Struck-by Hazards, Barriers, and Opportunities in the Construction Industry

December 1, 2022

Moderator: G. Scott Earnest, PhD, PE, CSP, Director for Construction, Office of Construction Safety and Health, NIOSH

Panelists:

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Project Team

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NORA Construction Sector Council
Struck-by Work Group

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Project Goals

Explore the use of behavioral economics as a means to influence decisions related to intervention implementation

a) Does the use of nudges increase awareness of hazards and research-based solutions?
b) Does the use of nudges increase acceptance and adoption of research-based solutions?

Develop a minimum of one translational product in support of the pilot

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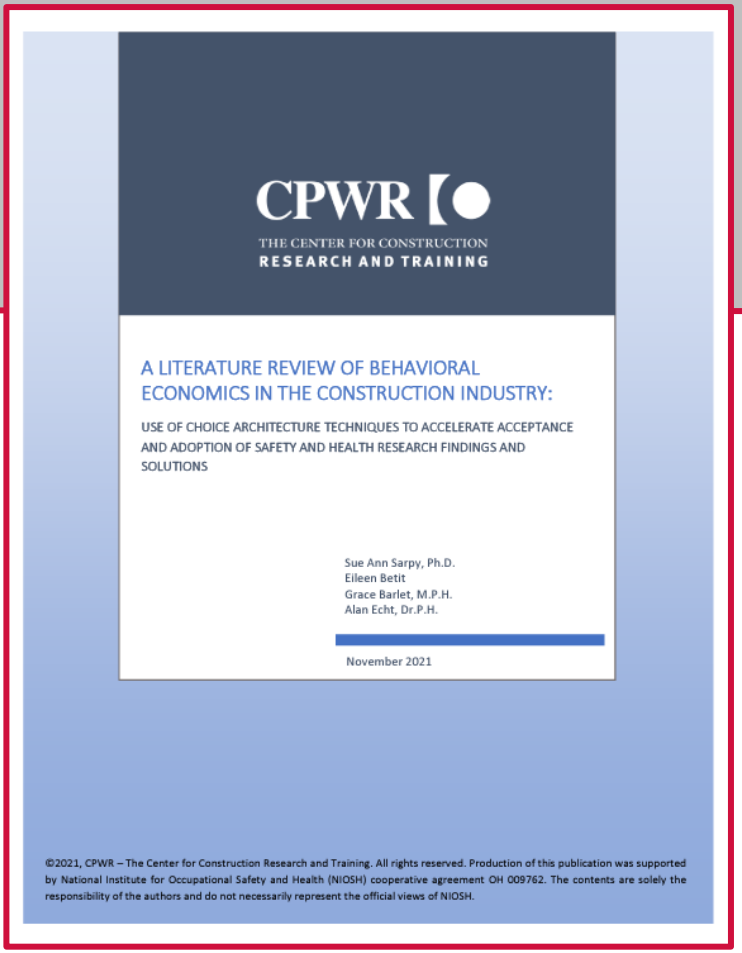
Background Research: Nudges

Behavioral Economics > Choice Architecture > Nudges

Nudges are…

- ❑ Simple and transparent
- ❑ Cost-effective
- ❑ Flexible and able to be incorporated into existing health and safety interventions
- ❑ Effective across different groups and levels
- ❑ Empowering to individuals



A Literature Review of Behavioral Economics in the Construction Industry

Using Nudges to Influence Safety Decisions

What type of hazard should we target?

→ **Struck-by**

- Exist across all sectors, trades, and job sites
- Transportation incidents are the second leading cause of death*
- Contact with objects and equipment is the fourth leading cause of death*

What type of decision should we target?

→ **Planning**

- Critical to ensuring proper equipment is available, workers are trained and certified, work zone traffic planning, etc.
- Encourages communication between owner, contractor, and all levels of workers

*Average of 2018-2020. https://www.cpwr.com/wp-content/uploads/DataBulletin-May2022.pdf

Background Research: Struck-by Survey Key Findings

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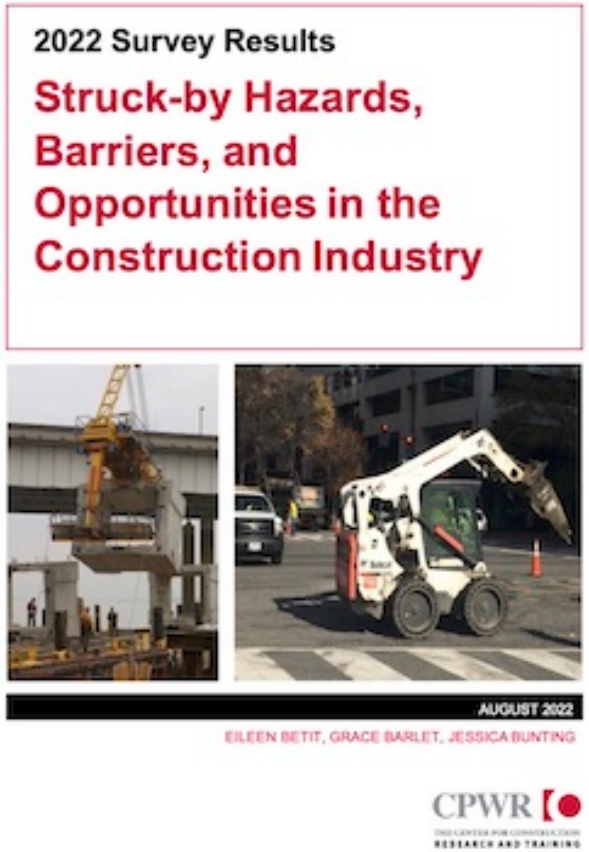

Struck-by Hazards, Barriers, and Opportunities in the Construction Industry

Background

The survey was conducted on behalf of the NORA Construction Sector Council Struck-by Workgroup to:

- Further explore select questions asked in a 2020 survey on struck-by hazards
- Inform the development of the behavioral economics pilot project (struck-by prevention planning program)

It provides insight into:

- Causes of struck-by incidents, barriers to prevention, and ways to raise awareness and ensure use of safe practices
- Measures being taken to protect workers and the barriers to implementing controls for common struck-by hazards
- Knowledge of struck-by hazards, the role of planning in prevention, and the motivators, resources, and support needed to prevent incidents

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Methods

- Questions were developed and tested by CPWR staff and NORA Construction Sector Council Struck-by Workgroup members
- 43 question online survey
- Convenience sample of industry stakeholders
- Voluntary and anonymous

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Demographics

- 208 respondents
- The majority of respondents worked for a **contractor** (77.9%) in the **commercial sector** (44.7%)
- Most were **safety and health professionals** (69.7%) with **more than 10 years** (88.0%) of experience in the construction industry

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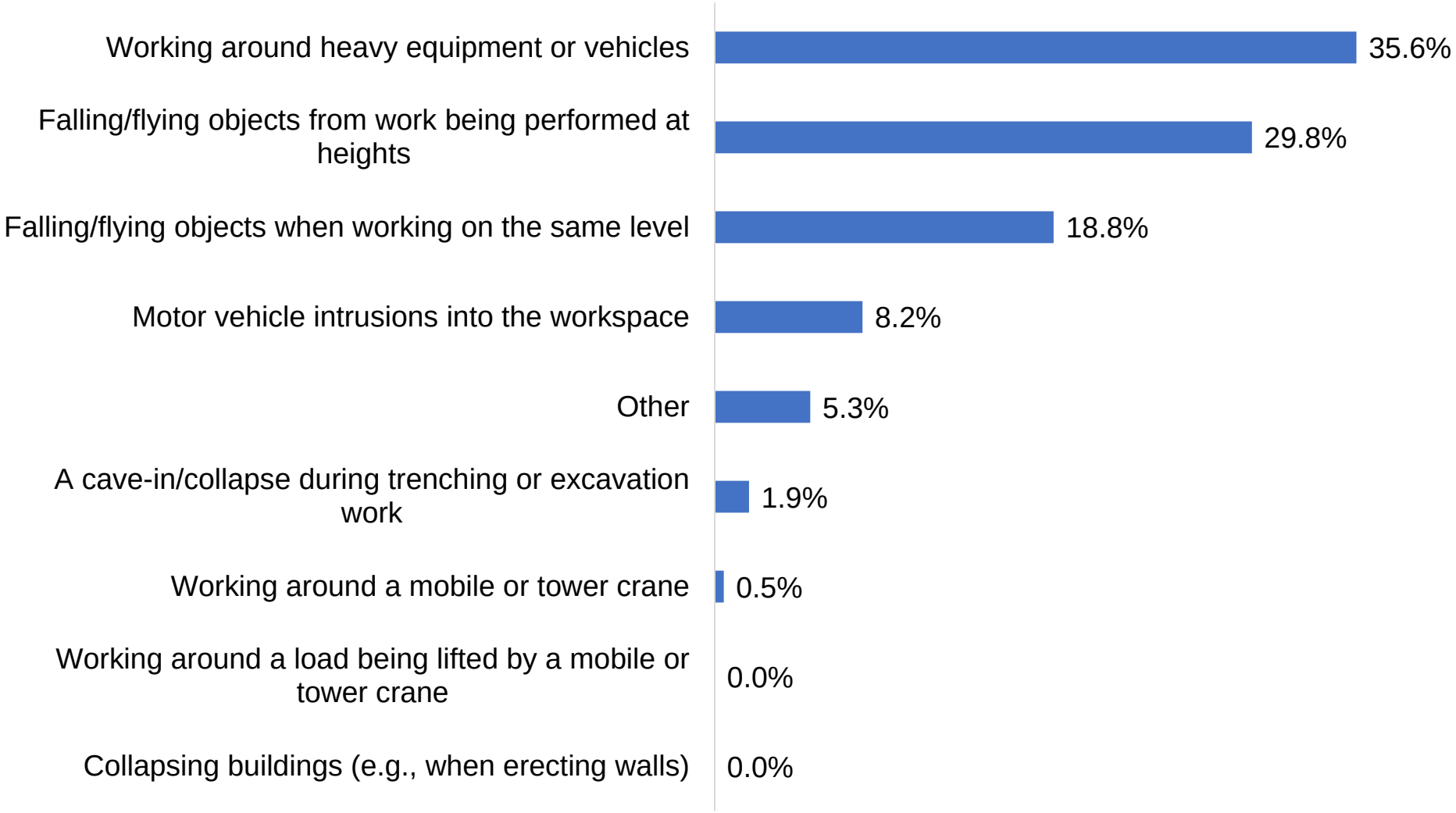
Causes of Struck-by Incidents

What do you believe is the primary cause of struck-by injuries in the construction industry? (N = 208)



