INDIANA DEPARTMENT OF LABOR

Making Data Driven Decisions

Using 300 Logs and accident reports to better your safety program

Kenneth Boucher
Executive Director of Quality Metrics and Statistics
Indiana Department of Labor

Monday, February 26, 2018

Topics of Discussion

- Standard Forms (300, 300A, 301, First Report of Injury)
- Determining Root Cause
- Implementing Changes

Standard Forms

Standard Forms

- OSHA 300 Log
- OSHA 300A
- OSHA 301
- First Report of Injury

Data Fields from the 300, 300A, 301 and FROI			
Number of Cases	Treating Physician	Employer Address	Date Employer Notified of Injury
Number of Fatalities	Treatment Facility	Location Number	Last Work Date
Number of DAFW Cases	Emergency Room Visit	Telephone Number	Time Workday Began
Number of DJTR Cases	In-patient Hospitalization	Worker's Comp Carrier Claim Number	Date Disability Began
Number of Other Cases	Time Injured Began Work	SIC Code	Part of Body Injured
Total DAFW	Time of Injury	Employer's Location Address	Injury Type Code
Total DJTR	Social Security Number	OSHA Log Number	Body Part Type Code
Injured's name	Gender	Insured Report Number	Return to Work Date
Injured's Job Title	NCCI Class Code	Report Purpose Code	Date of Death
Date of Injury	State of Hire	Location of Accident	Employer's Premises?
Date of Death	Employee Status	Name of Claims Administrator	Name of Contact
Location of Injury	Injured's Marital Status	Address of Claims Administrator	Department/Location Where Exposure Occurred
Type of Injury	Hours Worked per Day	Claims Administrator's Phone Number	Equipment/Materials/ Chemicals Involved
What the Employee Was Doing	Days Worked per Week	Name of Agent	Specific Work Activity
What Happened	Average Wage per Week	Carrier Federal ID Number	Work Process During Accident
Diagnosis	Payment on Day of Injury	Insurance Carrier	How Incident Occurred
Object/Substance Causing Injury	Payment After Day of Injury	Self-Insured Status	Name of Witness
Injured's Home Address	Injured's Wage	Policy Number	Witness' Telephone Number
Injured's Date of Birth	Employer Name	Policy Period	Date Administrator Notified
Injured's Date of Hire	Employer ID#	Code Number	Initial Treatment

Determining Root Cause

Determining Root Cause

- Go with your gut?
- Waste of time to investigate?
- First impression always right?
- No one died, do we even care?

Scenario:
You work in a company that mandates employees wear safety glasses with side shields, earplugs and steel toe boots at all times while on the manufacturing floor.

An employee gets a metal shaving in his eye while running a machine.

Why?

Determining Root Cause

- Go with your gut? **NO!**
- Waste of time to investigate? **NO!**
- First impression always right? **NO!**
- No one died, do we even care? **YES!**

Handy Tools

- **5 Whys**
- **Ishikawa (Fishbone) Diagram**
- **DMAIC process**

5 Whys

- **Easy to perform**
- **Quick**
- **Almost no financial investment**
- **Can be initiated at the time of the incident**

How 5 Whys Works

1. **Write down your problem statement.**
2. **Ask why the problem occurred.**
3. **If this answer doesn't tackle the problem, ask "why" again.**
4. **Repeat step 3 until the root cause of the problem has been addressed.**

Scenario:
You work in a company that mandates employees wear safety glasses with side shields, earplugs and steel toe boots at all times while on the manufacturing floor.

