Federal Employee Viewpoint Survey Results

Employees Influencing Change

Technical Report

United States Office of Personnel Management

OPM.GOV/FEVS

#FEVS

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Survey Introduction

Overview

The U.S. Office of Personnel Management (OPM) has conducted the Federal Employee Viewpoint Survey (FEVS), formerly the Federal Human Capital Survey (FHCS), since 2002. The survey was conducted biennially between 2002 and 2010, and annually thereafter. Westat has supported the survey since 2004. This report provides a description of the sample design, administration, analysis, and reporting procedures for the 2015 Federal Employee Viewpoint Survey (FEVS). This report also highlights changes made from previous years, where applicable.

The FEVS is designed to provide agencies with employee feedback on information critical to organizational performance: employee satisfaction, conditions for engagement, perceptions of leadership and organizational effectiveness, and more. These metrics assist in identifying areas in need of intervention to promote positive workplace behaviors, retain valuable and talented employees, and ultimately help agencies complete their missions.

Survey Objectives

OPM designed the FEVS to produce statistically reliable estimates of Federal employees' perceptions about how effectively agencies are managing their workforces. The survey results are calculated to ensure representative results are reported for all pre-identified work units and senior leader status (i.e., whether a member of the Senior Executive Service (SES) or equivalent) as well as the overall Federal workforce (governmentwide).

The 98-item survey covered the following eight topic areas:

- Personal Work Experiences,
- Work Unit,
- Agency,
- Supervisor,
- Leadership,
- Satisfaction,
- Work/Life, and
- Demographics.

Uses of Survey Results

Working with the information from the survey and other index measures (e.g., Engagement, Global Satisfaction, and the New IQ), agency management can make a thorough assessment of agency progress in achieving strategic goals as the foundation for a plan of action for ongoing improvement efforts. The FEVS findings allow agencies and subagencies to assess trends by comparing earlier results with the 2015 results, to compare agency results with the governmentwide results, 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.

Sample Design and Selection

Sample Design

The sample design reflects OPM's commitment to providing Federal agency leaders with representative information about their employees' perceptions of workforce management. The survey population for the 2015 FEVS included full- and part-time, permanent Federal employees. The 2015 sample included 37 departments and large agencies as well as 45 small and independent agencies.

Since 2013, OPM has used a Graduated Proportional Sampling (GPS) plan. The broad objective of this GPS sampling approach was to maintain the reporting breadth achieved by the 2012 FEVS census, but with a reduced burden in terms of the time and financial costs a census incurs. The following steps were performed to select a sample for a particular agency using the GPS plan:

1. Stratify individuals based on the lowest desired work unit or "level" identified by the agency.
2. Identify strata with less than 10 individuals and roll these up into the next-highest applicable stratum. This rolling up was performed because even if a 100% response rate were achieved, a work unit of 10 would be too small to receive a report. If there is no applicable higher level within the agency structure, the stratum is left as is.
3. As individuals in senior leader positions (e.g., SES or equivalent) constitute a rare subgroup of analytic interest, place them into a separate stratum to ensure they are sufficiently represented in the agency sample.
4. Once the final stratification boundaries were set, the sampling proportion was assigned based on the size of the stratum and the goal of attaining at least 10 respondents. We assumed a conservative 30% response rate. Exceptions to this rule were any strata in small agencies and the SES strata. These were censused. As seen in Table 1, the minimum sampling proportion was 25%; thus, each employee had at least a one in four chance of being selected to participate.
5. After the necessary sample size is determined, the agency's ratio of employees to be sampled was examined. If 75% or more of the workforce was to be sampled, a census of the agency was conducted instead.

Table 1: 2015 FEVS Stratum Sampling Rate Schedule

Work Unit Population Size*	Treatment	Sample Size
<50	Census	1 to 50
51 to 75	75% Sample	38 to 56
76 to 150	50% Sample	38 to 75
>151	25% Sample	37+

*Note: Excluding SES employees.

The sampling rate, population, and sample counts of all agencies participating in the 2015 FEVS administration are given in Appendix A. The total sample size for the 2015 FEVS was 903,060 employees; as compared to 872,495 in 2014 and 831,811 in 2013. This size was more than sufficient to ensure a 95 percent chance that the true population value would be between plus or minus 1 percent of any estimated percentage for the total Federal workforce.

Sampling Frame and Stratification Variables

The sampling frame is a comprehensive list of all persons (or units) in the survey population, those eligible to be selected for the survey. For the 2015 FEVS, the sampling frame was comprised of all 1,837,060 full-time and part-time, permanent Federal employees who were employed as of October 2014 in the agencies participating in the survey. Apart from a few exceptions,[1] this list was extracted from the personnel database managed by OPM as part of the Statistical Data Mart of the Enterprise Human Resources Integration (EHRI-SDM) (http://www.fedscope.opm.gov/datadefn/aehri_sdm.asp). OPM statisticians stratified the sampling frame prior to selecting a sample of Federal employees. As noted in the previous section, OPM reached out to participating agencies for supplemental organization code information. This information indicated the hierarchical work unit(s) to which an employee was assigned and provided more detailed information than was available from the EHRI-SDM. Organization code information, when provided, along with information about whether an employee was a Senior Leader, was used to create strata. The final sample consisted of 903,060 Federal employees.

1 At the time of sample selection, EHRI-SDM did not maintain information on the following employee types eligible to participate in the survey, and so a separate data submission was arranged: (1) Department of State Foreign Service; (2) Health and Human Services Commissioned Corps; and (3) Employees of the Postal Regulatory Commission.

Survey Instrument

Survey Content

The content of the 2015 FEVS was identical to that for the 2014 FEVS. Survey questions reflect the overall goal of measuring how effectively agencies are managing their workforces in the Federal Government. The FEVS focuses on employee perceptions regarding critical work life areas that drive employee satisfaction, engagement, and ultimately, retention in the workforce. The 98-item survey included 14 demographic questions and 84 items that addressed the following eight topic areas (see Appendix B for a complete list of survey items):

Personal Work Experience

Questions 1–19 addressed employees' personal work experiences and opinions.

Work Unit

Questions 20–28 addressed employees' opinions regarding cooperation, recruitment, quality, and performance management in their work unit.

Agency

Questions 29–41 covered agency policies and practices related to job performance, performance appraisals, workplace diversity and fairness, as well as perceptions of employees' personal empowerment, safety and preparedness. This section also addresses employees' views of their agency.

Supervisor

Questions 42–52 addressed employees' perceptions of their supervisor. For instance, this section asked whether supervisors support work life balance, provide opportunities to demonstrate leadership skills, and promote a workplace culture that supports staff development.

Leadership

Questions 53–62 asked about the effectiveness of the agency's senior leaders and mangers overall, and in motivating employees, maintaining high ethical standards, communicating organizational policies, and generating respect.

Satisfaction

Questions 63–71 addressed employee satisfaction with various aspects of their jobs, including pay, job training, opportunities for advancement, recognition for work well done, and the policies and practices of senior leaders.

Work/Life

Questions 72–84 asked employees about teleworking and if they are satisfied with various employment benefits and work/life programs.

Demographics

Questions 85–98 covered employee information, such as location of employment (headquarters vs. field), supervisory status, gender, ethnicity/race, education, pay category/grade, Federal employment tenure, agency tenure, disability status, veteran status, and sexual orientation.

In addition to the core survey items identified above, 52 agencies opted to add a total of 436 extra items tailored specifically to issues of interest to the agency.

