



# NIST

## 2022 NSC Safety Barometer Preliminary Results for Federal Employees

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## Objective

- Review and guide you through your NSC Safety Barometer Results.

## Agenda

- Survey Methodology
- Discussion of Results
- Next Steps

# National Safety Council




Our Mission: Save lives, from the workplace to anyplace

TOGETHER,  
WE ARE  
BUILDING A  
CULTURE  
TO

**KEEP**  
• EACH OTHER •  
**SAFE**

# NSC Safety Barometer Goals





# **Survey Administration and Methodology**

# NSC SAFETY BAROMETER



**60.3%**

Response Rate

2,081 Respondents

- Conducted survey in December and January 2022/2023
- Administered through anonymous online survey

# NSC Safety Barometer Content



- 50 Standard items assessing six safety performance categories
- Employee Demographic Questions:
  - Tenure,
  - Primary Work Location,
  - Organizational Unit (OU),
  - Division,
  - Employment Category, and
  - JHA or HRA

# Six Performance Categories of Safety Excellence

## Management Commitment

Top and middle management's commitment to safety – words, actions, organizational strategy, personal engagement.

(7 items)

## Supervisor Engagement

Six primary roles through which supervisors communicate their support of safety – leader, manager, controller, trainer, organizer, advocate.

(9 items)

## Employee Involvement

Actions and reactions critical to making a safety program work – personal engagement, responsibility, compliance.

(9 items)

## Safety Support Activities

Presence and quality of various safety programs with focus on communications, training, inspection, maintenance, emergency response.

(10 items)

## Safety Support Climate

General beliefs, impressions, observations about managements commitment and underlying values.

(10 items)

## Organizational Climate

General conditions that interact with the safety program to affect its ultimate success such as teamwork, morale, and employee turnover.

(5 items)



# Benchmarking

## Benchmarking to the NSC Database...

compares

your  
safety  
program



to...

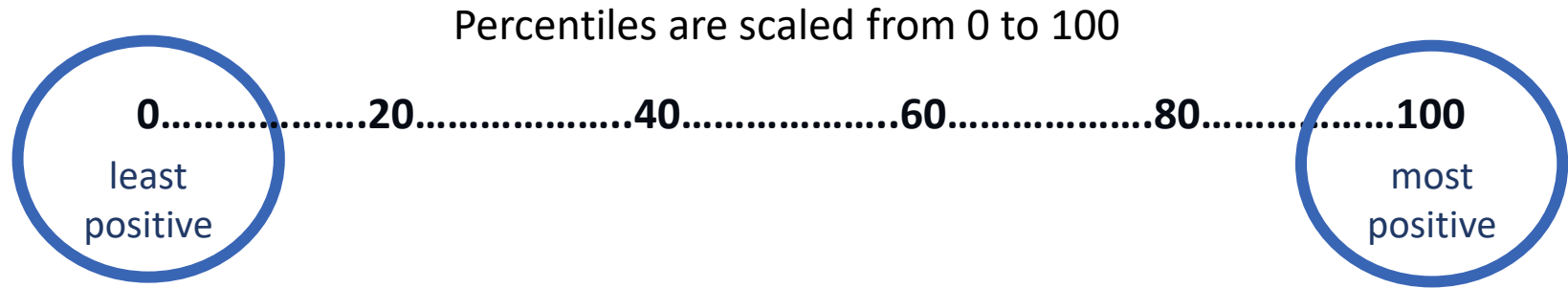


other organizations across the world



**...producing percentile scores**

# Benchmarking



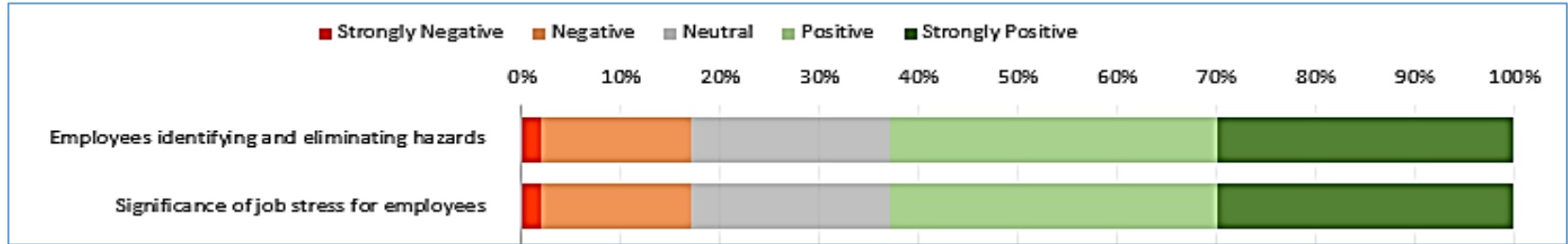
NSC's Database contains data from

**1,530** businesses  
**>3,000,000** respondents

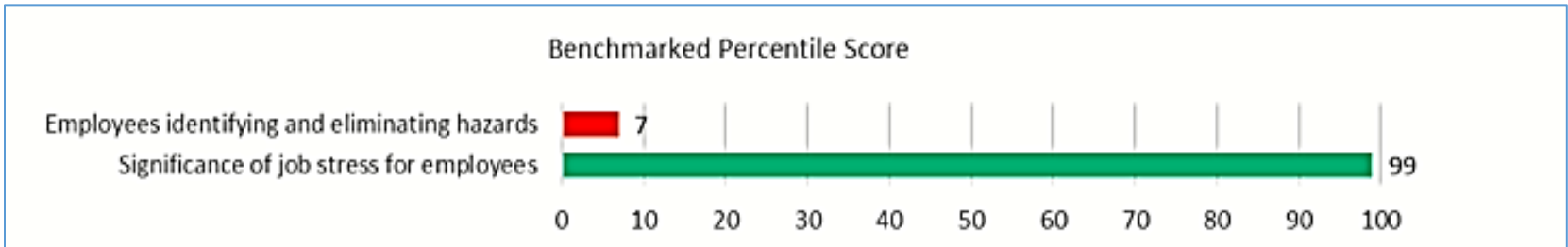
**This reduces both context and construct biases in your data.**

# Value of Benchmarking – Example

## Standard Survey Results



## Benchmarked Survey Results





# NSC Database

Plus additional benchmarking by Industry: NAICS 54, 92, and 61:  
**153 businesses**

