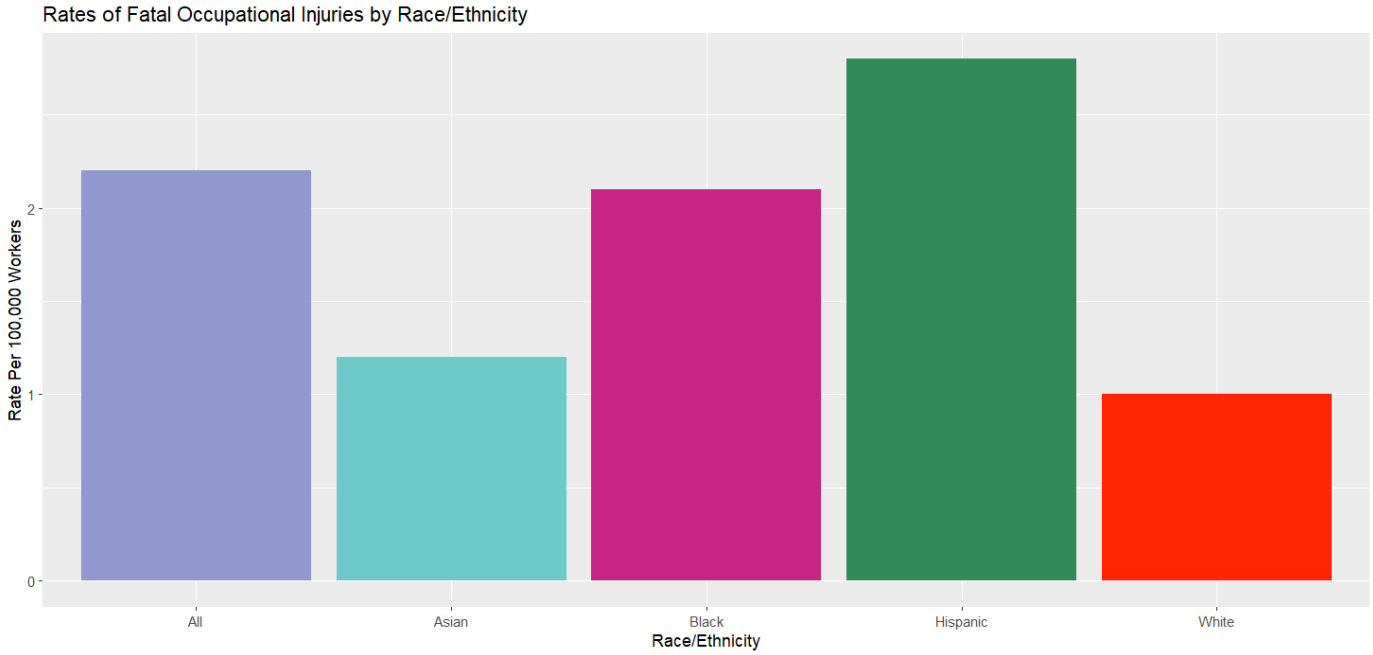
According to the U.S. Bureau of Labor Statistics (BLS) publication on national occupational fatality rates for 2024, Hispanic or Latino workers experienced higher fatality rates in 2023 compared to the national all-worker rate of 3.3 per 100,000 full-time equivalent (FTE) workers. The fatality rate for Hispanic or Latino workers was 4.3 per 100,000 FTE workers, while the rate for Black or African American workers was 3.4 per 100,000 FTE workers.[1] The BLS does not provide state-specific rates of occupational injury fatalities broken down by race or ethnicity. However, California employment data from the Employment Development Department can be utilized to estimate such rates.[2]

[1] www.bls.gov/news.release/pdf/cfoi.pdf
[2] CA_Employment_Summary_Table.pdf
(labormarketinfo.edd.ca.gov/specialreports/CA_Employment_Summary_Table.pdf)

Table 5b. Estimated Rates of California Fatal Occupational Injuries by Race/Ethnicity

Races/Ethnicities	Employed (December 2025)	Occupational Injury Fatalities 2024 (California)	Estimated Rate per 100,000 workers
All	18,803,000	419	2.2
White	13,055,000	135	1.0
Black	1,111,000	23	2.1
Hispanic	7,550,000	215	2.8
Asian	3,547,000	41	1.2

Figure 5c. California Rates of Fatal Occupational Injuries by Race/Ethnicity (December 2025 Employment Data and 2024 Fatality Rate)



Employment Status

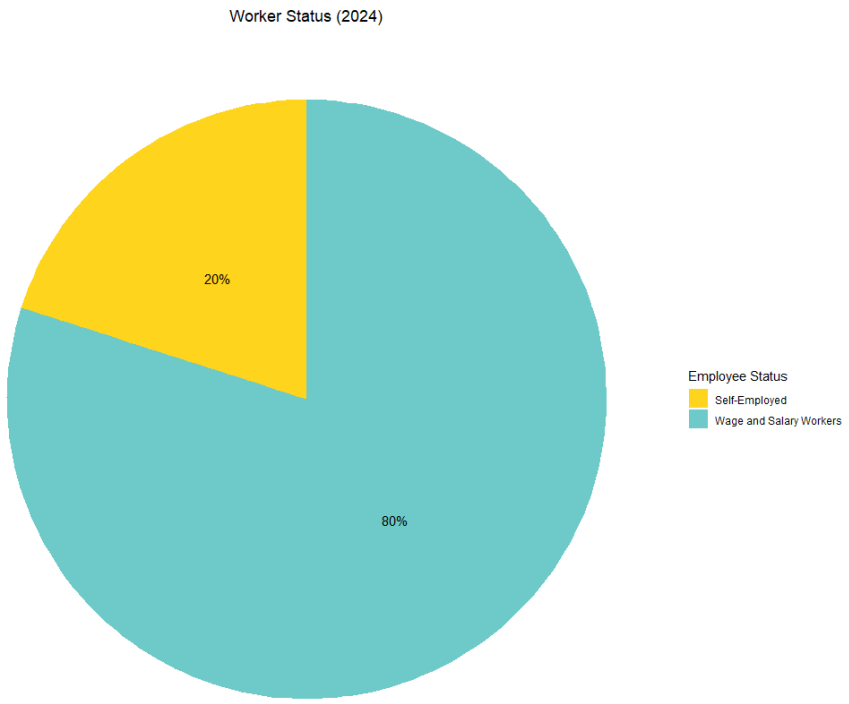
The CFOI program includes work-related fatal injuries as specified in the Introduction, covering employed workers typically subject to OSHA regulations. However, CFOI also accounts for self-employed individuals, independent contractors, freelancers, and others who do not work for a specific employer.

From 2023 to 2024, the total number of wage and salary workers fatally injured on the job declined (Figure 6b). Since the total number of fatal workplace injuries declined in 2024, this is expected. The number of self-employed worker fatalities also declined in 2024, but at a smaller rate than wage and salary workers. In 2024, wage and salary workers accounted for 80% of workplace fatalities while self-employed workers accounted for 20% (Figure 6a). In 2023, wage and salary workers accounted for 81% of workplace fatalities while self-employed workers accounted for 19%. One-fifth of workers fatally injured on the job in 2024 operate outside of a traditional employee-employer relationship and were not not covered under Cal/OSHA regulations or state workers' compensation programs.