Data Collection

In this chapter we describe the data collection procedures OPM used to administer the Web-based survey. It includes details on the disposition codes used during data collection and those used for the calculation of response rates. This chapter concludes with a description of the survey help desk procedures during the data collection period.

Web-Based Data Collection Procedures

The FEVS was a Web-based, self-administered survey. OPM sent emails to sampled employees inviting them to participate and provided instructions for accessing the survey (see Appendix C for sample email text). OPM also provided agencies with example survey communication materials that could be used to promote the survey. To improve response rates, OPM sent weekly reminder emails to non-respondents, including a final reminder sent on morning of the final Friday of the data collection period indicating the survey would close at the end of the day.

The survey was expected to take no more than 30 minutes, though the actual survey completion times varied somewhat from agency to agency due to the inclusion of variable numbers of agency-specific items. Employees were advised that they were allowed to complete the survey during official work hours.

Data Collection Period

The data collection period for the 2015 FEVS was April 27, 2015 to June 12, 2015. To spread the workload more evenly over that period, OPM arranged for surveys to be released in two waves to groups of agencies, beginning either April 27th or May 4th (see Table 2). The data collection period for every agency spanned six work weeks.

Table 2: 2015 FEVS Survey Launch Date and Final Close-Out Date, by Agency

Agency	Launch Date	Close Date
Department of Agriculture	May 4	June 12
Department of Commerce	May 4	June 12
Department of Defense		
Department of the Air Force	May 4	June 12
Department of the Army	May 4	June 12
U.S. Army Corps of Engineers	May 4	June 12
Department of the Navy	April 27	June 5
U.S. Marine Corps	April 27	June 5
DoD 4th Estate	April 27	June 5
Department of Education	May 4	June 12
Department of Energy	April 27	June 5

Table 2: 2015 FEVS Survey Launch Date and Final Close-Out Date, by Agency (continued)

Agency	Launch Date	Close Date
Department of Health and Human Services	May 4	June 12
Department of Homeland Security	April 27	June 5
Department of Housing and Urban Development	May 4	June 12
Department of Justice	April 27	June 5
Department of Labor	April 27	June 5
Department of State	May 4	June 12
Department of the Interior	April 27	June 5
Department of the Treasury	May 4	June 12
Department of Transportation	May 4	June 12
Department of Veterans Affairs	May 4	June 12
Environmental Protection Agency	April 27	June 5
Farm Credit System Insurance Corporation	May 4	June 12
Federal Trade Commission	April 27	June 5
General Services Administration	April 27	June 5
National Aeronautics and Space Administration	May 4	June 12
National Archives and Records Administration	May 4	June 12
National Credit Union Administration	April 27	June 5
National Labor Relations Board	April 27	June 5
National Science Foundation	May 4	June 12
Nuclear Regulatory Commission	April 27	June 5
Office of Management and Budget	May 4	June 12
Office of Personnel Management	May 4	June 12
Railroad Retirement Board	April 27	June 5

Table 2: 2015 FEVS Survey Launch Date and Final Close-Out Date, by Agency (continued)

Agency	Launch Date	Close Date
Small Business Administration	April 27	June 5
Social Security Administration	May 4	June 12
U.S. Agency for International Development	April 27	June 5
Small/Independent Agencies	May 4	June 12

Survey Disposition Codes

During the data collection period, each case in the sample frame is assigned a status or disposition code. Two types of disposition codes were assigned to indicate the status of each case: interim disposition codes and final disposition codes. Descriptions of the codes and case counts by final disposition code are provided in this section. Final disposition codes were used when calculating survey response rates, survey analysis weights, and which cases should be included in the final analysis dataset

Interim Disposition Codes

Throughout data collection, each case was assigned a numeric interim disposition code if the case was not yet considered closed. These are summarized in Table 3. Once closed, a final disposition code was assigned (see Table 4).

Table 3: 2015 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)
NP	Not in population (i.e., employees from agencies or components not participating in the 2015 FEVS or those in a non-permanent position)
NS	Not sampled (i.e., employees from participating agencies who were not sampled)
Undeliverable	
11	1st Undeliverable
12	2nd Undeliverable
13	3rd Undeliverable

Table 3: 2015 FEVS Interim Disposition Codes (continued)

Interim code	Description of Interim Disposition Code
14	4th Undeliverable
15	5th Undeliverable
16	6th Undeliverable
17	7th Undeliverable
18	8th or more undeliverable messages
20	Wrong email address (reported by recipient)
NE	No email address
Out-of-office	
41	1st Out-of-office
42	2nd Out-of-office
43	3rd Out-of-office
44	4th Out-of-office
45	5th Out-of-office
46	6th Out-of-office
47	7th Out-of-office
48	8th Out-of-office
49	9th or more Out-of-office
Other	
30	Invitation returned with forwarding information
50	Other survey notification status
70	Other response status
80	Refusal conversion attempt made
90	Request Reset URL
RF	Refusal
DU	Duplicate entry

Translating Interim Codes to Final Disposition Codes

This section reviews the rules that were applied when translating interim to final disposition codes.

Survey Completes and Incompletes. All respondents who viewed the survey were considered an interim complete. However, to be considered a final complete (CO), a respondent had to provide at least 21 answers for the first 84 non-demographic items. That is, they needed to complete at least 25% of the survey. If the respondent answered between 1 and 20 items of the first 84 items the respondent was coded as an Incomplete (IN). If the respondent did not respond to any of the first 84 items, they were coded as a No response (NR).

Once the respondents were coded into completes or incompletes, the following rules were applied to the survey population in hierarchical order:

Refusals. Respondents who were initially coded as a Refusal Conversion (code 80) but later completed the survey were considered a complete. On the other hand, cases that were initially coded as a Refusal (code RF) remained so, even if they later completed the survey.

Ineligibles. Cases were coded as ineligible based on the following criteria; the person was:

- retired;
- no longer with the agency as of April 30, 2015;
- unavailable during the data collection period (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.

Out-of-office Emails. If the respondent's out-of-office email indicated that they were out of the office during the entire data collection period, they were coded as unavailable (UA); otherwise, they were considered a nonresponse (NR).

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 (UD) status: during the data collection period, if the total number of contacts with the respondent's agency equaled at least ½ the number of undeliverable bounce backs, then the respondent was considered UD. Otherwise, if there was less than ½ the number of undeliverable bounce backs, the case was designated as NR. For example, if OPM had 7 potential contacts (invitations or reminders), any OPM respondent with at least 4 (3.5 rounded up) interim undeliverable emails (codes 14 through 18) would be coded as UD, otherwise they would be designated NR.

Final Disposition Codes

Table 4 lists the final disposition codes, with the number of cases per code, for the 2015 FEVS. The codes abide by the American Association of Public Opinion Research's (AAPOR) 2015 guidelines for Internet surveys of specifically named persons[2]. Only cases with a disposition code of complete (CO) were maintained in the survey data set used for analysis. All other cases were removed.

2 The American Association for Public Opinion Research. (2015). Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. (8th ed.) AAPOR. Retrieved January 11, 2016: http://www.aapor.org/AAPORKentico/AAPOR_Main/media/publications/Standard-Definitions2015_8theditionwithchanges_April2015_logo.pdf

Table 4: 2015 FEVS Final Disposition Codes and Case Count per Disposition Codes

Final Disposition codes	Description	No. of cases
CO	Complete – respondent answered at least 21 of the first 84 non-demographic items	421,748
IN	Incomplete – respondent answered at least 1 but less than 21 of the first 84 non-demographic items	8,409
RF	Refusal	105
NR	No response	417,975
IE	Ineligible (e.g., deceased or no longer with agency)	34,012
NE	No email address	11,498
UA	Unavailable during the fielding period	63
UD	Undeliverable email	9,250
Total		**903,060**

Response Rates

Information about the final disposition code of each case was used to calculate the final response rate. Westat calculated response rates in two ways for the 2015 FEVS. Westat used the formula that has been used for reporting in previous administrations of the survey. Westat also calculated the response rate using AAPOR's Response Rate 3 formula, an industry-standard method which allows a more accurate comparison to other surveys as shown in Appendix D. 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).

