Evaluating, Analyzing, Changing Workforce Behaviors

NGA
NORTHEAST GAS ASSOCIATION

EVALUATING SAFETY

- PSMS Gap Assessments
  - Identifies build-on strategies to conform with RP1173
  - Provides ways to continuously improvement process improvements

- Safety Culture Assessments (Quantitative)
  - 18 members, 3,924 Participants (34% response rate)
  - 87 total questions (survey items), broken into different SMS categories. Avg ~8-12 minutes to complete
  - Survey: SEPT 15, 2021 - NOV 5, 2021
  - Distribution Methods: Email

- One-on-One Interviews with Supervisors (Qualitative)
  - Conducted 8 supervisor interviews between October 19 and November 4 of 2022
  - Interviews ranged from 15 - 30 minutes (M = 18)

ANALYZING SAFETY CULTURE
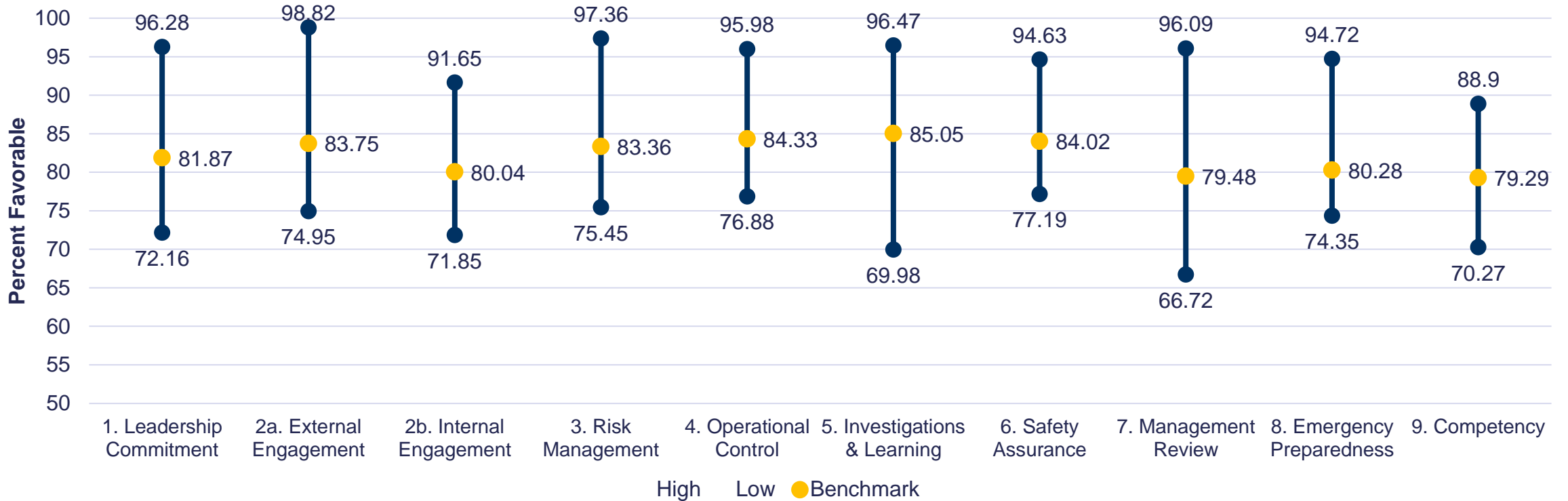
Finding #1: PSMS Familiarity is Key

PSMS Favorability is highly linked with almost all outcome statements with a high-level of impact across all member companies. Improving familiarity results in higher levels of favorability for each of these 6 outcomes.
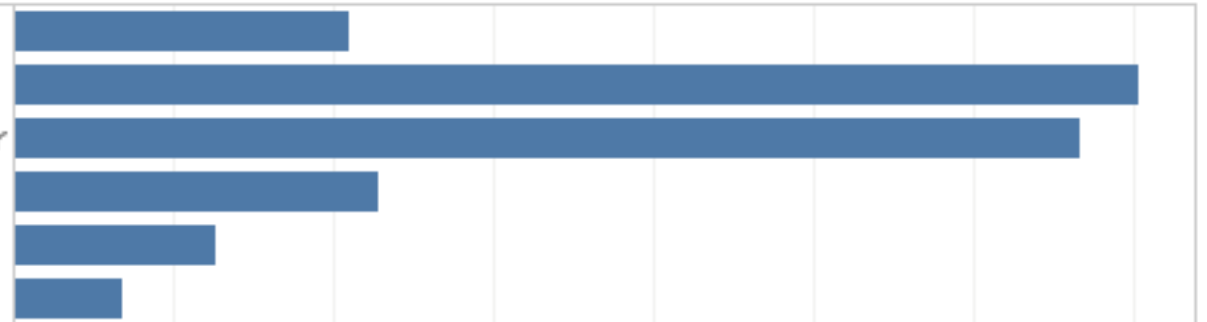

Safety Pipeline Familiarity

| All scheduled maintenance on our equipment is current. | Warning and alarm systems are working. | We always use appropriate and correct procedures to do our jobs. | We consistently report all incidents, accidents, and other safety issues. | We feel empowered to achieve a high level of safety. | We seek to reduce safety risks & hazards in our work environment |

Finding #2: Listening to Workers

Strong commitment to asset safety practices, opportunity to showcase follow-up on employee ideas/suggestions

Demonstrates commitment to asset safety, including pipeline integrity — 14.94% — 81.80%