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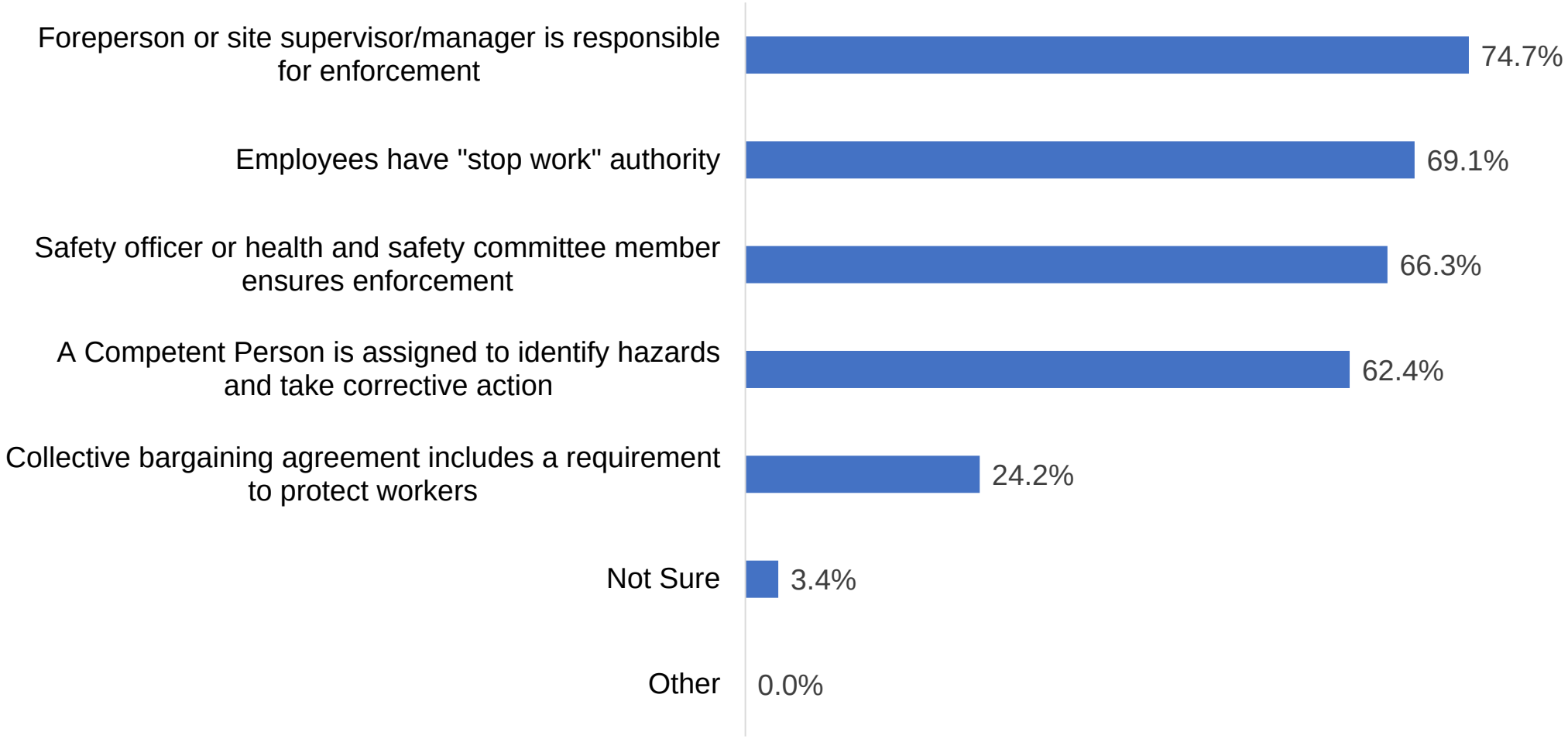
Prevention Methods

Which of the following does your company do to protect workers from being struck by [struck-by hazard]…? (Select all that apply)

Struck-by Hazard	Measures Taken Most Often to Protect Workers (%)		
Falling, flying tools, materials, or other objects when working at heights (N = 172)	Use personal protective equipment (90.7%)	Train workers (77.9%)	Use rope, tape, or other lines to mark a restricted area (72.1%)
Falling, flying tools, materials, or other objects when working on the same level (N = 143)	Use personal protective equipment (81.1%)	Train workers (81.1%)	Use rope, tape, or other lines to mark a restricted area (65.0%)
Heavy equipment or vehicles (N = 172)	Use personal protective equipment (83.1%)	Use back-up signals/alarms (83.1%)	Use spotters [restrict access] (79.1%)
Motor vehicles intruding into the workspace (N = 99)	Use personal protective equipment (86.9%)	Train workers (76.8%)	Develop and implement a traffic control plan (76.8%)
Mobile/tower cranes or the loads being lifted (N = 135)	Train workers (88.9%)	Clear the area of all personnel not involved in a lift before the lift is performed [restrict access] (78.5%)	Put up warning signs and markers [restrict access] (74.8%)
Collapsing trench walls or materials or equipment falling into a trench (N = 137)	Install a trench box (86.1%)	Train workers (83.9%)	Slope walls (82.5%)
Collapsing buildings (e.g., when erecting walls) (N = 42)	Train workers (90.5%)	Restrict access to areas where walls are being erected (81.0%)	Monitor weather conditions and take corrective actions (78.6%)

Enforcement and Motivators to Protect Workers

How are the steps to prevent struck-by hazards most often enforced on your job sites? (Select all that apply) (N = 178)



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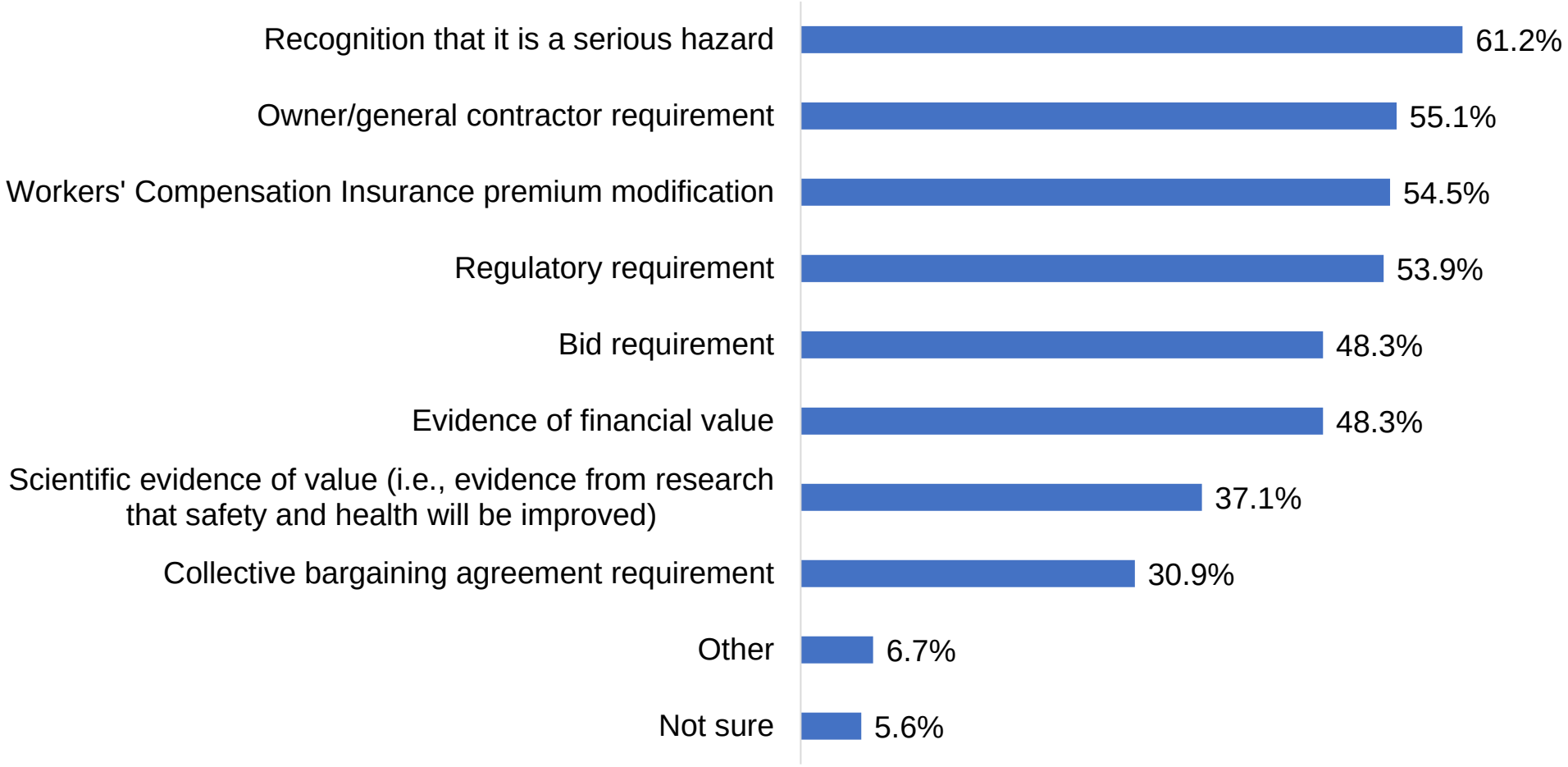
Enforcement and Motivators to Protect Workers

Which of the following motivates or would motivate your company to take steps to protect workers from struck-by hazards? (Select all that apply) (N = 178)



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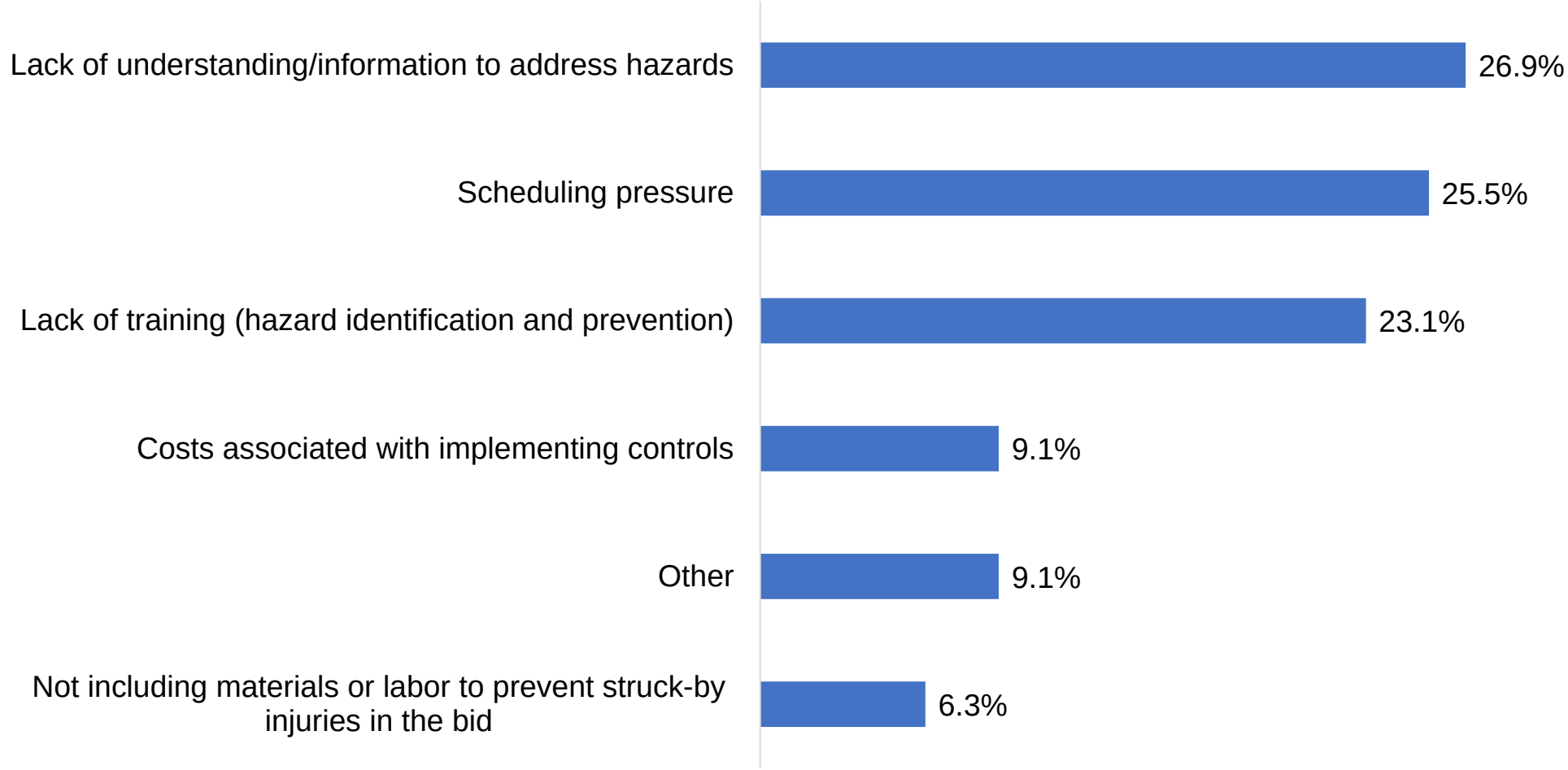
Barriers for Employers

What do you believe is the biggest barrier <u>for employers</u> to engaging in practices that would prevent struck-by incidents? (N = 208)



