



NIST SAFETY UPDATE

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NIST VISITING COMMITTEE ON ADVANCED TECHNOLOGY
GAITHERSBURG, MD
OCTOBER 7, 1014

Agenda



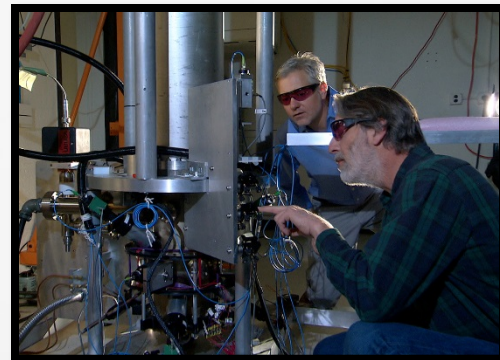
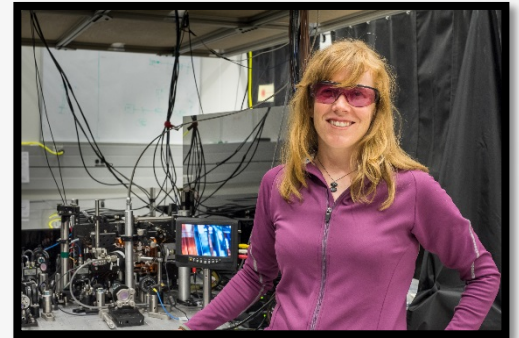
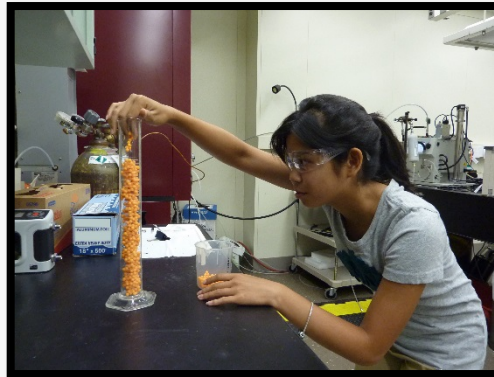
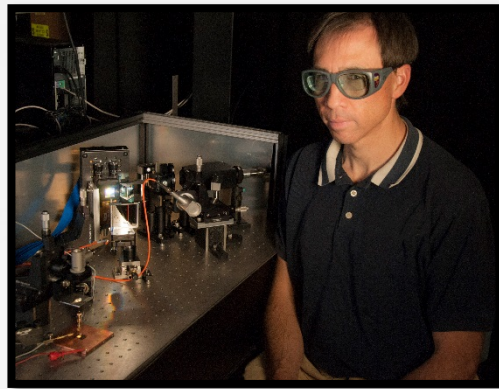
NIST Safety
Incident
Metrics



