CPWR
THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING

Data Bulletin

WWW.CPWR.COM
JUNE 2026

Construction Injury Trends by Major Subsector

Derek Dufoe, MS, Raina D. Brooks, MPH, William Harris, MS, Amber B. Trueblood, DrPH[1]

OVERVIEW

Construction is one of the most dangerous industries in the United States: in 2024, it had the highest number of fatal work injuries. There are three *major subsectors* in construction: Construction of Buildings (NAICS 236), Heavy and Civil Engineering (NAICS 237), and Specialty Trade Contractors (NAICS 238). Each has its own type of work, environments, and hazards. As employment continues to grow in each subsector, it is essential to examine injury trends across subsectors to identify differences that could be used to guide tailored intervention and prevention efforts.

This Data Bulletin examines nonfatal and fatal injuries for each major subsector in construction. Nonfatal injury data were obtained from the U.S. Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses (SOII). Fatal injury data were obtained from the BLS Census of Fatal Occupational Injuries (CFOI) and CPWR's Fatality Map. Both nonfatal and fatal injuries were examined across major subsectors by *event/exposure* and *primary source,* and nonfatal injuries were also analyzed by *body part*. CPWR's Fatality Map was used to examine fatal injuries by *Focus Four* injury and age. SOII data for nonfatal injuries among private industry workers resulting in *days away from work (DAFW)* are shown in two-year periods due to data changing to biennial estimates in 2021. CFOI data contain annual fatal injury data, while Fatality Map includes annual fatalities reported to OSHA and identified through media reports. Data to calculate rates were obtained from the U.S. BLS Current Employment Statistics (CES). Nonfatal injury rates were calculated per 10,000 workers and fatal injury rates were calculated per 100,000 workers.

[1]CPWR-The Center for Construction Research and Training. Correspondence to: datacenter@cpwr.com.

THIS ISSUE

This issue examines injury trends for the three major subsectors in construction, including injuries by event/exposure, primary source, body part, and age.

KEY FINDINGS

From 2011-12 to 2023-24, nonfatal injuries decreased for all major subsectors, with the largest decline in Heavy and Civil Engineering.

Chart 1

The rate of nonfatal injuries decreased across all major subsectors from 2011-2012 to 2023-2024, except for a 13.1% increase for Construction of Buildings from 2021-2022 to 2023-2024 (71.7 to 81.1 per 10,000 workers).

Chart 2

From 2012 to 2024, the number of fatal injuries among workers in Construction of Buildings increased 54.9% (142 to 220), and the rate increased 4.4% (11.4 to 11.9 per 100,000 workers), meanwhile the other two major subsectors experienced decreases in rates.

Charts 6,7

For fatal injuries in 2024, falls, slips, and trips were the most common event/exposure for Construction of Buildings and Specialty Trade Contractors, whereas transportation incidents were the most common in Heavy and Civil Engineering.

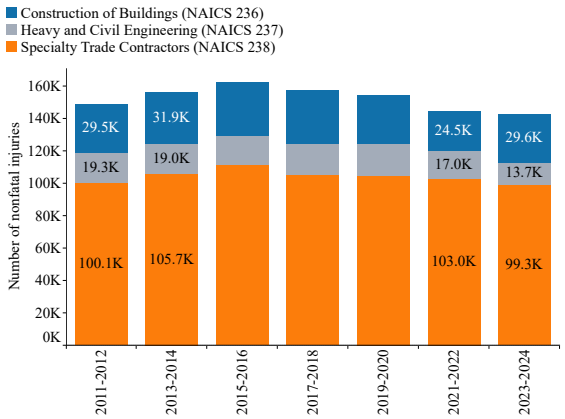
Chart 8

NEXT DATA BULLETIN

Chronic Illnesses among Construction Workers

First, nonfatal injury trends were examined from 2011-2012 to 2023-2024. The number of nonfatal injuries decreased 1.3% for all construction during this time (144.5K to 142.6K; data not shown). Trends varied across the three major subsectors, with a 29.2% reduction in the number of nonfatal injuries among workers in Heavy and Civil Engineering (19.3K to 13.7K; Chart 1), a 0.8% decrease among Specialty Trade Contractors (100.1K to 99.3K), and a 0.5% increase for workers in Construction of Buildings (29.5K to 29.6K). In 2023-2024, Specialty Trade Contractors accounted for 69.6% of nonfatal injuries, which aligns with this subsector accounting for 64% of private wage-and-salary employment.