Table 6. Total Number of Fatal Occupational Injuries by Employment Status

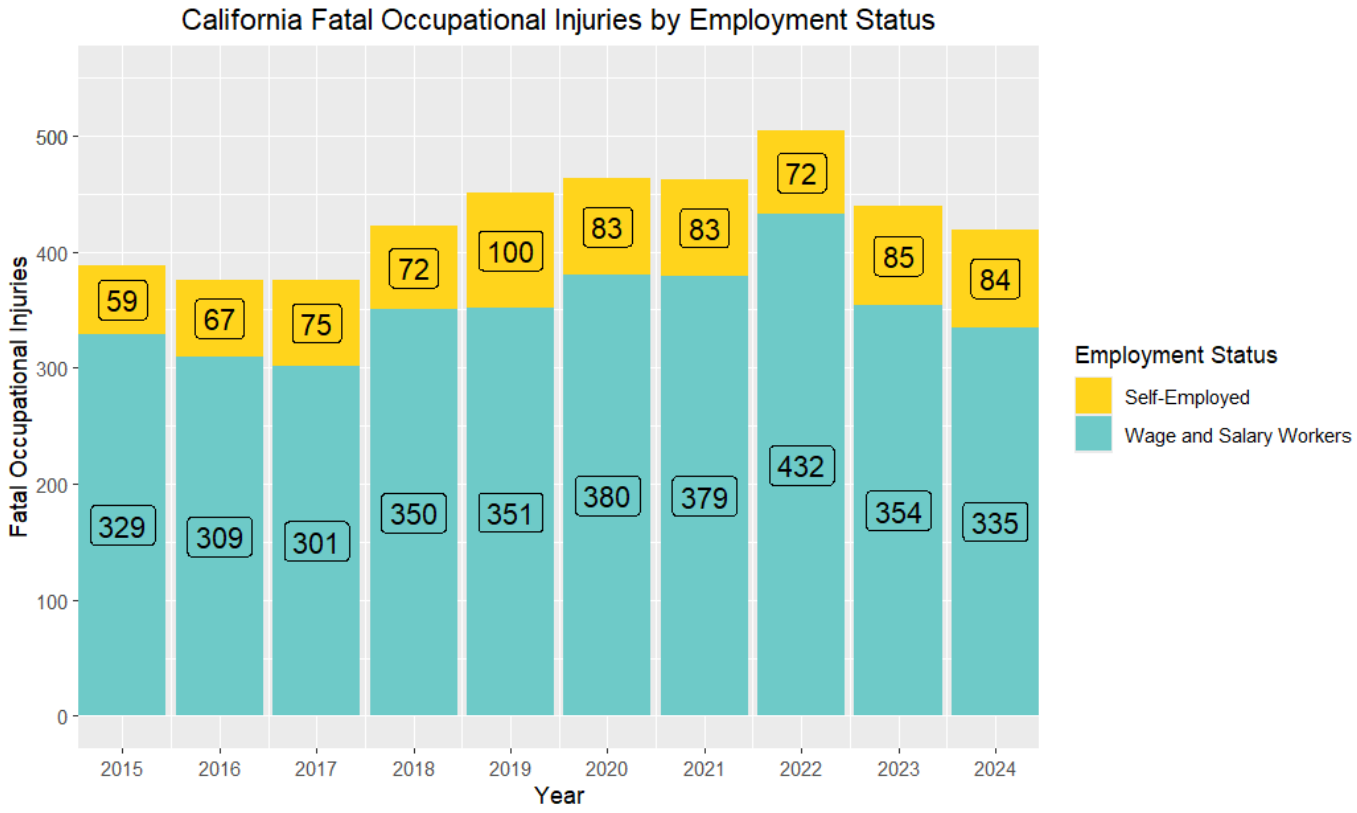
Employment Status	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Wage and Salary Workers	329	309	301	350	351	380	379	432	354	335
Self-Employed	59	67	75	72	100	83	83	72	85	84

Figure 6a. California Fatal Occupational Injuries by Employment Status (2024)



Data on work-related fatalities by employment status for the 2015–2024 period reveals year-to-year fluctuations. However, the number of wage and salary workers fatally injured on the job consistently surpasses that of self-employed workers (Figure 6b).

Figure 6b. California Fatal Occupational Injuries by Employment Status (2015-2024)



Causes of Fatal Events

Transportation incidents have consistently been the leading cause of occupational injury fatalities in California. Between 2015 and 2024, there were 1,349 (32%) work-related fatalities caused by transportation incidents. During the same period, assaults and violent acts accounted for 858 (20%) of fatalities, while falls, slips, and trips accounted for 813 (19%). Contact with objects and equipment accounted for 463 (11%), exposure to harmful substances for 696 (16%), and fires and explosions for 39 (1%) of the total fatalities during this period (Table 7 and Figure 7a).

In 2024, the BLS chose not to release the number of workplace fatalities caused by contact with objects or equipment. In 2023, this category accounted for 11% of all workplace fatalities. In

2024, the percentage increase in other categories is likely the result of the unreported number of fatalities caused by contact with objects or equipment.

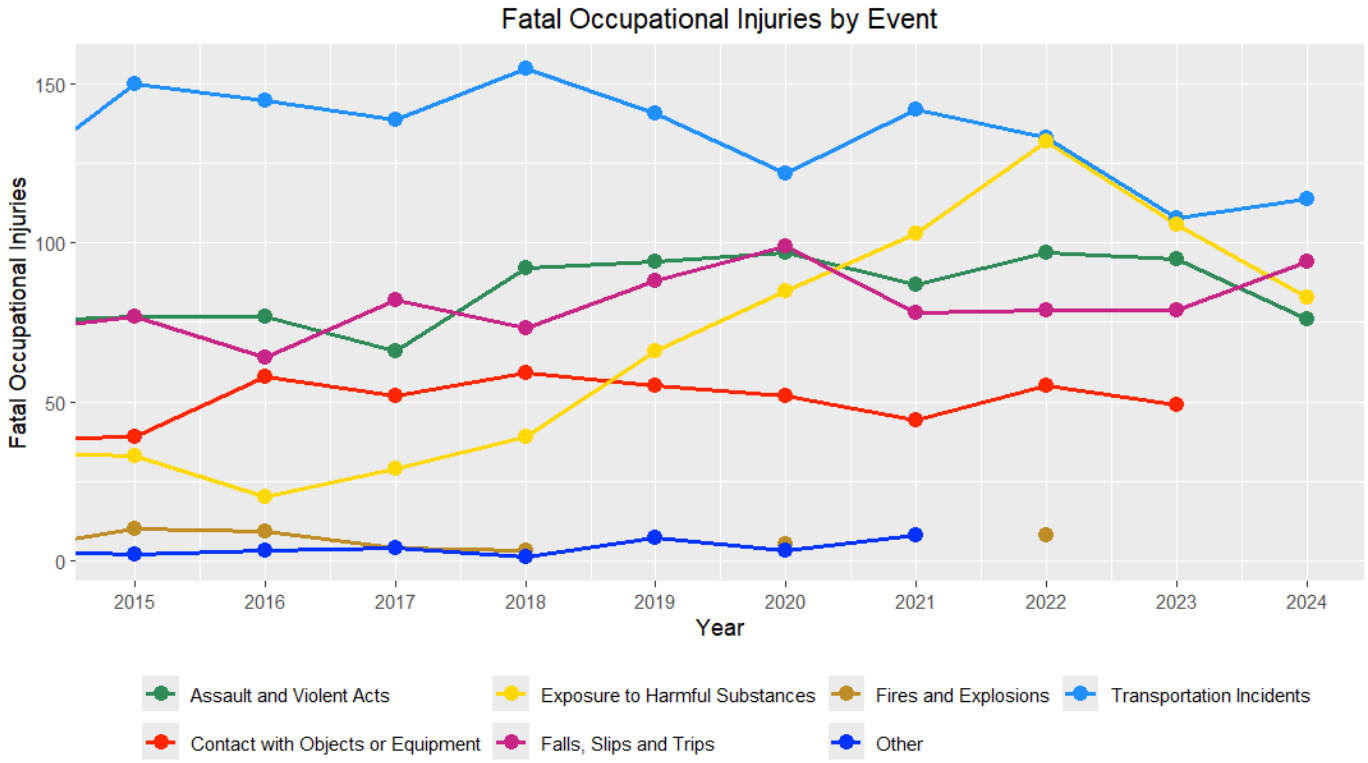
In 2024, transportation incidents represented nearly 31% of all occupational fatalities. The category of "exposure to harmful substances" has shown a sharp upward trend, increasing from 5% in 2016 to its peak of 26% in 2022. The percentage share of this category has decreased over the past two years, to 24% in 2023 and 23% in 2024. This rise was largely driven by a growing number of workplace drug overdose deaths between 2020 and 2024.

Table 7. Fatal Occupational Injuries by Event

Causes of Fatal Events	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Transportation Incidents	150	145	139	155	141	122	142	133	108	114
Assaults and Violent Acts	77	77	66	92	94	97	87	97	95	76
Contact with Objects or Equipment	39	58	52	59	55	52	44	55	49	**
Falls, Slips and Trips	77	64	82	73	88	99	78	79	79	94
Exposure to Harmful Substances	33	20	29	39	66	85	103	132	106	83
Fires and Explosions	10	9	4	3	**	5	**	8	**	**
Other	2	3	4	1	7	3	8	0	**	**

(**: Double starred values in table indicates data that does not meet BLS publication criteria.)

Figure 7a. California Fatal Occupational Injuries by Event (2015–2024)



In 2024, CFOI reported 114 workers fatally injured in transportation incidents (Figure 7c1). Among these fatalities, 99 were wage and salary workers, while 15 were self-employed. This marked a slight increase from 2023, when 108 transportation-related fatalities were recorded (Figure 7c2).

