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What’s New in Safety

Statistics, Standards, Technology, and More.

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Speaker Bio

Hillary M. Rigg is the Client Services Manager at Paragon Safety, where she has dedicated more than 10 years to supporting workplace safety and client success. A graduate of the University of North Carolina Wilmington, Hillary also holds a MESH Certificate (Manager of Environmental Safety and Health). She currently serves as Board President of the Eastern Carolina Safety and Health Conference (2023 – Present), where she works to promote safety awareness and professional development across the region.

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A DIVISION OF PARADIGM HSE MANAGEMENT

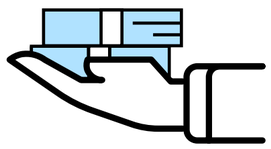
Agenda

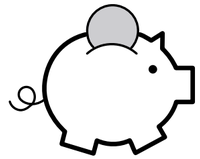
- Latest Safety Statistics
- Increase in OSHA Citation Fines
- New and Potential New Standards
- Mental Health
- New Safety Technology and Training Methods

Statistics

By the Numbers

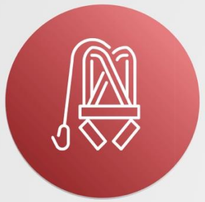
- 31,700 - total annual OSHA inspections in construction
- 15,900 - number of annual OSHA citations in construction
- $127.4 million – 2024 OSHA penalties issued
- $4,018 - average OSHA penalty per citation
- $8.35 million – highest OSHA penalty ever issued to a single contractor





Top 10 Most Cited Standards

FY 2024



1 **Fall Protection: General Requirements**
1926.501
6,827 violations

2 **Hazard Communication**
1910.1200
3,121 violations

3 **Ladders**
1926.1053
2,789 violations

4 **Respiratory Protection**
1910.134
2,698 violations

5 **Control of Hazardous Energy (Lockout/Tagout)**
1910.147
2,655 violations

6 **Powered Industrial Trucks**
1910.178
2,440 violations

7 **Fall Protection: Training Requirements**
1926.503
2,243 violations

8 **Scaffolding**
1926.451
1,959 violations

9 **Personal Protective and Lifesaving Equipment: Eye and Face Protection**
1926.102
1,929 violations

