

This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: Labor in the New Economy

Volume Author/Editor: Katharine G. Abraham, James R. Spletzer, and Michael Harper, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 978-0-226-00143-2; 0-226-00143-1

Volume URL: <http://www.nber.org/books/abra08-1>

Conference Date: November 16-17, 2007

Publication Date: October 2010

Chapter Title: Comment on "Emerging Labor Market Trends and Workplace Safety and Health"

Chapter Author: Jeff E. Biddle

Chapter URL: <http://www.nber.org/chapters/c10833>

Chapter pages in book: (453 - 456)

- Barkume, A., and J. Ruser. 2001. Deregulating property-casualty insurance pricing: The case of workers' compensation. *Journal of Law and Economics* 44 (1): 37–63.
- Berman, J. M. 2005. Industry output and employment projections to 2014. *Monthly Labor Review* 128 (November): 45–69.
- Boden, L. I., and J. W. Ruser. 2003. Workers' compensation "reforms," choice of medical care provider, and reported workplace injuries. *Review of Economics and Statistics* 85 (4): 923–29.
- Brenner, M. D., D. Fairris, and J. Ruser. 2004. Flexible work practices and occupational safety and health: Exploring the relationship between cumulative trauma disorders and workplace transformation. *Industrial Relations* 43 (1): 242–66.
- Conway, H., and J. Svenson. 1998. Occupational injury and illness rates, 1992–96: Why they fell. *Monthly Labor Review* 121 (11): 36–58.
- Fairris, D., and M. Brenner. 2001. Workplace transformation and the rise in cumulative trauma disorders: Is there a connection? *Journal of Labor Research* 22 (January): 15–28.
- Fortson, K. 2004. The diurnal pattern of on-the-job injuries. *Monthly Labor Review* 127:18–25.
- Handel, M. J., and D. I. Levine. 2006. The effects of new work practices on workers. UC Berkeley: Institute for Research on Labor and Employment. Working Paper no. 131-06.
- National Institute for Occupational Safety and Health (NIOSH). 2002. *The changing organization of work and the safety and health of working people*. NIOSH document no. 2002-116, April.
- Pergamit, M. R. 2002. Work schedules and work injuries. Paper presented at the Joint Meeting of the Society of Labor Economists and European Association of Labour Economists. June, San Francisco.
- U.S. Bureau of Labor Statistics. 2007. *Nonfatal occupational injuries and illnesses requiring days away from work, 2006*. News Release USDL 07-1741, November 8.
- . 2009. *Handbook of methods*. Washington, DC: United States Department of Labor.
- Ussif, A. 2004. An international analysis of workplace injuries. *Monthly Labor Review* 127 (3): 41–51.
- Welch, L. S., X. Dong, F. Carre, and K. Ringen. 2007. Is the apparent decrease in injury and illness rates in construction the result of changes in reporting? *International Journal of Occupational and Environmental Health* 13 (1): 39–45.

Comment Jeff E. Biddle

Nestoriak and Ruser have written a useful chapter. There are changes coming in the nature of the labor force and its activities about which we can be fairly certain, and it is worth thinking about how those changes will influence the number and types of workplace injuries that will occur. For example, we know the workforce will be aging; Nestoriak and Ruser alert us to the fact that as a result of this we should be prepared for fewer injuries due to

overexertion, but more falls; more fractures but fewer strains and sprains. And with older workers, the probability that a serious injury will result in a long-term disability or even death will increase. This is not idle knowledge. My experience suggests that when information like this is disseminated, the occupational health and safety community—from the people at NIOSH to the risk managers and safety directors at individual firms—talk about it and react to it. News like, “you’re going to be employing more old people, and old people fall more often” really does, these days, lead to changes in workplace layouts and work practices.

I have little to say about the technical aspects of the chapter. One could discuss the issue of the proper weights to use when combining workers from the injury survey with workers from the CPS. The weights used by the authors are sensible, although they could be refined. Indeed, in an earlier draft of the chapter they used a CPS question on the receipt of workers’ compensation benefits to adjust for the chance that a worker could appear in both data sets. This approach had problems of its own, however, and I am not surprised by the author’s report that the simpler weighting procedure they eventually settled on produces essentially the same results as the more complicated approach employed earlier, since the injured workers represent such a small percentage of all workers in the CPS.

