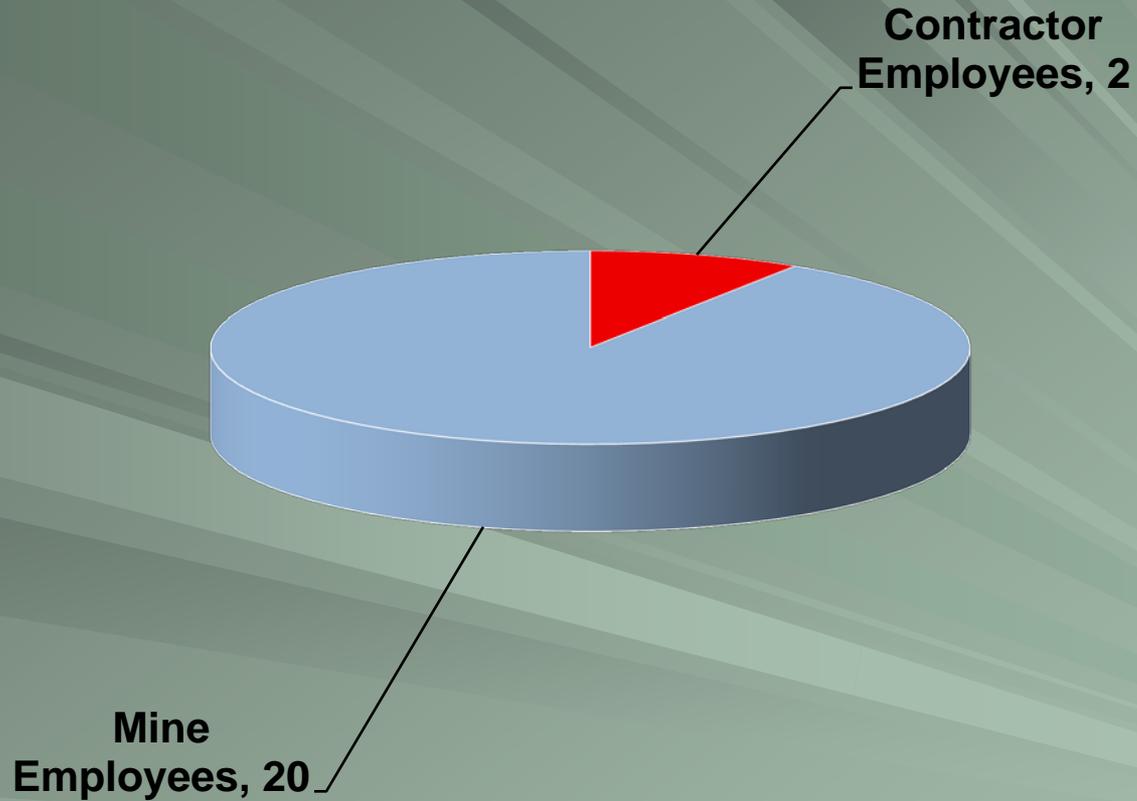
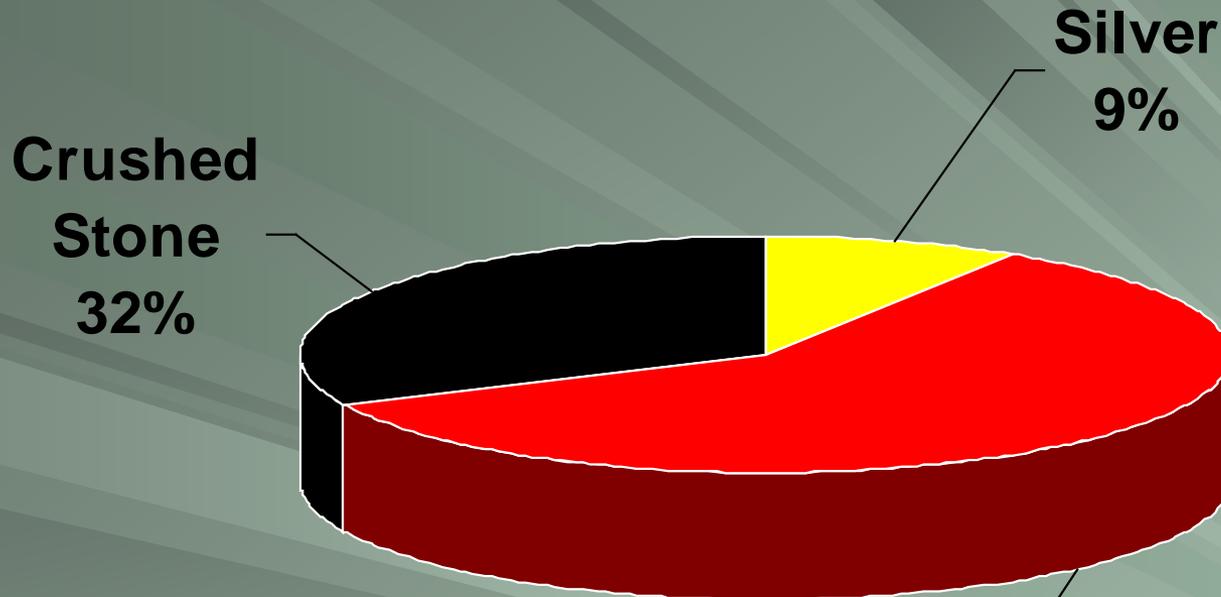