Safety
Climate
Assessment

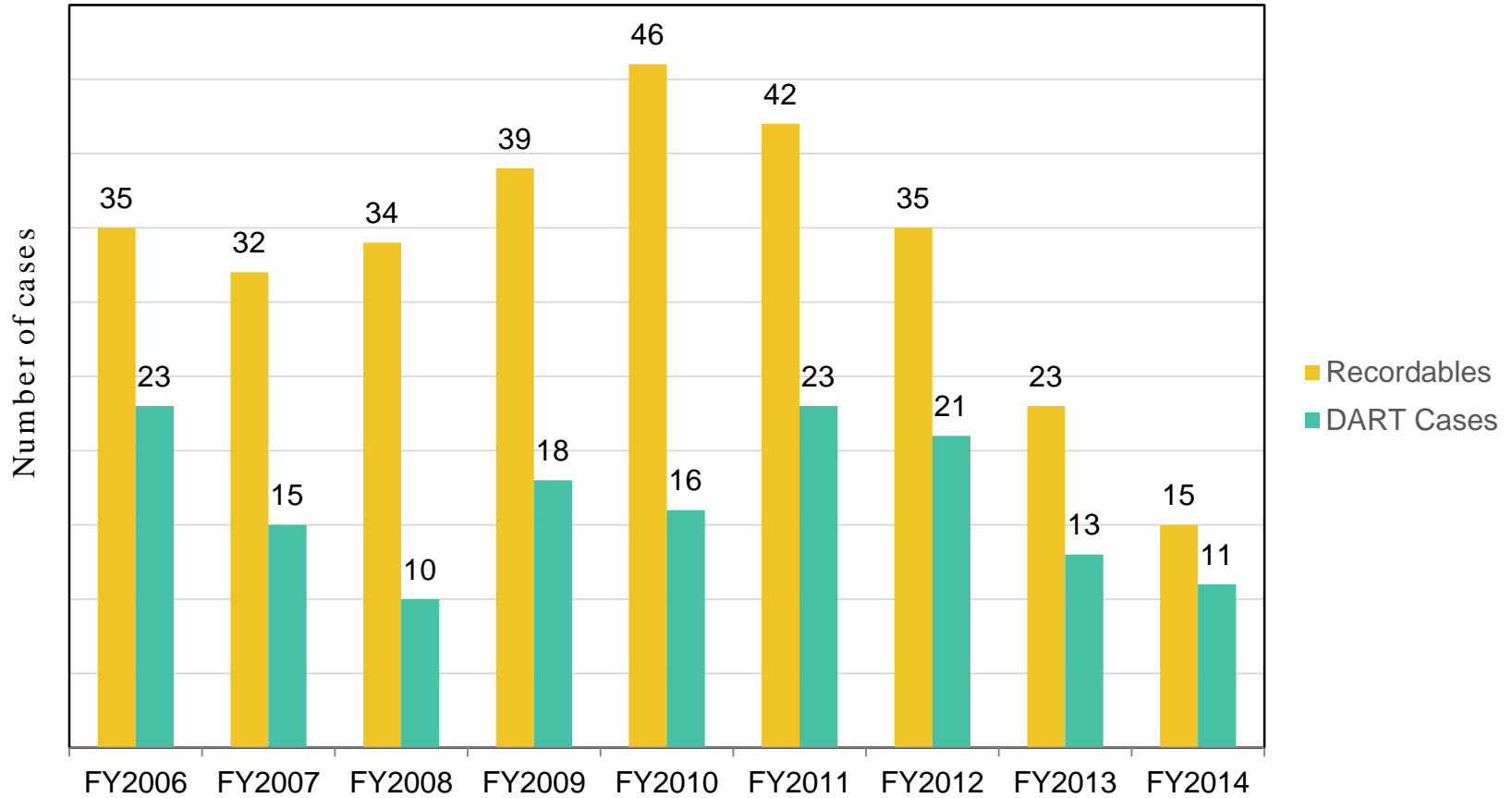


Discussion



NIST Safety Incident Metrics

GOAL