# [Don't...]

...focus only on negative results

...**finger-point**

...knee-jerk / overreact

...**discount or ignore results**

# Do

...keep employees informed

...include employees in results interpretation

...involve employees in action planning

## and remember...

Survey value increases with each re-survey

Survey improvement scores may be more important than current results

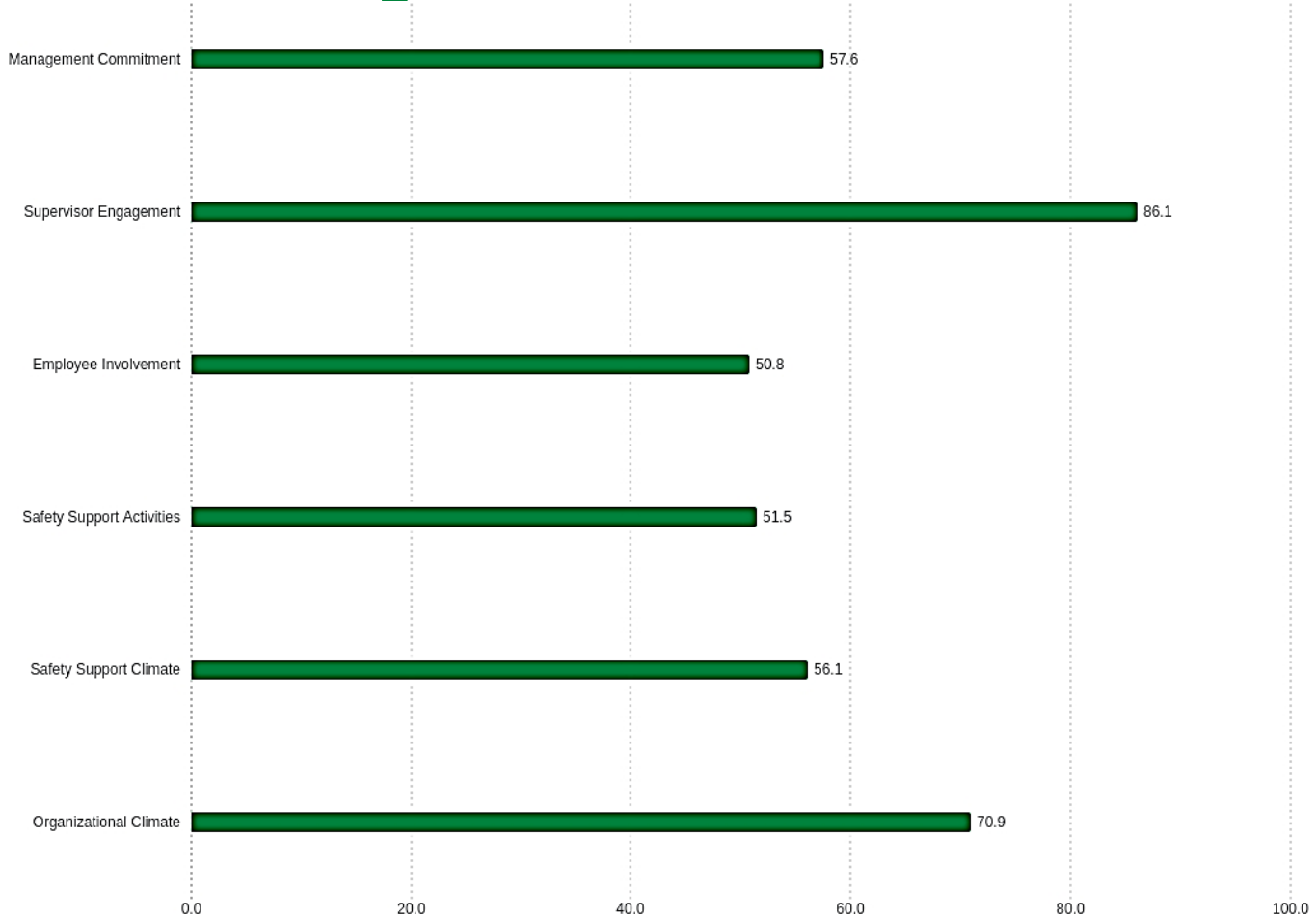
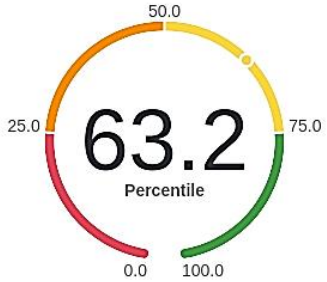
Actions taken from this point are more important than process of conducting survey

# NSC SAFETY BAROMETER

## NIST Results



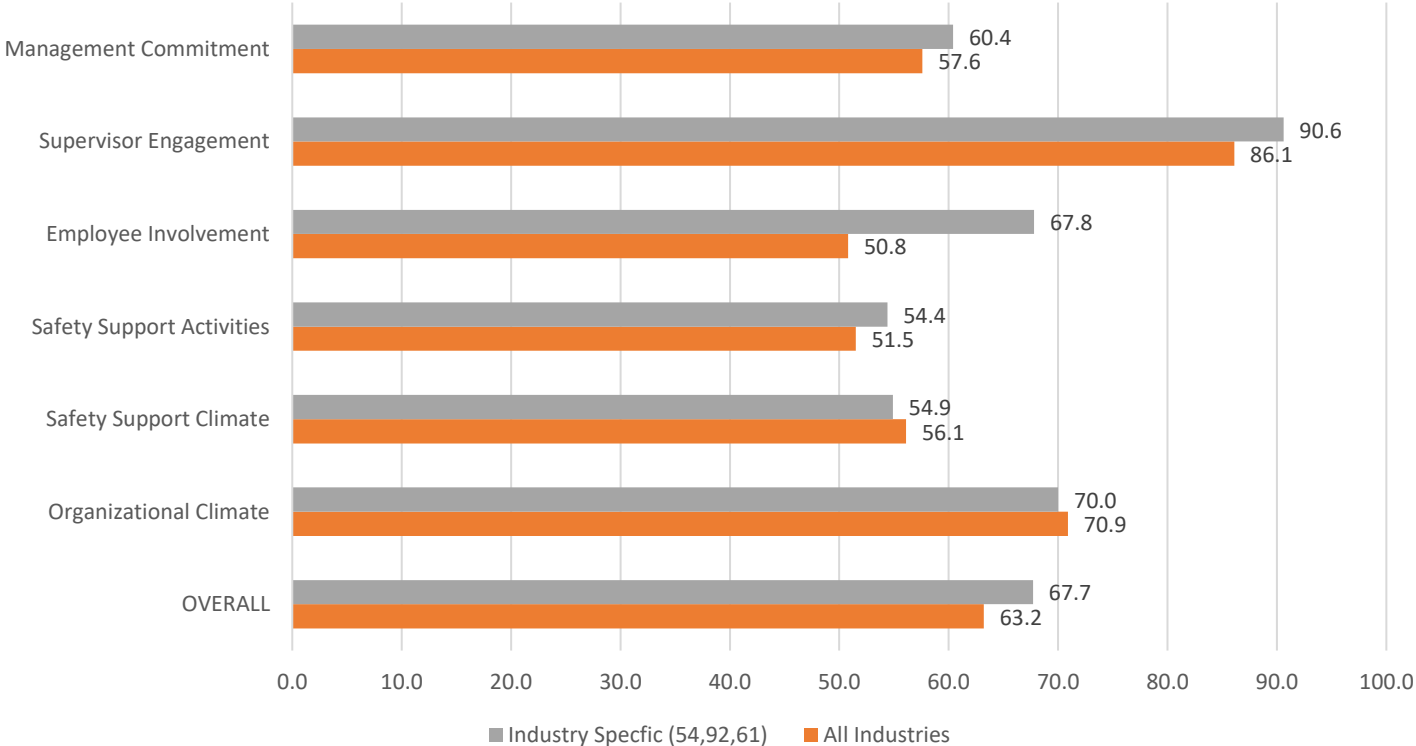
# Overall & Performance Categories Percentile Scores



