Fatal and Nonfatal Injuries in Construction: Demographic Trends

Injury and illness[1] trends directly reflect demographic changes in construction employment. Along with the aging workforce (*see* pages 14 and 15), the largest portion of construction fatalities shifted from workers aged 25-34 to the 45-54 age group in the last two decades (chart 41a). In 2010, workers aged 45 or older accounted for 53% of all construction fatalities, an increase from 34% in 1992 and 44% in 2005.

Nonfatal cases showed a similar trend. From 1992 to 2010, the share of cases dropped more than 31% among workers aged 25-34 and nearly tripled among the 45-54 age group (chart 41b). Overall, the share of nonfatal cases among workers aged 45 and older grew from 16% in 1992 to 25% in 2005, and then jumped to 39% in 2010.

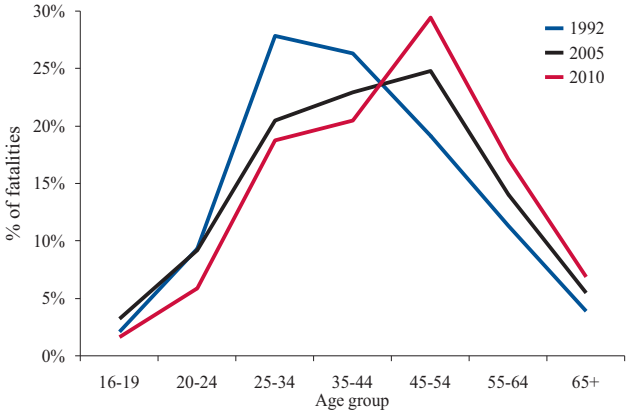
Between 2008 and 2010, the fatality rate for workers under age 20 was 12.7 per 100,000 *full-time equivalent workers* (FTEs; *see* Glossary), 70% higher than those aged 25-34 years, while the fatality rate for workers aged 65 and older was 24.6 per 100,000 FTEs, higher than any other age group (chart 41c). Older workers had a lower rate of nonfatal injuries than younger workers (chart 41c), but spent more days away from work after an injury (chart 41d). Moreover, injured construction workers took longer to recover than workers in all industries combined.

The fatality rate of Hispanic workers was steadily higher than that of white, non-Hispanic workers, but the gap somewhat lessened in recent years (chart 41e). On average, the annual death rate for Hispanic workers was about 48% higher than white, non-Hispanic workers between 1992 and 2002, but just 6% higher from 2008 to 2010. In addition to continuous intervention efforts,[2] this trend may be partly due to fewer younger and new immigrants among Hispanic construction workers during the economic downturn.

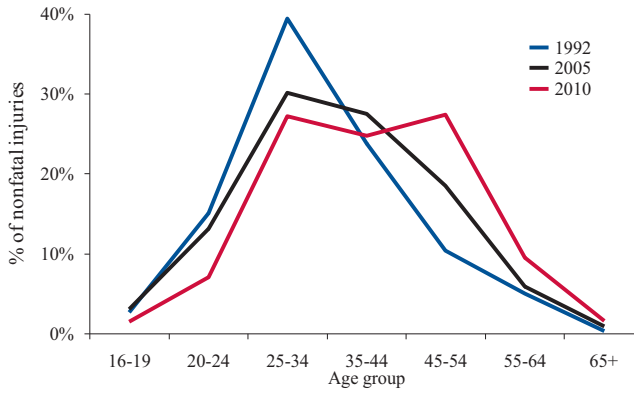
In contrast to fatal injury rates, nonfatal injury rates for Hispanic workers were consistently lower than white, non-Hispanic workers in all three time periods (chart 41f). This is in stark contrast to findings from other data sources which indicate Hispanic workers have higher nonfatal injury rates than workers in other ethnic groups.[3,4] These divergent findings suggest widespread injury underreporting among Hispanic construction workers.[5]

In total, 298 female construction workers died from work-related injuries from 1992 to 2010, about 16 per year on average. There were more than 75,000 lost workday injuries among female construction workers, or about 4,000 per year, during the same time period.[6]

41a. Distribution of fatalities in construction, by age group, in 1992, 2005, and 2010 (All employment)



41b. Distribution of nonfatal injuries resulting in days away from work in construction, by age group, in 1992, 2005 and 2010



1. Illnesses comprise about 3% of all nonfatal injuries and illnesses in construction; therefore, numbers for construction largely represent injuries and will be referred to as such in this chart book.