ZERO



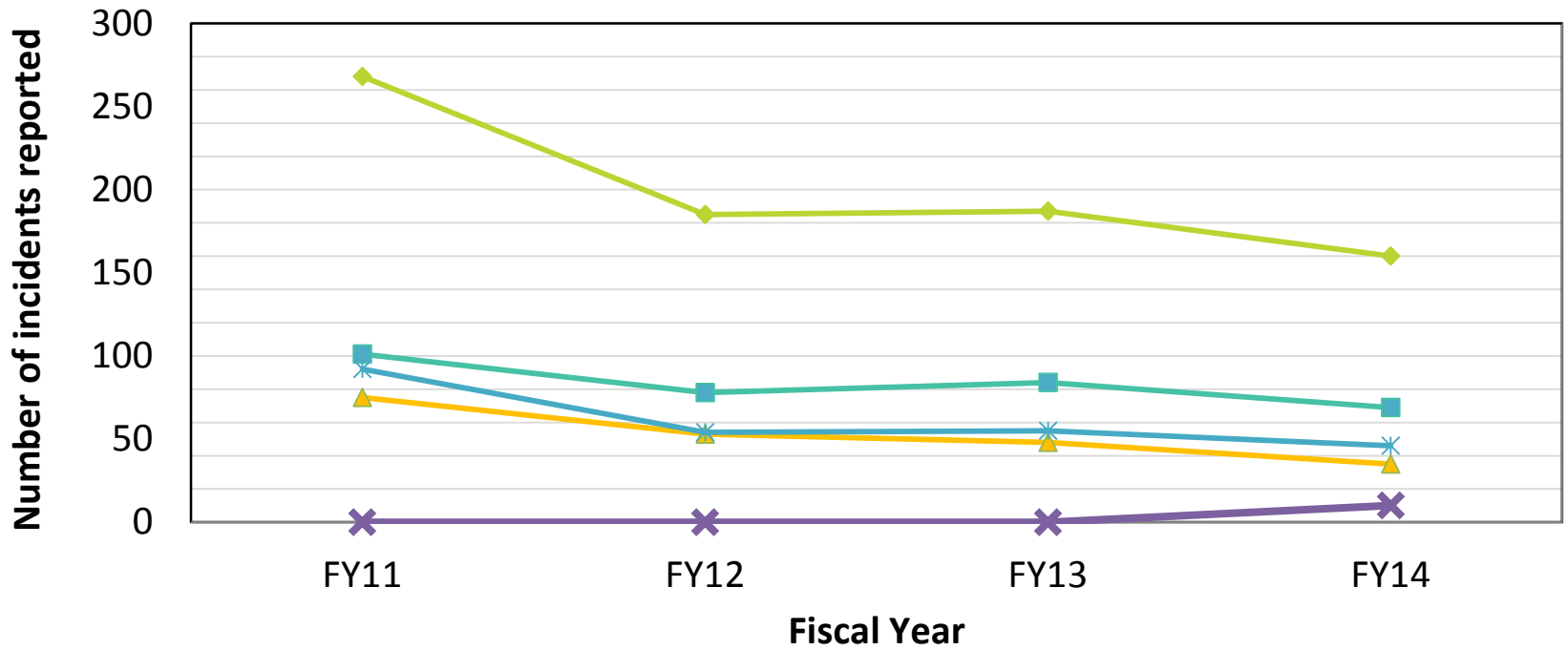
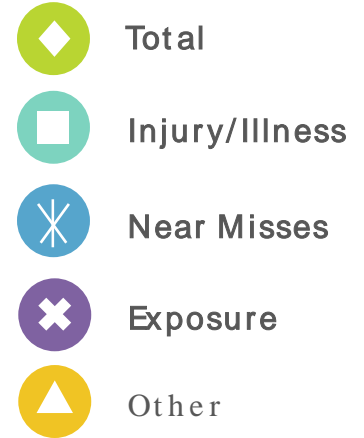
FY14 OSHA Recordable Cases

