

2023 Office of Personnel Management

Federal Employee Viewpoint Survey Results

Empowering employees. Inspiring change.

Technical Report

REVISED EDITION APRIL 2025

[OPM.gov/FEVS](https://www.opm.gov/FEVS) #FEVS

This report has been updated to redact survey content in accordance with Executive Order (EO) 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing, and EO 14168 Defending Women From Gender Ideology Extremism and Restoring Biological Truth to the Federal Government.

Table of Contents

| Chapter | Page |
|---|------|
| Chapter 1: Survey Introduction..... | 3 |
| Overview | 3 |
| Uses of Survey Results..... | 5 |
| Chapter 2: Sample Design and Selection..... | 6 |
| Sample Design | 6 |
| Sampling Frame and Stratification Variables..... | 6 |
| Chapter 3: Survey Instrument | 8 |
| Survey Content | 8 |
| FEVS Dimensions | 9 |
| FEVS Indices..... | 12 |
| Agency Specific Items..... | 16 |
| Chapter 4: Data Collection | 17 |
| Web-Based Data Collection Procedures | 17 |
| Data Collection Period | 18 |
| Survey Disposition Codes..... | 19 |
| Response Rates | 23 |
| Help Center..... | 26 |
| Chapter 5: Data Cleaning and Weighting..... | 34 |
| Data Cleaning and Recoding | 34 |
| Weighting..... | 34 |
| Chapter 6: Data Analysis..... | 36 |
| Frequency Distributions | 36 |
| Distributions of Positive, Negative, and Neutral Responses | 36 |
| Do Not Know and No Basis to Judge Responses | 37 |
| Missing Data..... | 37 |
| Data Suppression..... | 37 |
| Chapter 7: Public Release Data Files | 39 |
| Data Masking Methodology for Disclosure Avoidance | 39 |
| Data Masking Procedure | 40 |
| Chapter 8: Presentation of Results | 42 |
| Governmentwide Reports | 42 |
| Delivery of Agency Results, Reports, & Ad Hoc Analyses – WesDaX | 43 |
| Summary of Quality Control Process..... | 46 |

| | |
|--|----|
| Appendix A: Item Change Summary | 47 |
| Appendix B: Email Communications..... | 55 |
| Sample Invitation Email | 55 |
| First Reminder Email | 56 |
| Example of Other Reminder Emails | 57 |
| Appendix C: AAPOR Response Rate..... | 60 |
| AAPOR Response Rate 3 Formula:..... | 60 |
| Appendix D: Weighting of the Survey Data | 61 |
| Base Weights..... | 61 |
| Survey Nonresponse Adjustment..... | 62 |
| Raking 64 | |
| Full sample versus Replicate Weights | 66 |
| Example | 66 |
| Appendix E: Illustration of Weight Adjustment Operations | 71 |

Chapter 1: Survey Introduction

Overview

This report provides a description of the survey instrument, sample design, administration, analysis, and reporting procedures for the 2023 U.S. Office of Personnel Management (OPM) Federal Employee Viewpoint Survey (FEVS). The U.S. OPM has conducted the FEVS since 2002.¹ The survey was conducted biennially between 2002 and 2010, and annually thereafter. Westat, a research company based in Rockville, MD, has been the primary contractor for the survey since 2004. They provide technical expertise and support for the FEVS.

The FEVS is a climate survey designed to capture Federal employees' perceptions of organizational policies, practices, and procedures, and subsequent patterns of interactions and behaviors that support organizational performance. As a construct, climate is a surface manifestation of organizational culture.² Climate assessments like the FEVS are, consequently, important to organizational improvement largely because of the key role culture plays in organizational performance.

The FEVS is designed to provide agencies with employee feedback on indices and dimensions critical to organizational performance: conditions for engagement, perceptions of leadership organizational effectiveness, outcomes related to climate (e.g., job satisfaction), and more.

¹ Prior to 2010, the survey was called the Federal Human Capital Survey (FHCS).

² Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., et al. (2005). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior*, 26, 379–408.

Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., Lacost, H. A., & Roberts, J. E. (2003). Relationships between psychological climate perceptions and work outcomes: A meta-analytic review. *Journal of Organizational Behavior*, 24, 389–416.

Schulte, M., Ostroff, C., & Kinicki, A. J. (2006). Organizational climate systems and psychological climate perceptions: A cross level study of climate-satisfaction relationships. *Journal of Occupational and Organizational Psychology*, 79, 645–671.

Schneider, B. (2000). The psychological life of organizations. In N. M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate: xvii-xxii*. Thousand Oaks, CA: Sage.

Schneider, B., Brief, A. P., & Guzzo, R. A. (1996). Creating a climate and culture for sustainable organizational change. *Organizational Dynamics*, 24, 7–19.

To facilitate ease of response, the 122-item survey was organized by referent categories and demographics, with headings shown next. They are not consistently related to measures (see Chapter 3, Survey Content for identification and description of measures):

- My Work Experience,
- My Work Unit,
- My Organization,
- My Supervisor,
- Leadership,
- My Satisfaction,
- *[Redacted in response to Executive Order (EO) 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing],*
- Employee Experience,
- Workplace Flexibilities,
- Employment Demographics, and
- Personal Demographics.

Goals for the FEVS program include:

- A responsive survey with a leading-edge design and content drawing upon contemporary research and capable of informing leadership priorities.
- Data of the highest possible quality (e.g., reliable, valid) to support effective organizational development decisions.
- A survey and reporting process that supports timely and substantive change actions within agencies and across government.

In keeping with responsiveness goals, items have been added to meet evolving needs and priorities (e.g., demographic questions to assess sexual orientation in 2012, partial government shutdown items in 2019, COVID-19 pandemic in 2020, measures of *[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing, and EO 14168 Defending Women From Gender Ideology Extremism and Restoring Biological Truth to the Federal Government]*) to allow assessment of the impact of timely topics relevant to the Federal workforce.

Aligning with goals to achieve high-quality data to drive decisions, the sample design and statistical weighting for the FEVS ensures that the survey results are statistically representative. Not only at the overall Federal workforce (i.e., governmentwide) level, but also at the agency level.

Uses of Survey Results

FEVS data and results are used by numerous stakeholders, for example, by OPM as a data source for evaluations of programs and policies at the governmentwide level, and the Office of Management and Budget for oversight activities. The FEVS provides members of the public, including universities, with an important source of data for studying and understanding questions around government function.

Within participating agencies, Federal leaders use FEVS results to identify organizational development and improvement strategies, evaluate development actions, and highlight important agency successes. FEVS findings allow agencies and subagencies to assess trends, where applicable, by comparing results from previous years. Agencies can compare their results with the governmentwide trends, to identify current strengths and challenges, and to focus on short-term and long-term action targets that will help agencies reach their strategic human resource management goals. The recommended approach for assessing and driving change in agencies is to utilize FEVS results in conjunction with other resources, such as results from other internal agency surveys, administrative data, focus groups, exit interviews, and other methods to collect contextual, agency-specific information.

Chapter 2: Sample Design and Selection

Sample Design

The FEVS sample design reflects OPM’s commitment to providing Federal leaders with representative information about their employees’ perceptions of workplace management practices, policies, and procedures. The FEVS was administered to Federal employees onboard with their agency as of November 2022. The survey population for the 2023 FEVS is primarily made up of permanent, full- and part-time employees, as well as employees in phased retirement. Political appointees, contractors, and non-Federal employees remained ineligible to participate. The 2023 FEVS was a governmentwide census. Data cleaning and weighting procedures are discussed in Chapter 5.

The total sample size for the 2023 FEVS was 1,609,839 employees compared to 1,582,112 in 2022 and 938,638 in 2021. The 2023 sample size was more than sufficient to ensure a 99 percent chance that the true population value would be between plus or minus 1 percent of any estimated percentage for the total Federal workforce. Agencies that participated in previous FEVS but did not participate in 2023 include the Department of Veterans Affairs (VA), National Aeronautics and Space Administration (NASA), and the U.S. Security and Exchange Commission (SEC).

Sampling Frame and Stratification Variables

The sampling frame is a comprehensive list of all persons in the Federal employee population eligible for selection in the survey. For the 2023 FEVS, the sampling frame consisted of 1,695,901 Federal employees in pay status as of November 2022 in the agencies participating in the survey. Apart from a few exceptions³ this list originated from the personnel database managed by OPM as part of the

³ At the time of sample selection, a separate data submission was arranged because EHRI-SDM did not maintain information on the following employee types eligible to participate in the survey: U.S. Army Corps of Engineers foreign national employees, Department of the Air Force non-appropriated fund employees, U.S. Department of Agriculture Farm Service Agency County employees and Public Health Service employees, Department of the Army foreign national employees and non-appropriated fund employees, Foreign national employees for the Defense Finance and Accounting Service and non-appropriated fund employees for the Defense Logistics Agency, Environmental Protection Agency Public Health Service employees, Department of Health and Human Services Commission Corps employees, Department of Homeland Security – Immigration and Customs Enforcement Public Health Service employees, U.S. Marine Corps non-appropriated fund employees, Postal Regulatory Commission, and Department of State Foreign Service employees.

Statistical Data Mart of the Enterprise Human Resources Integration (EHRI-SDM).⁴ OPM contacted participating agencies for employee email addresses and supplemental organizational information. This information provides the hierarchical work unit(s) designation for each employee and provides more detailed information than available from the EHRI-SDM. The total survey population size was 1,695,901 employees, but after cleaning procedures, including removing people who were no longer an employee of an agency prior to the survey administration period, the final survey population size was 1,609,839 Federal employees.

⁴ [FedScope](#)

Chapter 3: Survey Instrument

Survey Content

The FEVS instrument is designed to assess effectiveness indicators and the climate of Federal agencies. Climate *is a multi-dimensional construct*.⁵ It is exhibited through workplace tangibles such as behaviors and practices, which employees can perceive and describe in response to survey items developed to describe aspects of climate.⁶ Like other organizational climate instruments, the FEVS captures employee perspectives regarding workplace conditions.

The 2023 survey instrument includes items that have remained consistent as well as revisions and new content. FEVS items required in regulation and those in regularly reported indices (Employee Engagement, Global Satisfaction, and Performance Confidence) were retained for the 2023 survey, as were demographic sections. Survey items related to the COVID-19 pandemic were no longer asked. Several new topic areas and items tested in prior survey administrations were added to the 2023 survey. A complete list of item changes to the 2023 FEVS is available in Appendix A.

The 2023 FEVS was conducted via the Web and was 508 compliant.⁷ The 111-item survey included 19 demographic questions and 92 items that were grouped into nine topic headings. These headings are not consistently related to measures, rather they are intended to organize the instrument and facilitate respondent comprehension. See Appendix A for a list of all items in the 2023 FEVS survey.

⁵ Organizational climate is a theoretical construct with specific outcomes (dependent variables) featured in climate models, especially employee satisfaction and productivity. It is a multi-dimensional construct comprised of discreet dimensions, capturing how employees jointly experience the policies, practices, and procedures of their organizations. Employee perceptions of climate, influence organizational effectiveness by shaping, for example, employee engagement, satisfaction, motivation, commitment, and turnover.

⁶ James, L. R., & Jones, A. P. (1974). Organizational climate: A review of theory and research. *Psychological Bulletin*, *81*, 1096–1112.

Schneider, B. (2000). The psychological life of organizations. In N. M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate: xvii-xxii*. Thousand Oaks, CA: Sage.

Schneider, B., Brief, A. P., & Guzzo, R. A. (1996). Creating a climate and culture for sustainable organizational change. *Organizational Dynamics*, *24*, 7–19.

⁷ Section 508 is an amendment to the Rehabilitation Act of 1973 and that it requires Federal agencies to ensure that all forms of information and communication technology (ICT that agencies use, procure, distribute, or maintain be fully accessible to both Federal employees and to the general public.

Importantly, recent updates to FEVS content included the addition of new indices and the identification and clarification of climate dimension measures. A detailed outline of the updates to current FEVS dimensions and indices is below.

FEVS Dimensions

Organizational climate dimensions capture aspects of employees' shared perceptions of the workplace in terms of the policies, practices, and procedures of an organization⁸. Similar to other climate surveys, the FEVS focuses on organizational practices largely within the control of leadership. Instead of simply diagnosing a challenge to organizational effectiveness, climate surveys identify specific policies and management practices that may influence work-related behaviors and attitudes and what they suggest about potential workplace improvements⁹.

Decades of research consistently confirm a link between climate survey dimensions and various effectiveness-related outcomes. For example, climate demonstrates a positive relationship with motivation and employee engagement¹⁰; it predicts job satisfaction and, ultimately, retention rates¹¹. To support similar evaluations, the FEVS framework includes measures of both dimensions and indices. Results from dimensions and indices together provide strong tools for change management initiatives. The majority of items on the survey are assigned to either a dimension or index.

⁸Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D. L., & Wallace, A. M. (2005). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior*, 26(4), 379–408.

Schneider, B., Ehrhart, M.G., & Macey W.H. (2013). Organizational Climate and Culture. *Annual Review of Psychology*, 64, 361-388.

⁹Schulte M., Ostroff C., & Kinicki A. J. (2006). Organizational climate systems and psychological climate perceptions: A cross-level study of climate-satisfaction relationships. *Journal of Occupational and Organizational Psychology*, 79, 645–671.

Schneider, B., Ehrhart, M.G., & Macey W.H. (2013). Organizational Climate and Culture. *Annual Review of Psychology*, 64, 361-388.

¹⁰Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., Lacos, H. A., & Roberts, J. E. (2003). Relationships between psychological climate perceptions and work outcomes: A meta-analytic review. *Journal of Organizational Behavior*, 24, 389–416.

¹¹Griffin, M. L. (2001). Job satisfaction among detention officers: Assessing the relative contribution of organizational climate variables. *Journal of Criminal Justice*, 29(3), 219-232.

Hausknecht, J. P., Rodda, J., & Howard, M. J. (2009). Targeted employee retention: performance-based and job-related differences in reported reasons for staying. *Human Resource Management*, 48(2), 269-288.

Final dimensions identified for the FEVS were based on testing of a widely utilized framework that captures management practices and values and strongly relates to organizational performance culture¹². Employee perceptions of management efforts as they relate to performance culture dimensions have been found to provide powerful insights for leadership as they consider actions toward strategic workplace development¹³. Dimensions for the FEVS are assigned to domains modeled on these performance culture domains and labeled Employee-Focused, Agile, Goal-Oriented, and Foundation. Survey items listed below can be found in Appendix A.