The data for 2024 also revealed 76 deaths resulting from violent acts. Of these, 46 were caused by acts of violence from other individuals, including 34 shootings, while 30 involved intentional self-harm.[3] Additionally, 69 of the 95 violence-related deaths occurred among private sector workers in 2024. In 2024, women accounted for 18% of violence-related occupational fatalities despite representing only 8% of total workplace fatalities for the year.[4]

Fatalities resulting from exposure to harmful substances or environments totaled 83 in 2024, compared to 106 in 2023. Over half of these workers were Hispanic, and 7 were women. Additionally, 18 of the victims (22%) were under the age of 35. A previous increase in this segment of fatalities is addressed below in this report.

Falls, slips, and trips caused 94 fatal injuries in 2024, an increase from the 79 fatal injuries in 2022 (Figures 7c1 and 7c2). Construction workers represented 43 of these fatalities (53%) in

[3] Table A-9. Fatal occupational injuries by event or exposure for all fatal injuries and major private industry sector.
[4] Table A-7. Fatal occupational injuries by worker characteristic and event or exposure.

2024. Of the 94 deaths from falls, slips, and trips in 2024, 81 resulted from falls to lower levels, while 11 were due to falls on the same level.

Figure 7c1. California Fatal Occupational Injuries by Event (2024)

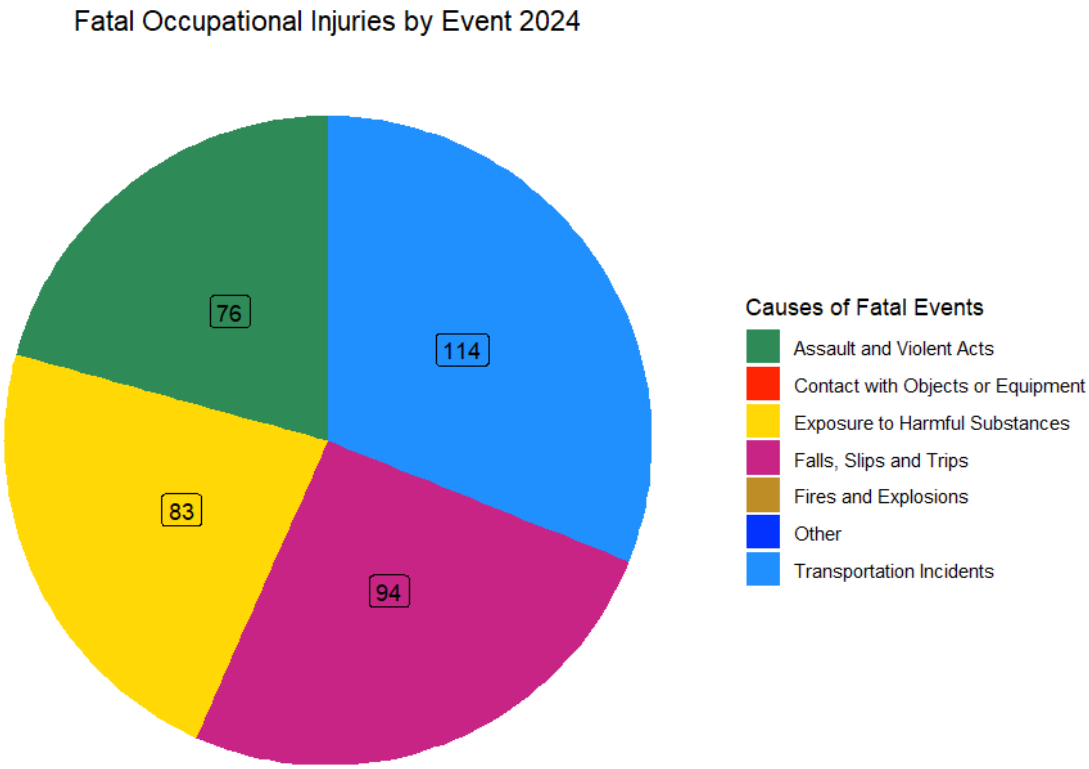
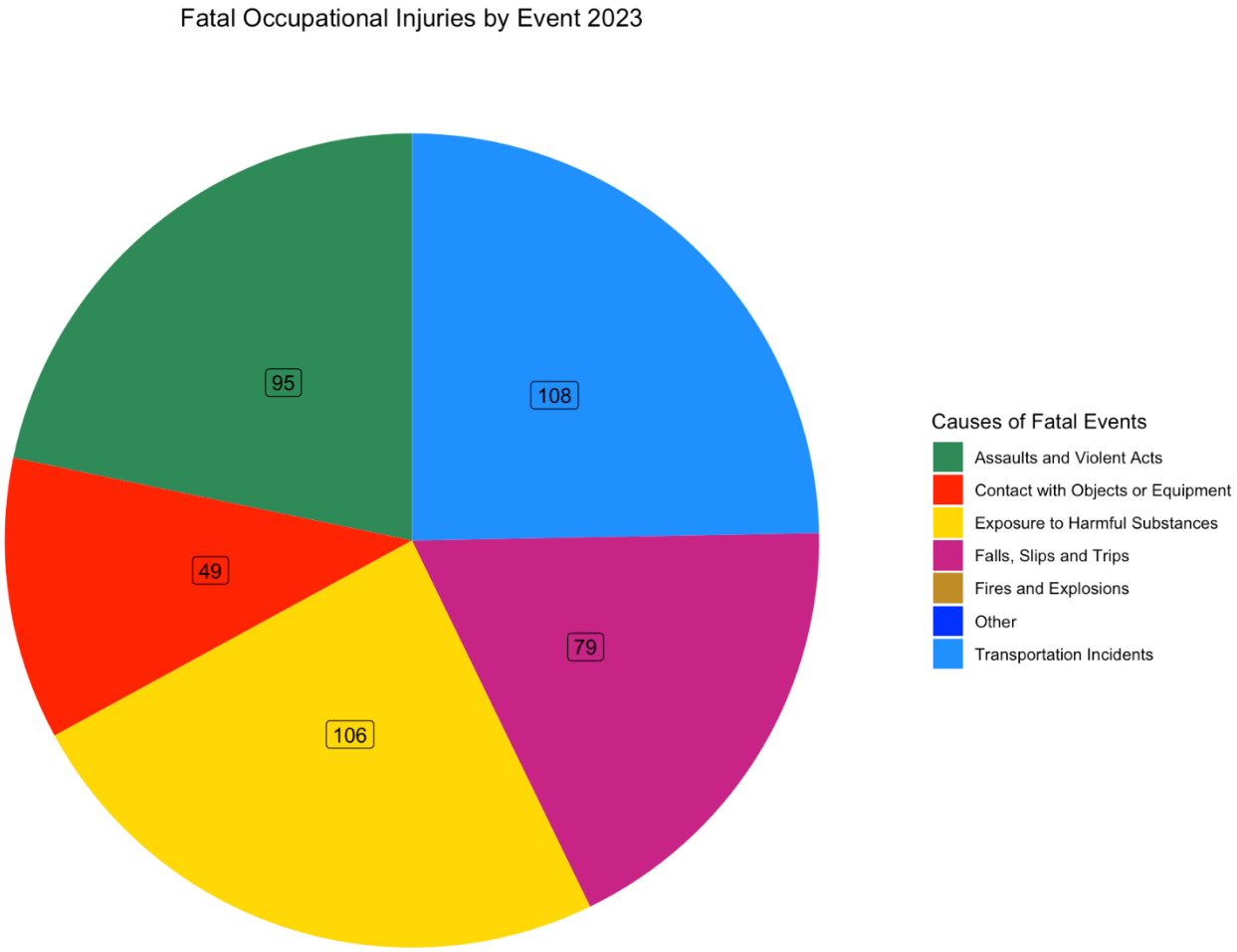


Figure 7c2. California Fatal Occupational Injuries by Event (2023)



Fatal Exposure to Harmful Substances

Work-related fatalities caused by exposure to harmful substances have increased. This sharp rise began in 2018 and continued through 2022, with fatalities climbing from 39 in 2018 to 66 in 2019, 85 in 2020, 103 in 2021, and peaking at 132 in 2022. However, 2023 saw a slight decline to 106 fatalities. Data from the Centers for Disease Control and Prevention (CDC) shows that all overdose deaths in the U.S. decreased for the first time in 2023. [5]

A substantial portion of this increase is attributed to drug or alcohol overdoses (Table 8). In 2018, 23 of the 39 fatalities from harmful substance exposures were due to unintentional overdoses. This number rose to 47 of 66 (71%) in 2019, 59 of 85 (69%) in 2020, and 85 of 103 (83%) in 2021. By 2022, unintentional overdoses accounted for 117 of the 132 fatalities (89%). In 2023,

[5] https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2024/20240515.htm

these overdoses represented 87 of the 106 fatalities (82%) from harmful substance exposures (Figure 8a).[6]

The Bureau of Labor Statistics did not publish the number of workplace drug and alcohol overdoses for 2024. There was a total of 83 workplace deaths as a result of exposure to harmful substances and environments in 2024. Of those 83, 74 were the result of exposure to harmful substances, a larger category which includes drug overdoses.

