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Causes and Prevention of Fall Accidents in the US Construction Industry

Construction, one of the largest industries in the United States, is also one of the most dangerous. Despite a decline in overall Construction injuries thanks to continual prevention and intervention efforts, workers in the industry are still at high risk. In 2016, the construction industry experienced 991 fatal injuries, more than any other industry in the United States. Because of the nature of the work, occupational hazards and exposures in construction are quite different from those in other industries. For example, injuries from falls claim more than one-third of fatalities in construction, accounting for about 40 percent of all work-related fatal falls in the United States. As a result, detailed information on falls to a lower level is critical for preventing injuries in construction.

Learning from fall failures can be an important tool to learn why the accidents happened, and what can be done to prevent it. This paper examined the failures in fall by analyzing all fatal falls which are happened between 2005-2016 from the Fatality Assessment and Control Evaluation (FACE) program. Results revealed that the primary source is the object or surface from which the worker fell. From 2005 to 2016, the most common sources in these cases were ladders and roofs. The most common height of a fall was over 30 feet. This research also suggested that the less effectiveness of current safety training program may significantly contribute to worker's unsafe behaviors and fall fatality occurrences.

Biography

Gouranga Banik, Ph.D., P.E., PMP., F.ASCE, is currently serving as professor of construction engineering and management for the school of civil and environmental engineering at Oklahoma State University. Prior to this, Dr. Banik served as division head at Oklahoma State University, and departmental chair and professor for civil and architectural engineering at Tennessee State University. He is a registered professional engineer (PE) in the state of Wisconsin and a project management professional (PMP). Dr. Banik has consulted for federal and several state agencies, and major national and international construction and design companies including the World Bank.

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