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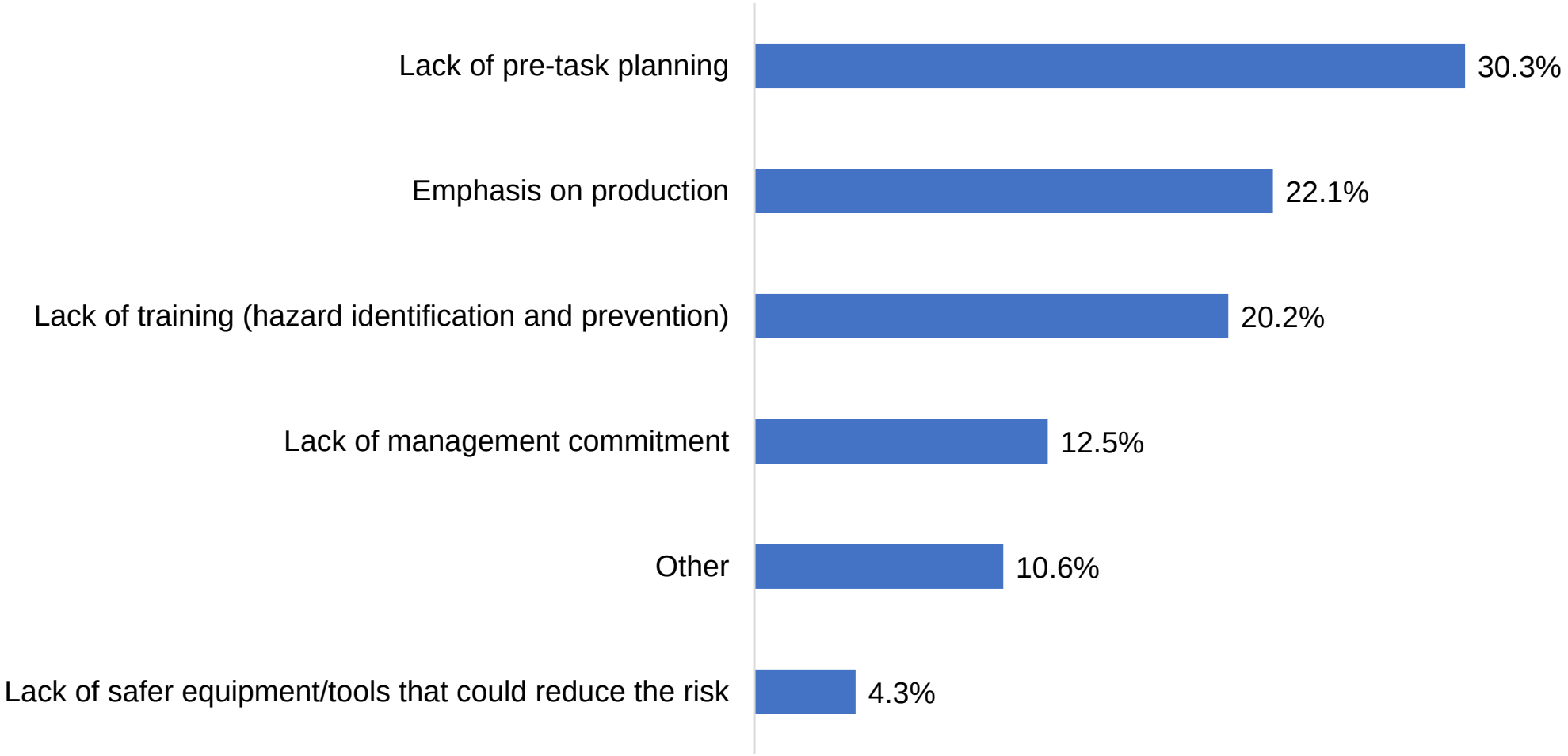
Barriers for Workers

What do you believe is the biggest barrier for workers to engaging in practices that would prevent struck-by incidents? (N = 208)



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Barriers

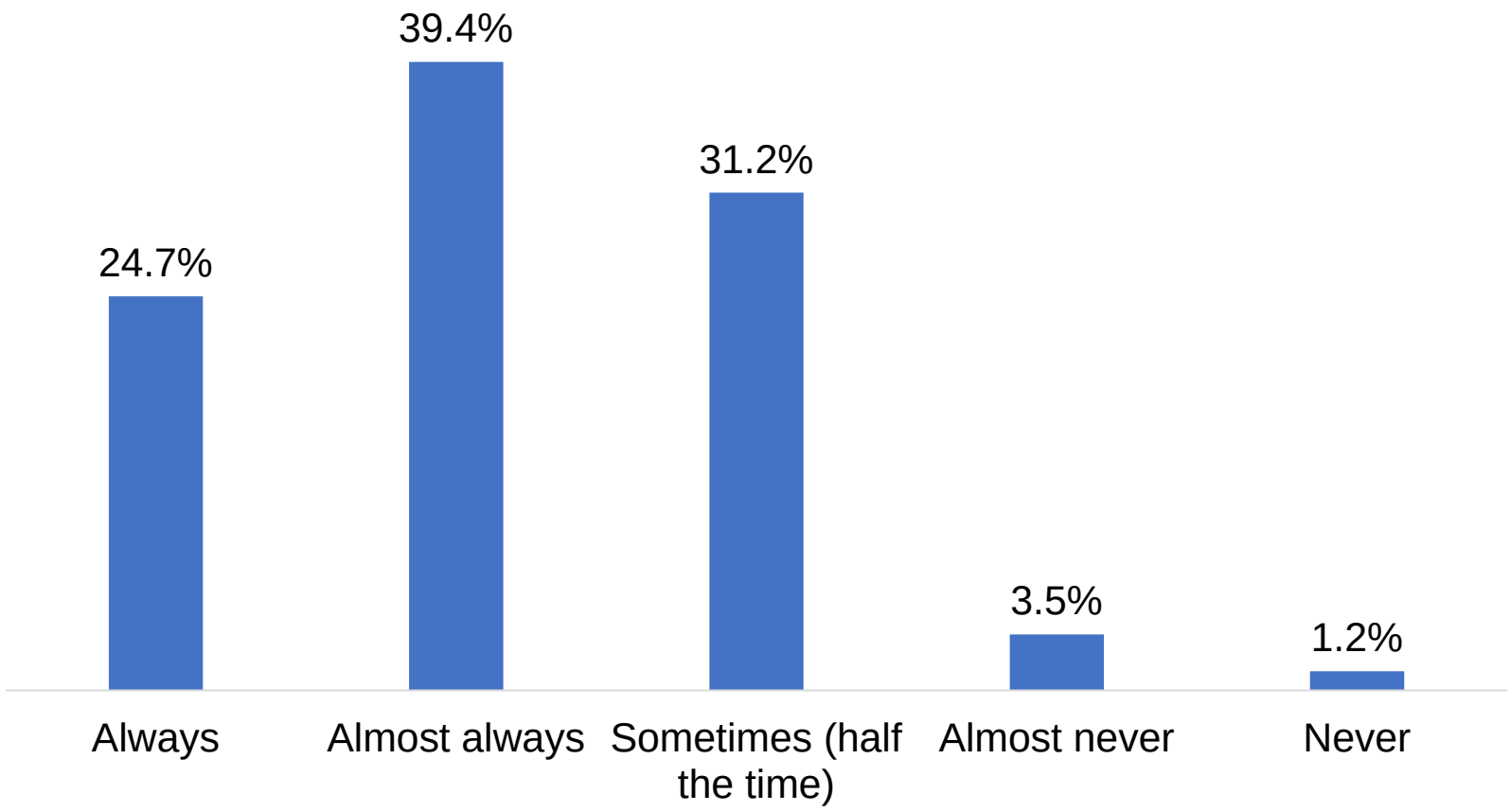
Which of the following do you consider to be the biggest barriers to implementing controls to protect workers from being struck by [struck-by hazard]…? (Select all that apply)

Struck-by Hazard	Biggest Barriers When the Hazard is Present (%)		
	Lack of understanding of how to address the hazard across different jobs and working conditions	Schedule pressure/emphasis on production	Lack of training (hazard identification and prevention)
Falling, flying tools, materials, or other objects when working at heights (N = 172)	**49.4%**	45.9%	36.6%
Falling, flying tools, materials, or other objects when working on the same level (N = 143)	**44.1%**	37.8%	39.9%
Heavy equipment or vehicles (N = 172)	39.5%	**40.7%**	35.5%
Motor vehicles intruding into the workspace (N = 99)	**40.4%**	31.3%	34.3%
A mobile/tower crane or load being lifted (N = 135)	34.1%	**39.3%**	34.1%
Collapsing trench walls or materials or equipment falling into trench (N = 137)	41.6%	**42.3%**	39.4%
Building collapsing (N = 42)	45.2%	38.1%	**57.1%**

*The percentage for the most often selected barrier for each hazard is in bold

Impact of Time Constraints

Based on your experience, do you feel safety is a priority on construction sites even when work is behind schedule? (N = 170)



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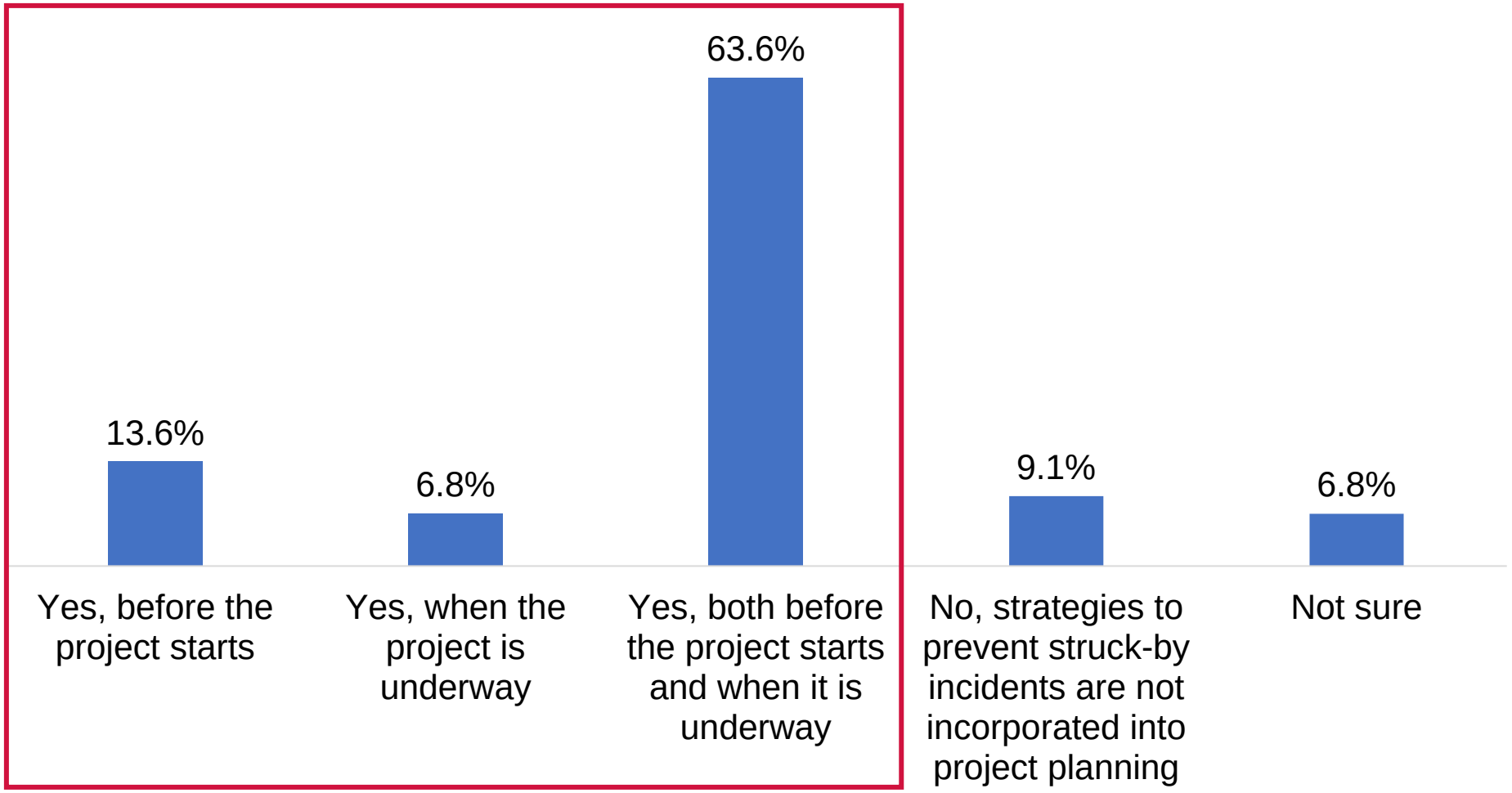
Planning

