

# Being Safe in a Risky Business

## Part 1 – Introduction: Safety Concepts

2012 ASFE Fall Meeting, Denver, CO

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- **Part 1 – Introduction to Safety Concepts**
- Part 2 – Tools of a World Class Safety Program
- Part 3 – Continuously Improving Safety Program
- Part 4 – How is Your Safety Program Doing?

# WHY SHOULD A FIRM'S SAFETY PERFORMANCE BE IMPORTANT TO ASFE MEMBER?

# RIGHT THING TO DO

# Why Safety???



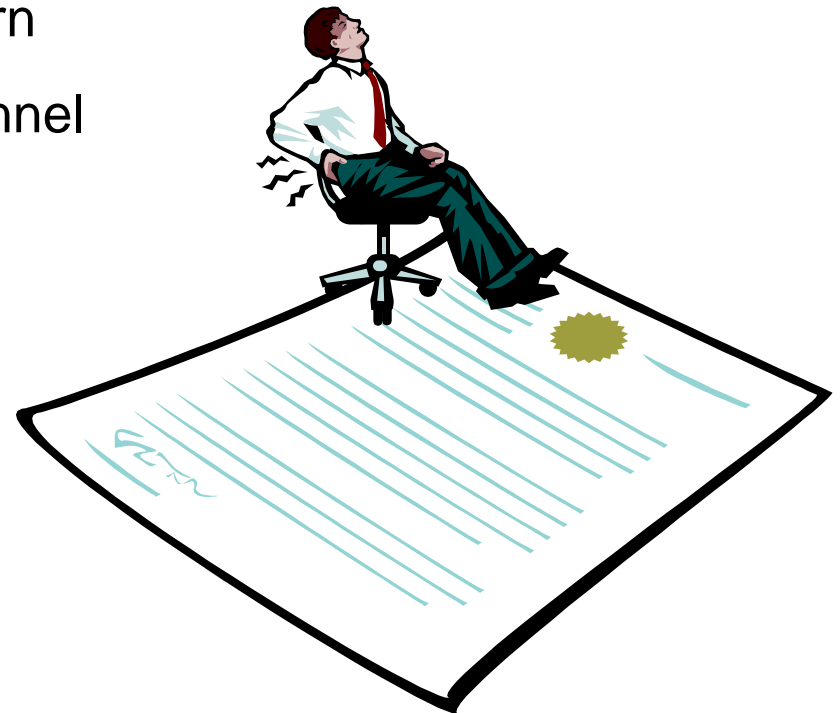
# Why Safety??? – Direct Costs

- Workers' Compensation Claims & Premiums
- OSHA Fines
- Medical Bills
- Legal Costs
- Increased Insurance Costs
- Equipment, Materials, Tools repair or replacement
- Uninsured property damage



# Why Safety??? – Indirect Costs

- Loss of Trained Employees
- Unbillable Time for Each Incident
- Time-Loss Compensation w/o Return
- Hiring and Replacing Injured Personnel
- Publicity



# Why Safety??? – Positive Revenue

- Productivity
- Product
- Deliverable
- Publicity
- Project Wins





# Why Do Clients Require So Much Data?

# Clients – Why

- Workers' Compensation Claims & Premiums
- OSHA Fines
- Medical Bills
- Legal Costs
- Increased Insurance Costs
- Equipment, Materials, Tools repair or replacement
- Uninsured property damage
- Loss of Trained Employees
- Unbillable Time for Each Incident
- Time-Loss Compensation w/o Return
- Hiring and Replacing Injured Personnel
- Publicity



# Client -- Questionnaire or Death by Questions



Do you have a written safety program?

Recognition Program?

EMR?      TRIR?      Fatalities?

Do you investigate all incidents?

Do you train supervisors?

Do you have a full time safety officer?

What training do you provide?

Do you have tailgate safety meetings?

Management of change?

What is your favorite color?

Do you have a program for employees to report safety issues?

BBS?    NAICS?

To the best of my knowledge all information provided is true.

A stylized, cursive signature in black ink that reads "John Hancock".

