

NIOSH protecting workers in

Construction



Photo courtesy of David Fosbroke

Preventing Injuries Related to Motor Vehicles and Equipment

The Challenge:

Workers on roadway construction sites face the risk of death or serious injury from passing motorists, construction vehicles and equipment. From 1992–2000 there were 910 worker fatalities in work zones, and over 90 percent of these deaths involved a motor vehicle, a piece of construction equipment, or both. Workers on foot accounted for more than 500 of these work zone deaths.

Impact:

NIOSH hosted a 3-day workshop that brought together 60 key stakeholders from government agencies, labor unions, and private employers to discuss measures to reduce worker injuries from vehicles and equipment. Researchers analyzed injury data, reviewed scientific literature, and developed “white papers” to focus discussion at the workshop. NIOSH then compiled research results and workshop participant input into a highway work zone safety guide.

To learn more about how we did it and what you can do in your community, please see our resources on the back ➔

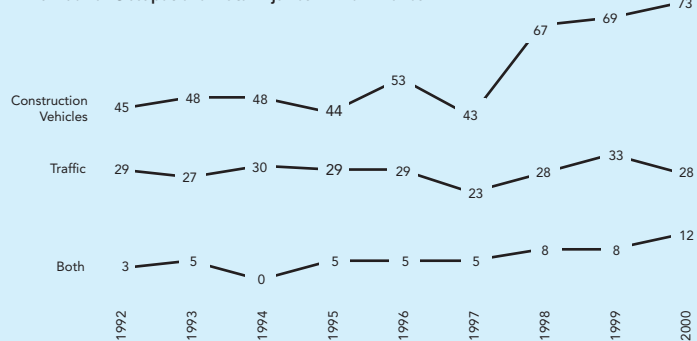
Approach

In 2001, researchers compiled the NIOSH document, *Building Safer Highway Work Zones*. During the publication's development, researchers incorporated comments obtained through a Federal Register notice and direct requests to stakeholders. To date, over 21,000 copies have been distributed. The publication addresses a broad range of interventions, ranging from construction operations to management practices. It also includes case studies for use in training sessions or safety talks.

Results

The project's primary impact is a greater recognition that construction vehicles pose a substantial safety risk to employees in highway work zones among the government and industry groups that build and oversee the Nation's roads. *Building Safer Highway Work Zones* has been used to develop core modules of worker training programs, supplement insurance carrier risk management plans, inform regulatory efforts at the State and national level, and guide work zone safety research programs.

Number of Occupational Fatal Injuries in Work Zones



Illustrating the Problem



The diagram depicts the blind area for the truck pictured on the left. The grid illustrates the 360° field of vision from the driver's seat (yellow dot).

The grey shading shows where the driver can not see an object below the height of 1.5 meters (4'11").

The yellow hatching shows where the driver can see objects in the side view mirrors.

The red box in the diagram indicates an area of 1.5 meters (4'11") in front of the vehicle, where the driver is unable to see objects below 1.5 meters (4'11").

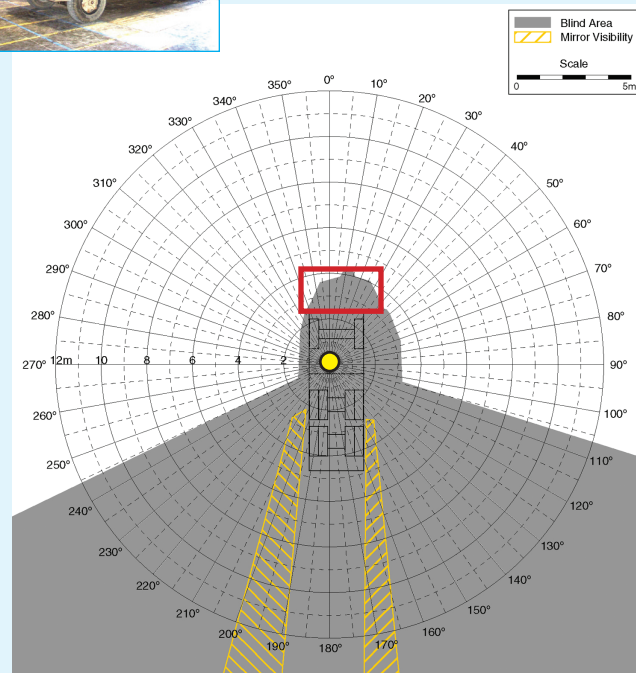


Diagram courtesy of David Fosbroke

Useful Resources

NIOSH Publications:
Building Safer Highway Work Zones
 NIOSH Publication 2001-128
www.cdc.gov/niosh/2001128.html

Evaluation of Systems to Monitor Blind Areas Behind Trucks Used in Road Construction and Maintenance: Phase 1
www.cdc.gov/niosh/mining/pubs/pdfs/ri9660.pdf

NIOSH Safety and Health Topic:
 Highway Work Zones
www.cdc.gov/niosh/topics/highwayworkzones

NIOSH InSights Web Library
www.cdc.gov/niosh/programs/cid/pubs.html

NIOSH NORA Sector Web Page
www.cdc.gov/niosh/nora/councils/const

NIOSH Home Page
www.cdc.gov/niosh

To receive NIOSH documents or more information about occupational safety and health topics, contact niosh at:

1-800-cdc-info (1-800-232-4636)

1-888-232-6348 (tty)

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