Discussion: This study identifies worker groups and occupations with high risk of the fatal four hazards in construction. Enhanced hazard controls and interventions are needed to improve construction safety and health overall.

E1.2
Title: Fatal Occupational Injuries at Road Construction Sites from 2003–2016
Authors: Xuanwen Wang, Xiuwen Sue Dong, Rebecca Katz

Background: Working at road construction sites is dangerous. This study examines the trends and patterns of fatal occupational injuries among construction workers at road construction sites over time, especially after the recent economic downturn.

Methods: Two large national datasets from 2003 to 2016 were analyzed, including the Census of Fatal Occupational Injuries and the Current Population Survey. Stratified and time series analyses were conducted to identify differences among subgroups in construction over time. Linear regression and odds ratios with 95% confidence intervals were utilized to measure whether changes or differences are statistically significant.

Results: From 2003 to 2015, 1,166 construction workers died at road construction sites, comprising more than 70% of such deaths in all industries. Coinciding with the employment trend, the number of fatalities at road construction sites climbed from a low of 73 in 2010 to 87 in 2015, a nearly 20% increase over five years. In terms of event or exposure, more than half of road construction deaths between 2011 and 2015 were pedestrian vehicular incidents where a worker was struck by a vehicle or mobile equipment. Another 12.6% were roadway incidents that occurred while a worker was operating a vehicle. Trucks were the top source of deaths at road construction sites, involved in nearly one-quarter of road construction site fatalities. Passenger vehicles (including automobiles, buses, and passenger vans) were the second most common source, causing 17.5% of construction fatalities at those sites. By industry subsector, 309 workers in the Highway, Street, and Bridge subsector (NAICS 2373) were killed at road construction sites, accounting for 72% of all road construction fatalities during these years. By occupation, construction laborers had the highest number of fatalities at road construction sites, while highway maintenance workers had the highest risk of such deaths (14.2 deaths per 100,000 full-time equivalent workers). Workers 55 years and older as well as African American workers also experienced an elevated risk of such fatalities.

Discussion: Compared to other major industries, the construction industry experiences a large burden of deaths at road construction sites. Interventions should be enhanced for high-risk occupations and worker groups. Note: The numbers will be updated to 2016 when the 2016 CFOI micro data are available.

E1.3
Title: Mapping and Dissemination of Data on Fatal Construction Injuries in the United States, 2011-2018
Author: Gavin West

Background: Falls from elevation are the leading cause of fatal and non-fatal injuries in construction. Approximately one-third of work-related deaths in construction are due to falls. Hundreds of construction workers in the U.S. are killed every year due to on-the-job falls, and over 10,000 are seriously injured. In 2012, a national campaign was launched to raise awareness and prevent fatal falls in construction. One aspect of supporting the campaign's objectives was to provide construction industry stakeholders and campaign partners with readily accessible, current, and detailed information about fatal falls in their geographic areas.

Methods: Incident-specific information on work-related construction fatalities was collected for calendar years 2011 to 2017. OSHA records of construction fatality investigations, including open investigations, were obtained on a quarterly basis. Daily reviews of Google Alerts results using the search term "worker killed" were used to identify news reports of construction fatalities. Incident-specific fatality data were extracted from news reports, combined with OSHA data, and disseminated to stakeholders and the general public on a quarterly basis via CPWR's campaign website (www.stopconstructionfalls.com). Information collected included age, occupation, industry, address and location of death, major cause of death, etc. The data were made readily accessible via interactive online maps and downloadable spreadsheets. Descriptive statistics were calculated to summarize the data contained in the maps and usage.

Results: The mapping project has facilitated access to

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