Employee-Focused Performance Dimensions

Organizations are effective when policies and programs support the workforce. The original FEVS included items that align well with the dimensions described for an Employee-Focused performance culture domain. Hallmark dimensions assess whether workplace conditions include employee development, opportunities for employees to be included in decision-making, and a focus on employee welfare and work-life needs. Characteristic dimensions include:

Employee Development: The organization supports the development of employee skills through training, new assignments, etc. to encourage and strengthen high performance. (Q.1, 10)

Employee Voice: Employee input is sought to influence decisions, management practices and, in general, to feel heard in decision-making. (Q.25, 66, 67)

Employee Welfare: The organization ensures the safety and security of its employees. (Q.36, 43, 44)

Work-Life Support: The organization supports a healthy balance of job and life responsibilities. (Q.5, 34, 49, 63)

¹² Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D. L., & Wallace, A. M. (2005). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior*, 26(4), 379–408.

¹³ Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D. L., & Wallace, A. M. (2005). Validating the organizational climate measure: Links to managerial practices, productivity and innovation. *Journal of Organizational Behavior*, 26(4), 379–408.

Agile Performance Dimensions

Effective organizations sense and adapt rapidly to new information, requirements, or strategically relevant conditions. Agile workplaces are capable of pivoting to meet evolving priorities, respond effectively to disruptions, plus take advantage of emerging opportunities to perform¹⁴. Agility has become particularly relevant to performance post-Covid plus research and policy discussion around the workforce of the future. Characteristic dimensions assess:

Resilience: Individuals, work units, and the entire organization responds effectively to challenges confronting them, as well as adapt and take advantage of opportunities. (Q.28, 31, 42, 65)

Innovation: The organization supports the development and implementation of new ideas and approaches. (Q.27, 29, 30, 64)

Autonomy: Employees are provided with the freedom to make decisions about how to accomplish their work. (Q.13, 14)

Goal-Oriented Performance Dimensions

Organizations are effective when focused on well-defined objectives with practices and policies that emphasize productivity, goal achievement, and performance management. Characteristic dimensions include:

Accountability: The organization emphasizes employee responsibility for their performance. (Q.11, 16, 53)

Goal Clarity: The organization clearly defines its goals and priorities and communicates them to employees. (Q.26, 38)

Performance Feedback: Employees participate in constructive discussions to guide and motivate goal achievement. (Q.12, 55, 56)

¹⁴ Baran, B. E., & Bible, S. C. (2019). Agility and Agile: An Introduction for People, Teams, and Organizations. *SIOP White Pap Ser.*

Recognition: Employees are acknowledged for their performance and contributions to the organization's mission. (Q.17, 35, 69)

Foundation Performance Dimensions

Effective organizations have strong core policies, competencies, capabilities, and dedicate resources to support performance. The FEVS provides further assessments of an agency's potential to perform through key foundational dimensions:

Communication: Management conveys relevant information to its employees. (Q.40, 60, 68)

Cooperation: Employees work effectively together to achieve collective goals. (Q.15, 18)

Customer Responsiveness: The work unit prioritizes understanding and responding to customer needs. (Q.32, 33)

Merit Principles: The organization ensures that Federal personnel management practices support fairness and protect employees. (Q.8, 45)

Performance Resources: The organization supports employees with the necessary resources (i.e., information, staff, skills) required for successful job performance. (Q.9, 19, 24)

FEVS Indices

Each FEVS index is a collection of items that statistically cluster together and can be combined into a single score for interpretation and/or analysis. Indices speak to an aspect of employee perspectives and experiences and generally function as outcomes or dependent variables in analysis. The Employee Engagement Index (EEI) and the Global Satisfaction Index (GSI) were introduced to the FEVS over a decade ago. Responding to priorities, new measures were introduced in recent years including the Performance Confidence Index (PCI), the *[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing]* Index and the Employee Experience Index (EXI).

Employee Engagement Index (EEI)

The FEVS Employee Engagement Index (EEI) uses questions from the survey to measure critical workplace conditions conducive to employee engagement (e.g., effective leadership, work which provides meaning to employees, the opportunity for employees to learn/grow on the job).

Assessments such as the EEI remain a critical tool for managers to identify areas for improvements and sustaining work conditions and environments that support employee engagement and performance. Engagement overall relates to employee motivation¹⁵.

The EEI is comprised of three subindices: Leaders Lead, Supervisors, and Intrinsic Work Experience. The score of each subindex is calculated by averaging the percent positive scores for each question in the subindex. The EEI Overall score is the average of the three subindex scores.

Leaders Lead: Reflects the employees' perceptions of the integrity of leadership, as well as leadership behaviors such as communication and workforce motivation. (Q.57, 58, 59, 61, 62)

Supervisors: Reflects the interpersonal relationship between worker and supervisor, including trust, respect, and support. (Q. 48, 50, 51, 52, 54)

Intrinsic Work Experience: Reflects the employees' feelings of motivation and competency relating to their roles in the workplace. (Q.2,3,4,6,7)

Global Satisfaction Index

The Global Satisfaction Index measures employee satisfaction on four aspects related to their work: their job, pay, organization, and whether they would recommend their organization as a good place to work. Understanding employee satisfaction along these four aspects gives agencies a sense of how employees are feeling and is important for agency effectiveness in the long run – satisfied employees are more likely to stay in their jobs, reducing turnover¹⁶.

The Global Satisfaction Index is an average of the percent positive scores of the four items below:

¹⁵ Wollard, K. K., & Shuck, B. (2011). Antecedents to employee engagement: A structured review of the literature. *Advances in developing human resources*, 13(4), 429-446.

¹⁶ Das, B. L., & Baruah, M. (2013). Employee retention: A review of literature. *Journal of business and management*, 14(2), 8-16.

Job Satisfaction: Considering everything, how satisfied are you with your job? (Q. 70)

Pay Satisfaction: Considering everything, how satisfied are you with your pay? (Q. 71)

Organizational Satisfaction: Considering everything, how satisfied are you with your organization? (Q. 72)

Recommend Organization: I recommend my organization as a good place to work. (Q. 46)

Performance Confidence Index

Performance Confidence is defined as “The extent to which employees believe their organization has an outstanding competitive future, based on innovative, high-quality products and services that are highly regarded.”¹⁷ The Performance Confidence Index on the FEVS is a combination of four items assessing employees’ perception of their work unit’s ability to achieve its goals and produce work at a high level and, ultimately, provides insights into agency performance.

The Performance Confidence Index is an average of the percent positive responses for the four items below:

Met Needs of Customers: Employees in my work unit meet the needs of our customers. (Q. 20)

Contributed Positively to Agency Performance: Employees in my work unit contribute positively to my agency’s performance. (Q. 21)

Produced High Quality Work: Employees in my work unit produce high-quality work. (Q. 22)

Adapted to Changing Priorities: Employees in my work unit adapt to changing priorities. (Q. 23)

Redacted

[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]

Employee Experience Index (EXI)

The Employee Experience Index (EXI) is an outcome measure of employee engagement and was initially included on the 2022 FEVS. EXI measures the extent to which employees are engaged by their work and their organization. The existing engagement measure on the FEVS, the Employee Engagement Index (EEI), is a measure of the conditions for engagement, e.g., whether a workplace has the right environment to foster engaged employees. The goal of this new measure is to assess whether employees experience a state of engagement and to provide agencies another tool for assessing if actions to improve engagement had the intended effect. The index was developed in conjunction with the Organization for Economic Co-operation and Development (OECD) through their Civil Service Surveys Group.

The EXI is comprised of five items that measure work engagement, organizational engagement, and public service motivation. The EXI is an average of the percent positive responses of the five items below.

Work engagement: The relationship between employees and their specific job. (Q.86, 87)

Organizational engagement: The relationship between an employee and the organization where they work. (Q.88, 89)

Public Service motivation: Employees in civil service jobs often choose them due to a desire to contribute to the public good. (Q90)

Agency Specific Items

In addition to the 111 survey items (i.e. the total number of combined core items and demographics) administered to all employees on the FEVS, agencies were provided an opportunity to add up to eight extra items tailored specifically to issues of interest to the agency. In addition to the eight extra agency specific items, agencies were invited to ask two additional items that would help specify the level of leadership respondents considered when answering questions about leadership or the organization. A total of 62 agencies opted to add agency-specific items in 2023.

Chapter 4: Data Collection

In this chapter, we describe the data collection procedures OPM used to administer the Web-based FEVS, including details on the disposition codes used during data collection and for the calculation of response rates. This chapter concludes with a description of the procedures used during the data collection period to address questions received from Federal employees.

Web-Based Data Collection Procedures

The 2023 FEVS was a Web-based, self-administered survey. OPM sent emails to employees with an invitation to participate in the survey. The invitation email included instructions for accessing the survey (see Appendix B for the invitation). Up to four reminder emails were also sent to non-respondents, including a final reminder sent the final week of an agency's data collection period, indicating the survey would close on the Friday of that week (see Appendix B for examples of the reminder emails). Once an employee completed and submitted the survey, reminder emails were no longer sent to that individual. OPM also provided agencies with sample communication materials to promote the survey and encourage participation.

Estimates indicated the time for survey completion was no more than 30 minutes for the core items. The actual total survey completion times varied from agency to agency depending upon the number and complexity of any included agency-specific items. Employees were informed that official work time could be used to complete the survey.

Data Collection Period

The data collection period for the 2023 FEVS was May 8, 2023, to July 14, 2023. To spread the work and technical loads evenly over the fielding period, OPM released the surveys to agencies in two waves, beginning either Monday May 8th or Monday, May 15th (see Table 1). The data collection period for each agency spanned eight work weeks¹⁸. Table 1 shows the week of launch and close dates by agency.

Table 1. 2023 FEVS survey week of launch and close dates, by agency

| Agency | Week of Launch Date | Week of Close Date |
|--|---------------------|--------------------|
| Court Services & Offender Supervision Agency | May 8 | July 7 |
| Department of Agriculture | May 8 | July 7 |
| Department of Commerce | May 15 | July 14 |
| Department of Defense | | |
| Department of the Air Force | May 8 | July 7 |
| Department of the Army | May 15 | July 14 |
| U.S. Army Corps of Engineers | May 15 | July 14 |
| Department of the Navy | May 8 | July 7 |
| U.S. Marine Corps | May 8 | July 7 |
| DOD 4th Estate | May 8 | July 7 |
| Department of Education | May 15 | July 14 |
| Department of Energy | May 8 | July 7 |
| Department of Health and Human Services | May 15 | July 14 |
| Department of Homeland Security | May 15 | July 14 |
| Department of Housing and Urban Development | May 15 | July 14 |
| Department of Justice | May 8 | July 7 |
| Department of Labor | May 8 | July 7 |
| Department of State | May 8 | July 7 |
| Department of the Interior | May 15 | July 14 |
| Department of the Treasury | May 8 | July 7 |
| Department of Transportation | May 8 | July 7 |
| Environmental Protection Agency | May 8 | July 7 |
| Equal Employment Opportunity Commission | May 8 | July 7 |
| Federal Communications Commission | May 15 | July 14 |
| Federal Energy Regulatory Commission | May 8 | July 7 |
| Federal Trade Commission | May 8 | July 7 |
| General Services Administration | May 8 | July 7 |
| National Archives and Records Administration | May 15 | July 14 |
| National Credit Union Administration | May 8 | July 7 |
| National Labor Relations Board | May 8 | July 7 |

¹⁸ The survey period was extended from six weeks to eight weeks due to technical system challenges.

| Agency | Week of Launch Date | Week of Close Date |
|---|---------------------|--------------------|
| National Science Foundation | May 15 | July 14 |
| Nuclear Regulatory Commission | May 8 | July 7 |
| Office of Management and Budget | May 15 | July 14 |
| Office of Personnel Management | May 15 | July 14 |
| Pension Benefit Guaranty Corporation | May 8 | July 7 |
| Railroad Retirement Board | May 8 | July 7 |
| Small Business Administration | May 8 | July 7 |
| Social Security Administration | May 15 | July 14 |
| U.S. Agency for Global Media | May 15 | July 14 |
| U.S. Agency for International Development | May 8 | July 7 |
| Small/Independent Agencies | May 15 | July 14 |

Survey Disposition Codes

Determining survey disposition codes is a two-step process with an interim code and a final code assigned. Each case in the sample frame receives interim disposition codes to indicate the result of specific survey contact attempts (e.g., pending, out of office, no email address) during the survey period. At the end of the survey period, each case receives one final disposition code.

Interim Disposition Codes

Throughout data collection, each case received an interim disposition code when the case was not yet assessed as closed. Table 2 shows the interim disposition codes.

Table 2. 2023 FEVS interim disposition codes

| Interim Code | Description of Interim Disposition Code |
|---------------|---|
| 00 | Pending, non-response |
| CO | Complete |
| IE | Ineligible (e.g., deceased, retired, no longer with agency) |
| Undeliverable | Description of Undeliverable Code |
| 11 | 1 st Undeliverable |
| 12 | 2 nd Undeliverable |
| 13 | 3 rd Undeliverable |
| 14 | 4 th Undeliverable |
| 15 | 5 th Undeliverable |
| 16 | 6 th Undeliverable |
| 17 | 7 th Undeliverable |
| 18 | 8 th or more Undeliverable |
| 20 | No longer at email address, no forwarding information |
| NE | No email address |

| Interim Code | Description of Interim Disposition Code |
|----------------------|--|
| Out of office | Description of Out of office Code |
| 41 | 1 st Out of office |
| 42 | 2 nd Out of office |
| 43 | 3 rd Out of office |
| 44 | 4 th Out of office |
| 45 | 5 th Out of office |
| 46 | 6 th Out of office |
| 47 | 7 th Out of office |
| 48 | 8 th or more Out of office |
| Other | Description of Other Code |
| 80 | Opted Out |
| 90 | Request Reset URL |
| RF | Refusal |
| UA | Unavailable during the field period |
| NS | Not Sampled |

Starting in 2018, respondents who emailed to refuse participation were immediately coded as a refusal and unsubscribed from future communications. For 2023, an opt-out link was included with the reminders sent from OPM to participants who had not yet completed their survey. These participants had a separate interim disposition code while the survey was in the field. However, once the survey closed, they were included with the disposition code for refusals.

During data collection, if the respondent's out-of-office email indicated that they were out of the office during the entire data collection period, the case received an interim disposition code of unavailable (UA).

Converting Interim Codes to Final Disposition Codes

Each case used the following rules when converting interim disposition codes to a final disposition code.

Survey Completes and Incompletes. All respondents who submitted surveys received an interim complete. However, to receive a final disposition code as a complete (CO), a respondent had to provide answers to at least 23 of the core non-demographic items. That is, they needed to complete over 25 percent of the core non-demographic survey items. If the respondent answered fewer than the required 25 percent of the non-demographic items, the case was an incomplete (IN).

Once the cases received codes as completes or incompletes, the final disposition process applied the following rules in hierarchical order:

- **Refusals.** Cases coded as a refusal (code RF) remained unless the employee completed the survey. If a case coded as a refusal, and completed the survey, the case received a complete (CO).
- **Ineligibles.** Cases coded as ineligible (code IE) were based on the following criteria; the person was discovered after sampling to be:
 - retired;
 - no longer with the agency;
 - unavailable during the data collection period (UA) (i.e., out on maternity leave, out of the country, on leave for any other reason during the entire data collection period);
 - determined to be active duty, activated military, a political appointee, or a contractor; or
 - deceased.