10 **Machine Guarding**
1910.212
1,676 violations

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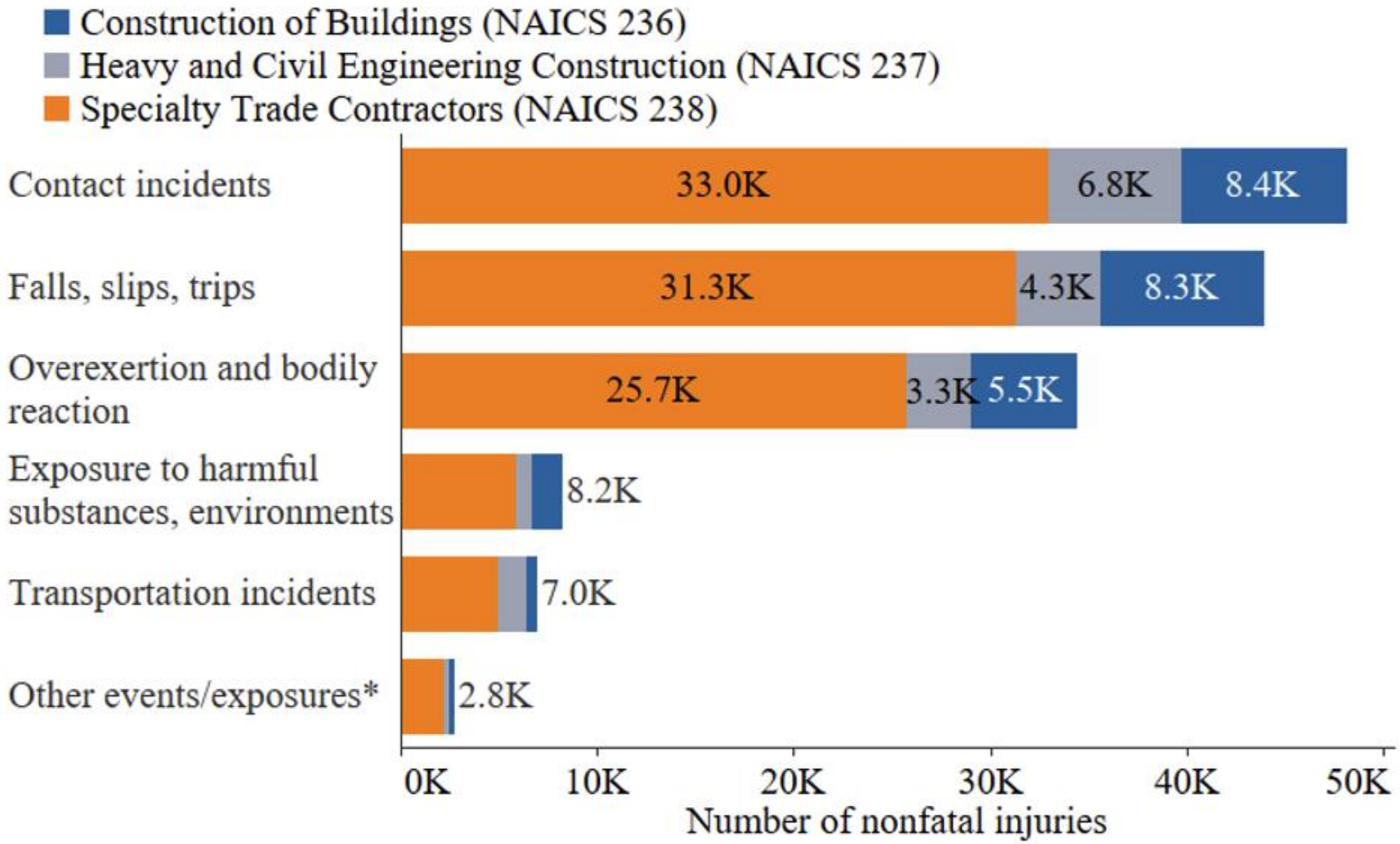
