Convince Management that Safety Affects the Bottom Line

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Session Objectives

• Review research on the various ways safety helps businesses thrive
• Introduce concepts used in business cases
• Learn to frame safety problems in financial language
• Provide tips for creating your own business case
Exploring the ROI of Safety: Research
Research: Size of Problem

Nearly 11 American workers die on the job each day.

That's almost 4,000 a year.
Research: Size of Problem

- 8,900,000 workers suffer injury/illness (6%)
- Financial cost on par with cancer

$198.2 billion
total economic cost of worker injury and death, including:

- $89.6 billion
  wage and productivity losses
- $55.7 billion
  medical costs
- $89.6 billion
  administrative expenses
Research: Costs of Safety Incidents

- Injury = $29,000
- Fatality = $1,000,000
- 5% Margin = Increase Sales $580,000 or $20,000,000 to offset
- Each worker must produce extra $1,000 goods/services to offset these costs
Research: ROI for Safety

$3-$6
Possible return for every $1 invested in safety
Research: ROI for Safety

• 95% of American business executives believe that workplace safety has a positive impact on a company’s financial performance

• Investors increase their returns 4 percentage points above market benchmarks picking stocks with strong safety performance
Safety Activities With Measurable Impact

- Regulation and compliance
- Leadership
- Employee engagement
- Safety management systems
- Risk reduction
Regulation and Compliance
Regulation and Compliance

Four types of mandatory state workplace safety interventions studied over 5 year period

• Most injury-reducing potential:
  ✓ Safety committee regulations
  ✓ Safety program regulations

• Also effective:
  ✓ OSHA inspections, consultations and fines
  ✓ Industry
  ✓ Employer size
  ✓ Union presence
  ✓ Unemployment rates
  ✓ WC benefit waiting periods
  ✓ Ratio of maximum weekly benefit to average wages
Regulation and Compliance

• 34 states encourage I2P2s (SMS)
• Manufacturers – 13 states
  • Mandatory regulations for I2P2s and safety committee requirements effective in reducing rates
  • 3 of the 4 states with only the mandatory I2P2 had the largest reductions in rates
• Study of 8 states
  • I2P2 programs lowered injury and illness rates between 9-60%
Leadership and Engagement
Journey to Safety Excellence® Leadership and Engagement

- Active role of top management in safety
- Participative leadership style
- High-ranking safety officer
- Delegation of safety activities
- Supervisor commitment
- Supervisor task checking and monitoring
- Safety meetings
- Safety policy
- Safety communication

- Incentives for employee participation
- Employee training and development
- Safety committee comprised of managers and employees
- Good management-labor relations
- Empowerment of workforce
- Resources made available
Safety Leadership and Employee Engagement

Benefits:
- Morale
- Productivity
- Costs
Research: Leadership and Engagement

• Management support and employee involvement increases > injury rates decrease
• Management demonstration of concern for workforce + employee involvement in general decision-making > lower lost-time injury rates
• Higher engagement leads to improved financial measures (50 multinationals)
U.S. Engagement Scores

29% Engaged

51% Not engaged

20% Actively not engaged

Source: Gallup Consulting
Safety Management Systems
Journey to Safety Excellence® Safety Management Systems

- Workplace design and engineering
- Preventive planning
- Emergency planning
- Drills (emergency, safety, rescue)
- Equipment inspections
- Facility inspections
- Control and review of activities (JHA, JSA)
- Audits
- Behavior-based safety (observation and feedback)
- Use of modified duty
- Incident analysis
- Inclusion of contractors, suppliers, in safety programming
- Human resources planning
- Discipline, counseling structure outlined
- Reward, incentive system
Safety Management Systems

Benefits:

- Management accountability
- Competitive advantage
- Injuries and deaths
SMS Standards and Guidelines

- NSC Journey to Safety Excellence – 9 Elements
- OSHA VPP
- ANSI Z10 (American)
- OHSAS 18001 (International)
- CSA Z1000 (Canada)
- ISO 9000 (International, Quality Management System)
- ISO 14000 (International, Environmental Management System)
Research: Safety Management

• Injury and illness programs lowered injury and illness rates between 9-60%
• Reduce injuries by 15-35% = $9-$23 billion WC savings
• Lagging indicators don’t tell whole story
  • WC records miss 23 - 53% of injuries and 91% of occupational disease deaths
Research: Safety Management

