



PACIFIC Research & Evaluation, LLC

Evaluation of the Nuclear Regulatory Commission's Strategic Workforce Planning (SWP) Process:

FINAL REPORT

Prepared for the U.S. Nuclear Regulatory Commission

Prepared by
Pacific Research and Evaluation, LLC
3507 S Corbett Avenue
Portland, Oregon 97239
(503) 595-3970

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EXECUTIVE SUMMARY

BACKGROUND

In 2014, the Nuclear Regulatory Commission (NRC) initiated Project AIM to develop a strategic workforce plan, leading to the creation of a Strategic Workforce Planning (SWP) process in 2016. A pilot, involving three offices, began in 2017 and continued for the next five years, expanding and rolling out across most offices within the agency in the following years. The process was halted during FY23 to allow time and dedicate resources to review the effectiveness of SWP at achieving expected and desired outcomes. Pacific Research and Evaluation (PRE) was contracted to evaluate the SWP process against these outcomes.

METHODS

The evaluation used a mixed-methods approach to determine the degree to which the SWP process is meeting its stated objectives. Methods involved a review of internal documents, industry best practices, and benchmarking information of select federal agencies. A staff survey was distributed to a random sample of agency leaders, senior managers, branch chiefs, SWP points of contact (POCs), and non-supervisory staff. Interviews were conducted with 20 semi-randomly selected senior leaders and agency managers. Additionally, four focus groups were conducted with randomly selected branch chiefs, and five focus groups were conducted with SWP POCs.

FINDINGS & RECOMMENDATIONS

Finding 1. Communication on the objectives and utilization of SWP results is lacking, particularly among branch chiefs.

Recommendation 1. Enhance communication and engagement around the desired objectives, outcomes, and utilization of the SWP process and results.

Finding 2. Corporate support limits and staffing shortages are preventing the full execution and benefits of the strategies developed by the SWP process.

Recommendation 2: Increase the administrative capacity to perform SWP process steps and execute SWP strategies by adding full-time equivalent workforce planner role(s) in the Office of the Chief Human Capital Officer (OCHCO) and/or individual offices and regions.

Finding 3. Aspects of the SWP Tool are not intuitive and may cause inconsistencies in data.

Recommendation 3. Enhance the technological capability to support SWP by increasing automation of data entry, increasing visibility and access of SWP data inputs and reports, and improving the user experience of the SWP Tool.

Finding 4. Inconsistencies around core position titles, proficiency assessments, and attrition predictions are limiting the accuracy of SWP staffing projections.

Recommendation 4. Improve the consistency and accuracy of SWP data inputs by eliminating the use of core position titles in SWP, considering more holistic attrition factors, and integrating additional contextual factors in the agency environmental scan.

Finding 5. Staff consider the process burdensome and duplicative with the agency's budget formulation process.

Recommendation 5. Integrate the SWP process into the budget formulation process by considering long-term (5-year) predictions in budget decisions, centralizing data between SWP and the budget, and aligning completion of SWP steps with the budget cycle.

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INTRODUCTION

BACKGROUND

The Office of Personnel Management (OPM) defines Strategic Workforce Planning (SWP) as “the systematic process of analyzing and assessing to set targets to mitigate the gaps between the workforce of today and the mission and human capital needs of tomorrow.”¹ The phrase “right people, right skills, right place, right time” (or a similar variation of the phrase) has been used prolifically to describe the goals and purposes of SWP in both the private and public sectors going back more than 20 years.²

In June 2014, the Executive Director for Operations (EDO) in collaboration with the Chief Financial Officer (CFO) established the working group, Project AIM, to enhance the Nuclear Regulatory Commission’s (NRC) ability to plan and execute its mission while adapting in a timely and effective manner to a dynamic environment. The NRC’s SWP process was first developed in 2016 in response to a recommendation from Project AIM to “develop a strategic workforce plan that ensures the NRC is positioned to have the right number of people with the right competencies at the right time.”³ The “NRC Strategic Workforce Plan”⁴ was based on the OPM model and provided a basic roadmap to manage the NRC’s workforce. The plan used an iterative approach with the goal of refining the process over time to be in alignment with the needs of the agency. On January 19, 2017, the EDO formed a working group to develop a more comprehensive, integrated, and systematic SWP process in alignment with Project AIM and the NRC’s Strategic Plan for FY 2014-2018. The working group developed a process map and an enhanced SWP plan by integrating human capital management, workload projection, skills identification, and individual development, with agency processes, while drawing from best practices in the public and private sectors. On July 5, 2017, the EDO approved the working group’s proposal and issued a tasking memo, “Implementation of Enhancements to NRC’s SWP,” directing the Office of the Chief Financial Officer (OCFO), Region II, and the Office of Nuclear Regulatory Research (RES) to participate in Phase I – Pilot of SWP, in collaboration with the Office of the Executive Director for Operations (OEDO) and the Office of the Chief Human Capital Officer (OCHCO).

A report titled “Enhanced SWP Pilot: Lessons-Learned Report” assessing the strengths, challenges, and estimated resources was issued on June 8, 2018, and recommended improvements of the implementation activities of the NRC’s Phase I – Pilot of SWP among these two offices and region.⁵ This report highlighted programmatic strengths, challenges, and future considerations, and issued six recommendations to improve the process. Overall, it was found that office-level points of contact (POCs) for SWP were successful, and that each

¹ OPM (2022, p. 4). Workforce planning guide. Retrieved from <https://www.opm.gov/policy-data-oversight/human-capital-framework/reference-materials/talent-management/workforce-planning-guide.pdf>.

² Sinclair, A. (2004). Workforce planning: A literature review. *Institute for Employment Studies*.

³ ADAMS Accession No. ML15023A558, dated January 30, 2015

⁴ ADAMS Accession No. ML16032A343, dated February 4, 2016

⁵ ADAMS Accession No. ML18162A051, dated June 8, 2018

participating office or region found the workforce information generated by the process to be valuable for both management and staff. The report acknowledged that the changes and additional activities were burdensome and would require a shift in culture to facilitate successful adoption. The recommendations were to 1) improve communications, guidance, templates, and training by streamlining, providing examples, and considering feedback; 2) streamline the identification and tracking of competencies by aligning the SWP process with competency modeling and support software; 3) require each office to select one or more individuals to serve as POCs (depending on office size); 4) adjust timing of training and offer blended learning options that include both instructor-led classroom and online training options; 5) improve the database used to support the collection of workforce demand and supply information by allowing synchronous access by multiple users, and improve usability; and 6) implement Phase II of the enhanced SWP process and expand scope to include additional NRC offices.

Managers and SWP POCs continued to track the implementation of the SWP process over the next five years, from 2017 to 2021, to highlight process challenges, provide considerations for process improvements, and track changes to the process. The discussions and lessons learned from these activities were compiled and summarized in an internal document for each year following the completion of the SWP cycle. Over the five years of documented lessons learned, some key challenges and suggested process improvements have persisted, while others have been addressed to varying degrees. For example, it was suggested that SWP be integrated with the budget formulation process following both the 2017 and the 2019 cycles. Additionally, creating alignment across offices and regions with regard to definitions of core position titles, or eliminating their use in favor of considering the full workforce in planning activities, came up as a suggested process improvement in 2018, 2019, and 2021. It was also recommended to improve communication around process justification and utilization after the 2018, 2019, and 2020 SWP cycles. Providing enhanced training and documented guidance was recommended in 2018 and 2020. Several suggestions were made over the years to improve or enhance the use of technology, either to provide more accessibility of information, centralize the data, or streamline the process. A computer application, referred to as the SWP Tool, was created after the 2019 cycle to address some of these recommendations, but making enhancements to technology continues to be suggested as a process improvement. This tool allowed contributors to the SWP process to have access to a centralized, computer-based platform to enter workforce supply data, add skill and proficiency assessment information for specific core positions, and enter workload forecast and workforce demand data. Once data are entered into the SWP Tool, users can also export reports that contain summaries of this information, though it was noted throughout the evaluation that these reports need to be revised and reorganized to maximize their utility for decision-making. Similarly, to address the recommendation to streamline or condense the process, the workload forecast and workload demand steps were combined into one step, but further streamlining the process arose as a recommendation again after the 2021 cycle. An overview of the key challenges, process improvement considerations, and process changes described in the “lessons learned” documents is provided in Table 1.

Updated SWP process guidance was provided for office directors and regional administrators in February 2022 in a document titled “Enhanced SWP,” which was an updated version of the

process map and outline of the SWP steps delivered in 2020. However, the process was put on hold during FY22 in order to dedicate additional resources and time to evaluate the effectiveness of the SWP process to achieve its stated objectives of ensuring the NRC has the right number of people, with the right skills, in the right place, at the right time. More specifically, the 2022 Enhanced SWP guide stated that the objective of the SWP process is to “develop strategies and action plans that enable the NRC to recruit, retain, and develop a skilled and diverse workforce with the competencies and agility to address emerging needs and workload fluctuations.” To that end, the NRC contracted with Pacific Research and Evaluation, LLC (PRE) to conduct an independent evaluation of the NRC’s SWP process. A more thorough list of expected short-term and long-term outcomes of the SWP process is provided in a logic model that was produced collaboratively between PRE and the NRC (see Appendix A). The evaluation assessed the effectiveness and efficiency of the SWP process, as well as identified areas for improvement to maximize the agency’s efforts. The purpose of this report is to provide a summary of the methods of evaluation, describe key findings to the evaluation questions, and outline mitigating strategies and recommendations to enhance the process and align it more closely with its stated purpose and objectives.

Table 1. Summary of documented lessons learned and process changes from 2017 to 2021

Year	Highlighted Recommendations	Documented Process Changes
2017	<ul style="list-style-type: none"> • Agency Environmental Scan should include probability estimates of projections • Enhance integration to budget formulation • Improve tracking of internal moves • Reduce time burden on SWP POCs • Improve use of technology 	N/A
2018	<ul style="list-style-type: none"> • Improve communication around process justification • Improve guidance and training around process • Combine workload forecast and demand steps • Align and create consistency between core position titles and competency models • Improve skills and competency proficiency assessments • Workload forecast should account for all work, not just core position titles 	N/A
2019	<ul style="list-style-type: none"> • Align and create consistency between core position titles and competency models • Improve skills and competency proficiency assessments • Improve attrition predictions • Combine workload forecast and demand steps • Replace Agency Environmental Scan with “office environmental scan” that rolls up 	N/A

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- Workload forecast should account for all work, not just core position titles
- Consider how to maintain 5-year projections, but also include a 3-year projection
- Enhance integration to budget formation
- Centralize or integrate related databases
- Improve ticketing systems between OCHCO and offices
- Improve communication of SWP results and utilization

2020	<ul style="list-style-type: none"> • OEDO to distribute initiation memo with environmental scan, justifying development of drivers • “Key Factors and Potential Impact on Workload” to be posted on SWP SharePoint site instead of OEDO • POCs to prepare leadership for HCC discussions related to SWP strategies • Determine if field in SWP Tool “Anticipated Level of Workload Change” is beneficial to offices • Adjust guidance, training, and system documentation to ensure workforce demand done properly • Recommended adjustments to gap analysis report • Update SWP Tool to include fields for office/region strategies, and field to indicate high priority gaps/surpluses based on workload identified during environmental scan. • Request “Employee Journey and Career Horizon’s” WGs develop communication plan to share SWP data across agency, including how to use SWP data to information training, development, and KM 	<ul style="list-style-type: none"> • “Key Factors and Potential Impact on Workload” narrative document submitted to OEDO and discussed at HCC • Workload forecast and demand integrated into single step • Data entry moved from excel spreadsheets to SWP Tool
2021	<ul style="list-style-type: none"> • Streamline the due dates to shorten the process to the extent possible. • Standardize permissions to allow view-only access to all reports for senior leaders (SES), branch chiefs, points of contact (POCs); and technical assistants when requested by the office. • Provide an option to access archived input and results in the SWP data collection system from previous years for comparison (Steps 2, 4, 5) • Improve reports in the SWP data collection system (e.g., a comments field, easier manipulation) as requested and create a dashboard or graphic representation of the information. • Conduct a meeting with POCs, competency model team, and SWP staff to review core positions and agree on a path forward for consistent naming conventions. • Revisit the definition of a core position to inform the proposed addition of Administrative Assistants. 	<ul style="list-style-type: none"> • Improvements to Environmental scan document • Gap prioritization and risk assessment templates discontinued • Strategy and action plan templates discontinued; information entered into SWP Tool

METHODOLOGY

Following a period of background research, including a document review and a series of informational interviews, PRE developed an evaluation plan detailing a mixed-methods approach that leveraged both quantitative and qualitative data to explore a set of evaluation questions. The evaluation questions were developed in collaboration with the NRC to seek to understand the perceived goals and objectives of SWP across the NRC, how SWP is utilized, outcomes of SWP, efforts and resources required of SWP, and opportunities to improve SWP. The full list of evaluation questions is presented in Table 3 in the following section. In addition to a set of evaluation questions, PRE partnered with NRC leaders and SWP process contributors to develop a logic model that describes the primary inputs (e.g., process guidance, key personnel, SWP Tool, competency models, etc.), activities (e.g., Agency Environmental Scan, workload forecast and demand analysis, workforce supply analysis, etc.), outputs (e.g., % of office/region workload forecasts completed, % of branch-level supply analyses completed, % of gap/surplus analyses completed, etc.), and desired outcomes (e.g., positive attitudes and perceptions of process and utility, confidence in reliability and validity of SWP data and analysis, successful utilization of SWP information to enhance organizational performance, etc.) of the NRC's SWP process. The full logic model is presented in Appendix A. The methods described in this section were used to provide answers to the evaluation questions and understand how well the agency is meeting its process objectives as described in the logic model.

Data were collected through multiple methods, including a staff survey, focus groups, and interviews. Pre-existing data sources were also utilized when available. In addition, industry best practices and benchmarking information were investigated to compare the NRC's SWP process against generally accepted human capital management practices and across other federal agencies similar in mission or workforce conditions and characteristics.

SURVEY

Survey Development and Design

A staff survey was developed to align with the evaluation questions and the desired outcomes of the SWP process identified in the logic model. The survey covered the following topics: familiarity with SWP, engagement with SWP, communication about SWP, perceptions and attitudes about SWP, climate and agency support for SWP, agency alignment of SWP, effort and benefit of SWP, perceptions of validity and reliability of SWP data, utilization of SWP data, rotations and job changes, impacts of staffing issues on employee experiences and wellness, and finally, core positions and competency models. In development of the survey, PRE drafted survey questions for each of the survey topics and shared the draft survey with the NRC. The NRC reviewed the survey items and provided feedback to PRE, and PRE made final revisions to the survey based on this feedback.

The survey included both quantitative and qualitative survey items. Many of the quantitative survey items used 5-point Likert scale-type response options (e.g., "Strongly Disagree" [1] to "Strongly Agree" [5] or "Never" [1] to "Very Frequently" [5]). Some survey items included

alternative response options, including “Yes” or “No” and when appropriate, options such as “I do not know/NA” were available as response options as well. The survey was administered by PRE using the Qualtrics platform. All levels of NRC staff were invited to participate, including non-supervisory staff, branch chiefs (including team leaders), senior managers, and SWP POCs. The survey leveraged display logic to customize the survey items presented to respondents based on their role (i.e., non-supervisory staff, branch chief, senior manager, or SWP POC) as well as their responses to prior survey questions. For example, respondents that indicated they had not participated in Step 2 of the SWP process were later filtered out from responding about their satisfaction with Step 2. Items from the survey are included in Appendix B.

Survey Participants

A recruitment strategy for survey participation was developed in collaboration with the NRC based on sampling goals and the consideration of survey participation fatigue, given the SWP survey was distributed along with a separate survey in support of the NRC’s Knowledge Management program evaluation, in addition to other ongoing survey efforts. For offices that participate in SWP activities and contain 50 or fewer NRC employees, 100% of staff were invited to participate in the SWP survey. Four offices fit these criteria, Office of Enforcement (OE), Office of the Executive Director for Operations (OEDO), Office of Investigations (OI), and Office of Small Business and Civil Rights (SBCR). For offices that participate in SWP activities and contain between 51 and 100 NRC employees, 50% of staff were selected at random and invited to participate in the SWP survey. Two offices fit these criteria, Office of the Chief Financial Officer (OCFO) and Office of the General Counsel (OGC). For offices that participate in SWP activities and contain more than 100 NRC employees, 25% of staff were selected at random and invited to participate in the SWP survey. Eleven offices fit these criteria, Office of Administration (ADM), Office of Nuclear Material Safety and Safeguards (NMSS), Office of Nuclear Reactor Regulation (NRR), Office of Nuclear Security and Incident Response (NSIR), Office of the Chief Human Capital Officer (OCHCO), Office of the Chief Information Office (OCIO), Office of Nuclear Regulatory Research (RES), Region I (R-I), Region II (R-II), Region III (R-III), and Region IV (R-IV). To effectively communicate the purpose of the evaluations and encourage staff participation, an introductory email from a staff member of the NRC’s OEDO and follow-up invitation emails from PRE were sent to NRC staff who were randomly selected to participate in the survey. This strategy resulted in about a third (32%) of the agency being invited to participate in the survey (846 of 2,653 total NRC employees).

In most cases, respondents could choose to not respond to a particular survey item, and some items were not displayed to all respondents. For these reasons, the item-level sample size (n) is reported throughout the discussion of the survey data. Note that throughout this report, all agency leaders above the branch chief level will be referred to as “senior managers,” branch chiefs will be referred to as such, and all NRC staff below a branch chief level will be referred to as “non-supervisory staff.” Note that our survey also collected the responses of two team leaders, whose responses were categorized at the front-line supervisor, or branch chief, level. This evaluation also sought the perspectives of staff who were assigned the primary

responsibility of driving the SWP process and compiling the necessary information from branch chiefs for each office or region, referred to as SWP Points of Contact (POCs).

Out of 846 invited NRC employees, 322 participated in the SWP survey, resulting in a 38% participation rate. While a larger sample size may have yielded additional insights, this response rate met our expectations and is in line with the median response rate for emailed surveys in organizational research.⁶ Across the 322 participants, there was representation across employee roles, including non-supervisory staff (65%), branch chiefs (11%), senior managers (20%), and SWP POCs (3%). Additionally, staff across the various office types responded to the survey, including corporate support (20%), policy support (8%), program (45%), regional (26%), and executive (1%)⁷. See Table 2. The average NRC tenure of participants was 16.1 years ($SD = 9.3$).

In terms of representativeness of the survey sample relative to the NRC's full employee population, non-supervisory staff who responded to the survey accounted for 9% of all 2,285 non-supervisory staff at the NRC, branch chiefs who responded represented 20% of the full population of 187 branch chiefs at the NRC, while senior managers who responded represented 39% of the full population of 163 senior managers at the NRC. Readers may observe a skew of increased survey representation among branch chiefs and senior managers when compared to non-supervisory staff. This also conforms to expectations given branch chiefs and senior managers are the NRC employees with the most exposure to, and understanding of, the SWP process. The lack of understanding and participation of non-supervisory staff in the SWP process substantially limited our ability to recruit respondents who could provide meaningful insights. However, among the collective 367 branch chiefs, senior managers, and SWP POCs currently employed by the NRC, and who have the most exposure and knowledge of the SWP process, our survey recruitment efforts managed to capture the views of 30% ($n = 112$).

⁶ Anseel, F., Lievens, F., Schollaert, E., & Choragwicka, B. (2010). Response rates in organizational science, 1995–2008: A meta-analytic review and guidelines for survey researchers. *Journal of Business and Psychology*, 25, 335–349.

⁷ Office groupings listed in Table 2 were provided by the NRC to PRE and include the following classifications: corporate support (ADM, OCFO, OCHCO, OCIO, SBCR); policy support (ACRS, ASLBP, COMM, OCA, OCAA, OGC, OIP, OPA, SECY); program (NMSS, NRR, NSIR, OE, OI, RES); regional (RI, RII, RIII, RIV); and executive (OEDO)

Table 2. Survey sample sizes by role and office type

Role	N	%	Office Type	N	%
Non-Supervisory Staff	211	65%	Corporate Support Office	63	20%
Branch Chiefs	37	11%	Policy Support Office	26	8%
Senior Managers	64	20%	Program Office	146	45%
SWP POCs	11	3%	Regional Office	85	26%
			Executive Office	2	1%

Note. The % column refers to the percentage of participants of the specific group (i.e., branch chiefs, senior managers, non-supervisory staff, SWP POCs) relative to the full sample of survey participants.

Survey Data Analysis

Survey data were analyzed using R and Power BI. Regarding data cleaning, to maximize the amount of data available for interpretation, incomplete survey responses were retained for the analysis as long as the respondent answered at least one survey item. In an effort to exclude survey data from careless responders, data were analyzed to evaluate patterns of straight line responding using the “careless” package in R. Responses with higher values for straight lining were visually inspected to determine whether removal from the dataset was necessary. It was not determined necessary to remove any responses due to straight line responding. Additionally, length of time for survey completion was also reviewed. As expected, respondents with the shortest lengths of survey completion time were displayed relatively fewer survey items based on their organizational role (e.g., non-supervisory staff had the fewest survey items to complete compared to branch chiefs, senior managers, and SWP POCs) and how they responded to survey questions (e.g., staff who indicated that they had not participated in SWP were shown fewer survey items than staff that indicated they had participated in SWP).

Regarding data analysis, quantitative survey data were analyzed using descriptive statistics, including means, standard deviations, and frequencies. Descriptive statistical analysis, as opposed to more advanced statistical methods, were chosen due to the relative immaturity of the SWP process, and subsequent lack of valid and reliable data. This substantially limited our confidence in the usefulness of more advanced statistical tests (e.g., those based on regression) to answer evaluation questions about the accuracy and reliability of staffing predictions made throughout the SWP process. Limitations like availability of data, a lack of process awareness across NRC staff, and inconsistent data entry methods across offices and regions were all factors that were considered when analyzing evaluation data to provide meaningful insights. For example, regarding the issue of data availability, because the purpose of the SWP process is to make longer-term, five-year, staffing and workload projections and that the process was piloted by only three offices or regions in 2017, the accuracy of five-year projections from 2017 (projecting staffing and workload levels of 2022) can only be assessed of these three offices or regions. This limited availability of data diminished the statistical power of our sample, reducing the ability of statistical tests to accurately detect meaningful effects.

Qualitative data generated from open-ended items on the survey were analyzed using a common qualitative data analysis method called thematic analysis. This systematic approach involves the identification and exploration of patterns and themes within the data. The first step of this method included reading and re-reading the text of the responses to open-ended survey items to develop a deep understanding of the content, context, and nuances of the data. Next, an initial list of codes synthesizing all responses was generated. This list of codes was reviewed and refined for parsimony, clarity, and applicability. The text of the open-ended items was reviewed again, and appropriate codes were assigned to each response. Once all the data were coded, codes were clustered into related themes, or broader patterns and concepts that emerged from the coded data. Sums of codes and themes were computed across responses to provide frequency counts of each code and theme and to calculate percentage of agreement across survey responses.

OTHER DATA SOURCES

When available, additional relevant data sources were utilized in the evaluation. These include data used in the SWP process, NRC budget data, and NRC workforce data from OCHCO. Specific analysis methods for each of these data sources are discussed throughout this report as results are presented.