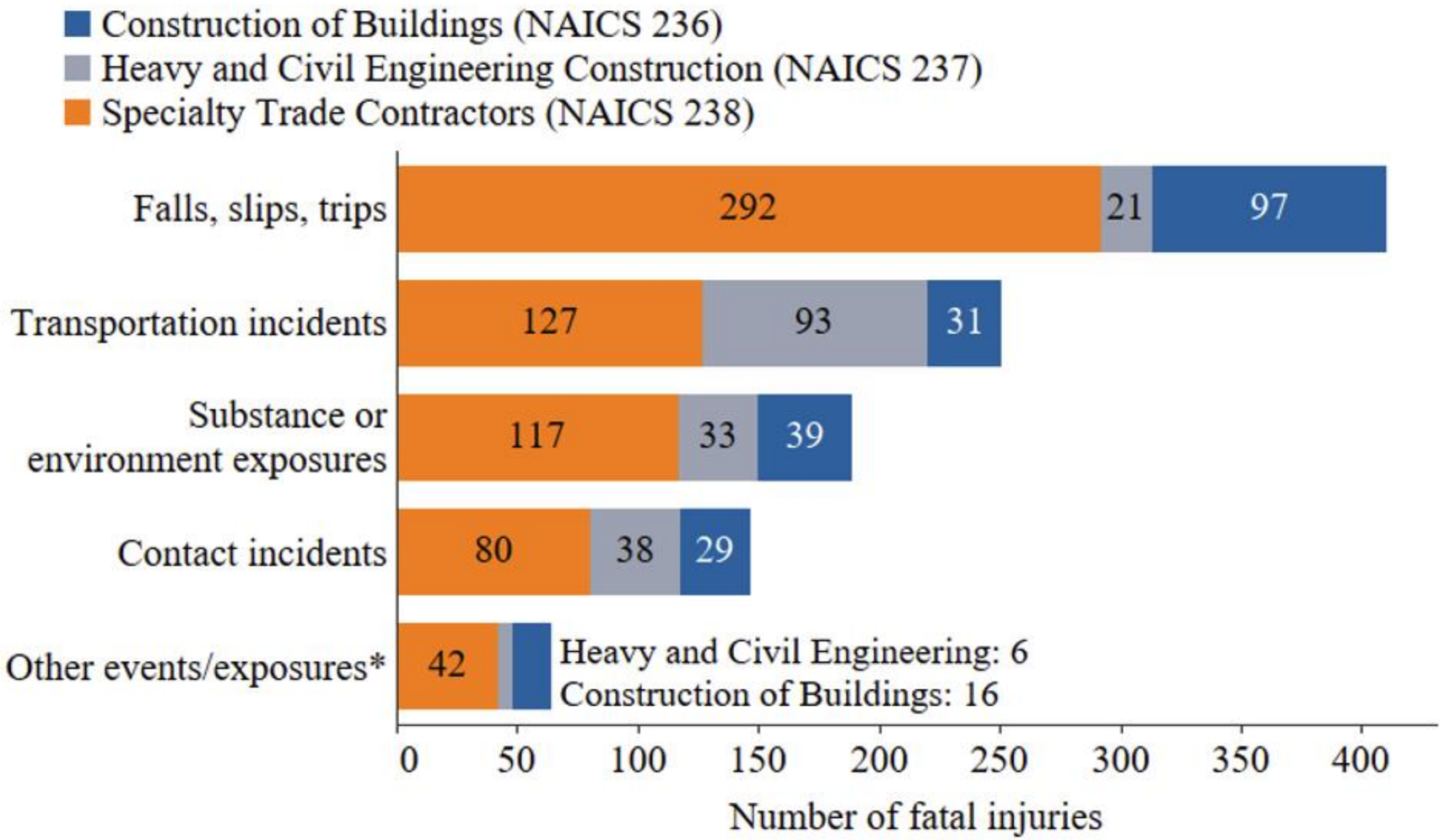
8. Nonfatal injuries, by major subsector and event/exposure (2021-2022)