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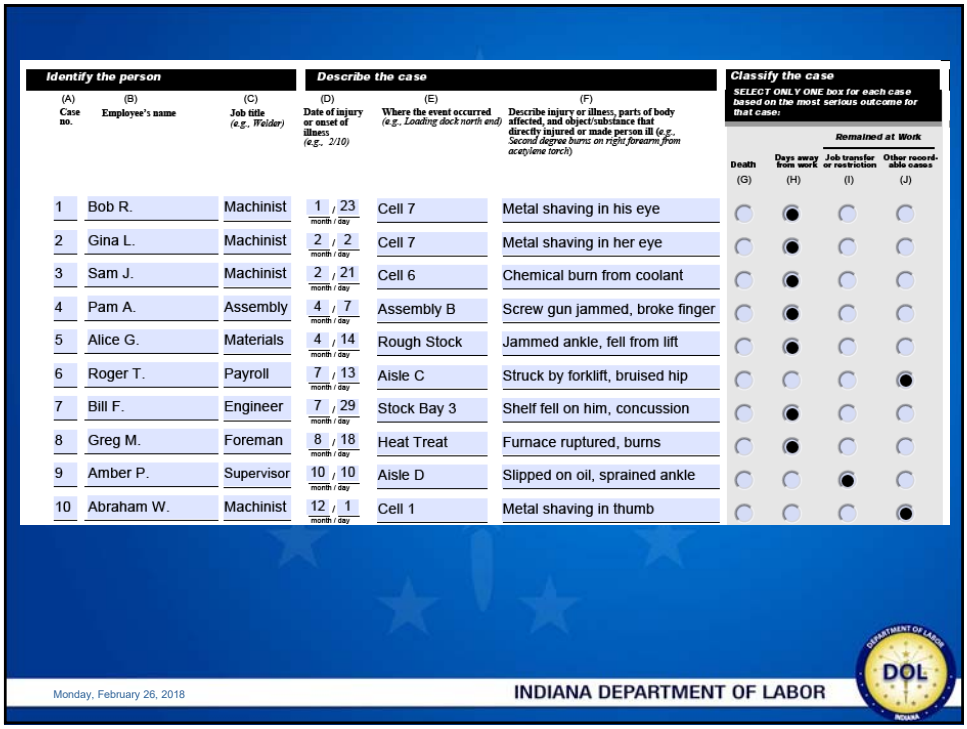
Why?

