THE BUSINESS SIDE OF SAFETY
WHY INVEST IN SAFETY

- Moral Obligation
- Legal Obligation
- Financial Obligation
SAFETY TEETER TOTTER

EMPLOYEE SAFETY → Risk → COMPANY BUDGET
What is Profit?

A financial gain after all expenses have been paid.
EXPENSES & LOSSES

• What are Expenses?
  - A cost of doing business.

• What are Losses?
  - Are unexpected and unplanned events that result in additional expenses.
Expense Centers – are the parts of business with operational costs that do not directly add to its profit.

Profit Centers – are the parts of businesses that directly add profit.
Specialized safety equipment
Non – productive training time
New method of operation
Safety professionals do not build any sellable products or services
Safety appears to be an EXPENSE CENTER
THE SAFETY DILEMMA

- How do we calculate the value of events that never happened.

- The point of safety is not to make stuff happen, nor is it to build stuff. The point is to make stuff **NOT** happen.
Accidents look like expenses, but

The lack of accidents never looks like income!
The cost associated with business RISK can be broken up into five major categories which together form what is commonly know as TCOR

Total Cost Of Risk
TOTAL COST OF RISK (TCOR)

- Cost of Insurance
- Retained Loss Cost
- Uninsured Loss Cost
- Admin, Taxes, Fees & Fines
- Cost of Prevention
TOTAL COST OF RISK (TCOR)

TCOR

Cost of Insurance
Retained Loss Cost
Uninsured Loss Cost
Admin, Taxes, Fees & Fines
Cost of Prevention

Primary Insurance Premiums
Excess Insurance Premiums
Any Required Collateral
DEFINITION OF INSURANCE

- **Insurance** is a form of risk management primarily used to hedge against the risk of a contingent, uncertain loss.

- Insurance is defined as the equitable transfer of the risk of a loss, from one entity to another, in exchange for payment.

- What cards are you holding?
TOTAL COST OF RISK (TCOR)

TCOR

- Cost of Insurance
- Retained Loss Cost
- Uninsured Loss Cost
- Admin, Taxes, Fees & Fines
- Cost of Prevention

Any Policy Deductibles
Any Self-Pay or Loss Retention Amount
WHAT IS THE EMR?

• The EMR (Experience Modification Rate) is used to determine an adjustment on Workers Compensation Premiums. This is based on the company’s experience with losses as compared to the state(s) average losses for companies performing similar work.
WHAT KIND OF COMPANY ARE YOU?

Company X
(Re-active Safety Program)

- Annual Premium: $200,000
- EMR x 1.25
- Total: $250,000

Company Y
(Pro-active Safety Program)

- Annual Premium: $200,000
- EMR x .75
- Total: $150,000

Total Savings: $100,000

* Note: this is not a one-time savings, but an ANNUAL savings.
ACTUAL VS. EXPECTED

Actual Losses

Expected Losses

- Expected stays the Same, Actual Increases = Higher EMR
- Expected stays the Same, Actual Decreases = Lower EMR
- Actual stays the Same, Expected Increases = Lower EMR
- Actual stays the Same, Expected Decreases = Higher EMR
EXAMPLES
TOTAL COST OF RISK (TCOR)

TCOR

- Cost of Insurance
- Retained Loss Cost
- Uninsured Loss Cost
- Admin, Taxes, Fees & Fines
- Cost of Prevention

Lost Time of Injured Worker
Lost Time of Co-Workers
Hiring and / or Retraining
Loss of Work due to Reputation or Poor EMR
INDIRECT COST OF CLAIMS

- A factor of the Direct claims costs as calculated by OSHA with the help of the insurance industry.
  - $1-$2,999 = 4.5 multiplier
  - $3,000 - $4,999 = 1.6 multiplier
  - $5,000 - $9.999 = 1.2 multiplier
  - ≥ $10,000 = 1.1 multiplier

Notice Only Claims = $1,000
ROLE OF THE EMR IN CONSTRUCTION

- Pre-qualification
  - Owners (Pharmaceuticals, Hospitals, Oil & Gas)
  - Certifications