Holds us to high standards in following asset safety rules — 85.32%

The care and concern shown for asset safety by your company — 88.16%

Listens carefully to workers' ideas about improving safety — 17.02% — 74.38%
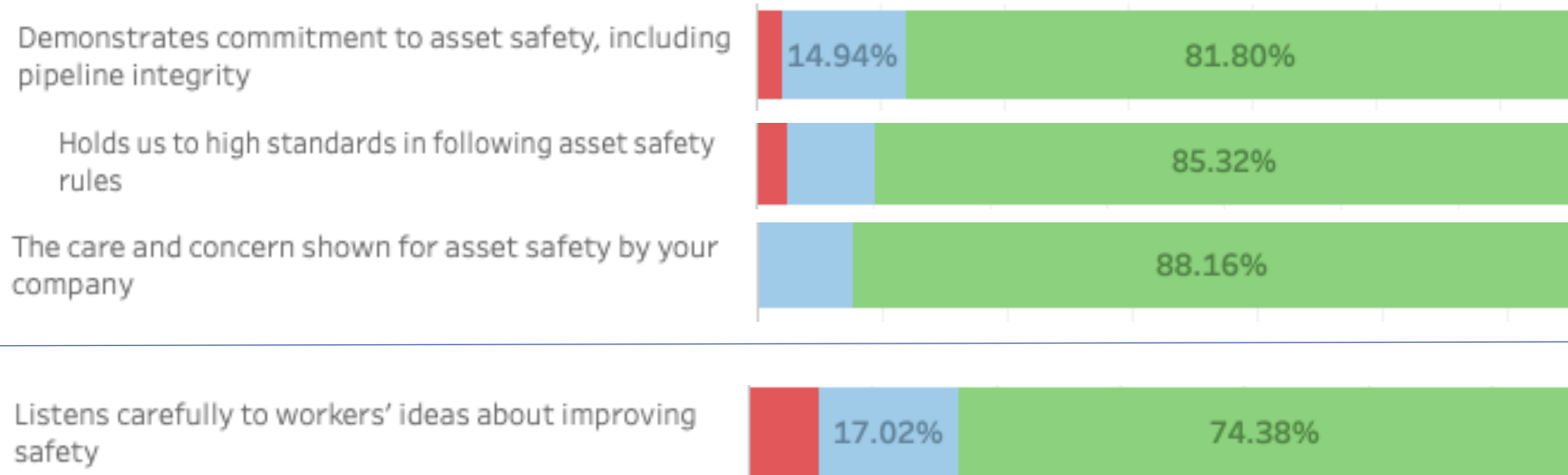
Finding 3: Prioritizing Safety Over All Else

First line supervisors are critical in maintaining safety and operational excellence: The data show opportunities to increase supervisor safety priority (the degree to which supervisors prioritize safety during challenging operational times, including at the end of shifts and around breaks, and when workers are tired).

My Supervisor...

Focuses on safety towards the end of the work day	20.38%	73.23%
Reinforces working safely when we are tired	13.26%	80.15%
Values asset safety as much or more than schedule and cost	14.43%	76.80%

Senior Leadership...

Champions working safely when work falls behind schedule	17.80%	75.27%
Considers safety when setting production speed and scheduling	17.88%	73.83%

ANALYZING QUALITATIVE RESEARCH

"Describe what you could do more to show your commitment towards safety that you are not already focusing on."

Important Themes	Definitions	Example Quotes
Incorporating Midday Safety Meetings	Holding midday safety meetings that allow crews to review safety protocol.	"Maybe to take a step back once a week to pull the guys back in, they are consistently grinding and not having a break, including myself going 24-7 just because of the way NY is."
Emphasizing Shared Responsibility for Safety	Highlighting the importance of following safety precautions not only for the safety of oneself but for the safety of the entire crew.	"Showing commitment to safety by emphasizing that every job has purpose, and every person is crucial in getting the work done in a safe manner."
Promoting Openness Toward Continued Learning	Emphasizing the importance of being humble in the field as crew members can learn something new everyday. Encouraging the crew to approach work with a willingness to learn and adapt to novel environments.	"Don't think you know it all, you are always learning. " "Always keep eyes moving all around "

"Tell me about the constraints/obstacles that you experience in demonstrating commitment towards safety."

Important Themes	Definitions	Example Quotes
Tension Between Productivity & Safety	Choosing between productivity or safety (but not both). Having to balance the goals of safety and still completing the job.	"There is a fine line between doing things as quickly as we can and as safely as we can. People did one or another, you can be very safe but not productive, or you can be productive but not safe." "Safety is the number one concern, but there is also a job to do so sometimes you have to balance the safety and production (completing the job). "
Pressure Toward Ensuring Public Safety	Working within public places where the public encounters the job site. Knowing that safety encompasses more than the workers because of the nature of the job site. Having to be aware of the pedestrians' safety while working.	"The bar is set very high working in New York City. Safety has to focus on the crew and the public around the site." "The majority of safety has to do with the surrounding people more than the workers."
Multi-Layered Safety Protocols Established by Different Entities	Managing different factors, such as the public or traffic, when working on-site. Having to be aware of different types of underground infrastructure.	"Working in this industry is more than just pipeline. We work with telephone lines, water, electricity, oil, and other utilities." "There are so many aspects of safety you can't just focus on one. It's like underground spaghetti."

Changing Safety Behaviors

Unitil Case Study