

# High Impact

*A Project from the First 10 Years of NORA*



## Methods and Analysis of Economic Impact of Workplace Injury

### The Challenge:

Each year nearly 4.5 million injuries occur that are associated with workplace events. Individuals affected often become unable to work, their ability to work is limited by physical impairment, or more tragically they die. On a typical day, 9,000 U.S. workers sustain disabling injuries and 15 workers die from an injury. Understanding the total human and economic impacts of occupational injuries is crucial to setting priorities and shaping other components of the occupational safety and health research agenda. Studying the economic consequences of occupational injury can improve program planning, intervention evaluation, and policy analysis. 🍓



## Approach:

This project includes a variety of economic research efforts, including enhancing existing research projects to add economic components and developing new projects related to developing or improving new economic analytic tools. The research addresses the economic consequences borne by society, the employer, and the worker and their family. Methods vary depending on the particular work involved, and may include economic modeling, econometric evaluations and projections, and financial modeling.

## Results:

Intermediate results are varied, as the project contains a number of different individual efforts. For example, this project has provided projections of the numbers and types of occupational injuries attributable to changing workforce patterns. During the course of this project, a computerized cost calculator was developed, which determines the impact on the U.S. Gross Domestic Product for occupational fatal injuries. The calculator can be applied using NTOF or CFOI fatality data and is currently being revised to include MSHA fatal and non-fatal incidents.

## Impact:

The model and cost estimates have been requested by occupational safety and health organizations and researchers, cited in other research findings and publications, and used as a decision criterion in allocating government resources. Examples include: invited presentations at national and international meetings such as the 2004 Society for Mining, Metallurgy, and Exploration Annual Meeting and Exhibit (premier conference for the 13,000 members), the International Association of Industrial Accident Boards and Commissions annual meeting, and the 4th annual International Measuring the Burden of Injury conference; invited presentation at academic institutions, such as University of Utah, University of Pittsburgh, and West Virginia University; incorporation of the cost model into new cost estimates being developed by J. Paul Leigh, a preminent economist; news coverage by the BNA Occupational Safety and Health Reporter; and as the cost model being provided to the Bolivian government for targeting occupational injury and illness prevention resources. ■

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### Lead Researcher:

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### Research Partners:

Bureau of Labor Statistics (BLS)

Texas Workers, Compensation Commission

Center to Protect Workers, Rights-Economic Research Network

National Safety Council (NSC)

International Association of Industrial Accident Boards and Commissions (IAIABC)

For complete description of this project and others see the CD Rom "A Compendium of NORA Research Projects and Impacts, 1996-2005" located at [www.cdc.gov/niosh](http://www.cdc.gov/niosh).

The findings and conclusions in this report have not been formally disseminated by the Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health should not be construed to represent any agency determination or policy.