Undeliverable Emails. If a respondent had an undeliverable email bounce back, we counted the number of undeliverable messages received and this number provided the interim undeliverable code of 11 through 18 (i.e., 1 through 8 or more undeliverable messages). The following rule applied to determine the respondent’s undeliverable (code UD) status: if the total number of contacts with the respondent’s agency equaled at least $\frac{1}{2}$ the number of undeliverable bounce backs, then the case received a UD. If less than $\frac{1}{2}$ the number of total contacts were undeliverable bounce backs, the case received a NR. In 2023, every person had 5 potential contacts (invitations and reminders), any case with at least 3 (5 contacts divided by 2 = 2.5 rounded up) interim undeliverable emails (interim codes 13 through 15) would be coded as UD; otherwise, they would be designated as no response (code NR).

Final Disposition Codes

Table 3 lists the final disposition codes with the number of cases per code for the 2023 FEVS. The codes abide by the American Association of Public Opinion Research’s (AAPOR) 2016 guidelines for internet surveys of specifically named persons.¹⁹ The calculation of survey response rates and survey

¹⁹ The American Association for Public Opinion Research. (2016). *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. (9th ed.) AAPOR.*

analysis weights used final disposition codes. The final analysis dataset only includes cases with a final disposition code of complete (CO); no other disposition codes are retained in the dataset.

Table 3. 2023 FEVS final disposition codes and case count per disposition code

| Final Disposition Codes | Description | Number of Cases |
|--------------------------------|---|------------------------|
| CO | Complete – respondent answered at least 23 of the 90 non-demographic items | 625,568 |
| IN | Incomplete – respondent answered at least 1 but less than 23 of the 90 non-demographic items | 18,219 |
| RF | Refusal (including Opt-Out) | 744 |
| NR | No response | 965,308 |
| NS | Not Sampled | 6 |
| IE | Ineligible (e.g., deceased or no longer with agency) | 4,491 |
| NE | No email address | 21,027 |
| UA | Unavailable during the fielding period | 49 |
| UD | Undeliverable email | 60,489 |
| Total | | 1,695,901 |

Response Rates

Westat calculated response rates for the FEVS in two ways: (1) using the formula reported in previous administrations of the FEVS, and (2) using AAPOR’s Response Rate 3 formula, an industry-standard method that allows a better comparison to other surveys as shown in Appendix C. The two formulas lead to different results due to differences in the allocations of final disposition codes among the four **main groupings of survey cases:**

- Eligible respondents (ER = surveyed and responded),
- Eligible non-respondents (ENR = known eligible cases that did not return completed surveys),
- Unknown eligibility (UNK), and
- Ineligible cases (IE).

Table 4 shows the distributions of final disposition codes among these four groupings. Table 5 displays the governmentwide and agency response rates, which were calculated using the FEVS formula.

Table 4. Case assignment allocation to response rate groups

| Response Rate (RR) Group | OPM FEVS Allocation | OPM FEVS Counts |
|--------------------------------|---------------------|------------------|
| Eligible Respondents (ER) | CO | 625,568 |
| Eligible Non-respondents (ENR) | NR, RF, IN | 984,271 |
| Unknown Eligibility (UNK) | --- | |
| Ineligible (IE) | IE, UD, NE, UA, NS | 86,062 |
| Total | | 1,695,901 |

Using the counts in Table 4, the response rates in final reporting follows:

FEVS formula:

Number of eligible employees returning completed surveys / Number of eligible employees:

$$RR = ER / (ER + ENR) * 100$$

$$RR = 625,568 / (625,568 + 984,271) * 100$$

$$RR = (625,568 / 1,609,839) * 100$$

RR = 38.9 percent (up from 35.3 percent in 2022)

Table 5. 2023 FEVS agency response rate by employee population size categories

| Agency | Number of Completed Surveys | Response Rate |
|--|------------------------------------|----------------------|
| Governmentwide | 625,568 | 38.9% |
| Very Large Agencies (> 75,000 employees) | | |
| Department of Agriculture | 48,358 | 55.3% |
| Department of Defense, Overall | 161,792 | 23.7% |
| United States Department of the Air Force | 29,434 | 18.2% |
| United States Department of the Army* | 52,833 | 27.6% |
| United States Department of the Navy** | 39,201 | 20.2% |
| OSD, Joint Staff, Defense Agencies, and Field Activities | 40,324 | 30.1% |
| Department of Health and Human Services | 59,020 | 72.5% |
| Department of Homeland Security | 91,700 | 43.7% |
| Department of Justice | 34,081 | 31.1% |
| Department of the Treasury | 42,362 | 43.6% |
| Large Agencies (10,000 – 74,999 employees) | | |
| Department of Commerce | 25,906 | 58.3% |
| Department of Energy | 9,481 | 73.3% |
| Department of Labor | 9,214 | 64.5% |
| Department of State | 9,360 | 34.7% |
| Department of the Interior | 35,949 | 63.6% |
| Department of Transportation | 20,624 | 38.6% |
| Environmental Protection Agency | 9,226 | 64.8% |
| General Services Administration | 8,092 | 68.4% |
| Social Security Administration | 25,757 | 46.1% |
| Medium Agencies (1,000 – 9,999 employees) | | |
| Court Services and Offender Supervision Agency | 428 | 42.2% |
| Department of Education | 2,773 | 70.6% |
| Department of Housing and Urban Development | 5,641 | 73.1% |
| Equal Employment Opportunity Commission | 1,379 | 64.1% |
| Federal Communications Commission | 519 | 38.2% |
| Federal Energy Regulatory Commission | 1,195 | 83.5% |
| Federal Trade Commission | 829 | 76.6% |
| National Archives and Records Administration | 1,502 | 59.9% |
| National Credit Union Administration | 908 | 82.3% |
| National Labor Relations Board | 536 | 45.2% |
| National Science Foundation | 1,070 | 76.3% |
| Nuclear Regulatory Commission | 1,908 | 71.9% |
| Office of Personnel Management | 1,595 | 61.7% |
| Small Business Administration | 3,563 | 66.0% |
| U.S. Agency for Global Media | 727 | 58.0% |
| U.S. Agency for International Development | 1,983 | 46.7% |
| Small Agencies (100 – 999 employees) | | |
| Commodity Futures Trading Commission | 379 | 58.1% |
| Consumer Product Safety Commission | 395 | 76.4% |
| Corporation for National and Community Service | 516 | 81.1% |
| Defense Nuclear Facilities Safety Board | 74 | 69.2% |
| Export-Import Bank of the United States | 248 | 72.3% |
| Farm Credit Administration | 239 | 79.7% |

Table 5. 2023 OPM FEVS agency response rate by employee population size categories (continued)

| Agency | Number of Completed Surveys | Response Rate |
|---|------------------------------------|----------------------|
| Small Agencies (100 – 999 employees) continued | | |
| Federal Election Commission | 182 | 68.4% |
| Federal Housing Finance Agency | 574 | 82.6% |
| Federal Labor Relations Authority | 54 | 54.5% |
| Federal Maritime Commission | 79 | 66.9% |
| Federal Mediation and Conciliation Service | 145 | 75.1% |
| Federal Retirement Thrift Investment Board | 177 | 74.4% |
| International Boundary and Water Commission | 111 | 48.5% |
| Merit Systems Protection Board | 147 | 83.1% |
| National Endowment for the Arts | 69 | 54.8% |
| National Endowment for the Humanities | 90 | 71.4% |
| National Gallery of Art | 464 | 59.5% |
| National Indian Gaming Commission | 75 | 68.8% |
| National Transportation Safety Board | 318 | 84.1% |
| Office of Management and Budget | 461 | 77.9% |
| Office of the U.S. Trade Representative | 174 | 78.7% |
| Peace Corps | 603 | 70.9% |
| Pension Benefit Guaranty Corporation | 702 | 76.8% |
| Railroad Retirement Board | 410 | 54.2% |
| Selective Service System | 95 | 81.2% |
| Surface Transportation Board | 86 | 74.8% |
| U.S. International Development Finance Corporation | 289 | 71.9% |
| U.S. International Trade Commission | 335 | 92.8% |
| U.S. Office of Special Counsel | 71 | 60.7% |
| Very Small Agencies (< 100 employees) | | |
| AbilityOne Commission | 19 | 50.0% |
| Advisory Council on Historic Preservation | 29 | 72.5% |
| African Development Foundation | 17 | 81.0% |
| American Battle Monuments Commission | 34 | 44.7% |
| Chemical Safety and Hazard Investigation Board | 23 | 85.2% |
| Commission on Civil Rights | 19 | 57.6% |
| Farm Credit System Insurance Corporation | <10 | -- |
| Federal Permitting Improvement Steering Council | 10 | 71.4% |
| Institute of Museum and Library Services | 49 | 76.6% |
| Inter-American Foundation | 45 | 97.8% |
| John F. Kennedy Center for the Performing Arts | 22 | 40.0% |
| Marine Mammal Commission | 12 | 92.3% |
| National Capital Planning Commission | 23 | 74.2% |
| National Council on Disability | <10 | -- |
| National Mediation Board | 13 | 48.1% |
| Occupational Safety and Health Review Commission | 18 | 41.9% |
| Office of Navajo and Hopi Indian Relocation | <10 | -- |
| Postal Regulatory Commission | 54 | 87.1% |

Table 5. 2023 OPM FEVS agency response rate by employee population size categories (continued)

| Agency | Number of Completed Surveys | Response Rate |
|---|------------------------------------|----------------------|
| Very Small Agencies (< 100 employees) (continued) | | |
| Privacy and Civil Liberties Oversight Board | 11 | 55.0% |
| U.S. Access Board | 10 | 47.6% |
| U.S. Office of Government Ethics | 52 | 76.5% |
| U.S. Trade and Development Agency | 50 | 83.3% |

*United States Department of the Army numbers include United States Army Corps of Engineers.

**United States Department of the Navy numbers include United States Marine Corps.

Help Center

As part of Westat’s contractual duties, a Help Center with a trained staff was set up during the FEVS data collection period to assist Federal employees with questions about the survey. Providing a Help Center ensures prompt, accurate, professional, and consistent handling of all inquiries. A Help Center also supports higher response rates during data collection by allowing respondents to obtain answers to questions, voice concerns, ensure the legitimacy of the survey, and remedy any technical issues with the survey. The Help Center served as a central point for coordinating and managing reported problems and issues. Employees could email their questions and concerns to Help Center staff.

Twenty-nine email accounts were set up, one for each of the 27 large departments/agencies, one for the small/independent agencies, and one for the large independent agencies. Westat’s Help Center staff included four trained team staff members, one Help Center supervisor, and one assistant Help Center supervisor, with all operations overseen by the data collection task manager. Members of the FEVS staff handled email inquiries from Westat Help Center supervisors.

The Help Center opened with the launch of the first survey invitation on May 8, 2023 and closed on the last day of the fielding period, July 14, 2023. Hours of operation were 8:30 am to 5:00 pm Eastern Time, Monday through Friday. The Help Center was based out of the Westat campus in Rockville, Maryland.

Staff Training

The Help Center supervisors conducted a two-part, in person training session for all Help Center staff prior to the launch of the survey. Part one of the training session included an introduction to the project, a review of the 2023 OPM FEVS Contractor Answer Book prepared by OPM, a technical session on how to use the Web-based Help Center Application (see next section for details on this application),

and procedures for handling emails from employees. Part two of the training session involved all trainees using temporary accounts and test cases that were set up in a training version Web-based application to apply what they had learned in a set of example resolution exercises. The training session closed with questions from Help Center staff.

The formal 4-hour training was followed-up with one-on-one training sessions the next day between the Help Center supervisors and the Help Center staff. One-on-one sessions further assisted the Help Center staff understand eligibility requirements and how to code dispositions properly. During the survey administration period, the Help Center supervisors routinely reviewed the survey support inboxes, Help Center staff workload, and replies to respondents to ensure responses were not only timely, but also appropriate.

Web-Based Help Center Application

The Web-based Help Center Application, or Survey Management System (SMS), is an application that enables Help Center staff and members of the FEVS staff to respond to emails, facilitate quick handling of respondent inquiries, and optimize technical assistance response times. The SMS managed email inquiries from survey participants and provided other support functions such as tracking disposition codes for the surveys, updating contact information, capturing real-time survey submissions, and generating response rate reports. The SMS was linked to the OPM survey platform, enabling Help Center staff to unsubscribe employees who explicitly refused to take the survey or who were designated as ineligible, so that they did not continue to receive reminder notifications. The SMS also automatically received response information in real-time from the survey platform to keep response rate reporting as accurate and up to date as possible. Cases for which the SMS could not provide real-time updates, were updated twice daily.