**Metal and Nonmetal  
Fatal Accident Review  
CY - 2013**

# MNM Fatalities



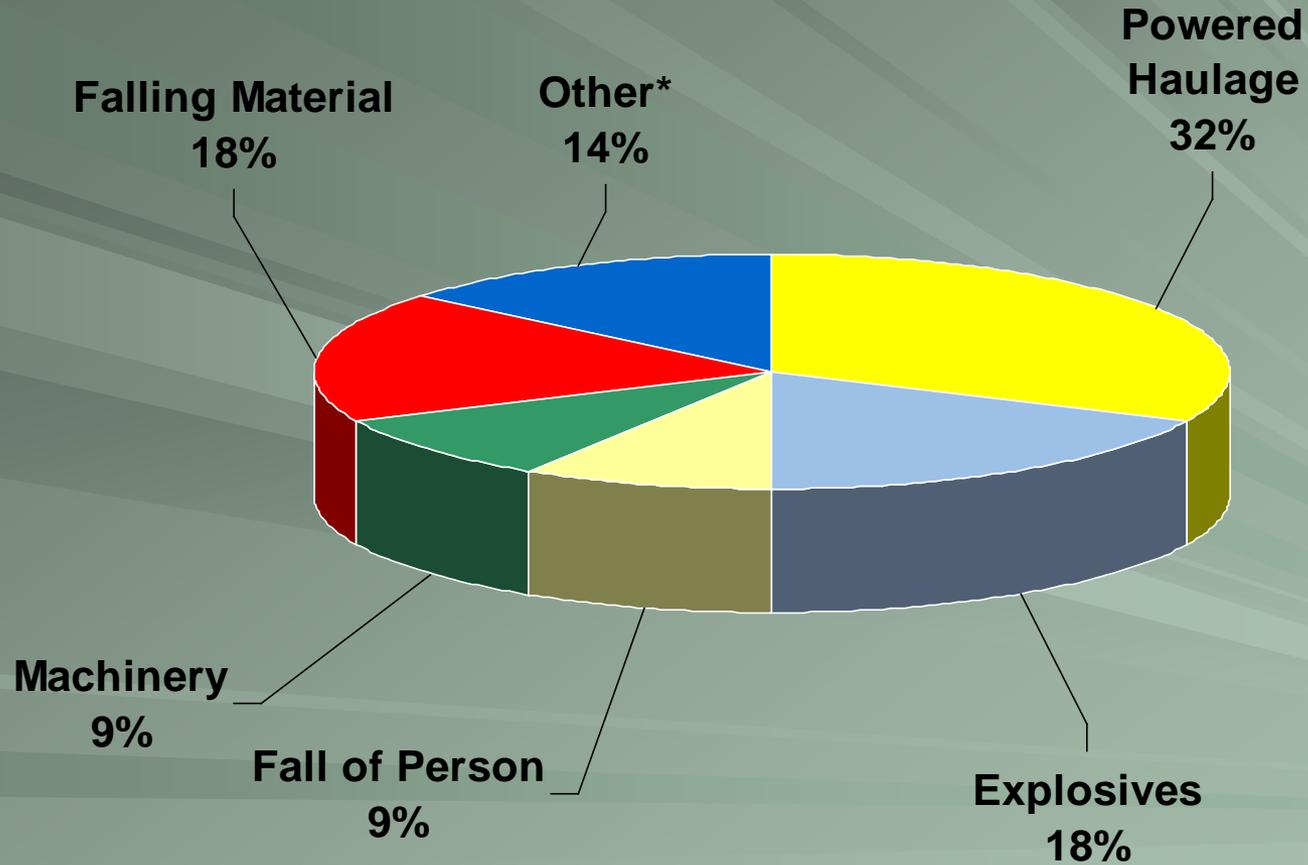
# MNM Fatalities by Commodity



\* Gold, Lime, Copper, Salt, Gypsum, Molybdenum, Stone, Dimension Slate, Cement, Granite, Iron Ore, Sand, Sand & Gravel

