

Session IV: Preparing For Catastrophe In The Workplace

Management's Role in Preventing and Mitigating Catastrophes in the Workplace

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Focus of our Session

- This policy symposium is focused on assessing trends in health care and income benefits for injured workers
- Our session is focused on :
 - "Preparing for Catastrophes in the Workplace"
- More specifically it focuses on three issues:
 1. The role of employers in preparing for catastrophes
 2. Emergency responder health and safety
 3. Challenges facing workers' compensation insurance after terrorist attacks

Focus Of My Remarks

My brief remarks are focused on the role of employers in preparing for 'catastrophes', which are Low Probability-High Consequence (LP-HC) risks

- More specifically, I want to stimulate discussion on the proposition that firms can, and should do more in instituting preventive measures in regard to "terrorist attacks", rather than relying so heavily on insurance aimed at compensating firms and victims after the fact.
- Many firms already take this approach in regard to LP-HC process accidents and 'Natural disasters'

Enterprises May Face Many Different Kinds Of Catastrophic Risks

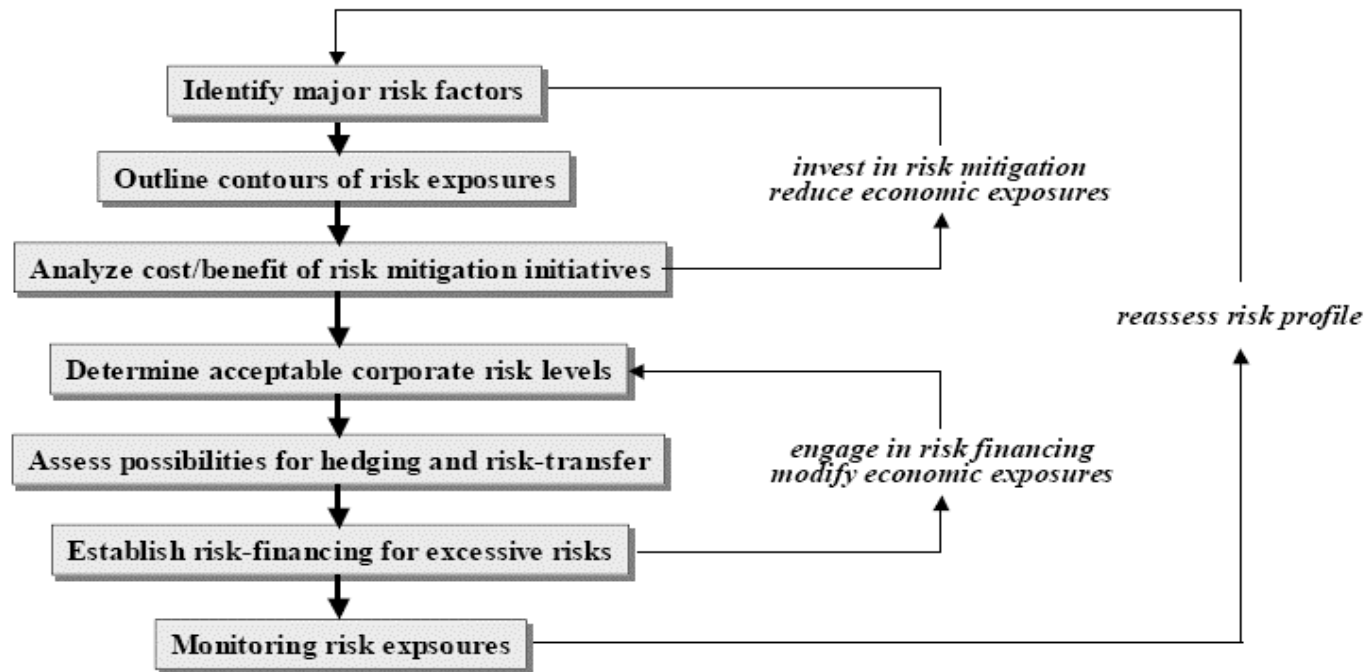
- Terrorism is only one of a multitude of catastrophic risks that an Enterprise may need to assess and manage
- Existing risk assessment and management tools that deal with more conventional man-made and natural risks can be readily modified to also address security/terror risks