FOCUS GROUPS AND INTERVIEWS

In addition to the survey, semi-structured individual interviews were conducted with senior managers, and focus groups were conducted with groups of SWP POCs, as well as groups of branch chiefs. Three separate sets of questions targeting senior managers, SWP POCs, and branch chiefs were developed with the goal of answering the evaluation questions and to understand programmatic strengths, challenges, and areas for improvement from the unique perspectives of these roles. For interviews, the same set of questions was asked of all senior managers, with the flexibility to ask follow-up questions where appropriate. For focus groups, a moderator posed a question and allowed all participants to express their point of view before moving on to the next question.

Focus Group and Interview Recruitment Strategy

Participants for interviews and focus groups were identified through both random selection and a collaborative process involving the program evaluation team (PRE) and the NRC Contracting Officer Representative (COR). Individual interviews were conducted with randomly selected senior leaders across the NRC who held positions at the deputy division director level and above. This approach was chosen to maximize the availability of senior leaders for participation. Specifically, these individual interviews included office directors, deputy office directors, regional administrators, deputy regional administrators, division directors, deputy division directors, the general counsel, and deputy general counsel. To identify participants, the COR first assisted PRE in selecting a set of individuals who possessed the most awareness or involvement with the SWP process to include in interviews and focus groups. When necessary, SWP POCs were consulted to assist in the identification of suitable participants. To supplement the identified

individuals and increase representativeness of the sample invited to participate, PRE randomly selected additional senior managers. Senior managers from OCHCO and OEDO were also interviewed.

Each office or region's SWP POC was invited to an individual informational interview, followed by a focus group held with other POCs. Additionally, branch chiefs and team leaders were randomly selected to participate in focus groups.

To invite participation, an email describing the evaluation and purpose of the interviews or focus groups was sent directly to selected staff (or their administrative assistants in the case of senior managers) to arrange a scheduled time for the interview or focus group. A total of 20 senior manager interviews were conducted, along with four branch chief focus groups comprised of a total of 10 branch chiefs across focus groups, and five SWP POC focus groups comprised of 15 SWP POCs.

Focus Group and Interview Data Analysis

All interactions with participants from interviews and focus groups were audio-recorded, and subsequently transcribed into Microsoft Word documents. Like the open-ended survey items, transcriptions were used as the raw data for thematic analysis, which was chosen as the primary method for analyzing the qualitative data from focus groups and interviews. Qualitative data from transcriptions were then coded using thematic analysis. Microsoft Excel was used to document codes and themes as well as analyze them for frequencies and patterns. A more detailed description of this methodology is provided in the preceding section on survey data analysis.

FINDINGS

EVALUATION QUESTIONS

The following section presents the primary findings of the SWP process evaluation as they relate to the evaluation questions and outcomes identified in the logic model (see Appendix A). The full list of evaluation questions is provided in Table 3. The findings from the evaluation questions have been organized under five section headings as they relate to SWP process objectives, utilization, outcomes, resources and effort, and process improvements. Findings from the survey, relevant pre-existing NRC data, focus groups and interviews, and document and literature reviews, are presented as they relate to each evaluation question. Note that boundaries between evaluation questions are not always discrete; in some cases, findings presented under the heading of one evaluation question may apply to, and provide information relevant to, other evaluation questions.

Table 3. Full list of SWP evaluation questions

Evaluation Questions
1. <i>To what extent are SWP process objectives known and agreed upon by NRC staff?</i>
2. <i>What do SWP process contributors expect the SWP process to achieve?</i>
3. <i>How are SWP process results utilized?</i>
4. <i>To what extent are SWP process results shared?</i>
5. <i>For each role/group involved, to what extent is the SWP process producing the intended outcomes identified in the logic model?</i>
6. <i>To what extent is participation producing additional and/or unintended outcomes?</i>
7. <i>To what extent do past projections of workload and staffing predict and/or align with current workload, staffing outcomes (e.g., actual staffing levels; formulated and executed budgets), and staffing and competency gaps?</i>
8. <i>To what extent were the assumptions that were utilized in past SWP projections accurate (e.g., workload factors, environmental scan)?</i>
9. <i>To what extent has the SWP process identified or mitigated workforce-related challenges across agency programs?</i>
10. <i>What level of effort does the current SWP process require of contributors?</i>
11. <i>To what extent do SWP process contributors view the current level of effort as appropriate and commensurate with perceived benefits of participation?</i>
12. <i>What training, guidance, and support is available to SWP process contributors and to what extent are these resources utilized and effective?</i>
13. <i>Did past reductions in mission and corporate support staff contribute to current staffing and competency gaps?</i>
14. <i>What SWP process improvements could be made to increase effectiveness and efficiency?</i>
15. <i>How can the extent to which the SWP process is meeting agency objectives and producing intended outcomes be measured over time?</i>

OBJECTIVES OF THE STRATEGIC WORKFORCE PLANNING PROCESS

In order to understand to the extent to which the agency shares a common understanding of the process and goals for SWP, the following evaluation questions were explored:

Evaluation question 1: To what extent are SWP process objectives known and agreed upon by NRC staff?

Evaluation question 2: What do SWP process contributors expect the SWP process to achieve?

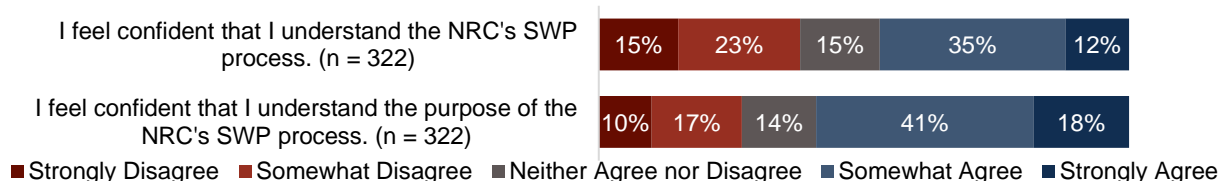
Section Summary

- 1 The majority of NRC staff who participated in the evaluation understand the purpose of SWP, but the level of awareness differs by role, with non-supervisory staff having a more limited understanding.
- 2 Senior managers have a clear understanding of the expected outcomes of the SWP process, but there is less understanding of the expected outcomes by branch chiefs, SWP POCs, and non-supervisory staff.
- 3 NRC staff are mostly familiar with the use of core position titles in the SWP process, but agency consistency versus office or region level flexibility on the definition of core position titles yielded contradictory responses.

Evaluation question 1. To what extent are SWP process objectives known and agreed upon by NRC staff?

As presented in Figure 1, most survey respondents (59%) expressed confidence in their understanding of the *purpose* of the NRC's SWP process, but fewer respondents agreed that they felt confident in understanding the actual process.

Figure 1. Confidence and understanding of the SWP process

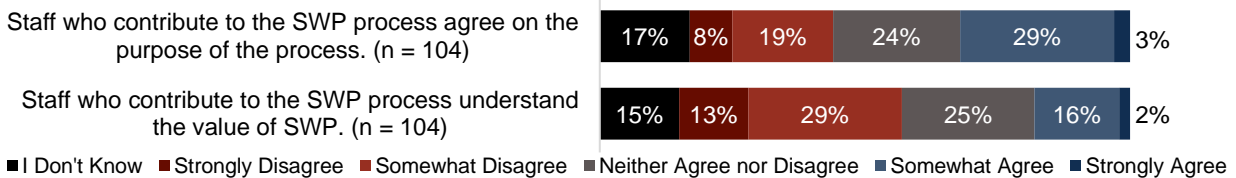


Comparing across roles revealed some differences in understanding, with non-supervisory staff reporting particularly lower confidence in understanding the SWP process ($M = 2.7$). In addition, both non-supervisory staff ($M = 3.1$) and SWP POCs ($M = 3.2$) expressed lower confidence in understanding the purpose of the process (Table 4).

Table 4. Confidence and understanding of the SWP process by role

Item	Non-Supervisory Staff		Branch Chiefs		Senior Managers		SWP POCs	
	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
I feel confident that I understand the purpose of the NRC's SWP process.	211	3.1	37	3.7	63	4.2	11	3.2
I feel confident that I understand the NRC's SWP process.	211	2.7	37	3.5	63	3.9	11	3.6
Note. Strongly Disagree = 1, Somewhat Disagree = 2, Neither Agree nor Disagree = 3, Somewhat Agree = 4, Strongly Agree = 5								

In addition to responding about their own understanding, branch chiefs, senior managers, and SWP POCs ($n = 104$) also shared their perceptions on whether staff understand the purpose and value of SWP (see Figure 2). Most respondents disagreed or responded neutrally as to whether staff understood the purpose and value of the process.

Figure 2. Perceived purpose and value of SWP process

During individual interviews with senior leaders and managers, and in focus groups with branch chiefs and SWP POCs, participants were asked what they expected the process to achieve. Interview and focus group findings generally aligned with survey findings but provided additional context. In all 20 senior manager interviews, at least one outcome identified in the SWP logic model (presented in Table 5) was mentioned, though most identified multiple outcomes expected from the process that aligned with stated objectives of the logic model. In total, senior managers collectively identified 15 different use cases of the SWP process, most or all of which aligned with stated objectives listed within the logic model.

"[The] primary objective is to make sure I have the people where I want them, when I want them and in the right numbers. In other words, I can accomplish the mission not looking out T plus one year but looking out to the horizon. That intermediate horizon is good, but I look at the 5-year horizon because the world is changing a lot."

-Senior manager

Across various branch chief focus groups, there was a general lack of awareness about the objectives of the SWP process, with some showing mixed or a broad understanding of its intended outcome. Participants in three of the four branch chief focus groups stated they were unfamiliar with the expected outcomes of SWP. Similarly, POCs had varying understanding of the SWP process. For example, in three of five SWP POC focus groups, participants said they expected the process to inform staffing plans and strategies or plan around projected attrition. However, in two of five focus groups, SWP POCs admitted to a limited understanding or no awareness of the expected outcomes of SWP. Across focus groups they expressed a lack of clarity regarding the desired outcomes and expectations of the process.

Evaluation question 2. What do SWP process contributors expect the SWP process to achieve?

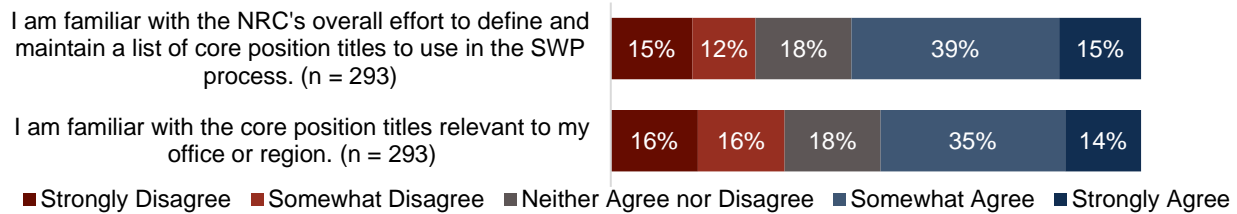
As the primary contributors to the SWP process, senior managers, branch chiefs, and SWP POCs were asked what they expected the SWP process to achieve. Senior managers had a far greater level of awareness into expected process outcomes when compared to branch chiefs and POCs, with all 20 senior managers interviewed referencing at least one outcome from the logic model. The top five expected process outcomes mentioned across roles were 1) inform general staffing plans and strategies; 2) justify hiring decisions and full-time equivalent (FTE) budget requests; 3) prioritize training and developmental activities; 4) plan around projected attrition (retirement eligibility); and 5) balance gaps and surpluses across the agency. See Table 5 for a full list of expected process outcomes mentioned in interviews and focus groups as well as individual counts and percentages of interviews and focus groups where outcomes were mentioned.

Table 5. Expected outcomes of SWP described in interviews and focus groups (FGs)

Expected outcomes of SWP	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Inform general staffing plans and strategies	8 (40%)	1 (25%)	3 (60%)
Justify hiring decisions and FTE budget requests	9 (45%)	1 (25%)	0 (0%)
Prioritize training and developmental activities	9 (45%)	0 (0%)	0 (0%)
Plan around projected attrition (retirement eligibility)	5 (25%)	1 (25%)	3 (60%)
Balance gaps and surpluses across the agency	6 (30%)	0 (0%)	1 (20%)
Allocation and prioritization of staffing resources	5 (25%)	0 (0%)	0 (0%)
Visualize longer-term and/or agency-wide trends	4 (20%)	0 (0%)	0 (0%)
Plan around agency capacity and time to process and develop incoming external hires	3 (15%)	0 (0%)	0 (0%)
Facilitate leadership discussion and staffing decisions	3 (15%)	0 (0%)	0 (0%)
Drive consistency, alignment, and collaboration across agency	2 (10%)	0 (0%)	0 (0%)
Provide roadmaps for staff career planning	2 (10%)	0 (0%)	0 (0%)
Inform succession planning	2 (10%)	0 (0%)	0 (0%)
Develop and drive agency culture of strategic thinking	1 (5%)	0 (0%)	0 (0%)
Inform organizational structural changes	1 (5%)	0 (0%)	0 (0%)
Justify agency decisions and strategy to congress and inspire public confidence	1 (5%)	0 (0%)	0 (0%)
Limited or no awareness into what SWP process is expected to achieve	0 (0%)	3 (75%)	2 (40%)

Familiarity with Core Position Titles

Familiarity with core position titles is an important aspect of the SWP process. The survey assessed the degree to which there was familiarity with core position titles. As shown in Figure 3, about 50% of staff indicated familiarity with the NRC's overall core position titles effort as well as the core position titles relevant to their office or region (n = 293).

Figure 3. Familiarity with core position titles

Respondents who indicated that they were familiar with the NRC's overall effort to define and maintain a list of core position titles for SWP ($n = 160$) were asked to respond to follow-up items regarding core position titles. Specifically, 77% agreed that offices/regions should be consistent in how they identify position titles that are considered core and 81% feel that offices/regions should be able to identify core position titles even if their determination differs from other offices/regions.

This is an interesting pattern of responses as the items are seemingly contrary to each other; one item emphasizes consistency across offices in core position titles and the other item emphasizes customization in core position titles for individual offices. This may suggest that even if NRC staff lean toward agency-wide consistency or office-level flexibility in defining core position titles, there are recognizable advantages and disadvantages to each approach, highlighting the difficulty in achieving the appropriate balance. An alternative explanation for this discrepancy may also lie in respondents' interpretations of the items. In the first item, the question reads "Offices/regions should be consistent regarding how they identify which position titles are considered 'core.'" It may be that respondents interpreted this item to refer to intraoffice/region practices, suggesting that core position titles should be consistent within an individual office, rather than across the agency. The second item reads "Offices/regions should be able to identify which position titles they consider 'core,' even if it differs from other offices/regions." This item reads more clearly in that it refers to inter office/region practices.

UTILIZATION OF THE SWP PROCESS RESULTS

Evaluation questions three and four focused on how the results of the SWP process are used and shared across the agency.

Evaluation question 3: How are SWP process results utilized?

Evaluation question 4: To what extent are SWP process results shared?

Section Summary

1

The majority of survey respondents use SWP data for workforce-related requests and decisions as well as budgetary requests. However, about a third of respondents see no use for SWP data. Branch chiefs are less likely to see a use for SWP data, contrasting with senior managers and SWP POCs who use it for various purposes.

2

While familiar with competency models, most staff don't use them in SWP, indicating a disconnect in integrating these tools into the process.

3

There is limited staff awareness of SWP results and their use in staffing, highlighting the need for user-friendly reports and improved, conversational communication across the agency.

Evaluation question 3. How are SWP process results utilized?

Branch chiefs, senior managers, and SWP POCs ($n = 102$) were asked in the survey to indicate how their office or region uses SWP data across a variety of options (see Table 6). The majority of respondents (56%) indicated that their office or region utilizes SWP data for workforce-related requests and decisions, and 40% of respondents indicated that their office or region utilizes SWP data for budgetary requests and allocations. The least commonly selected option overall was informing/supporting audits. Finally, 31% of respondents indicated they had not seen a use for SWP data. Comparing across roles, branch chiefs in particular were most likely to indicate they had not seen a use for SWP data, with 52% of branch chiefs selecting this response option.

Table 6. Utilization of SWP data by role

My office or region uses SWP data for (please select all that apply):	Branch Chiefs (n = 33)	Senior Managers (n = 59)	SWP POCs (n = 10)	Overall (n = 102)
Budgetary requests and allocations	30%	47%	30%	40%
Corporate support resource allocations	6%	19%	10%	14%
Creating new competency models	24%	22%	20%	23%
Developing programs, courses, or training curricula	6%	27%	20%	20%
Informing knowledge management efforts	12%	39%	30%	29%
Informing/supporting audits	6%	8%	10%	8%
Workforce-related requests and decisions	33%	63%	90%	56%
Other	12%	3%	0%	6%
I have not seen a use for SWP data	52%	24%	10%	31%

Branch chiefs, senior managers, and SWP POCs ($n = 98$) also shared their perceptions around the types of work that SWP data is most useful for (see Table 7). Workforce-related requests and decisions was the most commonly selected (34%) and informing/supporting audits was the least commonly selected option (1%). Comparing across roles, branch chiefs are more often using the data for budgetary requests and allocations (32%) over workforce-related requests and decisions (23%). A separate item that was displayed to only branch chiefs and senior managers ($n = 93$) focused on using SWP information to make data-driven decisions. Only 30% of branch chiefs or senior managers indicated they rely on SWP information to make data-driven decisions.⁸

⁸ Respondents who indicated the “other” option were provided the opportunity to describe use cases that were not reflected in the response options. Of the 6 respondents who replied, 4 responses were re-coded to existing options, 1 responded that they used SWP data for succession planning, and an additional response suggested data were used to justify annual bonuses for senior leaders of the NRC.

Table 7. Most useful applications of SWP data

SWP data are most useful for:	Branch Chiefs (n = 31)	Senior Managers (n = 57)	SWP POCs (n = 10)	Overall (n = 98)
Budgetary requests and allocations	32%	16%	0%	19%
Corporate support resource allocations	3%	2%	20%	4%
Creating new competency models	13%	2%	0%	5%
Development of internally-offered training programs, courses, and curricula	10%	14%	20%	13%
Informing knowledge management efforts	0%	23%	0%	13%
Informing/supporting audits	0%	0%	10%	1%
Workforce-related requests and decisions	23%	39%	40%	34%
Other	19%	5%	10%	10%

An open-ended survey item also allowed senior managers, branch chiefs, and SWP POCs to describe what they felt long-term (5-year) predictions about future working and staffing were most useful for. The 80 responses received to this question varied greatly by role. Overall, while senior managers, branch chiefs, and SWP POCs frequently cited the utility of 5-year projections for general staffing, a significant portion across all groups doubted their utility, primarily due to data inaccuracy and predictive challenges. Interestingly, a few branch chiefs expressed the value of long-term future projections, but said that due to lags in hiring and onboarding, in part because of administrative lags and OCHCO understaffing, these benefits are not realized, generating a lack of motivation to engage in the process. Senior managers, branch chiefs, and POCs also mentioned 5-year predictions being useful for workload projections, providing visibility and transparency into agency direction, supporting recruitment and hiring strategies, and predicting future retirements and attrition.⁹

"For the most part, I think we feed the dragon and it doesn't really give us a lot of fire back out of it."

- Branch chief

⁹ Respondents who indicated the "other" option were provided the opportunity to describe use cases that were not reflected in the response options. Of the 11 respondents who replied, 9 responses were re-coded to existing options, 1 responded that they used SWP data for succession planning, and an additional response suggested data were useful for "all of the above."

STRATEGIC WORKFORCE PLANNING EVALUATION REPORT

A total of 18 unique uses of SWP information and process results were mentioned throughout individual interviews and focus groups. The majority of senior managers, branch chiefs, and POCs from the qualitative data collection activities expressed the view that SWP information had limited or no observable use within their office or region.

Of the senior managers who expressed limited use of SWP information within their offices or regions, most did not provide specific examples of the use of SWP information. Among those who expressed specific use cases of SWP information within their offices or regions, the top five use cases were 1) justify hiring decisions and FTE budget requests; 2) plan around projected attrition (retirement eligibility); 3) visualize longer-term and/or agency-wide trends; 4) plan around agency capacity and time to process and develop incoming external hires; and 5) allocation and prioritization of staffing resources. Precise numbers of mentions and percentages across interviews and focus groups are presented in Table 8.

Table 8. SWP results utilization mentioned in interviews and focus groups (FGs)

SWP results utilization	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Justify hiring decisions and FTE budget requests	10 (50%)	4 (100%)	4 (80%)
SWP results have limited use in my office/region	10 (50%)	3 (75%)	2 (40%)
Plan around projected attrition (retirement eligibility)	5 (25%)	2 (50%)	3 (60%)
Visualize longer-term and/or agency-wide trends	6 (30%)	0 (0%)	3 (60%)
Plan around agency capacity and time to process and develop incoming external hires	5 (25%)	1 (25%)	1 (20%)
Allocation and prioritization of staffing resources	5 (25%)	1 (25%)	0 (0%)
Balance gaps and surpluses across the agency	4 (20%)	0 (0%)	1 (20%)
Prioritize training and developmental activities	4 (20%)	0 (0%)	1 (20%)
Facilitate leadership discussions and staffing decisions	4 (20%)	0 (0%)	0 (0%)
SWP data inputs are too inconsistent, unreliable, and/or too out-of-date to be of use	3 (15%)	1 (25%)	0 (0%)
The perceived usefulness of SWP is inconsistent across offices and levels	2 (10%)	0 (0%)	1 (20%)
SWP results could be beneficial if utilized appropriately	0 (0%)	1 (25%)	2 (40%)
Inform general staffing strategies and plans	2 (10%)	0 (0%)	0 (0%)

SWP results utilization	Senior Managers (<i>n</i> = 20)	Branch Chief FGs (<i>n</i> = 4)	SWP POC FGs (<i>n</i> = 5)
Process improvements have enhanced usefulness of SWP	2 (10%)	0 (0%)	0 (0%)
Justify agency decisions and strategy to congress, the public	1 (5%)	0 (0%)	0 (0%)
Succession planning	1 (5%)	0 (0%)	0 (0%)
Develop and drive agency culture of strategic thinking	1 (5%)	0 (0%)	0 (0%)
SWP results or process have had negative affect	0 (0%)	1 (25%)	0 (0%)

COMPETENCY MODELS

Over half (56%) of survey participants (total *n* = 294) indicated they are familiar with one or more competency models for their office or region. Of those that were familiar with competency models (*n* = 169), the majority (56%) also reported that they understand how the NRC's competency models are related to the SWP process. However, for those that are familiar with competency models and have participated in the SWP process (*n* = 79), the majority (65%) indicated they have not used competency models in the SWP process.

An open-ended survey item asked participants to briefly explain how they use competency models in the SWP process. Among those who responded to the open-ended item, 28% said they used competency models to identify critical skills, skill surpluses and gaps, another 28% used competency models as a general practice, 22% used competency to identify workload requirements, another 22% used competency models to assist with succession planning, training, and hiring, and 16% used competency models to rate proficiency levels of staff. Of all role types who responded to the survey, responses to this open-ended item mostly came from branch chiefs and senior managers.

ROTATIONS AND CROSS-TRAINING

According to the logic model (Appendix A), the SWP process is expected to assist leaders with the "ability to direct staff toward agency needs," and with decisions regarding the "movement of existing staff (permanent and temporary rotations)." In order to understand how rotations and cross-training impact staff experience with the SWP process and to understand the extent to which these experiences have helped fulfill desired outcomes of SWP, survey respondents were asked to share their history with completing rotations at the NRC. Overall, the majority of respondents (60%) reported that they had not completed any rotations in the last five years (see Table 9).