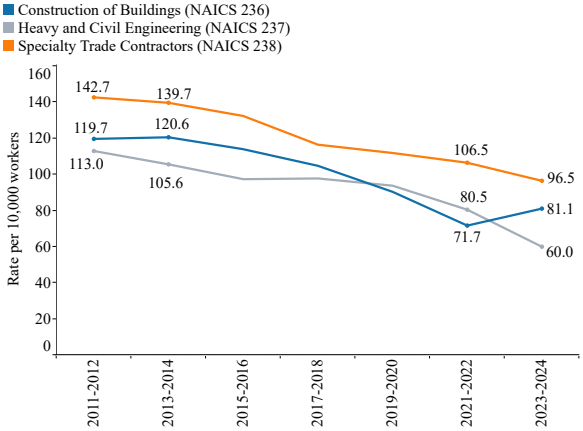
1. Number of nonfatal injuries, by major subsector (2011-2024; private industry)



Source: *U.S. Bureau of Labor Statistics, 2011-2024 Survey of Occupational Injuries and Illnesses.*

From 2011-2012 to 2023-2024, the rate of nonfatal injuries decreased in each of the three major subsectors (Chart 2). The largest decrease was for Heavy and Civil Engineering (-46.9%; 113.0 to 60.0 per 10,000 full-time workers), followed by Specialty Trade Contractors (-32.4%; 142.7 to 96.5 per 10,000 workers) and Construction of Buildings (-32.2%; 119.7 to 81.1 per 10,000 workers). However, there was a 13.1% increase from 2021-2022 to 2023-2024 for Construction of Buildings (71.7 to 81.1 per 10,000 workers).

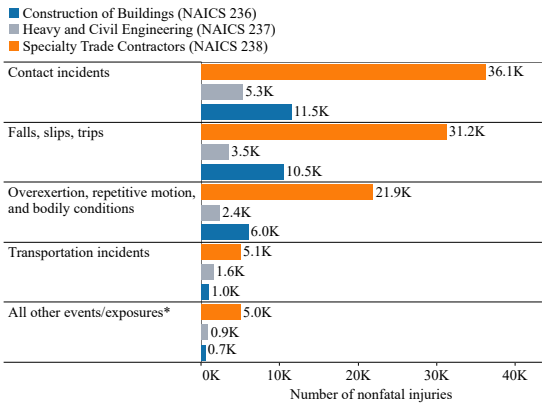
2. Rate of nonfatal injuries, by major subsector (2011-2024; private industry)



Source: *U.S. Bureau of Labor Statistics, 2011-2024 Survey of Occupational Injuries and Illnesses and U.S. Bureau of Labor Statistics, 2011-2024 Current Employment Statistics.*

Nonfatal injuries were then examined by event/exposure and major subsector during 2023-2024 (Chart 3). *Contact incidents* were the most common event/exposure for all subsectors, accounting for 36.1K injuries among Specialty Trade Contractors, 11.5K injuries among Construction of Buildings, and 5.3K injuries among Heavy and Civil Engineering. Falls, slips, and trips were the second most common event/exposure across all major subsectors, accounting for 45.2K nonfatal injuries.

3. Number of nonfatal injuries, by event/exposure and major subsector (2023-2024; private industry)

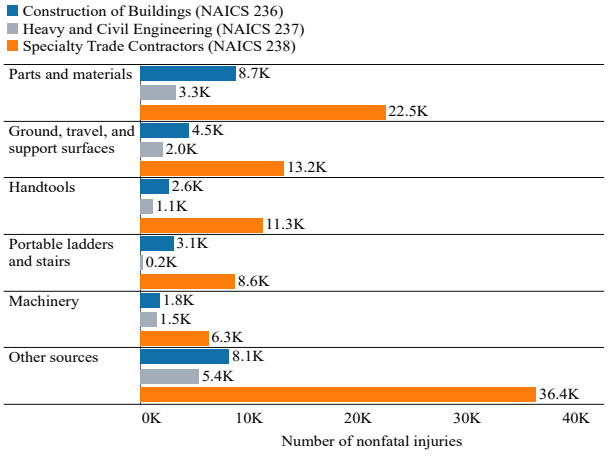


Source: *U.S. Bureau of Labor Statistics, 2023-2024 Survey of Occupational Injuries and Illnesses.*