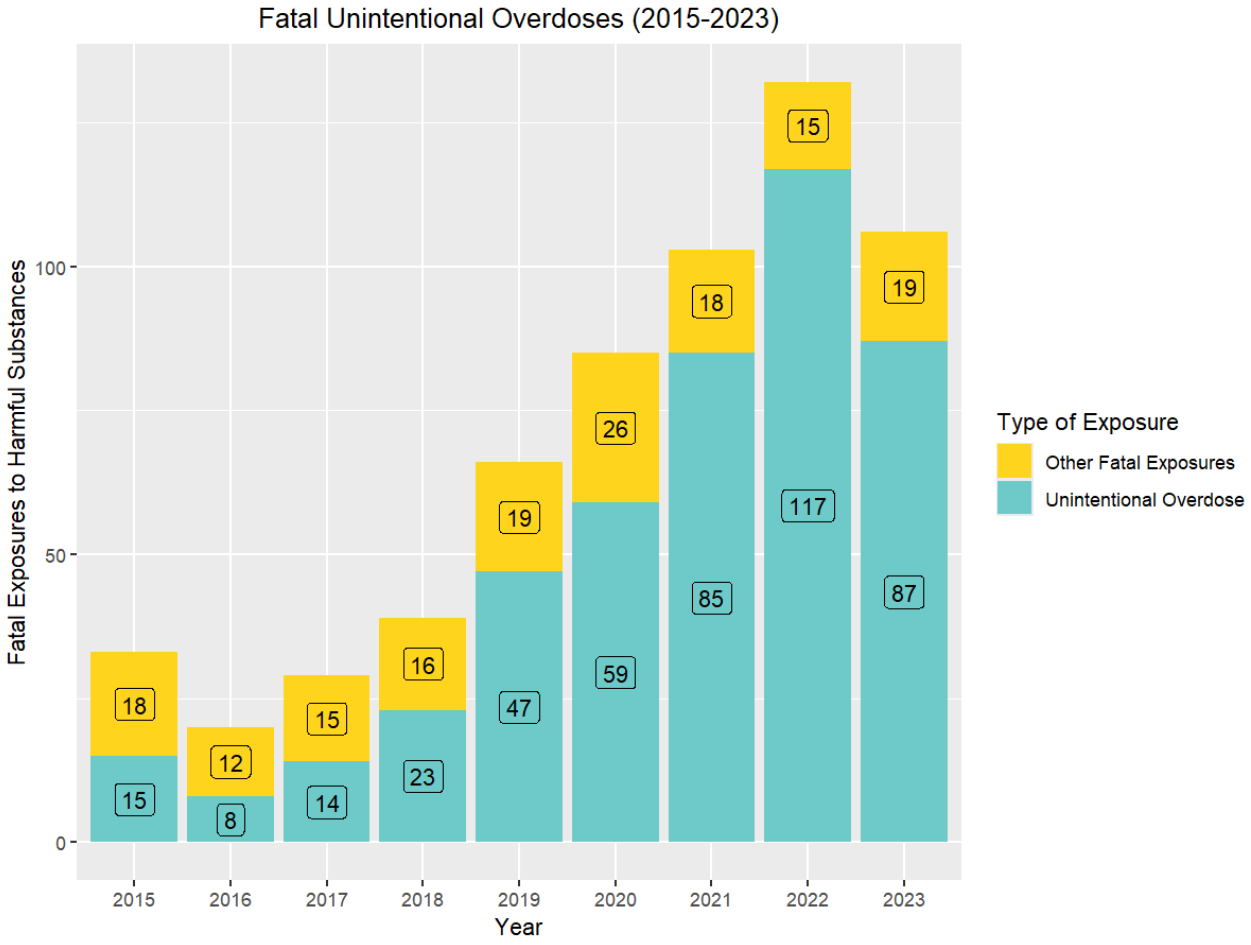
Table 8. Total Number of Fatal Occupational Overdoses and Other Exposure

Overdoses and Exposure	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Unintentional Overdoses	15	8	14	23	47	59	85	117	87	**
Other Fatal Exposures	18	12	15	16	19	26	18	15	19	**

(**: Double starred values in table indicates data that does not meet BLS publication criteria.)

[6] CFOI. TABLE A-9. Fatal occupational injuries by event or exposure for all fatal injuries and major private industry[1] sector, California. See, for 2022, https://www.dir.ca.gov/DOSH/cfoi/CFOI_2022/cfoi2022-A-9.pdf. The column “total fatal injuries (number)” is not limited to private industry.

Figure 8a. California Fatal Unintentional Overdoses and Other Fatal Exposures to Harmful Substances (2015–2023)

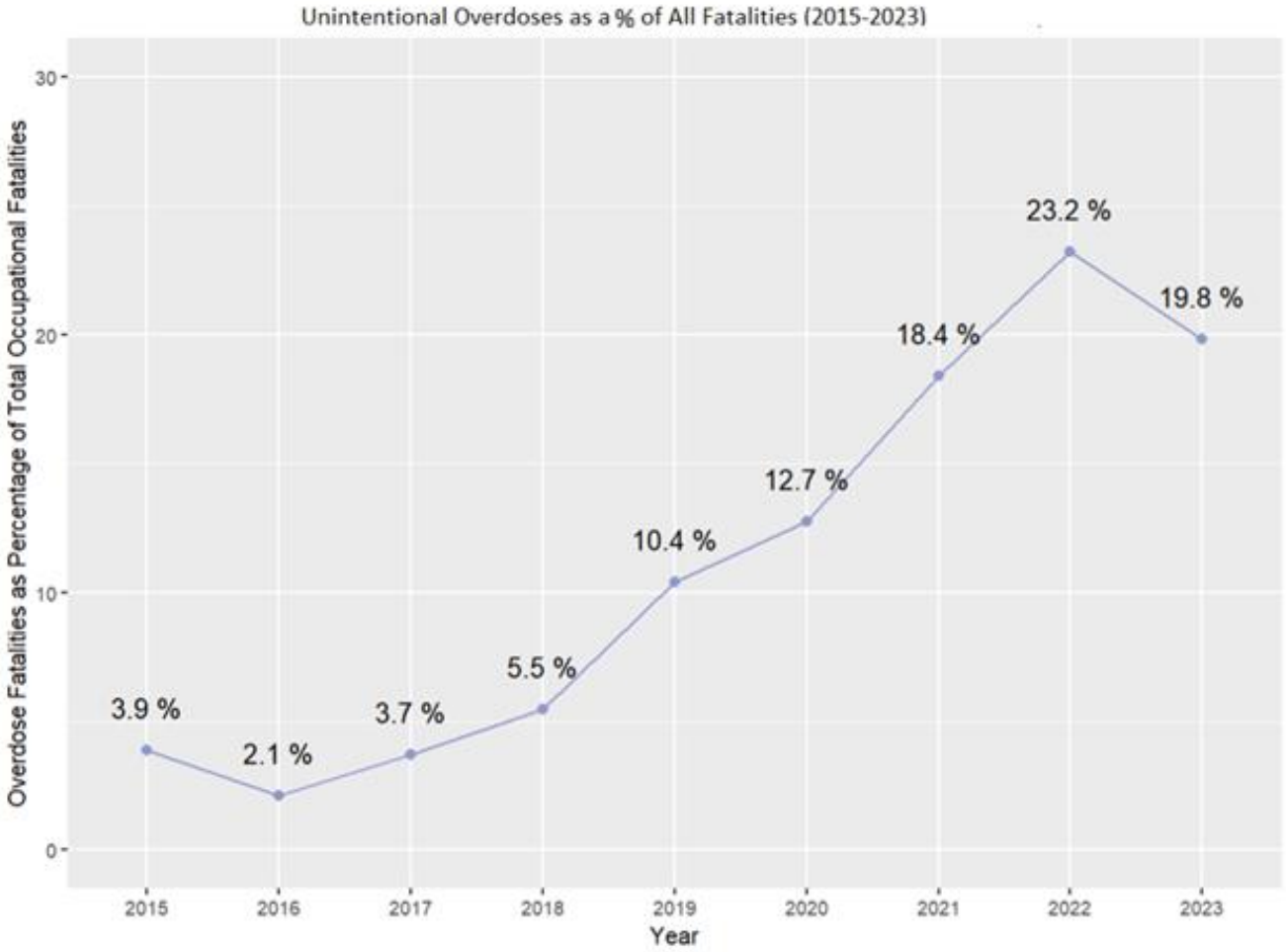


(BLS did not report the number of unintentional overdoses for 2024).