The distributions of final disposition codes among the four groups are summarized in Table 5.

The agency response rates, calculated using the FEVS formula, are presented in Table 6.

Table 5: Case Assignment Allocation to Response Rate Groups

Response Rate (RR) Group	FEVS Method Allocation	FEVS Method Counts
Eligible Respondents (ER)	CO	421,748
Eligible Non-respondents (ENR)	NR, RF, IN	426,489
Unknown Eligibility (UNK)	—	—
Ineligible (IE)	IE, UD, NE, UA	54,823
Total		**903,060**

Using the counts in Table 5 the response rate is calculated as follows:

FEVS formula:

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

RR = ER / (ER + ENR) * 100

RR = 421,748/ (421,748+ 426,489) * 100

RR = (421,748/848,237)* 100

RR = 49.7 percent (up from 46.8 percent in 2014, up from 48.2 percent in 2013)

Table 6: 2015 FEVS Agency Response Rates

	Number of Completed Surveys	Response Rate
Governmentwide	421,748	49.7%
Presidential Management Council Agencies		
Department of Agriculture	20,624	66.2%
Department of Commerce	10,129	57.8%
Department of Defense	72,919	35.3%
Department of the Air Force	18,776	28.2%
Department of the Army*	21,003	37.1%
U.S. Army Corps of Engineers	4,306	56.9%
Department of the Navy**	17,891	34.9%
U.S. Marine Corps	1,681	37.4%
OSD, Joint Staff, Defense Agencies, and Field Activities (DoD 4th Estate)	15,249	47.3%
Department of Education	2,701	72.7%
Department of Energy	8,469	68.4%
Department of Health and Human Services	36,772	53.3%
Department of Homeland Security	43,090	47.1%
Department of Housing and Urban Development	5,404	73.5%
Department of Justice	20,218	45.2%
Department of Labor	11,359	76.5%
Department of State	4,060	52.9%
Department of Transportation	15,598	53.2%
Department of Veterans Affairs	32,236	36.0%
Department of the Interior	26,366	57.4%
Department of the Treasury	51,700	61.5%

* 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

Table 6: 2015 FEVS Agency Response Rates (continued)

	Number of Completed Surveys	Response Rate
Governmentwide	421,748	49.7%
Presidential Management Council Agencies (continued)		
Environmental Protection Agency	4,456	61.9%
General Services Administration	7,874	75.2%
National Aeronautics and Space Administration	9,936	59.2%
National Science Foundation	900	77.7%
Office of Management and Budget	305	80.7%
Office of Personnel Management	3,378	71.9%
Small Business Administration	1,303	62.9%
Social Security Administration	10,527	58.3%
U.S. Agency for International Development	2,004	56.6%
Large Agencies		
Broadcasting Board of Governors	1,102	74.3%
Court Services and Offender Supervision Agency	648	58.5%
Equal Employment Opportunity Commission	1,247	60.9%
Federal Communications Commission	573	36.4%
Federal Energy Regulatory Commission	996	73.4%
Federal Trade Commission	626	60.5%
National Archives and Records Administration	1,721	72.7%
National Credit Union Administration	777	67.0%
National Labor Relations Board	902	63.3%
Nuclear Regulatory Commission	2,675	74.5%
Pension Benefit Guaranty Corporation	630	72.6%
Railroad Retirement Board	481	55.8%
Securities and Exchange Commission	1,921	71.8%

Table 6: 2015 FEVS Agency Response Rates (continued)

	Number of Completed Surveys	Response Rate
Governmentwide	421,748	49.7%
Small/Independent Agencies		
Advisory Council on Historic Preservation	28	80.0%
African Development Foundation	13	54.2%
American Battle Monuments Commission	14	58.3%
Chemical Safety and Hazard Investigation Board	31	100.0%
Commission on Civil Rights	19	79.2%
Committee for Purchase From People Who Are Blind or Severely Disabled	11	45.8%
Commodity Futures Trading Commission	488	79.1%
Consumer Product Safety Commission	299	64.0%
Corporation for National and Community Service	492	83.2%
Defense Nuclear Facilities Safety Board	81	83.5%
Export-Import Bank of the United States	217	60.3%
Farm Credit Administration	225	87.2%
Farm Credit System Insurance Corporation	9	81.8%
Federal Election Commission	163	55.4%
Federal Housing Finance Agency	350	72.6%
Federal Labor Relations Authority	98	83.8%
Federal Maritime Commission	77	78.6%
Federal Mediation and Conciliation Service	164	80.8%
Federal Retirement Thrift Investment Board	142	83.5%
Institute of Museum and Library Services	46	78.0%
Inter-American Foundation	33	94.3%
International Boundary and Water Commission	104	50.7%
Marine Mammal Commission	8	80.0%

Table 6: 2015 FEVS Agency Response Rates (continued)

	Number of Completed Surveys	Response Rate
Governmentwide	421,748	49.7%
Small/Independent Agencies (continued)		
Merit Systems Protection Board	138	71.9%
National Capital Planning Commission	24	85.7%
National Endowment for the Arts	58	61.1%
National Endowment for the Humanities	74	64.3%
National Gallery of Art	456	65.5%
National Indian Gaming Commission	67	76.1%
National Mediation Board	16	45.7%
National Transportation Safety Board	228	59.4%
Nuclear Waste Technical Review Board	4	40.0%
Occupational Safety and Health Review Commission	32	68.1%
Office of Navajo and Hopi Indian Relocation	27	81.8%
Office of the U.S. Trade Representative	82	46.1%
Overseas Private Investment Corporation	148	75.1%
Postal Regulatory Commission	53	89.8%
Selective Service System	80	77.7%
Surface Transportation Board	78	65.5%
U.S. Access Board	16	61.5%
U.S. International Trade Commission	280	88.3%
U.S. Office of Government Ethics	47	78.3%
U.S. Office of Special Counsel	65	61.3%
U.S. Trade and Development Agency	28	71.8%
Woodrow Wilson International Center for Scholars	8	25.8%

Help Center

A Help Center was set up to assist Federal employees with questions about the survey to ensure that all inquiries were handled promptly, accurately, professionally, and in a consistent manner. Providing a Help Center also helps achieve 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/concerns or call a toll-free number to contact Help Center staff. Thirty-one email accounts were set up, one for each of the 29 large departments/agencies, one for the small/independent agencies, and one for the large independent agencies. Westat's Help Center staff included three trained team staff members, one Help Center Supervisor, and one assistant Help Center Supervisor; operations were overseen by the Data Collection Task Manager.

The Help Center opened with the launch of the first survey invitation on April 27, 2015 and closed on the last day of the data collection period, June 12, 2015. Hours of operation were 8:30 a.m. to 5 p.m. Eastern Time, Monday through Friday. The Help Center was located at the Westat campus in Rockville, Maryland.