- Above average scores for all six Program Categories
- Best-Performing Categories: Supervisor Engagement, Organizational Climate
- Opportunity Areas: Employee Involvement & Safety Support Activities

# Industry-Specific Benchmarking

Performance Category Percentile Scores



*\*156 businesses/establishments*



# Safety Component Percentile Scores

34 of the 51 components received above average percentile scores:

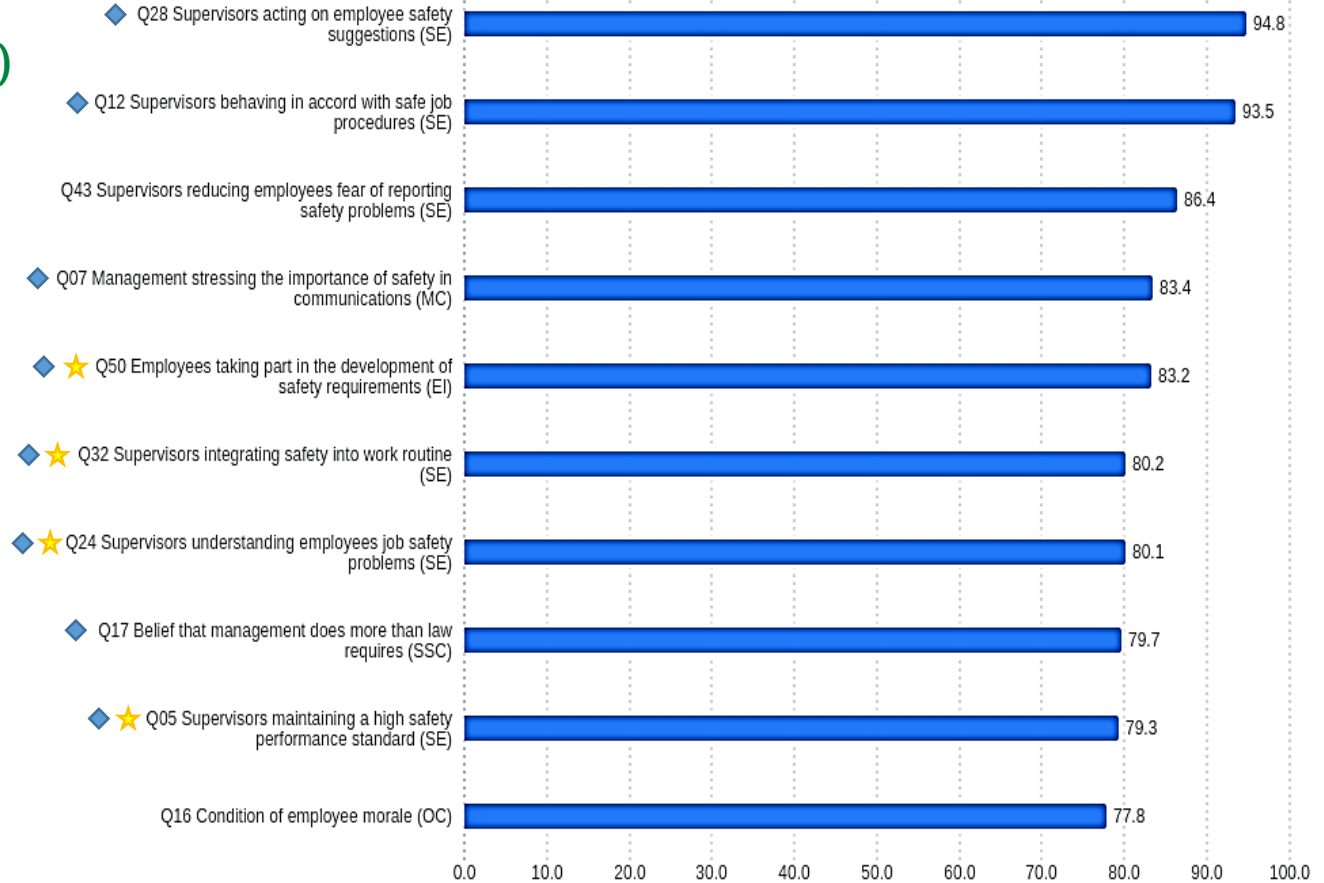
- **13** component at or above the 76th percentile
- **21** components from 50th to 75th percentile
- **14** from 25th percentile to 49th percentile
- **3** components below the 25th percentile

