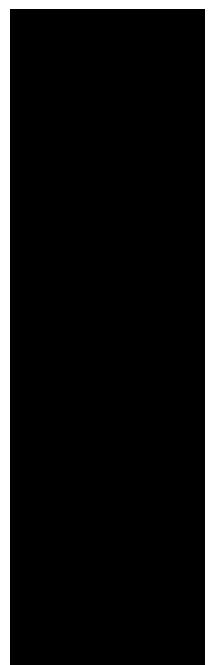
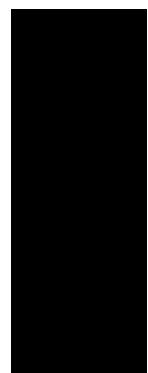


NRC Office of the Inspector General Safety  
Culture and Climate Survey

## **Executive Summary**

July 29, 2020



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# Abbreviations and Acronyms

The following table includes a list of abbreviations and acronyms in this report.

Abbreviations/ Acronyms	Full Name
ACRS	Advisory Committee on Reactor Safeguards
ADM	Office of Administration
ASLBP	Atomic Safety and Licensing Board Panel
EDO	Executive Director for Operations
GG	General Grade
ISR	International Survey Research
IT	Information Technology
N	N-size; number of participants
N/A	Not Available or Not Applicable; not able to benchmark the category or item
NMSS	Office of Nuclear Material Safety and Safeguards
NRC	Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
NSIR	Office of Nuclear Security and Incident Response
OCAA	Office of Commission Appellate Adjudication
OCFO	Office of the Chief Financial Officer
OCHCO	Office of Chief Human Capital Officer
OCIO	Office of Chief Information Officer
OEDO	Office of the Executive Director for Operations
OE	Office of Enforcement
OGC	Office of the General Counsel
OI	Office of Investigations
OIG	Office of the Inspector General
OIP	Office of International Programs
OPA	Office of Public Affairs
R&D	Research and Development
RES	Office of Nuclear Regulatory Research
SECY	Office of the Secretary
U.S.	United States
YR or YRS	Year or Years

# Executive Summary

For over 20 years, Willis Towers Watson has partnered with the Nuclear Regulatory Commission (NRC), Office of the Inspector General (OIG) to assess NRC's safety culture and climate as well as other aspects of employee experience such as engagement. Willis Towers Watson conducted the NRC Safety Culture and Climate Survey for approximately 2,802 employees in February of 2020. The survey was designed based on information gathered from onsite and phone interviews and onsite focus groups. The analysis from the interviews and focus group meetings aided in the development of the survey instrument.

Overall summary-level results show specific strengths and areas of improvement for the NRC. Results are analyzed looking at benchmark comparisons against the Willis Towers Watson's U.S. National Norm and U.S. Research and Development Norm (U.S. R&D), and the 2012 and 2015 NRC Safety Culture and Climate Survey results. Following normative and historical analysis, demographic comparisons such as job function, job category, grade level, resident inspector vs. non-resident inspector and length of service are examined. Further, Key Driver Analysis (multiple regression analysis) on employee engagement and safety are reviewed.

Overall findings indicate that while NRC maintains a few strengths compared to external benchmarks, results have declined significantly since 2015 in a number of areas. Based on survey results, overall strengths and opportunities, and areas at risk are addressed and suggestions for action planning are provided.

# Purpose of Survey and Background

For over 20 years, Willis Towers Watson has been working with NRC to assess its safety culture and climate as well as other aspects of employee experience such as engagement. NRC/OIG engaged Willis Towers Watson to conduct the 2020 Safety Culture and Climate Survey.<sup>1</sup>

Like all organizations, NRC has undergone changes throughout the years that may have impacted results over survey iterations. The Nuclear Renaissance is a term used to refer to an era when nuclear power was undergoing a revival. During this time in 2009, NRC was experiencing significant growth. In turn, NRC was able to attract and retain top talent. In 2011, the nuclear accident in Japan following the Tohoku earthquake and tsunami eventually led to many nuclear facilities shutting down and also slowed the pace of projected new nuclear construction. The economic competition from natural gas also contributed to the changing landscape. After 2011, NRC experienced significant changes in senior leadership, underwent office reorganizations and implemented a number of organizational initiatives in an effort to stabilize the organization. More recently however, NRC has continued to see significant changes in leadership as well as additional new organizational initiatives focused on carrying out NRC's mission in a more streamlined and efficient way. These types of changes can significantly impact employee engagement and morale and should be taken into consideration when comparing historical survey results (2012 and 2015) to the 2020 findings.

Willis Towers Watson conducted The NRC Safety Culture and Climate Survey for approximately 2,802 employees in February of 2020. Through this research initiative, OIG's goals were to:

- Measure NRC's safety culture and climate to identify areas of strength and opportunities for improvement;
- Understand the Key Drivers of Employee Engagement and Safety and leverage identified areas of opportunity to improve Engagement and Safety within NRC;
- Compare the results of this survey against the previous survey results; and
- Provide, where practical, benchmarks for the findings against other similar organizations and high-performing companies.

To achieve these goals, the 2020 Safety Culture and Climate Survey consisted of four distinct activities:

1. A review of the existing research on safety culture and climate.
2. Evaluation of the 1998, 2002, 2005, 2009, 2012 and 2015 Safety Culture and Climate Survey results.

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<sup>1</sup> In 1998, International Survey Research (ISR) conducted the first NRC Safety Culture and Climate Survey. In 2007, Towers Perrin acquired ISR and after a later merger formed Towers Watson. Most recently, Towers Watson and Willis merged in January 2016.

3. A qualitative design phase where a sample of NRC employees and managers were interviewed and focus group meetings were held.
4. A quantitative component consisting of a survey administered to all permanent full-time and part-time NRC employees.

NRC in conjunction with Willis Towers Watson defined Safety Culture and Climate as follows:

- Safety Culture (as it relates to the agency) refers to the complex sum (or whole) of the mission, characteristics and policies of an organization, and the thoughts and actions of its individual members, which establish and support nuclear safety and security as overriding priorities.<sup>2</sup>
- Climate refers to the current work environment of the agency. Climate is like a snapshot in time and can affect culture.

A better understanding of NRC's safety culture and climate will facilitate identification of agency strengths and opportunities for improvement. Agency program and support offices can use this information to develop action plans, as warranted. In addition, OIG plans to use the survey results in connection with risk assessments to help inform its annual audit planning and review, and update as appropriate, agency management challenges.

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<sup>2</sup> Please note that this definition is not the current and official definition of safety culture at NRC. However, the above definition of Safety Culture and Climate was established in order to have a consistent comparison to results from prior years.

# Survey Design

As previously discussed, the 2020 Safety Culture and Climate Survey consisted of four phases. The interviews focus group meetings and Willis Towers Watson's review of the previous Safety Culture and Climate Survey results served as the basis for designing the survey questionnaire. The questions that comprised the 2020 survey included selected items from Willis Towers Watson's normative database as well as tailored items to address the unique topic of NRC's safety culture and climate.<sup>3</sup> The 2020 study, as a seventh iteration survey, provides NRC with a distinct advantage: a comparison of the 2020 results with historical and normative items used in the 1998, 2002, 2005, 2009, 2012 and 2015 surveys.

During the survey design process, some survey questions were added as a result of feedback received during the interviews with senior management and staff focus group meetings. Likewise, some questions were removed, because some concepts previously assessed have been addressed, or are no longer relevant. In all, the 2020 survey contained 80 separate items, as compared with 127 items in 2015. The 2020 survey items were broken down across 13 distinct categories.

This Executive Summary highlights the quantitative results of NRC's survey. The overall results are examined first, looking at specific areas of strength and opportunities for improvement at NRC. Category and item-level results are compared to the Willis Towers Watson's U.S. National Norm, U.S. Research and Development Norm (U.S. R&D), and the 2012 and 2015 NRC Safety Culture and Climate Survey results.<sup>4</sup> The Executive Summary then analyzes internal comparisons such as job function, job category, grade level, resident inspector vs. non-resident inspector and length of service. Following internal comparisons, the Key Driver Analysis of engagement and safety are reviewed before analysis is provided which highlight the key results of the Safety Culture and Climate Survey.

<sup>3</sup> Item: An item is a survey question. Similar items are grouped together to create survey categories.

<sup>4</sup> The U.S. National Norm is comprised of organizations representing a broad spectrum of industries across the United States; The U.S. R&D Norm is comprised of a representative sample of the U.S. research and development workforce weighted according to Bureau of Labor Statistics data.

# Survey Results in Brief

## Survey Administration Summary

The OIG's NRC Safety Culture and Climate Survey had a three-week administration period from February 5 to February 28, 2020. All permanent full-time and part-time employees were eligible to participate. From the 2,802 employees invited to participate, 2,132 employees completed the survey, for an overall return rate of 76 percent. This return is higher than the 2015 completion rate of 70 percent participation.

## External Benchmark Summary

When compared to the U.S. National Norm, the overall category scores for NRC are significantly less favorable (percentage of employees responding favorable to a given set of questions) in 5 out of 11 comparable categories (utilizing statistical significance at the 95 percent confidence level, an industry standard).<sup>5</sup> Similar to previous years, the category with the most favorable score compared to the U.S. National Norm is Quality Focus, which is nine points above the norm. However, the Human Capital, Management and Organizational Change categories have large negative differences compared to the national norm, scoring between 11 to 18 points below the norm (Exhibit 3). Similarly, when comparing NRC survey scores with the U.S. R&D Norm, 5 out of 10 categories score significantly below the norm. The Human Capital and Management categories also have the largest significant differences compared to the R&D norm, scoring between 11 to 14 points below the norm. The category with the most favorable score compared to the industry Norm is Workload and Support/Working Relationships, which is four points significantly above the norm (Exhibit 4).

## Historical Comparison Summary

The historical comparison from 2015 to 2020 shows declines across all categories measured, with significant declines in 9 out of 12 comparable categories. The largest declines compared to 2015 were Human Capital, Management, and NRC Objectives and Strategic Plans. The categories seeing the least declines were Differing Views Process, Supervision, and Workload and Support/Working Relationships (Exhibit 5).

Compared to 2012, NRC has significantly decreased in 11 out of 12 categories. Only the Supervision category has a favorable, but not significant, difference compared to 2012 (Exhibit 6).

## Strengths and Opportunities

NRC's greatest strengths focus on the individual work experience, highlighted by continued positive perceptions of local work units and coworkers. Specifically, understanding of the goals and objectives of their work unit, comfort expressing contrasting views with co-workers and confidence in the quality of work being done in their work units remain high. Whereas, NRC's greatest areas of opportunity concentrate on Human Capital (e.g., attraction and retention of talent), Management (e.g., providing a

<sup>5</sup> Statistical Significance: Statistical Significance is a statistical test that is run to find out the likelihood that a result or relationship is caused by something other than mere random chance. A confidence level is a type of interval estimate. Using a confidence level of 95 percent, this means that we can be 95 percent sure that a result from a statistical analysis is not due to random chance.

clear sense of direction and making decisions that are consistent with the mission) and NRC Objectives and Strategic Plans (e.g., understanding of the mission, goals and objectives of the NRC as a whole).