Response Rate Reporting Website

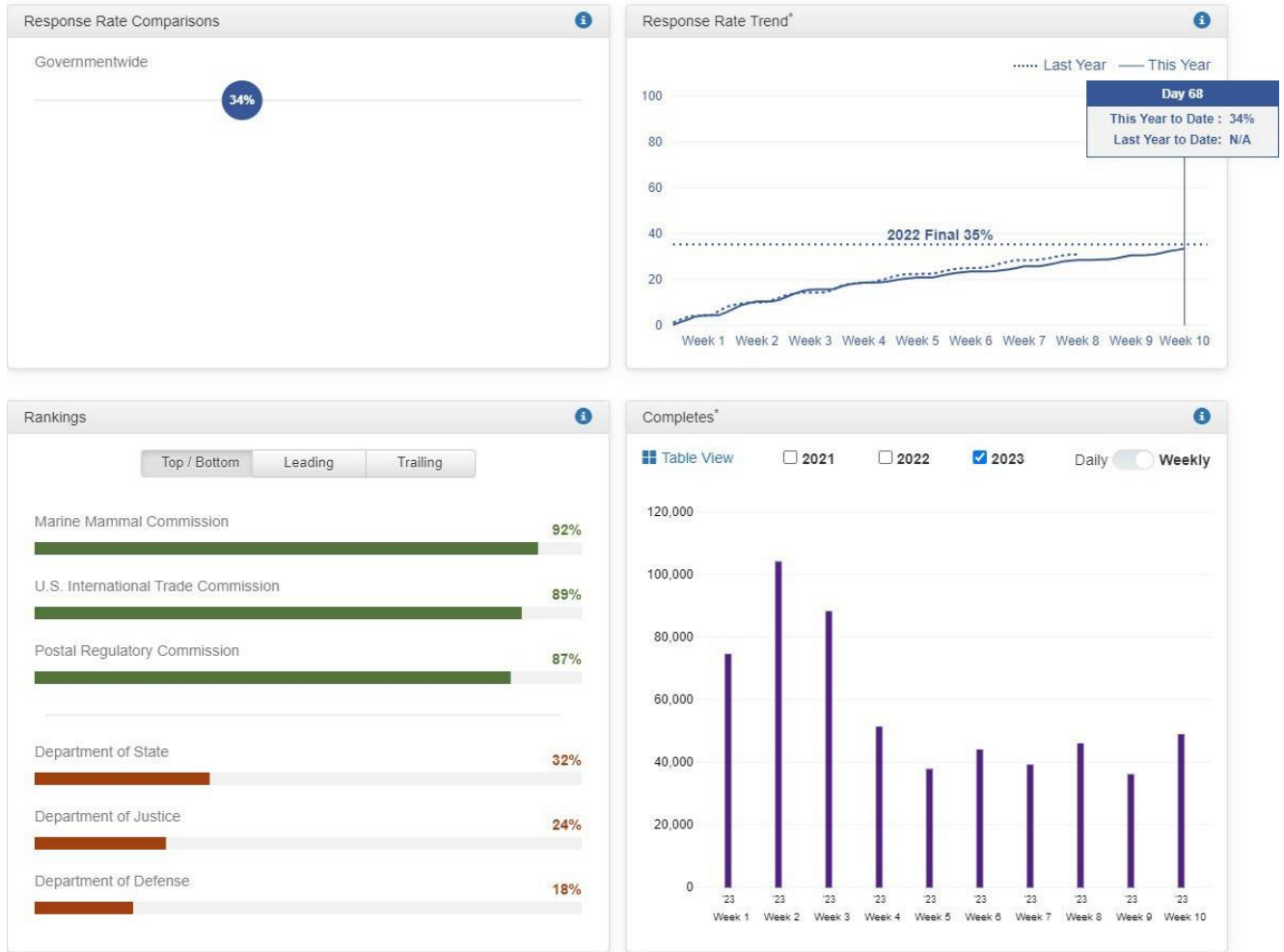
Beginning in 2014, FEVS Points of Contact for agencies have had access to a Response Rate Reporting Website to view their agency's survey completion rate information, updated hourly (with the exception of the period during technical difficulties), during the data collection period.²⁰ The 2023

²⁰ The completion rate differs from the response rate as it does not take into consideration ineligible respondents and surveys submitted that do not meet completion criteria. It is the number of submitted surveys divided by the sample size.

website provided the following information: launch date of the survey, number of days in field and remaining sample size, number of completed surveys (based on an interim disposition code), and the response rate to date. It provided the final response rates for the previous survey administrations as well as the response rate to date in the same period of survey data collection for the previous year. Agency leaders could also drill down in their organization to view subagency response rates to identify where response rates were high as well as any subagencies that might be driving lower agency response rates.

Additionally, the Response Rate Reporting website provided a dashboard feature. It allowed agencies to graphically see response rates over time, and in comparison, to governmentwide—the top 3 and bottom 3 subagencies, the subagencies leading and trailing the previous agency response rate to date, number of daily and weekly completes, and response rates with the option to show comparative data for the previous 2 years where applicable (see Figure 1). This information was intended to allow agency managers and executives to monitor and promote participation in the FEVS.

Figure 1. Sample Views in FEVS Response Rate Website



Help Center Operational Procedures

This section details the Help Center operational procedures, as well as the volume and types of inquiries received.

Emails

Figure 2 illustrates the operational procedures for handling emails at the Help Center. When an email was received within the SMS, the Help Center staff had the option to reply with an appropriate response from the FEVS Contractor Answer Book or flag OPM for assistance. The Help Center processed over 665,262 emails within the Help Center SMS across the 29 email accounts (see Table 6).

Of the 665,262 emails received by the Help Center,

- 402,339 were undeliverable notifications of which 102,061 were from unique respondents.
- 241,661 were automated out-of-office replies, of which 201,547 were from unique respondents. Westat staff worked through and programmatically processed these messages to gather information to help assign final disposition codes (e.g., ineligible, unavailable during the field period).
- 21,262 were inquiries or comments from individuals.
- Help Center staff reviewed all inquiries and comments in the inbox and determined that 17,806 of the 21,262 emails required a response. The other 3,456 emails consisted of comments from users who did not require a response, such as letting the Help Center know that the respondent intended to complete the survey or thanking Help Center staff for their assistance. Of the 17,806 emails that required a response, 301 (1.69 percent of the total) were flagged for OPM for additional assistance.

Figure 2. 2023 FEVS Help Center email procedures

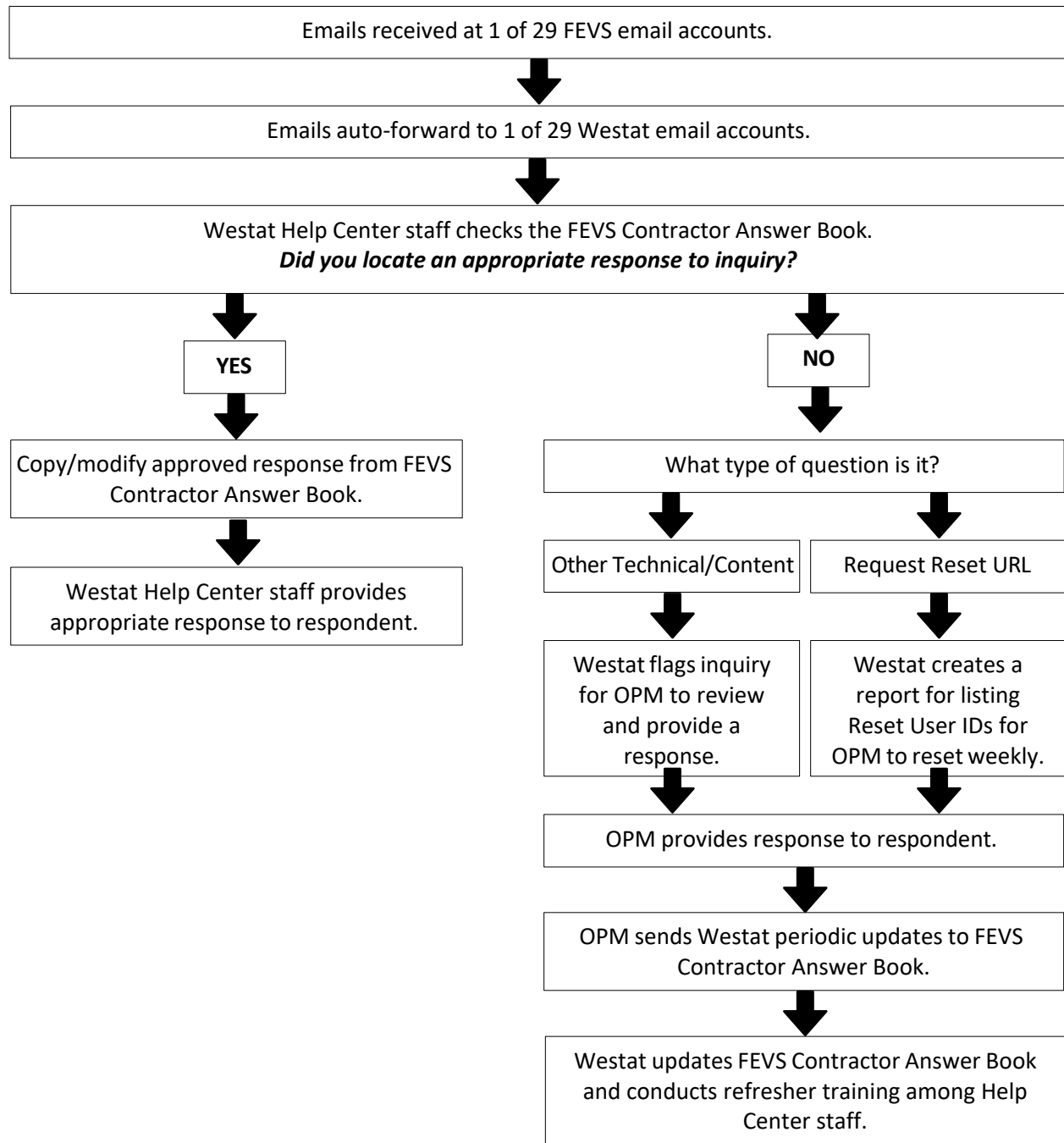


Table 6. Number of emails handled by Help Center and OPM, by agency

| Agency | Inbox | Out of Office | Undeliverable | Sent | Total* |
|---|---------------|----------------------|----------------------|---------------|----------------|
| Department of Agriculture | 3,699 | 2,222 | 33,944 | 3,270 | 39,865 |
| Department of Commerce | 542 | 6,597 | 14,644 | 441 | 21,783 |
| Department of Defense | | | | | |
| United States Department of the Air Force | 821 | 37,997 | 15,577 | 670 | 54,395 |
| United States Department of the Army | 1,789 | 39,468 | 96,554 | 1,406 | 137,811 |
| United States Army Corps of Engineers | 528 | 2,856 | 1,553 | 314 | 4,937 |
| United States Department of the Navy | 420 | 30,818 | 20,817 | 366 | 52,055 |
| United States Marine Corps | 70 | 3,427 | 17,052 | 46 | 20,549 |
| OSD, Agencies and Activities | 1,064 | 22,518 | 40,437 | 724 | 64,019 |
| Department of Education | 102 | 999 | 4 | 86 | 1,105 |
| Department of Energy | 261 | 2,235 | 2,061 | 209 | 4,557 |
| Department of Health and Human Services | 2,916 | 17,673 | 16,064 | 2,493 | 36,653 |
| Department of Homeland Security | 2,018 | 15,046 | 19,412 | 1,773 | 36,476 |
| Department of Housing and Urban Development | 472 | 2,306 | 1,286 | 414 | 4,064 |
| Department of Justice | 1,617 | 8,267 | 45,744 | 1,313 | 55,628 |
| Department of Labor | 147 | 2,650 | 5,007 | 123 | 7,804 |
| Department of State | 150 | 8,290 | 1,196 | 108 | 9,636 |
| Department of the Interior | 2,427 | 4,889 | 39,571 | 2,273 | 46,887 |
| Department of the Treasury | 608 | 6,223 | 4,937 | 495 | 11,768 |
| Department of Transportation | 307 | 7,042 | 1,594 | 257 | 8,943 |
| Environmental Protection Agency | 188 | 4,174 | 4,679 | 149 | 9,041 |
| General Services Administration | 259 | 2,796 | 2,907 | 214 | 5,962 |
| National Science Foundation | 9 | 348 | 265 | 7 | 622 |
| Office of Management and Budget | 18 | 138 | 176 | 14 | 332 |
| Office of Personnel Management | 45 | 682 | 40 | 35 | 767 |
| Small Business Administration | 174 | 952 | 71 | 157 | 1,197 |
| Social Security Administration | 197 | 3,750 | 12,018 | 162 | 15,965 |
| U.S. Agency for International Development | 82 | 2,524 | 0 | 17 | 2,606 |
| Large independent agencies | 209 | 2,798 | 2,781 | 172 | 5,788 |
| Small independent agencies | 123 | 1,976 | 1,948 | 98 | 4,047 |
| Total | 21,262 | 241,661 | 402,339 | 17,806 | 665,262 |

*Note: Overall total does not include sent items.

Types of Inquiries Received

The types of inquiries received are listed below and demonstrate the frequently asked questions that the Help Center responded to through email. The Help Center staff answered all inquiries using the appropriate response from the vetted FEVS Contractor Answer Book, which consisted of 67 standard questions and 23 questions specific to the technical issues experienced in 2023, for a total of 90 responses:

- Individuals trying to determine if they were eligible for the survey;
- Individuals verifying the survey was legitimate;
- Individuals who had recently moved positions within the government;
- Individuals who had lost their survey URL;
- Individuals reporting they were no longer Federal employees;
- Individuals who had received a reminder from within their agency (not from OPM), who were not in the sample and therefore did not get a survey invitation, and wondered how to take the survey;
- Individuals with questions about confidentiality, particularly for members of small subgroups;
- Individuals asking clarifying questions about survey content; and
- Individuals having difficulty accessing the survey.

Chapter 5: Data Cleaning and Weighting

This chapter outlines the data cleaning and recoding performed on the analysis dataset as well as weighting of survey cases to represent the Federal employee population.

Data Cleaning and Recoding

After data collection, the data cleaning and editing process involved assigning final disposition codes and recoding some of the variables for analysis purposes. Some demographic variables were recoded to report on collapsed categories, for example, the race and ethnicity variable was recoded as minority and non-minority.

Weighting

The process of weighting refers to the development of an analysis weight assigned to each respondent to the 2023 FEVS. The weights are necessary to achieve the survey objective of making unbiased inferences regarding the perceptions of the entire Federal employee population. Without the weights, the FEVS could result in biased population estimates. While the 2023 FEVS was a census, and all eligible employees had an equal probability of being selected to participate, nonresponse remains a source of potential bias in the 2023 FEVS estimates. In an ideal scenario, everyone selected to participate will complete the survey. However, in practice, not everyone participates for a variety of reasons, ranging from technical issues to personal motivation. Since the FEVS is voluntary, and there are cases that cannot be located (recipient is out of the office, undeliverable invites, etc.), biases can occur when some subgroups participate more or less than other subgroups. The use of weighted data attempts to account for these nonresponse biases when calculating the survey scores. Using weighted data results in statements that can be made about the Federal employee population as a whole, rather than limited to simply only those who responded to the survey.

For the 2023 FEVS, the weighting process used the final disposition codes and information from the sampling frame. The disposition codes determined whether each employee returned a completed questionnaire, or if information obtained indicated the employee was ineligible to participate in the

FEVS. Variables used from the sampling frame include the stratum identifier and a set of demographic variables known for both respondents and non-respondents.²¹

Statisticians used a three-step, industry-standard process to develop the full-sample weights. First, the process calculated base weights for each sampled employee equaling the reciprocal of each individual's selection probability. Second, statisticians adjusted the base weights for nonresponse within agency subgroups. Those adjustments inflate the weights of survey respondents to represent all employees in the subgroup, including non-respondents and ineligible employees. Third, statisticians used a procedure known as raking to ensure weighted distributions matched known population distributions by sex, sub-agency, and minority status within agencies. This technique can increase the precision of survey estimates. Unless otherwise noted, all 2023 FEVS estimates use the full-sample weights. The full-sample weights were used to compute measures of precision by using Taylor linearization in all analyses. For statistical tests that may be conducted on Analysis on Demand (see Chapter 8), the measures of precision were computed by using replicate weights, which were developed using the Jackknife or JK_n method. See Appendix D for more information on the 2023 FEVS weighting processes and Appendix E for an illustration of the weight adjustment.

²¹ The sampling-frame variables were from administrative data in the EHRI-SDM database.

Chapter 6: Data Analysis

This chapter outlines the statistical methodology used to analyze the 2023 FEVS survey responses received from respondents.

Frequency Distributions

As in prior administrations, the primary data analysis in 2023 included calculating governmentwide, agency, and subagency frequency distributions for each survey question. In addition, analysts calculated frequency distributions for demographic groups and work-related characteristics. All percentages and statistical analyses used weighted data unless noted otherwise.