Does your company include strategies to prevent struck-by incidents when planning a project? (N = 176)



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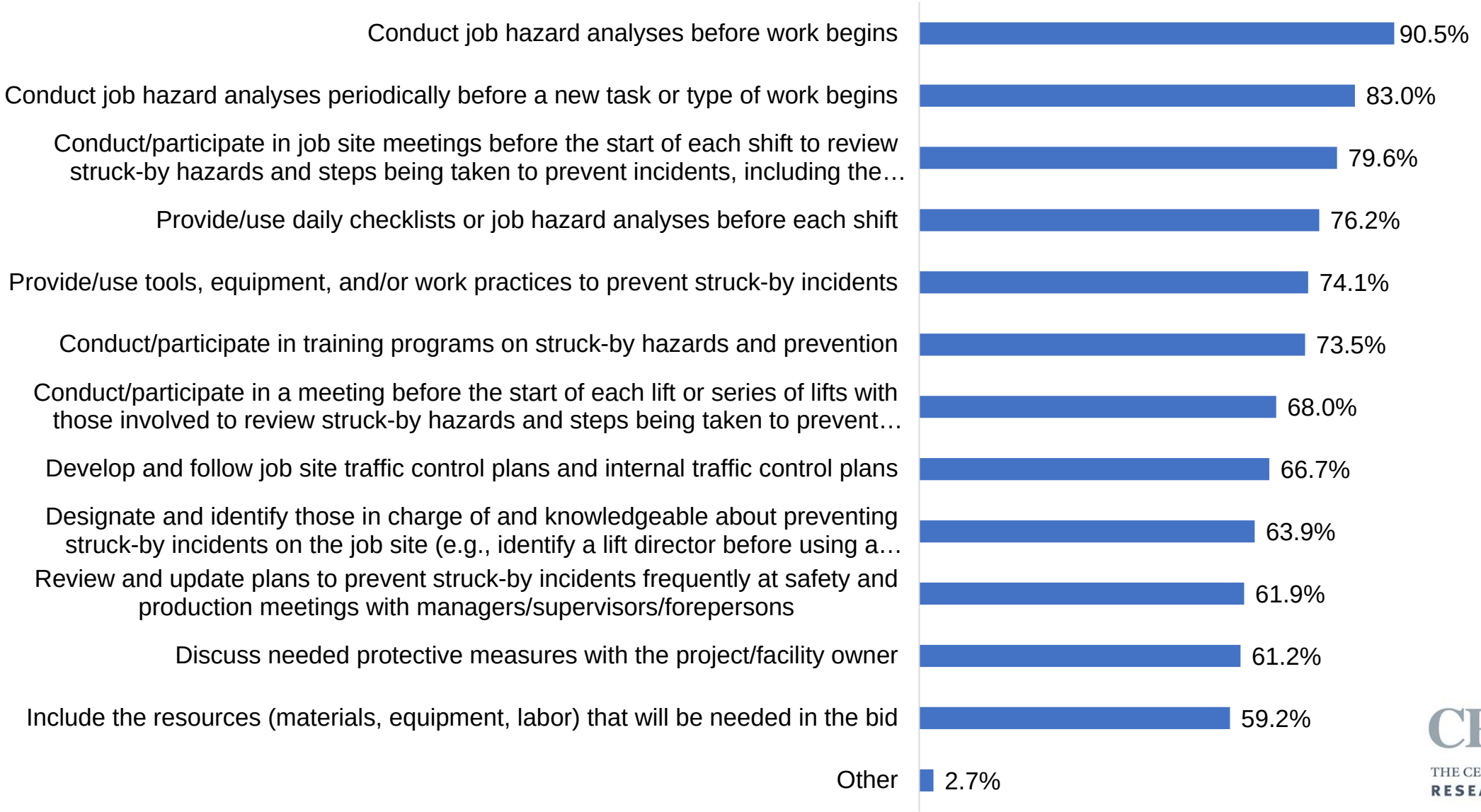
Planning Activities

How do you/does your company plan to prevent struck-by incidents on job sites? (Select all that apply) (N = 147)



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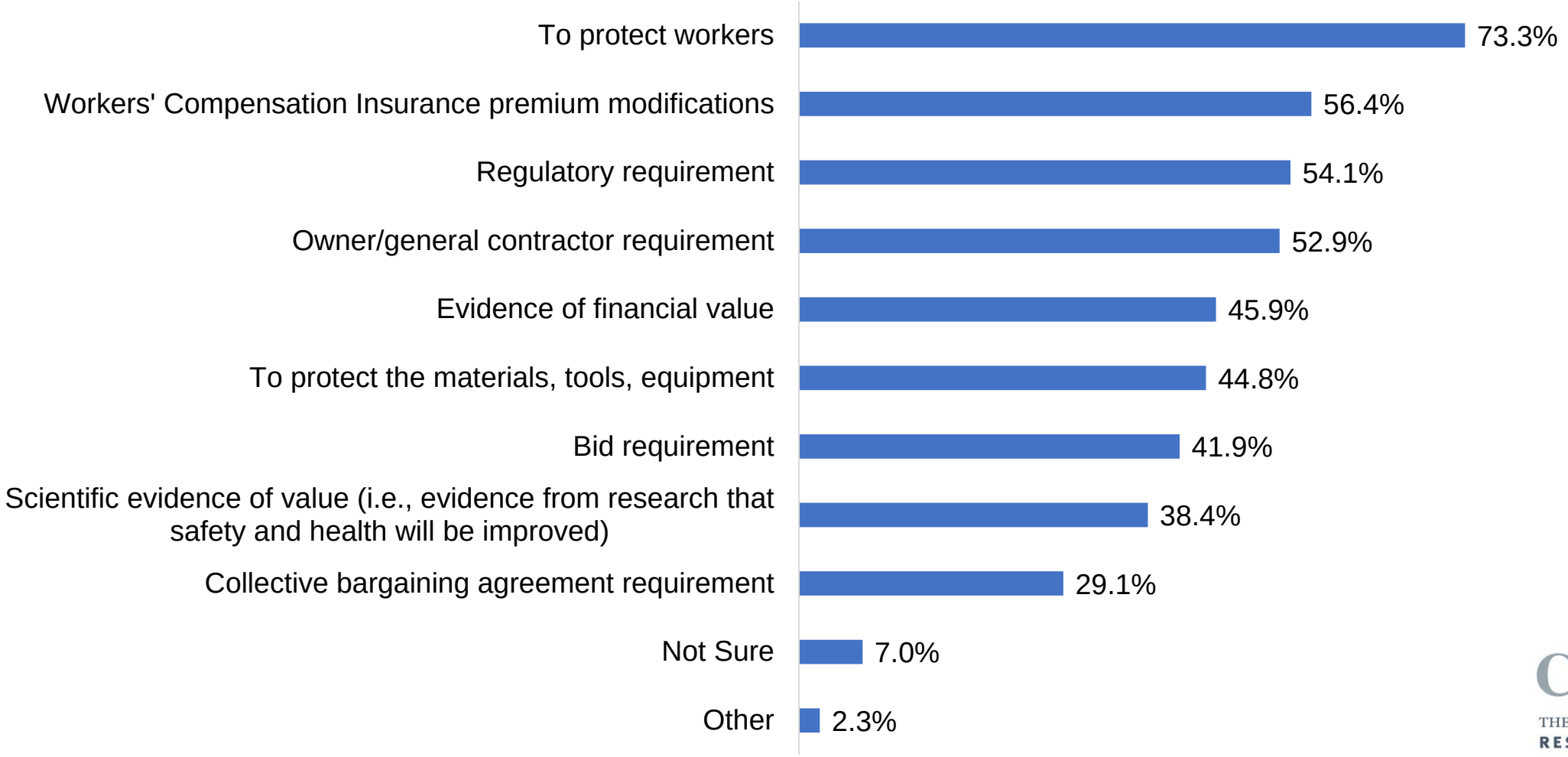
Motivators to Plan

What motivates or would motivate you/your company to plan ahead to prevent struck-by incidents on job sites (Select all that apply)? (N = 172)



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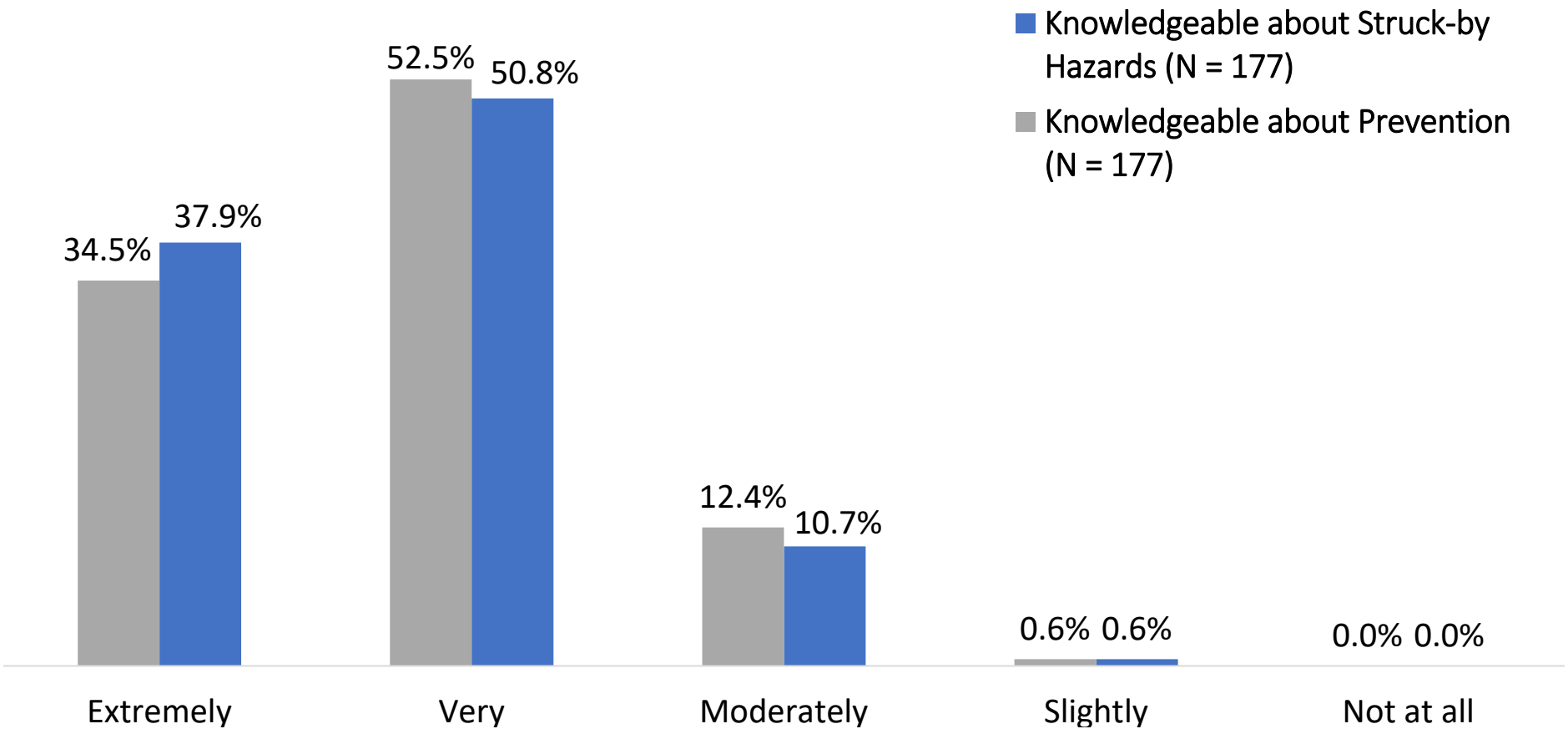
Knowledge of Struck-by Hazards and Ways to Prevent Incidents