■ Slips, Trips, or Falls

■ DART Cases

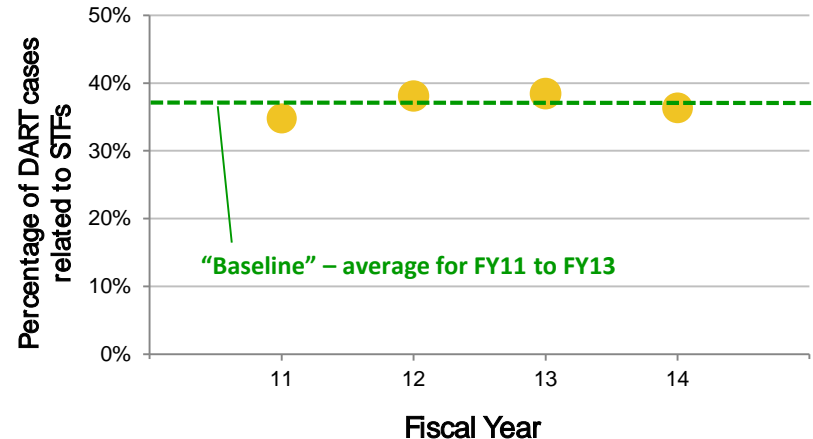
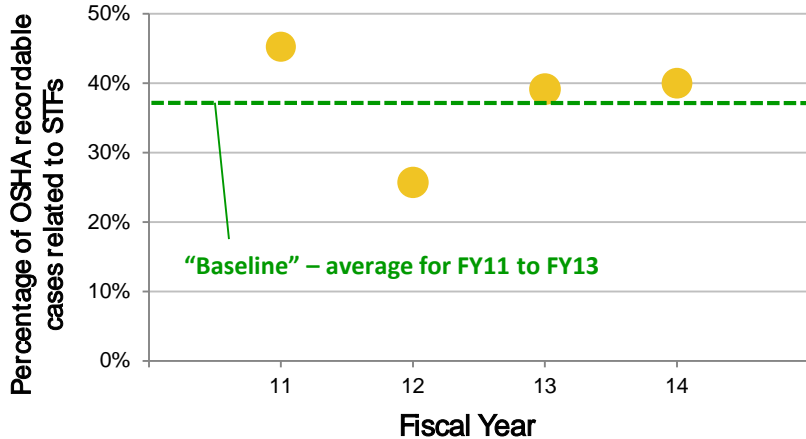
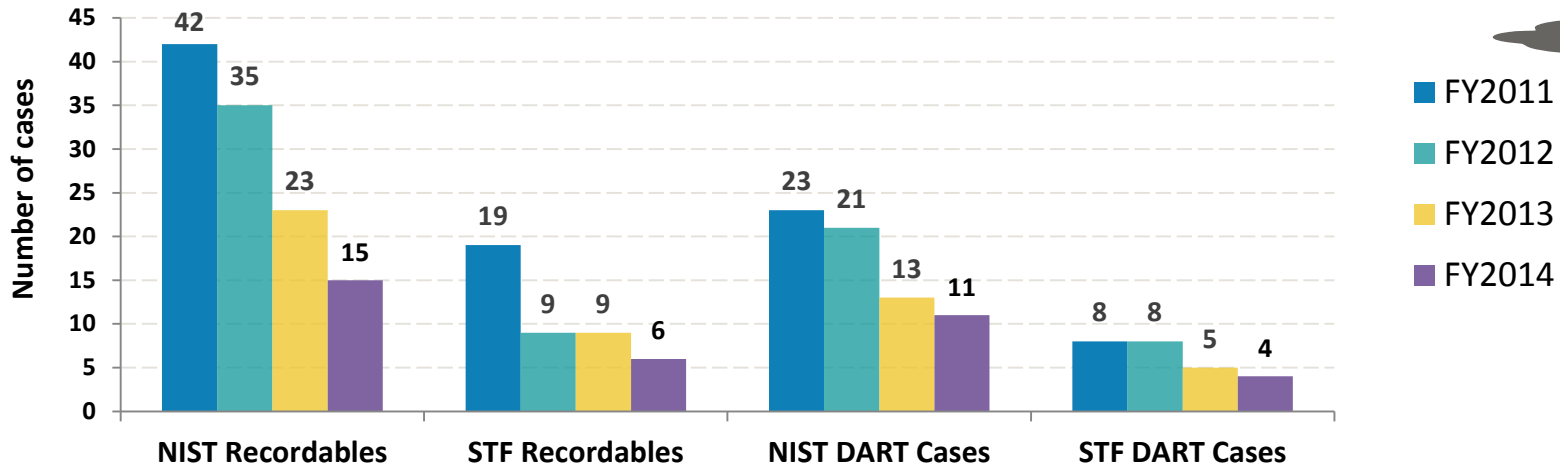
| Event | Injury |
|--|--|
| Employee was using a hand drill to put in a self-tapping screw. | Employee lacerated left thumb with drill bit. |
| Employee was walking outside and slipped for no known reason. | Employee injured right knee and right shoulder as a result of fall. |
| Employee was closing cabinet drawer after filing. | Employee sprained finger when it was closed in drawer. |
| Employee was removing ice build-up on the louvers of chilled-water cooling towers. | Employee experienced tightening of and pain in the lower back and right shoulder. |
| Employee was walking on icy stairs, lost balance, and fell. | Employee experienced pain in both knees and lower back. |
| Employee was tightening bolt using long-handled socket wrench. | Employee experienced sharp and sudden pain in the lower back, shooting down the leg. |
| Employee was exiting vehicle in parking lot and slipped on ice, no fall. | Employee experienced pain in back. |
| Employee was manually loading a heavy object onto a truck. | Employee experienced pain in lower abdomen area. |
| Employee tripped on the curb. | Employee sustained a cut lip and an abrasion on the index finger. |
| Employee walking in a hallway slipped on a wet spot on the floor. | Employee experienced pain in the right foot and bruise on left elbow. |
| Employee was demonstrating a knife technique to other employees. | One of the other employees received a laceration to the hand. |
| Employee was walking past a smoker in front of Building 101. | Employee became short of breath and began coughing. |
| Employee was returning from official NIST business via car and was rear-ended. | Employee experienced pain to shoulder and arm. |
| Employee was moving about office area and tripped over box on floor. | Employee experienced pain in knees and left wrist. |
| Employee was moving equipment when hit by a side panel that fell from a rack. | Employee experienced pain in the lower back. |