## Demographic Comparison Summary

Employee data is broken down using several demographic variables. The following paragraphs will highlight key findings from each demographic comparison. The demographic groups that are analyzed include job function, job category, pay category, resident inspector status, NRC tenure and office.

Analyzing job function, The Legal job function has the most favorable scores compared to NRC Overall, with scores in 12 out of 13 categories above and significantly above in 5. While the Scientific category has the least favorable comparison to NRC Overall, with 12 out of the 13 categories below. Administrative, Engineering and Security functions have mixed results (Exhibit 7).

Senior, middle and line management all responded more favorably when compared to NRC Overall. Senior and middle management responded similarly with double digit significant differences from NRC Overall in all categories but Engagement. While all category scores for non-supervisors are below those of NRC Overall, with significant differences seen in the Differing Views Processes and Working Environment categories (Exhibit 8). The comparison indicates Non-Supervisor employees have a significantly different view of the Agency than senior management and supervisors. This comparison appears to show that there are significant differences in perceptions of NRC staff depending on the job level, such that Non-Supervisor employees seem to have an altogether different view of the Agency than management and supervisors do.

Among pay category comparisons, GG-15, Senior Level/Scientific/Professional and Senior Executive Service (the top three most senior grade levels) are the most favorable compared to NRC Overall. Responses from Senior Executive Service employees are significantly more favorable by double digit differences for all categories. GG-13 and GG-14 pay categories (mid-level) had all categories with unfavorable results compared to NRC Overall, while GG levels 1-6 and GG levels 7-12 (lower level) pay categories had mixed category differences compared to NRC Overall (Exhibit 9). These findings are very typical of private and government agencies, regardless of industry or sector.

When comparing resident inspectors against all other Agency employees, 10 out of 13 category scores are less favorable for resident inspectors, with significant differences in Management and Organizational Change (Exhibit 10).

The two groups with the longest tenures at NRC (15 to 20 years and greater than 20 years) and the two groups with the shortest tenure (less than 1 year and 1 to 3 years), have the most favorable category scores compared to NRC Overall. However, similar to other organizations, employees with tenures between 4 and 14 years have largely unfavorable category scores compared to NRC Overall (Exhibit 11).

Within the Commission Offices, OCFO has unfavorable results compared to NRC Overall for all categories, with significant differences in Empowerment and Respect, Quality Focus, Training and Working Environment. However, it is important to note that three of the four OCFO senior executive leaders changed during the period of administration of this survey. Only ASLBP and OGC had

categories with significant positive differences from NRC Overall (Exhibit 13). Examining EDO office comparisons, OCIO, OE and Region II all have significant unfavorable category scores compared to NRC Overall. Region I is significantly above NRC Overall in all but the Differing Views and NRC Objectives and Strategic Plans categories (Exhibits 15a and 15b).

## Engagement and Safety Results Summary

Generally, engagement scores remained stable from 2012 to 2015 and significantly dropped from 2015 to 2020. NRC engagement scores are largely unfavorable compared to the U.S. R&D Norm and the U.S. National Norm (Exhibit 16). Results from a key driver analysis reveal that employee engagement at NRC is highly affected by attitudes toward Management, Empowerment and Respect, and Training (Exhibits 18 and 19).

Compared to 2012 and 2015 survey results, 2020 safety scores have largely significantly decreased (Exhibit 17). Results from a key driver analysis explain that safety at NRC is highly affected by attitudes toward Management, Differing Views Processes and NRC Objectives and Strategic Plans (Exhibits 22 and 23).<sup>6</sup>

## Survey Results Summary

In summary, the 2020 OIG NRC Safety Culture and Climate Survey results have decreased significantly compared to both external benchmarks, the U.S. National Norm and the U.S. R&D Norm. Comparing historical trends, 2020 declines from 2015 represent the largest year over year declines seen across all seven survey iterations conducted by Willis Towers Watson. Comparisons to 2012 results were even more dramatic showing large gaps across similar categories. Key Driver analyses revealed that employee engagement and safety at NRC are both highly affected by attitudes toward Management.

## Strengths and Opportunities

NRC's greatest strengths focus on the individual work experience, highlighted by continued positive perceptions of local work units and coworkers. Specifically, understanding of the goals and objectives of their work unit, comfort expressing contrasting views with co-workers and confidence in the quality of work being done in their work units remain high. Whereas, NRC's greatest areas of opportunity concentrate on Human Capital (e.g., attraction and retention of talent), Management (e.g., providing a clear sense of direction and making decisions that are consistent with the mission) and NRC Objectives and Strategic Plans (e.g., understanding of the mission, goals and objectives of the NRC as a whole).

## Integrating Findings

To help integrate these findings into NRC's culture, the Willis Towers Watson survey team held Results to Action Workshops for NRC leaders. The three-part workshop provided an overview of NRC's overall survey results, and helped NRC leaders understand, interpret and prioritize their

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<sup>6</sup> Key driver analysis: A key driver analysis is a multiple regression statistical test used to learn about the relationship between several independent or predictor variables (survey categories) and a dependent or criterion variable (Engagement and Safety).

organizations survey results. Further, NRC leaders learned how to build action plans using Willis Towers Watson's Action Planning Software and were given guidance regarding how to implement and communicate action plans and drive real change.

## Qualitative Design Phase: Interviews and Focus Groups

For the qualitative design component of the NRC Safety Culture and Climate Survey, Willis Towers Watson conducted onsite and phone interviews and onsite focus group meetings. The analysis from the interview and focus group meetings aided in the development of the survey instrument. The primary emphasis for these interviews and focus group meetings was to inform the design of the survey instrument. Further, the meetings helped Willis Towers Watson gather information and understanding regarding what new themes (or categories) may need to be explored as well as what themes (or categories) may now be less relevant and thus subject to removal from the survey instrument.

The interviewees and focus group participants were asked questions on a variety of areas. The methodology used to create these questions was based on the results of the 2015 survey that received significant scores, as well as other key factors such as the Key Drivers of Engagement as well as NRC's current organizational initiatives. A total of 13 interviews and four focus group meetings (two at headquarters, one at Region I and one at Region IV) were conducted from November 8 to December 9, 2019.

Key findings from interviews and focus groups include:

- **Communication:** Most participants felt leadership need to be more transparent about strategy, policies and why decision are made. Participants also felt that current communications are not thought out, are overwhelming and create uncertainty. Leaders also agree that communication around reasoning for all the changes haven't been as clear and there doesn't seem to be a burning platform established for the need to change.
- **Training and Development:** Participants feel they got proper training for their jobs as new employees and job rotation is a key aspect of development. Some participants are concerned that leaders are rotated too often, which can make it difficult to build trust. Leaders understand that growth opportunities are shrinking overall and while job rotation can offer employees a chance to develop skills, it's also proving to be disruptive to collaboration and relationship building among employees.
- **Differing Views Processes:** Participants were pleased to see an open policy program put in place promoting differing views. Some believe the entire process has been revised and that it is no longer an issue. When there is good trust with local leaders, like in the regions, there is less need for these processes. Leaders are optimistic that views on the Differing Views Process are improving; however, issues remain. Some leaders feel that contrary to past years,

where the fear of potential reprisal was a concern, currently the new tighter schedules possibly leading to differing views on the risk to safety could be an issue among staff.

- **Elevating Concerns and Empowerment:** Participants had mixed views regarding elevating concerns and empowerment. Some participants feel that employees can elevate concerns freely to managers and senior leadership without fear of reprisal. This was especially true in the regions. Other participants feel that although there is strong encouragement to elevate concerns, it can be stigmatizing to do so. Some employees feel decisions are made in a vacuum and branch chiefs don't have authority to empower staff.
- **Engagement:** Although some participants feel happy working at the NRC, many feel the NRC is a stressful place to work and there is a lack of career opportunity as the industry and agency shrinks. Some leaders feel that morale has been impacted in the last few years with the shrinking industry and the reduction in workforce.
- **NRC Image and Ethics:** Some participants feel the NRC's ethical standards have changed for the better, as people have learned and internalized more appropriate behaviors. A larger proportion of employees feel the general public know very little about the NRC and the industry recognizes the necessity of regulation. Leaders mention that the NRC is still seen as one of the best places to work in government and that the Agency provides a very important function.
- **NRC Mission:** NRC has a large focus on its mission and leadership and makes decisions that are in the best interest for the agency to support its mission. Focus group participants understand the agency is shrinking and are concerned about layoffs. Participants would like to hear more about the strategic plan, especially where the organization feels it may shrink and where it may grow over time and better understand the focus on reduced regulation. Though most leaders agree that the mission is still a source of strength for the Agency, some feel there may be confusion around the mission given the changes the Agency is undergoing.
- **Open Collaborative Working Environment:** Although participants think NRC has a collective mindset for a collaborative work environment, few think this mindset translates into collaborative working conditions. Participants question whether old values such as openness and collaboration are still being practiced. Many expressed concerns about the future open working environment and how that may inhibit effective discussions among colleagues. Some leaders question whether employees feel comfortable speaking up, while other leaders try to have an open-door policy.
- **Quality Focus:** Most participants feel the NRC produces high quality work and employees are encouraged to adhere to quality standards. Again, there are concerns with new procedures that reduce the number of inspections that may impact the ability to provide quality reviews. Leaders didn't spend much time addressing this issue and felt quality wasn't a concern given the mission of the agency.
- **Safety Culture:** Some participants feel the NRC has a strong safety culture and promoting safety is a fundamental part of what they do. Others feel that safety culture is non-existent at the NRC and that the working conditions and current organization initiatives weaken the NRC safety culture. There are significant concerns about the new Risk Informed Initiative reducing the agency's focus on safety. Leaders are aware of this fundamental view from employees that the new changes may lead to increased safety risks. However, leaders feel that these

new changes are meant to make the Agency more efficient while maintaining safety standards, though they feel that point has not been clearly communicated.

- **Workload and Support/Working Relationships:** Focus group participants felt that staffing is currently about right but are concerned about the future as the industry shrinks and many NRC employees retire. There are mixed perceptions on the effectiveness of knowledge management initiatives. Leaders felt that the reduced staff levels may negatively impact workload issues.
- **Leadership/Supervision:** Although focus group participants feel managers care about their employees, most individuals think managers and leaders don't "walk the walk". Participants also feel as leaders are rotated often, they do not fully understand the department and therefore are not effective in providing guidance and leadership. As noted above, many say it is hard to build strong relationships of trust when leaders rotate in every 18 or so months. Leaders are aware of how all the changes the Agency is facing is affecting employees; however, there are mixed viewpoints on how to address those concerns. Some leaders feel more could be done to convince employees of the impetus of the changes needed based on the changing direction of the Agency.
- **Risk Informed Initiative:** Focus group participants are concerned about the new guidance on reviews as part of the Risk Informed Initiative. While few feel there are major risks, there are worries about what this means for the future of oversight in the industry and how they can effectively evaluate risk. Most leaders mention that while this new guidance is a different way of doing things, they believe it is not inherently any riskier.
- **Organizational Change:** Leaders overwhelmingly mentioned that the recent organizational changes are of utmost concern for most employees. Most leaders agree that there are a lot of great technical experts who have done the same type of work for decades and as a result are resistant to change. The mantra, "that's the way it's always been done," is constantly heard by leaders when looking to change processes based on the need to go in a new direction. However, leaders agree there is a critical need to change a significant amount of processes within the NRC over the coming years to remain relevant in the industry.