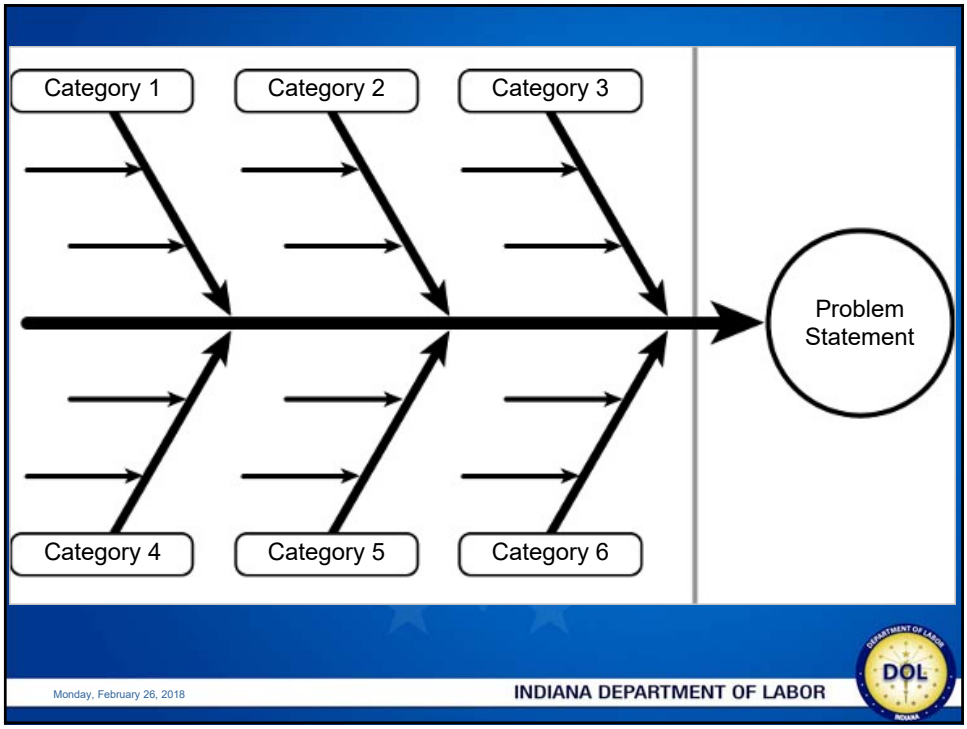
5 Whys - Metal Shaving Scenario



Identify the person			Describe the case			Classify the case			
						SELECT ONLY ONE box for each case based on the most serious outcome for that case:			
							Remained at Work		
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)
1	Bob R.	Machinist	1 / 23	Cell 7	Metal shaving in his eye	○	●	○	○
2	Gina L.	Machinist	2 / 2	Cell 7	Metal shaving in her eye	○	●	○	○
3	Sam J.	Machinist	2 / 21	Cell 6	Chemical burn from coolant	○	●	○	○
4	Pam A.	Assembly	4 / 7	Assembly B	Screw gun jammed, broke finger	○	●	○	○
5	Alice G.	Materials	4 / 14	Rough Stock	Jammed ankle, fell from lift	○	●	○	○
6	Roger T.	Payroll	7 / 13	Aisle C	Struck by forklift, bruised hip	○	○	○	●
7	Bill F.	Engineer	7 / 29	Stock Bay 3	Shelf fell on him, concussion	○	●	○	○
8	Greg M.	Foreman	8 / 18	Heat Treat	Furnace ruptured, burns	○	●	○	○
9	Amber P.	Supervisor	10 / 10	Aisle D	Slipped on oil, sprained ankle	○	○	●	○
10	Abraham W.	Machinist	12 / 1	Cell 1	Metal shaving in thumb	○	○	○	●

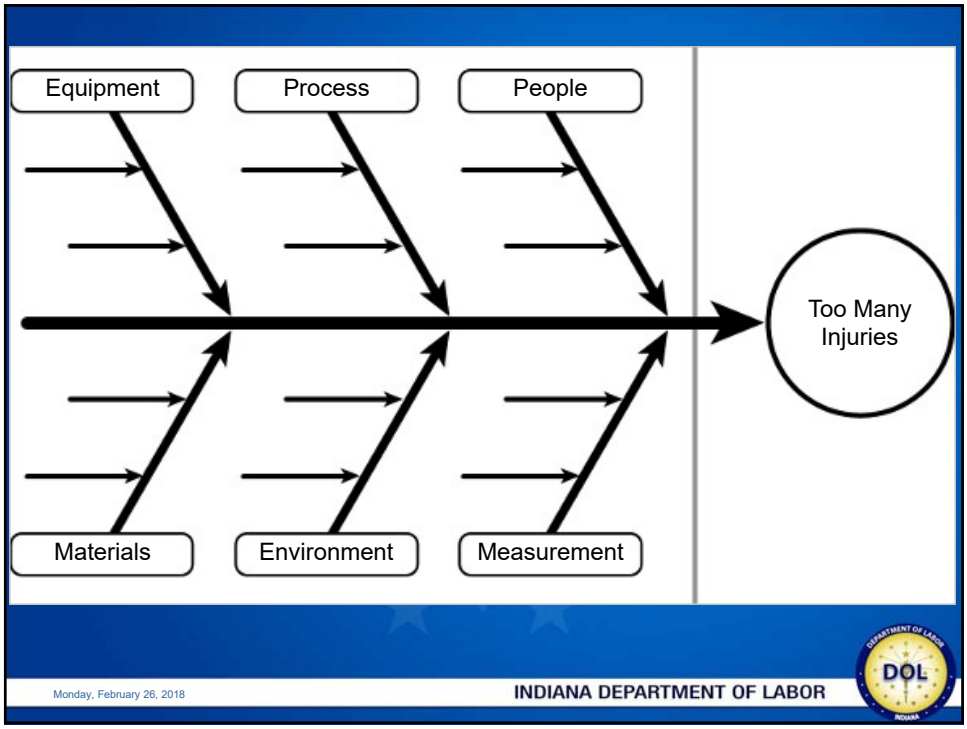
Handy Tools

- **5 Whys**
- **Ishikawa (Fishbone) Diagram**
- **DMAIC process**



Fishbone Diagrams

1. Write problem statement.
2. Brainstorm the major categories of causes of the problem. Common headings:
   - Methods
   - Machines (equipment)
   - People (manpower)
   - Materials
   - Measurement
   - Environment
3. Brainstorm all the possible causes of the problem.
4. Write each cause as a branch from the appropriate category.
5. Use 5 Whys on the causes to work on a common root cause.



Identify the person | **Describe the case** | **Classify the case**

Classify the case — SELECT ONLY ONE box for each case based on the most serious outcome for that case.