*There is an additional item - (35b)*

Statement Number, Component (Performance Category)	Percentile Score	Strongly Positive	Positive	Neutral	Negative	Strongly Negative	Average
Q28 Supervisors acting on employee safety suggestions (SE)	94.3	38.2%	43.6%	14.5%	2.7%	1.1%	1.15
Q12 Supervisors behaving in accord with safe job procedures (SE)	93.3	59.8%	32.7%	4.5%	1.9%	1.0%	1.03
Q43 Supervisors reducing employees fear of reporting safety problems (SE)	86.4	29.0%	49.8%	15.4%	4.2%	1.6%	1.49
Q07 Management stressing the importance of safety in communications (MC)	83.4	28.5%	46.8%	13.7%	8.8%	2.3%	0.93
Q50 Employees taking part in the development of safety requirements (E)	83.2	19.1%	38.8%	29.1%	10.9%	2.0%	0.82
Q32 Supervisors integrating safety into work routine (SE)	80.3	30.1%	47.7%	18.0%	3.7%	0.6%	1.03
Q24 Supervisors understanding employees job safety problems (SE)	80.1	31.6%	50.5%	13.7%	3.5%	0.8%	0.69
Q17 Belief that management does more than law requires (SSC)	79.7	24.2%	43.2%	20.4%	8.9%	3.3%	0.76
Q05 Supervisors maintaining a high safety performance standard (SE)	79.3	44.4%	41.0%	12.2%	1.5%	0.9%	1.26
Q16 Condition of employee morale (OC)	77.8	20.6%	41.4%	20.6%	11.8%	5.6%	0.50
Q27 Belief that management is sincere in safety efforts (SSC)	77.2	45.9%	41.8%	7.3%	3.5%	1.5%	1.27
Q47 Significance of job stress for employees (OC)	77.0	8.2%	32.2%	25.8%	24.7%	8.9%	0.66
Q41 Availability of safety coordinator to provide assistance (SSA)	76.9	27.4%	47.6%	19.7%	4.0%	1.4%	0.91
Q37 Employees take part when accident/incident investigations occur (E)	74.1	15.2%	44.4%	34.6%	4.0%	1.3%	0.64
Q44 Supervisors investigating safety incident investigations (SE)	74.0	20.0%	40.0%	35.1%	3.6%	1.2%	0.74
Q31 Management setting a positive safety example (MC)	71.9	25.4%	50.5%	17.8%	4.3%	2.0%	0.93
Q19 Supervisors enforcing safe job procedures (SE)	70.6	36.3%	49.3%	11.8%	2.0%	0.6%	1.18
Q40 Management including safety in job promotion reviews (MC)	70.2	20.2%	37.6%	30.6%	7.9%	3.6%	0.63
Q10 Belief that management shows it cares for employee safety (SSC)	68.9	39.8%	43.2%	10.8%	4.0%	2.1%	1.15
Q03 Priority of safety relative to productivity (SSC)	66.9	28.6%	43.7%	16.0%	8.0%	3.8%	0.85
Q36 Belief that hazards not fixed right away will still be addressed (SSC)	65.4	16.5%	42.7%	26.8%	11.8%	2.1%	0.60
Q06 Frequency of detailed and regular scheduled inspections (SSA)	65.1	23.5%	43.3%	25.5%	5.9%	1.8%	0.81
Q34 Management participating in safety activities on a regular basis (MC)	64.5	19.1%	45.4%	27.2%	6.1%	2.2%	0.73
Q02 Frequency of employee/management interactions (OC)	64.5	27.4%	48.3%	15.3%	6.9%	2.1%	0.92
Q38 Supervisors providing helpful safety training or guidance (SE)	64.4	21.5%	53.3%	19.7%	4.5%	1.0%	0.90
Q29 Occurrence of emergency response procedures testing (SSA)	63.7	16.6%	42.0%	29.4%	9.9%	2.1%	0.61
Q09 Condition of departmental teamwork (OC)	61.1	17.3%	45.0%	24.8%	8.6%	4.2%	0.63
Q35 Perception that the safety office has high status (SSC)	60.4	18.4%	38.1%	31.9%	8.8%	2.8%	0.51
Q42 Stability of workforce (OC)	58.1	21.0%	48.6%	16.9%	10.2%	3.4%	0.34
Q46 Employees using necessary personal protective equipment (E)	57.2	19.3%	43.8%	30.7%	5.5%	0.7%	0.75
Q18 Belief that management insists supervisors think about safety (SSC)	54.7	24.2%	50.1%	22.0%	2.8%	0.9%	0.94
Q13 Designated employees well trained in emergency practices (SSA)	54.2	17.8%	46.2%	27.5%	6.8%	1.6%	0.72
Q15 Thoroughness of near miss incident investigations (SSA)	53.7	20.3%	41.9%	31.5%	5.0%	1.3%	0.75
Q01 Employees identifying and eliminating hazards (E)	50.2	36.1%	48.6%	10.7%	3.8%	0.9%	1.15
Q22 Effectiveness of award programs in promoting safe behavior (SSA)	49.6	9.1%	25.5%	42.4%	17.8%	5.2%	0.15
Q11 Employees believing that their actions can protect coworkers (E)	49.4	44.9%	48.3%	5.5%	0.9%	0.4%	1.21
Q18 Belief that employees understand safety and health regulations (E)	47.5	34.6%	55.6%	6.8%	2.4%	0.6%	1.16
Q26 Presence of safety training in new employee onboarding (SSA)	46.7	38.2%	41.7%	15.5%	3.0%	0.9%	1.13
Q04 Employees being involved in safety and health practices (E)	44.2	15.4%	36.3%	33.1%	12.7%	2.5%	0.50
Q35a Perception that the safety coordinator (DU safety program coordinator, division safety representative, etc.) has high status (SSC)	40.8	16.8%	36.6%	33.2%	10.2%	3.1%	0.54
Q08 Frequency of safety meeting occurrence (SSA)	40.8	13.8%	35.1%	32.0%	15.3%	3.8%	0.40
Q39 Perception that medical resources are sufficient (SSC)	38.7	12.9%	36.9%	41.4%	6.7%	2.0%	0.52
Q25 Employees following procedures to isolate hazardous energy sources (E)	37.0	19.4%	38.0%	38.7%	3.0%	0.8%	0.72
Q14 Management publishing a policy on the value of employee safety (MC)	35.3	21.8%	43.8%	27.1%	5.9%	1.3%	0.79
Q21 Management providing adequate safety staff (MC)	34.7	16.8%	40.0%	27.1%	12.1%	4.0%	0.53
Q23 Safety standards relative to production/work output standards	34.1	9.4%	27.6%	31.9%	24.0%	6.5%	0.69
Q43 Perception that good environmental conditions are kept (SSC)	31.3	11.6%	42.2%	19.3%	18.2%	8.7%	0.38
Q33 Quality of preventive maintenance system operation (SSA)	27.3	7.7%	26.4%	36.7%	17.8%	11.4%	0.51
Q30 Effectiveness of safety committee (like ESC, SAC, and O&I) in improving safety conditions (SSA)	24.7	12.9%	37.7%	41.0%	5.7%	2.8%	0.52
Q49 Management setting annual safety goals (MC)	21.0	12.7%	35.0%	36.3%	12.7%	3.4%	0.41
Q20 Employees using standardized precautions for hazardous materials (E)	1.4	13.8%	31.4%	45.7%	7.3%	1.8%	0.48

# Strengths (Top Performing Components)

- Four of the highest-performing components are 'key drivers' – focusing on EI and SE
- None of the Safety Support Activities Components identified in top ranked strengths
- Strong organizational culture! Buttressed by good environmental conditions and engaged supervisors.