## Clients

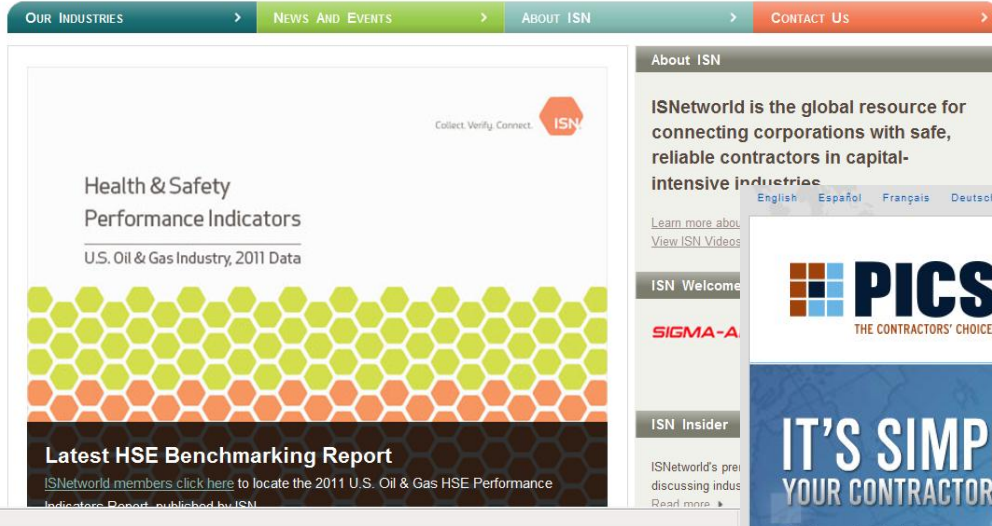


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Password:

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- Total Recordable Incident Rate (TRIR)
- Days Away, Restricted and Transferred Rate (DART)
- Lost Workday Case Rate (LWCR)
- Fatalities

$$\text{Rate} = \frac{\# \text{ of Cases} \times 200,000}{\text{Total Hours Worked}}$$


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## Injuries, Illnesses, and Fatalities

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- CURRENT INJURY, ILLNESS, AND FATALITY DATA ▸
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**TOPICS**

- INFORMATION FOR RESPONDENTS
- STATE DATA
- PUBLISHED ARTICLES
- FACT SHEETS ▸
- SPECIAL RELEASES ▸

The **Injuries, Illnesses, and Fatalities (IIF)** program provides annual information on the rate and number of work related injuries, illnesses, and fatal injuries, and how these statistics vary by incident, industry, geography, occupation, and other characteristics.

### Fatal occupational injuries and Workers' Memorial Day

Revised and final 2010 data from the Census of Fatal Occupational Injuries (CFOI) were released on April 25, 2012 - just 3 days before Workers' Memorial Day. For more information on fatal occupational injuries in the United States and Workers' Memorial Day, please see [http://www.bls.gov/iif/oshwc/cfoi/worker\\_memorial.htm](http://www.bls.gov/iif/oshwc/cfoi/worker_memorial.htm).

### Occupational Injury and Illness Classification System (OIICS) 2.0 Undergoes Minor Update

In September 2010, the Bureau of Labor Statistics completed a major revision to the Occupational Injury and Illness Classification System (OIICS). The OIICS is used in the Census of Fatal Occupational Injuries (CFOI) and the Survey of Occupational Injuries and Illnesses (SOII) to code various circumstances of the individual injury or illness reported. OIICS provides a structure to classify the: **nature** of the injury and **part of body affected**, **source** and **secondary source** of the injury, and **event or exposure** that precipitated the injury. The new version, OIICS 2.0, constitutes the first comprehensive revision to the OIICS since its creation in December 1992.

A minor update (OIICS 2.01), incorporating some corrections and clarifications, was released in January 2012. BLS will adopt OIICS 2.01 beginning with data for 2011 for both CFOI and SOII. [Click here](#) to go to the main OIICS page. Data for earlier years were classified according to the 1992 and 2007 OIICS Manuals. Because of the extensive revisions, data for the OIICS case characteristics for 2011 are a break in series with data for prior years.

### LATEST NUMBERS

**NONFATAL INJURIES AND ILLNESSES, PRIVATE INDUSTRY**

Total recordable cases:  
3,063,400 in 2010

Cases involving days away from work:  
933,200 in 2010

Cases involving sprains, strains, tears:  
370,130 in 2010

Cases involving injuries to the back:  
185,270 in 2010

Cases involving falls:  
208,470 in 2010

**FATAL WORK-RELATED INJURIES**

Total fatal injuries (all sectors):  
4,609(p) in 2011

Roadway incidents (all sectors):  
1,075(p) in 2011

Falls, slips, trips (all sectors):  
666(p) in 2011

Homicides (all sectors):  
152 in 2011

 Internet | [Prote...](#)

<http://www.bls.gov/iif/>

TABLE SNR01. Highest incidence rates<sup>1</sup> of total nonfatal occupational injury and illness cases, 2010