## Conclusion of Qualitative Phase

Results showed that NRC remains a great place to work within the U.S. government; however, there were growing concerns that NRC has changed dramatically in recent years and those changes are largely perceived as negative. Views remained very positive that NRC still has a large focus on its mission and leadership supports this mission. Along with that, there were several areas still seen as strengths including supervision, the collegial nature of the work and working relationships among staff, general safety-minded culture and a focus on quality. However, there were some areas which received mixed reviews while other areas were seen as clear opportunities. Areas with mixed viewpoints included safety culture, quality focus, elevating concerns, collaborative work environment and training and development. As for clear opportunity areas, those included leadership and direction, work environment, agency communications and organizational change initiatives.

# Survey Development

The survey instrument was developed based on Willis Towers Watson's research into safety culture; the qualitative review of prior survey questionnaires; the qualitative interview and focus group meetings; and Willis Towers Watson's survey experience in other government and private sector organizations.

Willis Towers Watson grouped the survey questions into 13 categories, representing the major topic areas of NRC's Safety Culture and Climate. A list of the categories, along with a brief description of the items each category contains, is provided below. For each category, the average favorable response was calculated; Exhibit 2 of this report shows the percent-favorable response for each survey category. Beginning at Exhibit 3, 2020 survey results are compared with Willis Towers Watson Norms (U.S. Research and Development Norm and U.S. National Norm) and historical results from 2012 and 2015.<sup>7</sup>

## Survey Categories

1. **Differing View Processes:** Assesses employee awareness and perceived effectiveness of the Differing Professional Opinions program and the Non-concurrence process.
2. **Empowerment and Respect:** Assesses the amount of authority employees have to do their jobs, the trust they receive from management, the openness to discuss differing opinions, the ability to openly and confidently raise issues and how respected they feel at work.
3. **Engagement:** Probes employees' willingness to recommend NRC as a good place to work, whether they feel their work gives them a sense of personal accomplishment, their pride in working for NRC and whether they have the energy and resources needed to perform their job. This category also measures employee intent to leave for both retirement- and non-retirement-related reasons.
4. **Human Capital:** Examines employees' perceptions of how well NRC is doing recruiting, retaining and developing talent.
5. **Management:** Assesses employees' views of both senior and office/division management, including management style, communication, decision making and whether they feel sufficient actions were taken as a result of the previous survey.<sup>8</sup>
6. **NRC Objectives and Strategic Plans:** Measures employees' understanding of goals and objectives pertaining to their work unit and NRC Overall. Assesses whether employees believe management decisions are communicated effectively and if they feel sufficiently informed about

<sup>7</sup> Willis Towers Watson, with the support of NRC staff, undertook a thorough organizational mapping process to ensure that historical comparisons at the different levels of the organization accurately reflect the structural changes undergone by the Agency since previous survey cycles.

<sup>8</sup> The Management category is the consolidation of the Office/Region Management and the Senior Management categories from previous survey cycles. All historical category comparisons reflect these combinations.

NRC's plans. In addition, this category assesses potential issues that could affect the future of NRC.<sup>9</sup>

7. **Organizational Change:** This new survey category assesses employees' views pertaining to the implementation, communication and pace of changes at the NRC.
8. **Quality Focus:** Explores how priorities and work objectives affect work quality, as well as, the sacrifice of quality work due to the need to meet a deadline or the need to satisfy a personal or political agenda.
9. **Safety Index:** Evaluates employees' perceptions of NRC safety culture and NRC's commitment to public safety and its security mission. It also measures perception regarding how safety issues are investigated and resolved by management.
10. **Supervision:** Evaluates employees' perceptions regarding supervision including supervisors' ability to prioritize tasks, knowledge and experience, communication, decision making and ability to deal with poor performers.
11. **Training:** Assesses availability and quality of training, development and growth opportunity.
12. **Working Environment:** Includes items related to elevating concerns and an open, collaborative work environment. Examines employees' views pertaining to the process of bringing awareness to areas of concern, including accessibility and organizational responsiveness. This category also addresses employees' comfort with communicating with different levels of management.<sup>10</sup>
13. **Workload and Support/Working Relationships:** Evaluates the level of staff resources to handle the workload and prioritization and resource allocation to improve efficiency of work. This category also measures the level of cooperation, respect and teamwork among employees, work units, divisions, office/regions and headquarters.

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<sup>9</sup> The NRC Objectives and Strategic Plans category is the consolidation of the Mission & Objectives and the NRC Mission & Strategic Plan categories from previous survey cycles. All historical category comparisons reflect these combinations.

<sup>10</sup> The Working Environment category is the consolidation of the Elevating Concerns and Open, Collaborative Working Environment categories from previous survey cycles. All historical category comparisons reflect these combinations.

# Survey Administration

The NRC Safety Culture and Climate Survey was administered February 5 to February 28, 2020. All current permanent full-time and part-time NRC employees were eligible to participate. Of the 2,802 employees invited to participate, 2,132 completed surveys,<sup>11</sup> for an overall return rate of 76 percent.<sup>12</sup> This return is higher than the 2015 survey administration (70 percent participation in 2015) and continues to be more than sufficient to provide a reliable and valid measure of the current attitudes and perceptions of NRC employees and managers.

## Exhibit 1 Participation Rates

### Administration: February 5 – 28, 2020

	Outgoing	Returned
NRC 2020	76%	2,802
NRC 2015	70%	3,670
NRC 2012	79%	3,755
NRC 2009	87%	3,935
NRC 2005	71%	3,206
NRC 2002	53%	2,868
NRC 1998	56%	3,013

<sup>11</sup> A valid survey is when the individual selects at least one coding question and at least one opinion question. Self-select coding can result in sub-group participation amounts not adding up to the overall NRC total.

<sup>12</sup> Willis Towers Watson's global return rate is 80%.

# Overall Category Scores

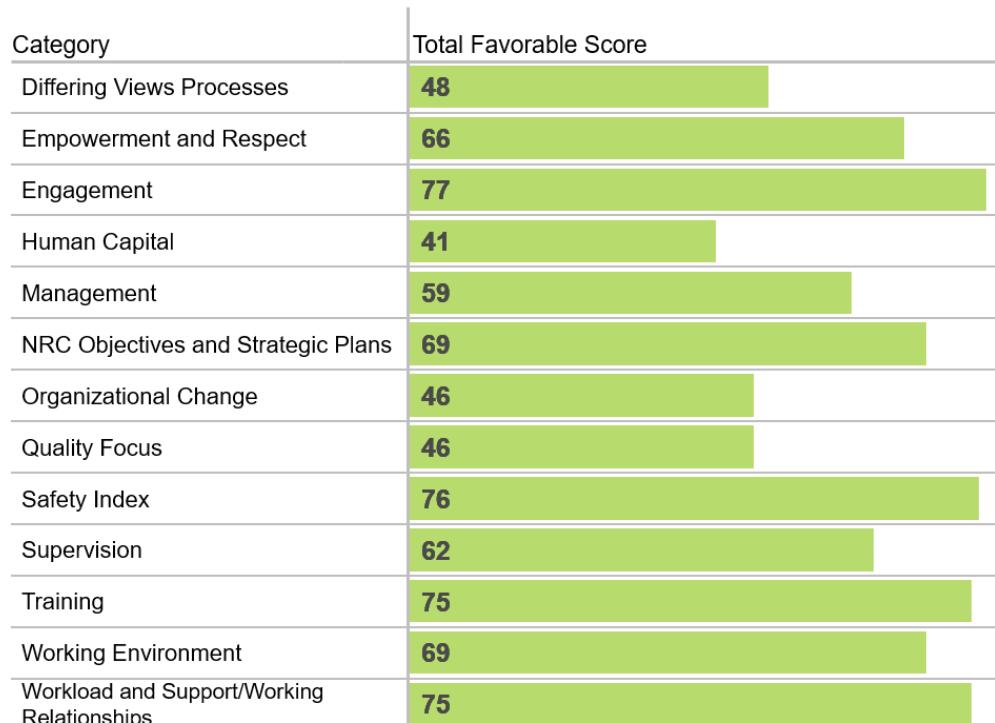
"Total Favorable" in the results charts that follow is the combination of the "Agree"/ "Tend to Agree" responses. The Question Mark "?" response column is composed of employees who do not know or do not have an opinion to the question. "Total Unfavorable" are employees who responded with a "Tend to Disagree" or "Disagree" response to the question. For negatively worded items, the rules just mentioned are reversed. The average favorable response score for each category was calculated and is provided below. In terms of absolute favorable scores, all but four categories (Differing Views Processes, Human Capital, Organizational Change and Quality Focus) demonstrate majority favorable scores (defined as greater than 50 percent favorable responses), with the most favorable being Engagement at 77 percent favorable.

The category scores range between 41 to 77 percent favorable, with Engagement, Safety, Training, and Workload and Support/Working Relationships being characterized by employees as most favorable, with scores at 75 percent or higher. The remaining categories range from Working Environment and NRC Objectives and Strategic Plans at 69 percent to Human Capital at 41 percent (the lowest-scoring category). When reviewing category scores, caution should be exercised in the absence of historical or external benchmarks. Some categories have a propensity to receive low or unfavorable category scores, so when reviewing these scores without a benchmark, one may draw an inaccurate conclusion.

## Exhibit 2

### Category Scores

NRC Overall 2020 Category Scores



# Comparison of NRC with the U.S. National Norm

Willis Towers Watson norms are based on a weighted sample of employee responses categorized by nation, industry, function or performance. The first benchmark NRC is compared with is the U.S. National Norm. This norm is composed of organizations representing a broad spectrum of industries across the United States and is updated annually. The norm includes 148,326 cases (weighted average) from individual participants. Employees in the norm are Hourly, Salaried, Exempt and Non-Exempt up to and including Executives. Organizations in the norm are weighted to ensure proper proportionality.