Staff Training

The Help Center Supervisor conducted a 2-hour staff training session prior to the launch of the survey. The training session included an introduction to the project, a review of the 2015 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 and toll-free calls from employees. After the technical session, all trainees used test accounts and cases that were set up within the 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 2-hour training was followed-up with one-on-one training sessions between the Help Center supervisor and the Help Center staff. One-on-one sessions further helped the Help Center staff understand eligibility requirements, refusal conversion techniques, and how to properly code dispositions. During the survey administration period, the Help Center supervisor frequently reviewed the survey support inboxes, Help Center staff workload, and replies to respondents to ensure responses were not only timely but appropriate.

Web-based Help Center Application

The Web-based Help Center Application or Survey Management System (SMS) is an application enabling Help Center staff to respond to emails, facilitate quick handling of respondent inquiries. and optimize technical assistance response times. The SMS handled email and phone inquiries from survey participants and provided other support functions such as tracking disposition codes, updating contact information, capturing real-time survey submissions, and generating response rate reports. The SMS was directly 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 these individuals did not continue to receive reminder notifications. The SMS also automatically received response data twice daily from the survey platform to keep response rate reporting as accurate and up-to-date as possible. These are the highlighted features of the application, which continues to be updated and customized each year.

In 2015, Westat added a reports feature such that at the end of every week OPM could download a listing of survey participants who needed their survey link reset. Survey resets occurred mostly due to individuals mistakenly forwarding their personalized survey link to others or due to individuals completing their survey but wanting to change their responses after submission. In previous years, the Help Center staff would forward OPM an email to handle each case individually. Rather than doing each request individually, the SMS streamlined the process to populate a report which OPM would receive on Fridays and fulfill the requests that day.

Response Rate Reporting Website

Since 2014, FEVS agency points of contact have been provided access to a Response Rate Reporting Website to view their agency's real-time survey completion rate information during the data collection period.[3] This website provided the following information: launch date of the survey, sample size, number of completed surveys (based on an interim disposition code), and the response rate to date. It also provided the final response rates for the previous two survey administrations as well as the response rate to date in the same period of survey data collection for the previous year. This information was used by agency managers and executives to help monitor and promote participation in the FEVS.

Help Center Operational Procedures

This section details the Help Center email and toll-free call procedures, the volume and types of inquiries received, and any new questions added to the FEVS Contractor Answer Book.

Emails. Figure 1 illustrates the operational procedures for handling emails at the center. For 2015, the Help Center used the Web-based application or SMS to receive, track, and respond to emails. When an email was received, the Help Center Staff had the option to reply with an appropriate response from the FEVS Contractor Answer Book or forward to OPM for further assistance. The Help Center processed thousands of emails within the Help Center SMS across the 31 email accounts. Table 7 summarizes the number of emails the Help Center received across the 31 email accounts.

Of the 316,231 emails received by the Help Center, 180,046 were undeliverable notifications, 125,959 were automated out-of-office replies to the original survey invitation and reminders, and 4,925 were inquiries or comments from individuals. Of the 180,046 undeliverable notifications, 35,956 were from unique respondents. Of the 125,959 automated out-of-office replies, Westat staff worked through and programmatically processed 25,347 from unique respondents to gather information to help assign final disposition codes to cases during survey closeout. Information from these emails helped to code a small percentage of the cases as ineligible or unavailable during the data collection period. Help Center staff reviewed all inquiries and comments in the inbox and determined that 3,945 of the 4,925 emails required a response. The other 980 emails consisted of comments from users that 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 3,945 emails that required a response, 85 (2.15 percent of the total) were sent to one of the following: the OPM Technical email box, OPM Content email box, or OPM Reset User ID report for additional assistance.

3 The completion rate differs from the response rate as it does not take into consideration ineligible respondents, and surveys submitted that are not complete. It is the number of submitted surveys divided by the sample size.