**Includes violent acts, explosions and fires, and exposure to harmful substances and environments.*

Nonfatal injuries were evaluated by primary source and major subsector from 2023 to 2024 (Chart 4). Parts and materials had the highest number of injuries for all three major subsectors, accounting for 22.5K injuries among Specialty Trade Contractors, 8.7K injuries in Construction of Buildings, and 3.3K injuries in Heavy and Civil Engineering. Ground, travel, and support surfaces accounted for 19.7K injuries across all subsectors.

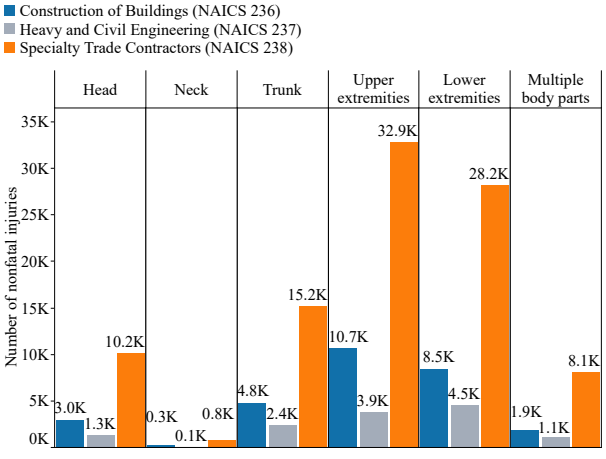
4. Number of nonfatal injuries, by primary source and major subsector (2023-2024; private industry)



Source: *U.S. Bureau of Labor Statistics, 2023-2024 Survey of Occupational Injuries and Illnesses*

Next, the number of nonfatal injuries by body part and major subsector were examined (Chart 5). Upper extremities suffered the highest number of injuries for Specialty Trade Contractors and Construction of Buildings (n=32.9K and n=10.7K, respectively), whereas the largest number of injuries among Heavy and Civil Engineering involved lower extremities (n=4.5K).

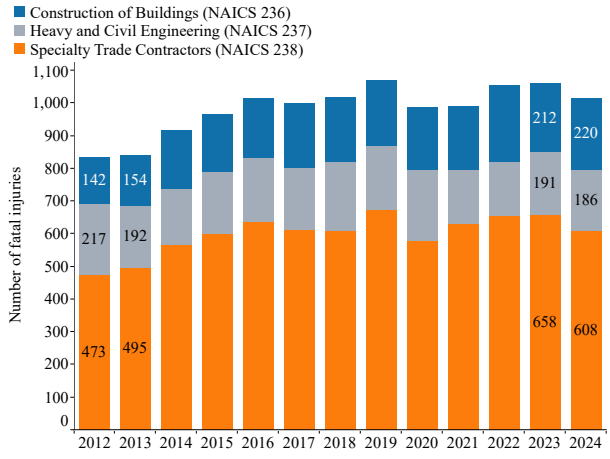
5. Number of nonfatal injuries, by body part and major subsector (2023-2024; private industry)



Source: *U.S. Bureau of Labor Statistics, 2023-2024 Survey of Occupational Injuries and Illnesses.*

Fatal injuries in construction were also examined by major subsector (Chart 6). From 2012 to 2024, fatal injuries in construction increased 25.3% across all construction (849 to 1,064; data not shown). During this same period, there was a 54.9% increase in deaths among workers in Construction of Buildings (142 to 220) and a 28.5% increase for workers in Specialty Trade Contractors (473 to 608). The number of fatal injuries decreased 14.3% in Heavy and Civil Engineering (217 to 186).

