

Atlantic Alliance Meeting

Dundalk, County Louth

June 21, 2006

Ireland

United Kingdom

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Felix A. Quintana

U.S. Mine Safety and Health Administration

Small Mines (Quarries) Assistance Program

- ◆ The Mine Safety and Health Administration (MSHA) established a Small Mine Office (SMO) to address the needs of the nearly 6,500 small mines
- ◆ Small Mines are mines with 5 employees or less

REMEMBER



*Safety and
Health are
Values!*

Why the Small Mines Office was created...

- ◆ Fatal incident rate at small mine operations was more than double the rate for larger mines
- ◆ Stakeholders at small mines requested MSHA's compliance assistance

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SMO Also Provides Assistance (As Requested)

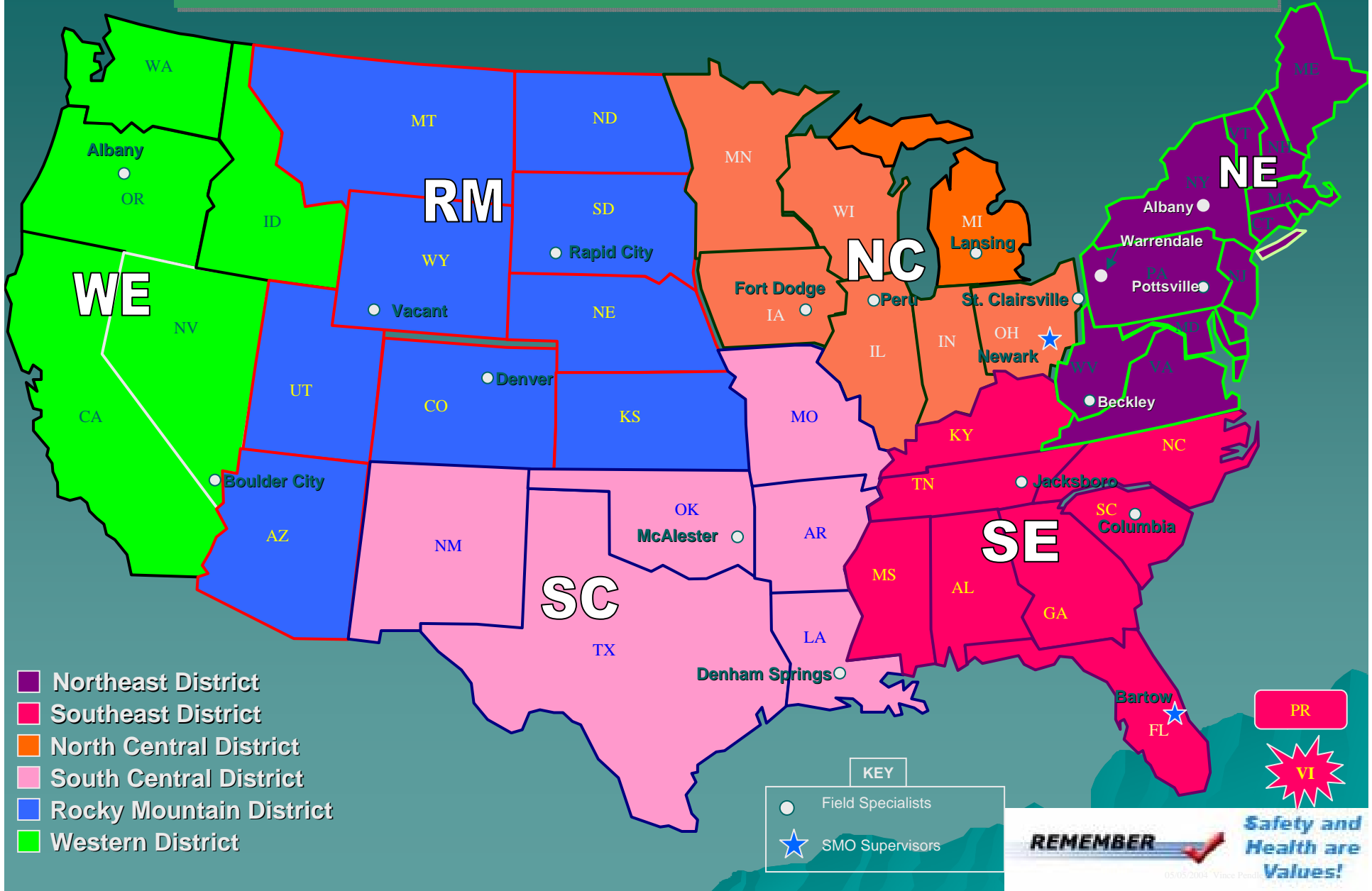
- ◆ **Contractors**
- ◆ **Small Underground Mines**
- ◆ **Larger Mines**