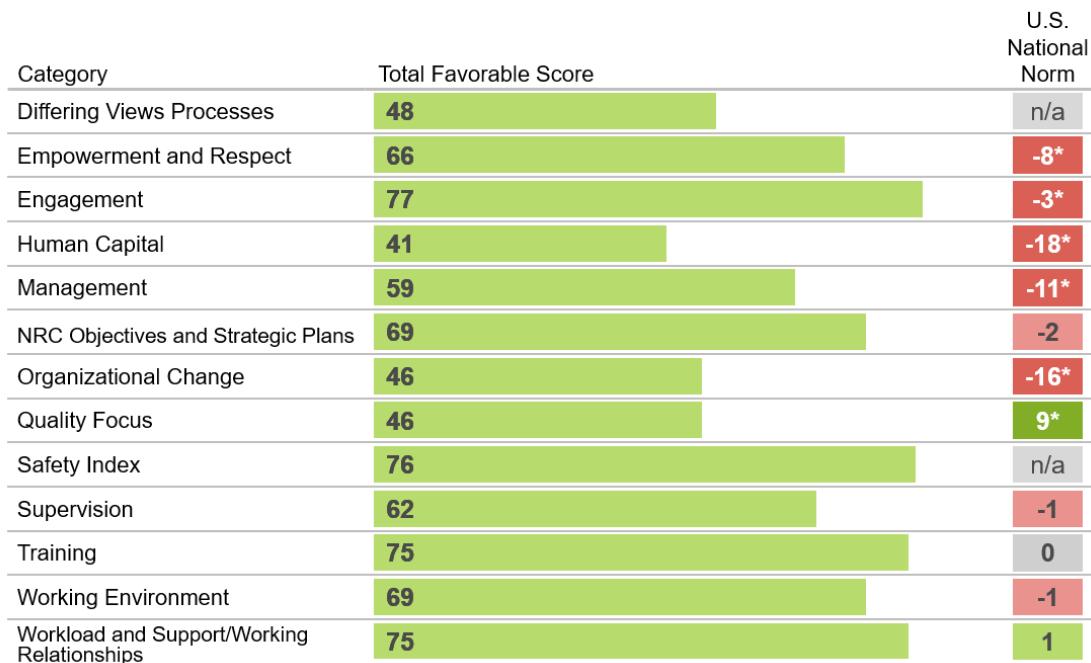
## Statistical Significance

When a percent favorable or unfavorable response between two groups is displayed, a statistical test is conducted by Willis Towers Watson to determine whether the difference in scores represents a "real" difference in opinion, rather than attributing the difference to random chance. A statistically significant difference is one that is large enough, given the size of the groups being compared, to be unlikely to be caused by chance. Statistically significant differences are therefore thought to be indicators of real difference between two groups being compared. A statistically significant difference indicates there is less than a 5 percent chance the difference occurs randomly. Please note that in the charts throughout this report, statistically significant differences are indicated by dark colored (green or red) cells with an asterisk next to the value.

## Exhibit 3

### Categories vs. Benchmarks

NRC Overall 2020 Category Scores vs. U.S. National Norm



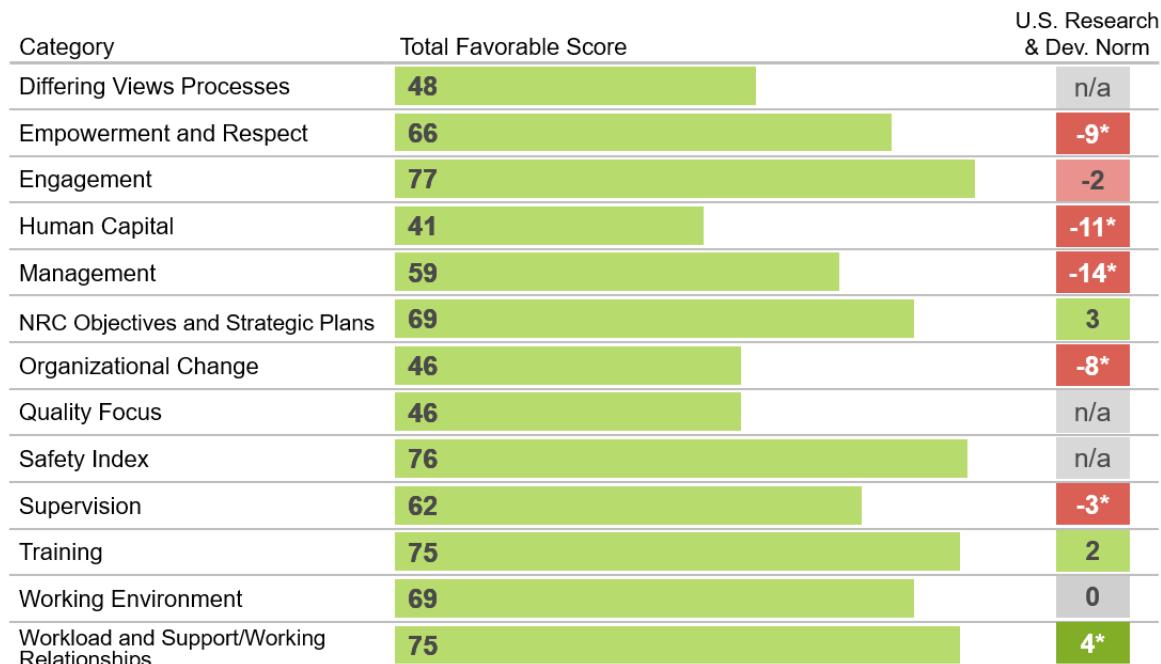
Each category score is represented by a green bar in the graph. NRC scored less favorable in 8 of the 11 categories available, 5 of which with a significant difference as represented by the asterisk. Categories with the greatest difference below the norm include Human Capital, scoring 18 points lower, and Organizational Change, scoring 16 points lower. Quality Focus remains a strength for the NRC compared to the U.S. National Norm, with the category scoring nine points significantly above the norm. Unlike in previous years, NRC employee opinions are no longer significantly more favorable overall than what would typically be observed amongst the U.S. National population. Though results do show some positive differences, on-balance, results are more negative than the U.S. National norm.

## Comparison of NRC with U.S. Research and Development Norm

The U.S. Research and Development Norm (R&D Norm) is comprised of a representative sample of the U.S. research and development workforce weighted according to Bureau of Labor Statistics data. This norm contains a representative sample of organizations throughout the U.S. and includes 12,321 entities (weighted average) that perform R&D functions. When comparing the 2020 NRC survey scores with the R&D Norm, 5 of the 10 available categories score significantly below the norm. The least favorable differences are in Management, scoring 14 points lower, and Human Capital, scoring 11 points lower than the norm. As the scores demonstrate in this comparison, NRC employee opinions are becoming significantly more negative than what would typically be observed among U.S. R&D populations, except when it comes to Workload and Support/Working Relationships.

### Exhibit 4 Categories vs. Benchmarks

NRC Overall 2020 Category Scores vs. U.S. Research & Dev. Norm



# Comparison of NRC 2020 Results with NRC 2015 Results

The historical comparison of results from 2020 to 2015 is unfavorable across all categories. NRC has declined in all 12 comparable categories, with statistically significant declines in 9 categories. The largest differences are in Human Capital, scoring 18 points lower, and in Management and NRC Objectives and Strategic Plans, both scoring 10 points lower than 2015. These declines represent the largest year-over-year declines seen across all seven survey iterations conducted by Willis Towers Watson.

## Exhibit 5

### Categories vs. Benchmarks

NRC Overall 2020 Category Scores vs. NRC Overall 2015

Category	Total Favorable Score	NRC 2015
Differing Views Processes	48	-1
Empowerment and Respect	66	-5*
Engagement	77	-5*
Human Capital	41	-18*
Management	59	-10*
NRC Objectives and Strategic Plans	69	-10*
Organizational Change	46	n/a
Quality Focus	46	-5*
Safety Index	76	-3*
Supervision	62	-2
Training	75	-6*
Working Environment	69	-4*
Workload and Support/Working Relationships	75	-2

# Comparison of NRC 2020 Results with NRC 2012 Results

The historical results comparison from 2020 to 2012 is significantly unfavorable across all comparable categories, except for Supervision. The biggest declines since 2012 is the Human Capital category, which is 19 points below the 2012 score, and the Management category, which is 12 points below 2012. These results trend very similar to comparisons versus 2015 though some declines versus 2012 results are even larger.

## Exhibit 6

### Categories vs. Benchmarks

NRC Overall 2020 Category Scores vs. NRC Overall 2012

Category	Total Favorable Score	NRC 2012
Differing Views Processes	48	-4*
Empowerment and Respect	66	-6*
Engagement	77	-5*
Human Capital	41	-19*
Management	59	-12*
NRC Objectives and Strategic Plans	69	-7*
Organizational Change	46	n/a
Quality Focus	46	-9*
Safety Index	76	-5*
Supervision	62	1
Training	75	-6*
Working Environment	69	-3*
Workload and Support/Working Relationships	75	-3*

# Internal Comparisons

The following internal comparisons illustrate how various subgroups within NRC (i.e., job function, employment status, job category, grade level, resident inspector versus non-resident inspector and length of service) vary at the category-level compared to NRC Overall. In addition, Commission and EDO Offices results will be compared.

When reviewing any of the internal comparisons, such as the graph on the next page, it should be noted that to ensure confidentiality for each participant, groups with less than 10 are included in the overall NRC population counts but are not broken out separately. For this reason, the sum of all groups may not be equal to the total NRC Overall combined group.

## Job Function Comparisons

The Legal job function has the most favorable scores compared to NRC Overall, with scores in 12 out of 13 categories above and significantly above in 5. While the Scientific category has the least favorable comparison to NRC Overall, with 12 out of the 13 categories below. However, only one category is significantly below, with Supervision scoring eight points below NRC Overall.

Administrative and Engineering categories have mixed results compared to NRC Overall with few significant differences. The Security function shows no significant differences compared to NRC Overall.

## Exhibit 7

### Category Breakdown

NRC Overall 2020 Breakdown by Job Function

	NRC Overall 2020	Administrative 2020 (572)	Engineering 2020 (1,035)	Legal 2020 (77)	Security 2020 (227)	Scientific 2020 (221)
Differing Views Processes	48	-6*	4*	7	-3	-2
Empowerment and Respect	66	-2	1	12*	0	-3
Engagement	77	0	0	8	-1	-2
Human Capital	41	5*	-4*	15*	2	-3
Management	59	4	-3	8	3	-2
NRC Objectives and Strategic Plans	69	-1	0	-1	3	0
Organizational Change	46	1	-1	10	2	-3
Quality Focus	46	-5*	3	7	-4	-1
Safety Index	76	1	0	3	-1	-1
Supervision	62	1	-1	17*	3	-8*
Training	75	-1	1	13*	-1	-3
Working Environment	69	-3	1	13*	1	-3
Workload and Support/Working Relationships	75	-2	1	9	0	-3

## Job Category Comparisons

When employee opinion data is segmented according to Job Category, as expected, Senior Management and Middle Management category scores are all significantly favorable compared to NRC Overall except for one category in Engagement. However, as you go further down in the organization to Line Management, participant's category scores remain favorable compared to NRC Overall, with scores from seven categories significantly above. Consistent with other organizations, for Non-Supervisor employees, all categories are lower compared to NRC Overall, two of which with a significant difference. This comparison seems to show that there are significant differences in perceptions of NRC staff depending on the job level such that Non-Supervisor employees seem to have an altogether different view of the Agency than management and supervisors do.