The proportion of overall fatalities attributed to unintentional overdoses rose sharply since 2018. By 2023, unintentional overdoses accounted for 20% of all occupational fatalities in California (Figure 8b). Nationally, the Bureau of Labor Statistics reported 512 workplace fatalities due to unintentional overdoses in 2023, representing 9.6% of all occupational fatalities in the United States for that year.[7] In 2023, unintentional overdose fatalities in California workplaces accounted for 20% of all such fatalities reported nationwide. Because BLS did not publish 2024 overdose data, direct comparisons to prior years are limited.

[7] https://www.bls.gov/news.release/pdf/cfoi.pdf

Figure 8b. California Fatal Unintentional Overdoses as a Percentage of All Fatalities (2015–2023)



(BLS did not report the number of unintentional overdoses for 2024).

Industry

The figures below illustrate the total number of work injury fatalities by industry in California from 2015-2024 (Table 9 and Figure 9a) and the trends over 2023 and 2024 (Figures 9b1 and 9b2).

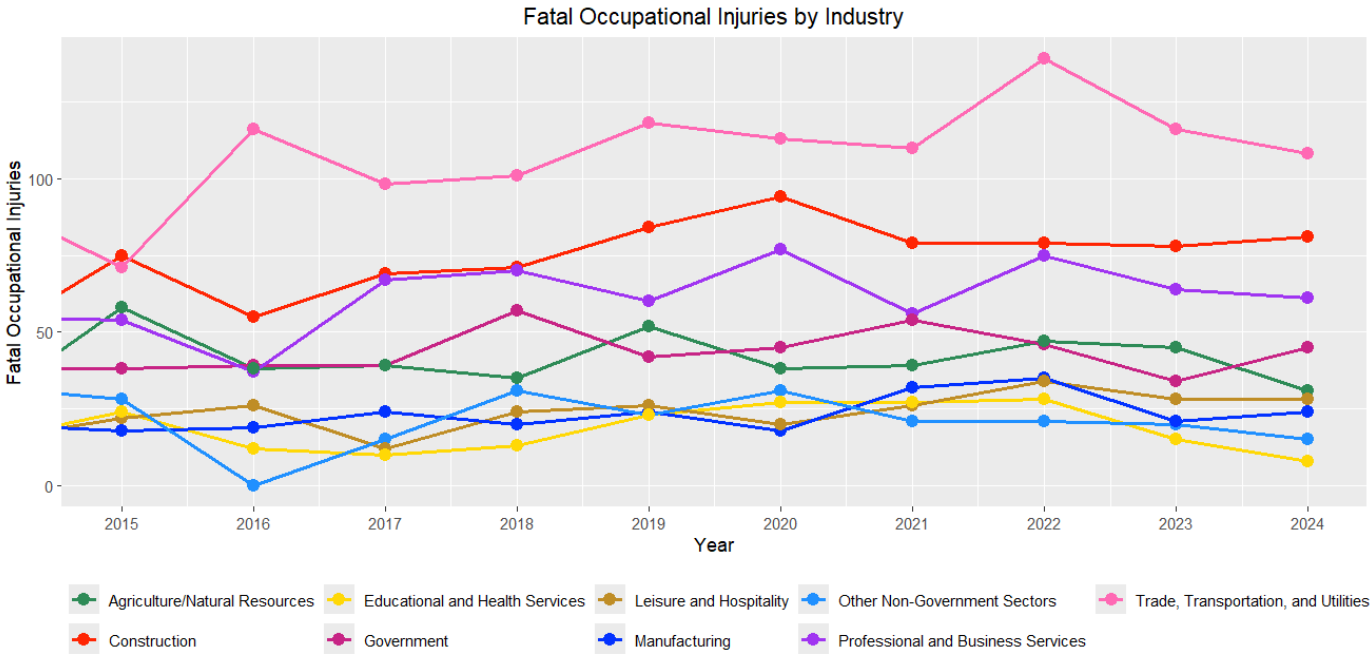
Table 9. California Fatal Occupational Injuries by Industry

Industries	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Trade, Transportation, and Utilities	71	116	98	101	118	113	110	139	116	108
Construction	75	55	69	71	84	94	79	79	78	81
Professional and Business Services	54	37	67	70	60	77	56	75	64	61

Government	38	39	39	57	42	45	54	46	34	45
Agriculture / Natural Resources	58	38	39	35	52	38	39	47	45	31
Other Non-Government Sectors	28		15	31	23	31	21	21	20	15
Manufacturing	18	19	24	20	24	18	32	35	21	24
Leisure and Hospitality	22	26	12	24	26	20	26	34	28	28
Educational and Health Services	24	12	10	13	23	27	27	28	15	15

(NOTE: Blank values in table indicates no data reported or data that do not meet publication criteria.)

Figure 9a. California Fatal Occupational Injuries by Industry (2015-2024 totals)



The trade, transportation, and utilities (TTU) industry has consistently reported the highest number of occupational fatalities in California over the past ten years, averaging over 100 deaths annually, accounting for 26% of all cases. Between 2015 and 2024, this sector recorded a total of 1,090 fatalities. In 2024, the TTU industry reported 108 fatalities, which included 44 from transportation incidents, 23 from violent acts, and 16 from exposure to harmful substances or environments.

The construction industry ranked second in occupational fatalities, recording 765 deaths between 2015 and 2024. Fatalities in construction peaked at 94 in 2020 and declined to 78 in 2023. There were 81 fatalities in the construction industry in 2024, a slight increase from 2023,

but still below the peak in 2020. In 2024, construction fatalities included 43 from falls, slips, and trips, 17 from exposure to harmful substances and environments, 7 from transportation incidents, and 3 from violent acts.

The professional and business services sector, which includes roles such as accountants, lawyers, engineers, computer programmers, consultants, and researchers, recorded 621 fatalities between 2015 and 2024. In 2024, there were 61 fatalities in this industry reported within the scope of CFOI.

The manufacturing industry reported a total of 235 fatalities between 2015 and 2024. In 2024, 24 workers in manufacturing industries lost their lives, including 6 fatalities due to exposure to harmful substances, 6 from transportation incidents, and 5 from falls, slips, and trips.

The leisure and hospitality industry accounted for 246 fatalities between 2015 and 2024. In 2024, this sector reported 28 fatalities, with 6 resulting from transportation incidents. BLS chose not to publish more detailed statistics about the causes of death in this industry for 2024.

