

OSC | 11
Ohio Safety Congress & Expo



#254 – Cost benefit analysis for ergonomics

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Thursday, March 31, 2011
1 to 2 p.m.

Ohio Bureau of Workers' Compensation

ERGONOMICS AS A PROFIT CENTER

Harry S. Whiting II, PE

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Productivity

- Ergonomic problems lower productivity
- Fixing ergonomic problems raises productivity
- Older workers experiencing ergonomic problems may be seen as the problem
- MYTH: Older workers are less productive, less valuable and more expensive

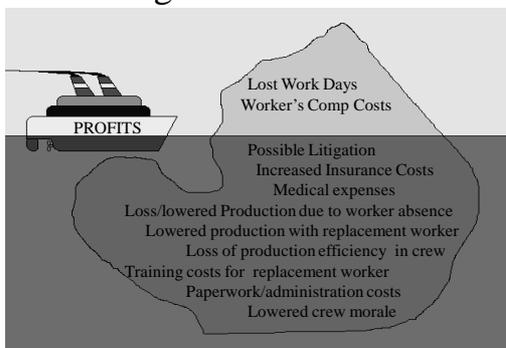
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Ergonomic Problems Cost

- Productivity
 - Productivity losses start before medical problems are detected
 - Productivity losses continue during time untrained/replacement workers are used
- Ergonomics can be economically justified by productivity gains

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Ergonomics Costs



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Costs of Ergonomic Problems

Decreased productivity:

- Lessened productivity of worker as CTD injuries develop
- Lost worker productivity during treatment and recovery
- Lessened productivity of replacement worker
- Production or quality errors made by replacement worker

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Other Costs Of Ergonomic Problems

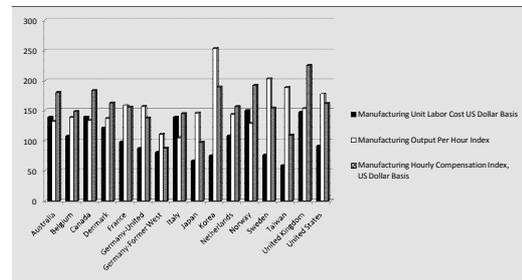
- Training costs
 - What is your average training cost?
- Medical Costs
 - What is your medical cost for an injured worker?
- FECA
 - How much will your Worker's Comp cost grow?
- Litigation
 - How much will a lawsuit cost?

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7

Productivity



2007 Comparisons of International Productivity

Source: BLS Statistics, Graph by Presenter

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8

Productivity Increase

- Production productivity:
 - Units/Time or Dollars/Unit
- Productivity increase:
 - Total increase:

$$1 - \frac{\text{New Time}}{\text{Previous Time}}$$
 - Ergonomic intervention increase:

$$\frac{\text{Time Saved by Intervention}}{\text{Previous Time}}$$

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9

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