Fatal Four in Construction and General Industry

Melissa Linton
Compliance Assistance Specialist
Columbus Area Office

Workplace Safety Data

• 369,000 lives saved since passage of OSH Act in 1970

• Costs associated with disabling injuries
  – $48.3 billion in direct costs annually
  – $145 – 290 billion in indirect costs annually

Who is covered by the OSH Act?

• Most private sector employees
• Coverage is provided directly by federal OSHA or through an OSHA-approved state program
• Does not cover the self-employed or immediate members of farm families that do not employ outside workers

40 Years of OSHA

1971
• 38 workers died on the job every day

2011
• 12 people will leave their homes to go to work and will be killed on the job.
• Over 3 million workers will be seriously injured at work
**OSHA Webpage - www.osha.gov**

**National BLS Data**

**Number of fatal work injuries, 1992-2010**

- The 2010 preliminary total of 4,547 fatal work injuries equaled the all-time low level of 4,410 fatal work injuries reported for 2003.

**Rate of fatal work injuries, 2006-2010**

- The preliminary rate of fatal work injuries in 2010 was 3.5 fatal work injuries per 100,000 full-time equivalent workers, the same as in 2009.

**Number of fatal work injuries, by State, 2010**

- California had the highest number of work-related fatalities, while Vermont had the fewest.

**Manner in which fatal work injuries occurred, 2010**

- Transportation incidents were the leading cause of death, followed by falls from elevated surfaces.
OSHA Fatalities for Region V – Illinois, Ohio & Wisconsin 2006-2010
Regional Fatalities 2006-2010 by Fatal Event Type

<table>
<thead>
<tr>
<th>Type of Fatal Event</th>
<th>Number of Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrocution</td>
<td>47</td>
</tr>
<tr>
<td>Exposure</td>
<td>5</td>
</tr>
<tr>
<td>Fire/Explosion</td>
<td>114</td>
</tr>
<tr>
<td>Fall</td>
<td>0</td>
</tr>
<tr>
<td>Struck</td>
<td>28</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
</tbody>
</table>

Regional Fatalities 2006 by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
<td>5.3%</td>
</tr>
<tr>
<td>Transportation</td>
<td>13.5%</td>
</tr>
<tr>
<td>Services</td>
<td>12.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>34.6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

Regional Fatalities 2007 by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
<td>7.6%</td>
</tr>
<tr>
<td>Transportation</td>
<td>17.6%</td>
</tr>
<tr>
<td>Services</td>
<td>5.3%</td>
</tr>
<tr>
<td>Mining</td>
<td>2%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>26.2%</td>
</tr>
</tbody>
</table>

Regional Fatalities 2008 by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
<td>6.7%</td>
</tr>
<tr>
<td>Transportation</td>
<td>10.8%</td>
</tr>
<tr>
<td>Services</td>
<td>10.8%</td>
</tr>
<tr>
<td>Mining</td>
<td>2.5%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>39.2%</td>
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</tbody>
</table>

Regional Fatalities 2009 by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
<td>8.9%</td>
</tr>
<tr>
<td>Transportation</td>
<td>15.1%</td>
</tr>
<tr>
<td>Services</td>
<td>10.4%</td>
</tr>
<tr>
<td>Mining</td>
<td>1%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>22.8%</td>
</tr>
</tbody>
</table>

Regional Fatalities 2010 by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
<td>12.0%</td>
</tr>
<tr>
<td>Transportation</td>
<td>16.6%</td>
</tr>
<tr>
<td>Services</td>
<td>11.2%</td>
</tr>
<tr>
<td>Finance, et al</td>
<td>1.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>20.8%</td>
</tr>
</tbody>
</table>
Breakdown of Fall Fatal Events

Breakdown of Struck By Fatal

Breakdown of Caught In Fatal Event

Breakdown of Electrocution Fatal Event

Construction OSHA Fatalities

Region V – Illinois, Ohio & Wisconsin 2006-2010
Ohio Construction Fatalities
2006 – 2010 by Year

Ohio Construction Fatal Events
2006-2010

What are the fatal four?

Region V
Top Fatal Four Events

- Falls
- Struck-by
- Electrocution
- Caught-in

Fall Fatal Events by Year
Fall Fatal Events by Height

Fall Fatality Causal Break Down

Fatalities Due to Falls Through Floor and Roof Openings

Falls through skylights

Fatalities Due to Falls From Equipment

Falls from Elevated Lift or Platform
Fatalities Due to Falls From Ladders

- Residential Exterior Work: 45.5%
- Commercial Exterior Work: 18.2%
- Unspecified: 9.1%
- Residential Interior Work: 9.1%
- Commercial Interior Work: 5.2%

Region V Fatality Trends – Falls - Ladder Safety

Manlift Fatality

Fatalities Due to Falls From Scaffolds

- Scaffold Collapse Due to Structural Failure: 81.8%
- Inappropriate Use/Access/Egress: 21.0%

Using Fall Protection \textbf{WILL} Save Your Life!!!
Region V Fatality Trends - Struck By Work Vehicles / PIVs

Struck By Fatal Events By Year

Struck By Fatality Causal Break Down

Struck By Vehicle Break Down

Region V Construction Fatality Trends – Caught In Equipment

- Lack of Machine Guarding
- No Lockout/Tagout Procedures

Caught In Fatal Events by Year
Caught In Fatality Causal Break Down

- 36.4% Trench Collapse
- 22.7% Collapse of Structure or Wall
- 11.1% Fall/Caught in Rotating/Moving Parts of Machines
- 31.8% Pinned Between Machine and Structure, Other Machine or Other Stationary Object

Fatalities from Caught in by equipment or objects

- An instance where employees were fatally injured after the employee’s head was caught between the ROPS and a hydraulic cylinder/frame of skid steers.

The body of Patrick Walters as it was removed from the trench that collapsed and killed him in 2002.

Chicago North Trench Collapse

- The body of Patrick Walters as it was removed from the trench that collapsed and killed him in 2002.
Electrocution Fatalities By Year

Electrocution Fatality Causal Break Down

Contact with Overhead Power Line

Exposure Fatal Events by Year

Exposure Fatality Causal Break Down

Oxygen Deficient Atmospheres
Manufacturing OSHA Fatal Four
Region V – Illinois, Ohio & Wisconsin 2006-2010

Breakdown of Manufacturing
Struck By Fatal Event

Breakdown of Manufacturing
Caught In Fatal Event

Breakdown of Manufacturing
Fall Fatal Event

Breakdown of Manufacturing
Fire/Explosion Fatal Event
Breakdown of Manufacturing Exposure Fatal Event

- Heat Stroke and/or Heat Exhaustion: 7.1%
- Contact With Superheated Materials: 7.1%
- Oxygen Deficient Atmosphere: 18.6%
- Inhalation of Toxic Substance: 71.4%

OSHA Emergency Hot-Line
1-800-321-OSHA

- Report workplace safety or health fatalities or the hospitalization of 3 or more employees
- Report a workplace hazard
- File a complaint about a workplace hazard
- Request information on OSHA
- Request an OSHA publication

OSHA Web Page
www.osha.gov

- 30 million hits monthly
- Regulations
- Compliance Directives
- Specialized pages
- Inspection Data
- E-Tools (self instruction tools)

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