Figure 9b1. California Fatal Occupational Injuries by Industry Group (2024)

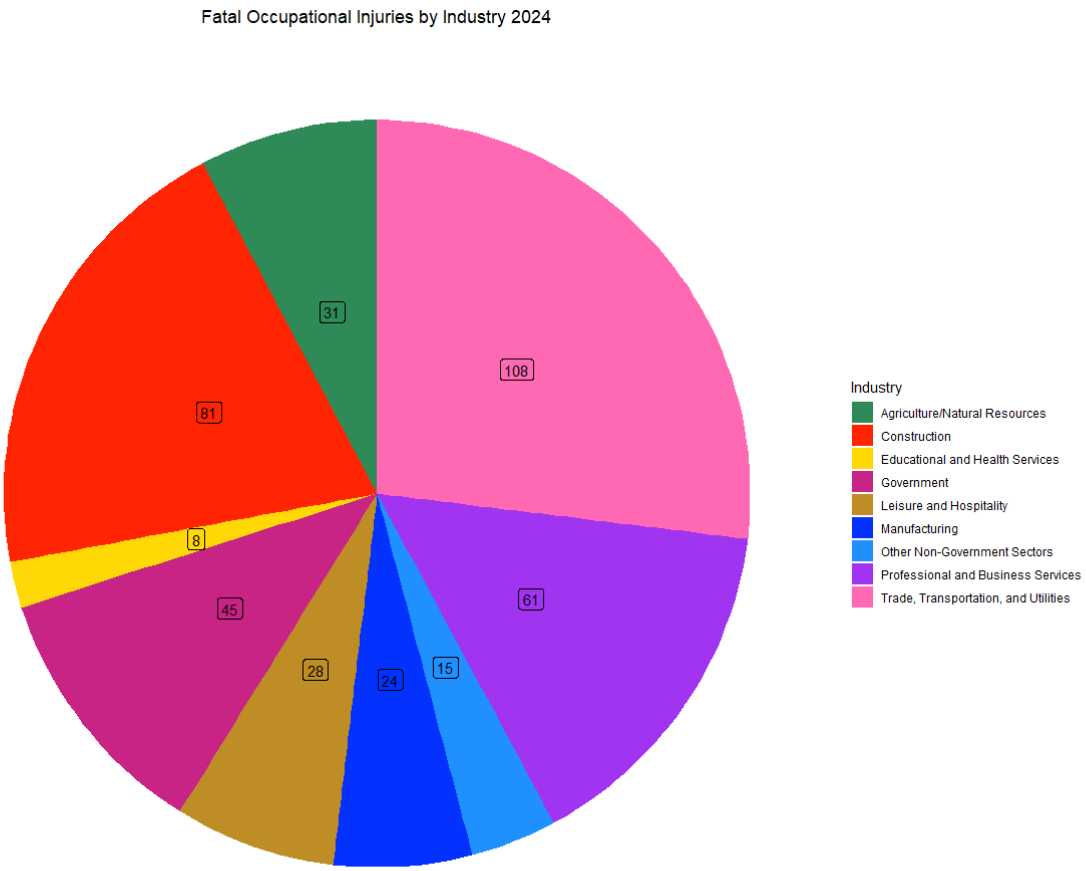
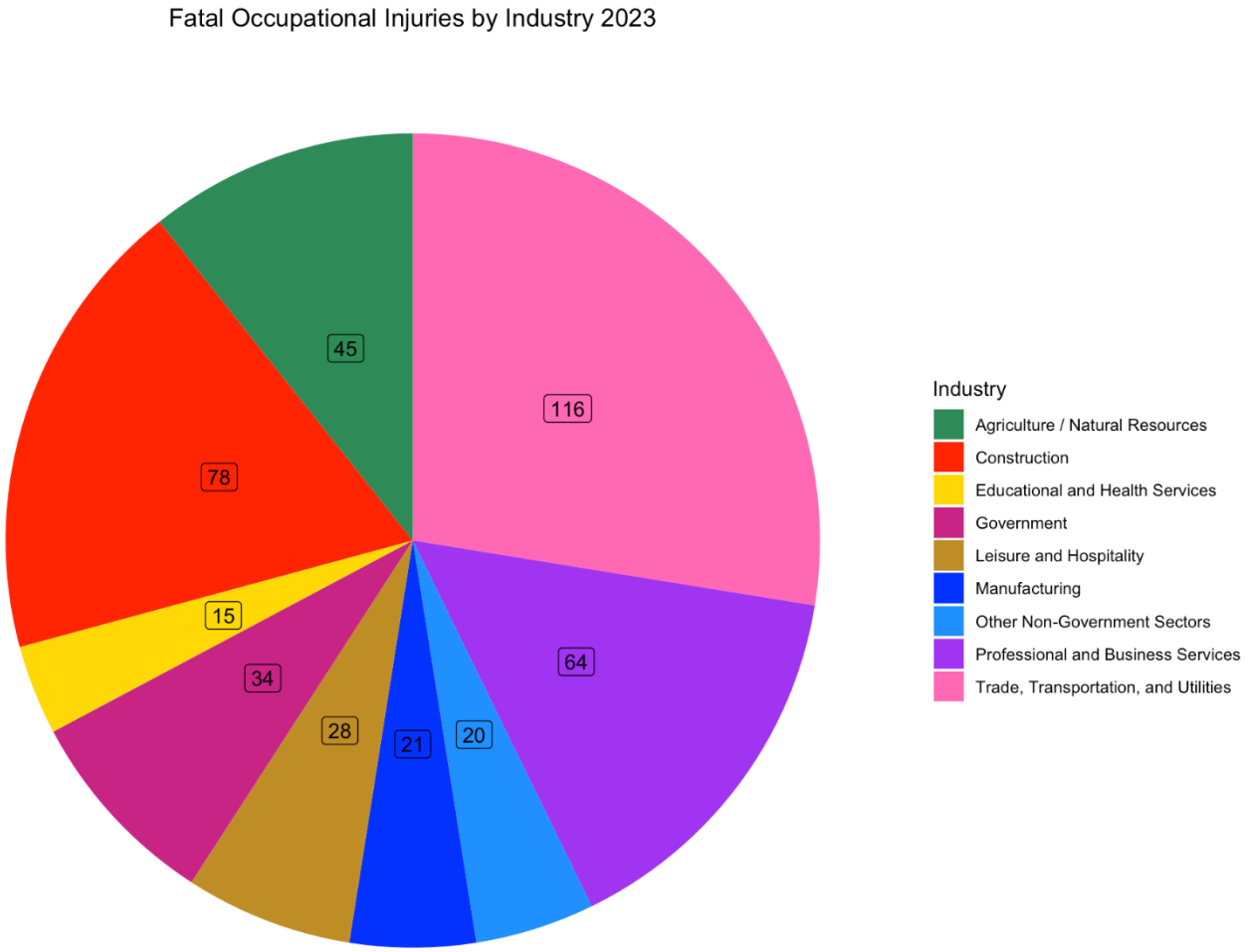


Figure 9b2. California Fatal Occupational Injuries by Industry Group (2023)



Fatality Rate by Industry

Hazardous industries are identified through an analysis of fatal injury rates, which measure the risk of fatal work injuries among workers in a specific group. These rates are expressed as the number of fatal injuries per 100,000 full-time equivalent (FTE) workers, allowing for risk comparison across different worker groups.

To calculate the fatal injury rate for an industry, the total number of fatal work injuries in that sector is divided by the total hours worked within the industry. This result is then multiplied by 200,000,000, which represents the base for 100,000 equivalent FTE workers working 40 hours per week for 50 weeks per year.

CFOI provides data on fatal injury rates by industry. BLS uses the Current Population Survey (CPS) conducted by the U.S. Census Bureau as the foundation for calculating rates.[8] For the period from 2015 to 2024, California's average fatality rate across all industries was 2.5 fatalities per 100,000 full-time workers. Agriculture recorded the highest fatality rate during this time, averaging 12.3 fatalities per 100,000 workers. The Employment Development Department (EDD) has conducted research on California's agricultural workforce.[9] They found that there is a much higher number of unique agricultural workers due to the high seasonality of the work and turnover of the workforce than is accounted for in BLS estimates. It is possible that the true fatality rate in the agriculture industry is lower than is reported here, but even then, it would likely be one of the top three most fatal industries alongside trade, transportation, and utilities and construction. During the 2015 to 2024 period, the trade, transportation, and utilities sector had a rate of 6.7 fatalities per 100,000 workers, while the construction industry had a rate of 6.3 per 100,000 workers. (Table 10 and Figure 10).