Figure 1: 2015 FEVS Help Center Email Procedures

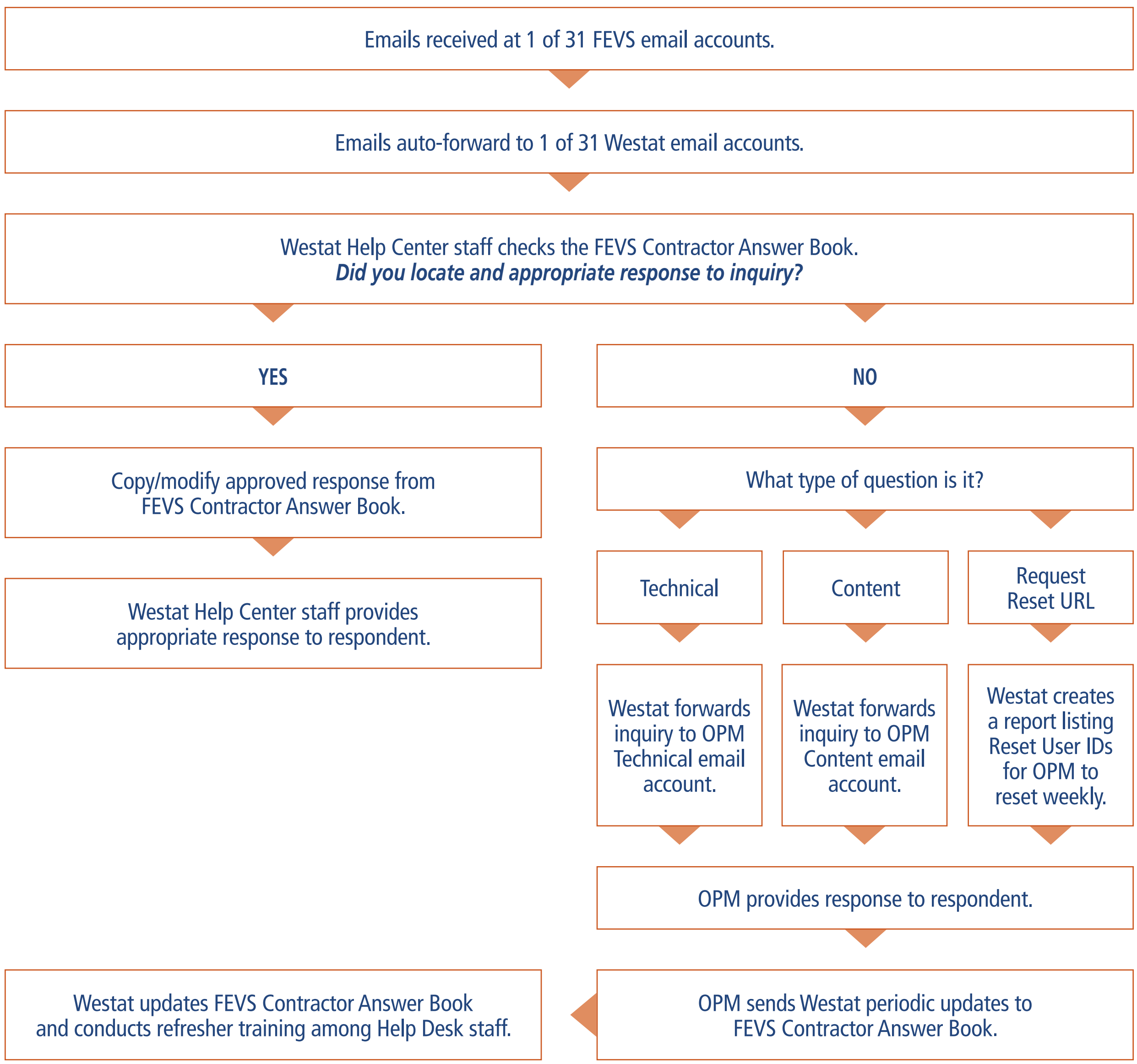


Table 7: Number of Emails Handled by Help Center and OPM, by Agency

Agency	Inbox (Folder)	Out of Office (Folder)	Undeliverable (Folder)	Sent Items (Folder)	Total
Department of Agriculture	98	4,396	9,333	92	13,919
Department of Commerce	103	2834	3,298	99	6,334
Department of Defense					
Department of the Air Force	195	9,018	2,116	181	11,510
Department of the Army	192	11,362	18,689	196	30,439
U.S. Army Corps of Engineers	47	23	578	30	678
Department of the Navy	327	11,635	23,914	195	36,071
U.S. Marine Corps	20	113	891	13	1,037
DoD 4th Estate	189	6,713	9,062	170	16,134
Department of Education	53	1,029	1,013	64	2,159
Department of Energy	224	2,170	9,903	370	12,667
Department of Health and Human Services	725	16,070	15,053	1,017	32,865
Department of Homeland Security	472	10,410	1,234	270	12,386
Department of Housing and Urban Development	224	1,640	2,598	337	4,799
Department of Justice	133	5,659	8,579	84	14,455
Department of Labor	327	2,204	3,586	540	6,657
Department of State	92	2,916	783	94	3,885
Department of the Interior	178	7,133	19,657	135	27,103
Department of the Treasury	320	5,397	23,972	436	30,125

Table 7: Number of Emails Handled by Help Center and OPM, by Agency (continued)

	Folder				
Agency	Inbox	Out of Office	Undeliverable	Sent Items	Total
Department of Transportation	106	4,190	1,917	101	6,314
Department of Veterans Affairs	140	4,806	56	129	5,131
Environmental Protection Agency	46	1,492	2,424	22	3,984
General Services Administration	151	2,015	3,520	157	5,843
Large independent agencies	198	3,298	3,947	207	7,650
National Aeronautics and Space Administration	177	2,506	4,285	169	7,137
National Science Foundation	2	307	301	2	612
Office of Management and Budget	1	96	50	5	152
Office of Personnel Management	83	718	1,368	87	2,256
Small Business Administration	10	631	25	10	676
Social Security Administration	39	1,646	5,648	37	7,370
U.S. Agency for International Development	21	2,410	120	18	2,569
Small/Independent agencies	32	1,122	2,126	34	3,314
TOTALS	**4,925**	**125,959**	**180,046**	**5,301**	**316,231**

Toll-Free Calls. The Help Center staff also handled calls made to the survey's toll-free hotline by respondents with questions or comments about the survey. The toll-free number was set up to go directly to the Help Center. During the Help Center hours (8:30 a.m. to 5 p.m. Eastern Time, Monday through Friday), calls were answered as they came in by Help Center staff. A voicemail box was set up for calls received outside of regular Help Center hours. All voicemail messages were returned within 1 business day. A total of 1,638 calls were received during the data collection period. A daily telephone log was maintained to record all incoming calls received.

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 and telephone. The Help Center Staff answered all inquiries using the appropriate response from the FEVS Contractor Answer Book.

Most of the inquiries fell into one of the following categories:

- Individuals reporting they were no longer Federal employees;
- Individuals verifying the survey was legitimate;
- Individuals who had lost their survey URL;
- Individuals who had received a reminder from within their agency (not from OPM), who were not in the sample and so did not get a survey invitation and were wondering how to take the survey;
- Individuals with questions about confidentiality, particularly for members of small subgroups; and
- Individuals having difficulty accessing the survey.

At the beginning of the data collection period, the answer book contained 90 questions and provided standardized answers to those frequently asked questions. Three new answers were added to the Answer Book early in the 2015 data collection period, for a total of 93 frequently asked questions. These new questions pertained to troubles accessing the survey when there was an error with the access code, a question about what 508 products the instrument was tested with, and an inquiry about whether the data would be analyzed by demographic groups or in total.

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 target population.

Data Cleaning and Recoding

Given that the 2015 FEVS was a Web-based survey, programs to inspect the data for various response errors or out of range values were built into the instrument; thus, data cleaning was a continuous operation throughout the data collection period. The data cleaning and editing process involved accounting for each case by assigning final disposition codes and recoding some of the variables for analysis purposes. Starting in 2012, the satisfaction with work/life program questions (Q79-84) were recoded such that, if the respondent did not participate in the work/life program (based on responses to Q73-78), their responses to the satisfaction with that work/life program were set to missing. Other variables were recoded for reporting purposes, such as the race and ethnicity variables were recoded into a minority and non-minority variable.

Weighting

The process of weighting refers to the development of an analysis weight assigned to each respondent to the 2015 FEVS. The weights are necessary to achieve the survey objective of making unbiased inferences regarding the perceptions of the full population of Federal employees. Without the weights, two characteristics of the FEVS could result in biased population estimates. First, as noted previously, the 2015 FEVS was a census in some strata and a probability sample in other strata. Hence, an employee's probability of being invited to participate in the FEVS varied across agencies and agency subgroups. Because of the variable probabilities of selection across the subgroups, sample members in, say, subgroup A each represent X number of Federal employees, whereas sample members in subgroup B each represent Y number of employees. Weights are calculated to adjust for those differences.

Another survey characteristic that is a source of potential bias in the 2015 FEVS estimates is nonresponse. In an ideal scenario, all members of the survey sample receive the survey invitation and complete the survey. In actuality, however, some survey cases cannot be located (e.g., undeliverable emails) and others who receive the survey do not complete it. Undeliverable survey invitations as well as varying response rates across subgroups of employees were experienced during the 2015 FEVS. Analysis of data from the 2015 FEVS requires the use of weights to adjust not only for variable selection probabilities but also for survey nonresponse.

For the 2015 FEVS, final disposition codes and information from the sampling frame were used to develop the weights. The disposition codes were used to determine whether each employee returned a completed questionnaire or if information was obtained indicating the employee was ineligible to participate in the FEVS. Variables utilized from the sampling frame include the stratum identifier and a set of demographic variables known for both respondents and non-respondents.

Statisticians used a three-stage, industry-standard procedure to develop the full-sample weights. First, they 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. This technique can increase the precision of survey estimates. Unless otherwise noted, the full-sample weights were used to compute all FEVS estimates the full-sample weights were also used to compute measures of precision by using Taylor linearization in all analyses, except for agency and governmentwide trend analyses. For these two types of analyses, the measures of precision were computed by using replicate weights, which were developed using the JKn method. See Appendix E for detailed information on the 2015 FEVS weighting processes and Appendix E for an illustration of the weight adjustment operation.

Data Analysis

This chapter outlines the statistical methodology used to analyze the survey responses received from all 421,748 FEVS 2015 respondents.

Frequency Distributions

As in prior administrations, the primary data analysis in 2015 included calculating governmentwide, agency, and subagency frequency distributions for each survey question. In addition, frequency distributions were calculated for various demographic groups and select work-related characteristics.

Distributions of Positive, Negative, and Neutral Responses

Many of the FEVS item answer sets formed 5-point Likert-type response scales. Three such scales were 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 defined 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 questions 9-19, 21-27, 29-39, 41-47, 53-62, and 79-84 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 questions.

Testing for Statistically Significant Differences

Analysts tested for two types of statistically significant differences: differences between estimates for subgroups in 2015 and differences between estimates across survey administration years. The following sections describe these two types of analyses.