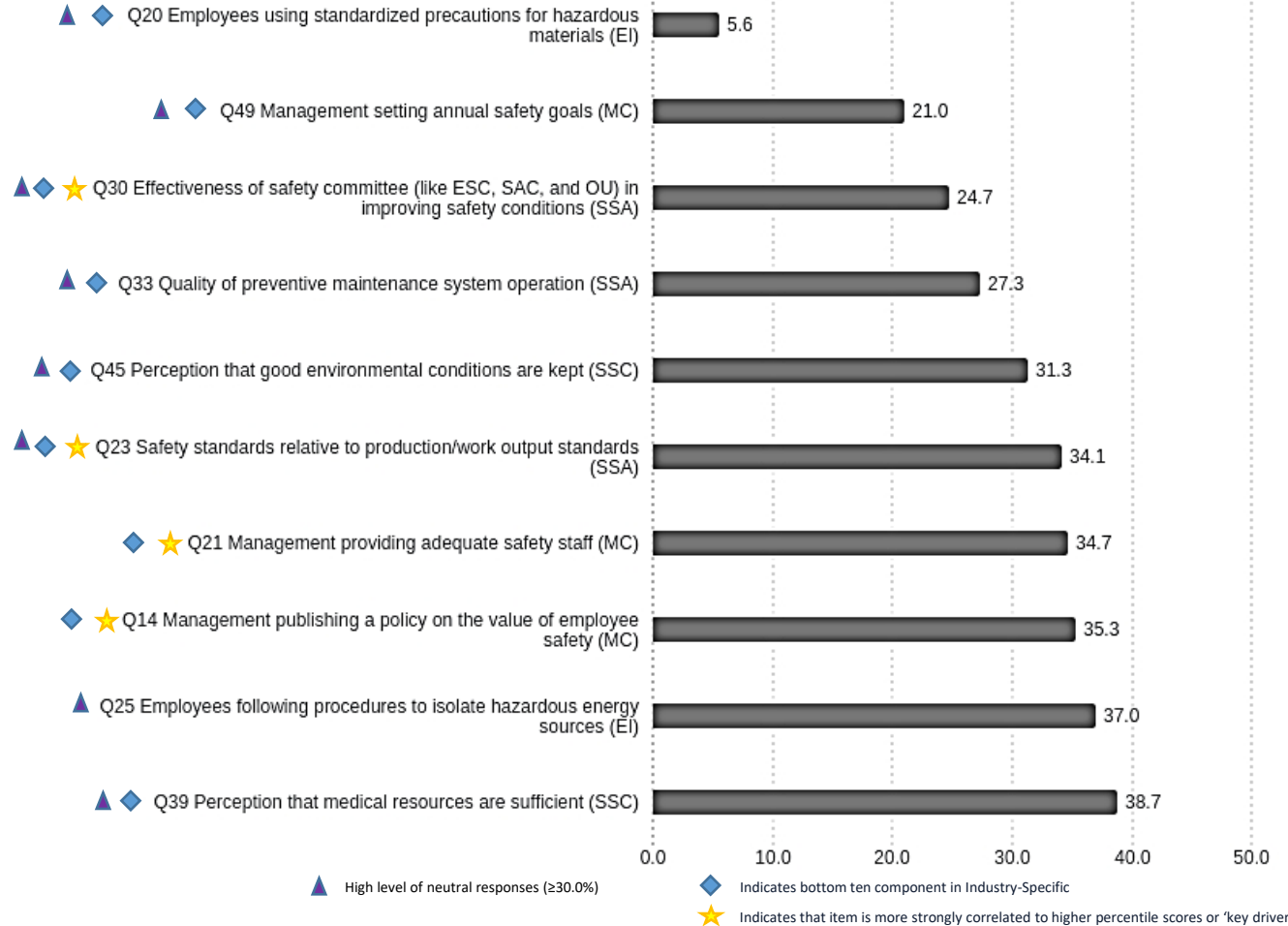
Clustering in  
Supervisor Engagement

- ◆ Indicates top-performing component in Industry-Specific comparison
- ★ Indicates that item is more strongly correlated to higher percentile scores or 'key drivers'

# Focus Areas

## (Lower Performing Components)

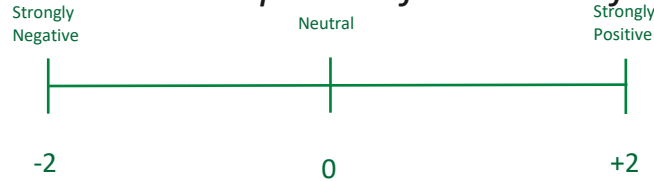
- Four of the lowest-performing components are 'key drivers'
- 7/10 lower-scoring components generated elevated neutrals – increase employee awareness, knowledge, involvement and visibility of these components if no deficit is present



Clustering in  
Management Commitment & Safety  
Support Activities

# How to read Employee Demographic Comparisons

*Values are assigned to each response the scale from -2 to +2. A mean is calculated based on the answers of the respondents. Average Response Scores are calculated for each of the 50 items, six performance categories, and overall. Groups with fewer than five respondents not included in comparisons.*



## What to look for

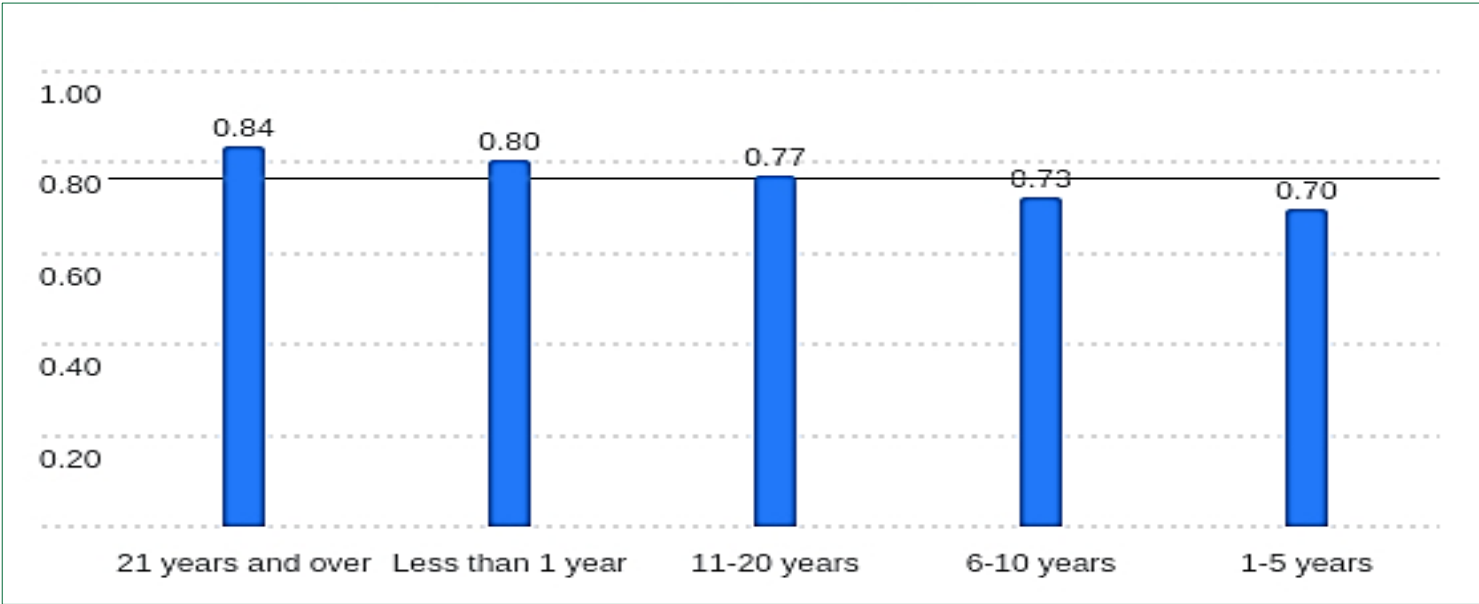
### 1. Do all groups have positive safety culture perceptions?