Source: U.S. Bureau of Labor Statistics, 2012-2022 Survey of Occupational Injuries and Illnesses. Calculations by CPWR's Data Center.

*Includes violent acts (n=1.6K), explosions and fires (n=360), and other events/exposures (n=870).

3. Fatal injuries, by major subsector and event/exposure (2023)



Source: U.S. Bureau of Labor Statistics, 2023 Census of Fatal Occupational Injuries and Illnesses. Calculations by CPWR's Data Center.

*Includes violent acts (n=41), explosions and fires (n=15), and other events/exposures (n=8).

Increased OSHA Penalties for 2025

Increased penalties will apply to all OSHA citations beginning **January 16**

Category of Violation	2024 Penalties	2025 Penalties
Serious	Minimum: $1,190 Maximum: $16,131	**Minimum: $1,221** **Maximum: $16,550**
Other Than Serious	Minimum: $0 Maximum: $16,131	**Minimum: $0** **Maximum: $16,550**
Willful	Minimum: $11,524 Maximum: $161,323	**Minimum: $11,823** **Maximum: $165,514**
Repeated	Minimum: $11,524 Maximum: $161,323	**Minimum: $11,823*** **Maximum: $165,514**
Posting Requirement	Minimum: $0 Maximum: $16,131	**Minimum: $0** **Maximum: $16,550**
Failure to Abate	Minimum: N/A Maximum: $16,131 per day unabated beyond abatement day (generally limited to 30 days maximum)	**Minimum: N/A** **Maximum: $16,550** **per day unabated beyond abatement day** **(generally limited to 30 days maximum)**

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New and Potential New Standards

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New and Potential New OSHA Standards

OSHA 29 CFR 1926.95(c) PPE Standard Revision

- New standard went into effect January 13, 2025
- Explicitly requires all PPE fit properly
- Employers must document worker PPE sizes