Distributions of Positive, Negative, and Neutral Responses

Many of the FEVS items were on 5-point Likert-type response scales. Three such scales used:

(a) *Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree*; (b) *Very Satisfied, Satisfied, Neither Satisfied nor Dissatisfied, Dissatisfied, Very Dissatisfied*; and (c) *Very Good, Good, Fair, Poor, Very Poor*.

Analysts collapsed the positive and negative response options to facilitate managers' use of the data. Analysts produced governmentwide, agency, subagency, and other subgroup estimates of the collapsed positive and negative responses. The proportion of positive, neutral, and negative responses are as follows:

- **Percent Positive:** The combined percentages of respondents who answered Strongly Agree or Agree; Very Satisfied or Satisfied; or Very Good or Good, depending on the item's response categories.
- **Percent Neutral:** The percentage of respondents choosing the middle response option in the 5-point scale (Neither Agree nor Disagree, Neither Satisfied nor Dissatisfied, Fair).
- **Percent Negative:** The combined percentages of respondents answering Strongly Disagree or Disagree; Very Dissatisfied or Dissatisfied; or Very Poor or Poor, depending on the item's response categories.

Do Not Know and No Basis to Judge Responses

For items 8, 16-23, 27-37, 39-45, 47-48, 56-66, and 73-85 of the survey, respondents had the additional option of answering Do Not Know or No Basis to Judge. The responses Do Not Know or No Basis to Judge were not included in the calculation of response percentages for those items.

Missing Data

Responses to all FEVS items are voluntary. Since a survey is considered complete if only 25 percent or more of the non-demographic items have a response, there may be a number of cases with missing data. Any missing data, or unanswered items by respondents, were not included in the calculation of response percentages for those items.

Data Suppression

To maintain respondent confidentiality, suppression rules were applied to all demographic results in 2023. If there were fewer than four responses for a single demographic response option, all results for that question were suppressed (see Table 7a). If there were fewer than four responses in multiple response options for a given demographic item, only those results were suppressed, and the remaining data were displayed (see Table 7b). Note, while the number of respondents (N) is shown in the Tables 7a and 7b for illustrative purposes, they were not shown in the reports to protect confidentiality.

Table 7a. Sample full data suppression

| <i>What is your supervisory status?</i> | N | % |
|---|------------|----------|
| Non-Supervisor | 50 | -- |
| Team Leader | 25 | -- |
| Supervisor | 15 | -- |
| Manager | 8 | -- |
| Senior Leader | 2 | -- |
| Total | 100 | -- |

Table 7b. Sample partial data suppression

| <i>What is your supervisory status?</i> | N | % |
|---|------------|----------|
| Non-Supervisor | 60 | 60% |
| Team Leader | 25 | 25% |
| Supervisor | 10 | 10% |
| Manager | 3 | -- |
| Senior Leader | 2 | -- |
| Total | 100 | -- |

Chapter 7: Public Release Data Files

OPM makes a [public data file](#) available on the FEVS website to support research and study by agencies and members of the public. Adhering to the Privacy Act²², steps are taken to protect individual respondents and avoid any risk of disclosure.

Data Masking Methodology for Disclosure Avoidance

Starting in 2016, the FEVS Public Release Data Files (PRDF) uses a new method to identify at-risk individuals, and an optimized masking process to reduce the risk of re-identification and disclosure of confidential survey responses while maximizing the amount of demographic data that can be kept intact. There are two key elements in the FEVS data that can be used to identify individuals: where the employee works, and their demographic data. The combination of these two elements is what the Public Release Data File seeks to protect, and it does so in several steps.

1. Collapses agencies and work units that do not meet a minimum number of respondents into “all other” categories. For 2023, we limited the work unit identifier to just the agency level, and only for agencies with at least 750 respondents.
2. Collapses categories to reduce the distinctiveness in the demographic data. For instance, collapsing the multiple age categories into a dichotomous Over/Under 40 variable helps protect the very small groups at the younger and older ends of the age groups.
3. Collapses at-risk groups into groups that are not at-risk by masking one or more of their demographic responses. For 2023, a group is considered at-risk if there are fewer than 5 respondents with the exact combination of demographics and work unit.

²² The [Privacy Act of 1974](#) is a federal law that establishes a code of fair information practices for the collection, maintenance, use, and dissemination of personally identifiable information about individuals that is maintained in systems of records by federal agencies. The law went into effect on September 27, 1975 and is codified at 5 U.S.C. § 552a. The law prescribes how federal agency records with individually identifying information are to be stored, who may access such information, and when the government may use or disclose it. See [Office of Privacy and Civil Liberties | Overview of the Privacy Act: 2020 Edition](#).

The combination of work unit and demographics creates what is called a “cell,” and it allows us to identify at-risk groups. The diagram below provides a depiction of a cell and its parts:

| Cell | OMBABXB | | | | | |
|-----------|-------------|-----------------|-----|-------------------|--------------------|----------------|
| Breakdown | OM | B | A | B | X | B |
| Key | Agency Code | Minority Status | Sex | Disability Status | Supervisory Status | Veteran Status |

A cell is compiled for every respondent. Frequencies are then run to identify which cells are at-risk and which ones are not. At-risk cells have subsequent cycles of masking applied until they either collapse into a cell that is not at risk, or all of the demographic information is masked, as demonstrated next.

Data Masking Procedure

Once the at-risk cells and not-at-risk cells are identified and separated, the masking procedure can begin. On the at-risk list, the original cell is copied with a modification—for a cell made up of five demographics, that means there are five copies, each modified to “mask” one of the demographic values, meaning it is changed to missing.

| Original | Demographic 1 | Demographic 2 | Demographic 3 | Demographic 4 | Demographic 5 |
|----------|---------------|---------------|---------------|---------------|---------------|
| OMBABXB | OMXABXB | OMBXBXB | OMBAXXB | OMBABXB | OMBABXX |

Each of these five modified cells is checked against the not-at-risk list of cells for a match. If a modified cell appears on the not-at-risk list, then the original cell that was at-risk will be replaced with that modified cell. By doing this, the respondents in the at-risk cell get added to the respondents in the not-at-risk cell, and they will not be considered at-risk going forward. In the case of multiple modified at-risk cells matching to multiple cells from the not-at-risk list, the not-at-risk cell with the smallest number of respondents is chosen as the replacement. The more people in a cell the more difficult it is to re-identify someone, so adding them to the smaller cell is the logical choice. In the case of a tie, the left-most modified cell is chosen.

For example, if modified cell 1 (OMXABXB) and modified cell 5 (OMBABXX) both have a match to not-at-risk cells, but modified cell 1 matches to a not-at-risk cell of seven people and modified cell 5 matches to a not-at-risk cell of eleven people, then modified cell 1 will be chosen to replace the original cell. In this example, the original cell, **OMBABXB** would be replaced with **OMXABXB**.

If there are no matches between any of the modified cells and the not-at-risk cells, then a default masking step is made—the left-most remaining demographic value will be masked.

Once all of the original at-risk cells are replaced with a newly masked cell, all cells are recounted, and at-risk and not-at-risk cells are divided again. The process repeats like this, with the sequentially modified cells and the default masking steps replacing demographics values until either a not-at-risk match is found, or all of the demographics are masked and there’s no more risk.

| Original | Iteration 1 | Iteration 2 | Iteration 3 | Iteration 4 | Iteration 5 |
|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| OMBABXB | OM X ABXB | OM XX BXB | OM XXX B | OM XXXX B | OM XXXXX |

Once there are no more at-risk cells, the final cell is broken back out into the individual demographic components that make it up, and all “X” values are removed. This is the data that appears in the final dataset. From here, anyone who attempts to identify an individual record using work unit and demographic information will be met with at least five identical individuals who meet that description.

Chapter 8: Presentation of Results

This chapter details the eight types of reports that were produced from the 2023 FEVS, as well as the tools for report dissemination and performing online analyses on demand. OPM distributed survey findings to agencies and the public in the reports listed below; parenthetical numbers indicate the number of reports produced.

- Reports available to agencies:
 - Response Rate reports (795)
 - All Levels, All Indices, All Items reports (792)
 - Annual Employee Survey (AES) reports (791)
 - Agency Management reports (85)
 - Subagency reports (34,223)
 - Demographic Comparison reports (7,810)
 - Occupational Series reports (668)
- Public Governmentwide results reports (6)

All generated reports are 508 compliant. The Governmentwide reports are on the [FEVS public website](#) and individual agency reports were distributed via the agency access only FEVS Online Analysis and Reporting Tool (WesDaX hosted by Westat). These reports are outlined in more detail in the sections below.

Governmentwide Reports

The 2023 Government Management Report includes an overview of the respondents compared to the total Federal workforce, response rates over time, highlights from the 2023 FEVS, trending of the AES item results from 2019 to 2023, top-performing agencies on the various indices, and results from new topic areas added to the survey in 2023. The report has five appendices. Appendices in the Governmentwide Management Report also contain a link to download them in Microsoft® Excel.

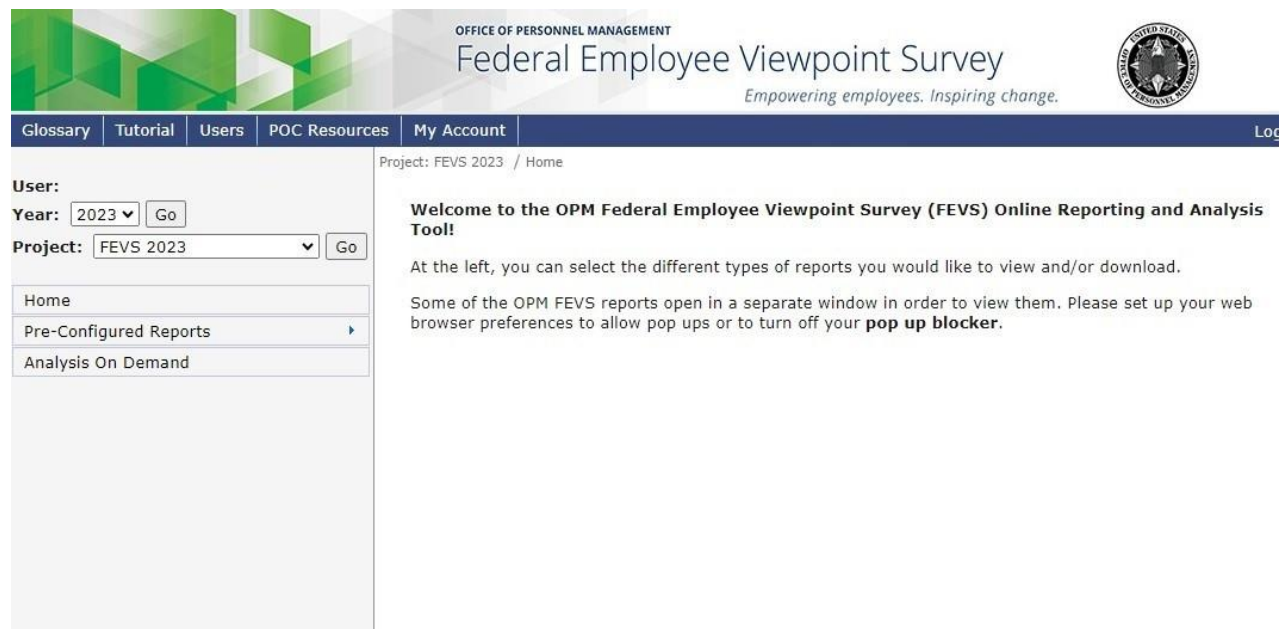
Other governmentwide data reports generated include:

- *Governmentwide All Levels-All Index-All Items*: Governmentwide and grouped Agency results by the five size categories (very small, small, medium, large, very large) for all FEVS items and indices.
- *Report by Agency*: Displays question-by-question counts and percentages for each response option for the 2023 FEVS, by participating agency and governmentwide. Counts of responses are unweighted, but the percentage estimates for each question are weighted.
- *Report by Demographics*: Displays question-by-question counts and percentages for each response option for the 2023 FEVS, by demographic groups and governmentwide. Counts of responses are unweighted, but the percentage estimates for each response category are weighted.
- *Report on Demographic Questions by Agency (Unweighted)*: Displays counts and percentages by participating agencies' demographic and workforce profile (e.g., work location, supervisory status, sex, age, pay category, intention to retire) for 2023. Both respondent counts and percentage estimates are unweighted.
- *Response Rate by Agency*: Displays for each participating agency their size category, number of employees surveyed, number of respondents, and response rate.

Delivery of Agency Results, Reports, & Ad Hoc Analyses – WesDaX

The FEVS Online Analysis and Reporting tool is run by Westat's Data Xplorer (WesDaX) and is an online query and analysis system accessible to approved users only via password. It allows OPM and Federal agency users to view and download their reports by following the links as illustrated in Figure 3. The online reporting system is available for users to access their data at any time.

Figure 3. FEVS Online Analysis and Reporting Tool—main menu



Cart

Similar to online shopping carts, this feature allows users to add multiple reports from the different report options to a cart to download at one time. The feature zips all selected reports into one file for downloading to a location of the user's choice. In addition to being able to view and download the above reports through WesDaX, users have access to Analysis on Demand feature.

Analysis on Demand

This feature allows users to drill down into the data to explore relationships of interest. Users can subset the data by year, select variables from a list, and produce simple frequency distributions, two-way tables (cross-tabulation), three-way tables, and trend analysis (only for large agencies). A select-all feature allows users to be able to select or deselect all variables from a list.

