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Employer disability management strategies and other predictors of injury claims rates and costs: Analysis of employment-based long-term disability insurance claims

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Abstract

Problem: Recent research indicates that many injuries to workers are not job related and that more than half of these injuries are not compensable under Workers' Compensation. Prior research on predictors or risk factors for these injuries, and the determinants of their costs, is quite limited. **Method:** This study analyzes data on more than 1000 injury-related paid claims for long-term disability (LTD) benefits by workers in 271 U.S. firms. Multiple regression analyses are used to examine predictors of LTD injury claims rates and determinants of LTD benefit payments per claim. **Results:** Although less than 20% of these injuries are work related, employer characteristics (industry type, selected disability management practices, and recent exposure to layoffs) are significant predictors of injury claims rates. Availability and/or generosity of other disability income sources, such as Workers' Compensation and Social Security Disability Insurance (SSDI), also impact on observed claims rates. Other strong predictors are the demographic and occupational mixes of employees. Cost per claim is also related to employer characteristics, employee characteristics, and the availability of other fringe benefits offered by the employer. Surprisingly, the level of benefits available under the employer's LTD policy does not have a detectable effect on claims rates. **Impact on Industry:** The importance of employer characteristics and policies, as predictors of claims rates and costs, suggests that occupational and nonoccupational injury risks may be strongly correlated. Programs to

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reduce the risks and costs of occupational injuries may also have important payoffs in terms of lower risks and costs for injuries to employees outside of the workplace.

Keywords: Disability management; Injury risks; Injury costs; Disability claims; Compensation

1. Introduction

Nonfatal injuries to employed persons are a major economic burden in the United States. The landmark study by Rice, MacKenzie, & Associates (1989) estimated that 37.3% of all injury costs were accounted for by nonfatal injuries to persons in the age range from 25 to 64 years. According to the March 1998 Current Population Survey data, more than 96% of all persons in this age range were employed and over 83% were employed full time. Thus, it seems reasonable to assume the bulk of nonfatal injury costs for this age group is the result of injuries to employed persons.

There is substantial literature on the factors that influence the rates and costs of these injuries, and especially occupational (i.e., work related) injuries (e.g., Layne & Landen, 1997; Mitchell, 1988; Ore & Strout, 1997; Zwerling et al., 1996; Zwerling, Whitten, Davis, & Sprince, 1997). Much of this work focuses specifically on data from the Workers' Compensation program and/or the influence of variations across states and over time in the incentives and characteristics of Workers' Compensation programs (e.g., Conway & Svenson, 1998; Curington, 1994; Ruser, 1998).

Other studies of work-related injuries have emphasized the important role of employer-specific (or establishment-specific) factors in explaining variations among employers in injury rates (Intracorp, 1999). Hunt (1993) documented the persistence of injury rates over time for specific employers and interpreted this as the result of employer-specific risk factors or hazards. Several studies have emphasized the positive role that employers can play by implementing injury prevention programs and management strategies to reduce the costs of disabilities resulting from injuries (Hansen, 1997; Intracorp, 1999; Kochaniec, 1999; Rogers, 1995). Many of these latter works are case studies involving a small number of employers that document the effectiveness of particular programs. An important exception is the study by Hunt, Habeck, VanTol, and Scully (1993) that analyzed a survey database of approximately 170 employers in Michigan and incorporated summary measures of disability management activities as explanatory variables.

Because of their focus on occupational injuries, previous studies paid little attention to the major rates or costs of nonoccupational injuries and to the major compensation sources for such injuries, such as private long-term disability (LTD) insurance, private short-term disability (STD) insurance, and Social Security Disability Insurance (SSDI). LTD insurance, which has been completely ignored in the prior literature, is an important source of financial protection for