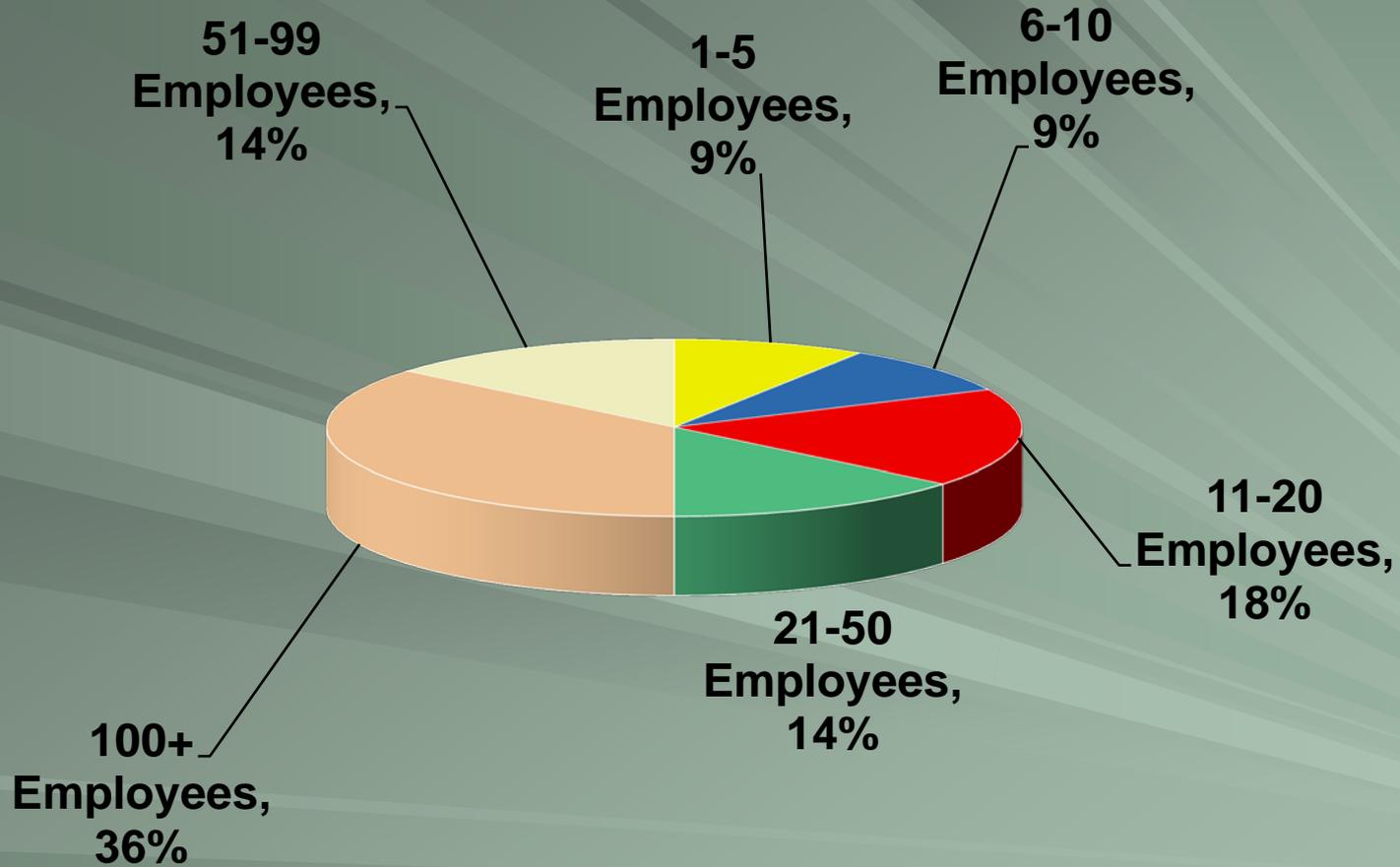
**Other\***  
**59%**

# MNM Fatalities by Classification

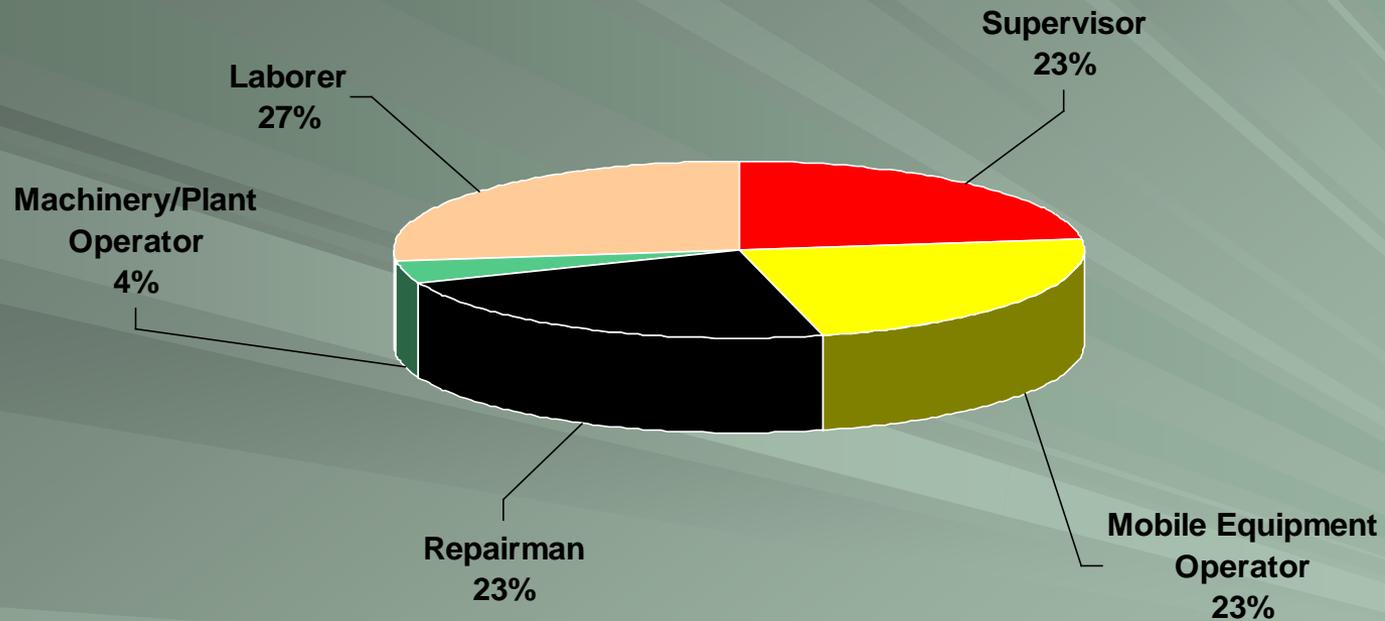


\*Fall of Highwall,  
Electrical, Drowning

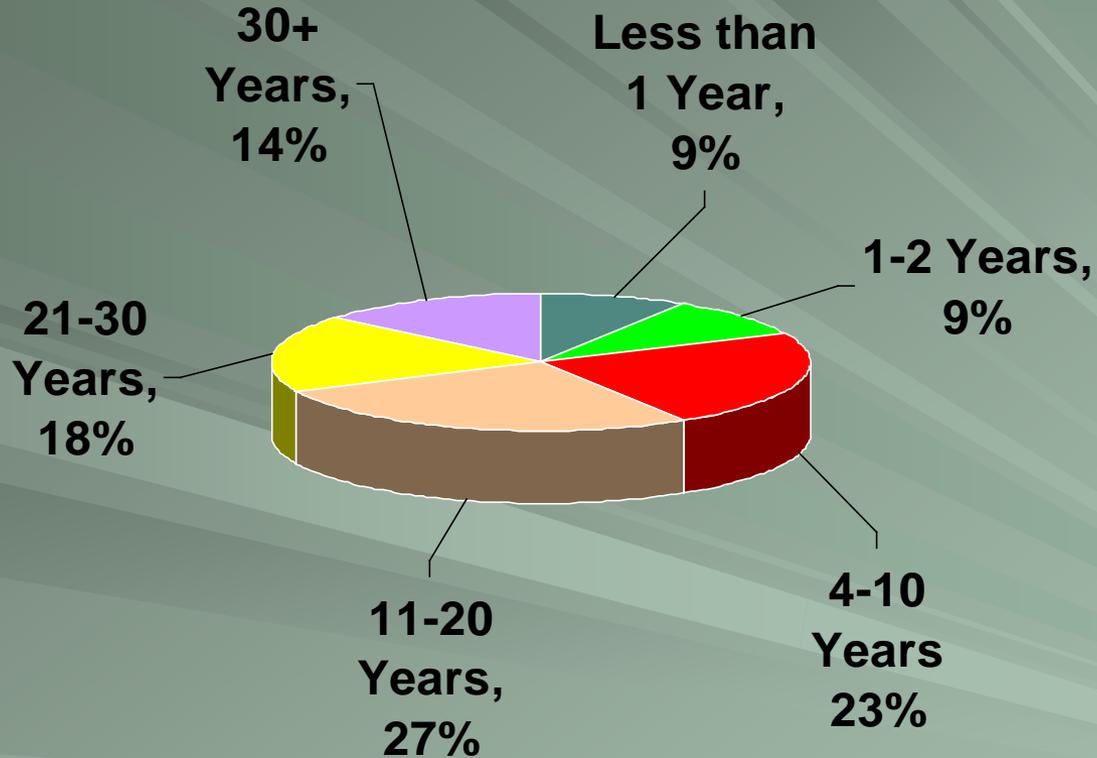
# MNM Fatalities by Mine Size



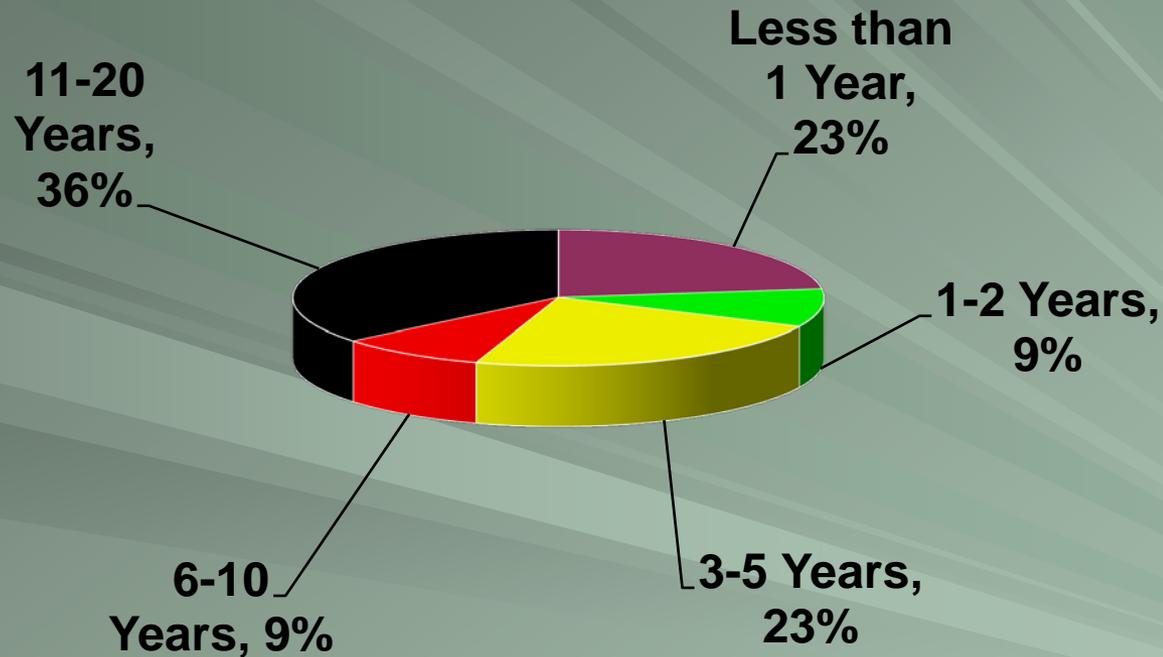
# MNM Fatalities by Occupation



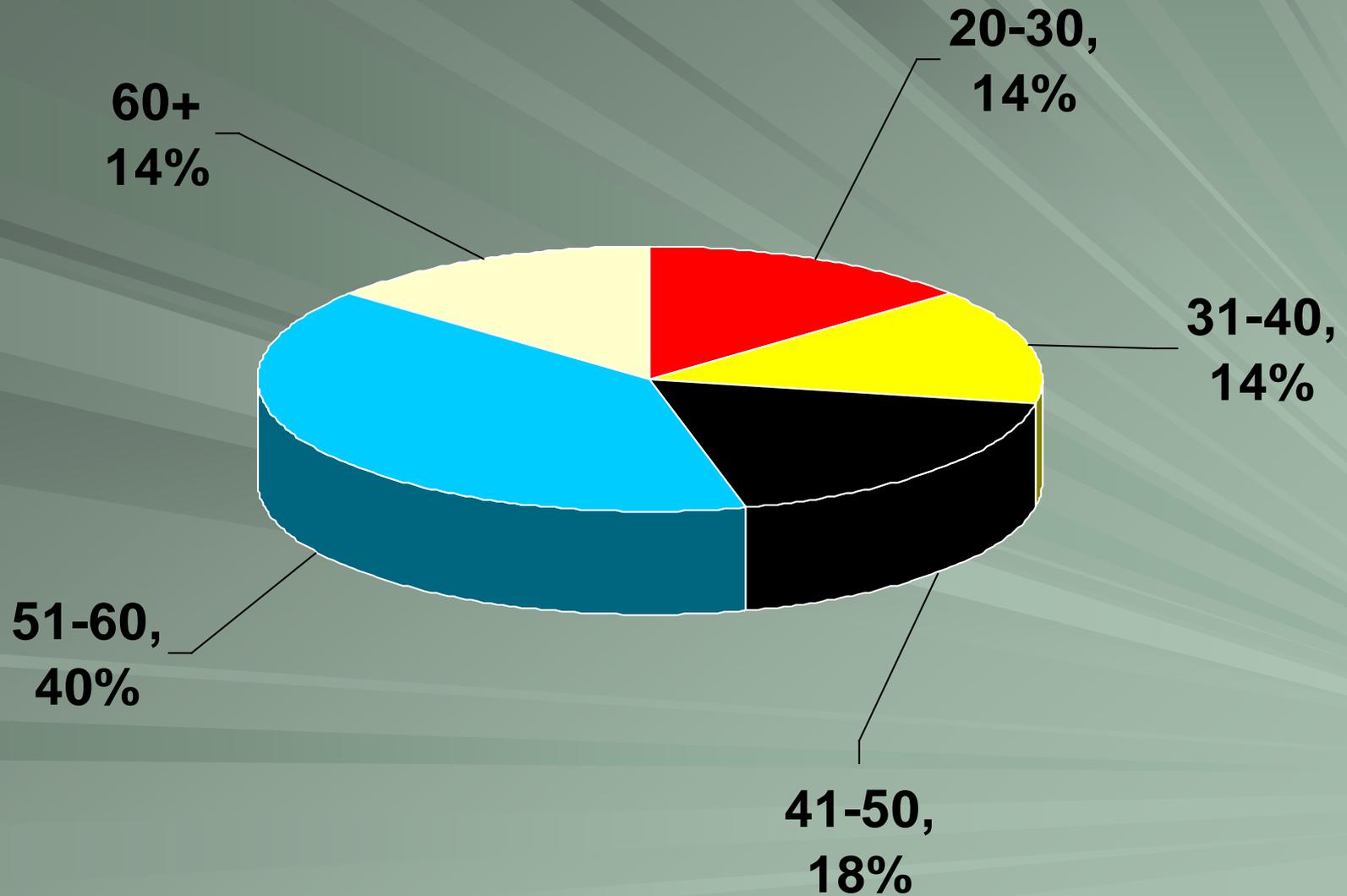
# MNM Fatalities by Total Experience



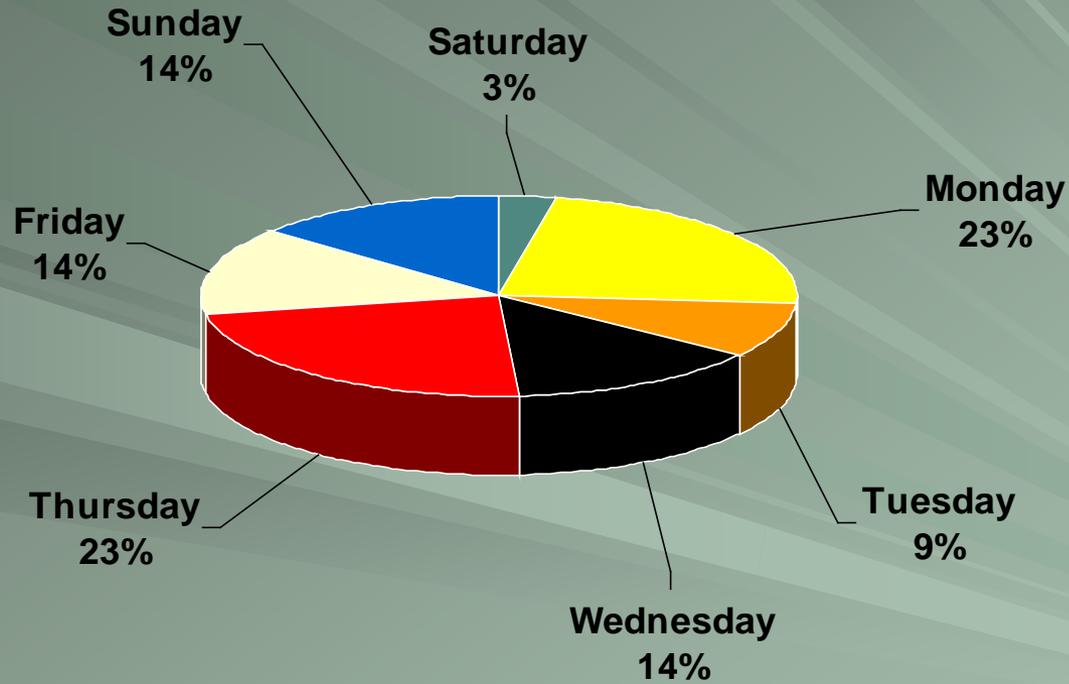