OSHA Heat Injury and Illness Prevention

- First introduced in Spring 2021
- Public hearing for comments held June 16 through July 2, 2025
- Post hearing comment period closed September 30, 2025

Update to the Hazard Communication Standard

- Updated standard took effect on July 19, 2024
- Stricter requirements for SDSs, chemical labeling, and employee training
- Increases worker protections to prevent chemical-related incidents

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OSHA 29 CFR 1926.95(c) PPE Standard Revision

Final Rule states :

“PPE must fit properly to provide appropriate protection to employees from workplace hazards. Improperly fitting PPE may fail to provide any protection, reduce the gear’s effectiveness, present additional hazards, or discourage employees from using such equipment in the workplace”

Rule aligns construction standards that are already in the general and maritime standards

Should not be a significant cost – average of $52 per employee

Even if employees provide their own PPE, OSHA requires the employer to ensure the gear’s adequacy through proper maintenance and sanitation

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OSHA Proposed Heat Illness and Injury Standard

Proposed Rule:

The proposed rule is meant for employers to monitor excessive heat in the workplace and develop and implement plans to address it. The ultimate goal is to prevent and reduce the number of occupational injuries, illnesses, and fatalities caused by exposure to hazardous heat.

Introduced in April 2021 when OSHA engaged in enforcement activity through the National Emphasis Program – Outdoor and Indoor Heat-Related Hazards

Provisions include additional employee breaks, an observation/buddy system to monitor workers for signs of heat illness, and training.

The proposed standard would apply to all employers conducting indoor and outdoor work in all general industry, construction, maritime, and agriculture sectors where OSHA has jurisdiction.

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Heat Injuries and Illnesses Among Construction Workers

CPWR – Data Bulletin August 2025

Increased Heat-Related Fatal Injuries

In 2023, the construction industry accounted for over one-third of heat-related fatal injuries in the U.S.

Increased Risk

Hotter temperatures increase the risk of injuries from safety hazards such as working at heights, and can trigger existing health conditions like asthma, diabetes, or cardiovascular disease.

Non-Fatal Heat Injuries

Non-fatal heat injuries include heat exhaustion, heat stroke, dehydration, and more.

