

A vertical strip of seven small images on the left side of the slide, showing various space-related scenes: a rocket launch, a space station, a lunar surface, a satellite, a space shuttle, a space station, and a space shuttle.

Mining the FEVS

Mining Your Federal Employee Viewpoint Survey (FEVS) for Weak Signals

May 6, 2019

Terry Wilcutt

Chief, Safety and Mission Assurance

2018

Federal Employee Viewpoint Survey
Empowering Employees. Inspiring Change.

This and previous presentations are archived at
<https://sma.nasa.gov/news/safety-messages>

5/1/2019

Mining the FEVS

2018 Survey: One Question at Hand Today

Following each annual survey, leaders across NASA receive a spreadsheet including the percent of positive responses from each part of their organizations. Here we look at one question from the survey that's very important to safety climate:

- **Question 17: I can disclose a suspected violation of any law, rule, or regulation without fear of reprisal.**
 - The data reports the “percent positive” responses, the number of responders if 10 or more, and the level within the organization:
 - Level 1: Senior Leaders (Center Directors)
 - Level 2: Directors (Directorates)
 - Level 3: Managers (Division)
 - Level 4: Supervisors (Branch)
- This is a critically important question for mission success and workplace safety. If the percent of positive response is perceived to be low, what should leaders and managers do? Let's compare 2016-2018 data now.

2018 Divisions Below the 82 Percent NASA Average

Component Name	OPM Code	Level	Responses	Q17 Pos	Q17 Neu	Q17 Neg
National Aeronautics and Space Administration	NN	Agency	11568	82%	10%	8%
OFFICE OF THE CHIEF FINANCIAL OFFICER	NN1007	Level 2	74	56%	20%	23%
FINANCIAL OPERATIONS	NN100701	Level 3	43	52%	25%	23%
FINANCIAL MANAGEMENT DIVISION	NN10070101	Level 4	20	48%	33%	20%
BUDGET, STRATEGY & PERFORMANCE	NN100702	Level 3	28	59%	15%	26%
STRATEGIC INVESTMENTS DIVISION	NN10070202	Level 4	20	58%	16%	27%

Colors vary from green (most) to yellow to orange to red (least). This division's offices responded significantly below average.

The overall number of offices at or below 60 percent positive responses has decreased dramatically in 2018.

- 2016 saw 52 offices in that range; lowest at 16 percent
- 2017 saw 43; lowest at 17 percent
- 2018 saw only 30; lowest at 27 percent

Number of offices at or above 90 percent:

- 2016: 124
- 2017: 207
- 2018: 199

This is measurable improvement over three years.



Example 2: A Cluster Within a Department

Component Name	OPM Code	Level	Responses	Q17 Pos	Q17 Neu	Q17 Neg
National Aeronautics and Space Administration	NN	Agency	11568	82%	10%	8%
OFFICE OF THE CHIEF FINANCIAL OFFICER	NN2103	Level 2	61	75%	10%	15%
FINANCIAL MANAGEMENT DIVISION	NN210301	Level 3	22	82%	13%	5%
MISSION DIRECTORATE & PROG ANLYS DIV	NN210302	Level 3	23	52%	13%	34%
MISSION DIRECTORATE SUPPORT BRANCH	NN21030201	Level 4	12	50%	9%	41%
RESOURCES MANAGEMENT DIVISION	NN210303	Level 3	13	100%	0%	0%

- **Fear of reprisal** was a theme in both the Challenger and Columbia mishaps.
- Research since 1993 suggests that a quality different than trust, called **“psychological safety,”** exists to varying degrees within small groups.

“Psychological safety describes individuals’ perceptions about the consequences of interpersonal risks in their work environment. It consists of taken-for-granted beliefs about how others will respond when one puts oneself on the line, such as by asking a question, seeking feedback, reporting a mistake, or proposing a new idea.”

- Dr. Amy Edmondson, Harvard Business School

Example 3: Wide Variance Between Offices

Component Name	OPM Code	Level	Responses	Q17 Pos	Q17 Neu	Q17 Neg
National Aeronautics and Space Administration	NN	Agency	11568	82%	10%	8%
RESEARCH DIRECTORATE	NN2311	Level 2	294	76%	14%	10%
CONFIGURATION AERODYNAMICS BR	NN231101	Level 3	15	86%	14%	0%
FLOW PHYSICS & CONTROL BR	NN231103	Level 3	12	100%	0%	0%
ADVANCED MEASUREMENT & DATA SYSTEMS	NN231104	Level 3	15	85%	0%	15%
ADVANCED MATERIALS & PROCESSING BR	NN231107	Level 3	14	44%	29%	27%
DURABILITY, DAMAGE TOLER, & RELIAB BR	NN231109	Level 3	15	77%	7%	16%
STRUCTURAL MECHANICS & CONCEPTS BR	NN231110	Level 3	11	60%	40%	0%
NONDESTRUCTIVE EVALUATION SCIENCES BR	NN231111	Level 3	10	69%	9%	21%
AEROACOUSTICS BRANCH	NN231112	Level 3	11	82%	8%	10%
DYNAMIC SYSTEMS & CONTROL BRANCH	NN231113	Level 3	13	63%	27%	10%
CREW SYSTEMS & AVIATION OPERATIONS BR	NN231115	Level 3	22	80%	20%	0%
SAFETY - CRITICAL AVIONICS SYSTEMS BR	NN231117	Level 3	22	79%	10%	12%
STRUCTURAL DYNAMICS BRANCH	NN231119	Level 3	11	87%	13%	0%
MATERIALS EXPERIMENTS BRANCH	NN231120	Level 3	13	57%	19%	25%
SUBSONIC / TRANSONIC TESTING BRANCH	NN231121	Level 3	11	72%	10%	18%
SUPERSONIC / HYPERSONIC TESTING BRANCH	NN231122	Level 3	10	90%	10%	0%

“When psychological safety is present, it describes a climate in which the focus can be productive discussion that enables early prevention of problems and accomplishment of shared goals, because people are less likely to focus on self-protection.”

– Dr. Edmondson, 2003

Summary

- Your spreadsheet should be used as a leadership tool.
 - Possible actions:
 - A leadership/performance discussion with managers and supervisors of low-scoring organizations
 - All-hands meeting with the organization without the manager
 - Skip-level survey of the manager
 - Leadership training, coaching, or mentoring
 - Removal from management position
- How can leaders create “psychological safety?”
 - **Be available and approachable**¹. Reduces perceived barriers that prohibit discussion.
 - **Seek input and feedback**¹. Shows respect for opinions; contributes to a norm of active participation.
 - **Model openness and fallibility**¹. Signals that errors and concerns can be discussed without fear of punishment.

¹ “Psychological Safety, Trust and Learning in Organizations: A Group-Level Lens. Dr. Amy Edmondson, Harvard Business School. 2003

Additional Mining of the FEVS

- This approach can be used for all survey questions, not just Question 17.
- Some recommendations under “taking care of your people.”
 - My training needs are assessed.
 - Discussions with my supervisor about my performance are worthwhile.
- A question under “accomplish the mission.”
 - Creativity and innovation are rewarded.
 - Aerospace Safety Advisory Panel: “... raising an issue shouldn’t take an act of courage ...”