The Role Of The Employer (Enterprise) In Preparing For Catastrophes

- An Enterprise can use these existing tools, approaches and actions for reducing the likelihood and consequences of 'Normal' workplace catastrophes and, with some modification those arising from terrorism
- The Enterprise should examine existing risk management approaches before deciding to:
 - Only buy insurance and let the Insurer worry
 - Do nothing and hope for good luck or Post Hoc government bail-out

Strategic Risk Mgmt Framework (TJ Anderesen)

Figure 3 A Formalized Risk Management Process



Risk Assessment & Risk Management

- Figure 3 is taken from a paper by T. J. Andersen *
- As with most business oriented authors, Andersen's paper is highly focused on the use of Risk Assessment and Risk Management processes in regard to financial risks, though it does also touches on the need to also address physical risks
- Andersen and many of his academic peers emphasize the role of 'insurance' and other financial instruments in protecting the firm.

* [Strategic Risk Mgmt Framework for Multinational Enterprises", Andersen, Copenhagen Business school, 2005]

The importance of Risk Assessment

- Firms should recognize that many potential catastrophic losses (emotional as well financial) to the totality of the operation's stakeholders are most effectively addressed by reducing the operation's physical risks rather than ensuring coverage of Enterprise and Stakeholder financial losses
- A sound Risk Assessment (RA) process is critical for guiding efforts aimed at reducing physical & operational risks.
- Many RA models exist and hopefully the generic OECD model on the next slide will be helpful in our discussions

The Elements Of Risk Assessment

- I. Identification of Hazards
Sources with a potential to cause undesired outcomes to subjects of concern (e.g., people, property, environment, reputation etc)
- II. What events can result in exposure of subjects of concern? [Definition of sequences of events (scenarios) leading to realization of the hazard & description of the likelihood & distribution of the released potential for harm
- III. What damage may result from such a release?
Estimation of undesired outcomes for a subject of concern from defined exposure to the realized hazard
- IV. What are our assumptions and how is the risk ranked?
Identification of methods & assumptions used in arriving at the likelihood of a specified undesired outcome and the comparison of such outcomes against specified guidelines.

Risk Assessment (RA)

- Risks to the Enterprise can arise from any sequence of events (scenarios) that actualize a hazard such as :
 - Introduction of process corrosive substances
 - Release of a toxic or flammable substance
- The RA process can tell us:
 - What scenarios might lead to actualization of hazards
 - The consequences resulting from each scenario
 - How process modifications affect a specific scenario
- RA is a necessary prelude to physical risk reduction

How Should The Enterprise Proceed?

- After the Enterprise knows the potential sources of harm and the likelihood that such potentials for harm can be realized, it can begin to engineer the most cost effective way the Enterprise can reduce its operational risks.
- The Enterprise can then compare the cost/effectiveness of improved physical risk management (Prevention) vs. that of management of financial consequences (insurance routes)

Deciding How to Proceed

- In arriving at its strategy for addressing catastrophic risks, the Enterprise should take into account that some of their own and their stakeholders losses may not be adequately compensated solely by monetary means.
- Consideration should be given to the fact that stakeholders may feel that an Enterprise is not acting prudently if it focuses solely on compensation after the fact and does not also take 'reasonable' measures to prevent and/or mitigate all of its stakeholders catastrophic losses.

Note On Interdependent Security*

1. Concern with terrorism has led to the realization that the security of an Enterprise may be dependent on actions by other Enterprises, i.e., Interdependent Security.
2. Interdependencies can arise from sharing a 'commons' such as a baggage systems, industrial park, pipeline, electrical grid, etc.
3. With some adaptation, existing risk assessment and management tools developed to deal with more conventional man-made and natural risks can also address security risks

* Kunreuther, H and Heal, G. 2003. "Interdependent Security." *Journal of Risk and Uncertainty*. 26:2/3, pp. 231-249.

Societal Restraints On Enterprise Actions

- The Enterprise does not address catastrophic risks in a vacuum and the approaches it can choose to address a particular catastrophic risk are often constrained by government policy and law
- The next overhead, taken from the Kunreuther & Michel-Kerjan discussion* of counterterrorism illustrates this policy complexity

[* [“Looking beyond TRIA: A Clinical Examination of Potential Terrorism Loss Sharing,”](#) Kunreuther, H. and Michel-Kerjan, E., Center for Risk Management and Decision Processes, The Wharton School - University of Pennsylvania, 2005]

Overview of Strategies and Policies to Deal with Terrorism Risk

