

## Fatalities Involving Vehicles, Heavy Equipment, and Road Construction

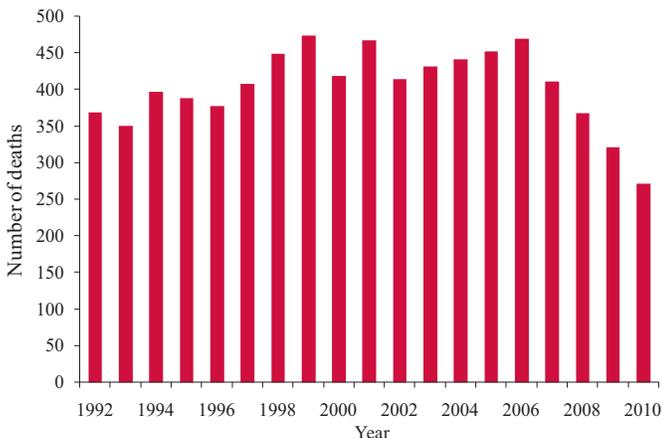
Vehicles and mobile heavy equipment were a major source of fatalities in construction, resulting in 7,681 deaths from 1992 to 2010, about 404 deaths annually (chart 46a).<sup>1</sup> Following the injury trend in construction, the number of such deaths reached 470 in 2006 and dropped to 271 in 2010. However, vehicles and equipment were not always listed as “cause of death” in these fatalities. Causes of deaths are categorized as “collision,” “non-collision,” “struck by” a vehicle/mobile equipment, and “caught in/between” (such as a worker caught between parts of a dump truck). Vehicles and heavy equipment are also involved in “struck by object” (such as by a vehicle part), and other events, for example, deaths resulting from fires and explosions.

From 2008 to 2010, vehicles were the source of more than half of the fatalities at road construction sites<sup>2</sup> – double the proportion of such deaths in the overall construction industry (chart 46b). Between 2003 and 2010 when industries were coded by NAICS (see page 1 for industry classifications and codes), 268 construction workers incurred truck-related deaths at road construction sites, with 100 (37%) workers killed by dump trucks. In addition, 131 road-site fatalities resulted from a vehicle or mobile equipment backing up. During the eight-year period, a total of 737 construction workers died at road construction sites, accounting for nearly 80% of road construction fatalities in all industries. Most of these construction workers were employed in Highway, Street, and Bridge Construction (NAICS 23731).

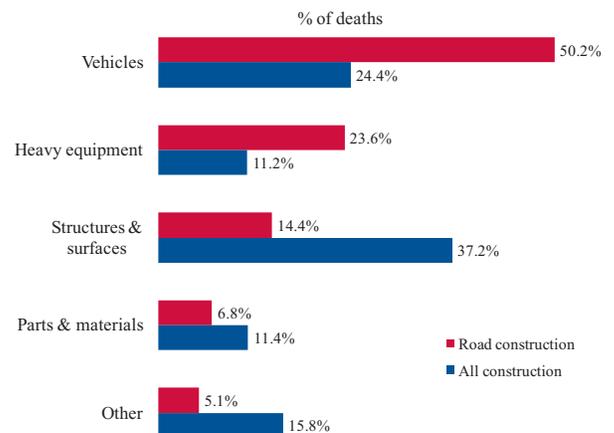
Among fatalities involving vehicles and heavy equipment at road construction sites, most were workers on foot or non-passengers who were struck by vehicles or heavy equipment in the work zone or passing vehicles that entered the work zone. From 2008 to 2010, the percentage of such deaths at road construction sites was more than four times that of other construction sites (chart 46c). By contrast, road construction sites had a lower percentage of non-collision deaths (16%) compared to other construction sites (20%). Deaths caused by collisions between vehicles or mobile equipment were more likely to occur on streets and highways, accounting for 31% of the 384 street and highway deaths in construction between 2008 and 2010.

Stratified by construction occupations, 205 construction laborers died between 2008 and 2010 as a result of incidents involving vehicles and mobile heavy equipment – nearly 70 deaths annually (chart 46d). Occupations with the highest number of vehicle- and mobile heavy equipment-related deaths also include foreman, operating engineer, and truck driver. Of these deaths, 63 construction laborers and 22 operating engineers died at road construction sites during the same period (chart 46e). Such numbers were even higher during the booming economy. Between 2003 and 2007, 495 construction laborers died from injuries related to vehicles and heavy equipment – about 100 deaths per year.

**46a. Fatalities involving vehicles and heavy equipment in construction, 1992-2010**



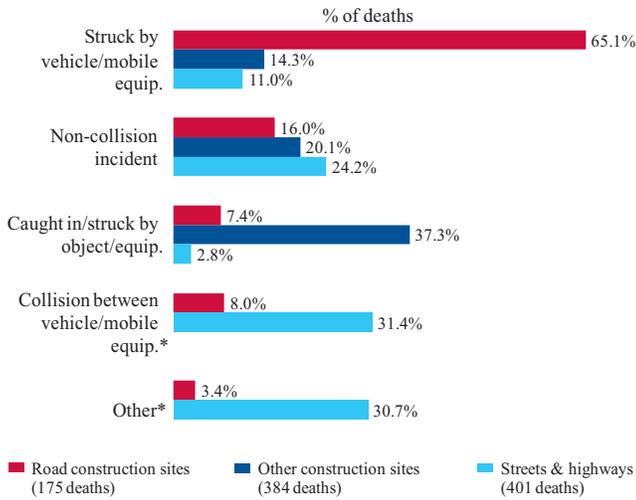
**46b. Primary sources of fatalities, road construction sites vs. all construction, 2008-2010 total**



1. Fatality numbers were estimated from the Census of Fatal Occupational Injuries. This research was conducted with restricted access to Bureau of Labor Statistics (BLS) data. The views expressed here do not necessarily reflect the views of the BLS. Calculations by CPWR Data Center.

2. Road construction includes construction, maintenance, or utility work on a road, highway, or street, as defined by CFI. A work zone is an area of a highway with construction, maintenance, or utility work activities. See definition in: Pegula S. 2010. Fatal occupational injuries at road construction sites, 2003–07. *Monthly Labor Review*, 133(11):37-40.

**46c. Fatal events involving vehicles and heavy equipment, by location, 2008-2010 total**



**46d. Fatalities involving vehicles and heavy equipment in construction, selected occupations, 2008-2010 total**



**46e. Fatalities involving vehicles and heavy equipment at road construction sites, selected occupations in construction, 2008-2010 total**



*Note:* All charts – Data cover all employment.  
 Chart 46b – Totals may not add to 100% due to rounding.  
 Chart 46c – Asterisk (\*) represents categories where deaths at other construction sites do not meet BLS data release criteria.

*Source:* All Charts – Fatality numbers were estimated from the Census of Fatal Occupational Injuries. This research was conducted with restricted access to Bureau of Labor Statistics (BLS) data. The views expressed here do not necessarily reflect the views of the BLS. Calculations by CPWR Data Center.