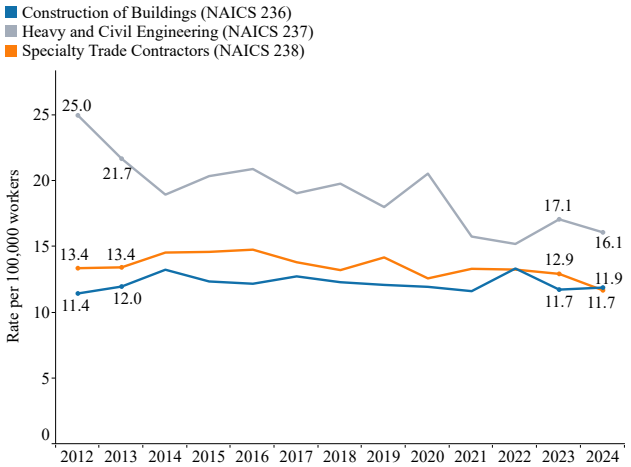
6. Number of fatal injuries, by major subsector (2012-2024)



Source: *U.S. Bureau of Labor Statistics, 2012-2024 Census of Fatal Occupational Injuries.*

From 2012 to 2024, Construction of Buildings was the only major subsector that had an increase in the rate of fatal injuries, rising 4.4%, from 11.4 to 11.9 per 100,000 workers (Chart 7). The rate among Heavy and Civil Engineering fell 35.6% (25.0 to 16.1 per 100,000 workers); while the rate for Specialty Trade Contractors decreased 12.7% (13.4 to 11.7 per 100,000 workers).

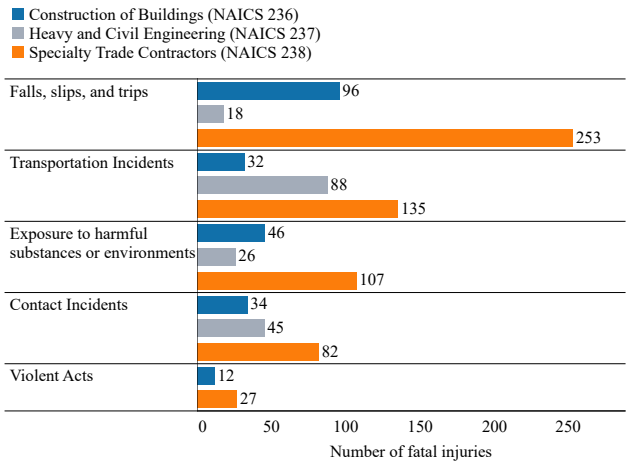
7. Rate of fatal injuries, by major subsector (2012-2024)



Source(s): *U.S. Bureau of Labor Statistics, 2012-2024 Census of Fatal Occupational Injuries and U.S. Bureau of Labor Statistics, 2012-2024 Current Employment Statistics.*

Event/exposure for fatal injuries were then explored (Chart 8). Falls, slips, and trips accounted for the highest number of fatal injuries for workers in Construction of Buildings (n=96 ; 43.6%) and Specialty Trade Contractors (n=253; 41.6%), with Specialty Trade Contractors accounting for over two-thirds (68.9%) of all falls, slips, and trips. Transportation incidents were the most common event/exposure for workers in Heavy and Civil Engineering (n=88; 47.3%).

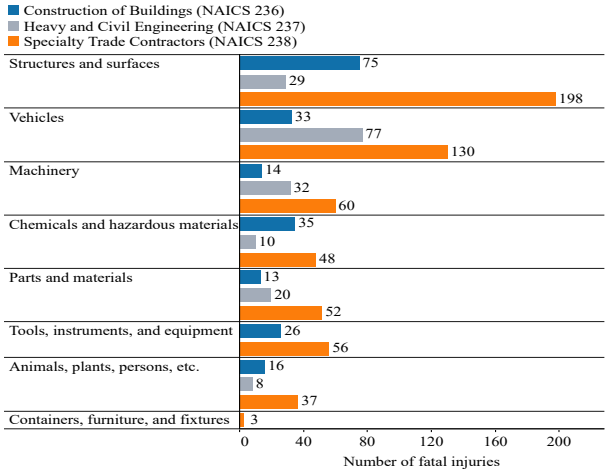
8. Number of fatal injuries, by event/exposure and major subsector (2024)



Source: *U.S. Bureau of Labor Statistics, 2024 Census of Fatal Occupational Injuries.*

For primary sources of fatal injuries (Chart 9), structures and surfaces were the most common for Specialty Trade Contractors (n=198; 32.6%) and workers in Construction of Buildings (n=75; 34.1%), while vehicles accounted for the largest number of injuries for workers in Heavy and Civil Engineering (n=77; 41.4%).