Industry <sup>2</sup>	NAICS code <sup>3</sup>	2010 Annual average employment <sup>4</sup> (thousands)	Incidence rate	
			2009	2010
Nursing and residential care facilities (State government) .....	623	140.6	—	15.1
Fire protection (Local government) .....	92216	234.3	15.3	13.9
Travel trailer and camper manufacturing (Private industry) .....	336214	24.1	10.2	13.2
Iron foundries (Private industry) .....	331511	37.0	11.3	12.0
Hospitals (State government) .....	622	344.6	11.0	11.8
Skating facilities (Private industry) .....	71392	34.6	10.5	11.8
Nursing and residential care facilities (Local government) .....	623	77.6	11.1	11.4
Police protection (Local government) .....	92212	442.5	12.7	11.1
Aluminum die-casting foundries (Private industry) .....	331521	14.0	7.2	<sup>5</sup> 10.9
Ambulance services (Private industry) .....	62191	149.3	9.9	10.8
Steel foundries (except investment) (Private industry) .....	331513	15.0	7.7	<sup>5</sup> 10.4
Sugar manufacturing (Private industry) .....	31131	12.0	7.5	10.1
Elevator and moving stairway manufacturing (Private industry) .....	333921	7.9	7.0	9.9
Other concrete product manufacturing (Private industry) .....	32739	47.8	5.6	<sup>5</sup> 9.7
Heavy and civil engineering construction (Local government) .....	237	106.8	13.1	9.6
Light truck and utility vehicle manufacturing (Private industry) .....	336112	36.5	9.4	9.6
Veterinary services (Private industry) .....	54194	297.2	9.4	9.5
Ship building and repairing (Private industry) .....	336611	98.1	7.8	<sup>5</sup> 9.3
Iron and steel forging (Private industry) .....	332111	20.5	7.6	9.2
Aluminum foundries (except die-casting) (Private industry) .....	331524	14.8	9.0	8.9
Animal (except poultry) slaughtering (Private industry) .....	311611	145.5	9.3	<sup>5</sup> 8.8
Scheduled passenger air transportation (Private industry) .....	481111	400.6	9.5	<sup>5</sup> 8.8
Soft drink manufacturing (Private industry) .....	312111	74.5	9.1	8.6
Nursing care facilities (Private industry) .....	6231	1,651.1	8.9	<sup>5</sup> 8.6
Pet and pet supplies stores (Private industry) .....	45391	100.4	13.6	<sup>5</sup> 8.4
<b>All industries including State and local government<sup>5</sup> .....</b>		<b>124,868.5</b>	<b>3.9</b>	<b><sup>5</sup>3.8</b>

<sup>1</sup> The incidence rates represent the number of injuries and illnesses per 100 full-time workers and were calculated as: (NI/EH) x 200,000, where

N = number of injuries and illnesses  
 EH = total hours worked by all employees during the calendar year  
 200,000 = base for 100 equivalent full-time workers (working 40 hours per week, 50 weeks per year)

<sup>2</sup> High rate industries were those having the highest incidence rate of total recordable cases of injuries and illnesses and at least 800 total recordable cases at the most detailed

level of publication, based on the North American Industry Classification System — United States, 2007.

<sup>3</sup> North American Industry Classification System — United States, 2007

<sup>4</sup> Employment is expressed as an annual average and is derived primarily from the BLS Quarterly Census of Employment and Wages (QCEW) program.

<sup>5</sup> A statistical significance test indicates that the difference between the 2010 incidence rate and the 2009 rate is statistically significant at the 95 percent confidence level.

<sup>6</sup> Excludes farms with fewer than 11 employees.

NOTE: Dash indicates data do not meet publication guidelines.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, October 2011

## ■ Experience Modification Rating (EMR)

$$\text{EMR} = \text{Actual Losses} / \text{Expected Losses}$$

Class Code	Payroll	Rate Per \$100	Premium
5183	\$800,000	\$8.25	\$66,000
Experience Mod	.80		(\$13,200)
Modified Premium			\$52,800

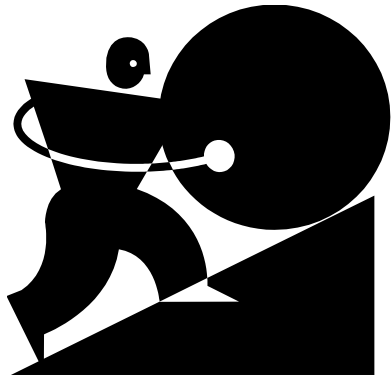
Class Code	Payroll	Rate Per \$100	Premium
5183	\$800,000	\$8.25	\$66,000
Experience Mod	1.2		\$13,200
Modified Premium			\$79,200