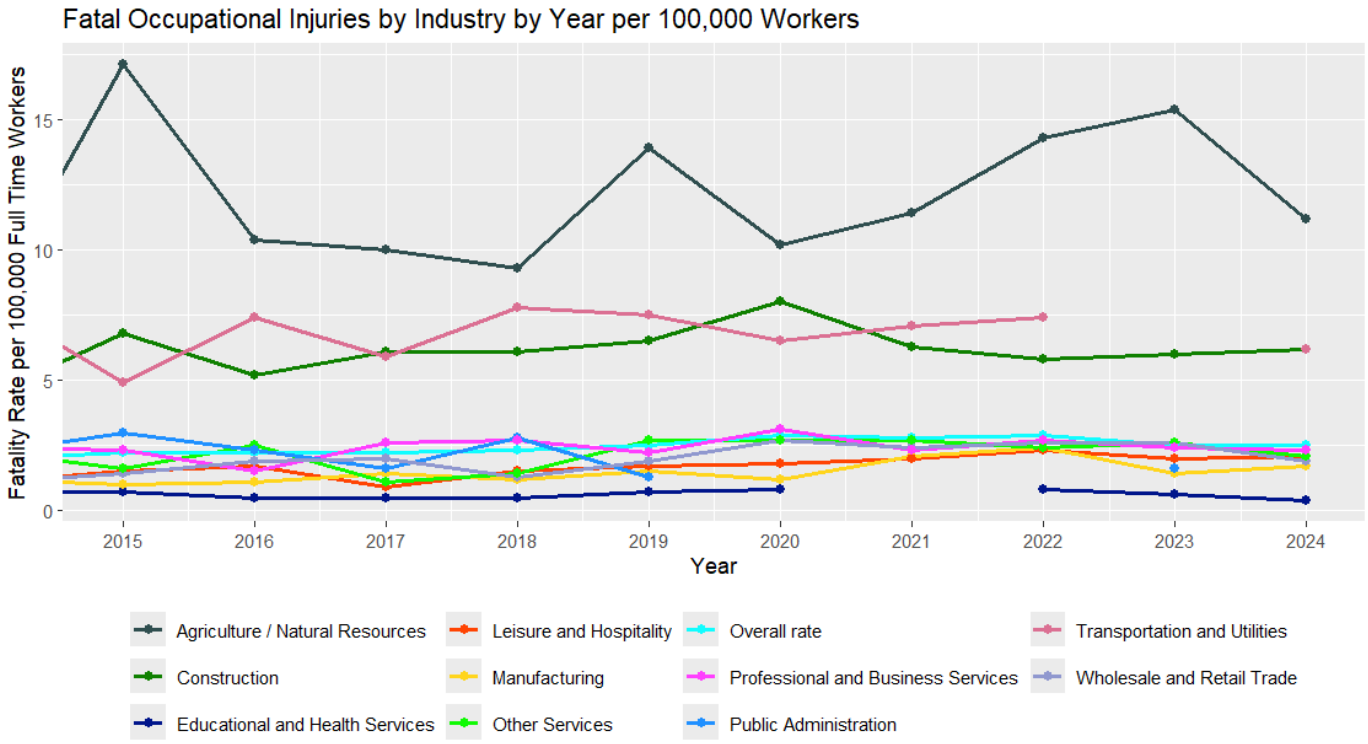
Table 10. California Fatality Rate by Industry by Year (per 100,000 workers)

Industries	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Trade, Transportation, and Utilities	4.9	7.4	5.9	7.8	7.5	6.5	7.1	7.4		6.2
Construction	6.8	5.2	6.1	6.1	6.5	8	6.3	5.8	6	6.2
Professional and Business Services	2.3	1.5	2.6	2.7	2.2	3.1	2.3	2.7	2.4	2.3
Public Administration	3	2.3	1.6	2.8	1.3				1.6	
Agriculture / Natural Resources	17.1	10.4	10	9.3	13.9	10.2	11.4	14.3	15.4	11.2
Other Services	1.6	2.5	1.1	1.4	2.7	2.7	2.7	2.4	2.6	2.1
Manufacturing	1.0	1.1	1.4	1.2	1.5	1.2	2.1	2.4	1.4	1.7
Leisure and Hospitality	1.5	1.7	0.9	1.5	1.7	1.8	2.0	2.3	2.0	2.1
Educational and Health Services	0.7	0.5	0.5	0.5	0.7	0.8		0.8	0.6	0.4
Wholesale and Retail Trade	1.4	1.9	2.0	1.3	1.9	2.7	2.4	2.6	2.6	1.9

(NOTE: Blank values in table indicates no data reported or data that do not meet publication criteria.)

[8] https://www.bls.gov/opub/hom/cfoi/calculation.htm#fatal-injury-rate-methodology-and-calculation
[9] https://labormarketinfo.edd.ca.gov/data/ca-ag-primary-worker-research.html

Figure 10. California Fatality Rate Within the Scope of CFOI, by Industry by Year (2015–2024, per 100,000 workers)



Over the 2015–2024 period, an average of 2.5 workers per 100,000 in California lost their lives on the job each year. Three industries in the state consistently recorded higher fatality rates: agriculture, construction, and trade, transportation, and utilities.

Occupation Groups

Fatal injuries occurred throughout all types of work. Of the 4,300 fatalities between 2015 and 2024, over 1,000 transportation and material moving workers have been fatally injured on the job. In the construction and extraction industries, 756 have died. Another 394 have died as installation and repair workers, and 325 in farming, fishing, or forestry occupations. Other fatalities include professional and related workers (521), buildings and grounds cleaning or maintenance workers (340), and protective services workers (285).

In 2024, transportation and material moving occupations accounted for 110 fatalities, representing 26% of all occupational injuries reported within the scope of CFOI in California. The construction and extraction occupation groups reported 80 fatal injuries, while the professional and related services occupation groups recorded 66 fatalities. Protective services and agricultural occupations (farming, fishing, and forestry) experienced the smallest number of fatalities in 2024 (Table 11, Figures 11a and 11b).

The professional and related services occupations include roles in management, arts and design, healthcare support, personal care and service, sales and related occupations, office and administrative support, and food preparation.

Between 2015 and 2024, transportation and material moving occupations, including truck drivers, contributed to 25% of all occupational fatalities. Construction and extraction occupations ranked second, accounting for 18% of cases. These were followed by professional and related occupations (12%), agricultural occupations (farming, fishing, and forestry; 8%), and installation, maintenance, and repair occupations (9%).

Table 11. Distribution of California Fatal Occupational Injuries by Occupation

Occupation Groups	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Transportation and Material Moving	81	109	97	99	115	104	112	132	105	110
Construction and Extraction	69	54	71	79	75	90	81	80	77	80
Farming, Fishing, and Forestry	46	38	28	21	37	25	29	41	36	24
Building and Grounds Cleaning/ Maintenance	29	19	28	21	34	44	38	48	40	39
Installation, Maintenance, and Repair/Production	25	40	25	30	36	44	70	56	39	29
Professional and Related	38	26	18	24		97	82	91	79	66
Protective Services	18	18	30	31	34	30	35	35	30	24
Other Occupations	82	72	79	117		29	15	21	33	47

(NOTE: Blank values in table indicates no data reported or data that do not meet publication criteria.)

Figure 11a. Distribution of California Fatal Occupational Injuries by Occupation Group (2024)