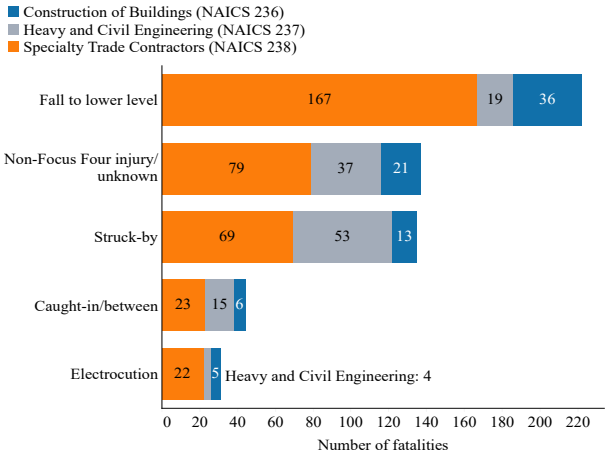
9. Number of fatal injuries, by primary source and major subsector (2024)



Source: *U.S. Bureau of Labor Statistics, 2024 Census of Fatal Occupational Injuries.*

The next three charts draw on CPWR's Fatality Map to examine OSHA-reported workplace fatalities in 2024. That year, falls to a lower level were the most common Focus Four injury among Specialty Trade Contractors (n=167; 27.5%; Chart 10) and Construction of Buildings firms (n=36; 16.4%). Struck-by injuries were the most common Focus Four fatal injury in Heavy and Civil Engineering, accounting for 28.5% (n=53) of fatalities among that subsector's workers.

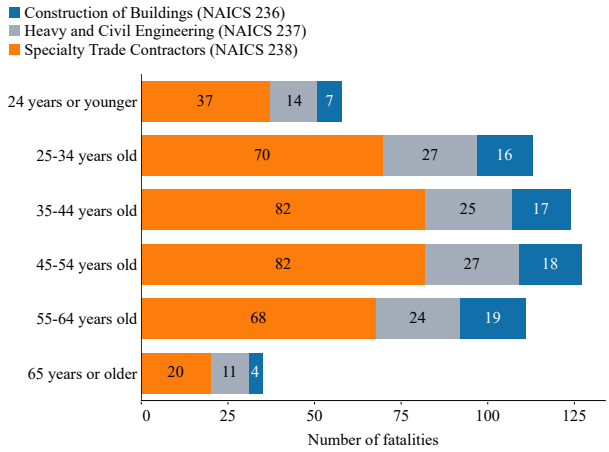
10. Number of fatalities, by major subsector and Focus Four injury (2024)



Source: *CPWR's Fatality Map, 2024.*

In CPWR's Fatality Map, nearly half (45.6%; n=164; Chart 11) of fatalities among Specialty Trade Contractors involved workers between the ages of 35-54 years old. Of the three sectors, Heavy and Civil Engineering had the highest proportion of its deaths among workers 24 years old or younger (10.7%; n=14), while Construction of Buildings was the sector with the highest proportion of its deaths among workers between 25 and 34 years old (19.8%; n=16).

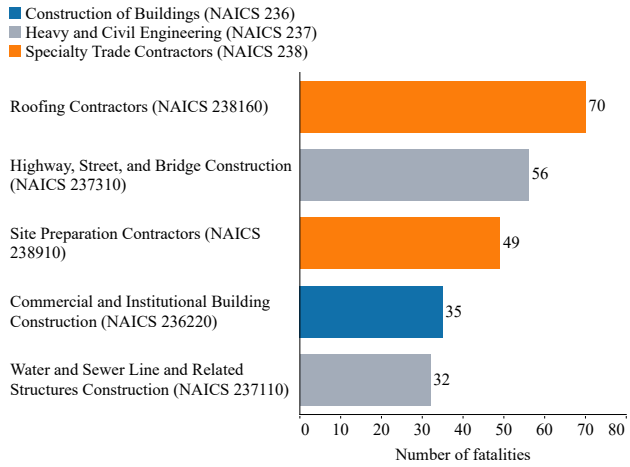
11. Number of fatalities, by major subsector and age (2024)