Table 9. Number of staff rotations in the last five years by role

How many rotations have you done at the NRC in the last 5 years, if any? (If you are currently on rotation, please include your current rotation in your count.)	Non-Supervisory Staff (<i>n</i> = 191)	Branch Chiefs (<i>n</i> = 33)	Senior Managers (<i>n</i> = 60)	SWP POCs (<i>n</i> = 10)	Overall (<i>n</i> = 294)
1	18%	15%	35%	20%	21%
2	7%	18%	20%	40%	12%
3	2%	12%	10%	10%	5%
4+	1%	3%	5%	0%	2%
None	72%	52%	30%	30%	60%

Of those that had completed at least one rotation in the past year (*n* = 119), the majority (74%) indicated that rotation assignments helped prepare them for future workload demands. The survey also asked non-supervisory staff and SWP POCs (*n* = 201) whether they had been cross-trained in any other roles at the NRC. Just over half of respondents completed some type of cross-training; 24% reported having been cross-trained in one other role and 29% reported having been cross-trained in multiple roles (Table 10).

Table 10. Staff experiences with cross-training by role

Have you been cross-trained in any other roles at the NRC?	Non-Supervisory Staff (<i>n</i> = 191)	SWP POCs <i>n</i> = 10)	Overall (<i>n</i> = 201)
No	49%	10%	47%
Yes, in one other role	25%	20%	24%
Yes, in multiple roles	27%	70%	29%

Of all survey respondents that reported having been cross-trained (*n* = 107), the majority (72%) reported that the cross-training helped prepare them to support future workload demands. Similarly, the majority of branch chiefs and senior managers (83%) indicated that it has been helpful in preparing their organization to support future workload demands.

Finally, the survey also asked non-supervisory staff, branch chiefs, and senior managers whether they believed SWP information is helpful for planning and prioritizing future developmental activities. Many respondents were unsure; 30% of respondents answered, “Neither Agree nor Disagree” and 15% answered “I Don’t Know” to this item.

In summary, findings from the survey, interviews, and focus groups revealed that SWP data is primarily employed for workforce-related decision-making and budgetary allocation. Interview and focus group findings also identified other use cases for SWP data, including planning for attrition, visualizing long-term trends, and planning around agency capacity to onboard and

develop new staff. Notwithstanding these preferences, perceptions about the reliance on SWP data for data-driven decision-making varied, with a notable proportion expressing uncertainty or disagreement, and a considerable portion of respondents, notably branch chiefs, expressing that they had not seen a practical application for SWP data in their respective offices or regions. The survey also explored the use of competency models in SWP, revealing a degree of familiarity among respondents, but a lack of integration into the SWP process. Competency models were mainly utilized for identifying critical skills, skill gaps, workload requirements, and aiding in succession planning. The findings also illustrated the significance of rotations in preparing respondents for future workload demands, and the positive impact of cross-training on workforce readiness. Finally, these findings identified a degree of uncertainty among respondents regarding the helpfulness of SWP information in planning and prioritizing future developmental activities. Overall, the findings shed light on the varied uses and perceptions of SWP data, underlining the need for more effective integration and communication of its value across the agency, but especially to branch chiefs.

Evaluation question 4. To what extent are SWP process results shared?

In order to understand the extent to which SWP results are shared, non-supervisory staff, branch chiefs, and senior managers were asked within the survey to share the frequency with which they have been made aware of the different types of information relevant to the SWP process in the last 1-1.5 years (see Table 11). On average, respondents were most frequently made aware of future workload changes that could impact the NRC's future staffing levels ($M = 1.5$ out of 4) and future workload changes that could impact their office or region ($M = 1.5$ out of 4).

In contrast, of the options presented, respondents were least often provided with information produced by the NRC's SWP process ($M = 1.2$ out of 4) and training opportunities to address anticipated knowledge or skills gaps across the NRC ($M = 1.2$ out of 4), on average.

Table 11. Frequency of SWP related communications received by survey respondents

The NRC's most recently completed SWP cycle took place from September 2021 through July 2022. Please rate the frequency with which you have been made aware of each of the following since that time (i.e., within the past 1-1.5 years).	<i>n</i>	Mean	<i>SD</i>
Information produced by the NRC's SWP process.	240	1.2	0.9
Future workload changes that could impact my office or region.	248	1.5	1.0
Future workload changes that could impact the NRC's future staffing levels.	247	1.5	1.0
Future gaps in knowledge or skills that are anticipated within my office or region.	251	1.4	1.0
Future gaps in knowledge or skills that are anticipated across the NRC.	254	1.4	1.0
Plans or strategies to confront anticipated gaps in knowledge or skills within my office or region.	255	1.4	1.0
Plans or strategies to confront anticipated gaps in knowledge or skills across the NRC.	253	1.3	0.9
Plans or strategies to respond to anticipated fluctuations in workload within my office or region.	255	1.3	1.0

STRATEGIC WORKFORCE PLANNING EVALUATION REPORT

The NRC's most recently completed SWP cycle took place from September 2021 through July 2022. Please rate the frequency with which you have been made aware of each of the following since that time (i.e., within the past 1-1.5 years).	<i>n</i>	Mean	<i>SD</i>
Training opportunities to address anticipated knowledge or skills gaps in my office or region.	254	1.3	1.0
Training opportunities to address <i>anticipated</i> knowledge or skills gaps across the NRC.	252	1.2	1.0
Contextual factors (e.g., new or closing facilities, new technologies, policies, etc.) that could affect my office or region's future workload.	245	1.4	1.1
Contextual factors (e.g., new or closing facilities, new technologies, policies, etc.) that could affect the agency's future workload.	245	1.5	1.0
<i>Note.</i> Never = 0, Rarely = 1, Occasionally = 2, Frequently = 3, Very Frequently = 4			

Branch chiefs, senior managers, and POCs reported the frequency at which they have shared different types of information relevant to the SWP process in the last 1-1.5 years (see Table 12). On average, respondents have most frequently shared information regarding how their office or region plans to respond to workload fluctuations over the next year ($M = 1.6$ out of 4). In contrast, they have least often shared action items arising from the SWP process ($M = 1.2$ out of 4) and results from the SWP process ($M = 1.2$ out of 4).

Table 12. Frequency of SWP related communication provided by survey respondents

The NRC's most recently completed SWP cycle took place from September 2021 through July 2022. Please rate the frequency with which you have personally shared each of the following with staff in your office or region since that time (i.e., within the past 1-1.5 years).	<i>n</i>	Mean	<i>SD</i>
Shared information regarding what the NRC's SWP process entails.	101	1.3	0.9
Shared the goals and purpose of the SWP process.	101	1.4	0.9
Shared results from the SWP process.	100	1.2	1.0
Shared action items arising from the SWP process.	98	1.2	0.9
Shared information regarding how my office or region plans to respond to workload fluctuations over the next year.	97	1.6	1.1
Shared information regarding how my office or region plans to respond to workload fluctuations over the next five years.	98	1.4	1.0
<i>Note.</i> Never = 0, Rarely = 1, Occasionally = 2, Frequently = 3, Very Frequently = 4			

"I don't think we communicated SWP very well. I don't really think we give our folks a good understanding of what it is, why we do it. I don't think we're consistent in our communication of SWP...and what that information is going to be used for."

- Senior manager

Interview and focus group findings shed light on the effectiveness of communication around the SWP process and results utilization within the agency (See Table 13). Senior managers expressed concern about insufficient communication, with 17 of 20 indicating that communication around SWP was lacking in some way. A substantial number of branch chief focus groups and POC focus groups had at least one participant who also shared this sentiment. Additionally, 30% of the senior managers interviewed, 100% of branch chief focus groups, and 80% of SWP POC focus groups noted that the utilization of SWP results was not being effectively communicated to branch chiefs and staff. While it was expressed that communication around the utilization of SWP results was insufficient, some respondents found communication to be sufficient in certain aspects. For example, 25% of senior manager interviews, 50% of branch chief focus groups, and 100% of POC focus groups acknowledged aspects of communication that were working. These aspects included sufficient communication and support from OCHCO's staff lead to support the implementation of SWP steps (15% of senior manager interviews, 50% of branch chief focus groups, and 80% of SWP POC focus groups), and upward communication from branch chiefs and SWP POCs to senior managers on the results of the process (25% of branch chief focus groups and 100% of SWP POC focus groups).

Some other themes that emerged included insufficient communication from agency leadership to branch chiefs and staff, the need for SWP reports to be more user-friendly, and inconsistent communication across offices. Overall, the findings emphasized the importance of effective communication in conveying the justification for SWP and making SWP strategies more visible agency-wide, suggesting that a more conversational approach might be beneficial in enhancing SWP communication.

Table 13. Interview and focus group (FG) responses related to the communication of SWP process and utilization

Communication of SWP process and utilization	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Communication around SWP is insufficient in some way(s)	16 (80%)	4 (100%)	4 (80%)
Utilization of SWP results not communicated effectively to branch chiefs and staff	6 (30%)	4 (100%)	4 (80%)
Insufficient communication from agency leadership to branch chiefs and staff	3 (15%)	4 (100%)	3 (60%)
Justification for SWP not communicated effectively to branch chiefs and staff	4 (20%)	2 (50%)	1 (20%)
SWP reports could be improved to be more useful (more accessible, user-friendly)	0 (0%)	2 (50%)	4 (80%)
Communication is inconsistent across offices	3 (15%)	0 (0%)	0 (0%)
More visibility into agency-wide SWP strategies is needed	0 (0%)	2 (50%)	1 (20%)
More conversational communication would benefit SWP	1 (5%)	0 (0%)	0 (0%)
Communication around SWP is sufficient in some way(s)	6 (30%)	3 (75%)	5 (100%)
Sufficient communication and support around completing steps of SWP process	3 (15%)	2 (50%)	4 (80%)
SWP results communicated effectively upwardly to and among leadership	0 (0%)	1 (25%)	5 (100%)
Office/region SWP POCs effective as champions of SWP	4 (20%)	0 (0%)	0 (0%)

Taken together, the survey results and findings from focus groups and interviews suggest that staff are infrequently made aware of the results of the SWP process or the utilization of those results by agency leaders to address staffing or workload needs. Other findings highlight the need for SWP reports to be more user-friendly, and that communication is inconsistent across offices, and that a more conversational approach might be beneficial in enhancing SWP communication.

OUTCOMES OF THE SWP PROCESS

Evaluation questions 5-9 focus on understanding the outcomes of the SWP process as identified in the program logic model.

Evaluation question 5: For each role/group involved, to what extent is the SWP process producing the intended outcomes identified in the logic model?

Evaluation question 6: To what extent is participation producing additional and/or unintended outcomes?

Evaluation question 7: To what extent do past projections of workload and staffing predict and/or align with current workload, staffing outcomes (e.g., actual staffing levels; formulated and executed budgets), and staffing and competency gaps?

Evaluation question 8: To what extent were the assumptions that were utilized in past SWP projections accurate (e.g., workload factors, environmental scan)?

Evaluation question 9: To what extent has the SWP process identified or mitigated workforce-related challenges across agency programs?

Section Summary

- 1** Responses vary regarding the effectiveness of the SWP process in meeting desired outcomes, with branch chiefs rating it less useful than senior managers and SWP POCs. Long-term staffing and workload forecasts are generally seen as beneficial.
- 2** A significant number of participants express dissatisfaction with the SWP process, with senior managers slightly more satisfied than other groups. This indicates potential gaps in meeting staff expectations and needs.
- 3** Doubts about the accuracy of long-term projections and a disconnect between SWP efforts and perceived benefits are evident, highlighting inefficiencies.
- 4** The evaluation revealed significant staffing shortages, with a majority of employees experiencing increased workload and stress, leading to heightened instances of burnout among staff, especially among branch chiefs and more experienced staff.

Evaluation question 5. For each role/group involved, to what extent is the SWP process producing the intended outcomes identified in the logic model?

The evaluation sought to determine the degree to which the SWP process is fulfilling desired outcomes listed within the logic model (included in Appendix A), which included both short-term and long-term outcomes. The short-term outcomes listed within the logic model include 1) reactions and perceptions to the SWP process, 2) confidence in reliability and validity of SWP

data and analyses, 3) knowledge of SWP process and results, 4) agency-level alignment, 5) utilization of SWP data, 6) leader-specific experiences, 7) agency-level performance indicators, 8) staffing, and 9) continuous improvement of SWP. Of the nine short-term outcomes listed within the logic model, the evaluation yielded information relevant to all but one, agency-level performance indicators. This short-term outcome included elements like the ability to meet key human capital indicators, improved quarterly HRStat metrics, ability to meet fiscal year FTE goals, and requested annual budget secured. Qualitative data collected from interviews and focus groups indicated branch chiefs, senior managers, and SWP POCs are interested in furthering the use of SWP data to meet these goals, but data were unable to be linked directly to the SWP process. The evaluation team worked closely with OCHCO, OCFO, and other offices to acquire data to assess these outcomes, but limited availability of data and barriers to directly linking the available data with SWP prevented full evaluation of these outcomes.

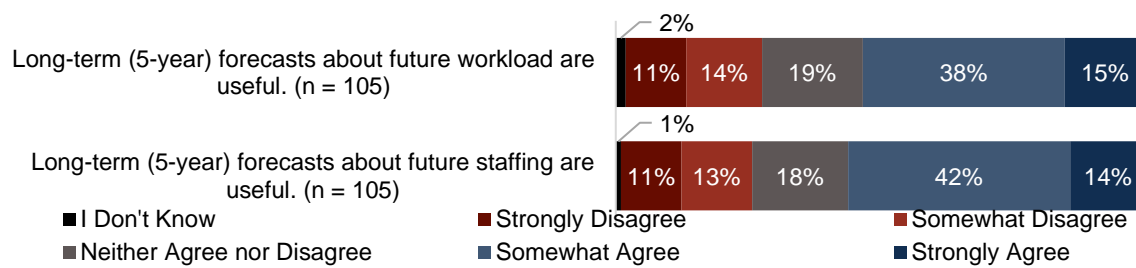
The three long-term outcomes alluded to in the logic model include: 1) organizational functioning and performance, 2) employee experiences, and 3) confidence of external parties in NRC's ability to execute its mission. Of these three long-term outcomes, the evaluation yielded information relevant to the first two, but did not assess the degree to which the SWP process contributes to the confidence of external parties in NRC's ability to execute its mission. It is worth noting that the NRC recognizes the need, and is engaged in independent efforts, to more appropriately measure and assess external stakeholder confidence in the agency's effectiveness, so the ability to establish a link between the SWP process and external stakeholder confidence will become strengthened in the near future.

Findings relevant to some of the short-term and long-term outcomes identified in the logic model were addressed within other sections of this report, and where applicable, the reader is directed to the appropriate section to avoid unnecessary repetition.

Reactions and Perceptions of Usefulness

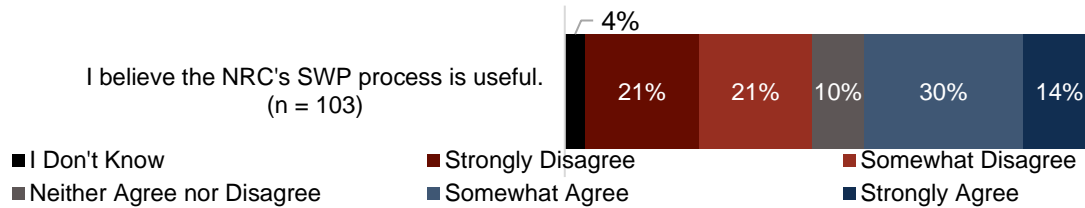
The logic model listed reactions and perceptions of NRC staff on the usefulness of the SWP process as a short-term outcome. To this point, branch chiefs, senior managers, and SWP POCs ($n = 105$) were asked to respond to survey items about the usefulness of long-term forecasts about staffing and future workload. A clear majority of respondents agreed that these forecasts are useful as shown in Figure 4.

Figure 4. Perceived utility of long-term (5-year) workload and staffing forecasts



Branch chiefs, senior managers, and SWP POCs were also asked to indicate within the survey whether they believe the NRC's SWP process is useful ($n = 103$). In contrast to the results about long-term forecasts for staffing and workload being useful, the response was much more mixed regarding usefulness of the NRC's SWP process (see Figure 5).

Figure 5. Beliefs about the usefulness of the SWP process



Comparing the response to this item across roles, on average, branch chiefs ($M = 2.5$) rated the SWP process to be less useful than did SWP POCs ($M = 2.8$) and senior managers ($M = 3.2$). See Table 14.

Table 14. Beliefs about the usefulness of the SWP process by role

	Branch Chiefs		Managers		SWP POCs	
Item	n	Mean	n	Mean	n	Mean
I believe the NRC's SWP process is useful.	33	2.5	60	3.2	10	2.8
Note. Strongly Disagree = 1, Somewhat Disagree = 2, Neither Agree nor Disagree = 3, Somewhat Agree = 4, Strongly Agree = 5						

Interview and focus group findings regarding the usefulness of long-term (5-year) staffing and workload projections revealed a range of perspectives. The majority of senior managers, branch chiefs and POCs view the 5-year projections as useful and as an appropriate timeframe for projections. However, the degree of their usefulness differed somewhat by role, with senior managers finding the 5-year projections most useful of the groups included in data collection. There was a subset of individuals in all discussions who expressed the view that 5-year projections have limited or no usefulness.

"I find that more senior-level managers appreciate the data they get out of it than the first-line supervisors and staff who are like, "Why are we doing this?" but it is a very strategic tool. I can understand why it's that way. For me, I think it's worked really well."

- Senior manager

Challenges with long-term projections were also identified, with some respondents finding attrition (retirement and voluntary) difficult to predict. Concerns were raised about the reliability and accuracy of 5-year projections, with nearly half of senior managers and SWP POCs questioning their precision. Notably, some senior managers also indicated that failure to act on accurate long-term projections had caused staffing challenges. It was also noted that precision accuracy should not be expected of 5-year projections by senior managers and a recognition that other inputs and environmental factors should be considered in projection calculations. A full accounting of perspectives offered in interviews and focus groups is presented in Table 15.

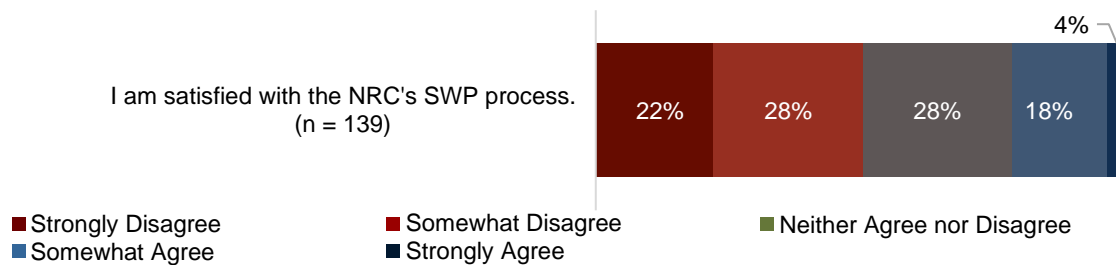
Table 15. Interview and focus group (FG) responses to questions about the usefulness of long-term (5-year) staffing and workload projections

Usefulness of long-term (5-year) staffing and workload projections	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Perceived Usefulness	18 (90%)	3 (75%)	5 (100%)
5-year projections considered useful	15 (75%)	3 (75%)	5 (100%)
Projections have been accurate	0 (0%)	1 (25%)	1 (20%)
Projections necessary to adequately develop incoming staff to proficiency	3 (15%)	0 (0%)	0 (0%)
Concerns and Limitations	16 (80%)	4 (100%)	4 (80%)
Limited or no usefulness due to unpredictability	4 (20%)	2 (50%)	3 (60%)
Difficulty in predicting attrition	4 (20%)	0 (0%)	2 (40%)
Questionable reliability and accuracy	8 (40%)	1 (25%)	2 (40%)
Accuracy should be regularly evaluated	1 (5%)	0 (0%)	3 (60%)
Projection accuracy is unknown	1 (5%)	1 (25%)	0 (0%)
Insights and Strategic Actions	10 (50%)	0 (0%)	1 (20%)
Failure to act on projections caused staffing challenges	4 (20%)	0 (0%)	0 (0%)
Precision accuracy should not be expected of 5-year projections	3 (15%)	0 (0%)	0 (0%)
Other inputs and environmental factors should be considered in projection calculations	2 (10%)	0 (0%)	0 (0%)
Attrition viewed valuable to project	1 (5%)	0 (0%)	1 (20%)

Regarding the perceived value of resources allocated to complete SWP, note that survey data related to this outcome is discussed in more detail in the Effort and Resources section. Overall, many survey respondents disagreed that the process was worth the time and effort required. Branch chiefs rated the SWP process to be less useful than did POCs and senior managers. Additionally, POCs shared perspectives regarding specific steps of the SWP process, and the response pattern clarifies that specific steps are seen to be more worthy of the necessary effort than others. More specifically, receiving instructions from OCHCO staff was most highly rated, while some of the later steps in the SWP process (i.e., Step 5 and Step 6) received lower ratings.

All survey respondents that have participated in the SWP process ($n = 139$) were asked to share their satisfaction with the overall process. Half of respondents indicated they were not satisfied with the SWP process as shown in Figure 6.

Figure 6. Satisfaction with the SWP process



Comparing across roles, senior managers who responded to the survey indicated more satisfaction toward the SWP process ($M = 2.9$) than non-supervisory staff ($M = 2.4$), branch chiefs ($M = 2.1$), and SWP POCs ($M = 2.5$). See Table 16.

Table 16. Satisfaction with the SWP process by role

	Non-Supervisory Staff		Branch Chiefs		Senior Managers		SWP POCs		Total	
Item	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean
I am satisfied with the NRC's SWP process.	47	2.4	30	2.1	52	2.9	10	2.5	139	2.5
Note. Strongly Disagree = 1, Somewhat Disagree = 2, Neither Agree nor Disagree = 3, Somewhat Agree = 4, Strongly Agree = 5										

Survey respondents that have participated in the SWP process ($n = 139$) shared their satisfaction with specific steps of the SWP process. On average, respondents were most satisfied with Step 1: Set Strategic Direction (Agency Environmental Scan) ($M = 3.3$). Satisfaction with the process decreased with preceding steps, and the step with the lowest

amount of satisfaction was Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans ($M = 2.6$). See Table 17.

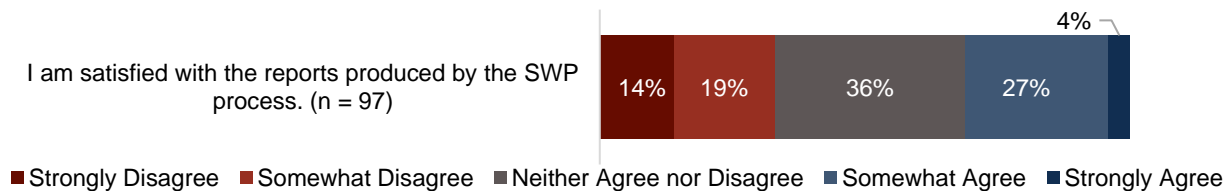
Table 17. Satisfaction with the SWP process by process step

I am satisfied with the following steps of the SWP process:	<i>n</i>	Mean	SD
Step 1: Set Strategic Direction (Agency Environmental Scan)	84	3.3	1.0
Step 2: Workload Forecast and Workforce Demand Analysis	110	3.1	1.1
Step 3: Workforce Supply Analysis	99	3.1	1.1
Step 4: Gap Analysis and Risk Assessment	103	3.0	1.1
Step 5: Develop and Execute SWP Strategies	91	2.7	1.2
Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans	85	2.6	1.1

Note. Strongly Disagree = 1, Somewhat Disagree = 2, Neither Agree nor Disagree = 3, Somewhat Agree = 4, Strongly Agree = 5

Respondents who had responded affirmatively to the question “I have read reports generated by the SWP process,” were also asked about their satisfaction with these reports. As shown in Figure 7, satisfaction with the reports produced by the SWP process was mixed among survey participants. For example, 31% of respondents indicated being satisfied, 36% expressed a neutral view, and 33% expressed dissatisfaction.