# MNM Fatalities by Job Experience



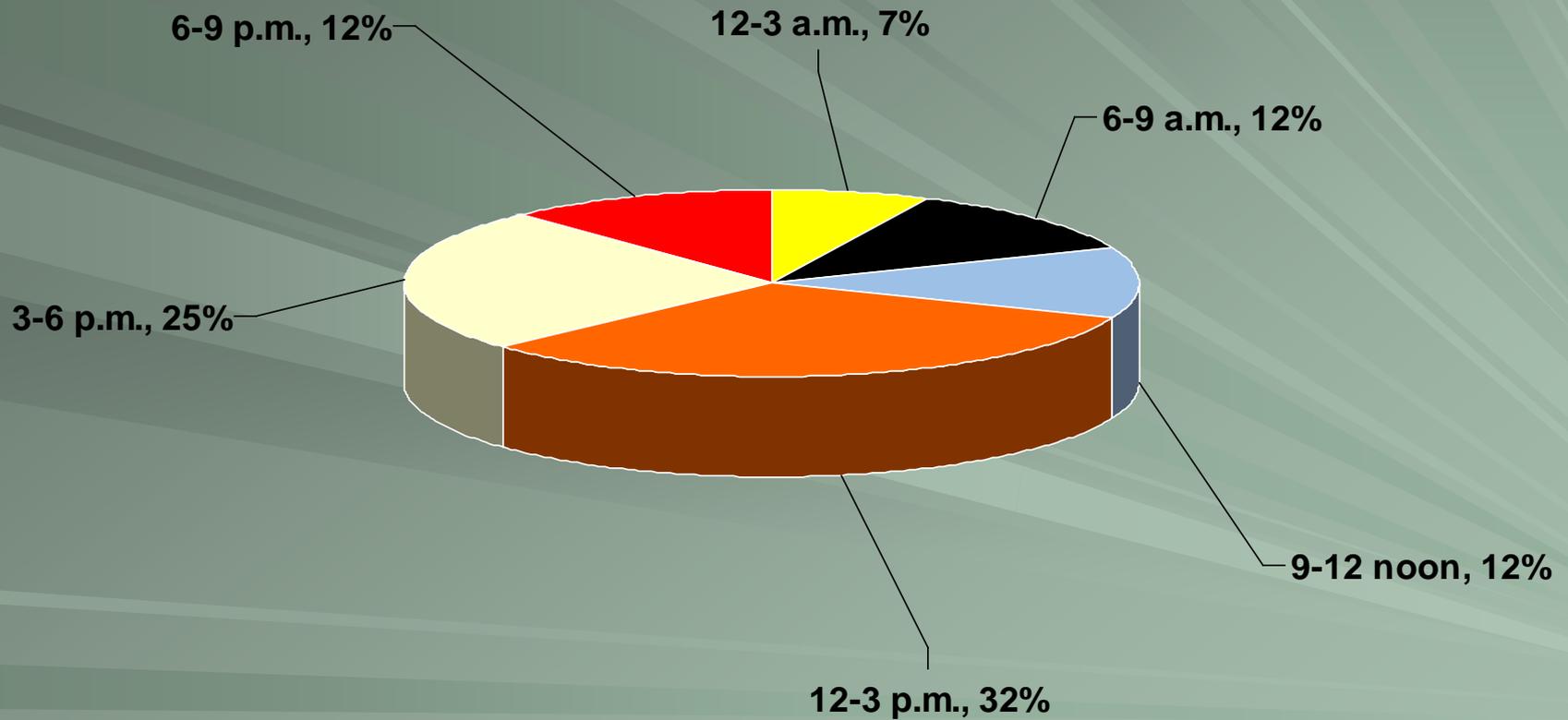
# MNM Fatalities by Age



# MNM Fatalities by Day of Week



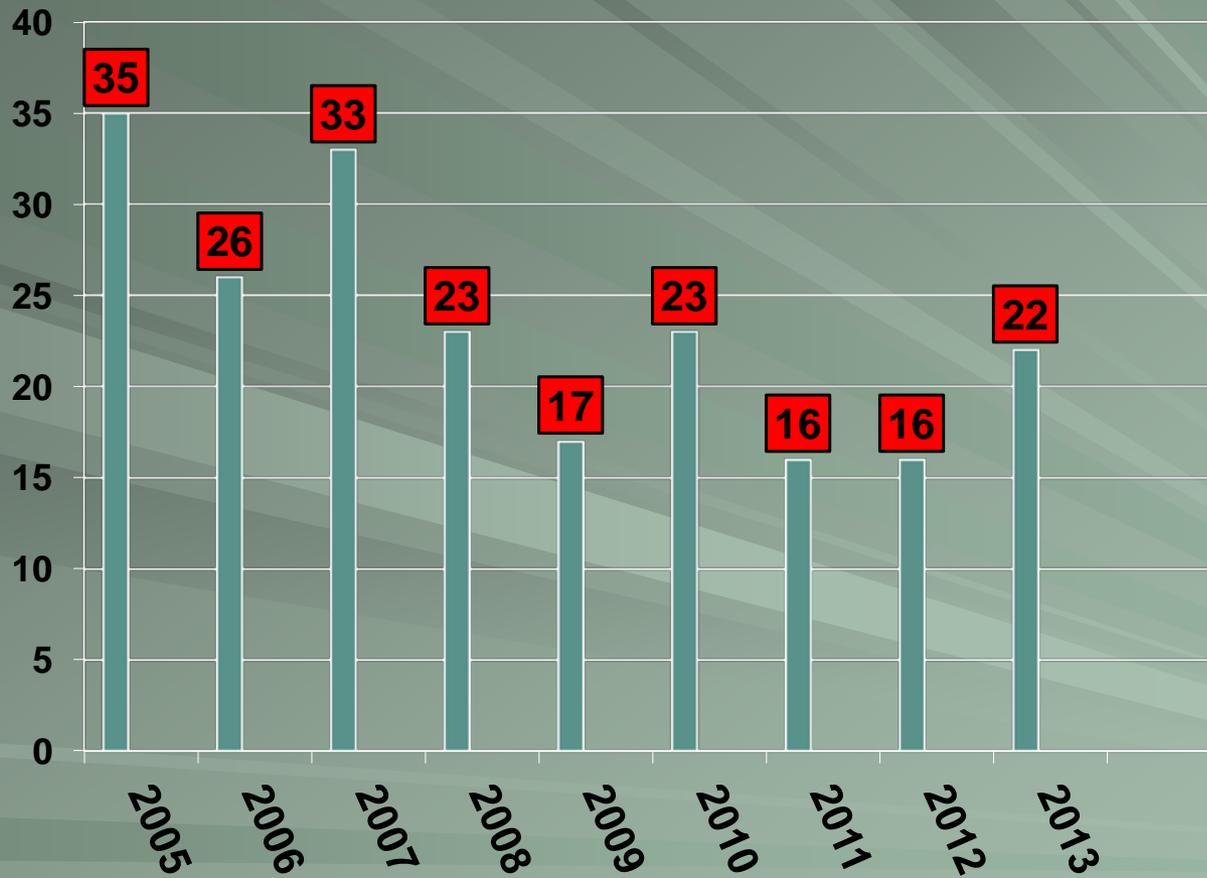
# MNM Fatalities by Hour of Day



# Root Causes

- **Failure to**
  - **Provide Task Training**
  - **Conduct Examinations**
  - **Conduct Risk Assessment**
  - **Conduct Pre-operational Checks**
  - **Maintain Equipment**