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SMO Compliance Assistance Specialist Locations Metal & Nonmetal Districts



- Northeast District
- Southeast District
- North Central District
- South Central District
- Rocky Mountain District
- Western District

KEY

- Field Specialists
- ★ SMO Supervisors

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PR **VI**

05/05/2004 - Vince Pender

Profile of the Small Mines Industry

Small Metal and Nonmetal Mines

- ◆ 6,000 total small mines
 - Mostly sand & gravel and quarry operations
- ◆ Located in all 45 field office areas
 - Most - Manchester, NH area
 - 360 small mines
 - Least - San Juan, PR area
 - 16 small mines

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SMO Goals & Objectives

- ◆ Improve MSHA-operator cooperation
- ◆ Provide on-site compliance assistance
- ◆ Help operators develop S & H programs
 - Effective
 - Tailored to fit the company
- ◆ Reduce small mine injuries & illnesses
- ◆ Support MSHA's 15/50 goals

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Services provided by SMO...

- ◆ On-site compliance assistance
- ◆ Help mine operators improve or develop their safety & health program, including:
 - Fatality and injury reduction
 - Hazard identification and analysis
 - Risk management assistance
 - Safety and health training

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More SMO Services...

- ◆ Regular contact with operators:
 - Phone, E-mails and letters
- ◆ Make small operators aware of other resources:
 - States Grants
 - Educational Field Services
 - Technical Support
 - Holmes Safety Association
 - Trade associations

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Benefits to Small Mine Operators

- ◆ Reduced injuries, accidents and fatalities
- ◆ Reduced medical costs
- ◆ Fewer hazardous conditions
- ◆ Lower risk
- ◆ Improved task performance
- ◆ Reduced operating costs:
 - Production and maintenance

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More SMO benefits...

- ◆ Reduced insurance rates
 - Due to a formal safety program
- ◆ More knowledgeable of safety and health standards and policies
- ◆ More familiarity with other resources:
 - EFS, Mine Academy, State Grants
- ◆ Improved relationship with MSHA

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Employees Benefit from SMO

- ◆ Active involvement in safety
- ◆ Improved sense of safety ownership
- ◆ More aware of MSHA standards and policies
- ◆ More positive attitude towards safety and health programs
- ◆ Fewer accidents and injuries

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Time for SMO Initial Visit

- ◆ **Varies:**
 - 2 to 4 hours
 - 1 to 2 days
- ◆ **Time spent at the mine depends on the need of the small mines operator**

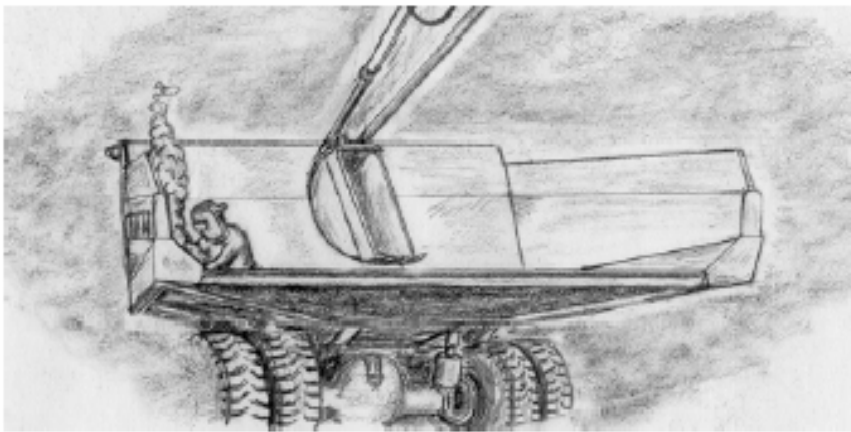
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Creating a Health and Safety Program for a Small Mine