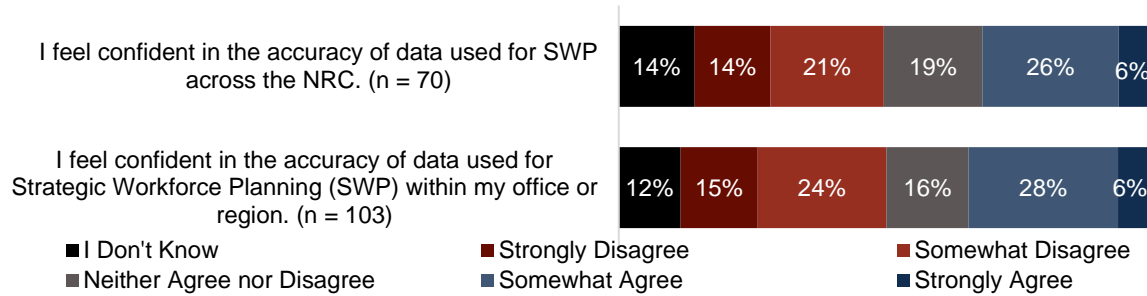
Figure 7. Satisfaction with SWP reports



Confidence in reliability and validity of SWP data and analyses

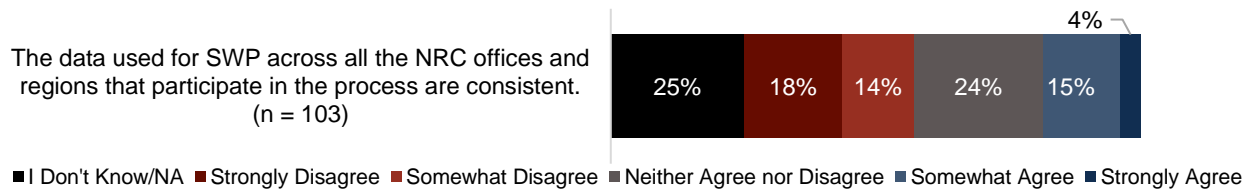
Another short-term outcome listed in the logic model dealt with perceptions of reliability and validity of SWP data and analyses. As shown in Figure 8, survey participants had varying levels of confidence regarding the accuracy of SWP data within their office or region and across the NRC. The following questions were only displayed to participants who answered previous survey items assessing their familiarity with and involvement in inputting and/or reviewing SWP data in the SWP Tool. As such, these findings would reflect the views of SWP POCs and some branch chiefs and senior managers; in general, non-supervisory staff would not have seen or responded to survey questions dealing with the accuracy or utility of SWP data. (Note: branch chiefs only responded about their office or region, not the NRC overall).

Figure 8. Confidence in the accuracy of SWP data



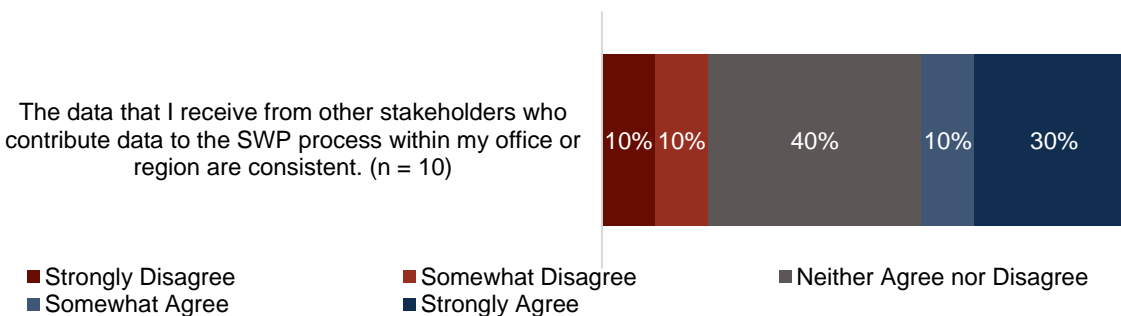
Similarly, survey participants ($n = 103$) had mixed reports regarding the consistency of how SWP data are used across NRC offices and regions (see Figure 9).

Figure 9. Perceived consistency of SWP data



SWP POCs ($n = 10$) also responded to the survey item “The data that I receive from other stakeholders who contribute data to the SWP process within my office or region are consistent.” Forty percent (40%) of respondents selected “Neither Agree nor Disagree” to this item (see Figure 10).

Figure 10. SWP POC's Perceived consistency of SWP data received from others



Among the senior managers, branch chiefs, and SWP POCs who responded to an open-ended survey item asking if there were specific types of data used for SWP that seemed inconsistent or less consistent, the most frequently mentioned response was “I Don’t Know,” mentioned by 37% of respondents ($n = 49$). An additional 20% of respondents indicated that skill proficiency assessments were inaccurate and 14% of respondents centered claims of data inaccuracy or inconsistency around core position titles. Other responses mentioned limitations of the SWP Tool for accounting for staff skills across positions or functions, as well as inconsistencies across offices regarding general methods of inputting data. Respondents also mentioned the

inaccuracy of attrition-based predictions due to a failure to account for attrition factors other than retirement, and treating retirement eligibility as an accurate marker for actual retirement.

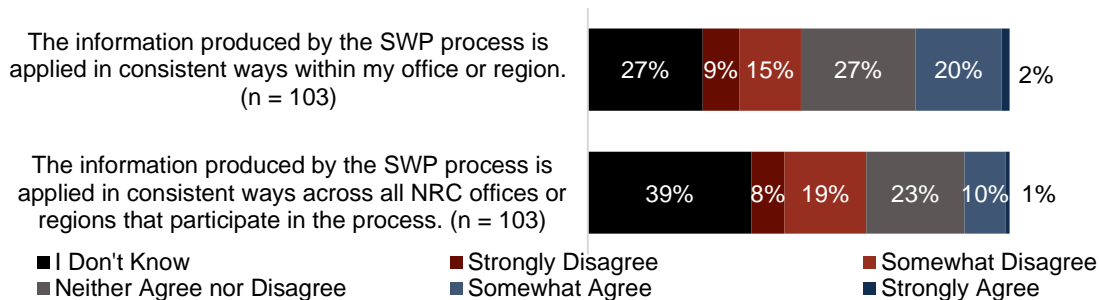
Knowledge of SWP Process and Results

Another short-term outcome of the SWP process listed within the logic model was concerned with the NRC staff's knowledge of the process and its results. Note that data relevant to this outcome is discussed in Question 5, under the "Understanding SWP Process and Purpose" heading, as well as in Question 14.

Agency-Level Alignment

Branch chiefs, senior managers, and SWP POCs ($n = 103$) responded to two survey items regarding the consistency of application of SWP data. Most respondents were unclear as to whether information produced by SWP is applied in consistent ways within their office/region as well as across the NRC, as presented in Figure 11.

Figure 11. Consistency in application of SWP information



Utilization of SWP Data

Utilization of SWP data was another short-term outcome listed within the logic model. Data relevant to this outcome is discussed in the section for Question 3 related to utilization of SWP data and Question 9 related to the use of SWP data to mitigate workforce-related challenges.

Leader-Specific Experiences

Leader-specific experiences, such as the ability to make data-driven decisions, ability to plan ahead, and a desire to engage in future SWP, were identified as another short-term outcome within the logic model. Survey respondents rated whether leadership – including direct supervisors and agency senior leaders – were strategic and future-focused regarding several key areas relevant to SWP. The lowest rated item for both direct supervisors and agency senior leaders was succession planning ($M = 3.6$). Additionally, direct supervisors were rated more highly on average compared to agency senior leaders across the various areas (see Table 18).

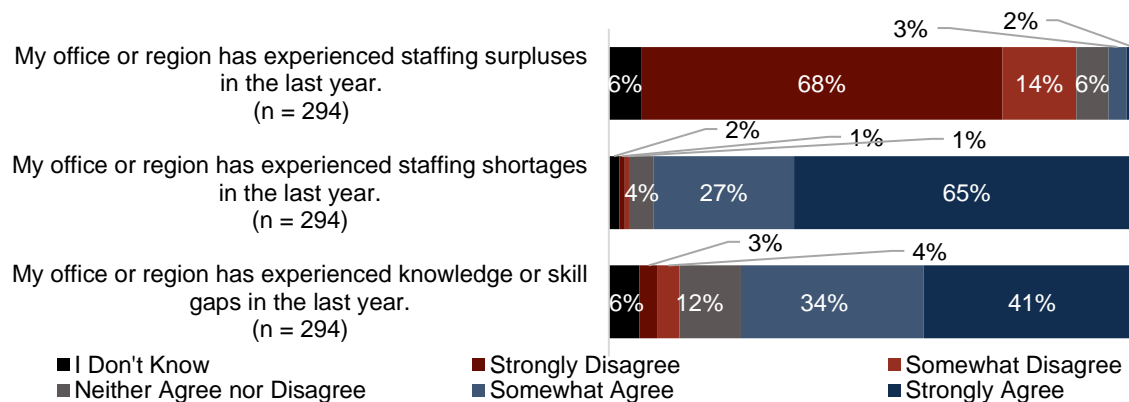
Table 18. Perceptions of strategic focus and future orientation of direct supervisors and senior leaders

My direct supervisor is strategic and future-focused when it comes to:	N	Mean	SD
Meeting workload demands	297	3.8	1.2
Recruitment and hiring	297	3.9	1.2
Rotational assignments	297	3.9	1.2
Succession planning	297	3.6	1.2
Training and employee development	297	3.9	1.1
Agency senior leaders (e.g., office/region-level management and above) are strategic and future-focused when it comes to:	N	Mean	SD
Meeting workload demands	237	3.1	1.4
Recruitment and hiring	237	3.2	1.4
Rotational assignments	237	3.4	1.2
Succession planning	237	3.0	1.3
Training and employee development	237	3.2	1.3

Note. Strongly Disagree = 1, Somewhat Disagree = 2, Neither Agree nor Disagree = 3, Somewhat Agree = 4, Strongly Agree = 5

Staffing

Staffing based short-term outcomes, like applicant flows, rotational assignments, and retention/attrition were also identified within the logic model. To evaluate the outcome of staffing, survey respondents (n = 294) were asked whether their office or region experienced 1) knowledge or skill gaps, 2) staffing shortages, and 3) staffing surpluses in the last year. Many respondents strongly agreed that their office or region experienced knowledge or skill gaps (41%) and staffing shortages (65%). The majority of respondents strongly disagreed that their office or region experienced staffing surpluses (68%). See Figure 12.

Figure 12. Experiences of staffing surpluses, shortages, and knowledge and skills gaps

Continuous Improvement of SWP

Continuous improvement of the SWP process was also considered a short-term outcome of the SWP process and is discussed in the Introduction section and Table 1, which summarizes lessons learned that were captured within internal NRC documents produced at the end of each cycle from 2017-2022.

Organizational Functioning and Performance

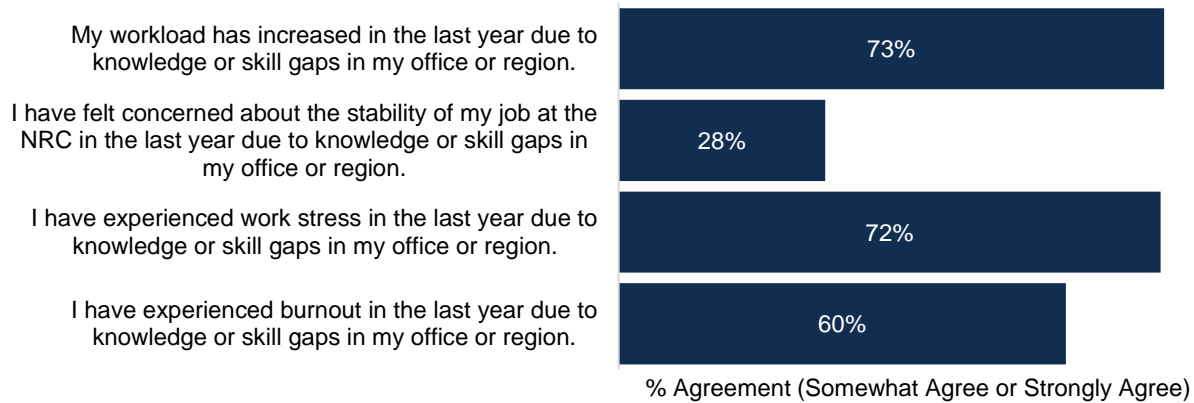
The degree to which the SWP process has impacted organizational functioning and performance was a long-term outcome identified within the logic model and is discussed in the section for Question 3, relevant to the utilization of SWP data, and the section for Question 9, which describes how SWP data has been used to mitigate workforce-related challenges. It is worth noting that the capacity to link SWP process elements with long-term, distal outcomes grows as the process matures.

Employee Experiences

Another long-term outcome identified within the logic model pertained to employee experiences, such as the ability to make informed career and developmental decisions, perceptions of NRC as an organization, and engagement, motivation, morale, well-being, and job attitudes. A central theme that came out of the evaluation related to these outcomes dealt with the staffing shortages the agency is currently facing. Survey respondents that indicated that their office or region experienced knowledge or skill gaps, staffing shortages, and/or staffing surpluses in the prior year responded to additional items regarding the impact of these occurrences on specific employee outcomes, (see Figure 13). Increased workload (73%) was the item with the highest agreement rating as an outcome of knowledge or skill gaps ($n = 221$), followed by work stress (72%).

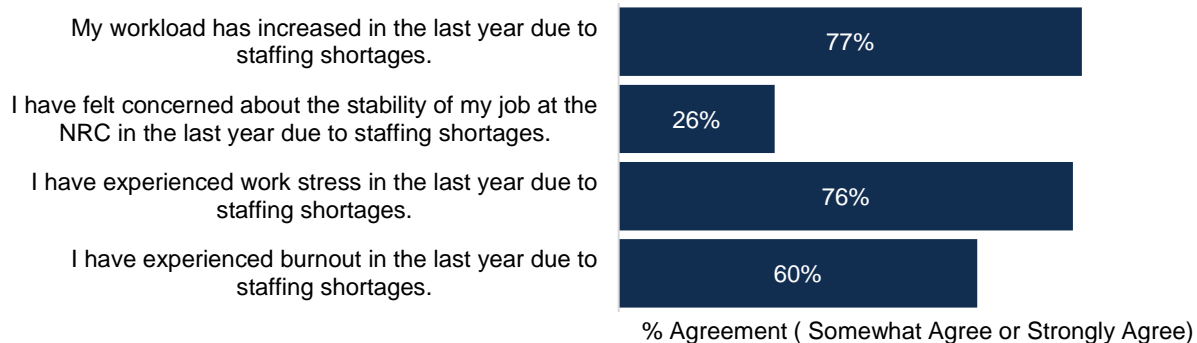
Most respondents agreed that they experienced **burnout** in the last year due to staffing shortages and knowledge or skills gaps (60%)

Figure 13. Experiences with workload, job security, stress, and burnout due to knowledge or skills gaps



Increased workload (77%) and work stress (76%) were also endorsed most often as outcomes of staffing shortages ($n = 269$). See Figure 14.

Figure 14. Experiences with workload, job security, stress, and burnout due to staffing shortages



A large proportion of survey respondents also agreed they experienced burnout due to knowledge and skills gaps (60%, $n = 132$ of 221) and staffing shortages (60%, $n = 161$ of 269). Additionally, respondents rated job stability concerns with the least amount of agreement in terms of knowledge or skills gaps (28%) or staffing shortages (26%) leading to this outcome. Regarding outcomes of staffing surpluses, few people responded to these items ($n = 17$), due to few participants indicating their office or region experienced staffing surpluses in the previous year. The majority of survey respondents disagreed or were neutral as to whether staffing surpluses caused any of the outcomes listed.

An open-ended survey item provided respondents the opportunity to express any other ways in which staffing shortages have impacted their work experiences. Out of all the open-ended items on the survey, this question received by far the most responses and generated the most qualitative survey data ($n = 128$). Moreover, and unlike other open-ended items which were driven mostly by senior managers, branch chiefs, and SWP POCs, the responses to this item

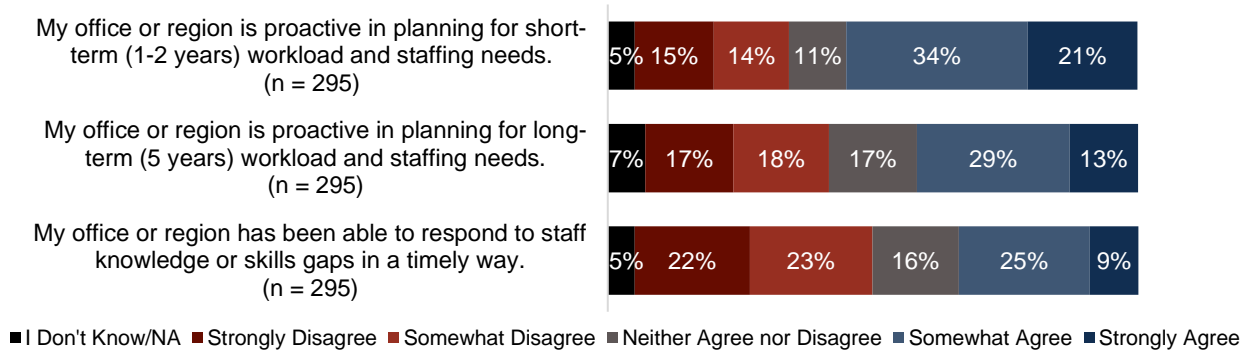
were largely driven by non-supervisory staff ($n = 79$), generating 62% of the responses. Senior managers represented 24 responses, making up 19%, branch chiefs contributed 21 responses, comprising 16%, and SWP POCs accounted for 3% ($n = 4$) of the responses.

"Currently, I am still trying to manage workload with limited resources. I am having extreme difficulty restoring lost resources due to gaps in training and experience within and outside the agency. I can't plan until I restore."

-Branch chief

Negative impacts of staffing shortages were noted among respondents, including general work overload, which was mentioned by 42% of all respondents. About a quarter (27%) of respondents noted decreased job satisfaction or a loss of trust in agency leadership. This decline in staff morale was also noted by branch chiefs, who mentioned making efforts to support and buoy their staff, but often feeling unequipped to do so. Several participants (23%) noted that staffing shortages were not the only issue, but that the new staff joining the NRC are under skilled and require time and attention to develop, further burdening existing staff capable or positioned to develop agency newcomers. Several responses (20%) also indicated a marked decrease in the quality of their own work and the work of others, and significant delays in completing work. An additional 19% of respondents also mentioned experiencing stress, anxiety, and burnout due to staffing shortages. While some expressed feeling accustomed to heavy task loads, others (15%) mentioned intentions to seek employment outside the agency, noting that many others have already left due to burnout. An additional 15% of respondents mentioned a need to work nights and weekends, reduce vacation or time off, and a reduced sense of work-life balance.

Respondents ($n = 295$) indicated whether they felt their office or region is proactive and timely in its response to challenges including workload and staffing needs and knowledge or skills gaps (see Figure 15). Many respondents agreed that their office or region is proactive in planning for short-term (1-2 years) workload and staffing needs, though the agreement was less strong regarding longer-term workload and staffing needs. Additionally, the greatest amount of disagreement was regarding offices'/regions' ability to respond to staff knowledge or skills gaps in a timely way.

Figure 15. Office or region level proactivity and responsiveness to workload and staffing needs

Additionally, respondents ($n = 294$) rated the extent to which they have considered leaving the NRC due to stress or burnout associated with staffing-related issues. Over a third of respondents agreed with this item; 15% ($n = 45$) responded “Strongly Agree” and 21% ($n = 62$) responded “Somewhat Agree.”

Finally, only 32% of respondents ($n = 294$) agreed that their office or region has plans to ensure their workload stays manageable regardless of future shifts in overall agency needs and priorities.

Evaluation question 6. To what extent is participation producing additional and/or unintended outcomes?

The evaluation did not yield many findings related to this question, though it was asked of all participants during the senior manager interviews and branch chief and SWP POC focus groups. The vast majority of individuals said that they were unaware of any additional or unintended outcomes of the SWP process. Of the few responses indicating any unintended outcome, it was noted that inconsistency in the utilization of SWP across offices and regions of the NRC was creating staffing inequities. In other words, offices that leaned more into SWP strategies as justification for budget requests may have received more resources than those that did not use SWP data, which may have created staffing imbalances, with staffing shortages that were more pervasive in some offices or regions over others. It was also suggested that sometimes out-of-date SWP information, which may have indicated a lack of a particular staffing need, may have been used as justification for withholding resources that, based on current conditions, were needed. Taken together, these two comments from focus groups and interviews suggest that increased consistency in utilization of SWP results across offices and regions as well as the capability of updating SWP information more frequently may alleviate these unintended or negative outcomes of the SWP process.

"We spent a lot of time at the decision point arguing about whether we were going to expend the resource here or here. Sometimes that became very unfair because maybe the person wasn't particularly prepared for that meeting, and yet it turns out that's really where we needed to make the hiring decision, let's say, as opposed to some other place where someone was maybe more clever in how they made their argument in the meeting."

-Senior manager

Evaluation question 7. To what extent do past projections of workload and staffing predict and/or align with current workload, staffing outcomes (e.g., actual staffing levels; formulated and executed budgets), and staffing and competency gaps?

To examine the extent that past projections of workload and staffing predict or align with current staffing outcomes, 5-year demand projections from the FY17 SWP cycle were compared to actual staff supply from the FY22 SWP cycle. In FY17, SWP was piloted across three offices (i.e., OCFO, RES, and R-II), so only data from these three offices were available for the comparison. Additionally, because there were changes in core position titles from FY17 to FY22, the core position titles were reviewed carefully to ensure only core position titles that were included in FY17 projections were used in the analysis to ensure that appropriate comparisons were made. SWP POCs for each office provided additional input when needed regarding changes in core position titles over the years to ensure core position titles were aligned appropriately from FY17 to FY22.

Overall, the total staff demand across the three offices (i.e., OCFO, RES, and R-II) in FY17 was 329 staff, while only 268 staff were actually supplied in FY22. See Table 19. Across offices, divisions, and core position titles, a total of 27 projections were made. In total, only 15% of FY22 supply counts were within 10% of the projections from the FY17 demand data. A much greater portion (59%) of the FY22 staffing supply data were within 30% of the FY17 projections.

In addition to these comparisons, Table 20 takes the proficiency level data into account. When including proficiency level in the mix, 135 projections are considered. Of the FY22 supply data, 44% of staffing supply counts were within 10% of the FY17 demand. There are important limitations to note when considering the proficiency level in the analysis; staff involved with the SWP process shared perceptions that the proficiency level used in the SWP process is not consistent or accurate across roles. Additionally, the data in these cases may be inflated as there were many proficiency levels across core position titles in which zero staff were projected to be needed.