After selecting the year(s), users can choose the type of table for a simple frequency, or two-way or three-way table or trends over time. They can also select their variables of interest, as well as types of statistics desired (e.g., weighted number of responses, cell, row, or column percentages, standard errors, confidence intervals, etc.). It should be noted that statistical analysis such as standard errors, confidence intervals, chi-square tests and significance testing for trends are only available for large agencies. Optional features are to filter the data by a subagency, demographic, or responses to an

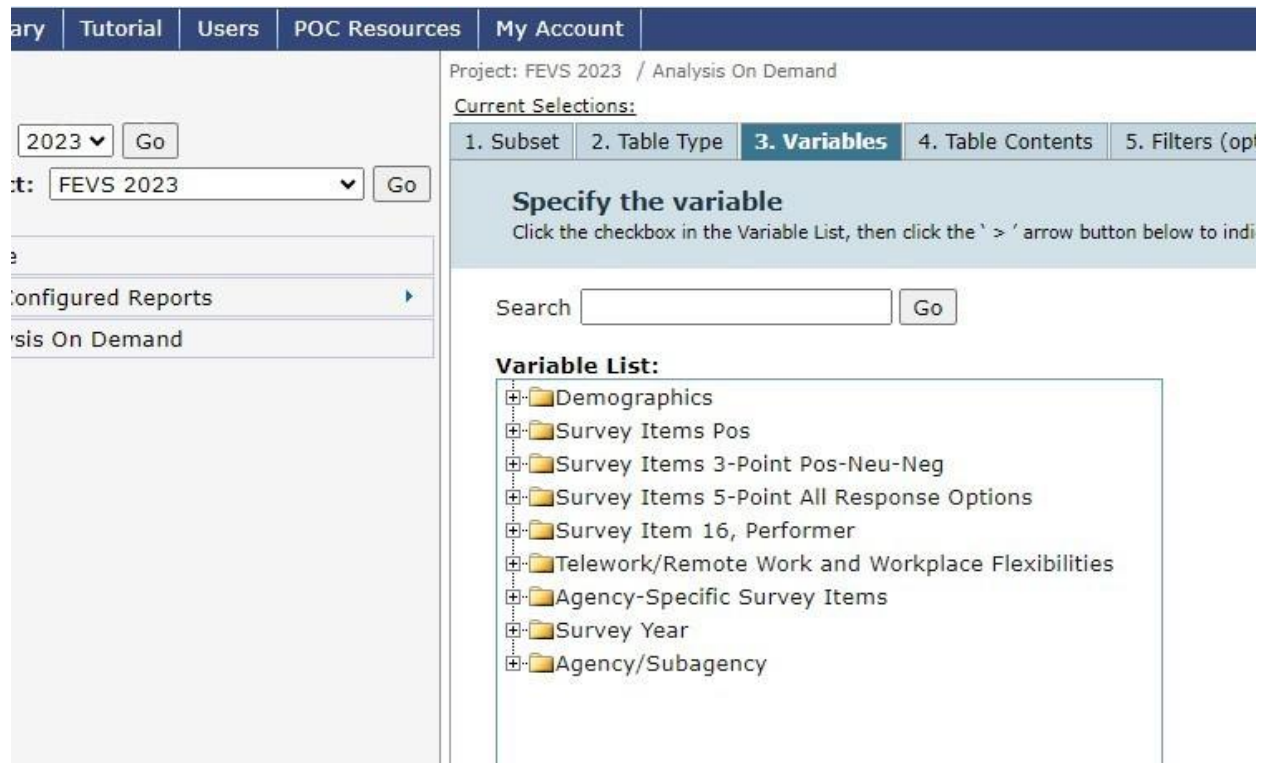
item, and/or benchmark to compare results to the entire dataset or specific agencies. A set of video tutorials facilitate use of [Analysis on Demand](#).

Users can tailor the type of analysis to their interests and download the analysis output. Queries are automatically saved, and users are able to view/download the results upon logging in. This feature allows users to be able to run multiple queries simultaneously and not have any time-out issues. The twenty most recent queries are automatically saved for users.

Users can share queries with all users from their agency. They can share queries with users from their own subagency or users from other subagencies within the same agency. For example, a user from the Office of the Director of OPM can share queries within their own component and with users from the Office of the Inspector General of OPM. This sharing feature helps minimize the need to recreate queries that are commonly used.

Since 2014, users can create charts from results in Analysis on Demand. Users were able to select various chart types (bar, pie, donut, line, and area), chart size, color palette, and data cells. Users could specify to include or exclude the data values within the chart.

Figure 4. FEVS Online Analysis and Reporting Tool — Analysis on Demand Main Menu



Account Access

All agency level and 1st level points of contacts (POC) and users were carried over from 2022 and provided access to 2023 data. POCs also have the capability to grant access to the online reporting tool to others in their agency. This access could be given for all agency results or to only certain 1st level subagencies. For 1st level access, the individual would only be able to view or review data for their 1st level subagency, the agency overall, and governmentwide results.

Summary of Quality Control Process

To ensure the highest accuracy and validity of the data, each number within each report goes through two levels of quality control (QC) by Westat. The first level of QC for the reports is the electronic quality control with the use of SAS® software. Two programmers create the numbers independently based on a set of pre-defined specifications and then electronically compared the numbers to ensure they matched. The second level of QC is performed by staff members who compare the input (SAS-produced results) to the output (the actual report with the data incorporated into it). While each type of report has a different QC process due to the different types of data, the general process is the same. Staff members are put into teams of two to ensure the highest level of accuracy when comparing data. One staff member reads off each number from the input data, and the other staff member reads off the number from the output data. If they match, a check mark is placed by the number. If they do not match, they inform the QC manager, who relays the error to the project manager and programmers to get it fixed. If the error is due to a problem with the code, the output data reports are re-run and the staff members go back and QC the new reports. The QC manager keeps all finished reports in a locked filing cabinet to ensure security in case there is a need to review them.

Appendix A: Item Change Summary

FEVS items were modified in 2023 for a variety of reasons, often to improve the interpretation, understanding, or actionability of the items. These changes are in this appendix. Also included in this appendix are changes to item numbering from the 2022 to 2023 FEVS for items in the core survey.

Table A1. 2023 FEVS Item Text Changes

| 2023 Item # | New Item Text (2023) | Change | 2022 Item # | Previous Item Text (2022) |
|-------------|---|--------------|-------------|--|
| N/A | Not an item in the 2023 FEVS | Not included | 12 | Continually changing work priorities make it hard for me to produce high quality work. |
| 13 | I have the autonomy to decide how I do my job. | New item | N/A | Not an item in the 2022 FEVS. |
| 14 | I can make decisions about my work without getting permission first. | New item | N/A | Not an item in the 2022 FEVS. |
| N/A | Not an item in the 2023 FEVS | Not included | 34 | Employees in my work unit are typically under too much pressure to meet work goals. |
| 39 | My organization shares results (for example, town halls, email, distribution of reports) from the Federal Employee Viewpoint Survey (FEVS). | New item | N/A | Not an item in the 2022 FEVS. |
| 40 | Information is openly shared in my organization. | New item | N/A | Not an item in the 2022 FEVS. |
| 41 | The approval process in my organization allows timely delivery of my work. | New item | N/A | Not an item in the 2022 FEVS. |
| N/A | Not an item in the 2023 FEVS | Not included | 45 | My supervisor is committed to a workforce representative of all segments of society. |
| N/A | Not an item in the 2023 FEVS | Not included | 76 | Employees in my work unit treat me as a valued member of the team. |
| N/A | Not an item in the 2023 FEVS | Not included | 90 | What percentage of your work time are you currently required to be physically present at your agency worksite? |

| 2023 Item # | New Item Text (2023) | Change | 2022 Item # | Previous Item Text (2022) |
|-------------|---|-------------|-------------|---|
| 91 | <p>Please select the response that BEST describes your current teleworking schedule.</p> <ul style="list-style-type: none"> ○ I telework every work day (i.e., remote work agreement) ○ I telework 3 or 4 days per week ○ I telework 1 or 2 days per week ○ I telework, but only about 1 or 2 days per month ○ I telework very infrequently, on an unscheduled or short-term basis ○ I do not telework because I have to be physically present on the job (e.g., law enforcement officers, TSA agent, border patrol agent, security personnel) ○ I do not telework because of technical issues (e.g., connectivity, inadequate equipment) that prevent me from teleworking ○ I do not telework because I did not receive approval to do so, even though I have the kind of job where I can telework ○ I do not telework because I choose not to telework | Text change | 91 | <p>Please select the response that BEST describes your current remote work or teleworking schedule.</p> <ul style="list-style-type: none"> ○ I telework 3 or more days per week ○ I telework 1 or 2 days per week ○ I telework, but only about 1 or 2 days per month ○ I telework very infrequently, on an unscheduled or short-term basis ○ I do not telework because I have to be physically present on the job (e.g., law enforcement officers, TSA agent, border patrol agent, security personnel) ○ I do not telework because of technical issues (e.g., connectivity, inadequate equipment) that prevent me from teleworking ○ I do not telework because I did not receive approval to do so, even though I have the kind of job where I can telework ○ I do not telework |

| 2023 Item # | New Item Text (2023) | Change | 2022 Item # | Previous Item Text (2022) |
|-------------|---|--------------|-------------|---|
| 91a | <p>What is your current remote work status?</p> <ul style="list-style-type: none"> ○ I do not have an approved remote work agreement ○ I have an approved remote work agreement and live outside the local commuting area (more than 50 miles away) ○ I have an approved remote work agreement and live inside the local commuting area (less than 50 miles away) ○ I do not know | Text change | 91a | <p>What is your current remote work status?</p> <ul style="list-style-type: none"> ○ I have an approved remote work agreement and live outside the local commuting area (more than 50 miles away) ○ I have an approved remote work agreement and live inside the local commuting area (less than 50 miles away) |
| N/A | Not an item in the 2023 FEVS | Not included | 92 | Did you have an approved remote work agreement before the 2020 COVID-19 pandemic? |
| N/A | Not an item in the 2023 FEVS | Not included | 93 | Based on your work unit's current telework or remote work options, are you considering leaving your organization, and if so, why? |
| N/A | Not an item in the 2023 FEVS | Not included | 94 | My agency's re-entry arrangements are fair in accounting for employees' diverse needs and situations. |
| N/A | Not an item in the 2023 FEVS | Not included | 95 | Please select the response that BEST describes how employees in your work unit currently report to work: |
| N/A | Not an item in the 2023 FEVS | Not included | 96 | My organization's senior leaders support policies and procedures to protect employee health and safety. |
| N/A | Not an item in the 2023 FEVS | Not included | 97 | My organization's senior leaders provide effective communications about what to expect with the return to the physical worksite. |
| N/A | Not an item in the 2023 FEVS | Not included | 98 | My supervisor supports my efforts to stay healthy and safe while working. |
| N/A | Not an item in the 2023 FEVS | Not included | 99 | My supervisor creates an environment where I can voice my concerns about staying healthy and safe. |

| 2023 Item # | New Item Text (2023) | Change | 2022 Item # | Previous Item Text (2022) |
|-------------|--|--------------|-------------|--|
| N/A | Not an item in the 2023 FEVS | Not included | N/A | Have you used the Paid Parental Leave benefit at any point from October 1, 2020 to today? |
| N/A | Not an item in the 2023 FEVS | Not included | N/A | For what purpose did you use Paid Parental Leave? Choose all that apply. |
| N/A | Not an item in the 2023 FEVS | Not included | N/A | How many weeks of Paid Parental Leave did you use during the 12-month period following a qualifying event (use can be either continuous or intermittent)? |
| N/A | Not an item in the 2023 FEVS | Not included | N/A | What are the primary reasons you used (or expect to use) <i>less than</i> 12 weeks of Paid Parental Leave? Choose all that apply. |
| N/A | Has your work unit's telework or remote work options influenced your intent to leave? | New item | N/A | Not an item in the 2022 FEVS. |
| N/A | <i>[This item is redacted in response to EO 14168 Defending Women From Gender Ideology Extremism and Restoring Biological Truth to the Federal Government]</i> | Text change | N/A | <i>[This item is redacted in response to EO 14168 Defending Women From Gender Ideology Extremism and Restoring Biological Truth to the Federal Government]</i> |

Table A2. 2022 vs 2023 FEVS Item Numbering (Non-COVID)

Any item with “—” in either column was not included in the FEVS survey for that year.

| FEVS Item | 2022 FEVS # | 2023 FEVS # |
|--|--------------------|--------------------|
| I am given a real opportunity to improve my skills in my organization. | 1 | 1 |
| I feel encouraged to come up with new and better ways of doing things. | 2 | 2 |
| My work gives me a feeling of personal accomplishment. | 3 | 3 |
| I know what is expected of me on the job. | 4 | 4 |
| My workload is reasonable. | 5 | 5 |
| My talents are used well in the workplace. | 6 | 6 |
| I know how my work relates to the agency’s goals. | 7 | 7 |
| I can disclose a suspected violation of any law, rule or regulation without fear of reprisal. | 8 | 8 |
| I have enough information to do my job well. | 9 | 9 |
| I receive the training I need to do my job well. | 10 | 10 |
| I am held accountable for the quality of work I produce. | 11 | 11 |
| Continually changing work priorities make it hard for me to produce high quality work. | 12 | — |
| I have a clear idea of how well I am doing my job. | 13 | 12 |
| I have the autonomy to decide how I do my job. | — | 13 |
| I can make decisions about my work without getting permission first. | — | 14 |
| The people I work with cooperate to get the job done. | 14 | 15 |
| In my work unit poor performers usually: | 15 | 16 |
| In my work unit, differences in performance are recognized in a meaningful way. | 16 | 17 |
| Employees in my work unit share job knowledge. | 17 | 18 |
| My work unit has the job-relevant knowledge and skills necessary to accomplish organizational goals. | 18 | 19 |
| Employees in my work unit meet the needs of our customers. | 19 | 20 |
| Employees in my work unit contribute positively to my agency’s performance. | 20 | 21 |
| Employees in my work unit produce high quality work. | 21 | 22 |
| Employees in my work unit adapt to changing priorities. | 22 | 23 |
| New hires in my work unit (i.e., hired in the past year) have the right skills to do their jobs. | 23 | 24 |
| I can influence decisions in my work unit. | 24 | 25 |
| I know what my work unit’s goals are. | 25 | 26 |
| My work unit commits resources to develop new ideas (e.g., budget, staff, time, expert support). | 26 | 27 |
| My work unit successfully manages disruptions to our work. | 27 | 28 |
| Employees in my work unit consistently look for new ways to improve how they do their work. | 28 | 29 |

| FEVS Item | 2022 FEVS # | 2023 FEVS # |
|---|------------------------|------------------------|
| Employees in my work unit incorporate new ideas into their work. | 29 | 30 |
| Employees in my work unit approach change as an opportunity. | 30 | 31 |
| Employees in my work unit consider customer needs a top priority. | 31 | 32 |
| Employees in my work unit consistently look for ways to improve customer service. | 32 | 33 |
| Employees in my work unit support my need to balance my work and personal responsibilities. | 33 | 34 |
| Employees in my work unit are typically under too much pressure to meet work goals. | 34 | — |
| Employees are recognized for providing high quality products and services. | 35 | 35 |
| Employees are protected from health and safety hazards on the job. | 36 | 36 |
| My organization is successful at accomplishing its mission. | 37 | 37 |
| I have a good understanding of my organization's priorities. | 38 | 38 |
| My organization shares results (for example, town halls, email, distribution of reports) from the Federal Employee Viewpoint Survey (FEVS). | — | 39 |
| Information is openly shared in my organization. | — | 40 |
| The approval process in my organization allows timely delivery of my work. | — | 41 |
| My organization effectively adapts to changing government priorities. | 39 | 42 |
| My organization has prepared me for potential physical security threats. | 40 | 43 |
| My organization has prepared me for potential cybersecurity threats. | 41 | 44 |
| In my organization, arbitrary action, personal favoritism and/or political coercion are not tolerated. | 42 | 45 |
| I recommend my organization as a good place to work. | 43 | 46 |
| I believe the results of this survey will be used to make my agency a better place to work. | 44 | 47 |
| My supervisor is committed to a workforce representative of all segments of society. | 45 | — |
| Supervisors in my work unit support employee development. | 46 | 48 |
| My supervisor supports my need to balance work and other life issues. | 47 | 49 |
| My supervisor listens to what I have to say. | 48 | 50 |
| My supervisor treats me with respect. | 49 | 51 |
| I have trust and confidence in my supervisor. | 50 | 52 |
| My supervisor holds me accountable for achieving results. | 51 | 53 |
| Overall, how good a job do you feel is being done by your immediate supervisor. | 52 | 54 |
| My supervisor provides me with constructive suggestions to improve my job performance. | 53 | 55 |
| My supervisor provides me with performance feedback throughout the year. | 54 | 56 |
| In my organization, senior leaders generate high levels of motivation and commitment in the workforce. | 55 | 57 |

