



اوتوريٽي ڪيٽيگري ڪملا مٿن
ڪمپيٽن. دان عالم سڪيٽر

Safety, Health and Environment
National Authority

WORK AT HEIGHT: ENFORCING SAFETY, EMPOWERING INDUSTRY

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INTRODUCTION



ILO's theme for World Day for Safety and Health at Work in 2025
Revolutionizing Health and Safety: The Role of AI and Digitalization at Work.



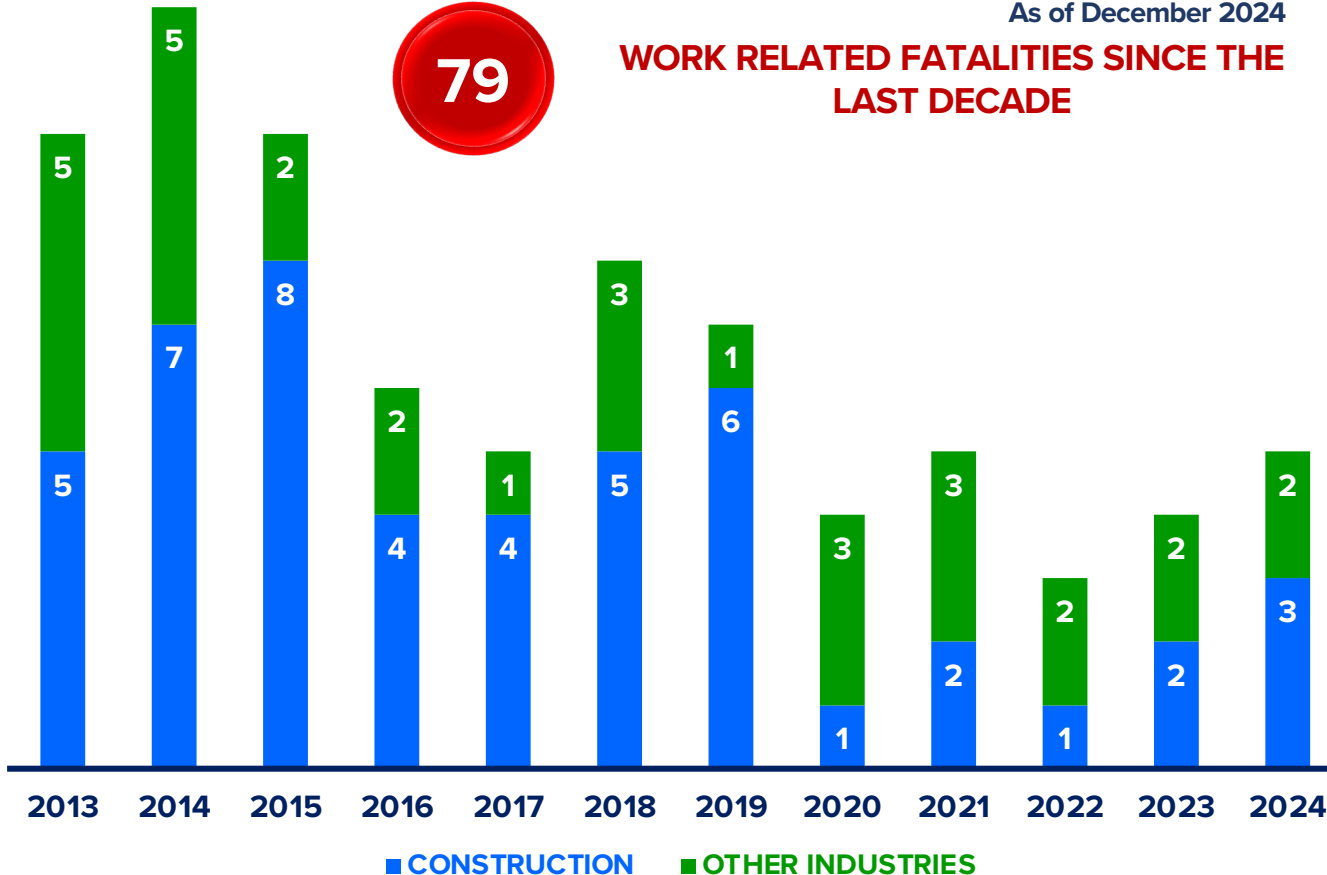
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WORK RELATED FATALITIES