EMR > 1 Worse than average

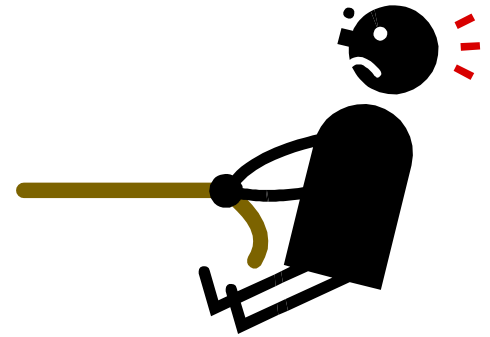
EMR < 1 Better than average



# What is Your Safety Culture?



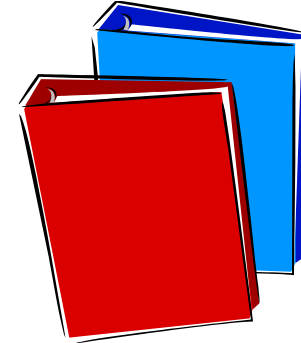
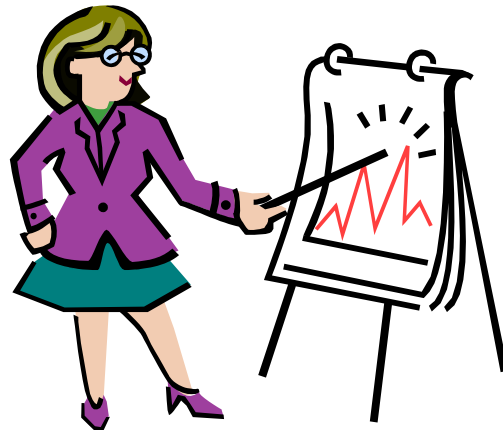
Reactive  
or  
Proactive



# What Does Your Safety Program Look Like?

# Your Program

- Written Program
- Who's Responsible?
- Reporting
- Training
- Meetings





## Priorities:

- Imminent Danger Situations
- Fatalities and Catastrophes
- Complaints
- Referrals
- Follow-ups
- Planned or Programmed Investigations

## Most Frequently Cited Standards

1. Scaffolding, general requirements, construction
2. Fall protection, construction
3. Hazard communication standard, general industry]
4. Respiratory protection, general
5. Control of hazardous energy (lockout/tagout), general industry
6. Electrical, wiring methods, components and equipment, general industry
7. Powered industrial trucks, general industry
8. Ladders, construction
9. Electrical systems design, general requirements, general industry
10. Machines, general requirements, general industry

## Highest Assessed Penalties

1. Fall protection, construction
2. Scaffolding, general requirements, construction
3. Control of hazardous energy (lockout/tagout), general industry
4. Machines, general requirements, general industry
5. Ladders, construction
6. Excavations, requirements for protective systems
7. Powered industrial trucks, general industry
8. General duty clause
9. Electrical, wiring methods, components and equipment, general industry
10. Electrical systems design, general requirements, general industry

- On multi-employer worksites (in all industry sectors), more than one employer may be citable for a hazardous condition that violates an OSHA standard. A two-step process must be followed in determining whether more than one employer is to be cited.
  
- Creating Employer
- Exposing Employer
- Correcting Employer
- Controlling Employer

## OSHA Compliance Assistance for Fiscal Year 2011 included:

- OSHA's free [On-site Consultation Program](#) conducted 29,839 visits to small and medium-sized employers covering over 1.3 million workers
- 196 million visits to OSHA's Web site
- 211,074 calls to the [OSHA 800 number](#)
- 12,999 Spanish-speaking callers to the [OSHA 800 number](#)
- 32,778 questions answered by [email](#)
- 716,062 students taught through OSHA's [Outreach Training Program](#)
- 791,004 [OSHA publications](#) provided





- Safety Professional – Full Time
  - Certified Industrial Hygienist (CIH)
  - Certified Safety Professional (CSP)
- Consultants
- National Safety Council (NSC)
- American Society of Safety Engineers (ASSE)
- American Industrial Hygiene Association (AIHA)



- [www.osha.gov](http://www.osha.gov)
- National Institute of Occupational Safety and Health  
<http://www.cdc.gov/niosh>
- American Society of Safety Engineers [www.asse.org](http://www.asse.org)
- American Industrial Hygiene Association [www.aiha.org](http://www.aiha.org)
- ISN [www.isnetworld.com](http://www.isnetworld.com)
- [www.OSH.Net\](http://www.OSH.Net/)
- National Safety Council [www.nsc.org](http://www.nsc.org)
- ASFE Practice Alert 51: Safety and Your Geoprofessional Practice

# Questions?

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