Incident Reporting



Slips, Trips, and Falls Incident Reduction

Reduce the occurrence of the most common types of incidents resulting in OSHA recordable cases



Safety Climate Assessment (SCA)

Conduct a safety climate survey to assess progress in making safety an integral core value and vital part of the NIST culture, and compare the results to those of the safety climate survey completed in June 2011.

- 2013 VCAT RECOMMENDATION

Capture
Employee
Perceptions of
Safety at NIST

Evaluate
Changes in
Perception
from 2011

Take Actions
to Enhance
Safety Culture

SCA Current Status

Progress since June 2014

-
- Aug/Oct ○ **Compile/Analyze Responses**
 - July/Aug ● **Conducted Survey**
 - June ● **Conducted Pilot**
 - June ● **Obtained Feedback on Statements**
 - May ● **Developed Survey Statements**
 - April ● **Selected Focus Areas**

SCA Focus Areas

Five aspects of the NIST safety policy

1

Management
Commitment

2

Adequacy of
Resources

3

Employee
Engagement

4

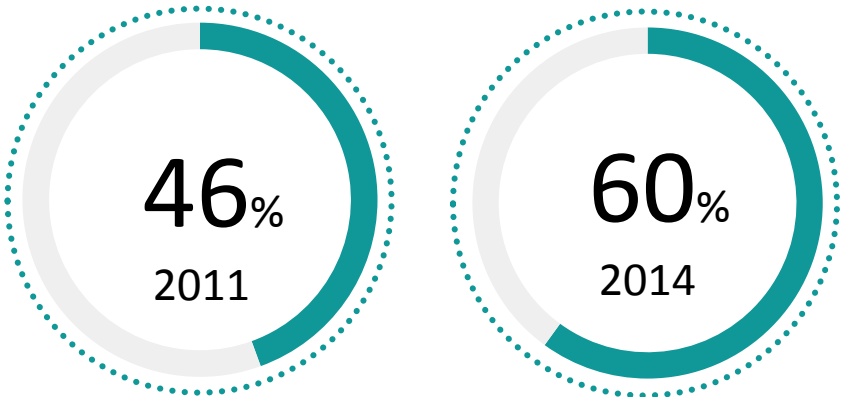
Personal
Responsibility
for OWN
Safety

5

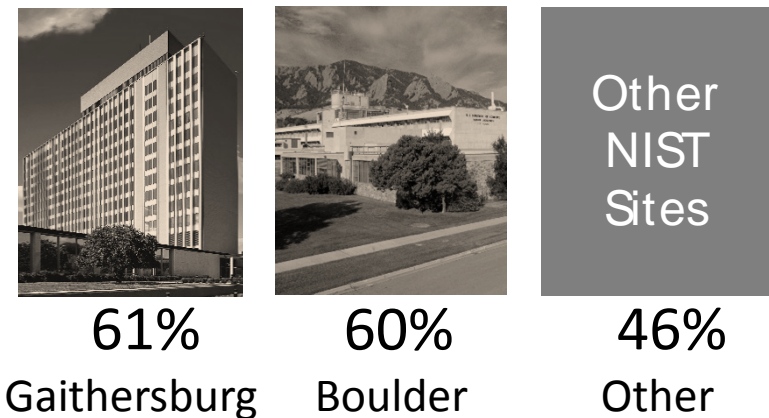
Personal
Responsibility
for Safety of
OTHERS