- Look for negative average response scores

### 2. Are all groups experiencing these elements similarly (Disparity)

- If a group has lower perceptions it does not indicate they are 'less safe' than other groups. A number of factors contribute to these perceptions.
- Use there results to see if there are opportunities to elevate perceptions among lower-scoring groups and consider opportunities for targeted action planning if applicable.

# Comparisons by Tenure



- All workgroups responded positively, indicating an overall positive perceptions regarding safety culture.
- Employees with 21 years and over of tenure held more positive perceptions than the other tenure groups, overall.
- Employees with 1-5 years of tenure held the least positive perceptions, overall.

1-5 years	363
11-20 years	516
21 years and over	561
6-10 years	358
Less than 1 year	126

# Comparisons by Primary Work Location



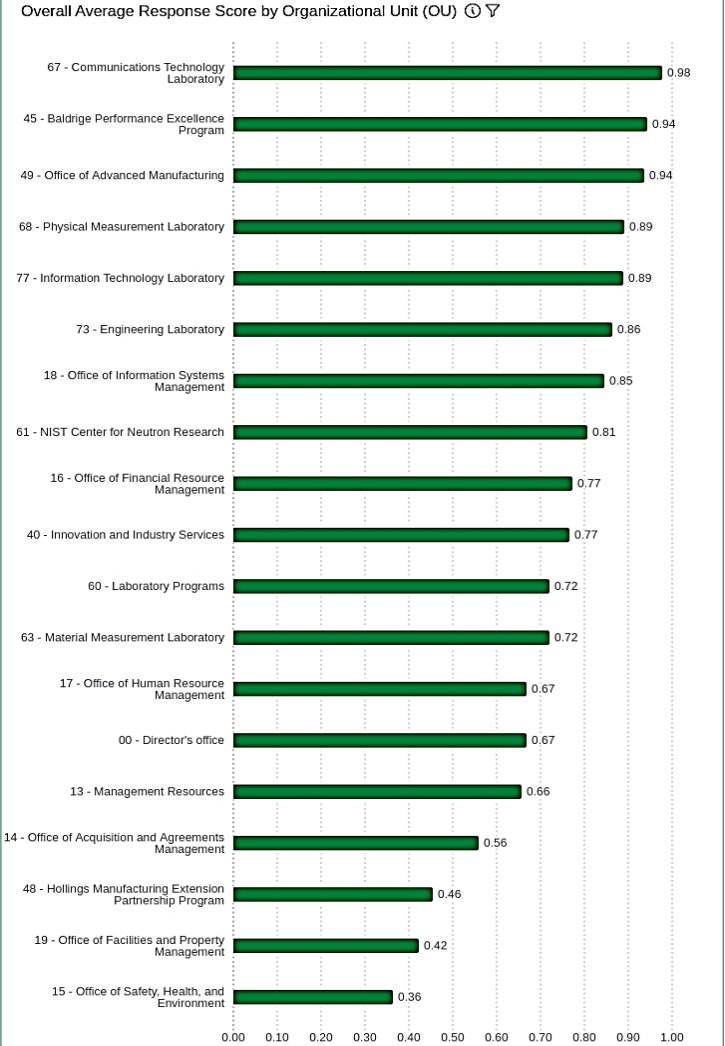
- All three locations responded positively, indicating an overall positive perceptions regarding safety culture.
- Employees who indicated 'Other' had more positive perceptions than Boulder and Gaithersburg.
- Employees from Gaithersburg held the least positive perceptions, overall.

Gaithersburg	1,545
Boulder	290
Other	94

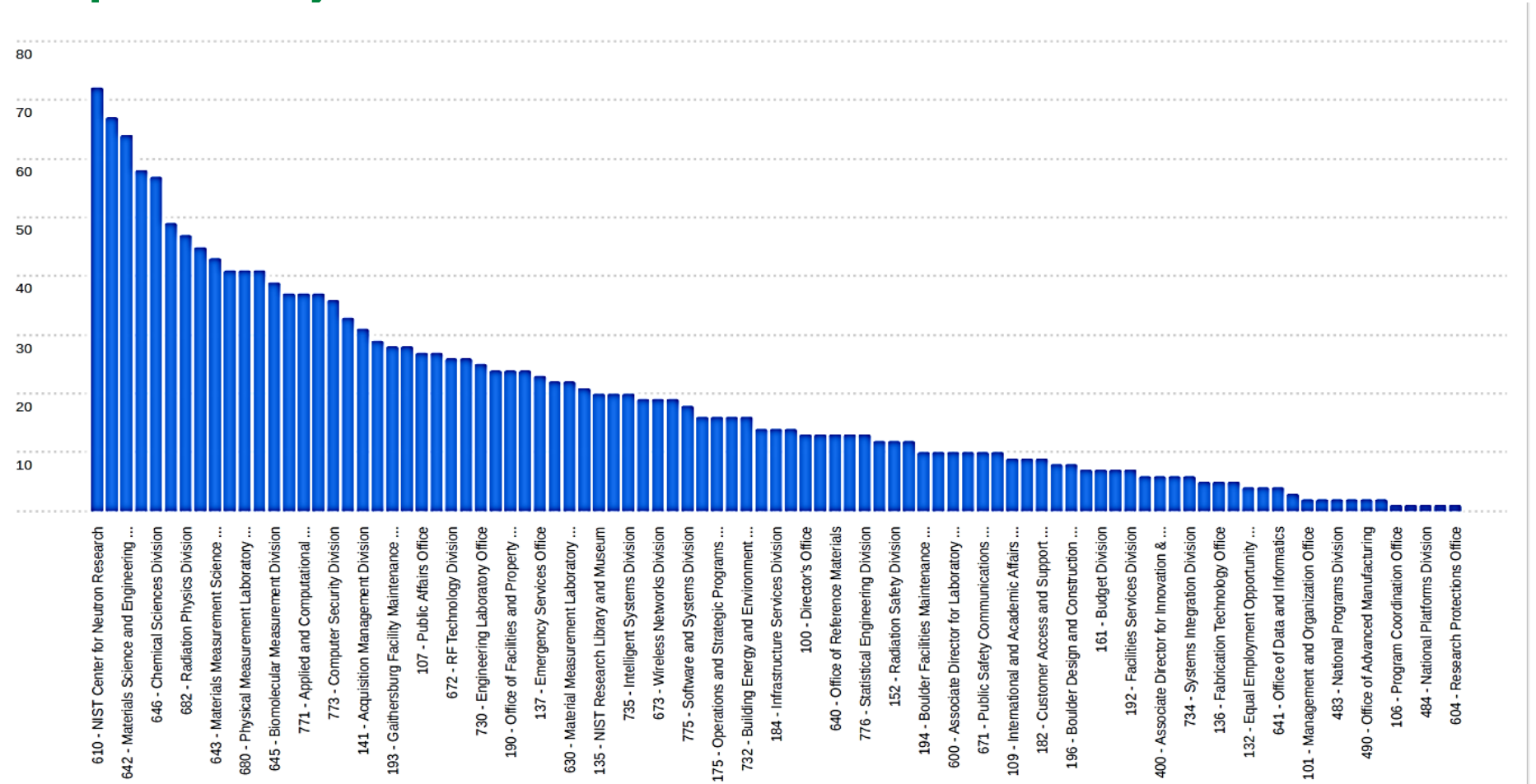
# Comparisons by Organizational Unit (OU)