| FEVS Item | 2022 FEVS # | 2023 FEVS # |
|---|--------------------|--------------------|
| My organization's senior leaders maintain high standards of honesty and integrity. | 56 | 58 |
| Managers communicate the goals of the organization. | 57 | 59 |
| Managers promote communication among different work units (for example, about projects, goals, needed resources). | 58 | 60 |
| Overall, how good a job do you feel is being done by the manager directly above your immediate supervisor? | 59 | 61 |
| I have a high level of respect for my organization's senior leaders. | 60 | 62 |
| Senior leaders demonstrate support for work-life programs. | 61 | 63 |
| Management encourages innovation. | 62 | 64 |
| Management makes effective changes to address challenges facing our organization. | 63 | 65 |
| Management involves employees in decisions that affect their work. | 64 | 66 |
| How satisfied are you with your involvement in decisions that affect your work? | 65 | 67 |
| How satisfied are you with the information you receive from management on what's going on in your organization? | 66 | 68 |
| How satisfied are you with the recognition you receive for doing a good job? | 67 | 69 |
| Considering everything, how satisfied are you with your job? | 68 | 70 |
| Considering everything, how satisfied are you with your pay? | 69 | 71 |
| Considering everything, how satisfied are you with your organization? | 70 | 72 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 71 | 73 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 72 | 74 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 73 | 75 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 74 | 76 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 75 | 77 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 76 | — |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 77 | 78 |

| FEVS Item | 2022 FEVS # | 2023 FEVS # |
|---|--------------------|--------------------|
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 78 | 79 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 79 | 80 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 80 | 81 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 81 | 82 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 82 | 83 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 83 | 84 |
| <i>[Redacted in response to EO 14151 Ending Radical and Wasteful Government DEI Programs and Preferencing.]</i> | 84 | 85 |
| My job inspires me. | 85 | 86 |
| The work I do gives me a sense of accomplishment. | 86 | 87 |
| I feel a strong personal attachment to my organization. | 87 | 88 |
| I identify with the mission of my organization. | 88 | 89 |
| It is important to me that my work contribute to the common good. | 89 | 90 |

Appendix B: Email Communications

Sample Invitation Email

Subject: 2023 OPM Federal Employee Viewpoint Survey

The 2023 Office of Personnel Management Federal Employee Viewpoint Survey (OPM FEVS) kicks off today. The survey provides an efficient and confidential way to express your opinions to leadership. Your feedback has an impact not only within your agency, but across the Federal government. OPM FEVS results provide insights on a variety of topics important to shaping current and future policies, and results are used to inform Congress and priority goals for the President’s Management Agenda.

This year the OPM FEVS features content familiar from prior surveys and topics of interest across government. Participation is voluntary and you may use official time. The survey takes between 20 and 30 minutes to complete.

To support your participation, we safeguard your individual responses; they are confidential and will not be used to identify you. Agency leadership is only provided with summary reports that combine employees’ responses.

Here is your confidential link: **%[Click here to access your survey]URL%**

Do not forward your email. Otherwise, someone else will be your voice!

Note: If the link above does not work or has been disabled, please COPY the following link, beginning with “https:”, and PASTE it into your Web browser (try different web browsers, such as Chrome, Safari, Edge, if necessary). When copying the link, please make sure you copy the entire link from beginning to end: **%URL%**

Need help?

We are committed to providing you with a voice to your leadership. If the survey format interferes with your ability to respond due to assistive technology incompatibility, if you are experiencing other difficulties accessing your survey or simply have questions about the OPM FEVS, please contact our Survey Support Center by replying to this message.

The OPM FEVS team thanks you!

First Reminder Email

Subject: 2023 OPM Federal Employee Viewpoint Survey

The 2023 Office of Personnel Management Federal Employee Viewpoint Survey (OPM FEVS) is a powerful tool for you to share your opinions and perceptions with your leadership. We ask that you please take the time to participate to drive improvement and inform future policies at both the agency and at the governmentwide level. Change starts with you!

The survey is voluntary and you may use official time to complete it. Your responses are confidential and will not be used to identify you. Agency leadership is only provided with summary reports that combine employees' responses.

Here is your **confidential** link: %[Click here to access your survey]URL%

Please do not forward your email. Otherwise, someone else will be your voice!

Note: If the link above does not work or has been disabled, please COPY the following link, beginning with "https:", and PASTE it into your Web browser (try different web browsers, such as Chrome, Safari, Edge, if necessary). When copying the link, please make sure you copy the entire link from beginning to end: %URL%

Need help?

We are committed to providing you with a voice. If the survey format interferes with your ability to respond due to assistive technology incompatibility, or if you are experiencing other difficulties accessing your survey or simply have questions about the OPM FEVS, please contact our Survey Support Center by replying to this message.

The OPM FEVS team thanks you!

%[Click here to unsubscribe from future OPM FEVS reminders]UNSUBSCRIBE%

Example of Other Reminder Emails

Subject: 2023 OPM Federal Employee Viewpoint Survey

The 2023 Office of Personnel Management Federal Employee Viewpoint Survey (OPM FEVS) is your opportunity to share your unique opinion about many important aspects of your workplace. This year the OPM FEVS features content focusing on topics of interest across government, such as *[Redacted in response to EO 14168 Defending Women From Gender Ideology Extremism and Restoring Biological Truth to the Federal Government]*, customer responsiveness, and resilience. Your responses to the survey will help drive improvement within your organization and be used to shape governmentwide employee and workplace policies.

The survey is voluntary, and you may use official time to complete it. The survey takes between 20 and 30 minutes to complete.

Your responses are confidential and will not be used to identify you. Agency leadership is only provided with summary reports that combine employees' responses.

Here is your **confidential** link: %[Click here to access your survey]URL%

Please do not forward your email. Otherwise, someone else will be your voice!

Note: If the link above does not work or has been disabled, please COPY the following link, beginning with "https:", and PASTE it into your Web browser (try different web browsers, such as Chrome, Safari, Edge, if necessary). When copying the link, please make sure you copy the entire link from beginning to end: %URL%

Need help?

We are committed to providing you with a voice. If the survey format interferes with your ability to respond due to assistive technology incompatibility, or if you are experiencing other difficulties accessing your survey or simply have questions about the OPM FEVS, please contact our Survey Support Center by replying to this message.

The OPM FEVS team thanks you!

%[Click here to unsubscribe from future OPM FEVS reminders]UNSUBSCRIBE%

Subject: 2023 OPM Federal Employee Viewpoint Survey FINAL reminder

Your opportunity to participate in the 2023 Office of Personnel Management Federal Employee Viewpoint Survey (OPM FEVS) is running out. The survey will close at the end of this week.

Take this opportunity to share your feedback. When the Federal workforce speaks with one voice, leadership listens. Add your voice TODAY!

The survey is voluntary, and your responses are confidential. Agency leadership is only provided with summary reports that combine employees' responses.

Here is your *confidential* link: %[Click here to access your survey]URL%

Please do not forward your email. Otherwise, someone else will be your voice!

Note: If the link above does not work or has been disabled, please COPY the following link, beginning with "https:", and PASTE it into your Web browser (try different web browsers, such as Chrome, Safari, Edge, if necessary). When copying the link, please make sure you copy the entire link from beginning to end: %URL%

Need help?

We are committed to providing you with a voice. If the survey format interferes with your ability to respond due to assistive technology incompatibility, or if you are experiencing other difficulties accessing your survey or simply have questions about the OPM FEVS, please contact our Survey Support Center by replying to this message.

The OPM FEVS team thanks you!

Subject: 2023 OPM Federal Employee Viewpoint Survey

Your opportunity to participate in the 2023 Office of Personnel Management Federal Employee Viewpoint Survey (OPM FEVS) is running out.

Take this opportunity to share your feedback. Results from the survey impact your organization and the entire Federal government. When the Federal workforce speaks with one voice, leadership listens.

The survey is voluntary, and your responses are confidential. Agency leadership is only provided with summary reports that combine employees' responses.

Here is your confidential link: **%[Click here to access your survey]URL%**

Please do not forward your email. Otherwise, someone else will be your voice!

Note: If the link above does not work or has been disabled, please COPY the following link, beginning with "https:", and PASTE it into your Web browser (try different web browsers, such as Chrome, Safari, Edge, if necessary). When copying the link, please make sure you copy the entire link from beginning to end: **%URL%**

Need help?

We are committed to providing everyone a voice. If the survey format interferes with your ability to respond due to assistive technology incompatibility, or if you are experiencing other difficulties accessing your survey or simply have questions about the OPM FEVS, please contact our Survey Support Center by replying to this message.

The OPM FEVS team thanks you!

Appendix C: AAPOR Response Rate

The following presents the calculation of the FEVS response rate using the AAPOR Response Rate 3 (RR3) formula.

Table C1. Case Assignment Allocation to Response Rate Groups, by the AAPOR RR3 Method

| Response Rate (RR) Group | AAPOR RR3 Method Allocation | AAPOR RR3 Method Counts |
|--------------------------------|-----------------------------|-------------------------|
| Eligible Respondents (ER) | CO | 625,568 |
| Eligible Non-respondents (ENR) | UA, RF, IN | 19,012 |
| Unknown Eligibility (UNK) | UD, NR, NE, NS | 1,046,830 |
| Ineligible (IE) | IE | 4,491 |
| Total | | 1,695,901 |

AAPOR Response Rate 3 Formula:

Number of eligible employees returning completed surveys / (Number of known eligible employees + estimated number of eligible employees among cases of unknown eligibility):

$$RR3_{AAPOR} = ER / (ER + ENR + UNK_{elig}) * 100,$$

where UNK_{elig} = the estimated number of eligible cases among cases of unknown eligibility. It was calculated as follows:

$$P_{elig} = (ER + ENR) / (ER + ENR + IE) = \text{proportion of eligible cases among cases of known eligibility}$$

$$P_{elig} = (625,568 + 19,012) / (625,568 + 19,012 + 4,491)$$

$$P_{elig} = 0.993080880$$

$$UNK_{elig} = P_{elig} * UNK = 0.993080880 * 1,046,830 = 1,039,587$$

Thus,

$$RR3_{AAPOR} = 625,568 / (625,568 + 19,012 + 1,039,587) * 100$$

$$RR3_{AAPOR} = 625,568 / 1,684,167 * 100$$

$$RR3_{AAPOR} = 37.1 \text{ percent}$$

Appendix D: Weighting of the Survey Data

Base Weights

The base weight for a sampled employee is equal to the reciprocal of an individual's selection probability. The sample frame for each agency was a list of all employees in the agency who were eligible for the survey. Within each major agency frame, employees were grouped (stratified) by the lowest desired work unit and by executive status (see Sample Design section of main report). The total number of resulting subgroups (strata) created by the stratification was 860, with $H=860$ representing the total number of subgroups and h indexing a particular subgroup. Thus, there were H nonoverlapping groups consisting of N_h employees in each subgroup so that

$$N = \sum_{h=1}^H N_h$$

where N is the total frame count—that is, the number of employees listed in the agency sample frame.

Within each subgroup a random sample was selected without replacement. The probability of selection varied by subgroup to ensure adequate representation of subgroup members in the sample. Given this design, the base weight for the i^{th} sample employee in subgroup h was calculated as:

$$w_{hi} = \frac{N_h}{n_h}$$

where n_h is the sample size for the h^{th} subgroup and N_h is the frame count for the h^{th} subgroup.

For each employee classified in subgroup h , the base weight is the ratio of the total number of employees in the subgroup to the subgroup sample size (equals the inverse of the probability of selection). The base weight is attached to each sample unit (employee) in the data file. Note that n_h is the number of employees initially sampled in subgroup h —all sample members, not just survey responders, receive a base weight.

Survey Nonresponse Adjustment

Some sample members did not respond to the survey, usually because they chose not to participate, they considered themselves ineligible, or their surveys were undeliverable. Adjustments to the base weights reduce the bias in survey estimates that can occur when the respondent population and the survey population no longer match on important characteristics. In other words, the adjustments generally increase the base weights of respondents to account for non-respondents.

Nonresponse (NR) adjustments were calculated separately for individual agencies or sets of subagencies. Prior to 2015, NR adjustments were calculated separately for each agency. Since 2015 – 2021, nonresponse adjustments have been calculated separately for subagencies that have 2,500 or more employees and for an agency’s set of subagencies that each has fewer than 2,500 employees. Within each agency, weighting cells were constructed to group respondents and non-respondents with similar characteristics into the same cells for adjustment. The variables used to form the weighting cells included a sub-agency identifier, supervisory status, sex, minority status, age group, tenure as a Federal employee, full- or part-time status, and location (headquarters vs. field office). Large subgroups were divided into smaller weighting cells to increase variation across the cells. A categorical search algorithm was used to divide the data into smaller cells, with the goal of having response rates differ as much as possible across the cells. Cells with similar response rates were combined when necessary to achieve a minimum cell size of 30 respondents.

For the 2006 survey administration, the algorithm called CHAID (Chi-squared Automatic Interaction Detector; Kass, 1980) was used to divide the data into smaller cells. For the 2008, 2010, 2011- 2016 survey administrations, the chi algorithm in the Search software developed and maintained by the University of Michigan was used. The chi algorithm is an ancestor of CHAID. For the 2017 – 2021 survey administration, the CHAID option of SAS’s PROC HPSPLIT procedure was used to divide the data into smaller cells.

After the weighting cells were formed, statisticians calculated two nonresponse adjustment factors. The following formula was used to compute the first nonresponse adjustment factor for each weighting cell:

$$f_c^{1,nr} = \frac{\sum_{i \in ER_c} w_i + \sum_{i \in ENR_c} w_i + \sum_{i \in I_c} w_i + \sum_{i \in U_c} w_i}{\sum_{i \in ER_c} w_i + \sum_{i \in ENR_c} w_i + \sum_{i \in I_c} w_i}$$

where $\sum_{i \in ER_c} w_i$ is the sum of base weights for eligible respondents in weighting cell c , $\sum_{i \in ENR_c} w_i$ is the sum of base weights for eligible non-respondents in weighting cell c , $\sum_{i \in I_c} w_i$ is the sum of base weights for known ineligible in weighting cell c , and $\sum_{i \in U_c} w_i$ is the sum of base weights for non-respondents of unknown eligibility in weighting cell c . The first adjustment factor was used to distribute the base weights of non-respondents of unknown eligibility to units of known eligibility. The statisticians refer to this type of weight adjustment as a Type 1A weight adjustment (see Appendix E). This was achieved by multiplying the base weights of eligible respondents, known ineligibles, and non-respondents known to be eligible by the first adjustment factor and setting the final weight of the non-respondents of unknown eligibility to zero.