2. The National Institute for Occupational Safety and Health. *NIOSH Program Portfolio: Occupational Health Disparities*. http://www.cdc.gov/niosh/programs/ohd/risks.html (Accessed October 2012).

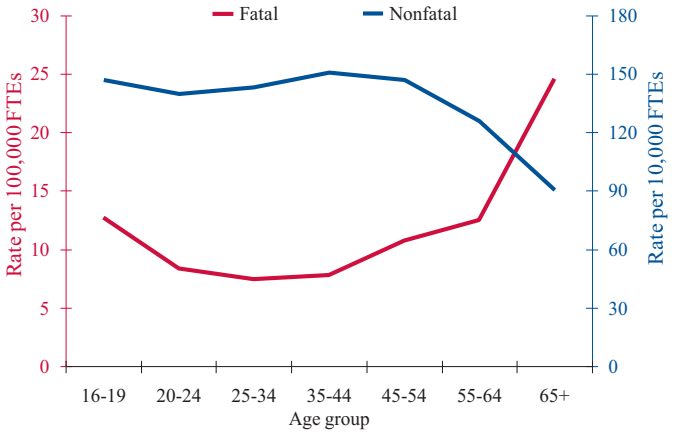
3. Grzywacz J, Quandt S, Marín A, Summers P, Lang W, Mills T, Evia C, Rushing J, Donadio K, & Arcury T. 2012. Occupational injury and work organization among immigrant Latino residential construction workers. *American Journal of Industrial Medicine*, 55(8):698-706.

4. Dong X, Men Y, & Ringen K. 2010. Work-related injuries among Hispanic construction workers—Evidence from the Medical Expenditure Panel Survey. *American Journal of Industrial Medicine*, 53:561-569.

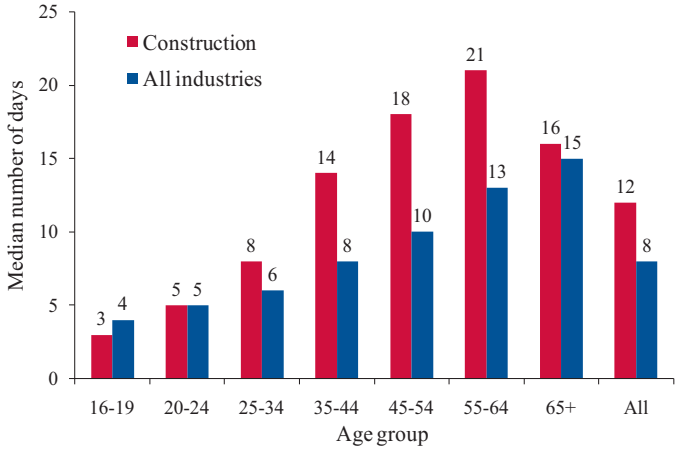
5. Dong X, Fujimoto A, Ringen K, Stafford E, Platner J, Gittleman J, & Wang X. 2011. Injury underreporting among small establishments in the construction industry. *American Journal of Industrial Medicine*, 54:336-349.

6. U.S. Bureau of Labor Statistics. Work-related Injuries and Illnesses Database, Census of Fatal Occupational Injuries, and Survey of Occupational Injuries and Illnesses. http://www.bls.gov/iif/home.htm#data (Accessed May 2012).