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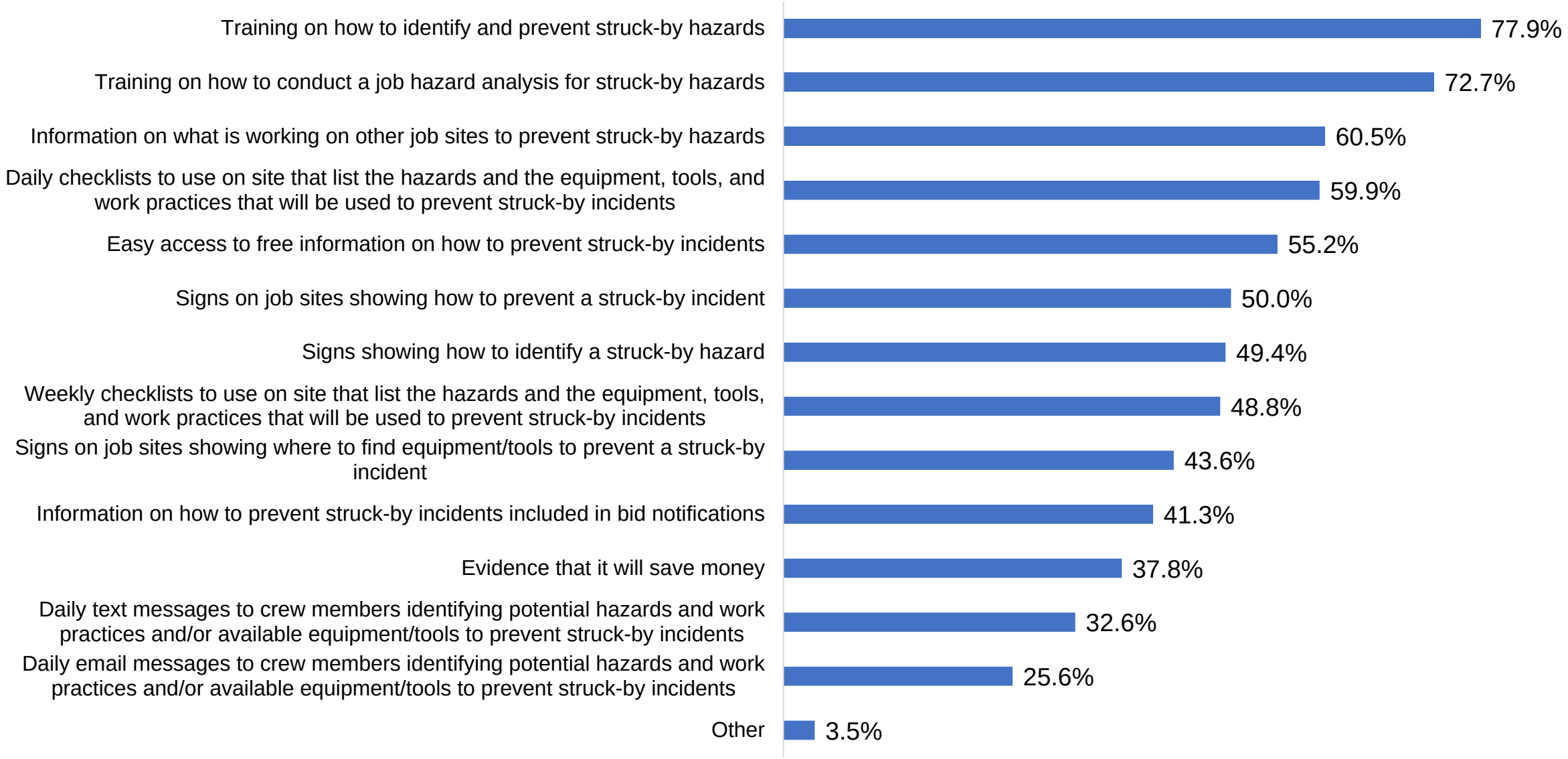
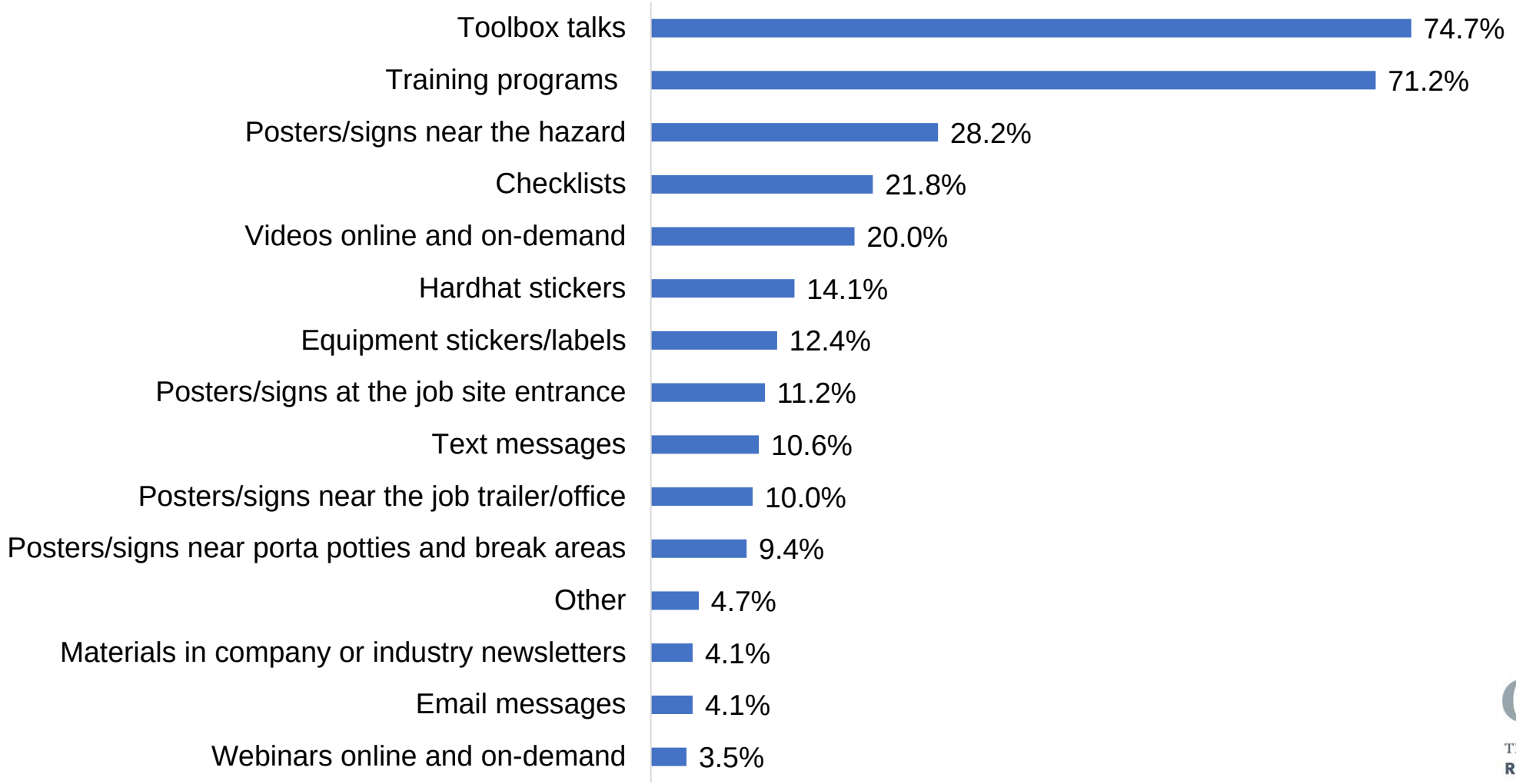
Identifying Help Needed

Which of the following would help you/your company prevent struck-by incidents? (Select all that apply) (N = 172)



Ways to Raise Awareness

What are the best ways to raise awareness of struck-by hazards and ensure safe practices are used on job sites? (Select three) (N = 170)



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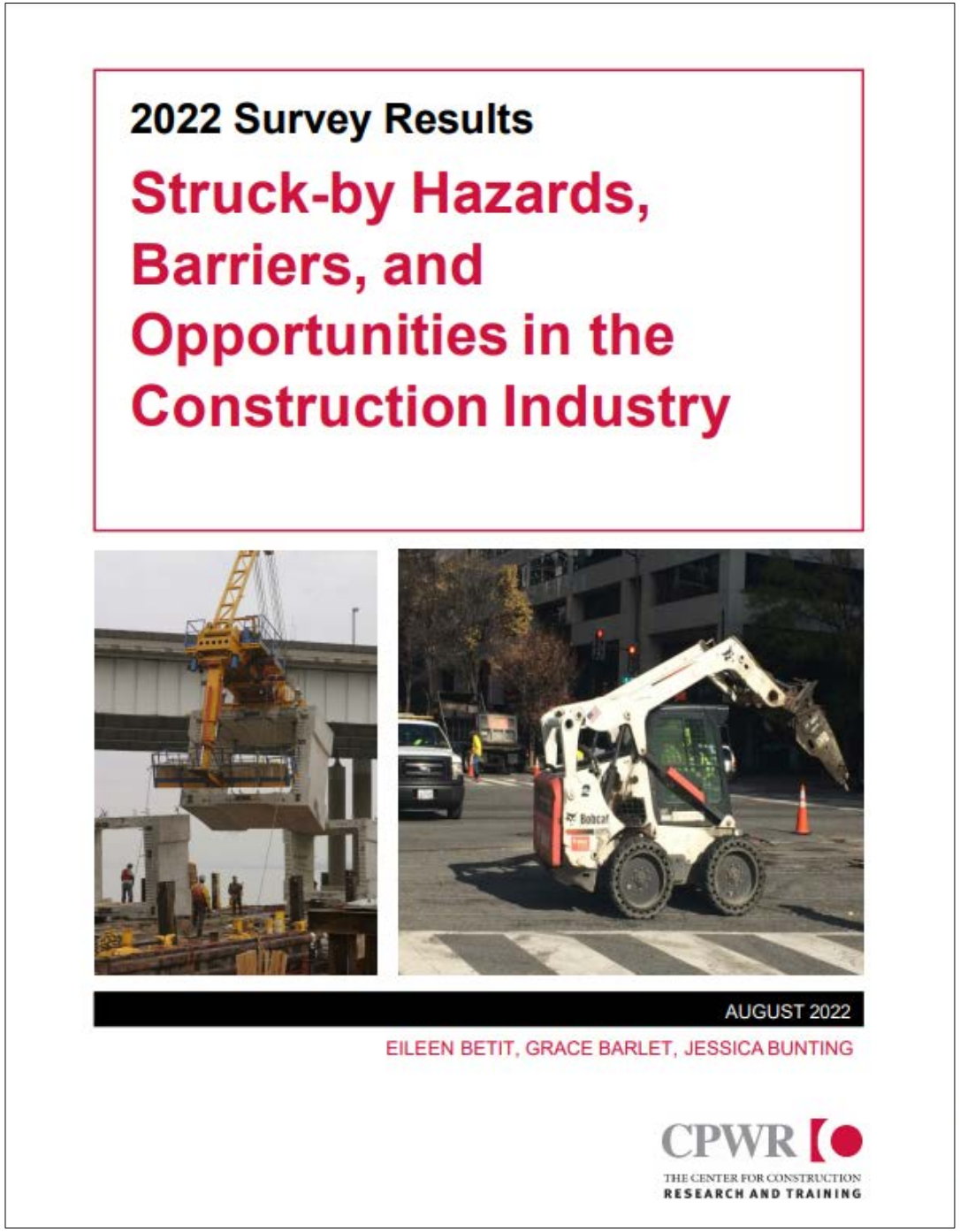
Struck-by Hazards, Barriers, and Opportunities in the Construction Industry