79

As of December 2024

WORK RELATED FATALITIES SINCE THE
LAST DECADE

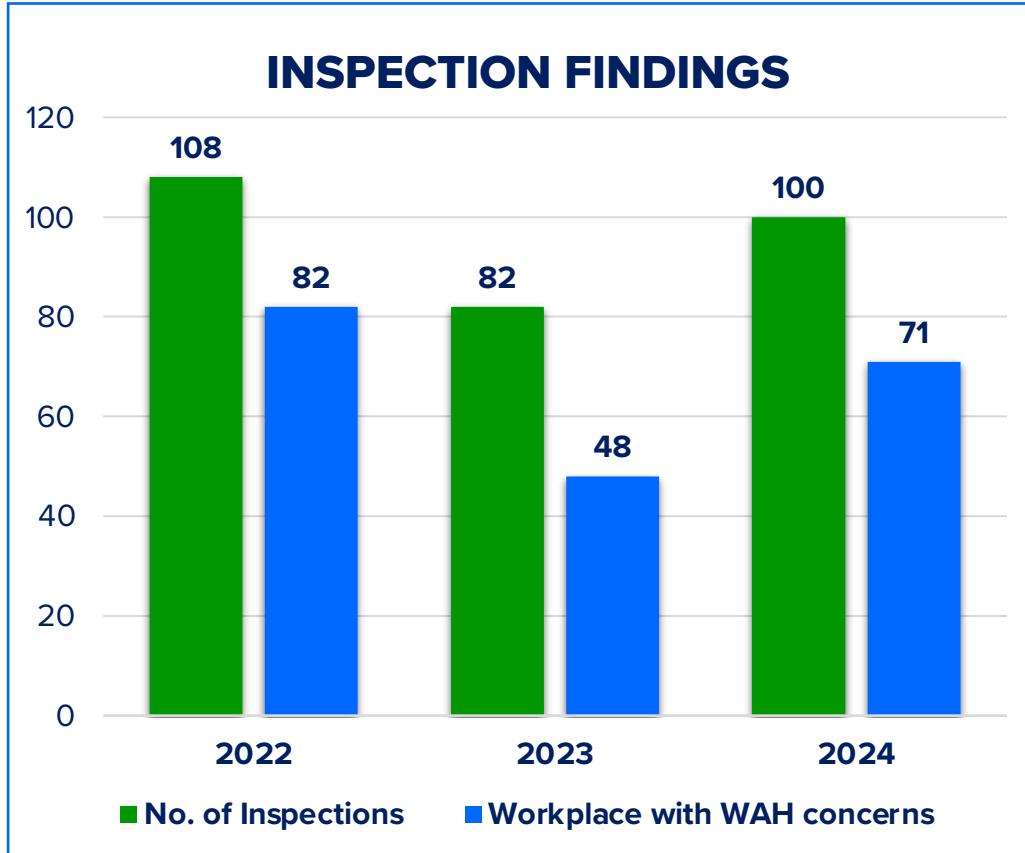


YEAR	CAUSE OF FATALITY
2024	<u>Fall from height:</u> 1) <u>While unloading goods from failed cargo lift</u> 2) <u>Fell from a ladder through open window & to ground floor</u> 3) <u>Fell from roof approximately 19 feet to the ground</u> 4) <u>Fell From height during roof installation activity</u> Presumed electrocution incident
2023	<u>Fall from height</u> , tree felling, hit by vehicle
2022	Crushed by vehicle, tree felling, electrocution / <u>fall from height</u>
2021	<u>Fall from height</u> , hit by falling object, hit by vehicle
2020	Grass cutting, hit by object, left failure, electrocution
2019	<u>Fall from height</u> , struck by object, crushed by object, electrocution
2018	<u>Fall from height</u> , struck by objects, boat collision, electrocution
2017	<u>Fall from height</u> , struck by falling objects, drowning, fire
2016	<u>Fall from height</u> , hit / crushed by machine, electrocution, drowning
2015	<u>Fall from height</u> , hit by objects, landslide
2014	<u>Fall from height</u> , inhalation of smoke, fire
2013	<u>Fall from height</u> , hit/crushed by machine or objects, electrocution



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NATIONAL STATISTICS INSPECTIONS



Bar graph showing the yearly inspections with work at height concerns.