Source: *CPWR's Fatality Map, 2024.*

Among *detailed subsectors*, Roofing Contractors (NAICS 238160) had the highest number of fatalities in CPWR's Fatality Map in 2024 (n=70; Chart 12). Highway, Street, and Bridge Construction (NAICS 237310) had the second highest number with 56 fatalities, accounting for 30.1% of all fatalities in Heavy and Civil Engineering. Site Preparation Contractors (NAICS 238910) had the third highest number of fatalities for detailed subsectors examined with 49 fatalities.

12. Top detailed subsectors with the most fatalities in construction (2024)



Source: *CPWR's Fatality Map, 2024.*

As construction employment continues to grow, understanding nonfatal and fatal injury trends across subsectors allows the industry to better address the safety needs of the workforce, particularly when there may be significant differences from one sector to another. For instance, for the periods examined the number of nonfatal injuries decreased for Heavy and Civil Engineering and Specialty Trade Contractors, while the number of fatal injuries also decreased for Heavy and Civil Engineering. Meanwhile, Construction of Buildings experienced increases in fatal and nonfatal injuries.

This Data Bulletin highlights the differences in injuries experienced across each major subsector due to distinct tasks, environments, and hazards. For example, in both the Construction of Buildings and Specialty Trade Contractors subsectors, the leading event/exposure for fatal injuries was falls, slips, and trips, while in Heavy and Civil Engineering, it was transportation incidents. The CPWR Fatality Map provides additional detail: Heavy and Civil Engineering's leading Focus Four injuries were struck-by incidents, while falls to lower levels were the most common for the other two major subsectors.

CPWR provides many resources and training tools to address common hazards and exposures, including falls and transportation incidents. OSHA and NIOSH also have materials that address hazards and exposures in the construction industry.

ACCESS THE CHARTS & MORE

View the charts in PowerPoint and the data underlying the charts in Excel. Downloading will start when you click on each link. These files can also be found under the Data Bulletin at: https://www.cpwr.com/research/data-center/data-reports/.

DEFINITIONS

- ***Body part*** *– The part of the body affected by the nature of injury. Full definitions can be found in the Occupational Injury and Illness Classification Manual (OIICS).*
- ***Days away from work (DAFW)*** *– Nonfatal injury cases resulting in at least one day away from work beyond the day of injury or illness onset.*
- ***Detailed subsector –*** *4 to 6-digit NAICS codes within construction.*
- ***Event/exposure*** *– The manner in which the injury or illness was produced or inflicted, such as a roadway collision, off road vehicle incident, etc. Full definitions can be found in the OIICS Manual.*
- ***Contact incidents*** *– Injuries resulting from contact between the injured and the source of injury.*
- ***Focus Four*** *– The four injury groups that cause a majority of fatal injuries in construction.*
  - ***Fall to lower level***
    - *Includes OIICS 3.0 codes 410 (Fall to lower level – unspecified), 411 (Fall to lower level from collapsing structure or equipment), 412 (Fall to lower level resulting from exposure or contact), 413 (Fall to lower level resulting in exposure or contact), 414 (Other fall to lower level), and 419 (Fall to lower level – caught self or curtailed).*
  - ***Electrocution***
    - *Includes OIICS 3.0 codes 510 (Exposure to electricity – unspecified), 511 (Direct exposure to electricity), 512 (Indirect exposure to electricity), and 513 (Exposure to electric arc).*
  - ***Struck-by***
    - *Includes OIICS 3.0 codes 25 (Pedestrian incidents involving motorized land vehicles), 64 (Struck by propelled, falling, or suspending object), 650 (Struck by running powered equipment – unspecified), 651 (Struck by runn9ing powered equipment – irregular movement, kick back), 652 (Struck by running powered equipment – during maintenance, cleaning, testing), 655 (Struck by rolling powered vehicle or machinery), 659 (Struck by running powered equipment – n.e.c.), 660 (Contact with non-running objects or equipment – unspecified), and 663 (Struck by rolling, sliding, or shifting objects – non-running).*
  - ***Caught-in/between***
    - *Includes OIICS 3.0 codes 63 (Collapse, engulfment), 653 (Caught, entangled in running powered equipment – normal operation), 654 (Compressed between running equipment and other object(s)), 662 (Entangled in non-running object), 664 (caught or wedged between objects – non-running).*
- ***Major subsector*** *– 3-digit NAICS codes within construction.*
- ***Primary source*** *– The objects, substances, equipment, and other factors that were responsible for the injury or illness incurred by the worker. For example, a worker who was climbing up a ladder when they slipped and fell would have a reported primary source of, "Ladders." Full definitions can be found in the OIICS Manual.*