Pilot Planning Program

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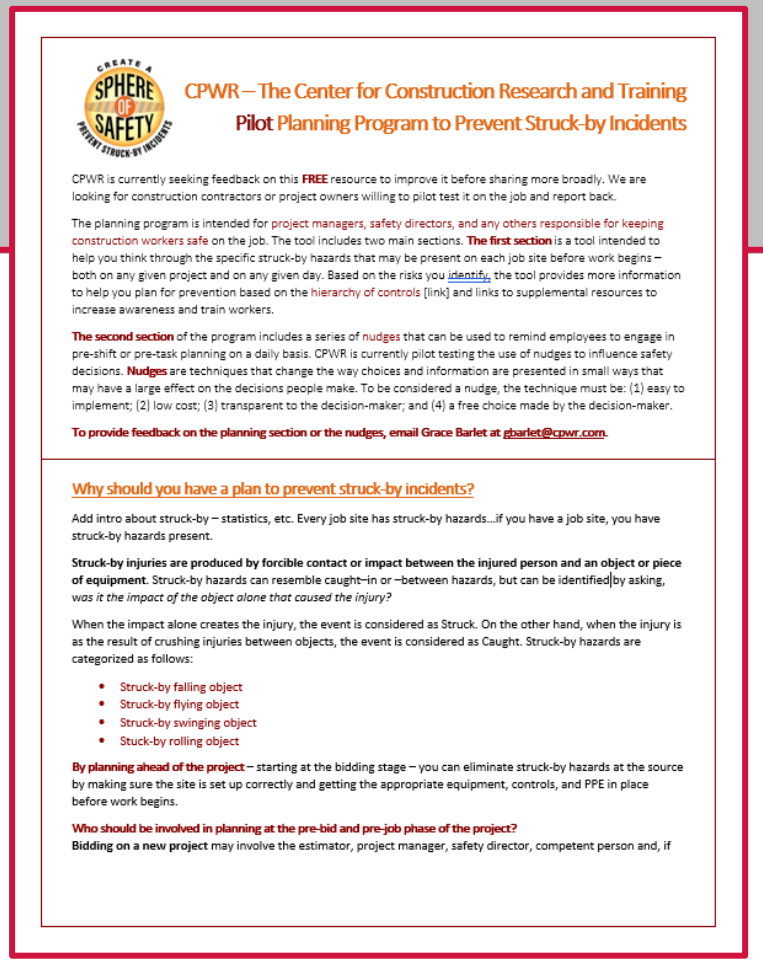

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Pilot Planning Program to Prevent Struck-by Incidents

CPWR is currently seeking feedback on this **FREE** resource to improve it before sharing more broadly. We are looking for construction contractors or project owners willing to pilot test it on the job and report back.

The planning program is intended for project managers, safety directors, and any others responsible for keeping construction workers safe on the job. The tool includes two main sections. **The first section** is a tool intended to help you think through the specific struck-by hazards that may be present on each job site before work begins – both on any given project and on any given day. Based on the risks you identify, the tool provides more information to help you plan for prevention based on the hierarchy of controls [link] and links to supplemental resources to increase awareness and train workers.

The second section of the program includes a series of nudges that can be used to remind employees to engage in pre-shift or pre-task planning on a daily basis. CPWR is currently pilot testing the use of nudges to influence safety decisions. **Nudges** are techniques that change the way choices and information are presented in small ways that may have a large effect on the decisions people make. To be considered a nudge, the technique must be: (1) easy to implement; (2) low cost; (3) transparent to the decision-maker; and (4) a free choice made by the decision-maker.

To provide feedback on the planning section or the nudges, email Grace Barlet at gbarlet@cpwr.com.

Why should you have a plan to prevent struck-by incidents?

Add intro about struck-by – statistics, etc. Every job site has struck-by hazards…if you have a job site, you have struck-by hazards present.

Struck-by injuries are produced by forcible contact or impact between the injured person and an object or piece of equipment. Struck-by hazards can resemble caught–in or –between hazards, but can be identified by asking, *was it the impact of the object alone that caused the injury?*

When the impact alone creates the injury, the event is considered as Struck. On the other hand, when the injury is as the result of crushing injuries between objects, the event is considered as Caught. Struck-by hazards are categorized as follows:

- Struck-by falling object
- Struck-by flying object
- Struck-by swinging object
- Stuck-by rolling object

By planning ahead of the project – starting at the bidding stage – you can eliminate struck-by hazards at the source by making sure the site is set up correctly and getting the appropriate equipment, controls, and PPE in place before work begins.

Who should be involved in planning at the pre-bid and pre-job phase of the project?
Bidding on a new project may involve the estimator, project manager, safety director, competent person and, if

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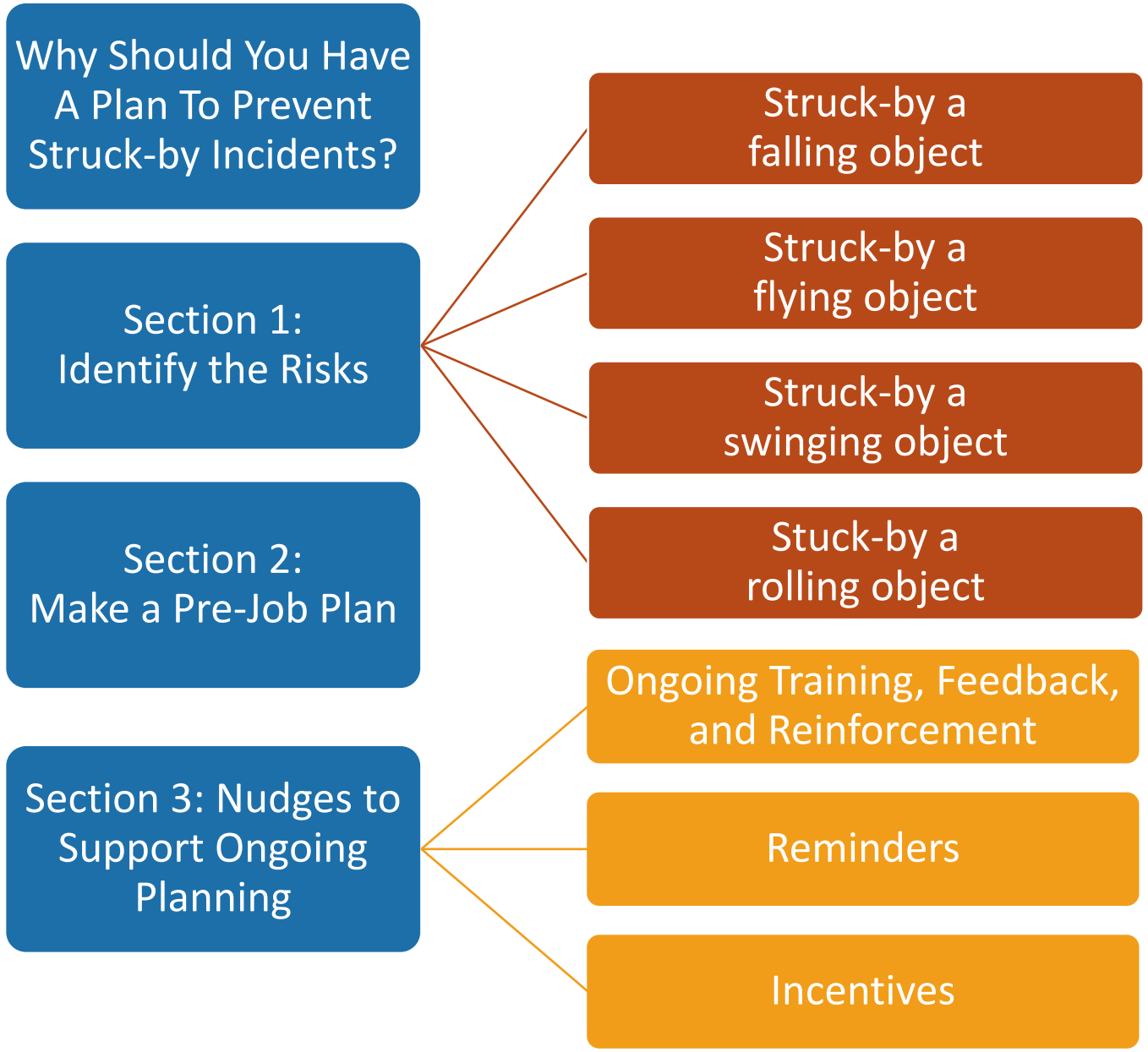
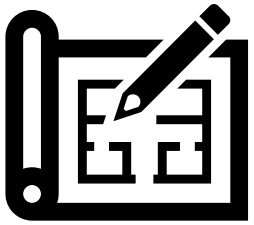
Pilot Planning Program Overview



Why Have A Plan To Prevent Struck-by Incidents?



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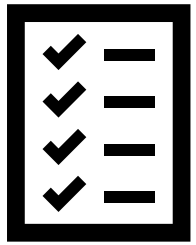

By planning daily once work begins – before each shift and before engaging in tasks that present struck-by hazards – you can keep all employees engaged and aware of hazards, solutions, and workplace safety policies.

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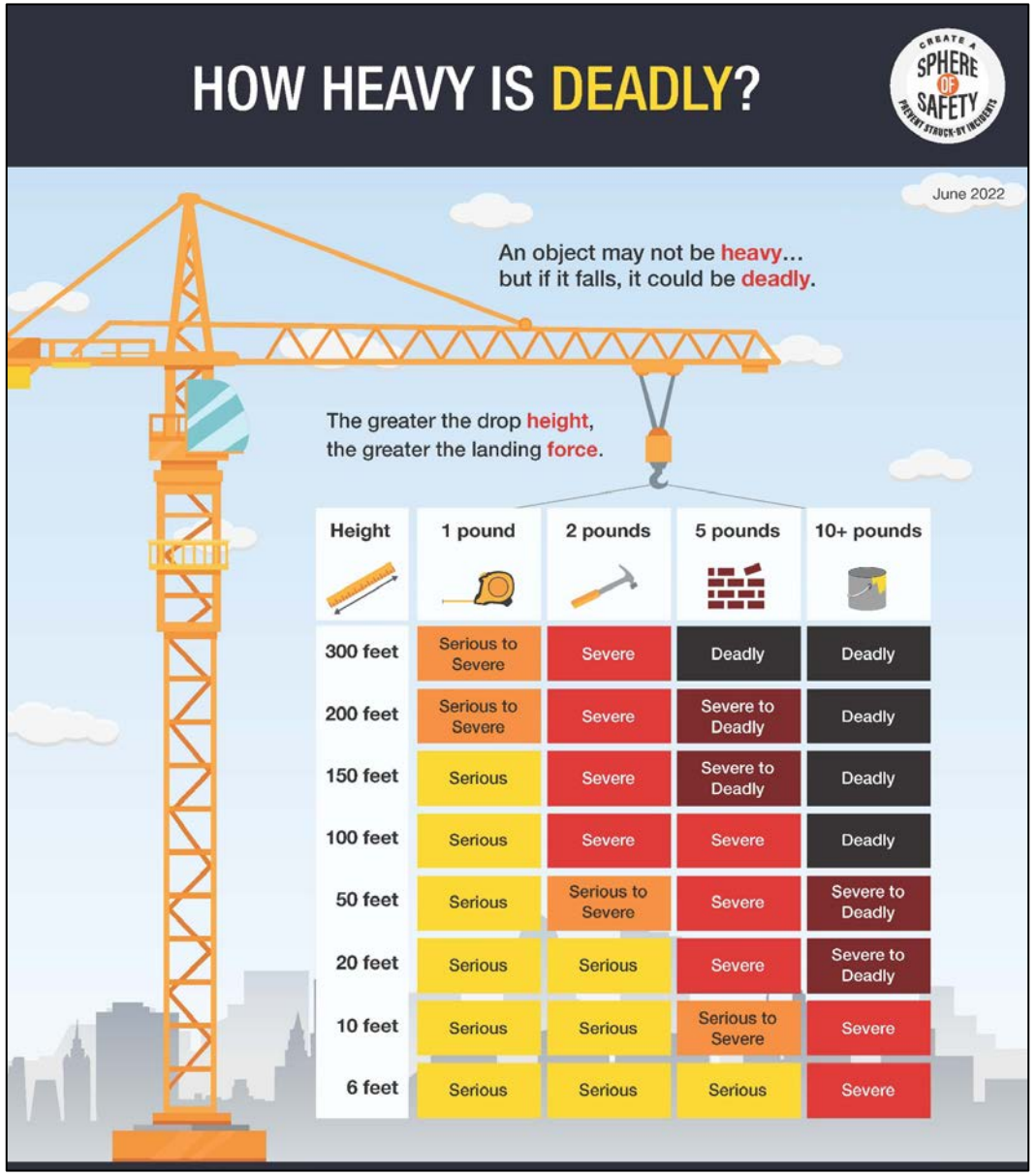
Section 1: Identify the Risks



Source: https://www.cpwr.com/wp-content/uploads/How-Heavy-is-Deadly.pdf

Section 1: Identify the Risks > Falling Objects

Struck-by falling object hazards are present when something could fall from an elevation to a lower level, potentially striking, crushing, or pinning a person.

