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Is the Apparent Decrease in Injury and Illness Rates in Construction the Result of Changes in Reporting?

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Some of the authors of this publication are also working on these related projects:

industries, there was no change in the number of workrelated injuries and illnesses treated in U.S. hospital emergency rooms from 1998 to 2003, even as injuries reported by the BLS decreased over the same period.⁴

The construction sector continues to account for a disproportionate share of work-related deaths in the United States. In 2004, construction workers were 7.7% of the U.S. workforce, but suffered 22.2% (1,268) of the nation's 5,703 reported work-related deaths. In comparison with the decline in nonfatal injuries, the death rates among construction workers remained relatively constant, with a decrease of 16% from 13.9 per 100,000 in 1992 to 11.7 in 2003 (Figure 2). In other words, the decline in fatality rates was only one third the decline in the reported rates of injuries with days way from work.

Hispanic workers. The same trends are apparent in the subgroup of Hispanic construction workers. In the last decade, Hispanic employment in the U.S. construction industry has increased dramatically. The number of Hispanic workers tripled between 1992 and 2003, and the proportion in the construction workforce increased from 9% in 1992 to 21% in 2003. In the blue-collar trades, Hispanic workers account for one third of all workers. During the same period, the number of work-related deaths among Hispanic construction workers more than doubled, from 108 to 263. Hispanic workers have had a consistently higher death rate than their non-Hispanic counterparts over time, although the rate of work-related deaths for Hispanic workers declined in recent years (Figure 3.) By contrast, nonfatal injury and illness rates for Hispanic construction workers were close to or even lower than rates for non-Hispanic construction workers during this period (Figure 4). This result contradicted some published reports. Bollini and Siem⁵ found that Hispanic workers may be at a greater risk for occupational relation between establishment size and injury rate from 1995 through 2001.^{8,9}

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One of the authors (KR) compared workers' compensation claims data with BLS survey data in Washington State. Washington State has a state fund that provides workers' compensation coverage to all but a handful of self-insured employers. Under the state law governing workers' compensation, all injuries, even injuries of employees of the self-insured employers, are required to be reported to the state fund (RCW 51.28.020). The fund thus provides fairly complete data on injuries and illnesses reported by workers in the form of workers'



Glazner et al., in the study of injury during the construction of the Denver International Airport, found that injury rates, as determined by reports to a single workers' compensation plan and an on-site medical clinic, were higher than those based on BLS data for the same site.¹² The difference was most marked for injuries that did not entail lost work time, when lost work time was defined as more than three scheduled work shifts. These authors reported an overall injury rate of 32.7/100 FTE workers for the construction SIC codes 15-17, using all workers' compensation cases as the numerator and hours worked as the denominator. The comparable rates from BLS data for all recordable injuries for these SIC codes during the same period ranged from 11.8 to 13. The rate for lostwork-time cases was 6.3/100 FTE workers on the Denver International Airport job, and 4.9-6.1 from BLS data. The rates are not strictly comparable, for a case in Glazner's records was defined by a payment from workers' compensation, and some of those cases are not recordable using the OSHA definition; this difference, however, cannot explain the great difference in reported injury rates from the two sources.

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Among the 80% of construction establishments that have fewer than ten employees,⁷ many use other companies as subcontractors, or employ workers who are

classified as independent contractors. (The United States Internal Revenue Service defines someone as an independent contractor when the payer has the right to control or direct only the result of work, not how it will be done. If a person does work when the payer determines what will be done, and how it is done, he should not be classified as an independent contractor.) In some cases the employer classifies the worker as selfemployed and issues a 1099 miscellaneous income form. In other cases work is compensated in cash with no 1099 reporting, what is called the "underground economy." Any increase in worker classification as an independent contractor would cause a decrease in reported injuries, for injuries to an independent contractor are not reported by the employer on an OSHA log, nor is that worker eligible for workers' compensation. One of the authors (FC) used audit data from the Massachusetts Division of Unemployment to determine the degree of misclassification among construction employers in Massachusetts, and concluded that at least 14%, and up to 24%, of construction employers misclassified workers as independent contractors. When an employer did misclassify workers, an estimated 40% of that employer's workforce was misclassified, indicating that misclassification was a common occurrence rather than an isolated incident. The prevalence of misclassification had increased 40% between 1995 and 2003.



It is generally agreed that the BLS data system and workers' compensation capture a minority of occupational diseases. $^{\rm 13-16}$

of Labor and Industries for NIHL increased 12-fold over that period; although he could not determine the precise reasons for the increase, some of it was clearly due to more active screening among noise-exposed groups.²⁴ The age of the claimants increased over this time, with almost half the claims in 1998 coming from workers over the age of 65; this also suggests there were many prevalent cases that had not been previously detected. Since there is no reason to think that the true incidence of NIHL increased 12-fold over a decade, these data suggest significant underreporting of NIHL. Reilly and colleagues used a range of data sources to estimate that 86,000 workers in Michigan would have NIHL, and reported that between 1992 and 1997 approximately 2,000 cases were reported each year.²⁵ Through follow-back interviews they determined that a large number of noise-exposed workers were not receiving medical examinations.

Lead Toxicity

Lead exposures and elevated blood lead levels (BLLs) are frequent among construction workers. Using infor-

al.^{29,30} reported that contractors whose employees had minor injuries during the construction of the Denver International Airport were more likely to report a major injury; those with more than one injury that did not entail lost-work-time were four times as likely to have a lost work time injury. An active injury-prevention program can be successful by focusing on minor injuries as opportunities for early intervention; recording these injuries is essential to this process.

Is this underreporting important? Do safety and health performance data matter to the industry to such an extent that they should be reliable? If not, why collect and report them at all? If they are important, and if we are to continue to rely on employer reporting, is there any way to assure more honest reporting? Or should we find other ways to measure industry-wide safety and health performance? There is no doubt that there have been very significant improvements in safety and health performance in the last decade. It has long been recognized that there were deficiencies in the BLS data reported by employers, but this was not a major impediment to use of the data as long as these deficiencies were stable over time. It now appears that somewhere in the go-go economy of the 1990s, injury and illness reporting in construction went astray; it is in everyone's interest to find a way to bring it back on track. Employer reporting certified by chief executive officers, with rigorous OSHA inspection of such reporting, seems the most realistic approach.

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