Peeking Behind the Curtain: Steel Foundry Safety Statistics and Observations

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Historical Trend, DART Rate

- Steel Foundries
- All Foundry
- Private Manufacturing
Historical Trend, LCIR

LCIR Rate

Steel Foundries
All Foundry
Private Manufacturing

2003 2004 2005 2006 2007 2008 2009 2010 2011
Analysis of an injury

A steel foundry worker

Suffers a cut

To his eye

While using a chisel

After a chip flew off a casting

NATURE OF INJURY

SOURCE OF INJURY

PART OF BODY AFFECTED

EVENT OR EXPOSURE

Ahead to Observations
Part of the Body Affected

![Graph showing case rates for different parts of the body affected in private industry, all foundry, and steel foundry.](image-url)
Primary “head injury”: Eyes

EYE INJURIES

89% of head injuries

47% of head injuries

34% of head injuries

Private Industry All Foundry Steel Foundry
Primary “trunk” issue: Back injury

**BACK INJURIES**

- 64% of trunk injuries
- 58% of trunk injuries
- 77% of trunk injuries

- Private Industry
- All Foundry
- Steel Foundry

Back to Body
Lower Extremities Injuries

[Graph showing the case rate for different body parts (Knee, Ankle, Foot) across different industries: Private Industry, All Foundry, Steel Foundry.]

Back to Body
Upper Extremities Injuries

Case Rate

Shoulder, Arm, Wrist, Hand

Private Industry
All Foundry
Steel Foundry
Over Exertion & Bodily Reaction

![Graph showing case rates for Lifting/Lowering and Repetitive Motion across different industries.]

- **Private Industry**
- **All Foundry**
- **Steel Foundry**

Case Rate

Lifting/Lowering vs. Repetitive Motion
Source of Injury

Case Rate

- Private Industry
- All Foundry
- Steel Foundry

More

Back to Analysis
Worker Motion or Position

90% of injuries where the worker was the source.

93% of injuries where the worker was the source.

96% of injuries where the worker was the source.

- Private Industry
- All Foundry
- Steel Foundry
Observations

- Overall incidence rates for foundries of every kind are too high: **WE HAVE A PROBLEM**
- The first step in problem solving is to identify and define the problem
- Obtaining data like this from your own foundry ought to be a first step in taking meaningful action
Steel Foundries, compared to the average foundry have:

- 119% more soreness/pain injuries
- 65% more bruise & contusion injuries
- But 56% less heat burns
- 50% more injuries while using a hand tool
- 52% more injuries from being struck by something
- 144% more eye injuries
- 45% more back injuries
- 97% more ankle injuries
- 46% more foot injuries
These findings suggest:

- **Focus on personal protective equipment**
  - Eyes (upgrade to goggles or face shield type?)
  - Footwear and metatarsal covers
- **Focus on industrial hygiene**
  - Rubbing eyes – what happens after eyewear is removed?
- **Focus on housekeeping**
- **Focus on ergonomics**
  - Lift and carry practice
  - Floor layout and travel path
- **Focus on proper use of hand tools**
  - Design – grip, leverage, loading
  - Care/maintenance
  - Storage and transport
Next Steps

• Direct your folks to study to see if these findings apply to your foundry (DATA)
• Evaluate your risks (INTERPRET THE DATA)
  – In-house resources?
  – Your insurance carrier?
  – A university partner?
  – A consultant?
• TAKE ACTION ON FINDINGS