
**The Economics
of Occupational
Safety and Health**

The Economics of Occupational Safety and Health

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The Economics of Occupational Safety and Health

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Abstract

Economic incentives play an important role in occupational safety and health, affecting the behavior and decisions of workers, firms and government. This monograph discusses factors that affect workers' decisions about whether to choose risky jobs, how careful to be on the job, and how long to remain off work during recovery from injury. The monograph also examines occupational risk-related costs that influence the following safety decisions of a firm: wage premiums paid to attract workers to risky jobs, premiums for workers' compensation insurance, government fines for safety violations, and injury-related costs such as workplace disruptions and loss of worker specific job skills. This monograph also considers the influence of government, focusing on the enactment and enforcement of safety and health standards and the safety incentives of workers' compensation insurance systems. We find broad consensus in the empirical literature that workers and firms respond to economic incentives in making safety decisions. Economic incentives play an important role in occupational risk prevention. Sometimes these incentives improve safety; but, in other cases they have an adverse effect on safety.

*The views expressed in this monograph represent the views of the author and do not necessarily represent the views of the Bureau of Labor Statistics or the U.S. Department of Labor.

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1

Introduction

Occupational injuries are random events, affected by the activities of workers, firms, and government. The safety efforts of workers and firms respond to a variety of economic incentives, and these incentives can be altered by government. Together, the analysis of these incentives and their outcomes forms the economics of occupational safety and health.

The occupational safety and health literature discusses factors that affect workers' decisions about whether to choose risky jobs, how careful to be on the job, and how long to remain off work during recovery from injury or illness. These factors influencing worker decisions include the wage-risk premium, pain and suffering from injuries, and income benefits paid during out-of-work recovery periods.

This monograph examines occupational risk-related costs that influence the following safety decisions of a firm: wage premiums paid to attract workers to risky jobs, insurance payments to injured workers including sick leave and workers' compensation benefits, premiums for workers' compensation insurance, government fines for safety violations, and injury-related costs such as workplace disruptions and loss of worker-specific job skills. The small literature on workplace committees and employee financial involvement with the firm's profitability on accident outcomes is also reviewed.

2 *Introduction*

This monograph also discusses the influence of government, focusing on the regulation of occupational risk through the enactment and enforcement of safety and health standards and the safety mandates of workers' compensation insurance systems. This monograph does not discuss the psychological literature on information processing, some of which suggests that workers may underestimate the severity of hazards in some occupations (see Pouliakas and Thoedossiou, 2010), nor does it address potential externalities associated with workplace injuries accruing to the families of those injured. Unfortunately, there is scant empirical literature on the latter topic.

We find broad consensus in the empirical literature that workers and firms respond to economic incentives in making safety decisions. Economic incentives play an important role in occupational risk prevention. Sometimes these incentives improve safety, but in other cases they have an adverse effect on safety.

The monograph reviews the theory of compensating differentials in Section 2 in which workers with varying tolerances for risk are matched with firms with alternative production (and hence, risk prevention) technologies. This theory suggests that wages increase with more job risk, other things equal. In Section 3, we discuss incentives created by the workers' compensation insurance system, both for workers and for firms. Next, in Section 4, the monograph discusses the modest impact of government safety inspections in the USA and Canada. Last, in Section 5, we close with some final observations on the impact of the business cycle and long-term effects on occupational health and safety.

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