The major issue with attempts to forecast the number and nature of future work-related injuries is the problem that faces anyone who makes predictions about the future based on the past: in so many ways, the future will not be like the past (that, at least, is one thing we can be certain of). We are in the midst of a revolution in workplace safety. Occupational injury and fatality rates have been declining since 1992. Between 1995 and 2000, the rate of OSHA recordables fell by 20 percent. From 2003 to 2006, it fell by another 8 percent, and injuries with days away from work fell by 13 percent. In their prediction exercise, the authors focus on standard measurable factors—changing demographics, changing occupation, and industry mix—to predict the future, but existing research, including studies cited by the authors, show that little of the dramatic decline in injury and fatality rates of the past fifteen years can be explained by those standard measurable factors.

I think that it would have been interesting for the authors to apply their methodology to see how well it would have predicted the change in the occupational injury picture over some or all of the last fifteen years. For example, suppose one took occupation, industry, and demographic projections from 1995, loaded up the March CPS and the Survey of Occupational Injuries, and projected the number and mix of injuries one would expect over the following ten years? How much would these predictions diverge from what really happened?

My feeling is that much of the improvement in the occupational safety picture over the last fifteen years has to do with changes in the way that work is done within particular industries and firms. The authors speculate

about the future impact on occupational health and safety of three ongoing changes in the nature of work: telecommuting, an increase in the use of leased employees, and the introduction of certain new production techniques and work practices, including just-in-time manufacturing, job rotation, and total quality management. I think the latter two are by far the more important. Unfortunately, as the authors also note, empirical research on the impact of these trends on health and safety is scarce, and is relatively hard to do. The authors provide a very useful discussion of the data problems that face any attempt to research issues of health and safety in the employer services and temporary worker industries, and, not surprisingly, little such research has been done. New work practices like quality circles or job rotation are also very challenging to study, because in different industries and different establishments they have the potential to look very different and lead to very different changes in the physical demands they make on workers. I recently saw a well-designed proposal for studying the impact of the introduction of job rotation in a large manufacturing firm. The job rotation plan was going to be introduced earlier in some locations than in others, and the firm was cooperating with the researchers, giving them input into how the plan was implemented and access to before and after data. Even in this almost ideal setting, however, the researchers had difficulties reducing the myriad possible job rotation patterns in the plan into well-defined categories for the purposes of empirical analysis, and because the plan was tailored to a very specific setting, the prospects for generalizing the results of the study beyond one particular industry were not encouraging. Still, we cannot let the best be an enemy of the good, and I hope that research onto the impact of new workplace practices will continue.

The workplace practices discussed by the authors are all of the sort that affect occupational health and safety unintentionally. However, much of the qualitative literature discussing the recent declines in occupational injuries and days away from work focuses on things that employers are doing intentionally: better safety programs, engineering safety into the workplace, managing serious work-related injury cases with nurse case managers, and return-to-work programs. Certainly the members of the employer community believe programs like these to be the most important drivers of improvements in occupational health. But if we accept this line of argument, we have to ask why these largely voluntary changes in employer health and safety practices have occurred? The extent of their growth is far beyond anything that could be attributed to incentives introduced into a few states' workers' compensation laws or changes in OSHA enforcement. As economists, we would be uncomfortable with an explanation running in terms of widespread and increasing solicitousness of employers toward the health of their workers. Fortunately, one can tell a story that is more appealing to economists. As Conway and Svenson (1998) noted in their early analysis of the decline in injury rates, increasing costs of medical care in the late 1980s

led to higher workers' comp premiums in the 1990s, and gave employers increased incentives to avoid accidents and manage injury cases more closely. After a brief hiatus, medical costs have continued to rise, driving up the cost to the employer of the typical workplace injury, and increasing further the incentives to improve safety programs, return-to-work programs, and so on.

This is of course not a new hypothesis I am advancing, although it is still an underresearched one. I mention it only to make a final point about the future of occupational safety and health in the United States that has not, I think, been discussed enough. If and when the health care insurance system in this country is overhauled, the designers are going to have to decide what to do with work-related injuries. Will they still be handled separately by workers' compensation programs, or will they be lumped in for insurance purposes with all other health problems, leaving the workers' comp system to handle only wage loss payments? If the employer's experience rated workers' comp premiums no longer reflect the medical costs generated by injuries to his employees, what happens to his incentives for safety? If the hypothesis about improved workplace safety and health being driven by rising workers' comp costs is true, then discussions of reforms to the health insurance system should include consideration of the effects of those reforms on occupational safety and health.

Reference

- Conway, H., and J. Svenson. 1998. Occupational injury and illness rates 1992–1996: Why they fell. *Monthly Labor Review* 121:36–58.