Subgroup Comparisons

Estimates for all percent positive responses were calculated at the governmentwide level for the following subgroups: age group, gender, race/ethnicity, disability status, previous military experience or veteran status, and workforce attributes (supervisor status and work location). Analysts calculated the standard errors for the collapsed percent positive estimates, which were then used to calculate Student's t statistics that test for significant differences between estimates for two comparison groups. The analysts performed statistical testing to identify statistically significant differences in responses across subgroups containing more than 30 respondents. To reduce the likelihood of incorrectly concluding that significant differences exist when there are multiple subgroup comparisons (such as supervisory status), analysts used SAS's Proc Multtest (the false discovery rate [FDR] method) to adjust the significance-test probability.

Trend Analyses

Trend analyses were conducted for 77 items that had percent positive calculations and that were included in at least 2 consecutive years of FEVS administration from 2012 to 2015. For each of these non-demographic items, analysts calculated the percent positive responses for each year and graphically displayed whether there were statistically significant increases or decreases, or no statistically significant changes, in positive responses from 2012 to 2013, from 2013 to 2014, and 2014 to 2015. These statistical testing results were based on t-test analyses between the two percent positive response estimates for each year when there were more than 30 respondents in both years. Table 8 presents a sample of the display. In the table, arrows slanting up (↗) indicate statistically significant increases, arrows slanting down (↘) indicate statistically significant decreases, and horizontal arrows (→) indicate no statistically significant changes. The first arrow in the last column of the table indicates changes status between 2012 and 2013, the second arrow indicates changes between 2013 and 2014, and the third arrow indicates changes between 2014 and 2015. For example, for item 51 in Table 8, there was no statistically significant change in percent positive responses from 2012 to 2013, but there were statistically significant decrease from 2013 to 2014 and a statistically significant increase from 2014 to 2015.

Table 8: Sample Trend Analysis Results

	Percent Positive				Significant Trends
	2012	2013	2014	2015	
9. I have sufficient resources (for example, people, materials, budget) to get my job done.	48	44	45	46	↘ ↗ ↗
22. Promotions in my work unit are based on merit.	34	32	32	33	↘ ↗ ↗
51. I have trust and confidence in my supervisor.	66	66	65	67	→ ↘ ↗

Indices

Four sets of indices were reported on for the 2015 FEVS: Engagement Index, Global Satisfaction Index, the New IQ Index, and the Human Capital Assessment and Accountability Framework (HCAAF) Index. The next sections review these indices.

Engagement Index

The Engagement Index is a measure of the conditions conducive to engagement. The index consists of 15 items grouped into three subindices: Leaders Lead, Supervisors, and Intrinsic Work Experience (see Table 9).

Subindex scores are calculated by averaging the unrounded percent positive of each of the items in the subindex. Averaging the three unrounded subindex scores creates the overall Engagement score. Index and subindex scores were rounded for reporting purposes.

Table 9: Engagement Index (15 items)

Engagement Index (3 Subindices)
Leaders Lead (5 items)
53. In my organization, senior leaders generate high levels of motivation and commitment in the workforce.
54. My organization's senior leaders maintain high standards of honesty and integrity.
56. Managers communicate the goals and priorities of the organization.
60. Overall, how good a job do you feel is being done by the manager directly above your immediate supervisor?
61. I have a high level of respect for my organization’s senior leaders.
Supervisors (5 items)
47. Supervisors in my work unit support employee development.
48. My supervisor listens to what I have to say.
49. My supervisor treats me with respect.
51. I have trust and confidence in my supervisor.
52. Overall, how good a job do you feel is being done by your immediate supervisor?
Intrinsic Work Experience (5 items)
3. I feel encouraged to come up with new and better ways of doing things.
4. My work gives me a feeling of personal accomplishment.
6. I know what is expected of me on the job.
11. My talents are used well in the workplace.
12. I know how my work relates to the agency's goals and priorities.

Global Satisfaction Index

Global Satisfaction Index is a combination of employees' satisfaction with their job, their pay, and their organization, plus their willingness to recommend their organization as a good place to work (see Table 10).

Overall Global Satisfaction Index scores are calculated by averaging the unrounded percent positive of each of the four items. Index scores were rounded for reporting purposes.

Table 10: Global Satisfaction Index (4 items)

Global Satisfaction (4 items)
40. I recommend my organization as a good place to work.
69. Considering everything, how satisfied are you with your job?
70. Considering everything, how satisfied are you with your pay?
71. Considering everything, how satisfied are you with your organization?

The New Inclusion Quotient (The New IQ) Index

The New IQ was built on the concept that individual behaviors, repeated over time, form the habits that create the essential building blocks of an inclusive environment. These behaviors can be learned, practiced, and developed into habits of inclusiveness and subsequently improve the inclusive intelligence of organizational members. Workplace inclusion is a contributing factor to employee engagement and organizational performance. The New IQ consists of 20 items that are related to inclusive environments (see Table 11). These 20 items are grouped into "5 Habits of Inclusion":

- Fair,
- Open,
- Cooperative,
- Supportive, and
- Empowering.

Subindex scores are calculated by averaging the unrounded percent positive of each of the items in the subindex. Averaging the five unrounded subindex scores creates the overall New IQ score. Index and subindex scores were rounded for reporting purposes.

Table 11: The New IQ Index Items (20 items)

The New IQ Index (5 Subindices)	
Fair (5 items)	
23.	In my work unit, steps are taken to deal with a poor performer who cannot or will not improve.
24.	In my work unit, differences in performance are recognized in a meaningful way.
25.	Awards in my work unit depend on how well employees perform their jobs.
37.	Arbitrary action, personal favoritism and coercion for partisan political purposes are not tolerated.
38.	Prohibited Personnel Practices are not tolerated.
Open (4 items)	
32.	Creativity and innovation are rewarded.
34.	Policies and programs promote diversity in the workplace (for example, recruiting minorities and women, training in awareness of diversity issues, mentoring).
45.	My supervisor is committed to a workforce representative of all segments of society.
55.	Supervisors work well with employees of different backgrounds.
Cooperative (2 items)	
58.	Managers promote communication among different work units (for example, about projects, goals, needed resources).
59.	Managers support collaboration across work units to accomplish work objectives.
Supportive (5 items)	
42.	My supervisor supports my need to balance work and other life issues.
46.	My supervisor provides me with constructive suggestions to improve my job performance.
48.	My supervisor listens to what I have to say.
49.	My supervisor treats me with respect.
50.	In the last six months, my supervisor has talked with me about my performance.
Empowering (4 items)	
2.	I have enough information to do my job well.
3.	I feel encouraged to come up with new and better ways of doing things.
11.	My talents are used well in the workplace.
30.	Employees have a feeling of personal empowerment with respect to work processes.

Human Capital Assessment and Accountability Framework (HCAAF)

To guide Governmentwide efforts to support agency mission results with strong human capital strategies, OPM created the Human Capital Assessment and Accountability Framework (HCAAF).

The results of the FEVS provide a single source of information for evaluating success in the three HCAAF implementation systems: Leadership and Knowledge Management, Results-Oriented Performance Culture, and Talent Management (see Table 12). The HCAAF consists of 39 items that are grouped into four indices:

- Leadership and Knowledge Management,
- Results-Oriented Performance Culture,
- Talent Management, and
- Job Satisfaction.