• Voluntary safety performance measurement programs show:
  • DART rate **52%** below average
  • 52% decrease in number of claims
  • 80% decrease in average claim cost
  • 87% decrease in lost time per claim

• Actively putting your company under the microscope to improve safety leads to better outcomes
Research: Safety Management

• Safety management systems impact:
  1. Company image/reputation, productivity and capacity to innovate
  2. Injury rates
  3. Financial performance (sales, profits, financial profitability)
NSC Safety System Assessment

- Self-assessment
- 69-questions
- Benchmark percentile ranking
- Available for FREE at [nsc.org/journey](http://nsc.org/journey)
Risk Reduction
Journey to Safety Excellence® Risk Reduction

- Risk assessment
- Job planning
- Evaluation of job hazards
- Ergonomics
- Machine safeguarding
- Industrial hygiene

- Monitoring use of personal protective equipment
- Preventive maintenance
- Employee health screening
Risk Reduction

Benefits:

- Prevents injury + death
- Reduces injury + illness costs
- Engages everyone in safety
Research: Risk Reduction

• Numerous studies show correlation between an employee’s perception of hazards & their productivity
  – Fewer hazards perceived > higher productivity
  – Driving example – congestion, weather

• 40% deaths/injuries occur off the job = 30% of employers’ total cost for injured workers
  – Risk reduction efforts must also include driving safety, home safety, and recreation safety

• Studies support $1: $10 saved for ergonomics
Research: Risk Reduction

The average cost of a minor incident is 16 times higher than the cost of the preventive measure.

The average cost of a very serious or fatal incident is 48 times higher than the cost of the preventive measure.
Steps & Tips for Preparing a Business Case
Why a Business Case?

• Provides a formal method for evaluating safety investments vs. “acting on good faith”
• Illustrates the cost of risk more completely
  • Not just WC costs
  • Includes business interruption, loss of production time, personnel time, repairs to equipment
• Increases management trust in you
• May protect company from blame or liability in event of injury or fatality
Step One

1. Define problem and desired outcome
   • Issues you want to solve
   • Evidence showing problem exists
   • Desired outcome your plan can achieve
Step One

“Sixty nurses caring for physically-dependent patients are exposed to back, neck and shoulder injuries from lifting, transferring and moving patients manually. Nurses, on average, do these tasks 30 times per day.”
Step Two

2. Calculate the cost of the exposure or risk targeted by the program
   • Direct costs related to problem (use high/low estimates)
   • Indirect costs (keep separate and use 2 multipliers)
Step Two

“The median cost of a back, neck, or shoulder injury has a direct cost of between $18,000 (actual) and $25,000 (industry average for nurses) and an indirect cost of between $36,000 (actual x 2) and $100,000 (avg. x 4).”
Step Two

“This equates to a per injury estimate of between $54,000 - $125,000. Our organization has averaged 12 incidents per year for the past 5 years equating to between $648,000 - $1,500,000 annual cost ($10,800 - $25,000 per nurse exposed).”
Cost Factors to Consider

• Direct
  • WC payments
  • Medical expenses
  • Civil liability damages
  • Litigation expenses
  • Property losses

• Indirect
  • Workplace disruption
  • Loss of productivity
  • Worker replacement
  • Training
  • Damage to equipment
  • Administrative time
  • Negative publicity
  • Ability to attract talent
Indirect Cost Estimates

• Research shows $2.12 to $2.73 per $1 direct
• $25,000 ankle injury = $90,000 = 1 FTE salary + benefits
• Construction industry $4-17
• Use 2 estimates
Sources of Information

• Sickness and absence data
• WC premium, EMR, and insurance plan
• Staff retention numbers – newer workers have higher injury rates
• Benchmarking (rates, EMR, OSHA’s top 10, associations)
• Company financials (shareholder return, profits, growth, market share)
### Expressing Costs