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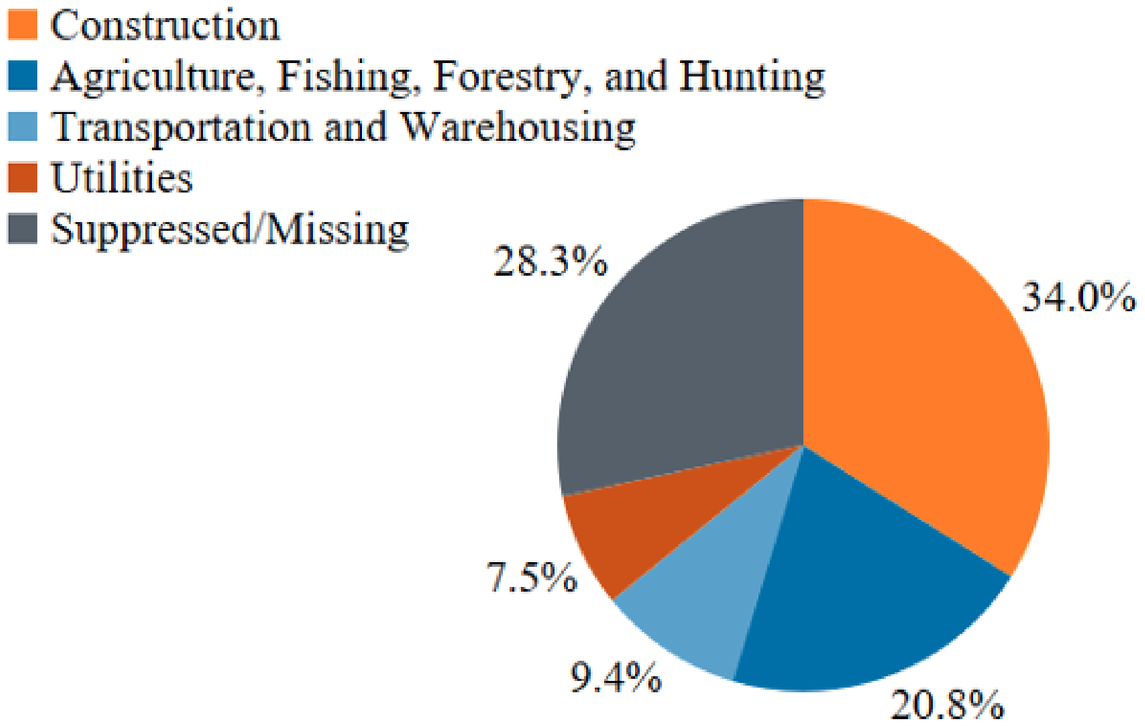
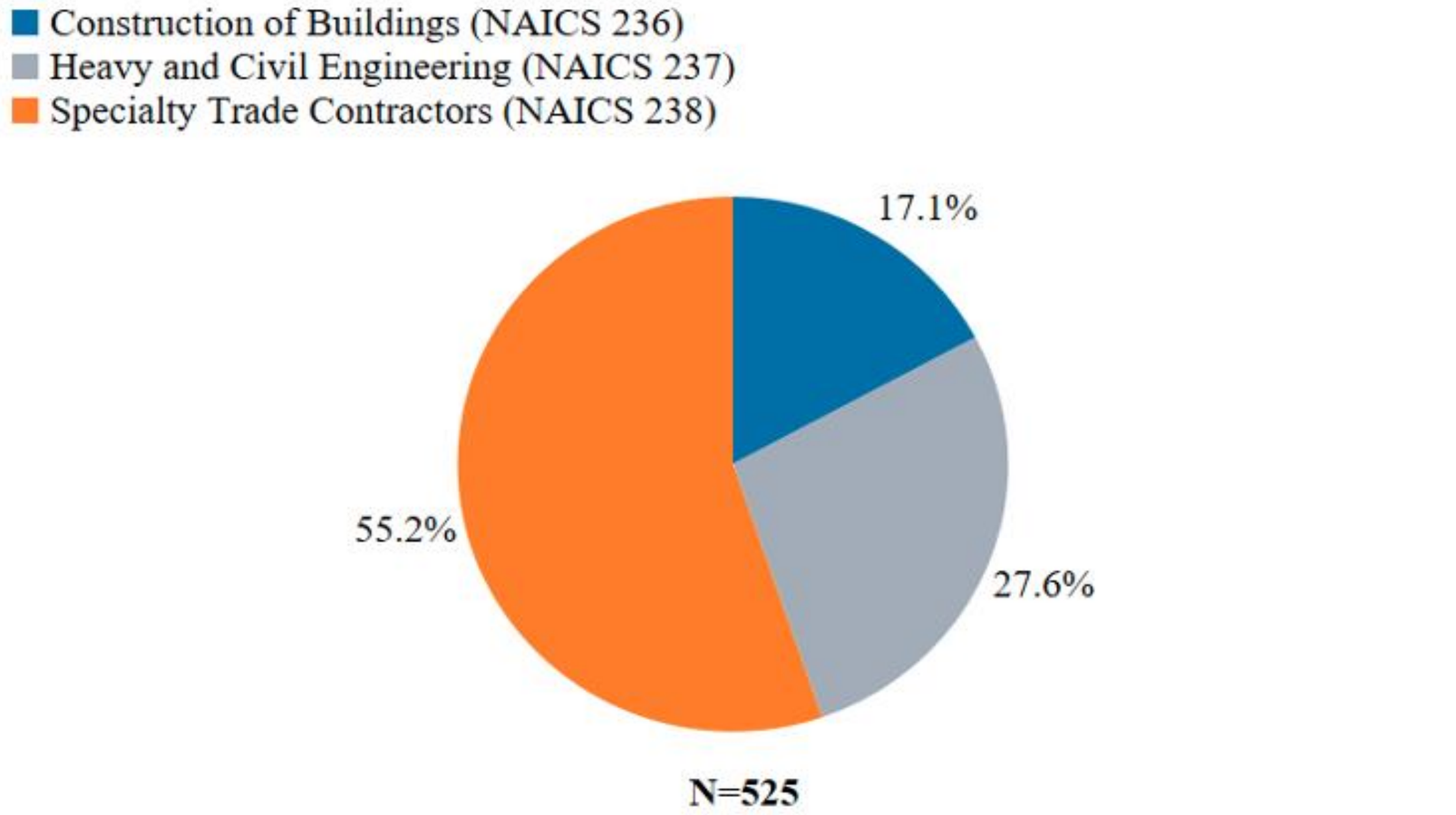
2. Share of fatal heat injuries*, by industry (2023)