WATCH OUT FOR PINCH POINTS



BEST PRACTICES



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Elements of a Small Mines Safety & Health Program

- ◆ Policy development & publication
- ◆ Management commitment
- ◆ Hazard identification
- ◆ Hazard control
- ◆ Equipment maintenance
- ◆ Safe work practices
- ◆ Training
- ◆ PPE
- ◆ Contractors

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Typical S & H Policy (1/2)

- ◆ Provide & maintain a safe plant and equipment
- ◆ Control safety and health risks
- ◆ Prevent injuries and illnesses
- ◆ Consult with employees on matters affecting safety and health

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Typical S & H Policy (2/2)

- ◆ Ensure employees are trained and competent to do their task
- ◆ Provide information, instruction and supervision for employees
- ◆ Ensure safe handling and use of substances
- ◆ Review & revise S & H policy regularly

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Management Commitment

- ◆ Follow-up and correct hazards
 - Schedule and perform maintenance
- ◆ Work with employees to design and install permanent controls to prevent:
 - Injury recurrence
 - Citation recurrence
- ◆ Re-evaluate hazards and controls when work areas and activities change
- ◆ New equipment will meet current safety and health standards

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Define Responsibilities

1. Management has overall responsibility for safety and health
2. Day-to-day responsibility for safety & health
Johns Sands, superintendent
3. Area responsibilities:

Name

Jim Dynamite
Mary Crusher
Bob Mechanic
All Employees

Area of Responsibility

Quarry, haulage & roadways
Plant operations
Maintenance & repair
Workplace & mobile equipment
pre-operation examinations

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Employee Ownership and Involvement

- ◆ All employees are encouraged to:
 - Be responsible for their own safety and health
 - Cooperate with supervisors and management on health and safety issues
 - Not bypass health and safety safeguards
 - Report all safety and health hazards
 - Bring all safety and health concerns to management's attention

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Safe Work Practices

- ◆ Management and employees examine workplace for hazards
- ◆ Lock and tag before performing maintenance
- ◆ Management monitors work practices
- ◆ Management corrects actions when safe work practices are not followed