### Exhibit 8

#### Category Breakdown

NRC Overall 2020 Breakdown by Job Category

	NRC Overall 2020	Senior Management 2020 (45)	Middle Management 2020 (83)	Line Management 2020 (283)	Non-Supervisor 2020 (1,721)
Differing Views Processes	<b>48</b>	<b>32*</b>	<b>27*</b>	<b>13*</b>	<b>-4*</b>
Empowerment and Respect	<b>66</b>	<b>24*</b>	<b>16*</b>	<b>9*</b>	<b>-3</b>
Engagement	<b>77</b>	<b>12</b>	<b>7</b>	<b>5</b>	<b>-2</b>
Human Capital	<b>41</b>	<b>29*</b>	<b>19*</b>	<b>6</b>	<b>-3</b>
Management	<b>59</b>	<b>28*</b>	<b>18*</b>	<b>4</b>	<b>-2</b>
NRC Objectives and Strategic Plans	<b>69</b>	<b>20*</b>	<b>15*</b>	<b>5</b>	<b>-2</b>
Organizational Change	<b>46</b>	<b>24*</b>	<b>15*</b>	<b>2</b>	<b>-2</b>
Quality Focus	<b>46</b>	<b>27*</b>	<b>16*</b>	<b>2</b>	<b>-2</b>
Safety Index	<b>76</b>	<b>16*</b>	<b>13*</b>	<b>6*</b>	<b>-2</b>
Supervision	<b>62</b>	<b>24*</b>	<b>17*</b>	<b>7*</b>	<b>-3</b>
Training	<b>75</b>	<b>15*</b>	<b>12*</b>	<b>7*</b>	<b>-2</b>
Working Environment	<b>69</b>	<b>24*</b>	<b>18*</b>	<b>10*</b>	<b>-3*</b>
Workload and Support/Working Relationships	<b>75</b>	<b>15*</b>	<b>13*</b>	<b>6*</b>	<b>-2</b>

## Grade Level Comparisons

Grade Level is another comparison with compelling trends. The pattern demonstrated below is very typical of private and government agencies, regardless of industry or sector. The data below reveal statistically significant favorable responses compared to NRC Overall for the Senior Executive Service level, the most senior pay category of the organization. Similarly, the Senior Level/Scientific/Professional pay category had favorable scores for each category, except for the Safety Index category. GG-15 pay category also has largely favorable category scores, with 9 out of 13 categories more favorable than NRC Overall.

GG levels 1-6 and GG levels 7-12 pay categories have fairly favorable category scores. However, GG levels 7-12 scored ten points significantly below NRC Overall in the Differing Views Processes category. The Differing Views Processes category should be addressed as an opportunity area for GG levels 7-12 employees. Similar to previous years, GG-13 and GG-14 pay categories have the lowest scores compared to NRC Overall. However, even though GG-13 and GG-14 are still the lowest scoring pay categories, the gap appears to be narrowing compared to historical difference across pay categories.

## Exhibit 9

### Category Breakdown

NRC Overall 2020 Breakdown by Grade Level

	NRC Overall 2020	GS 1-6 2020 (27)	GS 7-12 2020 (179)	GS 13 2020 (491)	GS 14 2020 (727)	GS 15 2020 (558)	Senior Level/Scientific/Professional 2020 (43)	Senior Executive Service 2020 (107)
Differing Views Processes	48	-15	-10*	-6*	-3	6*	6	32*
Empowerment and Respect	66	14	-4	-3	-3	2	5	22*
Engagement	77	9	0	-2	-1	1	4	10*
Human Capital	41	16	4	-3	-5*	1	12	30*
Management	59	14	1	-2	-3	0	2	24*
NRC Objectives and Strategic Plans	69	7	-3	-2	-2	2	4	19*
Organizational Change	46	-8	1	-5	-2	2	16*	21*
Quality Focus	46	7	-3	-3	-2	0	6	23*
Safety Index	76	13	2	-1	-2	0	-7	15*
Supervision	62	8	1	-2	-3	0	3	22*
Training	75	2	-1	-3	-2	3	4	14*
Working Environment	69	9	-4	-4	-2	3	6	22*
Workload and Support/Working Relationships	75	1	0	-3	-2	2	2	17*

## Resident Inspector versus Non-Resident Inspector Comparisons

When comparing resident inspectors with the rest of the Agency, resident inspectors have less favorable scores. 10 out of 13 category scores are less favorable for resident inspectors, with large significant differences in Management and Organizational Change, both scoring over 10 points below NRC Overall. Resident inspector participants have less positive employee opinions regarding NRC and may require extra attention during action planning.

### Exhibit 10

#### Category Breakdown

NRC Overall 2020 Breakdown by Resident Inspector Status

	NRC Overall 2020	Yes 2020 (95)	No 2020 (2,037)
Differing Views Processes	48	3	0
Empowerment and Respect	66	-2	0
Engagement	77	-4	0
Human Capital	41	-7	0
Management	59	-11*	1
NRC Objectives and Strategic Plans	69	-6	0
Organizational Change	46	-13*	1
Quality Focus	46	0	0
Safety Index	76	-1	0
Supervision	62	-3	0
Training	75	0	0
Working Environment	69	-1	0
Workload and Support/Working Relationships	75	-6	0

## Length of NRC (Tenure) Comparisons

Similar to other organizations, the longest and shortest tenure groups have the most favorable responses. NRC may want to review and consider these lower-scoring tenured groups and investigate the findings more closely as the 3 to 5-year tenure range typically sees the highest turnover rates across most organizations.

### Exhibit 11

#### Category Breakdown

NRC Overall 2020 Breakdown by Length of NRC Service

	NRC Overall 2020	< 1 year 2020 (46)	1 - 3 years 2020 (65)	4 - 5 years 2020 (146)	6 - 10 years 2020 (339)	11 - 14 years 2020 (705)	15 - 20 years 2020 (450)	> 20 years 2020 (381)
Differing Views Processes	<b>48</b>	-6	5	-3	-6*	-1	3	5
Empowerment and Respect	<b>66</b>	3	18*	-1	-4	-1	0	2
Engagement	<b>77</b>	1	12*	-3	-3	-1	2	1
Human Capital	<b>41</b>	12	16*	-11*	-7*	-2	1	9*
Management	<b>59</b>	5	12*	-1	-4	0	-1	2
NRC Objectives and Strategic Plans	<b>69</b>	2	5	-1	-3	0	0	3
Organizational Change	<b>46</b>	3	12	-6	-6*	1	-2	5
Quality Focus	<b>46</b>	-2	10	0	-2	-2	2	2
Safety Index	<b>76</b>	2	7	1	-1	-1	1	-1
Supervision	<b>62</b>	0	16*	-1	0	-1	0	0
Training	<b>75</b>	3	10	-2	-3	-2	1	3
Working Environment	<b>69</b>	2	17*	1	-2	-1	0	1
Workload and Support/Working Relationships	<b>75</b>	0	12*	-2	-4	-1	2	3

## Commission Offices Comparisons

### ***Historical Breakdown***

The historical breakdown of the Commission Office reveals some interesting changes from 2012 to 2015. Human Capital, Management and NRC Objectives and Strategic Plans 2020 category scores are significantly below 2012 and 2015 category scores. These results further support the need for Commission offices to focus their efforts around Human Capital and Management.

### **Exhibit 12**

#### **Categories vs. Benchmarks**

Commission Offices 2020 Category Scores vs. Benchmarks

Category	Total Favorable Score	Commission Offices 2015	Commission Offices 2012	NRC Overall 2020
Differing Views Processes	46	-3	-6	-3
Empowerment and Respect	67	-3	-4	1
Engagement	79	-2	-3	3
Human Capital	44	-14*	-18*	3
Management	61	-10*	-9*	3
NRC Objectives and Strategic Plans	67	-10*	-5	-2
Organizational Change	49	n/a	n/a	3
Quality Focus	46	-5	-11*	0
Safety Index	73	-3	-5	-2
Supervision	67	1	3	5
Training	76	-4	-7	1
Working Environment	71	-4	-2	1
Workload and Support/Working Relationships	75	-4	-4	1

## Commission Offices Comparisons

### **Office Breakdown**

Compared to NRC Overall, OCFO has unfavorable results for all categories, with significant differences in Empowerment and Respect, Quality Focus, Training and Working Environment.<sup>13</sup> ASLBP and Chairman's/Commissioners' Offices have favorable responses across categories. However, only ASLBP and OGC have categories with significant positive differences from NRC Overall. This is due to the relatively low group sizes. Thus, it is not recommended that large scale action planning initiatives are needed. These findings suggest that OCFO may require extra attention during action planning, or alternatively, that OCFO jobs don't pertain directly to safety.

### **Exhibit 13**

#### **Category Breakdown**

NRC Overall 2020 Breakdown by Commission Offices

	NRC Overall 2020	ACRS 2020 (17)	ASLBP 2020 (17)	Chairman's/Commissioners' Offices 2020 (10)	OCAA & OPA 2020 (16)	OCFO 2020 (55)	OGC 2020 (63)	OIP 2020 (22)	SECY 2020 (15)
Differing Views Processes	<b>48</b>	-6	2	6	-1	-9	3	-6	-9
Empowerment and Respect	<b>66</b>	3	15	15	-9	-13*	8	-4	7
Engagement	<b>77</b>	0	14	7	4	-11	8	4	7
Human Capital	<b>41</b>	-13	30*	12	-16	-9	14*	5	-5
Management	<b>59</b>	-4	15	13	-12	-6	5	4	10
NRC Objectives and Strategic Plans	<b>69</b>	0	4	14	-6	-7	-5	-7	13
Organizational Change	<b>46</b>	-3	24*	20	-7	-4	6	-8	14
Quality Focus	<b>46</b>	-9	17	17	5	-14*	2	12	14
Safety Index	<b>76</b>	-4	2	11	2	-11	-1	-5	4
Supervision	<b>62</b>	3	20	11	-12	-7	15*	-5	8
Training	<b>75</b>	10	14	5	-11	-13*	13*	-12	6
Working Environment	<b>69</b>	2	17	13	-8	-13*	9	-6	9
Workload and Support/Working Relationships	<b>75</b>	2	10	17	-8	-10	6	-9	11

<sup>13</sup> Regarding the results for OCFO, it is important to note that three of the four senior leaders changed during the period of the administration of this survey. This is important context in interpreting the results for OCFO.

## EDO Offices Comparisons

### ***Historical Breakdown***

The historical breakdown of the EDO Offices provides important insights. Compared to 2012, 11 out of 12 available categories have significantly less favorable results in 2020. Compared to 2015, all comparable categories are less favorable in 2020, with significant differences in nine categories.