Will there be work at heights?
If workers on ladders, scaffolds, aerial lifts, roofs, decking, etc. are conducting work above while others are working, resting, or walking below, there is a risk for struck-by incidents. Tools, equipment, or materials could be dropped, knocked, or blown by wind, ultimately striking another worker or bystander.
If yes, click here for more information on planning and solutions.

Will materials be transported by truck, crane, or other moving equipment?
If the load is not secured properly, materials can fall from a truck bed or off a crane hook, striking workers behind or below.
If yes, click here for more information on planning and solutions.

Are there materials or tools heavy enough to injure someone when dropped on the same level?
Tools or materials dropped by an individual could cause injury to themselves or coworkers nearby.
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More Information Example > Work at Heights: Falling Objects

Work at Heights: Falling Object Struck-by Hazards

Objects that fall from heights include tools, equipment, materials, and debris. Workers can be injured or killed by a falling or dropped object.

Protect workers by:

- Securing tools and materials to prevent them from falling. Small tools (less than 5lbs) can be tethered to the worker.
- Use measures such as toeboards, screens, guardrails, debris nets, catch platforms, or canopies to prevent, catch, or deflect falling objects.
- Barricade hazard areas and post warning signs.
- Require use of helmets or hardhats and routinely inspect them for damage.
- Inspect all tools and equipment before use. Hand tools with loose or cracked handles should not be used.
- Keep materials away from floor openings or leading edges.
- Train workers on hazards and ways to prevent an incident.

Planning Resources

- Job Hazard Analysis
- Building Information Modeling (BIM) for Safety Planning
- Using Debris Nets
- Using Tool Lanyards, Connection and Anchorage Points
- CPWR's Head Protection Webpage
- OSHA Competent Person Resources

Training Resources

- Toolbox Talks:
  - Preventing Falling Objects
  - Challenges Preventing Falling Objects
  - Solutions for Falling Objects and Dropped Tools
  - Equipment: Falling Objects (English, Spanish)
  - Head Protection (English, Spanish)
- Posters/Infographics:
  - Stop the Drop (English PDF & JPEG)
  - How Heavy is Deadly? (English PDF & JPEG)
  - Head Protection (English PDF & JPEG)
  - In 1 Strike You Could Be Out (English PDF & JPEG)

Relevant Standards

- OSHA Standard 29 CFR - https://www.osha.gov/laws-regs/regulations/standardnumber/1926
  - 1926 Subpart C - General Safety and Health Provisions
    - 1926.20 - General safety and health provisions.
    - 1926.21 - Safety training and education.
    - 1926.22 - Recording and reporting of injuries.
    - 1926.23 - First aid and medical attention.
    - 1926.25 - Housekeeping.
    - 1926.28 - Personal protective equipment.
    - 1926.29 - Acceptable certifications.
  - 1926 Subpart E - Personal Protective and Life Saving Equipment
    - 1926.95 - Criteria for personal protective equipment.
    - 1926.96 - Occupational foot protection.
    - 1926.100 - Head protection.
    - 1926.102 - Eye and face protection.
    - 1926.104 - Safety belts, lifelines, and lanyards.
    - 1926.105 - Safety nets.
    - 1926.107 - Definitions applicable to this subpart.
  - 1926 Subpart G - Signs, Signals, and Barricades
    - 1926.200 - Accident prevention signs and tags.
    - 1926.201 - Signaling.
  - 1926 Subpart H - Materials Handling, Storage, Use, and Disposal
    - 1926.250 - General requirements for storage.
    - 1926.251 - Rigging equipment for material handling.
    - 1926.252 - Disposal of waste materials.
  - 1926 Subpart R Steel Erection - 1926.759 - Falling object protection.
  - 1926 Subpart N - Helicopters, Hoists, Elevators, and Conveyors
    - 1926.551 - Helicopters.
    - 1926.552 - Material hoists, personnel hoists, and elevators.
    - 1926.554 - Overhead hoists.
    - 1926.555 - Conveyors.
  - 1926 Subpart T - Demolition
    - 1926.850 - Preparatory operations.
    - 1926.852 - Chutes.
    - 1926.853 - Removal of materials through floor openings.
    - 1926.854 - Removal of walls, masonry sections, and chimneys.
    - 1926.855 - Manual removal of floors.
    - 1926.856 - Removal of walls, floors, and material with equipment.
    - 1926.857 - Storage.
    - 1926.858 - Removal of steel construction.
    - 1926.859 - Mechanical demolition.
    - 1926.860 - Selective demolition by explosives.
  - 1926 Subpart Q - Concrete and Masonry Construction
    - 1926.701 - General requirements
    - 1926.705 - Requirements for lift-slab construction operations.
    - 1926.702 - Requirements for equipment and tools.
    - 1926.703 - Requirements for cast-in-place Concrete.
    - 1926.703 App - General Requirements for Formwork
    - 1926.704 - Requirements for precast concrete.
  - 1926 Subpart W - Rollover Protective Structures; Overhead Protection - 1926.1003 - Overhead protection for operators of agricultural and industrial tractors used in construction.
  - 1926 Subpart CC - Cranes and Derricks in Construction
    - 1926.1424 - Work area control.
    - 1926.1425 - Keeping clear of the load.
    - 1926.1426 - Free fall and controlled load lowering.
    - 1926.1427 - Operator training, certification, and evaluation.
    - 1926.1428 - Signal person qualifications.
    - 1926.1429 - Qualifications of maintenance & repair employees.
    - 1926.1430 - Training.
    - 1926.1431 - Hoisting personnel.
    - 1926.1441 - Equipment with a rated hoisting/ lifting capacity of 2,000 pounds or less.
- Head protection:
  - The U.S. Occupational Safety and Health Administration (OSHA) 1926 Subpart E, Personal Protective and Life Saving Equipment, Head Protection
  - American National Standards Institute (ANSI) Z89.1-2009, Z89.1-2003, and Z89.1-2003
  - ANSI/International Safety Equipment Association z89.1-2014

Nudges to Improve Planning

- Job site Posters
- Text Message Reminders

- **Tips to Protect Workers**
- **Planning Resources**
- **Training Resources**
- **Relevant Standards**
- **Nudges to Improve Planning**

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Section 1: Identify the Risks > Flying Objects

Struck-by flying object incidents occur when something has been thrown, hurled, or is being propelled across space.

Will workers use pneumatic or power-actuated tools like nail guns?

Tools or equipment that eject an object through the use of power or compressed air automatically create flying object struck-by hazards. Power-actuated fasteners are designed to go through wood, concrete, and steel, and can easily go through a person. Using compressed air to clear out a pipeline could eject something with enough force to injure or kill others in the area if it is not secured properly.

If yes, click here for more information on planning and solutions.

Might there be unsecured materials that could be pushed, kicked, or blown by wind with enough force to cause a collision injury?

If a strong wind picks up a piece of plywood or blows over an extension ladder, worker nearby could be struck. If a worker is throwing materials during clean-up without proper planning and communication, another person could be struck.

If yes, click here for more information on planning and solutions.

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Section 1: Identify the Risks > Rolling Objects

Struck-by rolling object incidents occur when an object which is rolling, moving, or sliding on the same level at which the worker is located. These include instances in which the worker is struck or run over by a moving vehicle without being caught under it or instances in which the worker is struck-by a sliding object or equipment on the same level.

Will there be heavy equipment or work vehicles in use?

Drivers and equipment operators can unintentionally create struck-by hazards just by moving through the job site as they are told, so work zone traffic planning and communication between different crews is critical.

If yes, click here for more information on planning and solutions.

Will there be delivery trucks coming onto the job site?

It's important that drivers who are not regularly on site have a clear understanding of where to drive to avoid the possibility of striking anyone, and that those on site also know how to avoid crossing the path of those vehicles.

If yes, click here for more information on planning and solutions.

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Section 1: Identify the Risks > Rolling Objects

Will employees be driving/parking personal vehicles on or near the site?

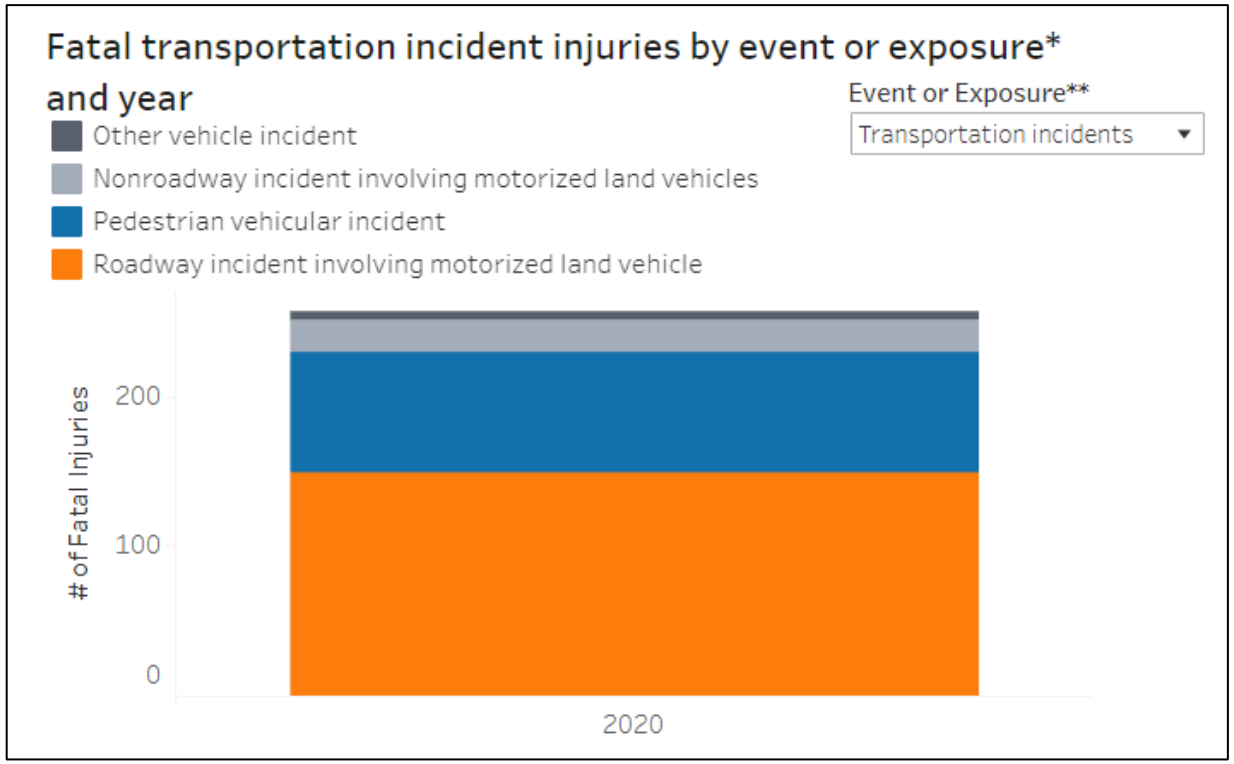
When employees are driving to and from work, parking on or near the site, and walking to and from their vehicles – especially in large numbers and for overlapping shifts – there are struck-by hazards present.