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SMO and Contractor Safety

Example from Mine in Georgia

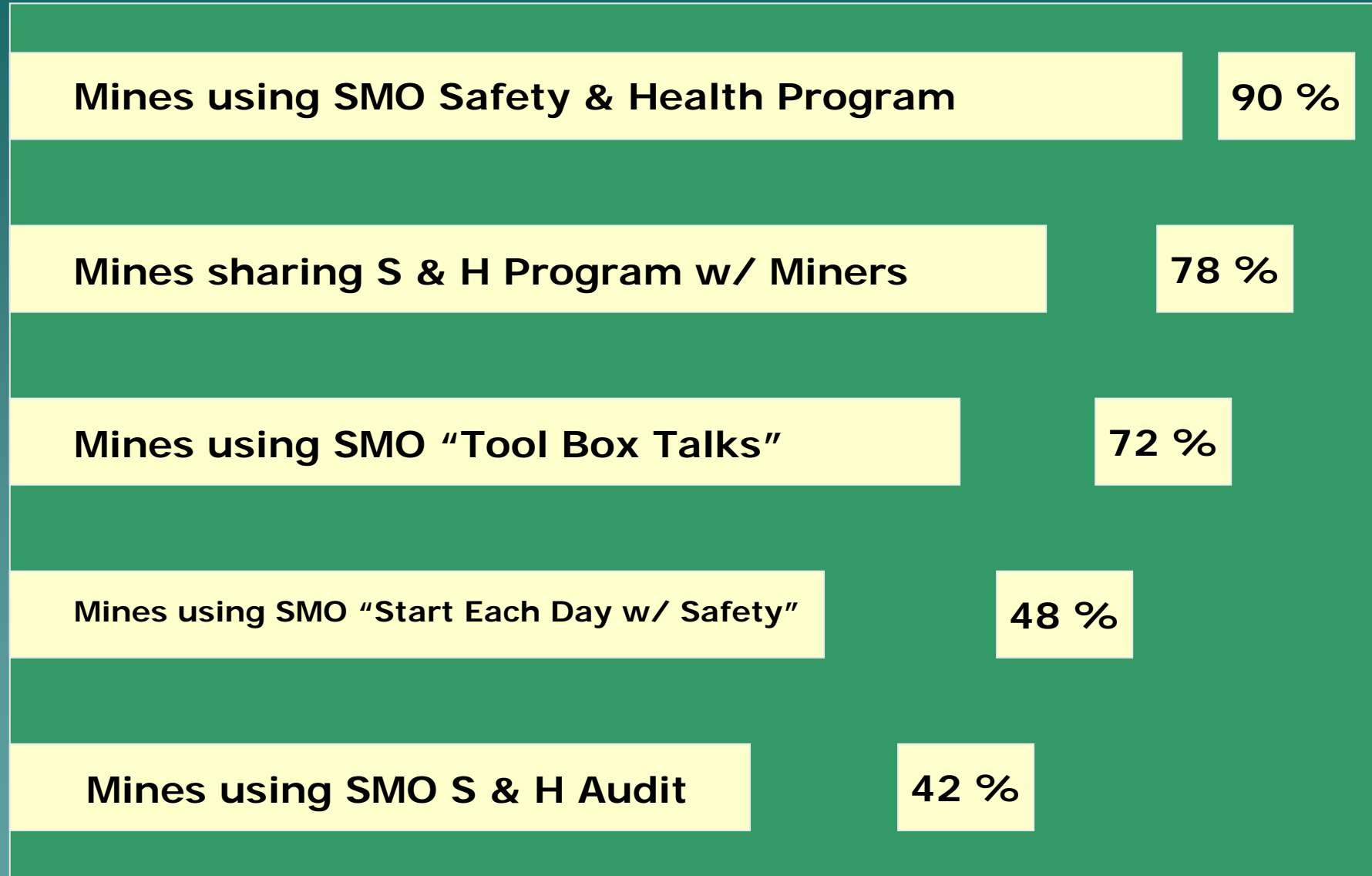
- ◆ Helped several contractors develop own safety and health programs
- ◆ Welding contractor instituted a knee pad program
- ◆ Mine operator and trucking contractor
 - Improved haul roads
 - Changed road configuration and traffic pattern to remove blind spots
- ◆ Mine adopted work vest program for improved visibility