Table 19. FY17 projected staff demands relative to FY22 staff supply

Offices Included in FY17 SWP Pilot	Total Staff Demand FY17	Total Staff Supply FY22	Total Projections by Division & Core Position Title	FY22 Supply within 10% of FY17 Demand Projections	FY22 Supply within 20% of FY17 Demand Projections	FY22 Supply within 30% of FY17 Demand Projections
OCFO	70	58	5	20%	60%	80%
RES	102	133	13	8%	38%	54%
R-II	157	77	9	22%	33%	56%
Total	329	268	27	15%	41%	59%

Table 20. FY17 projected staff demands relative to FY22 staff supply factoring for proficiency level

Offices Included in FY17 SWP Pilot	Total Staff Demand FY17	Total Staff Supply FY22	Total Projections by Division, Core Position Title, & Proficiency Level	FY17 Demand Projections within 10% of FY22 Supply	FY17 Demand Projections within 20% of FY22 Supply	FY17 Demand Projections within 30% of FY22 Supply
OCFO	70	58	25	24%	24%	24%
RES	102	133	65	51%	52%	57%
R-II	157	77	45	44%	47%	47%
Total	329	268	135	44%	45%	47%

Evaluation question 8. To what extent were the assumptions that were utilized in past SWP projections accurate (e.g., workload factors, environmental scan)?

An assumption that is utilized in SWP projections is that staff at the NRC typically retire five years after their retirement eligibility date. To examine the extent to which this assumption is accurate, NRC staff separation data from FY16-22 were analyzed to better understand retirement patterns in relation to staff retirement eligibility dates. More specifically, for staff separations that were typed as retirements, the average amount of time between staff retirement eligibility dates and actual retirement dates was calculated. Over the period of FY16-22, the average NRC retiree retired 4.5 years after their retirement eligibility date (see Table 21). However, the average amount of time has increased in more recent years; in the time between FY16-19 the average amount of time to retire was 4.1 years after the retirement

eligibility date, but between FY20-22, the average amount of time to retire was 5.3 years after the retirement eligibility date.

Table 21. Average time to retire after retirement eligibility date by year

Average Time to Retire After Retirement Eligibility Date										
FY	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 16-19	FY 20-22	Overall (FY16-22)
Average Time (In Years)	4.0	3.6	4.6	4.2	4.9	4.9	5.6	4.1	5.3	4.5

Another assumption of SWP is that the major source of attrition in the NRC is due to retirement. Analysis of the separation data by separation type confirmed this assumption (see Table 22); between FY 2016 and FY22, 61% to 69% of attrition was due to retirement. However, although the majority of attrition is due to retirement, a sizeable portion (~1/3) of NRC staff leave for other reasons; between FY16-22, 31% to 39% of attrition was attributed to reasons other than retirement (e.g., transfers and resignations).

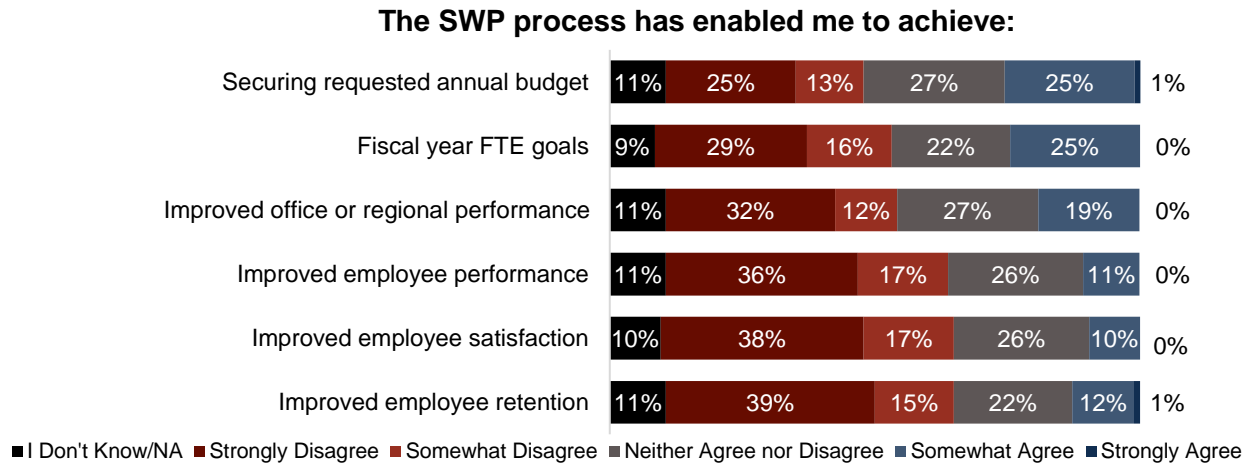
Table 22. Attrition numbers by year and type of separation

FY	Total Separations	Start of FY Headcount	Overall Attrition Rate	Attrition Due to Retirement	Other Attrition
2016	348	3615	10%	66%	34%
2017	213	3314	6%	61%	39%
2018	166	3105	5%	61%	39%
2019	185	2956	6%	69%	31%
2020	181	2802	6%	66%	34%
2021	166	2726	6%	69%	31%
2022	242	2679	9%	64%	36%

Evaluation question 9. To what extent has the SWP process identified or mitigated workforce-related challenges across agency programs?

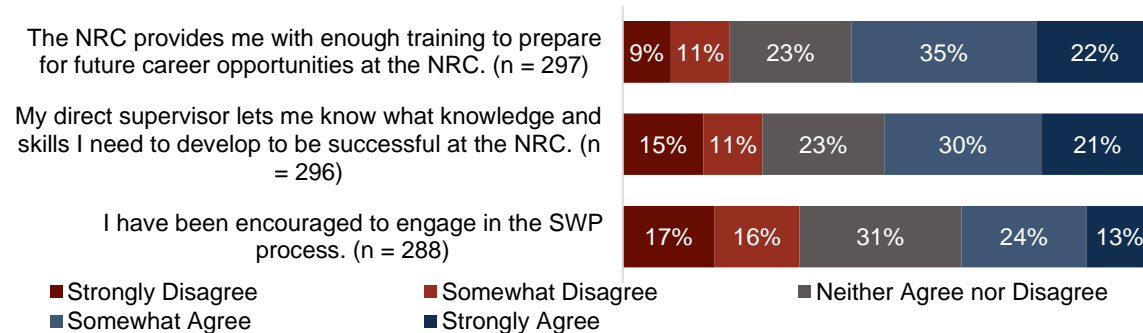
Branch chiefs and senior managers ($n = 94$) were asked in the survey whether SWP has enabled them to achieve several workforce-related outcomes. Very few survey respondents strongly agreed that SWP helped them achieve any of the outcomes, and the majority of respondents disagreed or responded neutrally for each outcome. See Figure 16.

Figure 16. Workforce outcomes SWP enabled senior leaders and branch chiefs to achieve



Regarding climate and agency support for SWP, survey respondents were split on whether they have been encouraged to engage in the SWP process (Note: SWP POCs did not respond to this item). In contrast, respondents had a higher rate of agreement regarding their direct supervisor's role in sharing the knowledge and skills needed, as well as regarding the NRC providing sufficient training and development. See Figure 17.

Figure 17. Sufficiency of training opportunities and experiences offered



RESOURCES AND EFFORT REQUIRED FOR SWP PROCESS

Evaluation questions 10-13 focus on the resources and effort required to support and implement the SWP process.

Evaluation question 10: What level of effort does the current SWP process require of contributors?

Evaluation question 11: To what extent do SWP process contributors view the current level of effort as appropriate and commensurate with perceived benefits of participation?

Evaluation question 12: What training, guidance, and support is available to SWP process contributors and to what extent are these resources utilized and effective?

Evaluation question 13: Did past reductions in mission and corporate support staff contribute to current staffing and competency gaps?

Section Summary

- 1 Nearly half of survey respondents have participated in SWP, with involvement varying by role. Step 2, workload forecasting- had the highest level of engagement.
- 2 On average, contributors to the process spend 10% of their time on SWP tasks, increasing to 19% during peak involvement. Branch chiefs report the highest time commitment.
- 3 SWP process contributors find aligning and creating consistency with SWP data most labor-intensive. Training on SWP process or SWP Tool is viewed as very labor-intensive.
- 4 Many respondents, especially branch chiefs, question the worth of the SWP process relative to time and effort. SWP POCs rate communication from OCHCO as most valuable.

Evaluation question 10. What level of effort does the current SWP process require of contributors?

The first step in addressing this question was to establish the sample of survey participants who contribute to the SWP process. A total of 47% of survey respondents ($n = 152$ out of 322) indicated that they have participated in the NRC's SWP process, and 52% of respondents ($n = 167$ out of 320) reported that they have contributed information that is used in the SWP process. Fewer respondents have been involved with the SWP Tool and associated reports; only 33% of respondents ($n = 104$ out of 320) reported that they have personally entered information into the SWP Tool and only 32% ($n = 101$ out of 313) reported that they have read reports generated by the SWP process.

STRATEGIC WORKFORCE PLANNING EVALUATION REPORT

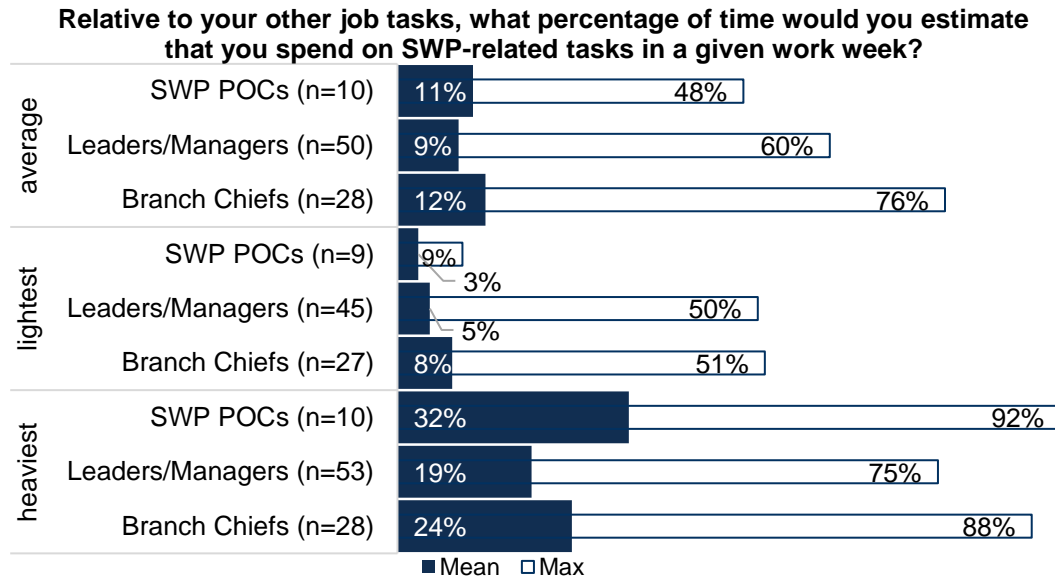
Respondents who indicated they had participated in SWP were asked to rate their level of involvement with each step of the SWP process as presented in Table 23. The results revealed the highest level of involvement with Step 2 (Workload Forecast and Workforce Demand) and the lowest level of involvement with Step 1 (Set Strategic Direction). Naturally, involvement varied by role, with non-supervisory staff reporting the lowest levels of involvement and the SWP POCs reporting the highest levels of involvement on average.

Table 23. Mean involvement with the individual steps of the SWP process

Please rate your level of involvement with the following steps of the SWP process:	Non-Supervisory Staff		Branch Chiefs		Senior Managers		SWP POCs		Overall	
	<i>n</i>	Mean	<i>n</i>	Mean	<i>n</i>	Mean	<i>n</i>	Mean	<i>n</i>	Mean
Step 1: Set Strategic Direction (Agency Environmental Scan)	45	0.6	31	1.3	60	1.9	11	2.6	147	1.4
Step 2: Workload Forecast and Workforce Demand Analysis	47	0.9	33	2.4	61	2.3	11	3.6	152	2.0
Step 3: Workforce Supply Analysis	44	0.7	31	2.5	59	2.2	11	3.5	145	1.9
Step 4: Gap Analysis and Risk Assessment	48	0.8	33	2.2	60	2.3	11	3.5	152	1.9
Step 5: Develop and Execute SWP Strategies	48	0.6	32	1.6	59	2.2	10	3.2	149	1.6
Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans	48	0.6	33	1.4	61	2.0	10	2.6	152	1.5
Note. Not at All Involved = 0, Slightly Involved = 1, Moderately Involved = 2, Involved = 3, Very Involved = 4										

Figure 18 presents the average percentage of time branch chiefs, senior managers, and SWP POCs spend on SWP tasks during their lightest level of involvement with SWP, and during their heaviest level of involvement with SWP. On average, respondents indicated that they spent about 10% of their time in a given work week doing SWP tasks, with about 9% of their time during their lightest level of involvement and about 19% of their time during their heaviest level of involvement. The percentage of time varied by role, with branch chiefs reporting the greatest percent of time spent on SWP tasks on average and senior managers with the least percent of time spent on SWP tasks on average.

Figure 18. Estimated percentage of time dedicated to SWP-related tasks in a given work week during heaviest, lightest, and average level of involvement by role



To better understand the total amount of staff resources spent during SWP, the estimates of time were translated to work hours for branch chiefs, senior managers, and SWP POCs (see Table 24). For example, branch chiefs reported that, on average, they spent about 12% of their time on SWP-related tasks in a given work week, which would translate to approximately 4.9 hours per week. These estimates for hours per week by role were then multiplied by the total number of NRC staff in each role. For example, the “on average” estimate of 4.9 hours per week for branch chiefs was multiplied by the total number of branch chiefs at the NRC (i.e., 187). This resulted in estimates of the total number of NRC staff hours in an average, light, and heavy week of SWP involvement. On an average week, branch chiefs, senior managers, and SWP POCs spend over 1,500 hours on SWP-related tasks, and they may spend over 3,200 hours in total during periods of the heaviest involvement with SWP. Hours per year were also estimated for each role. Using the average estimates, on an annual basis, branch chiefs, senior managers, and SWP POCs spend approximately 59,805 hours total on SWP-related tasks.

Table 24. Extrapolated number of hours dedicated to SWP-related tasks per week and year by role

Relative to your other job tasks, what percentage of time would you estimate that you spend on SWP-related tasks in a given work week...						
...on average?						
	% of Time in SWP	Hours Per Week	Hours Per Year	Total Staff	Total Staff Hours Per Week on SWP	Total Staff Hours Per Year on SWP
Branch Chiefs	12%	4.9	189.2	187	912.6	35,384.5
Senior Managers	9%	3.4	131.8	163	554.2	21,489.1
SWP POCs	11%	4.2	162.9	18	75.6	2,931.4

Relative to your other job tasks, what percentage of time would you estimate that you spend on SWP-related tasks in a given work week...						
...on average?						
Total	-	12.5	483.9	368	1,542.4	59,805.0
...during your lightest level of involvement with SWP?						
	% of Time in SWP	Hours Per Week	Hours Per Year	Total Staff	Total Staff Hours Per Week on SWP	Total Staff Hours Per Year on SWP
Branch Chiefs	8%	3.0	117.9	187	568.5	22,042.8
Senior Managers	5%	1.8	69.8	163	293.4	11,376.6
SWP POCs	3%	1.2	45.0	18	20.9	809.6
Total	-	6.0	232.7	368	882.8	22,357.1
...during your heaviest level of involvement with SWP?						
	% of Time in SWP	Hours Per Week	Hours Per Year	Total Staff	Total Staff Hours Per Week in SWP	Total Staff Hours Per Year on SWP
Branch Chiefs	24%	9.7	375.3	187	1810.2	70,189.0
Senior Managers	19%	7.4	288.5	163	1212.7	47,023.2
SWP POCs	32%	12.8	497.9	18	231.1	8,961.7
Total	-	30.0	1161.7	368	3,254.0	126,173.9

Note. To calculate hours per week, the % of Time in SWP was multiplied by 40 (FTE hours per week). To calculate hours per year, the % of Time in SWP was multiplied by 1,551 (FTE hours per year).

In addition, SWP POCs ($n = 10$) were asked how labor-intensive specific components of the SWP process were. Of the available options, “aligning and creating consistency with SWP data provided by stakeholders” was rated as the most labor intensive, while “entering data into the SWP Tool” was rated as the least labor intensive, comparatively. In addition to the four options provided, an “other (describe)” option was available for participants to fill in additional SWP-related tasks and rate in terms of labor intensiveness. Two fill-in responses were received, and these were reviewed qualitatively and determined to correspond to the same theme, which was, “training staff and/or branch chiefs on the SWP process or tool.” Both respondents rated this task as very labor intensive. See Table 25.

Table 25. Perceptions of labor intensiveness of aspects of the SWP process

How labor intensive does each of the following aspects of the SWP process feel to you?	n	Mean
Aligning and creating consistency with SWP data provided by stakeholders	10	2.6
Collecting data from stakeholders	10	2.5
Entering data into the SWP Tool	10	1.7
Generating reports and communicating findings	10	2.1

Note. Not at All Labor Intensive = 0, Somewhat Labor Intensive = 1, Moderately Labor Intensive = 2, Labor Intensive = 3, Very Labor Intensive = 4

Evaluation question 11. To what extent do SWP process contributors view the current level of effort as appropriate and commensurate with perceived benefits of participation?

As shown in Figure 19, most branch chiefs, senior managers, and SWP POCs ($n = 103$) did not agree that the NRC's SWP process is worth the time and effort it takes. Comparing the response to this item across roles, it was found that on average, branch chiefs ($M = 2.2$) rated the SWP process to be less useful than SWP POCs ($M = 2.5$) and senior managers ($M = 3.0$). See Table 26.

Figure 19. Percentage agreement value perceptions of the SWP process relative to time burden to perform the process by role

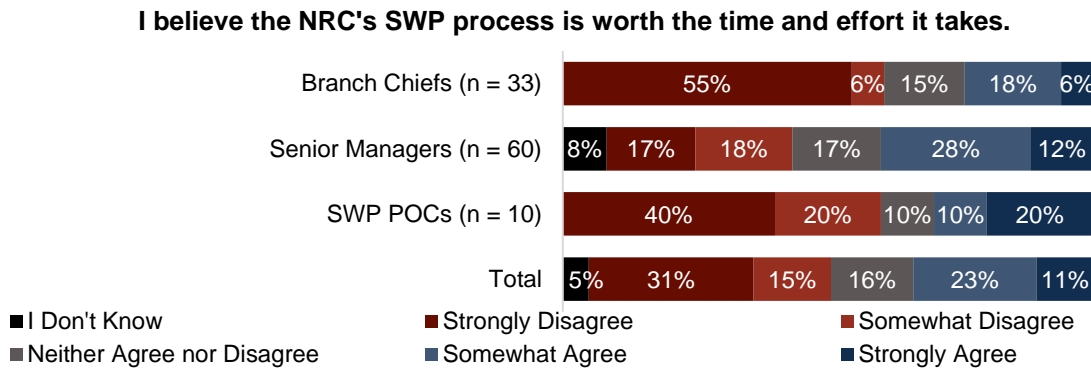


Table 26. Mean agreement perceptions of SWP process worth relative to time burden to perform the process by role

	Branch Chiefs		Senior Managers		SWP POCs		Total	
Item	N	Mean	N	Mean	N	Mean	N	Mean
I believe the NRC's SWP process is worth the time and effort it takes.	33	2.2	60	3.0	10	2.5	103	2.7
Note. Strongly Disagree = 1, Somewhat Disagree = 2, Neither Agree nor Disagree = 3, Somewhat Agree = 4, Strongly Agree = 5								

SWP POCs ($n = 10$) rated each component of the SWP process regarding whether it was worth the time required to complete it. Respondents most strongly agreed that receiving instructions or communication from OCHCO or OCHCO's SWP lead was worth the time it took ($M = 4.3$). Conversely, Step 6 (Monitor, Evaluate, and Revise SWP Strategies and Action Plans) was rated as least worth the time required ($M = 2.4$). See Table 27.

Table 27. SWP POC perceptions of SWP process worth relative to time burden by process step

Relative to the benefits derived from the SWP step, it is worth the time it takes to complete...	N	Mean	SD
Communicating with branch chiefs, team leaders, or senior leaders about the SWP process and its results	10	2.9	1.6
Receiving instructions or communication from OCHCO/[the SWP staff lead]	10	4.3	1.3
Step 1: Set Strategic Direction (Agency Environmental Scan)	10	3.6	1.4
Step 2: Workload Forecast and Workforce Demand Analysis	10	3.3	1.4
Step 3: Workforce Supply Analysis	10	3.1	1.6
Step 4: Gap Analysis and Risk Assessment	10	3.0	1.7
Step 5: Develop and Execute SWP Strategies	10	2.6	1.6
Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans	10	2.4	1.5
<i>Note.</i> Strongly Disagree = 1, Somewhat Disagree = 2, Neither Agree nor Disagree = 3, Somewhat Agree = 4, Strongly Agree = 5			

The required effort relative to the utility of the SWP process was discussed more frequently within branch chief and SWP POC focus groups when compared to senior managers interviews. This pattern is logical given the finding that branch chiefs and SWP POCs tend to carry the heaviest load during the process. A theme that emerged was the association between SWP process knowledge gaps and feeling burdened by the process. Feedback suggested that a lack of knowledge regarding SWP steps and tools increased the perceived burden. Relatedly, there was a call for greater and more formal training and guidance to reduce the burden associated with relearning how to use the SWP Tool or perform process steps.

"Well, it requires a lot of resource input and not a lot of output of quality. You don't get much out of it unless you try to go feed into it. It's a resource sync on both ends but- the input information as well as going in and looking for stuff."

- Branch chief

Regarding process improvements, five of the twenty senior managers and three of the four branch chief focus groups believed that SWP should be improved to increase its benefits and reduce the associated effort. Of respondents who expressed a view on whether the SWP process was worth the effort, two senior managers and three branch chief focus groups found SWP not worth the effort relative to the perceived benefits, whereas three senior managers and one SWP POC focus group thought otherwise.

Enhancing the visibility and application of SWP results emerged as a common concern, with three senior managers and three branch chief focus groups emphasizing its importance for perceptions of process usefulness. Furthermore, the role of branch chiefs in SWP was a subject of discussion, with some participants believing that branch chief involvement is necessary and beneficial for SWP success. Finally, there were suggestions to improve agency capacity for implementing SWP strategies to reduce the burden and increase process utility. However, two of the five SWP POC focus groups described branch chiefs not being heavily involved with SWP in their offices or regions, suggesting that SWP was primarily driven by technical assistants and senior managers. Additionally, it is worth noting that two SWP POC focus groups acknowledged the responsiveness and supportiveness of OCHCO and OEDO contacts in alleviating the sense of burden. Percentages and counts are presented in Table 28.