  - **Provide Policies, Procedures, Controls**
  - **Provide Personal Protective Equipment**

# MNM Fatalities – 2005-2013



# MNM Fatalities---Supervisors

2013	5
2012	4
2011	1
2010	2
2009	1
2008	2
2007	4
2006	2
2005	2
2004	6
2003	9
<b>Total</b>	<b>38</b>

Ensure that supervisors are task trained before performing work.

# Powered Haulage

Year	'08	'09	'10	'11	'12	'13
Fatals	5	5	7	4	6	7

**--Includes Mobile Equipment and Belt Conveyors**



# Powered Haulage-- Mobile Equipment

- Maintain mobile equipment
- Always wear a seat belt
- Be aware of the location and traffic patterns of mobile equipment in your work area
- Conduct adequate pre-operational checks



# Powered Haulage -- Belt Conveyors

- Deenergize and block belt conveyors against motion before starting the task
- Lock-out/tag-out all energy sources to belt conveyors before working on them.
- Maintain communications with all persons performing the task



# Explosives

Year	'08	'09	'10	'11	'12	'13
Fatals	0	0	1	1	0	4

- Establish Safe Procedures
- Clear Blast Area
- Communicate
- Protect From Flyrock
- Ventilate & Monitor Gasses



# Falling/Sliding Material

Year	'08	'09	'10	'11	'12	'13
Fatals	3	3	6	1	2	4

- Establish Safe Work Procedures
- Task Train All Persons
- Deenergize Equipment
- Wear a Safety Harness & Lanyard
- Block Equipment Against Motion



# Machinery

Year	'08	'09	'10	'11	'12	'13
Fatals	3	4	3	3	3	2

- Identify and control all hazards
- Deenergize equipment and lock out/tag out
- Block equipment against motion



Victim caught here

# Slip/Fall of Person

Year	'08	'09	'10	'11	'12	'13
Fatals	4	2	1	3	3	2

- Always use PPE
- Eliminate Hazards
- Remove Snow & Ice





U.S. Department of Labor

**Make the  
RIGHT Decision**

Mine Safety and Health Administration