- Bidding
  - Increased workers comp premium means an increase in labor rates.
  - The lower the EMR, the lower the cost of insurance, thus the lower the bid one can submit.
TOTAL COST OF RISK (TCOR)

TCOR

- Cost of Insurance
- Retained Loss Cost
- Uninsured Loss Cost
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- Cost of Prevention

- Lost Time of Injured Worker
- Lost Time of Co-Workers
- Hiring and / or Retraining
- Loss of Work due to Reputation or Poor EMR
TOTAL COST OF RISK (TCOR)

TCOR

- Cost of Insurance
- Retained Loss Cost
- Uninsured Loss Cost
- Admin, Taxes, Fees & Fines
- Cost of Prevention

Time Spent on Insurance Issues.
Time Spent Managing Claims
Fees for consultants and attorneys
Regulatory Fines (OSHA, EPA, DOT etc.)
TOTAL COST OF RISK (TCOR)

- Cost of Hazard Identification
- Cost of Safety Personnel
- Cost of Safety Equipment
- Cost of Training Time
- Cost of Prevention
- Admin, Taxes, Fees & Fines
- Uninsured Loss Cost
- Retained Loss Cost
- Cost of Insurance
EXPENSES VS. INVESTMENTS

- Cost of Insurance
  - Retained Loss Cost
  - Uninsured Loss Cost
  - Admin, Taxes, Fees & Fines

- Cost of Prevention
How to Calculate Your Success
MEASURE YOUR CURRENT PROGRAM

- Experience Modification Rate
- Look at your OSHA 300 Logs
  - Injury types
  - Lost Work Day Cases
  - Small companies vs. Large companies
- Bureau of Labor Statistics (BLR)
- Insurance Companies
### Stanford Accident Cost Matrix


<table>
<thead>
<tr>
<th>Body Part/Injury Type</th>
<th>Amputation</th>
<th>Strain Sprain Crush Mash Smash</th>
<th>Fracture</th>
<th>Cut/Puncture/Laceration</th>
<th>Burn</th>
<th>Bruise Abrasion</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head, Face</td>
<td>NA</td>
<td>NA</td>
<td>50</td>
<td>600</td>
<td>20</td>
<td>25</td>
<td>550</td>
</tr>
<tr>
<td>Eye (s)</td>
<td>3,300 (1)</td>
<td>NA</td>
<td>50</td>
<td>600</td>
<td>20</td>
<td>25</td>
<td>550</td>
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<tr>
<td>Neck and Shoulder</td>
<td>NA</td>
<td>25</td>
<td>110</td>
<td>600</td>
<td>20</td>
<td>25</td>
<td>550</td>
</tr>
<tr>
<td>Arm (s) and Elbow (s)</td>
<td>14,000 (1)</td>
<td>25</td>
<td>75</td>
<td>450</td>
<td>20</td>
<td>25</td>
<td>550</td>
</tr>
<tr>
<td>Wrist (s) and Hand</td>
<td>3,800 (1)</td>
<td>20</td>
<td>50</td>
<td>650</td>
<td>20</td>
<td>25</td>
<td>550</td>
</tr>
<tr>
<td>Thumb (s) and Finger (s)</td>
<td>600 ea.</td>
<td>20</td>
<td>25</td>
<td>380</td>
<td>20</td>
<td>25</td>
<td>550</td>
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<tr>
<td>Back</td>
<td>NA</td>
<td>150</td>
<td>750</td>
<td>NA</td>
<td>7400</td>
<td>20</td>
<td>25</td>
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<tr>
<td>Chest &amp; Lower Trunk</td>
<td>NA</td>
<td>35</td>
<td>75</td>
<td>300</td>
<td>35</td>
<td>20</td>
<td>25</td>
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<tr>
<td>Ribs</td>
<td>NA</td>
<td>25</td>
<td>30</td>
<td>25</td>
<td>20</td>
<td>25</td>
<td>220</td>
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<tr>
<td>Hip</td>
<td>NA</td>
<td>NA</td>
<td>260</td>
<td>35</td>
<td>900</td>
<td>25</td>
<td>220</td>
</tr>
<tr>
<td>Leg (s) and Knees</td>
<td>6,600 (1)</td>
<td>30</td>
<td>35</td>
<td>1100</td>
<td>20</td>
<td>25</td>
<td>220</td>
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<tr>
<td>Foot (feet) Ankle (s)</td>
<td>3,300 (1)</td>
<td>20</td>
<td>35</td>
<td>650</td>
<td>15</td>
<td>20</td>
<td>220</td>
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<tr>
<td>Toe (s)</td>
<td>520 ea.</td>
<td>20</td>
<td>15</td>
<td>190</td>
<td>20</td>
<td>25</td>
<td>220</td>
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<tr>
<td>Hernia, Rupture</td>
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<td></td>
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<td>600</td>
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<tr>
<td>Heart Attack</td>
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<td></td>
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<td>15</td>
<td>600</td>
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<td>Hearing Loss</td>
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<td></td>
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<tr>
<td>Death</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,200</td>
<td></td>
</tr>
</tbody>
</table>