Table 28. Interview and focus group (FG) responses regarding SWP process effort relative to utility

SWP process effort relative to utility	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Branch chiefs carry most of the burden of SWP	4 (20%)	1 (25%)	4 (80%)
Lack of SWP process knowledge (e.g., how to complete steps, navigate SWP Tool) increases sense of burden	3 (15%)	1 (25%)	4 (80%)
SWP should be improved to increase benefits and reduce effort	5 (25%)	3 (75%)	0 (0%)
Provide greater/more formal training and guidance around SWP to reduce	1 (5%)	2 (50%)	4 (80%)
Relative to perceived benefits, SWP is not worth the effort	2 (10%)	3 (75%)	3 (60%)
Increased visibility and demonstration of application of SWP results	3 (15%)	3 (75%)	0 (0%)
Relative to perceived benefits, SWP is worth the effort	3 (15%)	0 (0%)	1 (20%)
Lack of visibility or awareness of SWP results utilization increases sense of burden	2 (10%)	2 (50%)	0 (0%)
Branch chief involvement is necessary and/or beneficial to SWP	3 (15%)	0 (0%)	0 (0%)
Improve agency capacity to carry out SWP strategies	1 (5%)	1 (25%)	0 (0%)
Branch chiefs not heavily involved with SWP (i.e., driven by technical assistants, SWP POCs, senior managers)	0 (0%)	0 (0%)	2 (40%)
OCHCO and OEDO contact(s) are responsive and supportive, alleviate sense of burden	0 (0%)	0 (0%)	2 (40%)

Evaluation question 12. What training, guidance, and support is available to SWP process contributors and to what extent are these resources utilized and effective?

Just over half (53%) of branch chiefs, SWP POCs, and non-supervisory staff that have participated in the SWP process (total $n = 82$) indicated they have received training related to the SWP Tool and 50% of these individuals indicated they were satisfied with the training.

Qualitative data collection activities with senior managers, SWP POCs, and branch chiefs suggested that this gap in formalized training was adding to process burdens and inconsistency across offices. Conversely, ad hoc and informal guidance provided by SWP POCs to branch chiefs or others directly involved with the process or from OCHCOs SWP staff lead were responsive, available, and very helpful for learning and completing steps of the process. It was noted that if self-guided formal training and step-by-step guides were made available, it would likely reduce the burden of those responding to requests for guidance and support, create more consistency across offices, and improve reliability and validity of SWP data inputs.

Evaluation question 13. Did past reductions in mission and corporate support staff contribute to current staffing and competency gaps?

The Transforming Assets into Business Solutions (TABS) Task Force was established following Commission direction to “reduce the duplication of efforts in corporate support and office support areas” (p. 3) in August of 2010.¹⁰ The TABS provided a final report of recommendations in May of 2011, which included recommendations to streamline and centralize many corporate support functions. Additionally, Section 102(e) of the Nuclear Energy Innovation and Modernization Act (NEIMA) sets requirements that limited NRC resources to be utilized for corporate support staff. More specifically, limitations were set to the percentages of the budget that the NRC could allocate towards corporate support, with the limitation starting in FY21 and regular planned decreases in later fiscal years. In an October 2021 NEIMA report, the NRC detailed the challenges associated with capping the budget for corporate support, including the need to delay or reduce funding other important areas.¹¹ Further, the NRC reported that additional challenges were expected in coming years as the corporate support staff budget percentage declines further.

The NRC budget from FY17 to FY23 was reviewed to better understand the number of FTE budgeted for each fiscal year and the proportion of those FTE that were corporate support (see Table 29). As can be seen, the number of budgeted corporate support FTE has declined from FY17 to FY23, though the decline has occurred at a rate that is fairly proportional to the number of overall budgeted FTE (i.e., 22% of FTE were corporate support in FY17 while 20% of FTE were corporate support staff in FY23).

¹⁰ “Transforming Assets into Business Solutions Task Force Report,” dated May 2011.

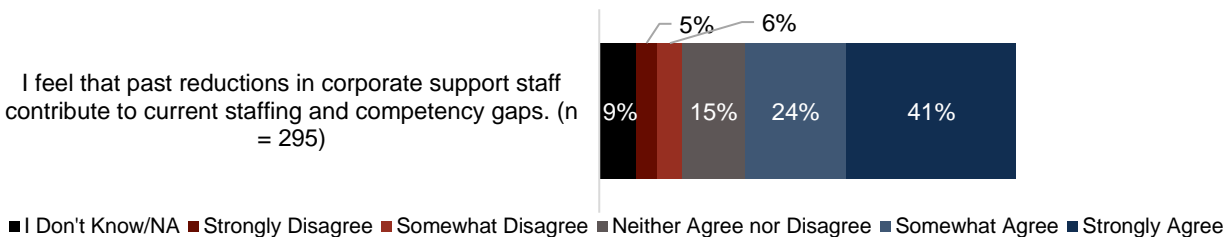
¹¹ “Nuclear Energy Innovation and Modernization Act (NEIMA)—Implementation, Impacts, and Recommendations for Improvement of the U.S. Nuclear Regulatory Commission’s Annual Budget Justification; Fees and Charges; Performance and Reporting; and Accurate Invoicing,” issued October 2021 (ML21237A033).

Table 29. Number of total FTE budgeted and number corporate support FTE budgeted by year

	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Budgeted FTE	3,333	3,123	3,043	2,907	2,805	2,818.2	2,859.6
Budgeted FTE that are Corporate Support	717	617	609	611	588	577	579
Proportion of Budgeted FTE that are Corporate Support	22%	20%	20%	21%	21%	20%	20%

To examine the relative impact of reductions in corporate support staff, a question was added to the survey, and interview and focus group participants were asked to weigh in on how these reductions have impacted the SWP process and utilization of results.

Most survey respondents (65%) agreed that past reductions in corporate support staff contribute to current staffing and competency gaps (see Figure 20; total $n = 295$).

Figure 20. Perceptions of corporate support reductions impact on current staffing and competency gaps

Our examination into the impacts of reductions in mission and corporate support staff, drawing insights from senior manager interviews ($n = 20$), branch chief focus groups ($n = 4$), and SWP POC focus groups ($n = 5$), reveals significant concerns and perspectives regarding these reductions. See Table 30. Notably those involved in qualitative data collection efforts acknowledged that reductions in mission and corporate support staff have had a negative impact on their office or region, which underscores the widespread concern regarding these reductions. Reduced capacity to execute SWP strategies, such as recruitment, hiring, onboarding, and training to meet workload demands were prevalent concerns, and reductions in corporate support staff were associated with an increased task and work overload for program and mission-critical staff.

Participants shared that the efficiency and quality of administrative tasks suffered, reflecting the broader impact on operations. Reduced corporate support also contributed to increased attrition, turnover, and intentions to leave the NRC for employment opportunities elsewhere, and candidate processing delays hindered the ability to compete for a limited talent supply. The reduction in staff morale, increased work-related stress, and potential burnout were shared along with corporate support and administrative staff who expressed experiencing an increased

task and work overload. The reduced productivity of mission-critical work was a concern with some acknowledging a limited negative impact of corporate support reductions on their office or region, and others sharing concerns with reduced capacity for strategic and future-focused thinking or finding efficiency measures unhelpful, often exacerbating burdens and draining resources. These findings provide a comprehensive understanding of the multifaceted impact of corporate support reductions on different aspects of the organization.

Table 30. Impacts of reductions in mission and corporate support staff discussed in interviews and focus groups (FGs)

Impacts of reductions in mission and corporate support staff	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Corporate support reductions have had a negative impact within my office or region	13 (65%)	3 (75%)	1 (20%)
Reduced capacity to execute SWP strategies (i.e., recruit, hire, onboard, train) to meet workload demand	12 (60%)	3 (75%)	1 (20%)
Program and mission critical staff experiencing increased task and work overload	7 (35%)	2 (50%)	1 (20%)
Reduced efficiency and quality of administrative tasks	4 (20%)	2 (50%)	1 (20%)
Contribute to increased attrition, turnover, and/or turnover intentions	2 (10%)	3 (75%)	1 (20%)
Candidate processing delays reduce ability to compete for limited talent supply	1 (5%)	3 (75%)	1 (20%)
Reduced staff morale, increase work stress, and/or burnout	3 (15%)	2 (50%)	0 (0%)
Corporate support and administrative staff experiencing increased task and work overload	0 (0%)	3 (75%)	1 (20%)
Reduced productivity of mission critical work	2 (10%)	2 (50%)	0 (0%)
Corporate support reductions have had a limited negative impact on my office or region	4 (20%)	0 (0%)	0 (0%)
Reduced capacity for strategic and future-focused thinking	2 (10%)	0 (0%)	0 (0%)
Efficiency measures unhelpful, often exacerbate burdens and drain resources	1 (5%)	1 (25%)	0 (0%)

Impacts of reductions in mission and corporate support staff	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Helped focus on most critical work	1 (5%)	0 (0%)	0 (0%)
Corporate support should be shared responsibility between program and corporate offices	1 (5%)	0 (0%)	0 (0%)

SWP PROCESS IMPROVEMENTS

Evaluation questions 14-15 focus on how the SWP process can be improved in terms of effectiveness and efficiency in meeting the agency objectives and producing intended outcomes.

Evaluation question 14: What SWP process improvements could be made to increase effectiveness and efficiency?

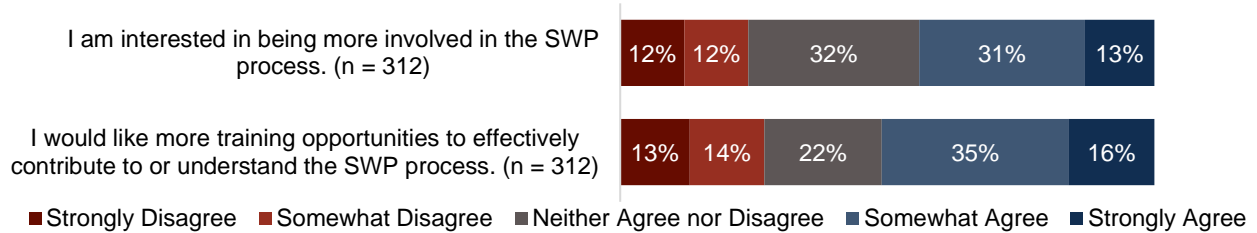
Evaluation question 15: How can the extent to which the SWP process is meeting agency objectives and producing intended outcomes be measured over time?

Section Summary

- 1 Survey respondents express interest in greater involvement and training in SWP, indicating a need for more developmental opportunities to enhance contribution and understanding of the process.
- 2 Interview and focus group participants provided several suggestions for process improvements, which included enhancing communication, visibility, and accessibility of SWP results and utilization, integration or simplification of the process, enhancement to the SWP Tool or increasing technological capability to support the process, increasing the agency's capacity to carry out the process and its strategies, improving consistency and validity of data, and improving agency-wide collaboration.

Evaluation question 14. What SWP process improvements could be made to increase effectiveness and efficiency?

As shown in Figure 21, when asked about the desire to engage in future SWP, 44% expressed interest in being more involved in the SWP process, and 51% reported that they would like more training opportunities to effectively contribute to or understand the SWP process.

Figure 21. Desire for more involvement and training around SWP process

Interview and focus group participants were asked what improvements should be made to the SWP process. The complete list of 29 process improvements suggested, which is clustered into six primary themes, is included in Table 31. The suggested improvements are presented in descending order from most mentioned to least mentioned within each theme. Among senior managers who were interviewed ($n = 20$), enhancing communication was the most frequently suggested process improvement followed by the need for increased visibility and the demonstration of the application of SWP results. These suggestions underscore the importance of transparency and clarity in showcasing the value of SWP outcomes.

Making enhancements or adjustments to the SWP Tool or technology was another common theme, with participants indicating that an upgraded technological infrastructure may streamline the SWP process and improve efficiency. Additional recommendations included integrating or aligning SWP with workforce plans and the budget formulation process and suggesting a strategic integration of SWP into broader organizational planning. Recommendations to improve agency capacity to carry out SWP strategies highlighted the importance of bolstering resources and competencies in this domain. In addition, increasing accessibility of SWP information across agency and staff levels, providing a real-time view of inputs and reports were suggested along with changes or improvements to data inputs considered by SWP. Finally, enhancing agency culture and change management around SWP was proposed and suggests that a supportive and adaptive organizational culture is essential for successful SWP implementation. Overall, the suggestions provided by the primary SWP stakeholders underscore the importance of continuous improvement and adaptation in the SWP process to align with the evolving needs and goals of the organization.

Table 31. Interview and focus groups (FGs) suggestions for SWP process improvements

Suggestions for SWP process improvements	Senior Managers ($n = 20$)	Branch Chief FGs ($n = 4$)	SWP POC FGs ($n = 5$)
Improve communication, visibility, and accessibility of SWP process, results, and utilization			
Enhance communication around SWP process or results	12 (60%)	2 (50%)	4 (80%)

STRATEGIC WORKFORCE PLANNING EVALUATION REPORT

Suggestions for SWP process improvements	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Increased visibility and demonstration of application of SWP results	11 (55%)	2 (50%)	4 (80%)
Increase accessibility of SWP information across agency and staff levels (e.g., real-time view of inputs and reports)	7 (35%)	2 (50%)	4 (80%)
Improvements to SWP reports (e.g., more user friendly, accessible)	2 (10%)	1 (25%)	3 (60%)
Facilitate more conversation-style communication around SWP	3 (15%)	0 (0%)	2 (40%)
Simplify, condense, or integrate the SWP process into other agency processes			
Integrate or align SWP with workforce plans and budget formulation process	7 (35%)	2 (50%)	4 (80%)
Condense or eliminate steps, or adjust the timeline of the SWP process	8 (40%)	0 (0%)	5 (100%)
Perform SWP cycle less frequently (e.g., every other year)	1 (5%)	0 (0%)	3 (60%)
Treat SWP as an ongoing, real-time process	2 (10%)	0 (0%)	0 (0%)
Enhance technological capability to support SWP process			
Make enhancements or adjustments to SWP Tool or technology	9 (45%)	3 (75%)	4 (80%)
Enhance automation of SWP inputs (i.e., automatically populate SWP information from previous SWP cycle or related systems/databases)	6 (30%)	2 (50%)	2 (40%)
Improve user experience of SWP tool (i.e., more user-friendly, intuitive)	2 (10%)	0 (0%)	3 (60%)
Increase resources and training to support SWP process and/or strategies			
Improve agency capacity to carry out SWP strategies	8 (40%)	1 (25%)	4 (80%)
Improve talent pipeline and recruitment incentives (e.g., telework)	5 (25%)	0 (0%)	0 (0%)

STRATEGIC WORKFORCE PLANNING EVALUATION REPORT

Suggestions for SWP process improvements	Senior Managers (n = 20)	Branch Chief FGs (n = 4)	SWP POC FGs (n = 5)
Develop dedicated SWP FTEs	2 (10%)	0 (0%)	1 (20%)
Increase administrative support to carry out SWP strategies (recruitment, hiring, onboarding, training)	2 (10%)	0 (0%)	1 (20%)
Improve the consistency and validity of SWP data inputs			
Make changes or improvements to data inputs considered by SWP	6 (30%)	3 (75%)	4 (80%)
Make changes or improvements to competencies and proficiency assessments	2 (10%)	1 (25%)	2 (40%)
Make changes or improvements to attrition predictions (retirement eligibility)	1 (5%)	1 (25%)	2 (40%)
Consider additional factors in agency environmental scan	2 (10%)	1 (25%)	1 (20%)
Make changes or improvements to core position titles	1 (5%)	1 (25%)	1 (20%)
Increase agency-wide collaboration and improve organizational culture to support SWP process			
Improve agency culture and change management around SWP	8 (40%)	1 (25%)	3 (60%)
Enhance collaboration and consistency of SWP process across agency	7 (35%)	1 (25%)	3 (60%)
Develop communities of practice around SWP process	3 (15%)	0 (0%)	2 (40%)
Increase staff or BC involvement	2 (10%)	1 (25%)	1 (20%)
Improved feedback system for continual SWP process improvements	2 (10%)	0 (0%)	1 (20%)
Host regular workshops to complete SWP steps	1 (5%)	0 (0%)	1 (20%)
Continue to use SWP champions/POCs at Office/Region level to promote and support process	2 (10%)	0 (0%)	0 (0%)
Increase buy-in from process contributors	2 (10%)	0 (0%)	0 (0%)

Evaluation question 15. How can the extent to which the SWP process is meeting agency objectives and producing intended outcomes be measured over time?

To gauge the efficacy of the SWP process in meeting agency goals and yielding desired outcomes over time, a longitudinal evaluation approach is imperative. Several recommendations have been identified through the evaluation and will be discussed later in this report which, if implemented, support the NRC's ability to measure the effectiveness of the SWP process, including improving the SWP Tool or enhancing technological capability of the SWP process, further integrating the process with the agency's budget formulation process, and improving the consistency and validity of SWP data inputs across the agency. Additionally, when the topic of measuring the effectiveness of SWP was raised during focus groups and senior manager interviews, participants suggested that it was a necessary activity. This sentiment is captured by a quote by one of the senior managers interviewed:

"We've made small enhancements. To me, the evaluation is just- it's time. That's what we always said - in five years when we have enough data, let's look at it and see. We always wanted to make improvements. It's just that we just don't have the resources and the time and the people to focus on it. I think the evaluation is going to be a great tool for that."

This comment highlights an important point: this evaluation serves as a method to determine the extent to which the SWP process is meeting agency objectives and producing intended outcomes, and the recommendations that result from the evaluation will require agency resources to improve the agency's ability to continue to measure the effectiveness of SWP.

FEDERAL BENCHMARKING

The evaluation also sought to understand the NRC's SWP process relative to other federal agencies similar in scope or workforce characteristics. Several factors have contributed to a recent push across the federal government to more seriously integrate SWP as a core component of human capital management practice, including the passage of laws and governance rules that require strategic planning and data driven decision making within human capital management practices,¹² industry standards and best practices,¹³ and a number of reports by the Government Accountability Office (GAO) instructing various agencies to more

¹² GPRAMA (2010); Evidence Act (2018); OPM RIN 3206-AL98

¹³ Tucker, E. (2019, Fall). How to Modernize Workforce Planning. Society for Human Resource Management (SHRM).

seriously enact robust and centralized SWP processes. Notably, GAO cited SWP as a high-risk area for 2023.¹⁴

A similar push to implement SWP was initiated in the late 1990s and early 2000s after OPM and GAO identified strategic human capital management as a high-risk area across the federal government. In OPM's Strategic Human Resources Management: Aligning with the Mission,¹⁵ a five-step framework for SWP is outlined, suggesting that as part of workforce planning, agencies 1) define their strategic direction; 2) assess their current and future workforces; 3) develop action plans for closing identified gaps in future workforce needs, 4) implement those action plans, and 5) monitor and evaluate strategies. The 2003 GAO report, Key Principles for Effective SWP, re-established OPM's framework and contributed an additional six best practices for effective workforce planning, including 1) aligning workforce planning with strategic planning and budget formulation; 2) involving managers, employees, and other stakeholders in planning; 3) developing strategies to address workforce gaps; 4) building capacity to support workforce strategies; and 5) monitoring and evaluating progress.¹⁶

To understand the NRC's SWP efforts relative to those of similar federal agencies, literature searches were performed to compile any publicly available documentation that shed light on how these agencies conducted SWP, as well as generate any lessons learned about the process over time. Efforts were also made to contact and interview key stakeholders of SWP processes within various agencies, though we were only able to connect with and interview stakeholders of two of these, the National Aeronautics and Space Administration (NASA) and National Science Foundation (NSF). Although documentation and information were available to varying degrees for additional agencies, this benchmarking investigation focused on NASA, NSF, Department of Energy (DOE), Federal Aviation Administration (FAA), and the Environmental Protection Agency (EPA).

While some of these agencies began workforce planning efforts in the early 2000s after OPM and GAO identified strategic human capital management as a high-risk area across the federal government and released guidance on developing and implementing workforce planning,¹⁷ most programs never materialized as fully centralized and robust processes, and only recently have begun to experience a resurgence. Of the agencies investigated, only NASA had a centralized SWP process more mature than the NRC. The following paragraphs illustrate process maturity, structure, lessons learned, and alignment to SWP best practices among these agencies.

¹⁴ GAO (2023). High-risk series: Efforts made to achieve progress need to be maintained and expanded to fully address all areas (GAO-23-106203).

¹⁵ OPM (1999). Results act. Observations on the Office of Personnel Management's fiscal year 2000 annual performance plan (GAO/GGD-99-125).

¹⁶ GAO (2003). Human capital: Key principles for effective strategic workforce planning (GAO-04-39).

¹⁷ GAO (2003). Human capital: Key principles for effective strategic workforce planning (GAO-04-39).

ENVIRONMENTAL PROTECTION AGENCY (EPA)

The Environmental Protection Agency (EPA) is a federal agency tasked with the vital mission of safeguarding human health and the environment. With approximately 14,000 dedicated personnel, the EPA upholds its commitment to protect human health and the environment through the enforcement and development of regulations, the pursuit of scientific research, and the provision of educational resources and assistance. Much like the NRC, the EPA's organizational structure comprises multiple offices and regions, working collaboratively to realize the agency's overarching objectives.

Like some of the other agencies investigated by our benchmarking efforts, little information was available to shed light on workforce planning initiatives within the EPA. One source of information was a GAO report published in 2010 that examined SWP activities within the EPA, the Forest Service, and the Department of the Interior. The agencies under review were evaluated according to their adherence to SWP best practices as outlined by the 2003 GAO SWP guide. Specifically, this report found that across the three agencies SWP integration with the budget was insufficient and inconsistent. Second, the process should have actively engaged managers, employees, and other stakeholders, but the degree of involvement varied across agencies. Identifying mission-critical occupations, skills, and competencies was another recommendation, which some agencies had begun to address. In terms of addressing workforce gaps, the agencies had identified some strategies to tackle specific shortages but were also lacking in some ways. Building the capacity to support these workforce strategies was another area of focus, with actions differing across agencies to effectively utilize human capital flexibilities, including recruitment and retention incentives. Finally, monitoring and evaluating the progress of workforce planning efforts was crucial, yet this was an area where the agencies generally fell short.

A more recent report by GAO, published in 2023 found that the EPA encountered performance challenges due to inadequately executed SWP. This report noted that ineffectively addressing SWP at the EPA resulted in a shortage of qualified personnel to meet specific operational demands, underscoring the critical importance of this process.¹⁸

In summary, according to the documentation reviewed, as of the 2023 GAO report, the EPA has failed to enact a centralized SWP process, and this failure is contributing to the agency's performance challenges. Nevertheless, some components and best practices of SWP were being practiced to varying degrees across the three federal agencies reviewed by the 2010 GAO report.

¹⁸ GAO (2023). EPA Chemical Reviews: Workforce Planning Gaps Contributed to Missed Deadlines (GAO-23-105728).

DEPARTMENT OF ENERGY (DOE)

Much like the NRC, the Department of Energy (DOE) serves a pivotal role in advancing the nation's energy security, fostering scientific innovation, and ensuring environmental responsibility. With a workforce of approximately 110,000, the DOE's overarching mission is to secure the country's energy future and address pressing environmental challenges. This mission is realized through the advancement of nuclear and renewable energy technologies, the promotion of energy efficiency, and the pursuit of cutting-edge scientific research. The DOE's organizational structure encompasses a diverse network of national laboratories, research facilities, and program offices situated strategically across the United States. These entities collectively focus on a wide array of domains, encompassing nuclear energy, renewable energy sources, energy efficiency, grid resilience, national security, and environmental management.