SCA Participation

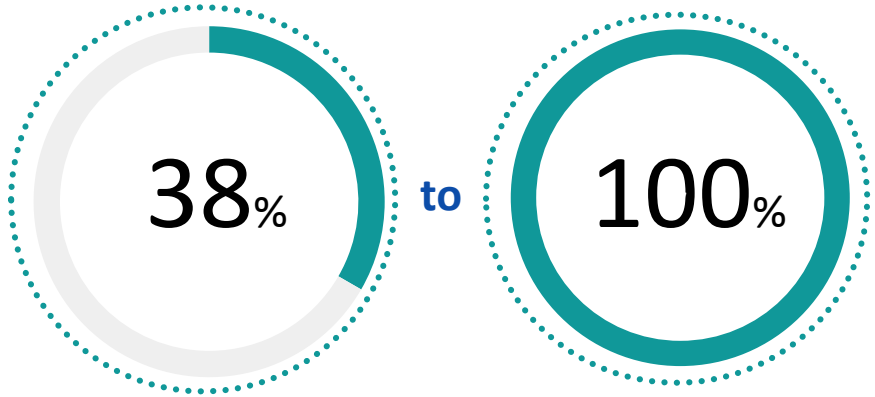
Total Participation



Site Participation



OU Participation



Total Responses

1,908 Respondents

896 Comments





Comparison to FY2011 SCA

Liekert Scoring: Top score=5, bottom score=1




Top 10

Bottom 10

| | 2011 | 2014 | % Improved |
|--|------|------|------------|
| N I cannot always get the equipment I need to do my job safely. | 3.78 | 4.01 | 6.1% |
| P I receive safety performance feedback during my annual employee evaluation. | 3.47 | 3.67 | 5.9% |
| P I am clear about what my responsibilities are for safety and health. | 4.12 | 4.33 | 5.2% |
| P Managers and supervisors express concern if safety procedures are not adhered to. | 4.08 | 4.28 | 4.9% |
| N When people ignore safety procedures, it is none of my business. | 4.25 | 4.37 | 2.8% |
| P There are always enough people available to get the job done safely. | 3.59 | 3.68 | 2.5% |
| N Sometimes I am not given enough time to get the job done safely. | 4.01 | 4.07 | 1.5% |
| N Sometimes it is necessary to depart from safety requirements for work's sake. | 3.96 | 4.02 | 1.5% |
| N Some safety rules and procedures don't need to be followed to get the job done safely. | 3.74 | 3.77 | 0.9% |
| N In my workplace, the chances of being involved in an accident are quite high. | 4.12 | 4.13 | 0.2% |
| P I am strongly encouraged to report unsafe conditions. | 4.23 | 4.20 | -0.8% |
| P I am involved in informing management of important safety issues. | 3.83 | 3.80 | -0.8% |
| P There is good communication about safety issues that affect me. | 3.93 | 3.87 | -1.5% |
| P Co-workers often give tips to each other on how to work safely. | 3.73 | 3.59 | -3.8% |
| N Some health and safety rules are not really practical. | 3.24 | 3.01 | -7.0% |

Composite Scores by SCA Focus Area

NIST-wide by Work Environment: Office, Lab, or Other

| | Office  | Lab  | Other  |
|------------------------------------|--|---|---|
| Management Commitment | 3.94 | 3.88 | 3.60 |
| Adequacy of Resources | 3.72 | 3.63 | 3.37 |
| Employee Engagement | 4.04 | 4.05 | 3.91 |
| Personal Responsibility for Self | 3.99 | 3.79 | 3.56 |
| Personal Responsibility for Others | 3.53 | 3.58 | 3.40 |