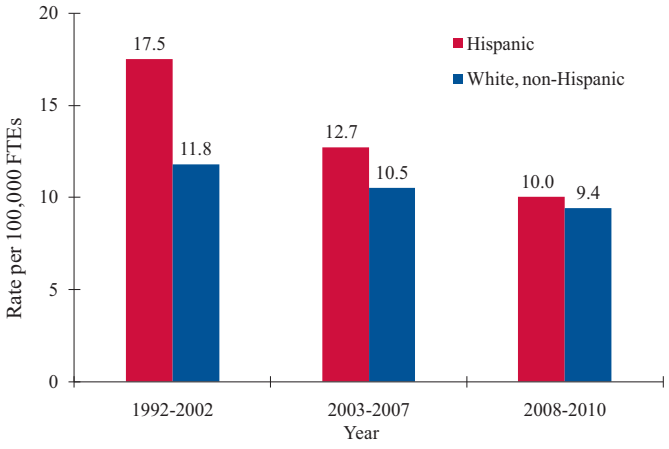
41c. Rate of fatal and nonfatal injuries in construction, by age group, 2008-2010 average



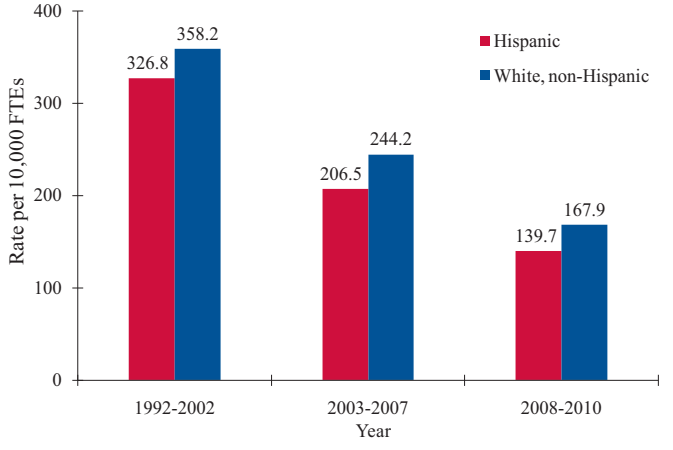
41d. Median days away from work by age group, construction vs. all industries, 2010



41e. Rate of fatalities in construction, by Hispanic ethnicity, three time periods from 1992-2010 (All employment)



41f. Rate of nonfatal injuries in construction, by Hispanic ethnicity, three time periods from 1992-2010



Note: Charts 41b, 41d, and 41f - Data cover private wage-and-salary workers only.
Chart 41c - Rates are adjusted for full-time workers. Fatality data cover all employment. Nonfatal injury data cover private wage-and-salary workers.
Chart 41d - Median is the middle value that divides the group into two parts - the lower and the upper half.
Charts 41e and 41f - Rates are adjusted for full-time workers. The three time periods used in these charts account for the OSHA reporting requirement changes in 2002, the switch of the industrial and occupational classifications beginning in 2003, as well as the economic downturn from 2008-2010.

Source: Charts 41a and 41b - U.S. Bureau of Labor Statistics. Work-Related Injuries and Illnesses Database, Census of Fatal Occupational Injuries, and Survey of Occupational Injuries and Illnesses. http://www.bls.gov/iif/home.htm#data (Accessed May 2012). Proportions were calculated by CPWR Data Center.
Charts 41c, 41e, and 41f - U.S. Bureau of Labor Statistics. Work-Related Injuries and Illnesses Database, Census of Fatal Occupational Injuries, and Survey of Occupational Injuries and Illnesses. http://www.bls.gov/iif/home.htm#data (Accessed May 2012); and the Current Population Survey. Rates were calculated by CPWR Data Center.
Chart 41d - U.S. Bureau of Labor Statistics. Work-Related Injuries and Illnesses Database, Nonfatal Cases Involving Days Away From Work, Selected Characteristics. http://www.bls.gov/iif/ (Accessed May 2012).