The earliest publicly available documentation providing insight into the DOE's SWP efforts was titled "Guide to Workforce Planning at the Department of Energy," and was published in September of 2005, signaling that the agency was at least interested in implementing SWP at that time.¹⁹ The guide itself is brief, lacking detail that would facilitate successful implementation, and seems to largely be a summary of guidance provided by OPM²⁰ and GAO.²¹ A more recent guide, titled "Integrated Workforce Planning: A Facilitation Guide for Office Directors"²² is provided as current guidance on the DOE's website, although the document is not dated so it is unclear when it was first published. Like the 2005 guide, it is also brief in nature and high-level, but it differs from the earlier guide in that it establishes "Building the Budget Requests" as step 4 of the SWP process and "Submitting Budget Proposal" as step 6, indicating further integration of workforce planning activities into the agency's budget formulation process, a noted evolution to the process. While both of these guides display an interest in workforce planning activities within DOE, neither explicitly reports on the implementation or success of SWP to achieve its objectives.

Two additional sources provide insight into DOE's current efforts in workforce planning, though they leave room for additional questions. First, the DOE's 2016-2020 Strategic Human Capital Plan lists improving workforce planning capability as an agency goal. The full plan does not provide many details beyond the stated goal, only that it involves developing "a corporate model to determine manpower requirements in support of improved workforce planning and resource deployment" and implementing "an integrated workforce planning process that supports data driven budget/resource decisions while ensuring sufficient succession pipelines."²³

A 2022 report by the GAO also examined the DOE's workforce planning efforts against five best practices and found that the three DOE offices included in GAO's review had each implemented

¹⁹ DOE (2005). Guide to workforce planning at the Department of Energy.

²⁰ U.S. Office of Personnel Management. (2022). Workforce Planning Guide.

²¹ GAO (2003). Human capital: Key principles for effective strategic workforce planning (GAO-04-39).

²² DOE. Integrated workforce planning: A facilitation guide for office directors. Retrieved from <https://www.energy.gov/hc/articles/guide-workforce-planning>.

²³ DOE (2016). Department of Energy strategic human capital plan 2016-2020.

two of the five best practices and had partially implemented the remaining three practices.²⁴ Specifically, it was reported that these offices had partially involved top management, employees, and other stakeholders in strategic planning, but further engagement is needed. Second, while DOE had taken some steps to identify workforce needs, they had not yet fully determined the critical skills and competencies required. Third, DOE had partially developed workforce planning strategies, but these need enhancement to comprehensively address gaps in critical skills and competencies. Fourth, there had been partial progress in building administrative and other capabilities to support workforce planning strategies. Finally, the DOE offices have made some progress in monitoring and evaluating progress toward human capital goals and programmatic results.

Senior DOE and NNSA (National Nuclear Security Administration) officials raised concerns that they do not have enough staff or staff with the right skills in the acquisition workforce to properly oversee contracts. However, NNSA has conducted limited evaluations of gaps in skills and competencies for some positions in its acquisition workforce, and the other offices in GAO's review have not conducted such analyses. GAO noted that with a more complete and thorough understanding of skill and competency gaps for its acquisition workforce, DOE can improve the information it has available to develop its budget and other strategies to build a workforce with the right skills and of the right size to address the agency's long-standing issues with contract management.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

An early resource from NASA titled "NASA Strategic Human Capital Plan"²⁵ indicates that SWP efforts began in earnest in the early 2000s. While this document does not have a publication date, the dates of references and citations within suggests it was produced in the early 2000s when the Federal Government made its first push to encourage strategic human capital management practices, including workforce planning. While this document provides a general overview of NASA's overall human capital strategy plan, it lists SWP as a core initiative of the agency, suggesting that at the time of its publication NASA was just entering the first phases of SWP and more general strategic human capital management and integration with larger agency strategic goals. The plan provides no detail on how NASA intended to implement SWP, but lists two goals related to SWP, 1) provide timely workforce planning and analysis, and 2) periodically assess internal and external factors that may affect the Agency's ability to obtain and retain a highly skilled and productive workforce. It also assigned the SWP process to their Headquarters Office of Human Resources and Education and Center Human Resources Offices.

In 2008, NASA published a comprehensive guide to workforce planning²⁶, intending to provide direction to managers and others expected to be involved in SWP. This 80+ page guide

²⁴ GAO (2022). Department of Energy: Improvements Needed to Strengthen Strategic Planning for the Acquisition Workforce (GAO-22-103854)

²⁵ NASA Strategic Human Capital Plan. Retrieved from <https://www.nasa.gov/sites/default/files/atoms/files/o53010409.pdf>

²⁶ NASA (2008). Workforce planning desk guide. National Aeronautics and Space Administration.

provides a framework for the steps of the process as well as guidance to carry out those steps. It also highlights six guiding principles for workforce planning at NASA, including, 1) It necessitates active engagement from Agency, Program, and Center representatives, each according to their organizational locations and roles; 2) While workforce planning is a distinct function separate from human capital, strategic, and mission planning, it is intrinsically connected to these areas, requiring coordination as part of the Agency's overall planning capability. For instance, insights from strategic and mission planning feed into workforce planning, informing aspects such as capability-based gap analyses and Center roles that influence work assignments for balancing demand in gap assessments; 3) The integration of workforce planning with budget planning is critical to optimize the use of available workforce resources; 4) This planning encompasses multiple time frames—short (0–1 years), medium (1–6 years), and long (2+ years)—enabling thorough assessments and the development of comprehensive decision-making options. This is exemplified by the annual (with a rolling 5-year horizon) synchronization of budget planning and workforce planning activities; 5) Moreover, workforce planning contemplates multiple sets of future work requirements, recognizing that the future landscape is not always clearly defined and that many of the human spaceflight tasks anticipated in the coming decades will be new endeavors for the Agency; 6) It also considers the entire composition of the workforce—both internal civil servants and external contractors, as well as their interrelationship—though planning approaches and objectives for each group may differ. Specifically, NASA's planning for its civil service workforce is contextualized by its existing and potential contractor workforce dynamics.

With the exception of a NASA Policy Directive²⁷ directing NASA's OCHCO to conduct SWP for 2022, no other publicly available documentation was found regarding NASA's SWP process or efforts. This directive instructed NASA to conduct demand-driven workforce planning (WFP) activities to ensure the workforce is sufficiently agile in size and mix to effectively respond to both known and uncertain mission demand and strategically shaped to provide the mix of skills to support NASA's unique work roles. This directive suggests that the workforce plans that result from these activities will thus reflect the goals of the mission and Mission Support Enterprise Organizations (MSEO), the requirements for the work (i.e., the "demand"), and will inform and influence decisions about workforce size, makeup, and skill set, as well as talent management practices for both the budget horizon (i.e., five years or sooner), and longer term (i.e., beyond five years). It also directed this process to use uniform tools, data, and technologies across the Agency to prepare and report workforce plans as prescribed by periodic OCHCO instructions and guidelines to the WFP community, and to develop SWP processes consistent with and aligned to other planning processes such as Facility Master Plans, Acquisition Strategy efforts, and the Planning, Programming, and Budgeting, and Execution process.

Evaluators from PRE also interviewed core members of NASA's workforce planning team, seeking to gain additional insights into NASA's SWP process beyond what was gleaned from publicly available documentation and to understand how faithfully the agency followed the guidance that was provided within these documents. From the interview, PRE learned that in

²⁷ NASA Policy Directive (NPD 3010.1B). Issued February 11, 2022.

general NASA followed the guidance as published. Moreover, the agency adhered to a number of industry-wide best practices, including having dedicated full-time workforce planners centralized within OCHCO, as well as full-time workforce planners at each of the Centers. The agency also made use of communities of practice across the agency to track progress, increase collaboration and learning, and make improvements to the process from lessons learned. Like the NRC, NASA also has dedicated tools for housing and tracking SWP data, and while the process is driven by dedicated workforce planners, it also involves participation from managers and branch chiefs to provide necessary data. When asked about the level of integration with the agency's budget formulation process, NASA acknowledged the intentional alignment with the timing of both cycles (SWP and budget formulation) but noted that they were separated and expressed the feeling that sometimes it felt as though SWP was overshadowed by budget activities, which receive far more attention and resources. These contacts also acknowledged that while SWP had been a centralized agency-wide process for roughly 20 years, the process still faced some challenges, including a need for improved communication of SWP reports and utilization, some inconsistencies of data inputs across the agency, and a need for continuous efforts to achieve agency buy-in.

FEDERAL AVIATION ADMINISTRATION (FAA)

The Federal Aviation Administration (FAA) is a federal agency within the Department of Transportation (DOT) that plays a vital role in ensuring the safety and efficiency of the United States' aviation system. With roughly 45,000 employees, the FAA is responsible for regulating and overseeing all aspects of civil aviation in the United States. Its mission is to provide the safest, most efficient aerospace system in the world. To achieve this, the FAA enforces regulations, develops and implements air traffic procedures, certifies and oversees aircraft and airports, conducts research and development, and promotes safety education and outreach programs. The FAA is divided into nine geographical regions, and several division and district offices.

Though very little publicly available documentation exists to shed light on the workforce planning efforts of the FAA, our investigation revealed that the FAA began its effort to develop and implement SWP in 2018 in response to a 2017 report by the National Academy of Public Administration (NAPA), which found that FAA lacked an agency-wide workforce planning strategy.²⁸

Several technological advancements and changes in the aviation industry prompted the Government Accountability Office (GAO) in 2021 to review the SWP activities of the FAA to determine the agency's readiness to respond to these shifting realities with the appropriate staff and required skills.²⁹ This report found that while the FAA has taken measures to the capacity of

²⁸ National Academy of Public Administration (NAPA; 2017). Federal Aviation Administration: Personnel reform effectiveness assessment. Retrieved from <https://napawash.org/academy-studies/federal-aviation-administration-personnel-reform-effectiveness-assessment>

²⁹ GAO (May 2021). FAA Workforce: Better assessing employees' skills gaps could help FAA prepare for changes in technology. (GAO-21-310).

its workforce to adapt to technological advancements, these attempts lacked quantifiable metrics and did not cover all critical occupations. In 2019, the FAA gleaned insights into skill gaps through qualitative interviews with managers and staff but failed to quantify the specific skill deficiencies or their prevalence among employees. Furthermore, a 2020 DOT assessment provided some skill gap data, but the FAA's low participation rate (12% to 25%) suggests an incomplete picture of its workforce's critical skills for responding to technological shifts. FAA officials acknowledged these gaps and made plans to carry out more thorough skill gap analyses, recognizing that the FAA's size and complexity call for improved collaboration across its offices for an effective agency-wide skill assessment. To this end, the FAA is pivoting towards creating a SWP policy and a community of practice to enhance coordination for future workforce planning and skill gap evaluation. Overall, GAO recommended that the FAA continue efforts to centralize the process to increase consistencies across the agency, include more quantitative methods of skills gap assessments, and include all mission-critical positions as considered by the process.

NATIONAL SCIENCE FOUNDATION (NSF)

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 with the purpose of promoting the progress of science; advancing the health, prosperity, and welfare of the United States; and securing the national defense. The NSF accomplishes this mission by funding basic research and education in all non-medical fields of science and engineering through grants, contracts, and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations, and other research organizations throughout the United States. NSF is led by the National Science Board and a Director, with its operations segmented into several directorates dedicated to different scientific areas, such as Biological Sciences, Geosciences, and Engineering. It also has offices that manage administrative, financial, and international affairs, along with a Division of Human Resource Management for personnel matters. Cross-functional offices address diversity, public affairs, and legal counsel. Together, these components facilitate NSF's mission to fund research and education across all fields of science and engineering.

A recent GAO report³⁰ which focused on the strategies NSF has used to manage the cost and management strategies of the agency's rotator staff offered some insights into SWP activities undertaken by NSF. Rotators, at NSF, are temporary program director staff, including scientists, engineers, and educators, who make recommendations about which proposals to fund, influence new directions in the fields of science, engineering, and education, support cutting-edge interdisciplinary research, and mentor junior research members. As part of their investigation, GAO reviewed NSF documents issued in 2016 and 2017 regarding plans for developing an agency-wide workforce strategy that would include rotators. At the time of publication, however, a clear and centralized process was still being developed, and had yet to be implemented. In the fall of 2020, NSF formed a community of practice to share workforce

³⁰ GAO (2018). National Science Foundation: A Workforce Strategy and Evaluation of Results Could Improve Use of Rotating Scientists, Engineers, and Educators (GAO-18-533). Published September 5, 2018.

planning best practices and tips on use of the staffing planning tool. As of May 2022, NSF was using its agency-wide process to gather information from its directorates and offices to assess workforce needs for fiscal years 2023 and 2024. Other recent efforts have been made at the agency, such as creating a small team of full-time workforce planners within the Division of Human Resource Management (HRM). During our benchmarking investigation, PRE was able to speak with members of this team to inquire into the current state of SWP at NSF. Most of the information was redundant with findings and information provided in the GAO report; namely, that a centralized process was still in development, that this process was based on the OPM five-step model, that buy-in across the agency was still being sought, and that a tool to input and track workforce planning information and data was in development. For now, any workforce planning efforts remain inconsistent across directorates and offices, and only forecast 2-3 years into the future. The workforce planning team has begun working with these directorates and offices to identify skills gaps and staffing needs, but these efforts remain largely qualitative in nature.

NUCLEAR REGULATORY COMMISSION (NRC)

When the NRC's SWP process is examined relative to the five other federal agencies reviewed in this section, it appears that the NRC's process is relatively advanced and robust. Given that the NRC only began its process five years ago, this suggests that SWP remains an elusive and relatively immature practice across the federal government. Only NASA had a fully-fledged, centralized SWP process more mature than the NRC. The documentation reviewed revealed that the NRC and DOE have processes at similar stages of maturity. One marked difference was DOE's noted integration of SWP with its budget formulation process, which may reduce the overall burden of SWP and create more consistency and applicability of SWP information. However, the documentation reviewed for DOE's SWP process lacked the appropriate level of detail to make helpful comparisons, understand identify lessons learned, or understand challenges DOE has faced or is currently facing regarding successfully implementing SWP. While efforts were made to contact appropriate SWP stakeholders at DOE, we were unsuccessful, limiting our ability to effectively evaluate DOE's process or gain insights into important logistical details of process methods and challenges. The remaining three agencies, FAA, EPA, and NSF, had processes less mature than the NRC, each in various stages of process development, being guided by OPM's five step model and GAO's recommendations and best practices for effective SWP. Because these three agencies do not yet have fully centralized and implemented SWP processes across their agencies, their effectiveness cannot be measured or evaluated. This underscores one advantage and milestone that the NRC has reached- namely that the SWP process has reached a level of maturity where its effectiveness can be evaluated. As the process continues to evolve, become more robust, and SWP data are applied more consistently across offices, process evaluations will continue to yield more helpful insights. A review of each of these agencies relative to their alignment with SWP best practices is provided in Figure 22. Note that while the level of alignment to best practices represents our understanding based on a review of available documentation, the accuracy of assigned ratings provide in Figure 22 is subject to limitations and the amount of detail provided within that documentation.

Figure 22. Summary benchmarking of US government agencies to SWP best practices

● Aligned to best practice
 ● Partially aligned to best practice
 ● Not aligned to best practice
 ● Unknown

SWP Best Practices	NRC	NASA	DOE	NSF	FAA	EPA
Top-level agency direction & support	●	●	●	●	●	●
Centralized & flexible process	●	●	●	●	●	●
Staff involvement & accountability	●	●	●	●	●	●
Dedicated teams/roles	●	●	●	●	●	●
Collaboration & communication	●	●	●	●	●	●
Process integration	●	●	●	●	●	●
Technological facilitation	●	●	●	●	●	●
Data input consistency & accuracy	●	●	●	●	●	●
Administrative capacity to support strategies	●	●	●	●	●	●
Active program monitoring against objectives	●	●	●	●	●	●

LIMITATIONS

The evaluation of the NRC's SWP process offered insights that should be contextualized within the scope of certain limitations. The evaluation team had limited access to critical information such as budget data, competency modeling data, and human capital statistics. Moreover, the secondary data utilized to gauge the accuracy of workforce supply projections was restricted to the three offices that participated in the SWP pilot in 2017, and these comparisons did not consider vacancies the NRC intended to fill but had not yet succeeded in filling—positions potentially budgeted for in accordance with previous SWP forecasts. In addition, two of the three offices projected greater numbers of staff needed in 2022 than the current staffing levels reported. This discrepancy could be interpreted as an inaccurate projection. However, because the evaluation also found that most NRC staff, offices, and regions are currently experiencing staffing shortages, this suggests that projections were accurate, but unfulfilled.

The COVID-19 pandemic presented an unprecedented historical event that significantly affected the agency's operations, influencing nearly all process activities, outputs, and outcomes this evaluation aimed to assess. This posed a threat to the validity of our findings, as the effects of the pandemic were widespread.

Another pertinent limitation is the role of competency modeling in SWP. A separate evaluation of the competency modeling process, conducted by another independent evaluator, raised the potential issue of evaluation fatigue among NRC staff who supported both studies. Knowledge of the methods and findings from the competency modeling evaluation may have informed or influenced our recommendations but was not available to us.

Finally, the evaluation was limited by sample sizes, which were constrained by various factors, including scheduling conflicts and difficulties with interview and focus group participants, a potential lack of interest or ability to participate in focus groups or the survey given other work demands or time constraints, and a limited awareness across the agency of the SWP process potentially affecting the representativeness and generalizability of our findings. For example, only 38% of the 846 staff invited to participate in the survey did so. While this response rate is reasonable and is in line with that of previous similar efforts at the NRC, it is important to note that the findings presented within this report only reflect the views and opinions of those who were willing and able to participate. Differing views, perspectives, or additional information may be possessed by NRC staff who did not participate in our evaluation.

Although the sample is not completely generalizable to the agency, the random sampling technique and distribution of participants from across the NRC yield valuable data reflecting a range of staff sentiments about SWP. For example, participants represented the full spectrum of offices and regions invited to participate and ranged in tenure from less than one year to over 40 years at the agency, with an average organizational tenure of 16.1 years.

FINDINGS AND RECOMMENDATIONS

The following section provides an overview of key findings from the evaluation as well as recommendations to improve the SWP process based on these findings. For sake of organization, findings and recommendations have been clustered around five key themes that emerged throughout the evaluation. These themes are 1) communication, 2) administrative capacity, 3) technological capability, 4) SWP data inputs, and 5) process integration.

COMMUNICATION

Findings

Senior managers are in agreement on the objectives of SWP, and many have applied its results to address staffing challenges and meet work demands. In contrast, there is a gap in understanding among branch chiefs, points of contact (POCs), and non-supervisory staff, many of whom have acknowledged not knowing the objectives of SWP. Additionally, a majority of branch chiefs and numerous POCs are unaware of how SWP results are utilized within their own office or region, or across the agency. This lack of awareness has contributed to decreased perceptions of the utility of SWP, a sense of increased process burden, and has hindered the development or application of long-term, strategic thinking among some branch chiefs. Moreover, reports generated by the SWP Tool are difficult to access, and the current format as exported directly from the tool is not user-friendly. This introduces added burdens for SWP

POCs and branch chiefs to adapt reports so as to be useful and understood by agency leadership.

Recommendation 1. Enhance communication and engagement around the desired objectives, outcomes, and utilization of SWP process and results.

To increase awareness and visibility into the SWP process, as well as the utilization of SWP results, we recommend establishing systematic communication and engagement strategies and plans aimed at disseminating critical information throughout the agency, particularly to branch chiefs, SWP POCs, and non-supervisory staff. This information should clearly articulate the objectives and intended outcomes of SWP, clarify how SWP results are used to achieve these outcomes, and identify specific skills gaps foreseen by the agency, along with development opportunities to bridge these gaps. In order to enhance visibility and utilization of SWP information across all staffing levels of the agency, we also recommend developing tailored SWP report templates for various audiences (e.g., high level, agency-wide strategies for senior leaders, office- and branch-level detail reports for senior managers and branch chiefs, and reports with cross-agency staffing and skills gaps trends linked to rotational and developmental opportunities for non-supervisory staff). Additionally, enhancing the SWP Tool to automatically generate these reports would be beneficial by reducing the time and effort currently required by SWP POCs and branch chiefs to develop reports for senior managers and senior leaders.

ADMINISTRATIVE CAPACITY

Findings

Supervisors are feeling the strain of SWP demands, deeming the process burdensome and redundant alongside other tasks, such as budget formulation. The OCHCO staff lead has been praised for their support; however, the scope of the recommended changes necessitates an expansion of this support. Several branch chiefs and senior managers are also feeling overburdened by, and are unfamiliar with, HR administrative tools and tasks, leading to increased time spent on these activities, compromised work quality, a diversion from critical mission tasks, and higher costs due to the involvement of more highly graded staff to fulfill these administrative tasks. These increased burdens are also causing negative sentiments towards the agency or its leadership, supervisor burnout and turnover, and delays in recruiting and developing critical staff.

Recommendation 2. Increase the administrative capacity to perform SWP process steps and execute SWP strategies.

To enhance the administrative capacity necessary for the SWP process, we recommend developing self-paced training and detailed guides for SWP steps, increasing FTE staff at office/regional or agency/OCHCO levels to support SWP strategies, considering the appointment of Workforce Planners at each office with a Lead Workforce Planner centralized in OCHCO, and fostering a SWP community of practice to bolster collaboration and continual process improvement.

TECHNOLOGICAL CAPABILITY

Findings

Users of the SWP Tool tend to find the interface confusing, leading to inefficiencies due to the need to frequently relearn navigation and SWP process steps. Limitations within the SWP Tool are causing inconsistencies in data input across offices/regions. Manual data entry and validation prolong the SWP steps and result in outdated and non-actionable data by the time reports are generated. Furthermore, once SWP data are entered, it is not possible to review or update them, potentially affecting their accuracy and usefulness.

Recommendation 3. *Enhance the technological capability to support SWP by increasing automation of data entry, increasing visibility and access of SWP data inputs and reports, and improving the user experience of the SWP Tool.*

To strengthen technological support for SWP, we recommend automating data input from relevant databases (e.g., budget formulation data, staffing plans, competency models), involving user experience/interface specialists to enhance the SWP Tool's intuitiveness, improving the clarity of definitions and anchor points within the tool, devising a systematic method to account for staff with multiple roles or titles, enhancing the accessibility of the agency environmental scan, SWP data and reports, and enabling real-time updating of SWP data.

SWP DATA INPUTS

Findings

Retirement eligibility dates have been effective for predicting future staffing and skill gaps, yet they do not fully account for total attrition, which may limit the ability to foresee future attrition and associated staffing needs. Core position titles, representing a significant portion of positions, are applied inconsistently, potentially leading to inaccuracies and reduced validity in staffing projections. This inconsistency and its impact on projection accuracy was noted after each SWP cycle in 2018, 2019, and 2021 in lessons learned documents as well as in the staff survey, interviews, and focus groups of our evaluation, suggesting that finding agency alignment of core positions may be an unproductive effort. Staff have found the agency environmental scan useful, although some senior managers have indicated a desire for additional factors to be included. The application of competencies and proficiency assessments has also been inconsistent.

Recommendation 4. *Improve the consistency and accuracy of SWP data inputs by eliminating the use of core position titles in SWP, considering more holistic attrition factors, and integrating additional contextual factors in the agency environmental scan.*

To improve the inputs and reports for SWP, we recommend considering the NRC's full workforce in SWP activities and strategies, thereby eliminating the use of core position titles in SWP. Considering the full workforce in SWP aligns with industry best practices and several

recommendations issued by GAO across multiple reports.³¹ It is noted that the use of core position titles also aligns with recommendations by GAO to evaluate and establish the most critical roles for fulfilling the agency's mission. As such, it is worth clarifying that the NRC should maintain a system to identify core positions, only that this system remains independent from agency-wide workforce planning activities. Year-over-year turnover data should also be incorporated into attrition predictions, and additional contextual factors should be considered in the environmental scan.