- All Organizational Units responded positively, indicating an overall positive perceptions regarding safety culture.
- Communications Technology Laboratory held significantly more positive perceptions than Office of Safety, Health, and Environment

Organizational Unit (OU)	Count
68 - Physical Measurement Laboratory	381
63 - Material Measurement Laboratory	336
77 - Information Technology Laboratory	187
73 - Engineering Laboratory	137
18 - Office of Information Systems Management	123
67 - Communications Technology Laboratory	107
61 - NIST Center for Neutron Research	101
19 - Office of Facilities and Property Management	99
16 - Office of Financial Resource Management	71
13 - Management Resources	68
00 - Director's office	55
14 - Office of Acquisition and Agreements Management	52
15 - Office of Safety, Health, and Environment	46
60 - Laboratory Programs	44
17 - Office of Human Resource Management	37
40 - Innovation and Industry Services	17
48 - Hollings Manufacturing Extension Partnership Program	15
45 - Baldrige Performance Excellence Program	12
49 - Office of Advanced Manufacturing	5



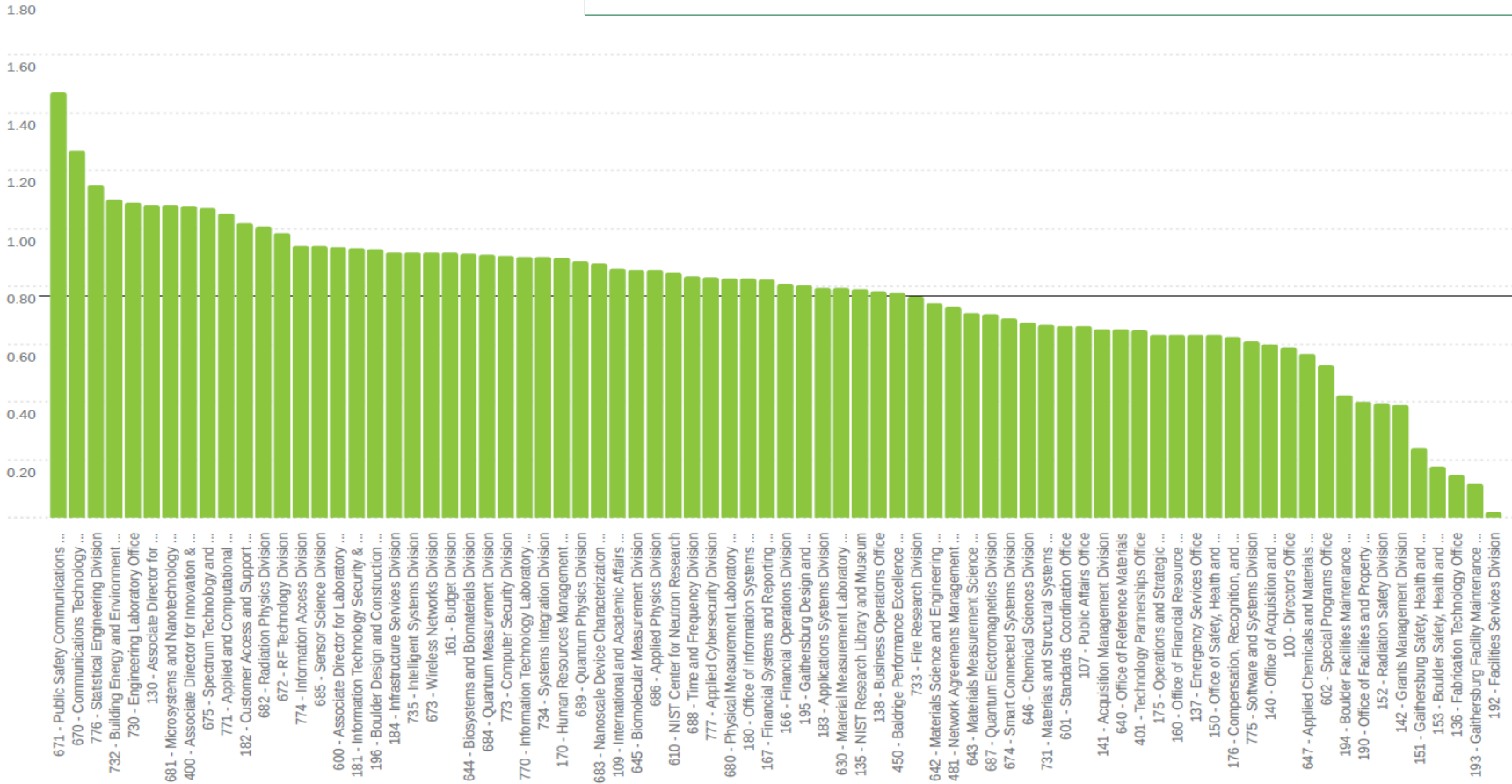
# Comparisons by Division - Count



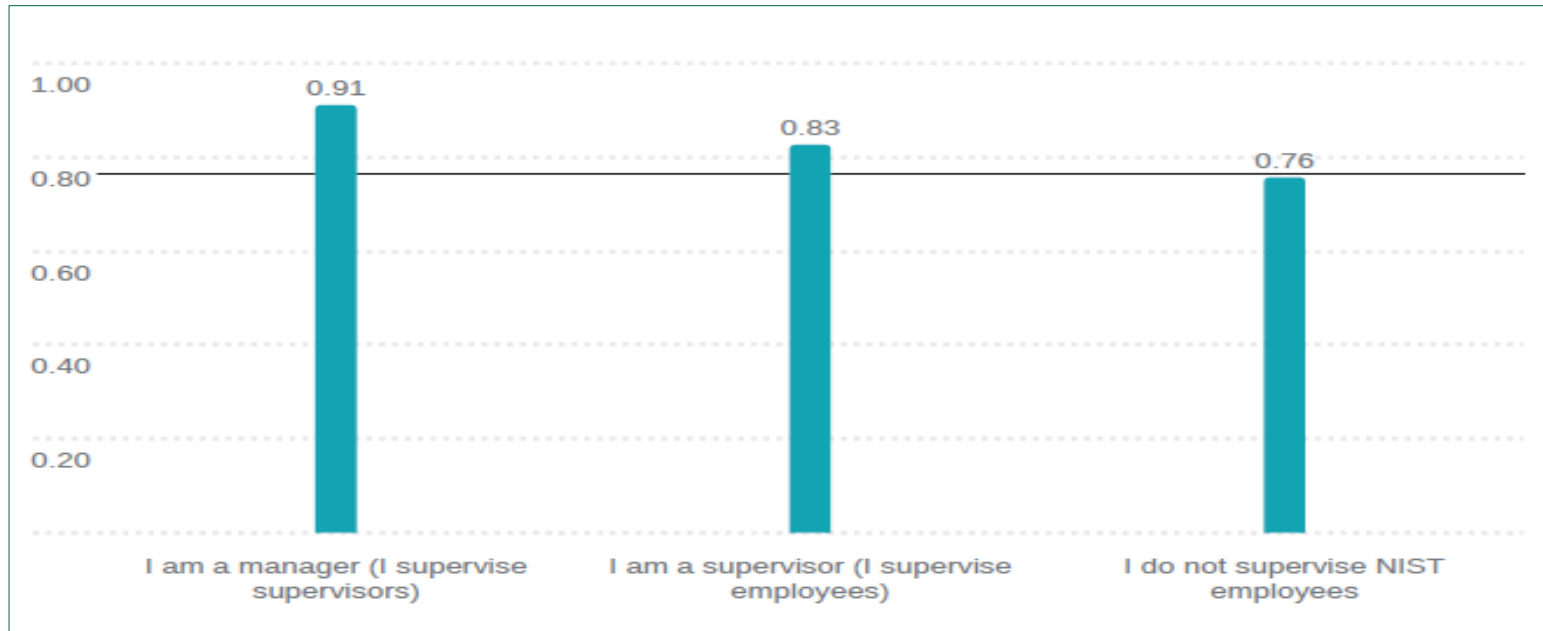


# Comparisons by Division

- **Public Safety Communications** scored the highest overall Average Response Score.
- Lowest scoring division is **Facilities Services Division**



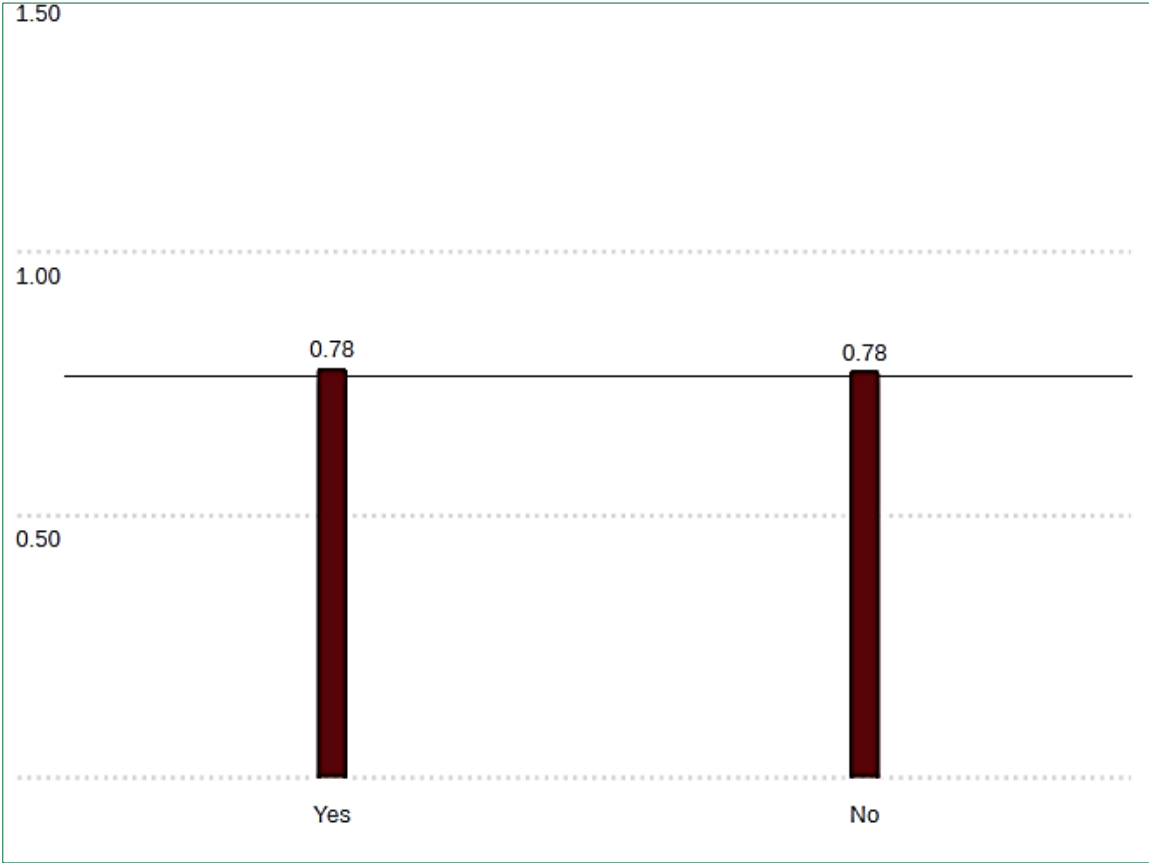
# Comparisons by Role



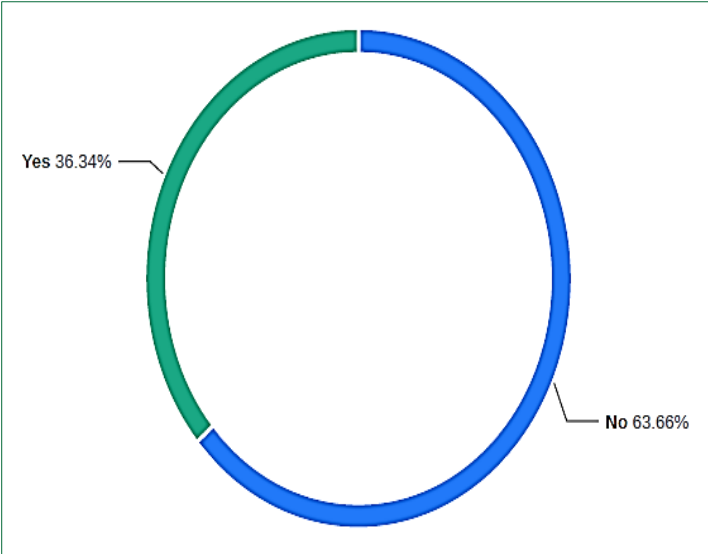
- As found with majority of businesses, **Management/Supervisor held higher perceptions.** Increased involvement of Non-Supervisor employees in safety discussions will help close gaps in perception

Manager	128
Supervisor	340
Non-Supervisor	1,421

# Comparisons by JHA or HRA



- Both groups that responded 'Yes' or 'No' generated positive and similar overall scores, indicating cohesive application of the SMS.





# Path Forward

## Recommended Actions

# Thank You!

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