### **Exhibit 14**

#### **Categories vs. Benchmarks**

**EDO Offices 2020 Category Scores vs. Benchmarks**

Category	Total Favorable Score	EDO Offices 2015	EDO Offices 2012	NRC Overall 2020
Differing Views Processes	49	-1	-5*	0
Empowerment and Respect	66	-5*	-6*	0
Engagement	77	-5*	-5*	0
Human Capital	40	-18*	-19*	-1
Management	58	-10*	-12*	0
NRC Objectives and Strategic Plans	70	-10*	-8*	0
Organizational Change	46	n/a	n/a	0
Quality Focus	46	-5*	-8*	0
Safety Index	76	-3*	-5*	0
Supervision	62	-3	0	-1
Training	75	-6*	-6*	0
Working Environment	69	-4*	-3*	0
Workload and Support/Working Relationships	75	-2	-3*	0

## EDO Offices Comparisons

### ***Office Breakdown***

Compared to NRC Overall, OCIO and OE offices have the least favorable results. For OE, all category scores are unfavorable compared to NRC Overall, with significant differences in Management, NRC Objectives and Strategic Plans, and Safety Index categories. For OCIO, Management is the only category with a favorable difference compared to NRC Overall. OEDO and OI offices have the most favorable results compared to NRC Overall, with the Human Capital category scoring significantly above NRC Overall. The remaining offices have largely mixed results.

### **Exhibit 15a**

#### ***Category Breakdown***

NRC Overall 2020 Breakdown by EDO Offices (1 of 2)

	NRC Overall 2020	ADM 2020 (85)	NMSS 2020 (237)	NRR 2020 (465)	NSIR 2020 (125)	OCHCO 2020 (57)	OCIO 2020 (111)	OE 2020 (23)
Differing Views Processes	<b>48</b>	-7	-1	4	-6	0	-10*	-13
Empowerment and Respect	<b>66</b>	-2	1	1	-6	-3	-5	-18
Engagement	<b>77</b>	3	-2	0	0	3	-6	-17
Human Capital	<b>41</b>	10	-7*	-5*	-4	12	-5	-15
Management	<b>59</b>	10	1	-1	-6	4	1	-25*
NRC Objectives and Strategic Plans	<b>69</b>	0	2	2	-1	-1	-3	-26*
Organizational Change	<b>46</b>	7	0	3	-2	3	-6	-18
Quality Focus	<b>46</b>	-5	-3	0	3	-10	-13*	-17
Safety Index	<b>76</b>	-5	3	-1	-2	0	-4	-22*
Supervision	<b>62</b>	3	-4	-1	-5	5	-1	-14
Training	<b>75</b>	6	-3	0	-4	-2	-6	-12
Working Environment	<b>69</b>	0	-2	0	-5	1	-7	-9
Workload and Support/Working Relationships	<b>75</b>	-6	1	2	1	-2	-9*	-18

**Exhibit 15b****Category Breakdown****NRC Overall 2020 Breakdown by EDO Offices (2 of 2)**

	NRC Overall 2020	OEDO 2020 (22)	OI 2020 (35)	REGION I 2020 (119)	REGION II 2020 (175)	REGION III 2020 (135)	REGION IV 2020 (135)	RES 2020 (143)
Differing Views Processes	<b>48</b>	<b>20</b>	<b>-2</b>	<b>10*</b>	<b>-9*</b>	<b>8</b>	<b>2</b>	<b>6</b>
Empowerment and Respect	<b>66</b>	<b>16</b>	<b>8</b>	<b>13*</b>	<b>-10*</b>	<b>3</b>	<b>-1</b>	<b>4</b>
Engagement	<b>77</b>	<b>7</b>	<b>4</b>	<b>10*</b>	<b>-5</b>	<b>1</b>	<b>-1</b>	<b>0</b>
Human Capital	<b>41</b>	<b>27*</b>	<b>25*</b>	<b>13*</b>	<b>-7</b>	<b>6</b>	<b>0</b>	<b>2</b>
Management	<b>59</b>	<b>18</b>	<b>9</b>	<b>11*</b>	<b>-12*</b>	<b>-3</b>	<b>-3</b>	<b>5</b>
NRC Objectives and Strategic Plans	<b>69</b>	<b>11</b>	<b>1</b>	<b>5</b>	<b>-2</b>	<b>-7</b>	<b>-3</b>	<b>5</b>
Organizational Change	<b>46</b>	<b>13</b>	<b>16</b>	<b>7</b>	<b>-12*</b>	<b>-9*</b>	<b>-7</b>	<b>6</b>
Quality Focus	<b>46</b>	<b>15</b>	<b>8</b>	<b>17*</b>	<b>-5</b>	<b>7</b>	<b>2</b>	<b>4</b>
Safety Index	<b>76</b>	<b>12</b>	<b>8</b>	<b>12*</b>	<b>-4</b>	<b>4</b>	<b>1</b>	<b>-1</b>
Supervision	<b>62</b>	<b>11</b>	<b>12</b>	<b>12*</b>	<b>-11*</b>	<b>5</b>	<b>1</b>	<b>0</b>
Training	<b>75</b>	<b>18</b>	<b>14</b>	<b>15*</b>	<b>-5</b>	<b>2</b>	<b>-1</b>	<b>-2</b>
Working Environment	<b>69</b>	<b>13</b>	<b>9</b>	<b>13*</b>	<b>-7</b>	<b>6</b>	<b>0</b>	<b>3</b>
Workload and Support/Working Relationships	<b>75</b>	<b>10</b>	<b>11</b>	<b>8*</b>	<b>-6</b>	<b>0</b>	<b>-2</b>	<b>2</b>

# Engagement and Safety Indexes

## Engagement Historical and Norm Breakdown

The engagement index is composed of six questions that are shown in Exhibit 16. Exhibit 16 compares NRC historical engagement scores and across normative benchmarks. The majority of engagement items have significantly decreased from previous survey iterations. Compared to 2012, 2020 engagement scores have significantly decreased in four items. Engagement item scores in 2020 have significantly decreased in four items compared to 2015. The largest declines for both historical comparisons are for recommending the NRC as a good place to work and having the work tools and resources needed to achieve exceptional performance, and considering leaving the NRC. Engagement item scores are also beginning to drop below benchmark scores, with 2020 scores significantly below the U.S. National Norm in five items and significantly below the U.S. R&D Norm in two items. Again, recommending the NRC as a good place to work is below both external norms.

### Exhibit 1

#### Benchmark Summary - Engagement

NRC Overall 2020 vs. Benchmarks

	Total Favorable	NRC Overall 2015	NRC Overall 2012	U.S. Research & Dev. Norm	U.S. National Norm
<b>Engagement</b>	<b>77</b>	<b>-5*</b>	<b>-5*</b>	<b>-2</b>	<b>-3*</b>
3 My work gives me a sense of personal accomplishment.	85	0	-1	1	1
16 I would recommend the NRC as a good place to work.	77	-9*	-8*	-3*	-4*
28 I am proud to be associated with the NRC.	87	-2	-3*	-1	-1*
33 I have the work tools and resources I need to achieve exceptional performance.	72	-8*	-7*	-1	-4*
39 I am able to sustain the level of energy I need throughout the work day.	80	-3*	0	0	-2*
65 At the present time, are you seriously considering leaving the NRC?	60	-6*	-11*	-6*	-7*

## Safety Historical Breakdown

The safety index is comprised of nine questions that are shown in Exhibit 17, along with the comparison to the NRC historical safety scores. The majority of safety item scores have significantly decreased since previous survey iterations. Compared to 2012, 2020 safety scores have significantly decreased in six of eight items. Safety item scores in 2020 have significantly decreased in five items compared to 2015. The largest decrease over time (since 2012) is for confidence that safety issues that are reported to NRC Office/Region management are appropriately resolved and believing a culture exists in the NRC that is conducive to raising safety and quality concerns.

### Exhibit 17

#### Benchmark Summary - Safety

##### NRC Overall 2020 vs. Benchmarks

	Total Favorable	NRC Overall 2015	NRC Overall 2012
<b>Safety Index</b>	<b>76</b>	<b>-3*</b>	<b>-5*</b>
1 I believe NRC's commitment to public safety is apparent in what we do on a day-to-day basis.	90	-4*	0
12 I believe the NRC's commitment to our security mission is apparent in what we do on a day-to-day basis.	82	-6*	0
19 I have a clear understanding of the NRC's safety culture.	81	-4*	-2*
25 I believe a culture exists in the NRC that is conducive to raising safety and quality concerns.	72	-6*	-8*
46a Employees are encouraged to communicate ideas to improve: Nuclear safety	75	-1	-4*
46b Employees are encouraged to communicate ideas to improve: Nuclear security	69	-3*	-5*
52a I am confident that safety issues that are reported to NRC Office/Region management are: Thoroughly investigated	71	-1	-9*
52b I am confident that safety issues that are reported to NRC Office/Region management are: Appropriately resolved	66	-2	-10*

# Key Driver Analysis

A key driver analysis (multiple regression) enables the identification of those critical areas that drive Employee Engagement and Safety. Multiple regression is a statistical technique which is used to understand and predict the changes in one variable by understanding relationships of that variable with other variables. Therefore, this analysis looks at factors that have a predictive relationship with Engagement and Safety. Therefore, if scores in these factors that influence Engagement/Safety change, that would influence Engagement/Safety scores to change. In order to determine the critical factors that influence Employee Engagement and Safety, the Engagement and Safety categories are designed to empirically measure Employee Engagement and Safety. They are used as the dependent variables in the key driver analysis, while all other questions in the survey serve as the independent variables (potential influencers on Engagement/Safety) and are regressed on the Engagement and Safety Indexes.

## Engagement Key Driver Analysis (Category Level)

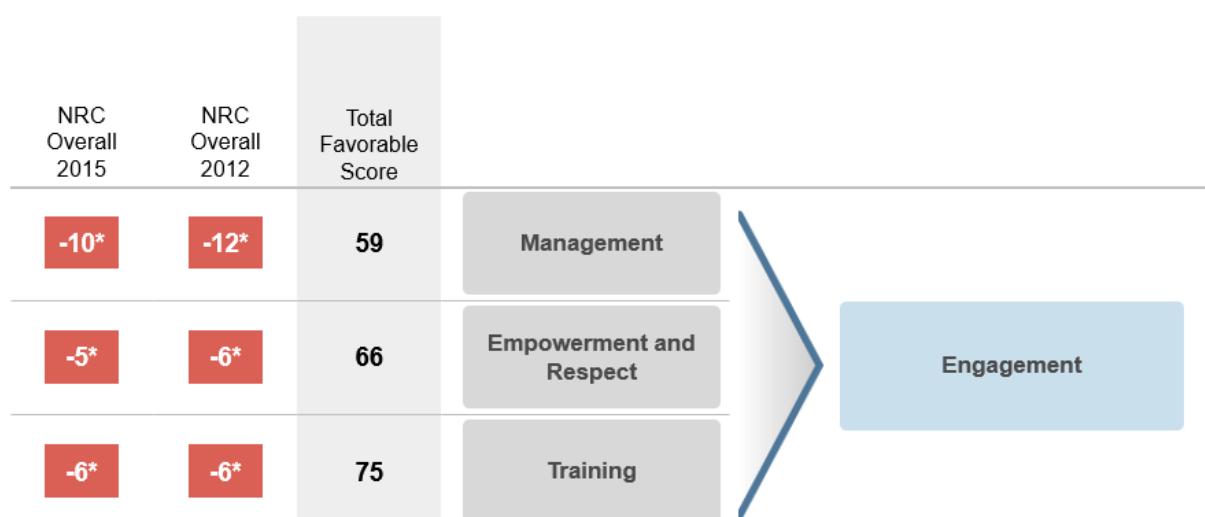
### *Historical and Norm Comparison*

Exhibits 18 and 19 represent category-level key driver analysis broken down by historical year and norm. These analyses show that engagement is driven by perceptions of Management, Empowerment and Respect, and Training and that these issues trend below historic and external norms.