PROCESS INTEGRATION

Findings

A common recommendation among senior managers, branch chiefs, and SWP POCs is to align SWP more closely with the budgeting process, as noted in interviews and focus groups. While some offices use 5-year projections and SWP information to justify budget requests and manage staffing issues, others do not, leading to potential resource imbalances and affecting the overall health and performance of the agency. Branch chiefs, who often bear the brunt of SWP responsibilities, typically do not see the benefits of the process or its applicability to their work areas.

Recommendation 5. Integrate the SWP process into the budget formulation process by considering long-term (5-year) predictions in budget decisions, centralizing data between SWP and the budget, and aligning completion of SWP steps with budget cycle.

We recommend integrating SWP with budgetary processes and staffing plans. This recommendation aligns with industry best practices and recommendations issued by GAO that endorse integration of SWP with the budget formulation process and other related HCM processes.³² There are several possible approaches to increase the level of integration between these two processes. Possible approaches include adding 5-year forecasts to the budget process, incorporating SWP steps 2-5 into the budgetary process, using the staffing plan within SWP as a supply step, aligning the timing of SWP steps with the budget formulation cycle, and either automatically populating data between SWP and budgeting systems or centralizing the data from both. Some publicly available documentation suggests that other organizations such as DOE have integrated the SWP process with budget formulation though the precise methods of integration are unclear. Connecting with relevant staff at DOE may provide additional insight into challenges, logistical methods, and lessons learned with integrating these two systems and processes.

³¹ GAO (2003). Human capital: Key principles for effective strategic workforce planning (GAO-04-39).

³² Tucker, E. (2019, Fall). How to Modernize Workforce Planning. Society for Human Resource Management (SHRM).

APPENDIX A. SWP LOGIC MODEL



U.S. Nuclear Regulatory Commission – Enhanced Strategic Workforce Planning (SWP) Logic Model

INPUTS	ACTIVITIES	OUTPUTS	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
Guidance <ul style="list-style-type: none"> Strategic plans and guiding documents Direction from agency and national leadership 	Step 1: OEDO initiates SWP cycle OEDO incorporates NRC Strategic Plan, data on the agency and national/global environment, and input from ODs/RAs/business line leads to update and distribute the Agency Environmental Scan, which guides workload forecasting.	Step 1 <ul style="list-style-type: none"> # of office/region-identified key factors with potential to impact workload # of internal and external drivers of NRC workload and workforce identified in the Agency Environmental Scan 	Reactions and perceptions <ul style="list-style-type: none"> Perceived utility of SWP program Perceived value of resources allocated to complete SWP Attitudes toward SWP processes 	Organizational functioning and performance <ul style="list-style-type: none"> Ability to manage and execute NRC's workload Ability to anticipate/predict and plan for future needs and directions Ability to adapt to changing needs and global/national context Organizational health, culture, and resilience Target workforce size and composition met 5 years later Strengthened connection between OEDO/corporate support functions and offices/regions
Implementers <ul style="list-style-type: none"> Office directors and regional administrators (ODs/RAs) and deputies Division directors and deputy division directors Business line lead office directors Branch chiefs and supervisors Office/region points of contact (POCs) Office of the Executive Director for Operations (OEDO) Office of the Chief Human Capital Officer (OCHCO) 	Step 2: Conduct workload forecast and demand analysis Offices/regions, with feedback from business lines and partner offices, develop workload projections. Division directors, with support and input from ODs/RAs, business line leaders, and OCHCO, conduct branch-level demand analyses to determine the number of people and proficiency levels needed in core positions.	Step 2 <ul style="list-style-type: none"> % of office/region workload forecasts completed # of new core positions % of branch-level demand analyses completed 	Confidence in reliability and validity of SWP data and analyses	
	Step 3: Conduct workforce supply analysis Branch chiefs identify current employees in core positions, estimate current proficiency levels, and identify challenges should positions become vacant. Division directors, ODs/RAs, and OCHCO review supply analysis findings.	Step 3 <ul style="list-style-type: none"> % of branch-level supply analyses completed 	Knowledge of SWP process and results	
	Step 4: Conduct gap analysis and risk assessment OCHCO and division directors, with support and input from branch chiefs, supervisors, and ODs/RAs, collaborate to identify and prioritize workforce and competency gaps/surpluses. ODs/RAs review gap and risk findings.	Step 4 <ul style="list-style-type: none"> % of gap/surplus analyses completed % of prioritized lists of gaps/surpluses completed 	Agency-level alignment <ul style="list-style-type: none"> Standardization of processes High level of engagement in strategic thinking across offices and regions Use of shared mental models High degree of similarity in uses of SWP data across offices/regions 	
	Step 5: Develop and enact strategies to address workforce gaps and surpluses Division directors, with support from branch chiefs and supervisors, coordinate with business line leads, partner offices, OCFO, and OCHCO to develop and implement office/region-level workforce strategies and action plans integrated with the budget. OCHCO implements agency-level strategies to support cross-cutting needs.	Step 5 <ul style="list-style-type: none"> % of office/region action plans completed % of budget or resource concerns related to executing the strategy flagged Updated Human Capital Operations Plan 	Utilization of SWP data for: <ul style="list-style-type: none"> Budgetary requests and allocations Corporate support effort allocations Workforce-related requests and decisions OCHCO-developed programs, courses, and training curricula Creating new competency models Informing/supporting audits 	
	Step 6: Monitor, evaluate, and revise strategies Offices/regions continuously monitor implementation of strategies/action plans and report results to OEDO and OCHCO. Offices/regions and OCHCO collaborate to revise strategies (if needed) and ensure alignment with business lines and partner offices.	Step 6 <ul style="list-style-type: none"> # of new office/region-identified key factors with potential to impact SWP process # of activities/strategies completed # of activities/strategies carried forward to next SWP cycle 	Leader-specific experiences <ul style="list-style-type: none"> Desire to engage in future SWP Reliance on SWP data across diverse contexts and needs Ability to make data-driven decisions Ability to direct staff toward agency needs Ability to make staffing decisions that are driven not only by current needs, but also future landscape/needs Ability to plan ahead 	
Supporters <ul style="list-style-type: none"> Office of the Chief Financial Officer (OCFO) SWP Application Tool developers 		General/cross-cutting <ul style="list-style-type: none"> # of tickets completed # of meetings conducted/communications shared Annual roll-up of results completed Lessons learned completed 	Agency-level performance indicators <ul style="list-style-type: none"> Ability to meet Key Human Capital Indicators Improved quarterly HRStat metrics Ability to meet fiscal year FTE goal Requested annual budget secured 	Employee experiences <ul style="list-style-type: none"> Ability to make informed career and developmental decisions Engagement, motivation, morale, well-being, and job attitudes Perceptions of NRC as an organization Workload and occupational health factors (e.g., stress, burnout) Perceptions of job security Job performance Retention
Tools <ul style="list-style-type: none"> SWP Application Tool SWP SharePoint site Competency models 			Staffing <ul style="list-style-type: none"> Applicant flows (internal and external hires) Retention/attrition Movement of existing staff (permanent and temporary/rotations) 	
Data sources			Continuous improvement of SWP <ul style="list-style-type: none"> Annual lessons learned captured Adaptations made to SWP process Adaptations made to SWP Application Tool 	Confidence of external parties in NRC's ability to execute its mission
SWP training				
Budget/funding that supports SWP (e.g., FTE)	Ongoing communications and meetings about SWP progress, data, and outcomes			

APPENDIX B. SWP STAFF SURVEY

The following table presents the survey items for the NRC's Strategic Workforce Planning (SWP) evaluation staff survey. The survey questions listed within the table were integrated into the survey platform Qualtrics and was distributed to non-supervisory staff, branch chiefs, senior leaders, and SWP points of contact (POCs) from every office that is directly involved in the SWP process.

The rightmost columns of the table indicate which participant groups received each survey item. An "X" in these columns indicates all participants in the associated group received the given survey item, while an asterisk (*) in these columns indicates that only some participants in the associated group received the given survey item based on survey "display logic". For example, the survey item "I am satisfied with the NRC's strategic workforce planning process" was displayed to all branch chiefs, senior leaders, and SWP POCs, but was only displayed to those non-supervisory staff who indicated they were familiar with the NRC's SWP process.

Category	Item	Response Options	Non-Supervisory Staff	Branch Chiefs	Senior Managers	SWP POCs
Familiarity with SWP	I feel confident that I understand the NRC's Strategic Workforce Planning (SWP) process.	Strongly Disagree to Strongly Agree	X	X	X	X
	Please rate your level of familiarity with the following six steps of the NRC's SWP process. <ul style="list-style-type: none"> Step 1: Set Strategic Direction (Agency Environmental Scan) Step 2: Workload Forecast and Workforce Demand Analysis Step 3: Workforce Supply Analysis Step 4: Gap Analysis and Risk Assessment Step 5: Develop and Execute SWP Strategies 	Matrix Completely Unfamiliar to Very Familiar, I Don't Know	X	X	X	X

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	<ul style="list-style-type: none"> Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans 					
	I feel confident that I understand the purpose of the NRC's SWP process.	Strongly Disagree to Strongly Agree	X	X	X	X
Engagement with SWP	I have participated in the NRC's Strategic Workforce Planning (SWP) process.	Yes/No/I'm Not Sure	X	X	X	X
	I have contributed information that is used in the SWP process (e.g., staffing levels, skill and knowledge gaps of my office or region, etc.).	Yes/No/I'm Not Sure	X	X	X	X
	I have personally entered information into the SWP Tool.	Yes/No/I'm Not Sure	X	X	X	X
	I have received training on how to use the SWP Tool.	Yes/No/I'm Not Sure	*	X		X
	I have read reports generated by the SWP process.	Yes/No/I'm Not Sure	X	X	X	X
	Please rate your level of involvement with the following steps of the SWP process: <ul style="list-style-type: none"> Step 1: Set Strategic Direction (Agency Environmental Scan) Step 2: Workload Forecast and Workforce Demand Analysis Step 3: Workforce Supply Analysis Step 4: Gap Analysis and Risk Assessment Step 5: Develop and Execute SWP Strategies Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans 	Matrix Not At All Involved to Very Involved, I Don't Know	*	X	X	X
	I am interested in being more involved in the SWP process.	Strongly Disagree to Strongly Agree	X	X	X	X
	I would like more training opportunities to effectively contribute to or understand the SWP process.	Strongly Disagree to Strongly Agree	X	X	X	X
Communication about SWP	The NRC's most recently completely SWP cycle took place from September 2021 through July 2022. Please rate the frequency with which you have been made aware of	I Don't Know/Not Applicable Never	X	X	X	

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	<p>each of the following since that time (i.e., within the past 1-1.5 years).</p> <ul style="list-style-type: none"> • Information produced by the NRC's Strategic Workforce Planning (SWP) process. • Future workload changes that could impact my office or region. • Future workload changes that could impact the NRC's future staffing levels. • Future gaps in knowledge or skills that are anticipated within my office or region. • Future gaps in knowledge or skills that are anticipated across the NRC. • Plans or strategies to confront anticipated gaps in knowledge or skills within my office or region. • Plans or strategies to confront anticipated gaps in knowledge or skills across the NRC. • Plans or strategies to respond to anticipated fluctuations in workload within my office or region. • Training opportunities to address anticipated knowledge or skills gaps in my office or region. • Training opportunities to address anticipated knowledge or skills gaps across the NRC. • Contextual factors (e.g., new or closing facilities, new technologies, policies, etc.) that could affect my office or region's future workload. • Contextual factors (e.g., new or closing facilities, new technologies, policies, etc.) that could affect the agency's future workload. 	<p>Rarely Occasionally Frequently Very frequently</p>				
	The NRC's most recently completely SWP cycle took place from September 2021 through July 2022. Please rate	I Don't Know/Not Applicable		X	X	X

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	<p>the frequency with which you have personally shared each of the following with staff in your office or region since that time (i.e., within the past 1-1.5 years).</p> <ul style="list-style-type: none"> • Shared what the NRC's SWP process entails. • Shared the goals and purpose of the SWP process. • Shared the results of the SWP process. • Shared the action items that arise from the SWP process. • Shared how my office or region plans to respond to workload fluctuations over the next year. • Shared how my office or region plans to respond to workload fluctuations over the next five years. 	Never Rarely Occasionally Frequently Very frequently				
Perceptions and attitudes about SWP	I am satisfied with the NRC's Strategic Workforce Planning (SWP) process.	Strongly Disagree to Strongly Agree	*	*	*	X
	I am satisfied with the following steps of the SWP process: <ul style="list-style-type: none"> • Step 1: Set Strategic Direction (Agency Environmental Scan) • Step 2: Workload Forecast and Workforce Demand Analysis • Step 3: Workforce Supply Analysis • Step 4: Gap Analysis and Risk Assessment • Step 5: Develop and Execute SWP Strategies • Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans 	Matrix Strongly Disagree to Strongly Agree, I Don't Know	*	*	*	X
	What would improve your satisfaction with the SWP process, if anything?	Open ended	*	*	*	X
	I am satisfied with the reports produced by the SWP process.	Strongly Disagree to Strongly Agree	*	*	*	X
	What would improve your satisfaction with the results produced by the SWP process if anything?	Open ended	*	*	*	X

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	Long-term (5-year) forecasts about future workload are useful.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	Long-term (5-year) forecasts about future staffing are useful.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	What do you feel long-term (5-year) predictions about future workload and staffing are most useful for? Please describe.	Open ended		X	X	X
	I am satisfied with the training I have received about the SWP Tool.	Strongly Disagree to Strongly Agree		*		*
Climate and agency support for SWP	I have been encouraged to engage in the Strategic Workforce Planning (SWP) process.	Strongly Disagree to Strongly Agree	X	X	X	
	My supervisor lets me know what knowledge and skills I need to develop to be successful at the NRC.	Strongly Disagree to Strongly Agree	X	X	X	X
	The NRC provides me with enough training to prepare for future career opportunities at the NRC.	Strongly Disagree to Strongly Agree	X	X	X	X
	My direct supervisor is strategic and future-focused when it comes to: <ul style="list-style-type: none"> Recruitment and hiring Training and employee development Rotational assignments Succession planning Meeting workload demands 	Matrix Strongly Disagree to Strongly Agree, I Don't Know/Not Applicable	X	X	X	X
	Agency leaders (e.g., OEDO, Commission, and office/region leaders) are strategic and future-focused when it comes to: <ul style="list-style-type: none"> Recruitment and hiring Training and employee development Rotational assignments Succession planning Meeting workload demands 	Matrix Strongly Disagree to Strongly Agree, I Don't Know/Not Applicable	X	X		X

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	My office or region is proactive in planning for short-term (1-2 years) workload and staffing needs.	Strongly Disagree to Strongly Agree; I Don't Know	X	X	X	X
	My office or region is proactive in planning for long-term (5 years) workload and staffing needs.	Strongly Disagree to Strongly Agree; I Don't Know	X	X	X	X
	My office or region has been able to respond to staff knowledge or skills gaps in a timely way.	Strongly Disagree to Strongly Agree; I Don't Know	X	X	X	X
	I feel that past reductions in corporate support staff contribute to current staffing and competency gaps.	Strongly Disagree to Strongly Agree; I Don't Know	X	X	X	X
Agency alignment of SWP	Staff who contribute to the Strategic Workforce Planning (SWP) process agree on the purpose of the process.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	Staff who contribute to the SWP process understand the value of SWP.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	SWP data are used for similar purposes across the NRC.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
Effort and benefit of SWP	I believe the NRC's Strategic Workforce Planning (SWP) process is useful.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	I believe the NRC's SWP process is worth the time and effort it takes.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	How could the SWP process be improved to create greater overall benefit?	Open ended		X	X	X

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<p>Relative to your other job tasks, what percentage of time would you estimate that you spend on SWP-related tasks in a given work week...</p> <ul style="list-style-type: none"> ...during your heaviest level of involvement with SWP? ...during your lightest level of involvement with SWP? ...on average? 	Percentage (0-100%)		*	*	X
<p>How labor intensive does each of the following aspects of the SWP process feel to you?</p> <ul style="list-style-type: none"> Collecting data from stakeholders Aligning and creating consistency with SWP data provided by stakeholders Entering data into the SWP Tool Generating reports and communicating findings Other (describe) 	<p>Matrix Not At All Labor Intensive to Very Labor Intensive</p>				X
<p>Relative to the benefits derived from the SWP step, it is worth the time it takes to complete...</p> <ul style="list-style-type: none"> Step 1: Set Strategic Direction (Agency Environmental Scan) Step 2: Workload Forecast and Workforce Demand Analysis Step 3: Workforce Supply Analysis Step 4: Gap Analysis and Risk Assessment Step 5: Develop and Execute SWP Strategies Step 6: Monitor, Evaluate, and Revise SWP Strategies and Action Plans Receiving instructions or communication from OCHCO/Debby Hackett Communicating with branch chiefs, team leaders, or senior leaders about the SWP process and its results 	<p>Matrix Strongly Disagree to Strongly Agree, I Don't Know</p>				X

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	<p>The SWP process has enabled me to achieve:</p> <ul style="list-style-type: none"> Improved employee performance Improved employee satisfaction Improved office or regional performance Improved employee retention Fiscal year FTE goals Securing requested annual budget 	<p>Matrix Strongly Disagree to Strongly Agree, I Don't Know</p>		X	X	
Perceptions of validity and reliability of SWP data	I feel confident in the accuracy of data used for Strategic Workforce Planning (SWP) within my office or region.	Strongly Disagree to Strongly Agree, I Don't Know		X	X	X
	I feel confident in the accuracy of data used for SWP across the NRC.	Strongly Disagree to Strongly Agree, I Don't Know			X	X
	The data that I receive from other stakeholders who contribute data to the SWP process within my office or region are consistent.	Strongly Disagree to Strongly Agree; I Don't Know				X
	The data used for SWP across all the NRC offices and regions that participate in the process are consistent.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	Are there specific types of data used for SWP that seem inconsistent or less consistent? Please describe.	Open ended		X	X	X
	The information produced by the SWP process is applied in consistent ways within my office or region.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
	The information produced by the SWP process is applied in consistent ways across all NRC offices or regions that participate in the process.	Strongly Disagree to Strongly Agree; I Don't Know		X	X	X
Utilization of SWP data	<p>My office or region uses Strategic Workforce Planning (SWP) data for (please select all that apply):</p> <ul style="list-style-type: none"> Budgetary requests and allocations 	Multiple choice (select all that apply)		X	X	X

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	<ul style="list-style-type: none"> • Corporate support resource allocations • Workforce-related requests and decisions • Developing programs, courses, or training curricula • Creating new competency models • Informing/supporting audits • Informing knowledge management efforts • Other (free form) • I have not seen a use for SWP data 					
	<p>SWP data are most useful for:</p> <ul style="list-style-type: none"> • Budgetary requests and allocations • Corporate support resource allocations • Workforce-related requests and decisions • Development of internally-offered training programs, courses, and curricula • Creating new competency models • Informing/supporting audits • Informing knowledge management efforts • Other (free form) 	Multiple choice		X	X	X
	SWP information is helpful for me to plan for and prioritize future developmental activities (e.g., training, rotations, etc.).	Strongly Disagree to Strongly Agree, I Don't Know	X	X	X	
	I rely on SWP information to make data-driven decisions.	Strongly Disagree to Strongly Agree, I Don't Know		X	X	
Rotations and job changes	How many rotations have you done at the NRC in the last 5 years, if any? (If you are currently on rotation, please include your current rotation in your count.)	None 1 2 3 4+	X	X	X	X

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	Have you been cross trained in any other roles at the NRC?	No Yes, in one other role Yes, in multiple roles	X	X	X	X
	Rotation assignments in which I have participated have helped prepare me for future workload demands.	Strongly Disagree to Strongly Agree; I'm Not Sure	*	*	*	*
	Cross-training I have received has helped prepare me for future workload demands.	Strongly Disagree to Strongly Agree; I'm Not Sure	*	*	*	*
Employee wellness	My office or region has experienced staffing shortages in the last year.	Strongly Disagree to Strongly Agree; I Don't Know	X	X	X	X
	My office or region has experienced staffing surpluses in the last year.	Strongly Disagree to Strongly Agree; I Don't Know	X	X	X	X
	My office or region has experienced knowledge or skill gaps in the last year.	Strongly Disagree to Strongly Agree; I Don't Know	X	X	X	X
	Please rate your level of agreement with the following statements. <ul style="list-style-type: none"> My workload has increased in the last year due to staffing shortages. I have experienced work stress in the last year due to staffing shortages. I have experienced burnout in the last year due to staffing shortages. I have felt concerned about the stability of my job at the NRC in the last year due to staffing shortages. 	Matrix Strongly Disagree to Strongly Agree; Not Applicable	*	*	*	*
	Please rate your level of agreement with the following statements.	Matrix	*	*	*	*

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	<ul style="list-style-type: none"> • My workload has increased in the last year due to staffing surpluses. • I have experienced work stress in the last year due to staffing surpluses. • I have experienced burnout in the last year due to staffing surpluses. • I have felt concerned about the stability of my job at the NRC in the last year due to staffing surpluses. 	Strongly Disagree to Strongly Agree; Not Applicable				
	Have staffing surpluses impacted your experiences in any other ways? If so, please describe.	Open-ended	*	*	*	*
	Please rate your level of agreement with the following statements. <ul style="list-style-type: none"> • My workload has increased in the last year due to knowledge or skill gaps in my office or region. • I have experienced work stress in the last year due to knowledge or skill gaps in my office or region. • I have experienced burnout in the last year due to knowledge or skill gaps in my office or region. • I have felt concerned about the stability of my job at the NRC in the last year due to knowledge or skill gaps in my office or region. 	Matrix Strongly Disagree to Strongly Agree; Not Applicable	*	*	*	*
	I have considered leaving the NRC due to stress or burnout associated with staffing-related issues.	Strongly Disagree to Strongly Agree; I have not experienced this	X	X	X	X
	My office or region has plans to ensure my workload stays manageable regardless of future shifts in overall agency needs and priorities.	Strongly Disagree to Strongly Agree I Don't Know	X	X	X	X

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Competency models and lists of core position titles at the office, region, and agency levels have been used to inform aspects of the Strategic Workforce Planning (SWP) process. The following questions seek to understand how these efforts are being used for SWP.

Core positions and competency models	I am familiar with one or more competency models for my office or region.	Strongly Disagree to Strongly Agree;	X	X	X	X
	I understand how the NRC's competency models are related to the Strategic Workforce Planning (SWP) process.	Strongly Disagree to Strongly Agree	*	*	*	X
	Do you use competency models in the SWP process? If so, how?	Open ended		*	*	*
	I am familiar with the NRC's overall effort to define and maintain a list of core position titles to use in the SWP process.	Strongly Disagree to Strongly Agree	X	X	X	X
	I am familiar with the core position titles relevant to my office or region.	Strongly Disagree to Strongly Agree	X	X	X	X
	Offices/regions should be consistent regarding how they identify which position titles are considered "core."	Strongly Disagree to Strongly Agree	*	*	*	*
	Offices/regions should be able to identify which position titles they consider "core," even if it differs from other offices/regions.	Strongly Disagree to Strongly Agree	*	*	*	*
Follow-up	May a member of the research team contact you via email if they have any follow-up questions?	Yes/No	X	X	X	X