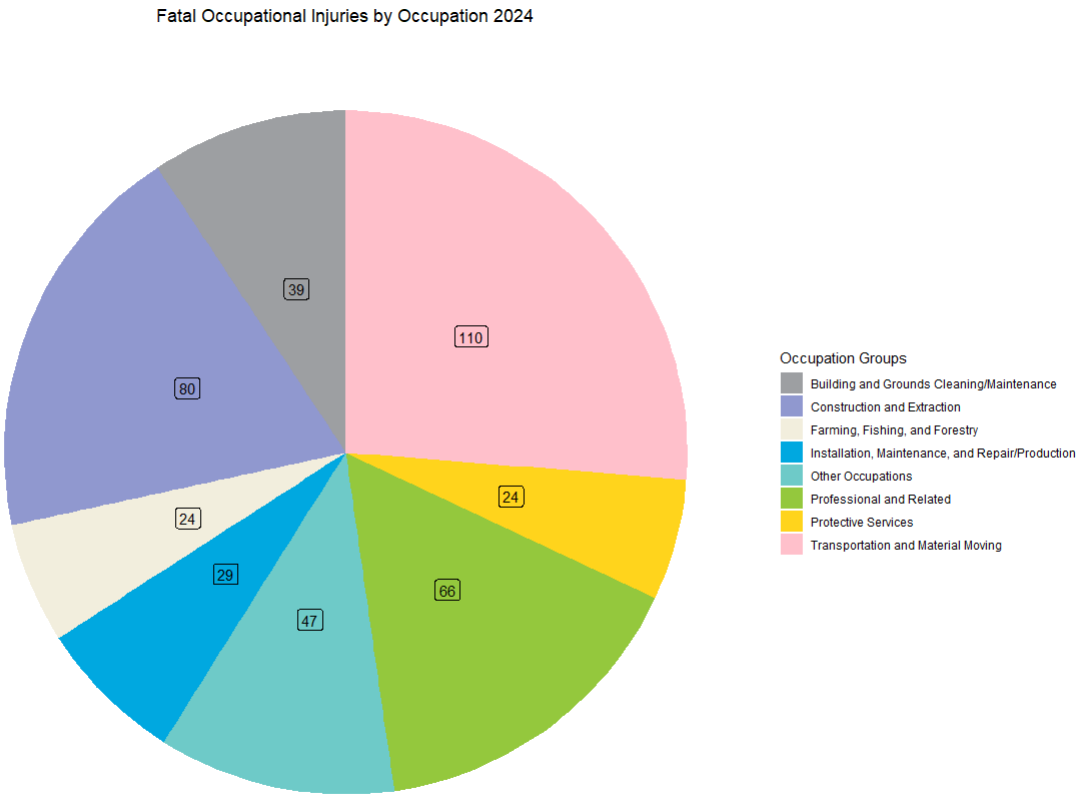
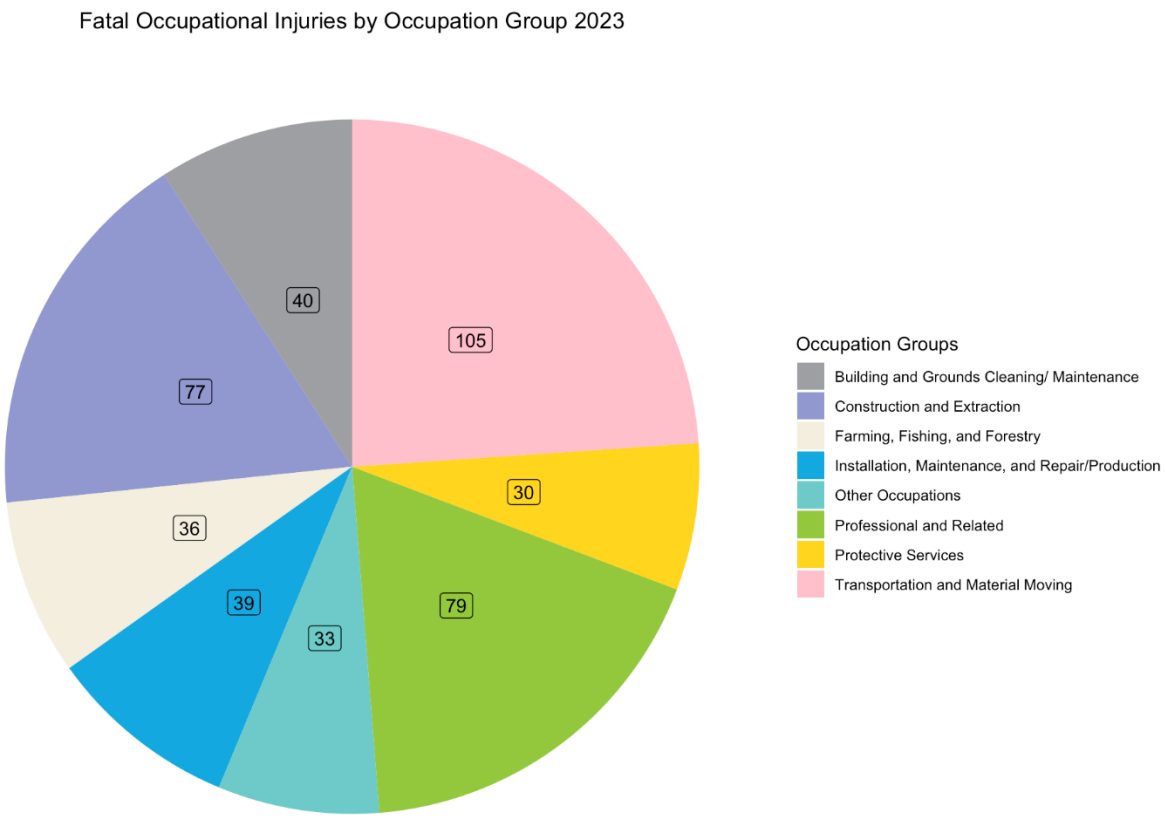


Figure 11b. Distribution of California Fatal Occupational Injuries by Occupation Group (2023)



In 2024, transportation and material moving workers accounted for 110 occupational fatalities. Among these, 65 were due to transportation incidents, 13 to exposure to harmful substances or environments, and 13 to falls, slips, and trips.[10]

The construction and extraction occupations recorded 80 fatalities in 2024. Of these, 43 resulted from falls, slips, and trips, 18 from exposure to harmful substances or environments, and 6 from transportation incidents.

The professional and related occupation group experienced 66 fatal occupational injuries in 2024. These included 19 deaths from violent acts and 11 from exposure to harmful substances or environments (a category that includes fatal overdoses). Within this group, sales and related occupations recorded 23 fatalities, distributed among violent acts (13), exposure to harmful substances or environments (6), and falls, slips and trips (4) (Table A-5).

[10] Table A-5. Fatal occupational injuries by occupation and event or exposure.

Summary

The Census of Fatal Occupational Injuries (CFOI) provides a comprehensive accounting of fatal work-related injuries in California. Administered by the California Department of Industrial Relations' Division of Occupational Safety and Health in partnership with the U.S. Bureau of Labor Statistics, the program uses multiple data sources to identify, verify, and analyze workplace fatalities.

Between 2015 and 2022, occupational fatalities increased, reaching a peak of 504 in 2022. This trend reversed in the following years, with fatalities declining to 439 in 2023 and 419 in 2024. Despite these recent decreases, the data highlights ongoing risks and persistent disparities across worker populations and industries.

Workplace fatalities disproportionately affect certain groups. Men account for the vast majority of fatalities, and Hispanic and Black or African American workers continue to experience higher fatality rates than other groups. Workers aged 45 and older also represent a significant share of fatalities.

Transportation incidents remain the leading cause of workplace deaths, followed by violence, falls, and exposure to harmful substances. In recent years, fatalities involving exposure to harmful substances, particularly drug overdoses, have increased substantially, representing a growing area of concern.

By industry, the trade, transportation, and utilities sector consistently recorded the highest number of fatalities, followed by construction. When examining fatality rates, agriculture, construction, and transportation-related industries continue to present the highest risks to workers.

California's fatality rate has remained consistently below the national average. However, increases observed between 2018 and 2022, followed by more recent declines, underscore the importance of sustained prevention efforts.

Overall, CFOI data highlights both progress and ongoing challenges in workplace safety. Continued enforcement, outreach, and targeted interventions remain critical to reducing fatality and addressing disparities across California's workforce.

Appendix—About CFOI

The Injuries, Illnesses, and Fatalities (IIF) program of the U.S. Bureau of Labor Statistics (BLS) provides annual information on the rate and number of work-related injuries, illnesses, and fatal injuries and how these statistics vary by incident, industry, geography, occupation, and other characteristics. These data are collected through the Survey of Occupational Injuries and Illnesses (SOII) and the Census of Fatal Occupational Injuries (CFOI).

CFOI compiles a count of all fatal workplace injuries in the U.S. during the calendar year. The CFOI Program uses diverse state, federal, and independent data sources to identify, verify, and describe fatal work-related injuries. This approach ensures counts are as complete and accurate as possible. For technical information and definitions for CFOI, please go to Chapter 9 of the BLS Handbook of Methods on the BLS website, at www.bls.gov/opub/hom/pdf/homch9.pdf.

Data compiled by the CFOI Program are issued annually for the preceding calendar year. This data can be used by safety and health policy analysts and researchers to help prevent fatal work injuries in these ways:

- Informing workers of life-threatening hazards associated with various jobs.
- Promoting safer work practices through enhanced job safety training.
- Assessing and improving workplace safety standards.
- Identifying new areas of safety research.

Fatal injury rates are per 100,000 full-time equivalent workers (FTEs). Complete national rates can be found at www.bls.gov/iif/oshcfoi1.htm#rates. Complete state rates can be found at www.bls.gov/iif/oshstate.htm. National and state rates are calculated using different methodology and cannot be directly compared. Please see www.bls.gov/iif/oshfaq1.htm#q17 for more information on how rates are calculated and caveats for comparison.

Note: Starting with the release of 2019 CFOI data, BLS implemented new disclosure rules to protect confidential data from secondary disclosure. There has been a significant reduction in the detail that can be published compared to prior years.

Note: COVID-19 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 within the scope of this report. CFOI reports no illness-related information, including COVID-19. Additional information is available online from bls.gov: Effects of COVID-19 Pandemic on Workplace Injuries and Illnesses, Compensation, Occupational Requirements, and Work Stoppages Statistics : U.S. Bureau of Labor Statistics can be found here: www.bls.gov/covid19/effects-of-covid-19-on-workplace-injuries-and-illnesses-compensation-and-occupational-requirements.htm.