Each of the four HCAAF Index scores is calculated by averaging the unrounded percent positive of the items that make up the index. Scores were rounded for reporting purposes

Table 12: FEVS HCAAF Index Items (39 items)

Leadership & Knowledge Management Index (12 items)
10. My workload is reasonable.
35. Employees are protected from health and safety hazards on the job.
36. My organization has prepared employees for potential security threats.
51. I have trust and confidence in my supervisor.
52. Overall, how good a job do you feel is being done by your immediate supervisor?
53. In my organization, senior leaders generate high levels of motivation and commitment in the workforce.
55. Supervisors work well with employees of different backgrounds.
56. Managers communicate the goals and priorities of the organization.
57. Managers review and evaluate the organization's progress toward meeting its goals and objectives.
61. I have a high level of respect for my organization’s senior leaders.
64. How satisfied are you with the information you receive from management on what’s going on in your organization?
66. How satisfied are you with the policies and practices of your senior leaders?

Table 12: FEVS HCAAF Index Items (39 items) (continued)

Results-Oriented Performance Culture Index (13 items)	
12.	I know how my work relates to the agency's goals and priorities.
14.	Physical conditions (for example, noise level, temperature, lighting, cleanliness in the workplace) allow employees to perform their jobs well.
15.	My performance appraisal is a fair reflection of my performance.
20.	The people I work with cooperate to get the job done.
22.	Promotions in my work unit are based on merit.
23.	In my work unit, steps are taken to deal with a poor performer who cannot or will not improve.
24.	In my work unit, differences in performance are recognized in a meaningful way.
30.	Employees have a feeling of personal empowerment with respect to work processes.
32.	Creativity and innovation are rewarded.
33.	Pay raises depend on how well employees perform their jobs.
42.	My supervisor supports my need to balance work and other life issues.
44.	Discussions with my supervisor about my performance are worthwhile.
65.	How satisfied are you with the recognition you receive for doing a good job?
Talent Management Index (7 items)	
1.	I am given a real opportunity to improve my skills in my organization.
11.	My talents are used well in the workplace.
18.	My training needs are assessed.
21.	My work unit is able to recruit people with the right skills.
29.	The workforce has the job-relevant knowledge and skills necessary to accomplish organizational goals.
47.	Supervisors in my work unit support employee development.
68.	How satisfied are you with the training you receive for your present job?

Table 12: FEVS HCAAF Index Items (39 items) (continued)

Job Satisfaction Index (7 items)	
4.	My work gives me a feeling of personal accomplishment.
5.	I like the kind of work I do.
13.	The work I do is important.
63.	How satisfied are you with your involvement in decisions that affect your work?
67.	How satisfied are you with your opportunity to get a better job in your organization?
69.	Considering everything, how satisfied are you with your job?
70.	Considering everything, how satisfied are you with your pay?

Index Rankings

The 37 agencies listed below were ranked on each of these indices. The rankings were calculated from the rounded percent positive results for the overall index, which allowed for ties. Each of the 37 agencies, where Army, Army Corps of Engineers, Air Force, Navy, Marine Corps, and Other Defense agencies/activities, were rolled into Department of Defense received its own ranking on the overall index. The rankings ranged from '1' for the highest percent positive (even if there was a tie) to '37' for the lowest percent positive (even if there was a tie). The small/independent agencies were ranked separately.

The 37 Agencies Ranked on each of the Indices

Departments/Agencies

Department of Agriculture
Department of Commerce
Department of Defense
Department of Education
Department of Energy
Department of Health and Human Services
Department of Homeland Security
Department of Housing and Urban Development
Department of the Interior
Department of Justice
Department of Labor
Department of State
Department of Transportation
Department of the Treasury
Department of Veterans Affairs
Environmental Protection Agency
General Services Administration
National Aeronautics and Space Administration
National Science Foundation
Office of Management and Budget
Office of Personnel Management
Small Business Administration
Social Security Administration
U.S. Agency of International Development

Large Agencies

Broadcasting Board of Governors
Court Services & Offender Supervision Agency
Equal Employment Opportunity Commission
Federal Communications Commission
Federal Energy Regulatory Commission
Federal Trade Commission
National Archives and Records Administration
National Credit Union Administration
National Labor Relations Board
Nuclear Regulatory Commission
Pension Benefit Guaranty Corporation
Railroad Retirement Board
Securities and Exchange Commission

Public Release Data Files

This section details measures taken to protect respondent confidentiality for the release of the 2015 FEVS general version of the public-release data file (PRDF) and the lesbian, gay, bisexual, and transgender (LGBT) version. The first two sections discuss the methods used to produce these two files, while the third section discusses an additional public release data file type, the 2004 – 2015 trend file.

Procedures Undertaken to Produce the General Version of the PRDF

When considering the level of work-unit detail that could safely be included in the raw survey responses in the file, the first obligation was to honor the wishes of participating agencies. Specifically, the agencies were consulted to determine whether and how many levels of the organizational structure to consider for inclusion. After removing obvious personal identifiers such as name and email address as well as certain highly sensitive demographics (e.g., the LGBT indicator variable), the next step was to address the relatively rare observable demographics. To facilitate this process, we utilized a proprietary SAS® macro that uses methodology described in Li and Krenzke (2013) as the Exhaustive Tabulations Assessment.[4]

The macro conducts a systematic, comprehensive sequence of cross-tabulations of these variables, and flags survey responses that present a disclosure risk. The traditional risk threshold used in the FEVS administrations was 4, meaning that a respondent was flagged as a potential disclosure risk if their demographic profile was shared by fewer than 3 other respondents. A rare demographic profile with respect to the set of respondents, however, does not necessarily imply a rare demographic profile with the respect to the larger population. As such, the traditional threshold was deemed overly cautious and was modified in FEVS 2015 to a weighted total of 4. Because the set of demographic variables from the sampling frame used in the weighting process aligns almost perfectly with the (observable) demographics from the survey instrument, this permits a more direct assessment of whether the particular demographic profile is truly rare in the population. In the end, if a particular demographic category had more than 25% of its cases flagged as a disclosure risk, the category was collapsed with a neighboring category or suppressed.

Once the coding structure of the demographic variables was finalized, attention was shifted to the level of work-unit detail that could safely remain identifiable in the file. Working from the lowest level of detail upwards, we utilized the same proprietary macro to identify cases posing a disclosure risk. The same threshold of a weighted total of 4 was employed along with the following set of 10 demographics:

- Telework frequency (Item 73)
- Supervisory status (Item 86)
- Gender (Item 87)
- Minority status (derived from Items 88 and 89)
- Education level (Item 90)
- Pay category (Item 91)
- Federal tenure (Item 92)
- Retirement horizon (Item 95)
- Disability status (Item 98)
- Age group (derived from EHRI-SDM)

4 Li, J., and Krenzke, T. (2013). Comparing approaches that are used to identify high-risk values in microdata. Census Statistical Disclosure Control Research Project 3. Final report. Washington DC: U.S. Census Bureau.

For a work unit to be included, it required a minimum of 250 respondents and no more than 25% of its cases flagged as a potential disclosure risk, with the following exceptions:

- Small agencies that omitted the demographic section of the survey instrument were ignored.
- Agency code SI (small agencies with too few respondents collapsed together) was ignored.
- Work-units with greater than 2,000 respondents or with less than 25% of its population responding were ignored.

Work units not meeting these requirements were suppressed, and then the macro was run once again to identify cases that still posed a disclosure risk. Of the 421,748 respondents, approximately 8,000 were flagged. For the flagged cases, only one of the four core observable demographics—gender, age group, supervisory status, and minority status—was maintained. A randomized mechanism was employed to select that particular demographic, and the other three were suppressed.

