Study examines financing constraints' effect on workplace safety

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More than 3.5 million workplace injuries and illnesses occur each year in the United States, costing an estimated $250 billion annually.

A new study from The University of Texas at Dallas examined how financing constraints impact workplace safety and the implications for firm value and employee welfare. Dr. Malcolm Wardlaw, assistant professor of finance and managerial economics in the Naveen Jindal School of Management, recently published his findings in the *Journal of Finance* .

"A huge part of the labor force has significant exposure to injury risk," Wardlaw said. "For these workers, getting injured can radically impact their overall welfare. Moreover, the costs of these injuries are borne by both the employees and the companies they work for."

He noted that while many people may not think about the issue on a day-to-day basis, blue-collar jobs are everywhere, including in warehouse management, shipping and transportation, resource management, construction and small-scale manufacturing.

Using injury data from the Bureau of Labor Statistics' annual Survey of Occupational Injuries and Illnesses, the researchers examined the sensitivity of workplace injury rates to a firm's available financial resources.

The study found that:

- Injury rates increase after debt increases and increase with negative cash flow shocks.
- Injury rates decrease with positive cash flow shocks.
- Firm value decreases substantially with an increase in injury rates.

"When you're having issues in cash flow, you often end up servicing the debt at the expense of softer claims that are more difficult to value or have values that are realized over the long term," Wardlaw said. "There are costs associated with workplace injuries—it's harder to find and retain employees, you're more subject to lawsuits and injuries have a long-term effect on productivity—but on a quarter-to-quarter basis, those debts have to be paid."

Wardlaw said this paper is one of the first to recognize that the financial condition of a firm affects employees' well-being, which could have implications for policymakers.

"When you're thinking about OSHA inspections and thinking about issues you should keep your eye on, this is certainly one of the dimensions to consider: What is the financial condition of this firm?" Wardlaw said. "It's also worth thinking about how financing impacts these kinds of hidden investments. In recent years, there has been a broad recognition that investments in safety are important for the employees and the shareholders. Finding the best way to finance that investment is not always easy."

Firms invest resources in a number of different activities that reduce the risk of on-the-job injury, including maintaining equipment, replacing old parts and machines, buying equipment with better safety features and automating dangerous tasks, Wardlaw said. Firms also expend resources on less tangible activities that affect safety, such as training and supervision.