The following formula was used to compute the second nonresponse adjustment factor for each weighting cell:

$$f_c^{2,nr} = \frac{\sum_{i \in ER_c} w'_i + \sum_{i \in ENR_c} w'_i}{\sum_{i \in ER_c} w'_i}$$

where w'_i is the adjusted weight resulting from multiplying the base weight for unit i by the first adjustment factor. The second adjustment factor was used to distribute the adjusted weights of non-respondents of known eligibility to the eligible respondents. The statisticians refer to this type of adjustment as a Type 1B adjustment. (See Appendix E) The final weights were calculated by multiplying the base weights of the eligible respondents by both adjustment factors and by setting the final weight of the non-respondents of known eligibility to zero. Thus, the nonresponse adjusted weights were $ww_{ii}^{nnnn} = ff_{cc}^{1,nnnn} \times ww_{ii}$ for known ineligibles and $ww_{ii}^{nnnn} = ff_{cc}^{1,nnnn} ff_{cc}^{2,nnnn} \times ww_{ii}$ for eligible respondents.

Raking

The precision of survey estimates is improved if known information about the total population is used during the weighting process. For the final stage of weighting, statisticians used a method called raking that incorporated available information on the demographic characteristics of the 2023 FEVS sample population. For this third adjustment step, the sample file was subset to include only eligible respondents and known ineligible. Then, the adjusted base weights were further adjusted so they sum to control totals computed from the sampling-frame variables. The known ineligibles are included in raking because the control totals computed from the sampling frame variables also include ineligibles. At the conclusion of raking, however, only the final weights of the eligible respondents are used with the collected survey data to compute weighted estimates.

The raking procedure was carried out in a sequence of alternating adjustments. Weighted counts for eligible respondents plus known ineligibles were arrayed into two dimensions. The first dimension was formed by the crossing of agency, sex, and minority status. The second dimension was formed by truncating the stratum identifier to four characters, and in some cases further collapsing the resulting stratum-based cells. The actual population count was known for each cell in those two dimensions. Weighted counts of eligible respondents plus known ineligibles were produced for the first dimension, and then the weights were adjusted to reproduce the population counts. Those adjusted weights were then used to produce counts for the second dimension. The weighted counts of eligible respondents plus known ineligibles were compared with population counts for the second dimension, and the weights were adjusted again to reproduce population counts. This process of alternately adjusting for one, then the other, dimension was repeated until the survey distributions for the two dimensions equaled the population control counts for both dimensions, within a specified level of precision. That is, the sum of the weights for each raking dimension was acceptably close to the corresponding population total.

The final raked weight for the i^{th} respondent was computed as:

$$\tilde{w}_i^R = \frac{\tilde{f}_i^R}{f_i^R} w_i, i \in s_g$$

where f_i^R is the product of the iterative adjustments (in each dimension group, s_g) applied to the i^{th} sample employee. The final weight equals the number of people in the survey population the i^{th}

respondent represents. The weights for the eligible respondents were added to the data file. When the weights are used in data analysis, they improve the precision and accuracy of survey estimates.

Full sample versus Replicate Weights

For the 2004, 2006, and 2008 FHCS, *full-sample weights* were used to calculate standard errors and to perform statistical tests when the Taylor linearization method is used. For the 2010-2023 administrations, full-sample weights and Taylor linearization were still used for all analyses, except *replicate weights* were used for statistical analysis conducted on Analysis on Demand. Replicate weights were used because these trend analyses were also available on demand in WesDaX, Westat's online query and analysis system.

WesDaX uses the jackknife method to determine standard errors and to perform statistical tests, which requires the calculation of sets of *replicate weights*. The replicate weights were calculated by the JK_n method, which randomly assigns cases to groups, referred to as *variance units*, within sets of sampling strata, referred to as *variance strata*. The sampling strata for a particular agency were assigned to variance strata based on stratum response rates. Each set of replicate weights corresponds to deleting one variance unit and then recalculating the weights based on the remaining variance units. The nonresponse and calibration adjustments for the 2010-20231 FEVS were replicated in each set of replicate weights. Consequently, standard errors calculated by using the jackknife method correctly accounts for the effects of weight adjustment on the variance of survey estimates.

Example:

The remainder of this appendix presents a numerical example of the three-step weighting procedure. For this example, we assume that all the units in the sampling frame are eligible cases. Consequently, this example does not include any adjustments for cases of unknown eligibility.

Table D1 shows how the population is partitioned into five strata, and strata 4 and 5 are combined. The rightmost column of Table D1 contains the base weights by stratum. For example, the base weight for stratum 1 is $13,470 / 950 = 14.179$.

Table D1. Population counts, sample sizes, selection probabilities, and base weights

| Stratum | Population count | Sample size | Selection probability | Base weight |
|--------------|------------------|---------------|-----------------------|----------------------|
| 1 | 13,470 | 13,470 | 1 | 1 |
| 2 | 12,300 | 12,300 | 1 | 1 |
| 3 | 22,980 | 22,980 | 1 | 1 |
| 4 | 450 | 450 | 1 | 1 |
| 4/5 | } 1,250 | 450 | | |
| 5 | | 800 | | |
| Total | 50,000 | 50,000 | 13,470/13,470 | 13,470/13,470 |

Table D2 contains the number of respondents by strata and the associated response rates. The rightmost column of Table D2 contains the sum of the base weights for all the respondents in each stratum. For example, for stratum 1 the sum of the base weights is $5,671 \times 1 = 5,671$. However, this is not close to the stratum population size of 13,470 for stratum 1 shown in Table D1. If the response rate were 100 percent in stratum 1, then the sum of the base weights for all respondents in a stratum would equal the stratum’s population size. Because the response rate is not 100%, adjustments to the weights to compensate for nonresponse will be calculated.

Table D2. Sample, Respondents, Response Rates, and Base Weighted Totals

| Stratum | Sample size | Number of respondents | Response rate | Base weight total for respondents |
|--------------|---------------|-----------------------|---------------|-----------------------------------|
| 1 | 13,470 | 5,671 | 0.421 | 5,671 |
| 2 | 12,300 | 4,526 | 0.368 | 4,526 |
| 3 | 22,980 | 9,192 | 0.400 | 9,192 |
| 4/5 | 1,250 | 540 | 0.432 | 540 |
| Total | 50,000 | 19,929 | 0.405 | 19,929 |
| | | | | 5,671*1 |

One of the sampling-frame variables contains location information—that is, headquarters or field—about each case. Table D3 shows how respondents can be assigned to nonresponse-adjustment cells on the basis of location and then associated response rates and nonresponse adjustment factors calculated. For example, for the Field location, the nonresponse adjustment factor would be the reciprocal of the response rate of 0.310 for a 3.226 nonresponse adjustment factor. By using the reciprocal of the response rate, the nonresponse adjustment factor will be greater than or equal to one, so multiplying the base weight for a respondent by a nonresponse adjustment factor increases it so it represents both the respondent and associated non-respondents. The base weights are then multiplied by the adjustment factors, yielding the nonresponse-adjusted weights shown in Table D4.

Table D3. Response rates by location

| Location | Number of respondents | Response rate | Nonresponse adjustment factor | |
|--------------|-----------------------|---------------|-------------------------------|---------|
| Headquarters | 12,320 | 0.500 | 2.000 | |
| Field | 7,609 | 0.310 | 3.226 | |
| Total | 19,929 | 0.405 | | 1/0.310 |

Table D4. Nonresponse adjusted weights

| Stratum | Base weight | Adjustment factor | | Adjustment weight | |
|---------|-------------|-------------------|-------|-------------------|-------|
| | | HQ | Field | HQ | Field |
| 1 | 1 | 2.000 | 3.226 | 2.000 | 3.226 |
| 2 | 1 | 2.000 | 3.226 | 2.000 | 3.226 |
| 3 | 1 | 2.000 | 3.226 | 2.000 | 3.226 |
| 4/5 | 1 | 2.000 | 3.226 | 2.000 | 3.226 |

In Table D5, the second column from the right contains the sum of the nonresponse-adjusted weights for all the respondents in the eight cells defined by stratum and location. The rightmost column of Table D5 contains the cell's population size. The corresponding entries for the stratum totals in the two columns are not equal because of the variability in response rates across the four strata within each nonresponse adjustment cell, defined by location. If there had been no cross-stratum variability of responses rates within a nonresponse adjustment cell, the corresponding stratum totals in the two columns would have been equal to each other.

Table D5. Unweighted and weighted counts for respondents and population counts by stratum and location

| Stratum | Location | Unweighted count for respondents | | Weighted count for respondents | | Population count |
|---------------------|----------|----------------------------------|-------|--------------------------------|---|------------------|
| 1 | HQ | 4,324 | | 8,648 | | 7,880 |
| 1 | Field | 1,347 | | 4,345 | | 5,590 |
| Total for 1 | | 5,671 | | 12,993 | ↔ | 13,470 |
| 2 | HQ | 1,681 | | 3,362 | | 3,752 |
| 2 | Field | 2,845 | | 9,178 | | 8,548 |
| Total for 2 | | 4,526 | | 12,540 | ↔ | 12,300 |
| 3 | HQ | 5,249 | | 10,498 | | 10,915 |
| 3 | Field | 3,943 | | 12,720 | | 12,065 |
| Total for 3 | | 9,192 | | 23,218 | ↔ | 22,980 |
| 4/5 | HQ | 394 | | 788 | | 800 |
| 4/5 | Field | 146 | | 471 | | 450 |
| Total for 4/5 | | 540 | | 1,259 | ↔ | 1,250 |
| Grand Totals | | 19,929 | 394*2 | 50,011 | | 50,000 |

Table D6 illustrates two iterations of raking of the weights using stratum and sex as raking dimensions. The objective of such raking is to adjust the weights so that the sum of the weights for all the respondents in each stratum equals the stratum’s population control total and also the sum of the weights for all the respondents of each sex equals the sex’s population control total.

Table D6. Raking of weights using stratum and sex as ranking dimensions

Iteration 1

| Stratum | Weighted count | Population count | Raking factor |
|--------------|----------------|------------------|---------------|
| 1 | 12,993 | 13,470 | 1.037 |
| 2 | 12,540 | 12,300 | 0.981 |
| 3 | 23,218 | 22,980 | 0.990 |
| 4/5 | 1,259 | 1,250 | 0.993 |
| Total | 50,011 | 50,000 | |

← 13,470/12,993

→ Multiply weights by raking factors to get new weights and produce distribution by sex.

| Sex | Weighted count | Population count | Raking factor |
|--------------|----------------|------------------|---------------|
| Male | 21,900 | 23,500 | 1.073 |
| Female | 27,000 | 26,500 | 0.981 |
| Total | 48,900 | 50,000 | |

→ Calculate new weights using raking factors and produce distribution by group.

Iteration 2

| Stratum | Weighted count | Population count | Raking factor |
|--------------|----------------|------------------|---------------|
| 1 | 13,416 | 13,470 | 0.996 |
| 2 | 12,325 | 12,300 | 1.002 |
| 3 | 23,003 | 22,980 | 1.001 |
| 4/5 | 1,253 | 1,250 | 1.002 |
| Total | 49,996 | 50,000 | |

| Sex | Weighted count | Population count | Raking factor |
|--------------|----------------|------------------|---------------|
| Male | 23,400 | 23,500 | 1.004 |
| Female | 26,400 | 26,500 | 1.004 |
| Total | 49,800 | 50,000 | |

Iterations continue until weighted counts are close or equal to population counts.

Appendix E: Illustration of Weight Adjustment Operations

Table E1. Values of status variables

| Status | Description |
|---------------|---|
| 0 | Case where the initial weight should not be changed |
| 1 | Eligible respondents |
| 2 | Eligible non-respondents |
| 3 | Ineligible |
| 4 | Unknown eligibility status |

Table E2. Sums of weights used to define Type 1A and Type 1B Nonresponse Adjustments

| Sums of weights | Status |
|-----------------------------|---------------------------|
| $S_1 = \sum wgt_{status=1}$ | Eligible Respondents |
| $S_2 = \sum wgt_{status=2}$ | Eligible Non-respondents |
| $S_3 = \sum wgt_{status=3}$ | Ineligible |
| $S_4 = \sum wgt_{status=4}$ | Unknown (non-respondents) |

Figure E1. Type 1A Nonresponse Adjustment

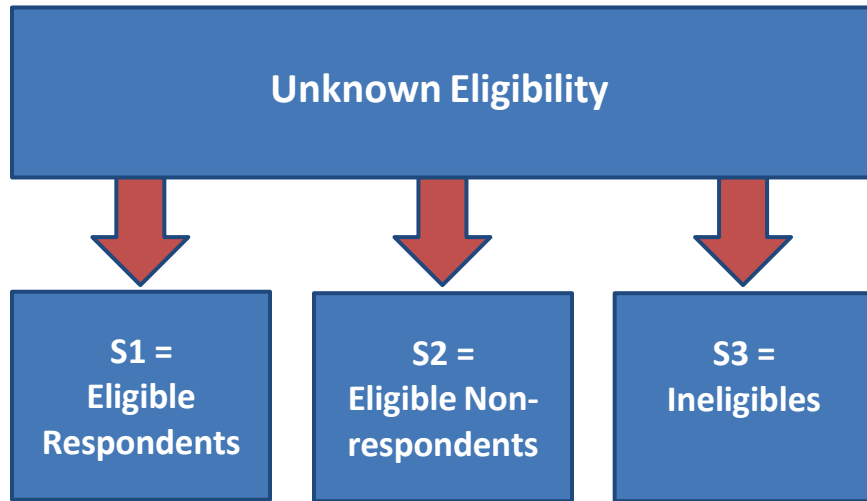
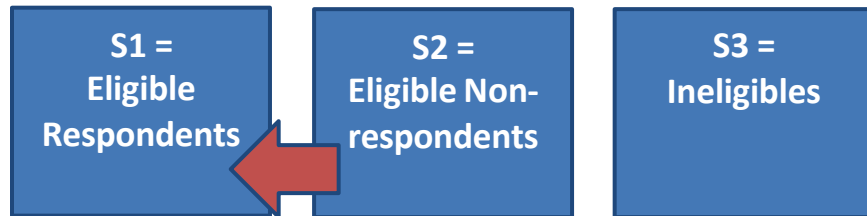


Figure E2. Type 1B Nonresponse Adjustment





United States Office of Personnel Management
Workforce Policy and Innovation/Strategic Workforce Planning

1900 E Street, NW
Washington, DC 20415

[OPM.gov/FEVS](https://www.opm.gov/FEVS)