### Exhibit 18

#### Key Drivers of Engagement – NRC Overall

#### NRC Overall 2020 Category Scores vs. Benchmarks



**Exhibit 19****Key Drivers of Engagement – NRC Overall****NRC Overall 2020 Category Scores vs. Benchmarks**

## Engagement Key Driver Analysis (Item Level)

### ***Historical and Norm Comparison***

Exhibits 20 and 21 represent item-level key driver analysis broken down by historical year and norm. This item-level analysis shows that believing that management decisions are consistent with the mission and that there are opportunities for growth are important drivers that are also well below historic and external norms.

### **Exhibit 20**

#### **Key Drivers of Engagement – NRC Overall**

##### **NRC Overall 2020 Item Scores vs. Benchmarks**

NRC Overall 2015	NRC Overall 2012	Total Favorable Score	
-4*	-3*	72	<b>Management:</b> In my judgment, the following are well managed: My office/region
-13*	-14*	66	<b>Management:</b> Regarding the NRC's mission, I believe management decisions are consistent with the mission.
-4*	-5*	80	<b>Empowerment and Respect:</b> I have sufficient authority to do my job well.
-2	-4*	78	<b>Empowerment and Respect:</b> Employees are treated with respect at the NRC, regardless of their job.
-7*	-7*	65	<b>Training:</b> I believe I have the opportunity for personal development and growth in this organization.
-3*	-3*	83	<b>Training:</b> The training I have received from the NRC has adequately prepared me for the work I do.



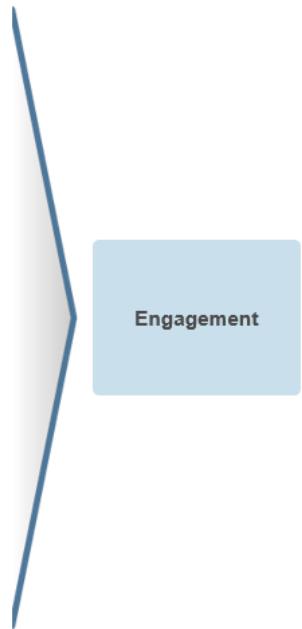
Engagement

## Exhibit 21

### Key Drivers of Engagement – NRC Overall

#### NRC Overall 2020 Item Scores vs. Benchmarks

U.S. Research & Dev. Norm	U.S. National Norm	Total Favorable Score	
n/a	n/a	72	<b>Management:</b> In my judgment, the following are well managed: My office/region
-11*	-10*	66	<b>Management:</b> Regarding the NRC's mission, I believe management decisions are consistent with the mission.
-3*	-4*	80	<b>Empowerment and Respect:</b> I have sufficient authority to do my job well.
-3*	0	78	<b>Empowerment and Respect:</b> Employees are treated with respect at the NRC, regardless of their job.
-6*	-8*	65	<b>Training:</b> I believe I have the opportunity for personal development and growth in this organization.
6*	4*	83	<b>Training:</b> The training I have received from the NRC has adequately prepared me for the work I do.



## Safety Key Driver Analysis (Category Level)

### ***Historical and Norm Comparison***

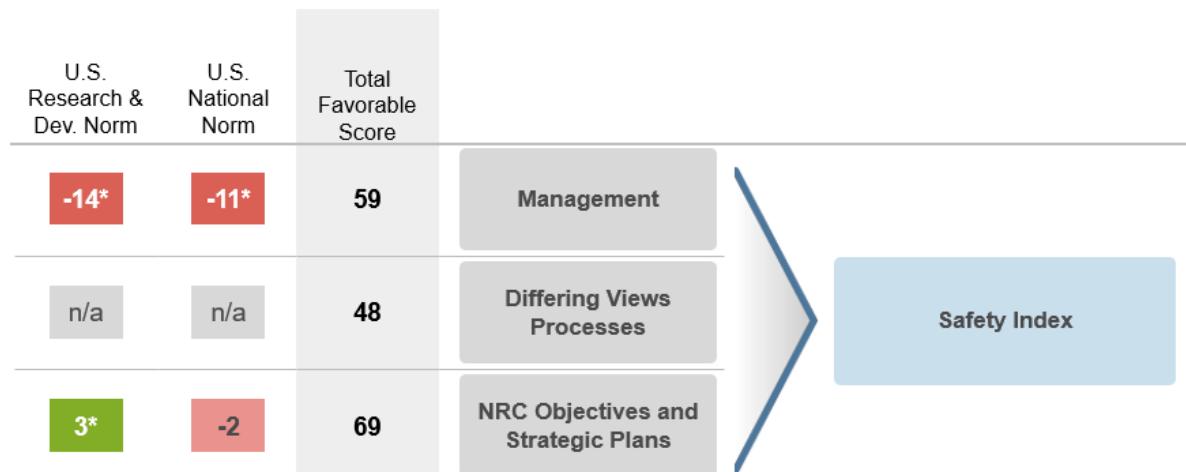
Exhibits 22 and 23 represent category-level key driver analysis broken down by historical year and norm. Similar to the engagement driver analysis, the safety driver analysis shows the importance of management.

### **Exhibit 22**

#### **Key Drivers of Safety – NRC Overall**

##### **NRC Overall 2020 Category Scores vs. Benchmarks**



**Exhibit 23****Key Drivers of Safety – NRC Overall****NRC Overall 2020 Category Scores vs. Benchmarks**

## Safety Key Driver Analysis (Item Level)

### ***Historical and Norm Comparison***

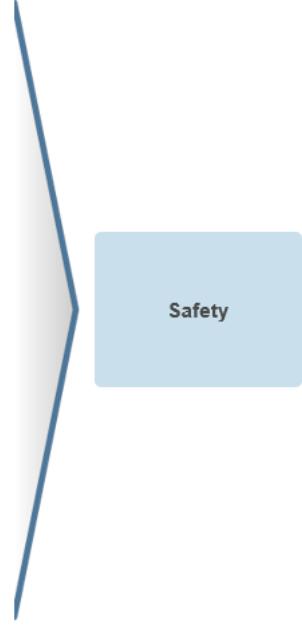
Exhibits 24 and 25 represent item-level key driver analysis broken down by historical year and norm. The item-level analysis demonstrates the importance of believing management decisions are consistent with the mission and being sufficiently informed about NRC's plans.

### **Exhibit 24**

#### **Key Drivers of Safety – NRC Overall**

##### NRC Overall 2020 Item Scores vs. Benchmarks

NRC Overall 2015	NRC Overall 2012	Total Favorable Score	
-13*	-14*	66	<b>Management:</b> Regarding the NRC's mission, I believe management decisions are consistent with the mission.
-11*	-6*	67	<b>Management:</b> In my judgment, the following are well managed: The NRC as a whole
0	-10*	50	<b>Differing Views Processes:</b> Regarding the Differing Professional Opinions [DPO] Program: Senior management supports it
-5*	-10*	42	<b>Differing Views Processes:</b> From what I know or have heard, the Differing Professional Opinions [DPO] Program is effective.
-16*	-15*	62	<b>NRC Objectives and Strategic Plans:</b> I am sufficiently informed about NRC's plans.
n/a	n/a	58	<b>NRC Objectives and Strategic Plans:</b> I believe the Risk Informed Initiative effectively supports NRC's mission.



## Exhibit 25

### Key Drivers of Safety – NRC Overall

#### NRC Overall 2020 Item Scores vs. Benchmarks

U.S. Research & Dev. Norm	U.S. National Norm	Total Favorable Score	
-11*	-10*	66	<b>Management:</b> Regarding the NRC's mission, I believe management decisions are consistent with the mission.
n/a	-1	67	<b>Management:</b> In my judgment, the following are well managed: The NRC as a whole
n/a	n/a	50	<b>Differing Views Processes:</b> Regarding the Differing Professional Opinions [DPO] Program: Senior management supports it
n/a	n/a	42	<b>Differing Views Processes:</b> From what I know or have heard, the Differing Professional Opinions [DPO] Program is effective.
0	-7*	62	<b>NRC Objectives and Strategic Plans:</b> I am sufficiently informed about NRC's plans.
n/a	n/a	58	<b>NRC Objectives and Strategic Plans:</b> I believe the Risk Informed Initiative effectively supports NRC's mission.



Safety

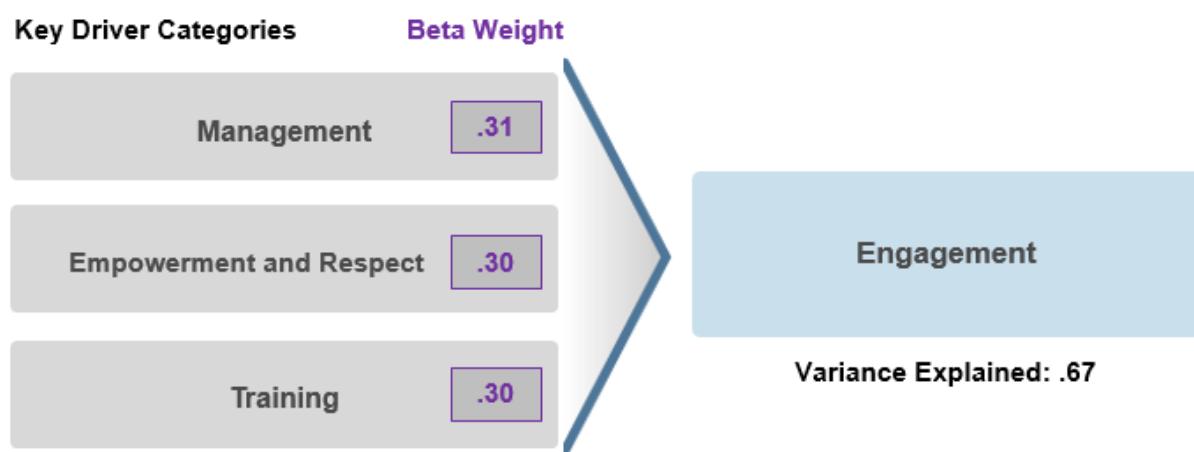
# Total Variance Explained

## Engagement

The total variance explained for this model is 67 percent, which is considered highly predictive of the dependent variable engagement. This indicates that 67 percent of all the variation in responses to engagement can be accounted for by the responses to these three categories. The .31, .30 and .30 for the key driver categories are regression coefficients, which indicate the relative strength of each category in driving engagement. The categories displayed in Exhibit 26 have been listed in order of how strongly they predict engagement of NRC employees.