- For each column, left side numbers = no lost time; right side numbers = lost-time accident.
- All costs in equivalent labor hours (to obtain dollar value, multiply by job labor rate, including fringes).
- Assumes a very conservative 2:1 indirect to direct cost ratio.
EXAMPLE: COMPANY X

- Strained Lower Back – Lost Time
  \[ 750 \times $50 = 37,500 \]

- Laceration to the Hand – Lost Time
  \[ 220 \times $50 = $11,000 \]

- Fractured Leg – Lost Time
  \[ 1100 \times $50 = $55,000 \]
EXAMPLE: COMPANY X

- Trained 60 Workers In 4-hour Fall Protection Course.
  + Workers Income Is Approx. $50 / Hour
  + Total Cost Of Training = $12,000

- Personal Fall Arrest Equipment for Employees
  + $12,000
RETURN ON INVESTMENT

\[
\text{ROI} = \frac{(\text{Gain From Investment} - \text{Cost of Investment})}{\text{Cost of Investment}}
\]

\[
\text{ROI} = \frac{($103,500 - $24,000)}{$24,000}
\]

\[
\text{ROI} = $3.31
\]
Financial Cost/Benefit Analysis Cases For Safety Must Include The “True Costs”

- Both Direct and Indirect Cost
INDIRECT COST OF CLAIMS

- A factor of the Direct claims costs as calculated by OSHA with the help of the insurance industry.
  - $1-$2,999 = 4.5 multiplier
  - $3,000 - $4,999 = 1.6 multiplier
  - $5,000 - $9,999 = 1.2 multiplier
  - ≥ $10,000 = 1.1 multiplier

Notice Only Claims = $1,000
EXAMPLE: COMPANY X

- Strained Lower Back – Lost Time
  + $37,500 = $78,750

- Laceration to the Hand – Lost Time
  + $11,000 = $23,100

- Fractured Leg – Lost Time
  + $55,000 = $115,500
RETURN ON INVESTMENT

ROI = \frac{(\text{Gain From Investment} - \text{Cost of Investment})}{\text{Cost of Investment}}

ROI = \frac{($217,350 - $24,000)}{$24,000}

ROI = \$8.05
Strategies to Reduce Your Losses
STRATEGIES TO REDUCE YOUR LOSSES

• Safety Culture Vs. Safety Program
• Develop a Substance Abuse Program
• Train for Quality not for Compliance
• Develop Accident Procedures
• Develop a Return To Work Program
• Manage **Your** Claims from start to finish
WORKERS COMPENSATION COST CASCADE

In house health resource
$

Off site health resource
$

Hospital based care - Emergency dept.
$

Specialist consultation - Orthopedic
$

Imaging studies - CT, MRI, Pet Scans, EMG
$

OT, PT, Chiro Massage therapy
$

Surgical Intervention
Surgical fee $$$$$ Facility fee

More rehab - Pain Management
Nerve blocks $$$$$$$ Pharmaceuticals
QUESTIONS?