N=53

Source: U.S. Bureau of Labor Statistics, 2023 Census of Fatal Occupational Injuries and Illnesses. Calculations by CPWR's Data Center.
*Chart uses primary source to estimate heat injuries by industry due to data availability issues.

11. Heat-related severe injuries in construction, by major subsector (2015-2023)



Source: Occupational Safety and Health Administration, 2015-2023 Severe Injury Reports. Calculations by CPWR's Data Center.

Updated Hazard Communication Standard

Took effect July 19, 2024

- Stricter requirements for safety data sheets (SDS), chemical labeling, and employee training
- Emphasis to remain on annual HazCom training to keep employees informed on the dangers of chemicals in the workplace
- Employers must ensure all containers are labeled accurately and maintain accurate chemical inventories
- Ruling corrected errors in previous version of the standard

Mental Health

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Mental Health and Safety

Check in on your number one resource, your people.

- OSHA has introduced guidelines and training tools to help employers support their workforce’s mental well-being
- Employee Assistance Program’s (EAPs)
- Train supervisors on how to have difficult conversations
- Mental Health First Aid at Work training

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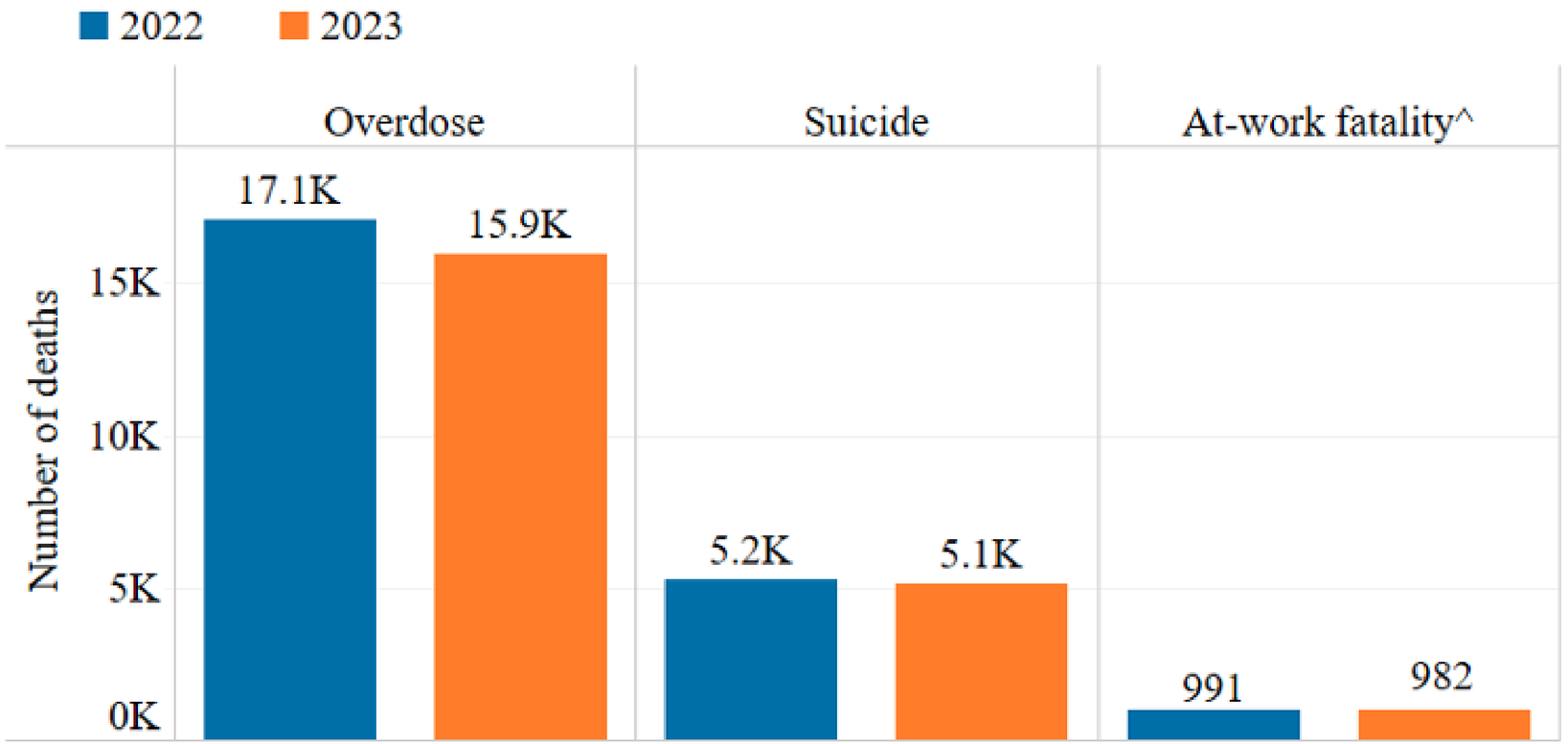
11. Fatalities by cause among construction workers aged 16 to 64 years old (2022-2023)*



Source: National Center for Health Statistics, 2022-2023 Mortality Multiple Cause File and U.S. Bureau of Labor Statistics, 2011-2023 Census of Fatal Occupational Injuries. Calculations by CPWR's Data Center.

*See injury type definitions as ICD-10 codes overlap for commonly used definitions. For example, suicides resulting from an overdose are included in both categories.

^ At-work fatalities reduced to 16 to 64 years old to match mortality data.

New Safety Technology and Training Methods

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Latest Safety Technology

New technology and training methods

IoT Wearables

Revolutionizing how safety is managed and monitored.

Artificial Intelligence (AI)

AI can serve as an intelligent, ever-present monitoring system for the entire job site.

Exoskeletons

Wearable machines to assist with lifting, posture correction, and other abilities to mitigate injuries.

Safety Training Methods

New methods to keep workers learning and engaged.

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IoT Wearable Technology

Revolutionizing How Safety is Managed and Monitored

- Wearable technology refers to electronic devices that workers wear that collect and transmit data related to their health, movements, and environment.
- Wearables can detect vital signs, air quality, noise levels, repetitive motion sensors, and more.
- Wearables can collect data in real-time to identify patterns and trends, allowing for a data-driven approach to target safety measures.

Artificial Intelligence in Safety

Embrace Safety Technology

- Equipment Safety & Collison Avoidance Systems using AI-Powered Cameras
- Technology that connects to onsite cameras that detect PPE compliance
- Predictive Analytics
- Utilize ChatGPT and other AI sites to generate JHAs, Toolbox Talks, and more