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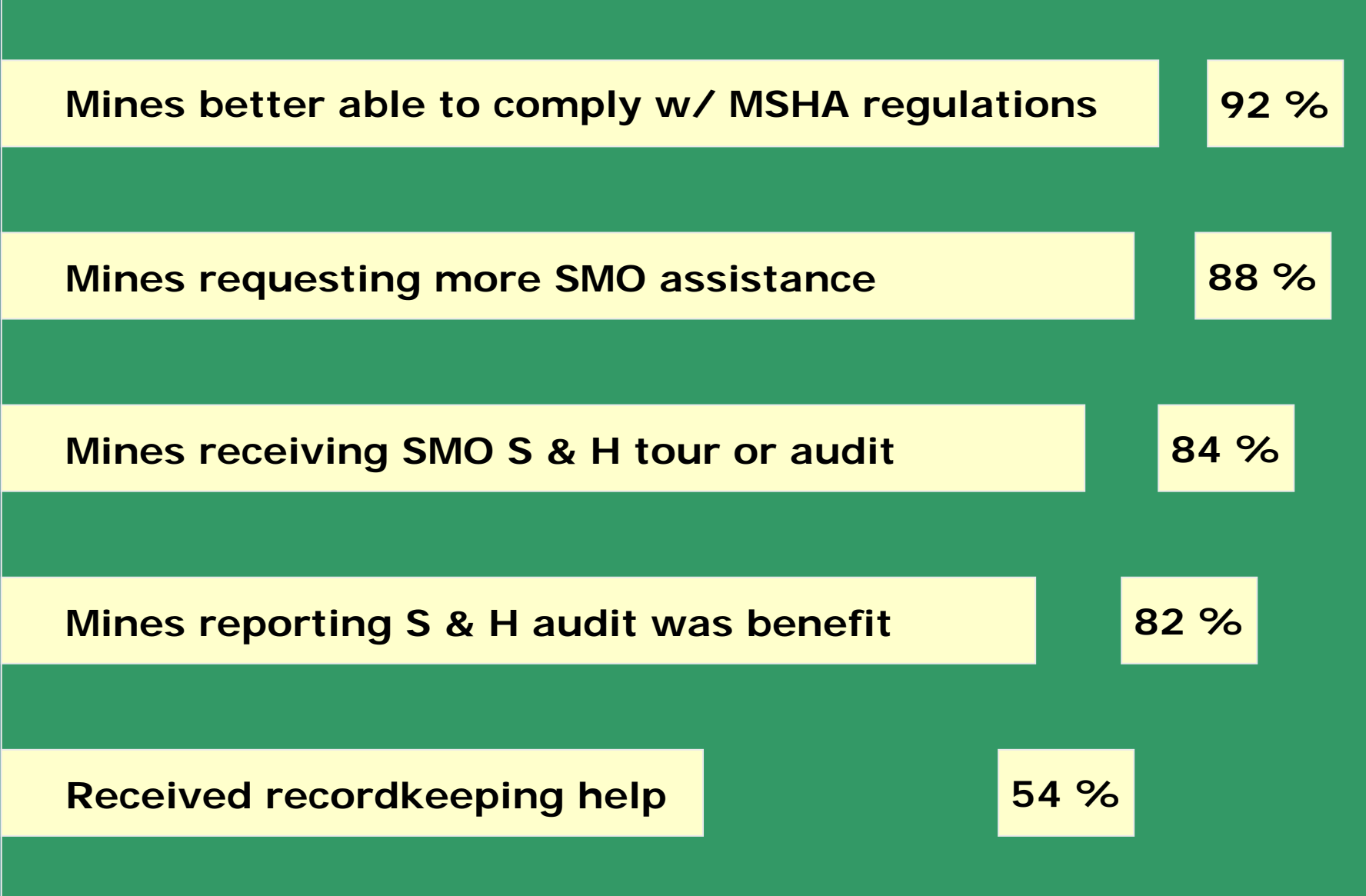
Feedback from Small Mines Visited



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Mines "satisfied" or "very satisfied" w/ SMO help

96 %

Mines reporting "Improved Safety Conditions"

88 %

Mines reporting "Improved Relationship" w/ MSHA

46 %

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72% Fatality Reduction

- ◆ Fatal Incidence Rate before SMO
 - 2000 – 2002 baseline
 - Small mines, before assistance 0.053
- ◆ Fatal Incident Rate since SMO
 - 2003 – 2004
 - Small mines, no assistance 0.069
 - Small mines, **w/ assistance** 0.015

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27% - 40% Total Injury Reduction

- ◆ Total Injury Incidence Rate before SMO
 - Using 2000 – 2002 as baseline
 - Small mines, before SMO assistance 2.94
- ◆ Fatal Incident Rate since SMO
 - 2003 (relatively unchanged) 3.02
 - 2004
 - Small mines, no SMO assistance 2.42
 - Small mines, **w/ SMO assistance** 1.77

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