In interpreting this model, we can assume that individuals responding favorable to the Engagement Index items also responded favorable to the items determined to most influence engagement. Conversely, individuals responding unfavorable to Engagement Index items also tend to respond unfavorable to the items determined to most influence employee engagement. It is apparent that employee engagement at NRC is highly affected by attitudes toward Management, Empowerment and Respect, and Training.

## Exhibit 26



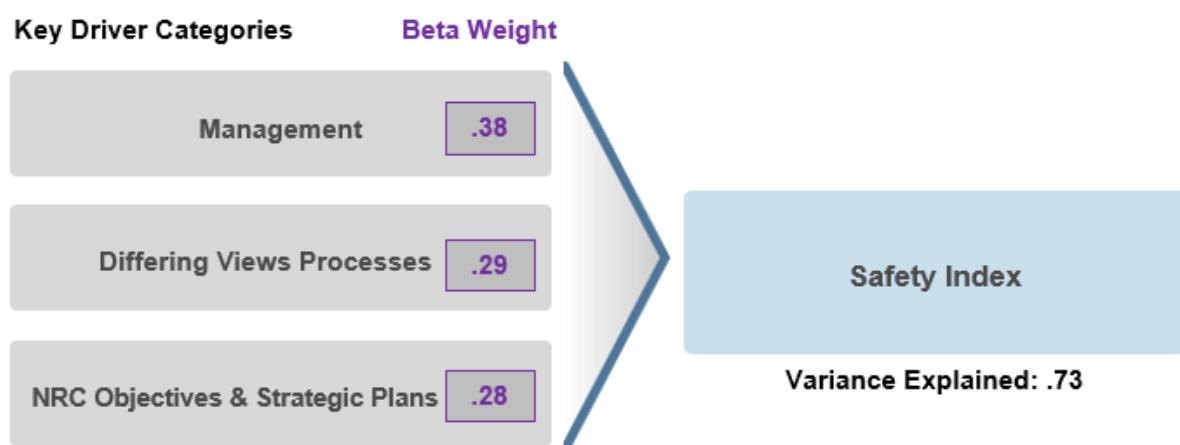
# Total Variance Explained

## Safety

The total variance explained for this model is 73 percent, which is considered highly predictive of the dependent variable safety. This indicates that 73 percent of all the variation in responses to safety can be accounted for by the responses to these three categories. The .38, .29 and .28 for the key driver categories are regression coefficients, which indicate the relative strength of each category in driving safety. The categories displayed in Exhibit 27 have been listed in order of how strongly they predict engagement of NRC employees.

In interpreting this model, we can assume that individuals responding favorable to the Safety Index items also responded favorable to the items determined to most influence safety. Conversely, individuals responding unfavorable to Safety Index items also tend to respond unfavorable to the items determined to most influence safety. It is apparent that safety at NRC is highly affected by attitudes toward Management, Differing Views Processes and NRC Objectives and Strategic Plans.

## Exhibit 27



# Areas at Risk

The key drivers of engagement and safety are critical in maintaining a workforce that is engaged, committed to their work and a safety culture, has the appropriate resources, and experiences appropriate amounts of job-related stress. Therefore, the largest potential concerns to NRC's culture would be items that are key drivers of engagement and safety, and statistically significantly below benchmark. These include:

## Engagement Key Drivers

- **Management:** Regarding the NRC's mission, I believe management decisions are consistent with the mission (13 points below NRC 2015, 14 points below NRC 2012, 11 points below U.S. R&D Norm, and 10 points below U.S. National Norm).
- **Empowerment and Respect:** I have sufficient authority to do my job well (four points below NRC 2015, five points below NRC 2012, three points below U.S. R&D Norm, and four points below U.S. National Norm).
- **Training:** I believe I have the opportunity for personal development and growth in this organization (seven points below NRC 2015, seven points below NRC 2012, six points below U.S. R&D Norm, and eight points below U.S. National Norm).

NRC should ensure management decisions are consistent with the NRC mission, employees are given sufficient authority to perform their jobs well and that employees have the opportunity for personal development and growth.

## Safety Key Drivers

- **Management:** Regarding the NRC's mission, I believe management decisions are consistent with the mission (13 points below NRC 2015, 14 points below NRC 2012, 11 points below U.S. R&D Norm, and ten points below U.S. National Norm).
- **Management:** In my judgment, the following are well managed: The NRC as a whole (11 points below NRC 2015 and 6 points below NRC 2012).
- **NRC Objectives and Strategic Plans:** I am sufficiently informed about NRC's plans (16 points below NRC 2015, 15 points below NRC 2012, and 7 points below U.S. National Norm).

NRC should also focus on increasing employee knowledge of the management process throughout the Agency and improve employee's understanding of NRC's plans.

The items below are survey questions that are most significantly below benchmarks. These could all be potential areas of concern for NRC.

### Areas of Concern

	Total Favorable	NRC Overall 2015 (2,561)	NRC Overall 2012 (2,981)	Research & Dev. Norm (12,321)	U.S. National Norm (148,326)
37 In my experience, all NRC employees are held to the same standards of ethical behavior.	56	-6*	-7*	-17*	-19*
24 When decisions are made that are contrary to my opinion, the NRC communicates effectively why the decision was made.	46	-12*	-9*	n/a	n/a
48a I think the NRC is doing a good job of: Recruiting the right people for its future needs	39	-24*	-21*	-17*	-22*
48b I think the NRC is doing a good job of: Developing its people to their full potential	48	-12*	-13*	-7*	-15*
48c I think the NRC is doing a good job of: Retaining its most talented people	36	-18*	-22*	-10*	-16*
17 NRC senior management provides a clear sense of direction.	61	-11*	-16*	-10*	-9*
34 I feel significant actions have been taken as a result of the previous Safety Culture and Climate survey.	26	-10*	-15*	-29*	-27*
43 Regarding the NRC's mission, I believe management decisions are consistent with the mission. *	66	-13*	-14*	-11*	-10*
44 I am sufficiently informed about NRC's plans. *	62	-16*	-15*	0	-7*
21 I believe I have the opportunity for personal development and growth in this organization. *	65	-7*	-7*	-6*	-8*
41 There are sufficient opportunities for me to receive training to improve my skills in my current job.	73	-9*	-8*	3*	1

Participants were also asked to identify areas they feel worried about impacting the future of NRC. The below table exhibits the item and the responses:

NRC Objectives and Strategic Plans: I am frequently worried about the following impacting the future of the NRC [please select the top two choices]:		
Area	Selected	Not Selected
Budget	64%	36%
NRC Leadership	46%	54%
Nuclear Events	19%	81%
Talent Management Issues	39%	61%
Risk Informed Initiative	18%	82%

A large majority (64 percent) of participants are worried that budget will affect the future of NRC. NRC senior leaders may need to devise a communication strategy to address this concern. Holding a town hall, or having managers hold a question and answer session would allow employees to address these types of concerns. Further, nearly half of the survey participants (46 percent) are worried about how senior leadership may affect the future of NRC. These findings suggest that NRC senior leaders may need to build transparency around the goals of the NRC and how those goals support the mission.

# Conclusion

Successfully cultivating an engaged workforce and managing a culture and climate based on safety requires a great deal of time, resources and effective leadership. Addressing this challenge, Willis Towers Watson conducted the 2020 NRC Safety Culture and Climate Survey to gather employee insight regarding current NRC safety cultures and climate. The survey addressed the most important elements of NRC culture, and thus provided NRC leadership with a clear picture of employee opinions and perceptions regarding Safety, Engagement and other organizational topics.

Overall results found that NRC has lost ground compared to historic data and external normative comparisons in most of the areas of inquiry. Organizations undergoing significant change often see results decline over time but the results for the 2020 survey show greater declines than might typically be expected. There is a clear pattern of results that highlights concerns employees have with Management and the NRC's objectives and strategic plans with very large drops in survey scores over time. Managing human capital, the attraction, development and retention of quality employees also shows very large drops in favorability from the 2012 and 2015 surveys. The most favorable areas of the survey are four questions that focus on the individual work experiences employees have with co-workers and supervisors.

In general, Engagement scores have significantly declined since the 2015 survey, with especially large drops for recommending the NRC as a good place to work and having the right tools and resources to perform. Key driver analysis reveals that Employee Engagement at NRC is highly affected by attitudes toward Management, Empowerment and Respect, and Training. The Safety index provides insight into the types of attitudes that influence safety culture at NRC with scores less favorable than 2015 for the entire category, especially for NRC's commitment to the security mission being apparent in day-to-day work and feeling the culture is conducive to raising safety and quality concerns. Results from a key driver analysis reveal that safety at NRC is highly affected by attitudes toward Management, Differing Views Processes and NRC Objectives and Strategic Plans. Employee Engagement and Safety at NRC are both highly affected by attitudes toward Management.

Digging deeper into the results, overall strengths and opportunities were identified and should be taken into consideration during action planning. NRC's greatest strengths focus on the individual work experience, such as having a clear understanding of the goals and objectives of the work unit, confidence in decisions of the supervisor, training that supports the work being done now, feeling free to approach supervisors, comfort expressing views that contrast with co-workers, high quality work done in the work unit, and good cooperation with units with the office.

NRC's greatest areas of opportunity focus on Human Capital (e.g., attraction, development and retention of people), Management (e.g., providing a clear sense of direction, and making decisions consistent with the mission) and NRC Objectives and Strategic Plans (e.g., adequately communicating policies and decisions, sufficient information on NRC's plans and understanding goals and objectives of NRC as a whole).

A number of techniques can be implemented to address these areas of opportunity. NRC may want to hold focus group meetings or team discussions and encourage participants to identify ways the leaders can be more effective in building confidence and helping employees understand where the NRC is headed and why. Using participant input to develop detailed action steps to address the

barriers mentioned is another effective way to give employees a voice and let them know time and energy is being invested into their input.

There are a number of things senior leaders can do to provide a clearer sense of direction and gain employees trust and confidence in their decision-making. Role-modeling certain types of behavior is one way to build trust and give employees confidence that leaders' actions are authentic. Always telling the truth and openly sharing the facts will help build valuable transparency. Seeking others' interpretations of facts and data, and not always relying on personal analysis or point of view will also show employees that leaders care about their input. Further, ensuring words and actions are consistent, making sure not to favor any team members over others, and showing genuine interest in others' wellbeing and concerns will demonstrate authenticity.

In conclusion, scores have declined across the board and the NRC must continuously monitor the perception and opinions of employees to ensure that strengths and opportunities are identified. Doing so will also help measure a culture and climate of Safety given the importance this aspect continues to have at NRC, now more than ever. The extent to which NRC's leadership can utilize the results to effectively manage and implement action plans and drive change will have a significant impact on the future perception of, and adherence to, the safety culture and safety climate at NRC, and overall Employee Engagement levels. In the context of an employee survey program, leadership teams need to demonstrate commitment to the process on an ongoing basis. There should be regular updates on the actions being taken to address priority issues identified in the survey.