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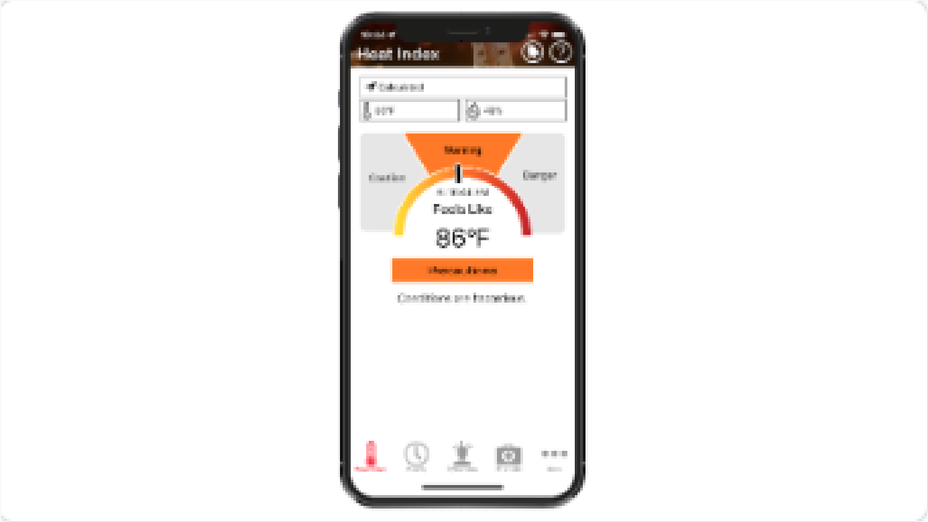
Exoskeleton Use in Construction

Preventing musculoskeletal injuries at work

- Exoskeleton’s aim to reduce accumulated strain from prolonged, repetitive tasks.
- Mechanical exoskeleton’s help redistribute weight, while electrical exoskeletons can enhance strength.
- Many different types to help support various tasks performed daily.

OSHA-NIOSH Heat Safety Tool

Tool for Outdoor Workers



- Provides a visual indicator of the current heat index and associated risk levels specific to your location
- Has interactive, hourly forecast of heat index values, risk levels, and recommendations for planning outdoor work activities
- Provides signs and symptoms and first aid for heat-related illnesses

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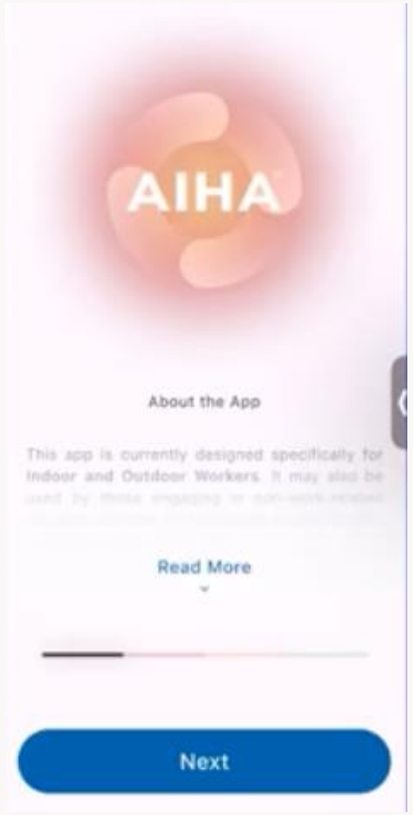
AIHA Heat Stress App

Tool for Indoor and Outdoor Workers



- Developed in partnership through the AIHA and East Carolina University
- Key differentiator is its focus on an adjusted Wet Bulb Globe Temperature (WGBT) calculation to inform risk and provided necessary action steps.
- Ability to manually input temperature and humidity for indoor work environments
- Enhanced Heat Stress calculation

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Safety Training Methods

Microburst Training

- Short 4–5-minute training videos
- Can easily retain in long-term memory (LTM)
- Ideal for a focused audience
- Lessen the workload of training classes


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Virtual Reality (VR) and Simulated Training

VR training in construction improves safety by simulating hazardous situations risk-free, increasing worker confidence and assist in addressing the growing demand for a skilled construction workforce.

Simulated training allows aspiring operators to practice operating equipment in a virtual environment that closely mirrors real-world conditions.

Hazard recognition training – enables construction workers to practice and respond to various scenarios in a controlled environment.

Makes training fun and collaborative

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Questions?

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