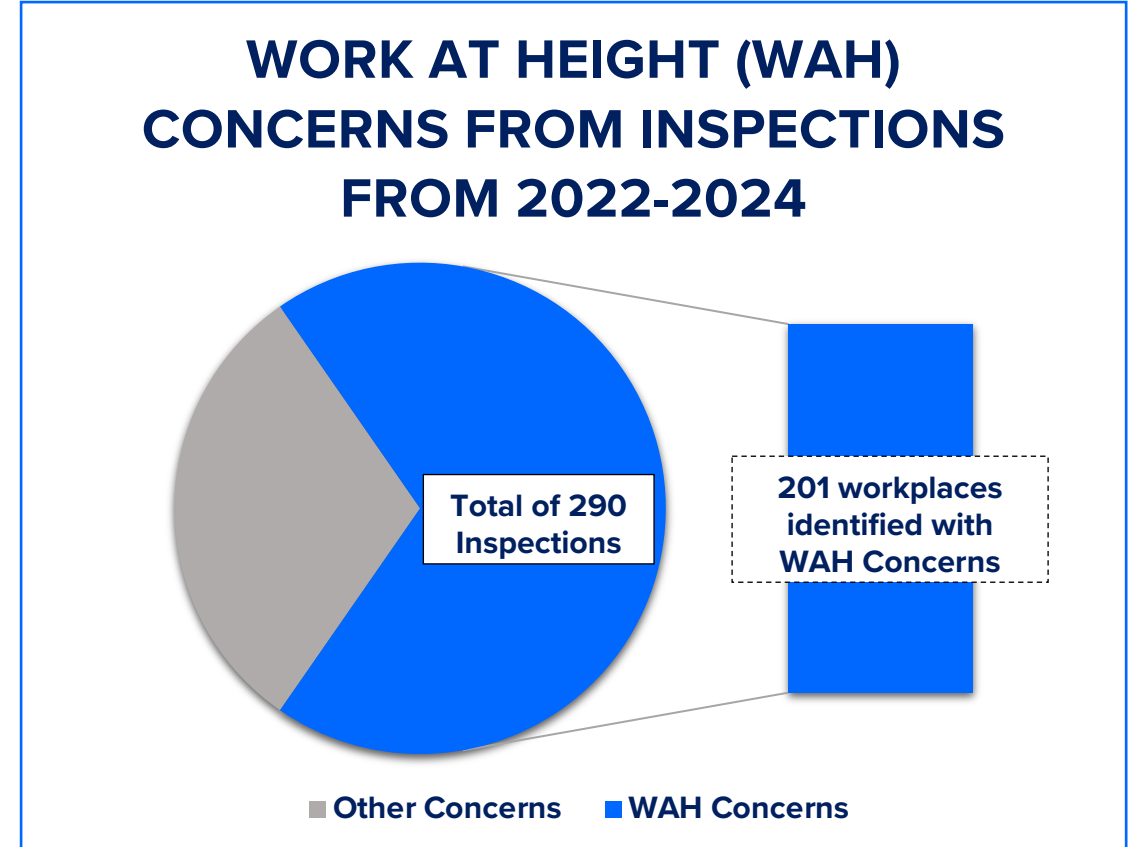
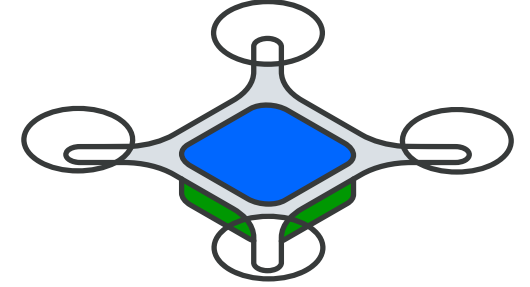
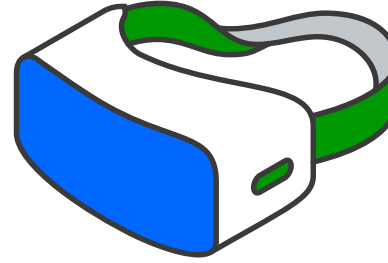
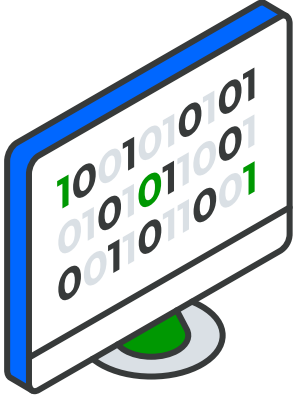


Chart representing the total number of inspections with work at height concerns.

AI AND DIGITAL TOOLS



- Dynamic risk assessments using AI algorithms and machine learning data for data analysis and anomaly detection
- Historical pattern recognition for hazard prediction
- Automated work permit screening

- Fall detection and alerts with smart harnesses
- Monitor of vital signs and fatigue levels
- Environmental sensors on PPE

- Immersive virtual reality training simulations
- Augmented reality for overlaying safety data
- Digital twins for pre-job planning

- Remote visual inspections with drones
- Hazard detection and mapping using AI
- Reducing human exposure to heights



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CONCLUSION

REVOLUTIONIZING WORK AT HEIGHT SAFETY

TECHNOLOGY IS ESSENTIAL
FOR IMPROVING WORK-AT-
HEIGHT SAFETY, FROM AI
RISK ASSESSMENT TO
SMART PPE, VR/AR
TRAINING AND DRONES

DIGITAL TOOLS MUST BE
IMPLEMENTED WITH
FORETHOUGHT, KEEPING
SAFETY CULTURE AND
EMPOWERMENT OF
WORKERS AT THE CENTRE

TECHNOLOGY IS ESSENTIAL
FOR IMPROVING WORK-AT-
HEIGHT SAFETY, FROM AI
RISK ASSESSMENT TO
SMART PPE, VR/AR
TRAINING AND DRONES

FINAL THOUGHT:

WE EMBED TECHNOLOGY INTO A CULTURE OF CARE, RESPONSIBILITY, AND EMPOWERMENT.



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THANK
YOU