DATA SOURCES

CPWR–The Center for Construction Research and Training. [2026]. Construction Fatality Map [dashboard].

U.S. Bureau of Labor Statistics (BLS), 2012-2024 Census of Fatal Occupational Injuries (CFOI) Public Use Data. bls.gov/iif/.

U.S. Bureau of Labor Statistics (BLS), 2011-2024 Current Employment Statistics (CES). bls.gov/ces/.

U.S. Bureau of Labor Statistics (BLS), 2012-2024 Survey of Occupational Injuries and Illnesses (SOII). bls.gov/iif/.

REFERENCES

CPWR–The Center for Construction Research and Training. (2025). Employment Trends [dashboard]. cpwr.com/research/data-center/the-construction-chart-book/interactive-7th/employment-income/employment-trends/.

CPWR–The Center for Construction Research and Training. (n.d.). Hazard-Specific Resources & Training Tools. cpwr.com/research/research-to-practice-r2p/r2p-library/other-resources-for-stakeholders/hazard-specific-resources/.

Dufoe, D., Trueblood, A., Brooks, R.D., Harris, W. (2025). Construction Workers Injuries, Overdoses, and Suicides. cpwr.com/wp-content/uploads/DataBulletin-April2025.pdf.

NIOSH. (2024). Construction. cdc.gov/niosh/construction/about/index.html.

OSHA. (n.d.). Construction Industry. osha.gov/construction.

U.S. Bureau of Labor Statistics. (n.d.). IIF Data. bls.gov/iif/home.htm.

U.S. Bureau of Labor Statistics. (n.d.). Number and rate of fatal work injuries, by selected private industries. bls.gov/charts/census-of-fatal-occupational-injuries/number-and-rate-of-fatal-work-injuries-by-industry.htm.

U.S. Bureau of Labor Statistics. (n.d.). Occupational Injury and Illness Classification (OIICS) Manual. bls.gov/iif/definitions/occupational-injuries-and-illnesses-classification-manual.htm.

U.S. Bureau of Labor Statistics. (2025). Occupational Outlook Handbook: Construction and Extraction Occupations. bls.gov/ooh/construction-and-extraction/.

ABOUT THE CPWR DATA CENTER

The CPWR Data Center is part of CPWR–The Center for Construction Research and Training. CPWR is a 501(c)(3) nonprofit research and training institution created by NABTU, and serves as its research arm. CPWR has focused on construction safety and health research since 1990. The Data Bulletin, a series of publications analyzing construction-related data, is part of our ongoing surveillance project funded by the National Institute for Occupational Safety and Health (NIOSH).

Besides cpwr.com, visit CPWR's other online resources to help reduce construction safety and health hazards:

- Construction Solutions https://www.cpwrconstructionsolutions.org/
- COVID-19 Construction Clearinghouse https://covid.elcosh.org/index.php
- Electronic Library of Construction Occupational Safety and Health https://www.elcosh.org/index.php
- eLCOSH Nano https://nano.elcosh.org/
- Exposure Control Database https://ecd.cpwrconstructionsolutions.org/
- Nano Safety Data Sheet Improvement Tool https://nanosds.elcosh.org/
- Safety Climate–Safety Management Information System (SC-SMIS) www.scsmis.com
- Stop Construction Falls https://stopconstructionfalls.com/
- Work Safely with Silica https://www.silica-safe.org/

CPWR is the research and training arm of NABTU. Production of this document was supported by cooperative agreement OH 012761 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.

CPWR
THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING
8484 Georgia Avenue
Suite 1000
Silver Spring, MD 20910
www.cpwr.com