If yes, click here for more information on planning and solutions.

Will there be road or other work that exposes workers to non-construction motor vehicles?

In 2020 alone, there were 257 fatal transportation incidents in construction. We cannot rely on drivers to keep workers safe from vehicles driving, falling, or overturning into the site.

If yes, click here for more information on planning and solutions.



Section 1: Identify the Risks > Swinging Objects

Struck-by swinging object incidents occur when objects which are attached at a point or are being held by the worker, strike an individual. This includes instances where a hinge-like motion retracts creating a swinging or slamming motion.

Will cranes be used to lift and move materials?

When materials are mechanically lifted, they have the potential to swing and strike workers. As the load is lifted, the materials may swing, twist or turn. This movement can catch workers by surprise, and they could be hit by the swinging load. *Windy conditions are especially hazardous because the load will swing more.*

If yes, click here for more information on planning and solutions.

Will there be other workers in the vicinity of the crane?

Depending on where the worker is standing and the force behind the load, the worker may fall to another level after being struck and sustain even greater injuries. In addition to swinging, loads can slip from their riggings and strike workers. Loads must be rigged properly to prevent slippage.

If yes, click here for more information on planning and solutions.

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Section 2: Make a Pre-Job Plan

Section 2: Make a Pre-Job Plan > Falling Objects

For any questions you responded yes to in section 1, it is important to plan out the prevention and protection solutions you intend to use. Solutions include everything from employee training to traffic planning to the use of specific equipment and PPE. Consider the hierarchy of controls and refer to the supplemental resources available in Section 1 for assistance in determining the best and most complete range of solutions for each hazard.

How will you address falling object hazards from work at heights?

Section 2: Make a Pre-Job Plan > Falling Objects

For any questions you responded yes to in section 1, it is important to plan out the prevention and protection solutions you intend to use. Solutions include everything from employee training to traffic planning to the use of specific equipment and PPE. Consider the hierarchy of controls and refer to the supplemental resources available in Section 1 for assistance in determining the best and most complete range of solutions for each hazard.

How will you address falling object hazards from work at heights?

Equipment needed: Install guardrails and debris nets; use tool tethers. Require helmets w/ chin straps. Barricades for hazardous areas.

Admin practices: Limit work below – stagger schedules, meet with subs to map out worksite. Regular pre-shift meetings before going up.

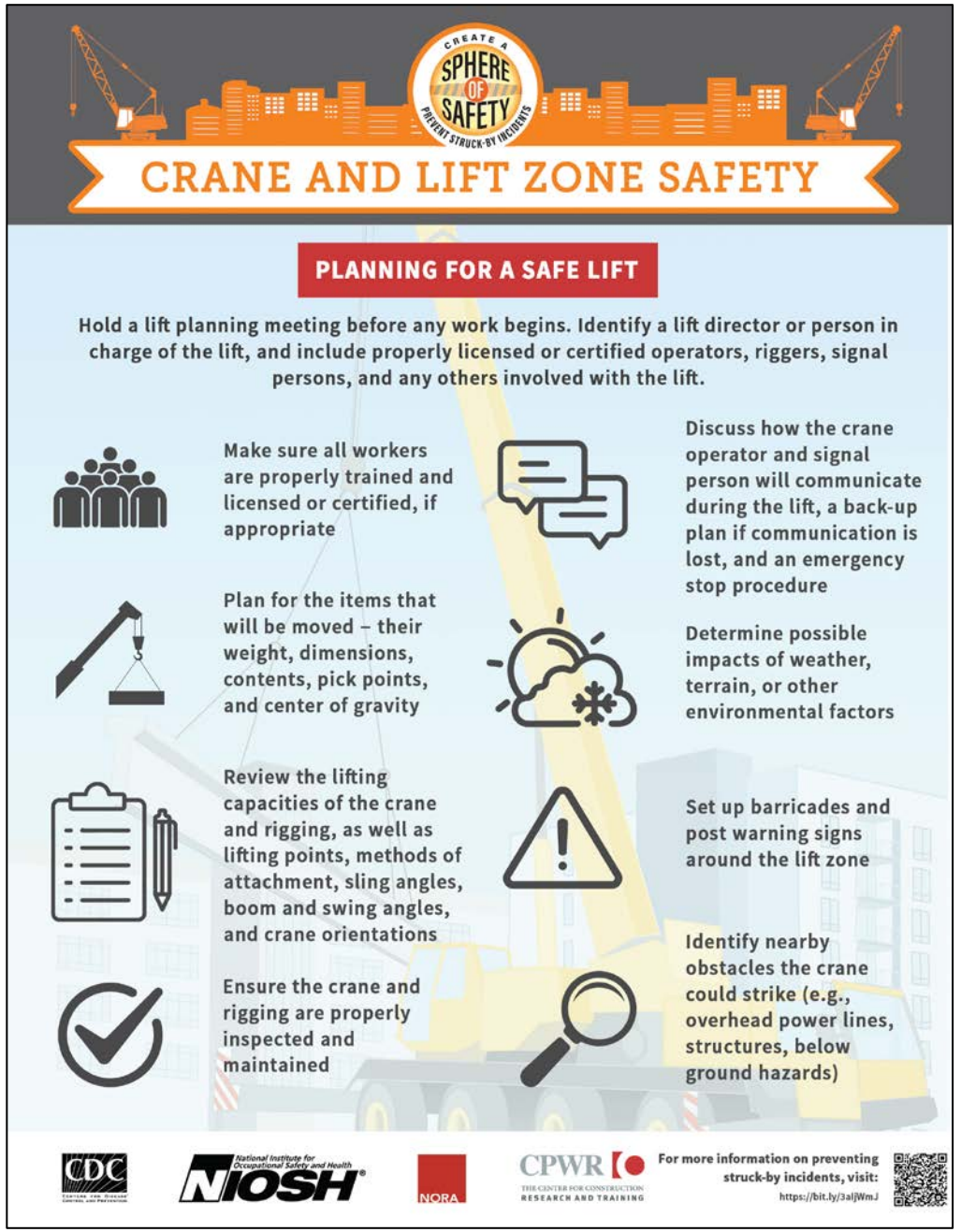
Worker training: include at orientation + reinforcement toolbox talks focused on struck-by 2x week

Section 2: Make a Pre-Job Plan > Falling Objects

How will you prevent materials or other objects from falling during transport by truck, crane, or other moving equipment?

How will you prevent heavy materials or tools from being dropped on the same level?

Section 3: Nudges



Section 3: Nudges to Support Ongoing Planning

Ongoing Training, Feedback and Reinforcement

I. Active Training and Reinforcement – incorporate discussions of the importance of planning and instruction on when and how to properly plan in morning meetings and other reinforcement training opportunities. Lead by example and establish the cultural norm that planning is a priority by actively engaging in planning with the crew.
II. Passive Training and Reinforcement – hang job site posters with reminders on how to properly plan for and conduct safe lifts, transports, work at heights, etc.

Reminders

Reminders are one of the easiest and most effective nudges for supporting safer decision-making in construction. These nudges are low cost, easy to use, and can improve safety decisions and related practices for workers and supervisors. Reminders have been created to use at your job site to support pre-shift or pre-task planning on a daily basis.

I. Text Message Reminders
II. Email Reminders
III. Stickers

Incentives

Consider providing incentives or rewards for engaging in daily planning. This offers opportunities for employee recognition, reinforcement of company priorities, and providing feedback.

How to Participate in the Pilot

Who should participate?

- General or Specialty Contractors of any size and any geographic location
- Interested in testing any part of the program on the job
- Willing to participate in multiple meetings with the research team virtually and/or on-site to discuss logistics and provide feedback
- Willing to participate in 2-3 project-related surveys and to administer surveys to workers

Contact Grace Barlet at gbarlet@cpwr.com to schedule an initial Zoom meeting with the project team.

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2023 Struck-by Stand-Down

https://cpwr.com/struck-by-hazards

Struck-By Hazards

Struck-by incidents are a leading cause of death among construction workers,[1] and since 1992 the leading cause of nonfatal injuries in the construction industry.[2] According to OSHA, the four most common struck-by hazards are being struck-by a flying, falling, swinging, or rolling object. The NORA Construction Sector Council is undertaking a number of initiatives to increase awareness of struck-by hazards and ways to prevent them, including developing this online resource and launching a National Stand-Down to Prevent Struck-by Incidents.

The 4th annual National Stand-Down to Prevent Struck-by Incidents will take place April 17-21, 2023 in coordination with National Work Zone Awareness Week. Events will be announced as we get closer. Webinars from previous Stand-Downs are available below:

- ***Preventing Struck-by Incidents in Roadway Work Zones:*** Play Recording; PDF of Slides
- ***Prevención de Incidentes por Atropellos: Zonas de Trabajo, Equipos Pesados e Impacto de Objetos:*** ver video; descargar presentación
- ***What's the risk? Best Practices to reduce the likelihood of struck-by injuries from heavy equipment and crane activities:*** Play Recording; PDF of Slides
- ***Preventing Struck-by Incidents from Dropped Tools & Other Objects:*** Play Recording; PDF of Slides
- ***Cranes & Lifting – Avoiding Struck-By Incidents Under the Hook:*** Play Recording; PDF of Slides
- ***Preventing Struck-By Incidents: Learning by Experience:*** Play Recording; PDF of Slides

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The following are materials developed by CPWR, NIOSH, and the NORA Construction Sector Council to use in support of this initiative.

Preventing Struck-by Incidents Infographic (English PDF & JPEG)

Dropped Objects

- **Toolbox Talks:**
  - Preventing Falling Objects
  - Challenges Preventing Falling Objects
  - Solutions for Falling Objects and Dropped Tools
- **Infographics:**
  - Stop the Drop (English PDF & JPEG)
  - How Heavy is Deadly? (English PDF & JPEG)

Work Zone Safety Resources

- **Toolbox Talks:**
  - Work Zone Safety: Vehicle Operators (English, Spanish)
  - Work Zone Safety: Working Around Vehicles (English, Spanish)

Resources to Prevent Head Injuries

Preventing Head Injuries Webpage

- http://cpwr.com/research/preventing-head-injuries

CPWR Resources

- Head Protection: Preventing Head Injuries (15-minute Awareness Program recording)*
- Hazard Alert: Preventing Head Injuries (English, Spanish)
- Toolbox Talk: Head Protection (English, Spanish)
- Infographic: Protect Your Head

***We want your feedback.** Once you've viewed this awareness program, please take this 5-minute **anonymous** survey to help us understand what viewers take away from the presentation, the value of this approach for raising awareness of hazards and prevention methods, and how to improve this program.

Click here to complete the survey: Preventing Head Injuries Awareness Program Feedback

Resources to Prevent Head Injuries

NIOSH Science Blog: Construction Helmets and Work-related Traumatic Brain Injury

Traumatic brain injury (TBI) is a disruption in the normal function of the brain that can be caused by a bump, blow, or jolt to the head, or penetrating head injury. TBIs are a global public health problem and is a leading cause of injury-related death and disability [1]. While TBIs can be mild, some Read More >

Posted on November 10, 2022 by Douglas Trout, MD, MHS; G. Scott Earnest, PhD, PE, CSP; Christopher Pan, PhD, CPE; and John Z. Wu, PhD

Experimental manikin with helmet. Photo from NIOSH.

Struck-by Hazards, Barriers, and Opportunities in the Construction Industry

December 1, 2022

Moderator: G. Scott Earnest, PhD, PE, CSP, Director for Construction, Office of Construction Safety and Health, NIOSH

Panelists:

Jessica Bunting, MPH, Director, Research to Practice (r2p), CPWR

Grace Barlet, MPH, Research Analyst, Research to Practice (r2p), CPWR

THANK YOU!

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