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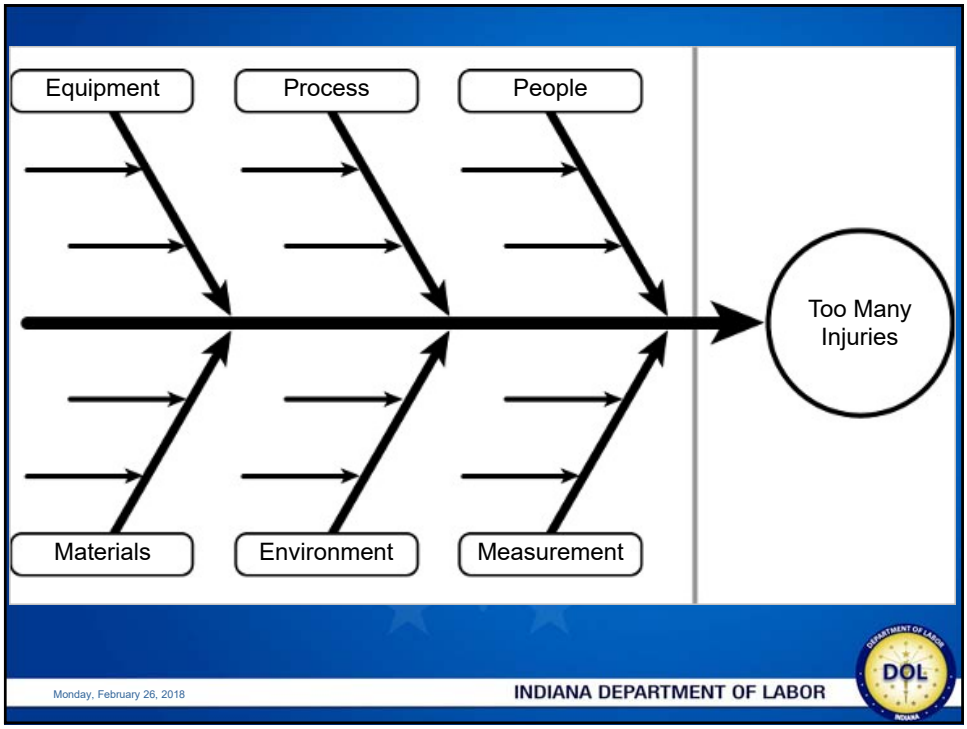

Handy Tools

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DMAIC Process

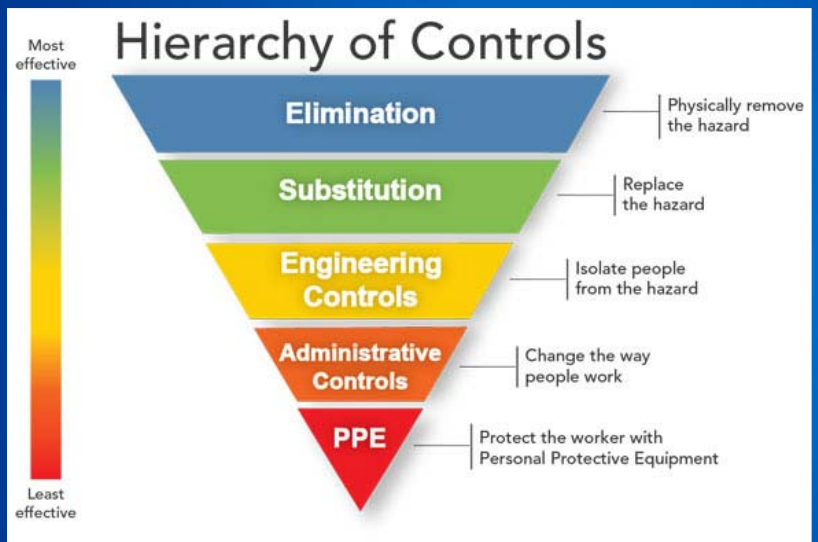
Define

Measure

Analyze

Improve

Control



https://www.cdc.gov/niosh/topics/hierarchy/

One more data source…

- Near Misses
  - Important to preventing serious, fatal and catastrophic incidents that are less frequent but far more harmful than other incidents.
  - Not OSHA Recordable
  - Rarely Documented
  - http://www.nsc.org/WorkplaceTrainingDocuments/Near-Miss-Reporting-Systems.pdf

Helpful Links

- Indiana Department of Labor
  - www.in.gov/dol
- OSHA Recordkeeping
  - www.osha.gov/recordkeeping/
- INSafe
  - www.in.gov/dol/insafe.htm
- iSixSigma (5 Whys)
  - www.isixsigma.com/tools-templates/cause-effect/determine-root-cause-5-whys/
- American Society for Quality (Ishikawa/Fishbone Diagram)
  - http://asq.org/learn-about-quality/cause-analysis-tools/overview/fishbone.html

Questions?

Kenneth R. Boucher II
Executive Director of Quality, Metrics and Statistics
Indiana Department of Labor
Phone: (317) 234-7882
Fax: (317) 233-3790
kboucher@dol.in.gov
www.in.gov/dol