 Lowest two scores in each column

Composite Scores by SCA Focus Area

NIST-wide by Management Level

| | Non-Supervisor | Group Leader | Division Chief | OU Director |
|------------------------------------|----------------|--------------|----------------|-------------|
| Management Commitment | 3.86 | 4.03 | 4.22 | 4.24 |
| Adequacy of Resources | 3.65 | 3.73 | 3.85 | 3.96 |
| Employee Engagement | 3.99 | 4.23 | 4.43 | 4.64 |
| Personal Responsibility for Self | 3.86 | 4.01 | 4.29 | 4.55 |
| Personal Responsibility for Others | 3.50 | 3.64 | 3.82 | 3.98 |



Lowest two scores in each column

Score Breakdown Example

“..clearly considers the safety of employees to be of great importance.”

| Director's Office | Liekert | SA | A | N | D | SD | DK |
|--------------------------------|---------|-------|-------|------|------|------|------|
| NIST-level management | 4.53 | 60.0% | 36.7% | 1.7% | 0.0% | 1.7% | 0.0% |
| My OU management | 4.56 | 60.0% | 33.3% | 5.0% | 0.0% | 0.0% | 1.7% |
| My Division management | 4.55 | 60.0% | 31.7% | 3.3% | 1.7% | 0.0% | 3.3% |
| My supervisor | 4.53 | 57.6% | 39.0% | 1.7% | 1.7% | 0.0% | 0.0% |
| Laboratory Programs | Liekert | SA | A | N | D | SD | DK |
| NIST-level management | 4.49 | 57.3% | 34.9% | 4.6% | 0.7% | 1.1% | 1.4% |
| My OU management | 4.55 | 60.4% | 33.0% | 3.0% | 1.0% | 0.5% | 2.0% |
| My Division management | 4.50 | 58.2% | 31.7% | 4.9% | 1.4% | 0.6% | 3.1% |
| My supervisor | 4.51 | 60.1% | 30.7% | 5.5% | 1.5% | 0.5% | 1.6% |
| Innovation & Industry Services | Liekert | SA | A | N | D | SD | DK |
| NIST-level management | 4.72 | 72.3% | 27.7% | 0.0% | 0.0% | 0.0% | 0.0% |
| My OU management | 4.73 | 72.3% | 26.2% | 0.0% | 0.0% | 0.0% | 1.5% |
| My Division management | 4.69 | 67.7% | 26.2% | 1.5% | 0.0% | 0.0% | 4.6% |
| My supervisor | 4.75 | 75.4% | 21.5% | 1.5% | 0.0% | 0.0% | 1.5% |
| Management Resources | Liekert | SA | A | N | D | SD | DK |
| NIST-level management | 4.27 | 44.4% | 43.2% | 7.4% | 1.8% | 2.3% | 0.9% |
| My OU management | 4.33 | 48.8% | 38.4% | 7.9% | 1.8% | 1.8% | 1.4% |
| My Division management | 4.34 | 50.1% | 37.8% | 6.9% | 2.3% | 1.6% | 1.4% |
| My supervisor | 4.37 | 52.6% | 36.2% | 6.5% | 2.3% | 1.6% | 0.9% |

Potential Opportunities for Improvement

Based on preliminary analysis



Safety Training
Effectiveness



Safety
Performance
Feedback &
Appraisals



Communicating
Resource Needs
Up & Availability
Down



Safety Program
Development &
Deployment



Addressing
Employee Safety
Concerns



Effective Safety
Leadership Traits
for
Strengthening
Safety Culture



Incident Reporting
Thresholds & Access
to Data & Lessons
Learned



Perceptions of
Personal
Responsibility
for Safety of Self
and Others

Next Steps

| What | Who | When |
|--|---------------------------------------|---------|
| Complete analysis of employee responses | OSHE | Oct |
| Present results to the Executive Safety Committee | OSHE | Nov |
| Recommend actions to the NIST Director and Associate Directors | Executive Safety Committee | Nov/Dec |
| Decide on actions to be taken | NIST Director and Associate Directors | Dec |
| Communicate SCA results and actions to the NIST Staff | NIST Director, Line Management, OSHE | Jan |
| Take actions | NIST management and staff | Ongoing |

DISCUSSION