<table>
<thead>
<tr>
<th>Cost of illness and injury:</th>
<th>Example:</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a percentage of payroll</td>
<td>&quot;Our injury costs represent 15% of payroll.&quot;</td>
</tr>
<tr>
<td>In production terms</td>
<td>&quot;Our facility has to operate the first five days of the month just to pay for injury losses.&quot;</td>
</tr>
<tr>
<td>In product cost terms</td>
<td>&quot;$1 of the $10 it takes to make the product goes to injury losses. That 10% markup makes us less competitive and less profitable.&quot;</td>
</tr>
<tr>
<td>In product sales terms</td>
<td>&quot;To counteract our losses this month, we have to sell 1,000 more units than last month.&quot;</td>
</tr>
<tr>
<td>Per employee</td>
<td>&quot;This injury cost equates to $300 per employee per year.&quot;</td>
</tr>
</tbody>
</table>
Translating Injuries to Sales Equivalents

• Need:
  • Injury/illness costs
  • Profit margin

• Formula:

  \[ \text{\$ Injury Cost} \times 100\% \]

  Profit Margin %
Translating Injuries to Sales Equivalents

• Example
  • Injury/illness costs = $18,000 (actual)
  • Profit margin = 5%

• Formula:
  \[
  \frac{18,000 \times 100}{5} = 360,000
  \]
Translating Injuries to Sales Equivalents

• Example
  • Injury/illness costs = $54,000 (low estimate)
  • Profit margin = 5%

• Formula:
  \[
  \frac{54,000 \times 100}{5} = \$1,080,000
  \]
Step Three

3. Calculate program costs
   - Budget
     - Start-up funding
     - Operations money
     - Ongoing or maintenance costs
   - Program elements
     - Time, equipment, other resource drains
   - Ideas for practical implementation
Step Three

“Cost for training a dedicated lift team, and purchase, installation and maintenance of lift equipment is between $200,000 and $300,000.”
Step Four

4. Project anticipated reductions in exposure or risk
   • Number of workers exposed or frequency of exposure
   • Injury or WC cost reductions
   • Include estimates for indirect benefits
Step Four

“Similar interventions at hospitals across the country have reported between 35-65% reduction in number of claims, 60-80% reduction in lost work days, and 70-85% reduction in medical costs...”
Step Four

“By training a lift team, we would reduce our exposure from 60 nurses to 14 – who would do no manual lifting, transferring or moving. This equates to a possible reduction of 4-8 injuries per year.”
Step Five

5. Calculate value of each benefit using high and low estimates
Step Five

“This reduction of injuries equates to annual savings between $216,000 (4 fewer injuries at $54,000 each) and $1,000,000 (8 fewer injuries at $125,000 each).”
Step Six

6. Calculate the cost-benefit ratios
   • High benefit / low cost
   • Low benefit / high cost
   • Result is a range of ratios
Step Six

“The range of cost-benefit ratio is:
$1 to $.72  $216,000 (low benefit)
            $300,000 (high cost)

$1 to $5  $1,000,000 (high benefit)
            $200,000 (low cost).”
Also Include

• Consequences of non-action, non-compliance
• Discussion of alternative solutions
• List of constraints that limited ability to gather and analyze data
• Explanation of calculations and assumptions underlying them
Positioning

• Choose appropriate tone
  • Emphasize negative outcomes (fatalities, injury rates, WC claims costs)
  • Accentuate positive benefits (improved morale, productivity, customer satisfaction)
  • Combination of both
Reasoning

• Use order of reasoning in business case
  • ROI on productivity improvement
  • ROI on direct cost savings
  • ROI on indirect cost savings
  • Improving organizational metrics
  • Reducing financial risk
  • Improving compliance
  • Aligning with corporate values
Timing

• Appropriate time in business planning cycle
  • Begin developing business case 120 days before new budget year begins
  • Sooner if you have to do fact-finding and research
Enlisting Others

• Business functions that relate to safety (HR, training & development, quality, fire and security, financial risk mgmt.)
• Financial and other business data may reside in accounting, personnel, and operations depts.
• Union representatives, if applicable
Other Factors

• Management perceptions of you, safety team, safety profession
  • “Engineers and scientists don’t understand how business works”
  • Safety professionals too idealistic and rigid in doing things “right”
  • “By the book” or “my way or the highway” vs. collaborative, “win-win” mindset
NSC White Papers Available

• Free download at nsc.org/journey
  • The Business Case for Investment in Safety: A Guide for Executives
Register at nsc.org/journey
Questions?
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