Procedures Undertaken to Produce the LGBT Version of the PRDF

The coding structure of the demographic variables included in the general version of the PRDF served as the initial set of demographic variables and categorizations considered for inclusion in the LGBT version. To further protect respondent confidentiality and inhibit a user from linking it to the general version of the file, the following measures were taken:

- A separate, unique respondent identifier was created.
- Any work-unit information below the agency level was suppressed, and only large, cabinet-level agencies were made identifiable
- The core survey items' five-point response scales were collapsed to a three-point scale indicating only whether the response was positive, neutral, or negative (Do Not Know or No Basis to Judge responses were maintained).
- Certain observable demographic variables included in the general version of the PRDF were removed.

As with the general version of the PRDF, the proprietary SAS macro was employed to identify respondents who posed a disclosure risk. Roughly 100 cases were flagged, far fewer than with the general version. This was to be expected, considering the much coarser level of work-unit detail, fewer observable demographics included in the file, and the suppression procedures previously applied to the core observable demographics—namely, gender, age group, supervisory status, and minority status. For the roughly 100 cases flagged, all four of these core observable demographics were suppressed.

Procedures Undertaken to Produce the 2004–2015 Trend File

For the second year in a row a third file type that involved consolidating all FEVS public release data files (PRDFs) into one all-inclusive file was produced. This was done as a convenience for those seeking to conduct trend analyses with the data. Between 2004 and 2015, the FEVS has been administered 9 times: 2004, 2006, 2008, 2010, 2011, 2012, 2013, 2014, and 2015. This file was a concatenation of those 9 administrations' PRDFs. It contains a total of 2,990,137 records, each of which represents an individual survey response. The "year" variable on the file can be used to identify and extract responses from any one or more of those distinct survey administrations.

Where trending is possible with respect to particular agencies or their subcomponents, core survey items, and demographics, the variables on prior FEVS PRDFs were renamed, renumbered, or recoded to match the current FEVS 2015 coding structure. Data from prior FEVS PRDFs have been set to missing where trending is not possible. The inability to trend is generally attributable to one of the following reasons:

- The item or demographic did not appear on the prior year's survey instrument.
- A significant wording change or response option modification to an item or demographic occurred.
- An agency's organizational structure changed.
- The statistical disclosure limitation techniques applied to the survey data in development of a given administration's PRDF indicated the need to mask, recode, or omit the work unit, item, or demographic.

Accompanying the trend file was a codebook in the form of a multi-tab Excel spreadsheet containing variable names and definitions, as well as summaries documenting which items and work units can be trended and which cannot.

Presentation of Results

This chapter details the 9 products that are produced from the 2015 FEVS as well as the tools for product dissemination and analyses on demand. OPM distributed survey findings in the following 9 products:

- Governmentwide reports
- Response Rate reports
- Annual Employee Survey (AES) reports
- Management reports
- Employee Summary Feedback (ESF) reports
- Subagency reports
- Trend reports
- Agency-specific item reports
- Demographic comparison reports

A listing of the products with the approximate number of reports that were produced is shown in Table 13. The Governmentwide reports were posted on the 2015 FEVS public website (www.opm.gov/FEVS), and individual agency reports were distributed via the FEVS Online Analysis and Reporting Tool (WesDaX hosted by Westat). These products and reports are described in more detail in the sections below.

Table 13: FEVS Products and Data Files Delivered to OPM

	Number of Reports			
Product	2012	2013	2014	2015
Governmentwide Reports (508 compliant)	**4**	**4**	**4**	**4**
Governmentwide Management Report	1	1	1	1
Report by Agency	1	1	1	1
Report by Demographics	1	1	1	1
Unweighted Report by Demographics by Agency	1	1	1	1
Response Rate Reports	**2,680**	**6,597**	**7,204**	**11,030**
Governmentwide and Agency	89	87	88	89
1st level	271	373	456	567
2nd–9th level	2,320	6,137	6,660	10,374*
Annual Employee Survey (AES) Report (Excel)	**82**	**80**	**82**	**82**

* Response Rate Reports for levels 2-9 were only available as a pre-configured report in 2015.

Table 13: FEVS Products and Data Files Delivered to OPM (continued)

	Number of Reports			
Product	2012	2013	2014	2015
Management Reports (508 compliant)	**85**	**84**	**84**	**84**
Agency Management Reports (AMR)	43	43	43	43
Small Agency Management Reports	42	41	41	41
Employee Summary Feedback (ESF) Reports (508 compliant)	**497**	**508**	**538**	**84**
Agency ESF Reports	79	78	78	84
1st level ESF Reports	418	430	460	—
Subagency Reports	**9,517**	**16,446**	**20,892**	**24,589**
1st level comparison	44	46	50	54
1st level breakout	416	431	458	534
2nd level comparison	272	291	350	408
2nd level breakout	1,747	1,967	2,218	2,203
3rd level comparison	507	932	1,038	1,132
3rd level breakout	2,984	4,541	5,496	5,700
4th level comparison	443	974	1,070	1,418
4th level breakout	1,698	3,055	3,876	4,991
5th level comparison	342	570	779	947
5th level breakout	932	1,489	2,187	2,686
6th level comparison	30	254	396	537
6th level breakout	96	821	1,220	1,497
7th level comparison	3	324	400	382
7th level breakout	3	751	850	994
8th level comparison	—	—	178	333
8th level breakout	—	—	296	677
9th level comparison	—	—	14	43
9th level breakout	—	—	16	53

— Signifies the product was not produced that year.

Table 13: FEVS Products and Data Files Delivered to OPM (continued)

	Number of Reports			
Product	2012	2013	2014	2015
Trend Reports	**469**	**629**	**645**	**680**
Agency Trend Reports	82	82	82	82
1st level Trend Reports	387	547	563	599
Agency Specific Item Reports	**109**	**115**	**130**	**104**
Demographic Comparison Reports	**—**	**—**	**841**	**930**
WesDaX	Unlimited	Unlimited	Unlimited	Unlimited
Total	**10,848**	**17,866**	**23,216**	**37,672**

— Signifies the product was not produced that year.

Governmentwide Reports

There are four 508 compliant Governmentwide reports. The main Governmentwide report *(Government Management Report)* includes results of the governmentwide survey findings broken out by themes: FEVS indices (Engagement, Global Satisfaction, and the New IQ), Engagement by key employee characteristics, and results by Occupations. The report has 8 appendices providing the methods, trend analysis, participating agency response rates, respondent characteristics, and participating agency index trend results. Many of the appendices were also provide in Excel.

Three other Governmentwide data reports were:

Report by Agency

Displays question-by-question counts and percentages for each response option for the 2015, 2014, and 2013 FEVS *by participating agency* and also governmentwide. Counts of respondents 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 2015, 2014, and 2013 FEVS by demographic groups and also governmentwide. Counts of respondents 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 2015, 2014, and 2013. Both respondent counts and percentage estimates are unweighted.

Response Rate Reports

The Response Rate Reports provided the response rate information for the agency, and subagencies down to the 9th level, where available. These reports provided the sample size, number of respondents, the response rate, and the response rate for the prior 3 years, where available. Starting in 2015, the response rate reports for levels 2-9 were available only as part of the Response Rate All Levels pre-configured report. For the pre-configured reports, only agencies and subagencies with at least 4 respondents are provided response rate information. When there were less than 4 respondents, only the number of respondents was shown.

Annual Employee Survey Reports

The Annual Employee Survey (AES) Reports provided weighted agency-specific data for all the non-demographic items on the FEVS, with the items mandated by 5 CFR part 250 asterisked. These reports included the proportion of responses in each response category, the proportion of positive responses to each survey item (where relevant), and the unweighted responses to the demographic questions. The AES reports also included background information such as the counts (unweighted), whether the agency frame was a census or sample, and the response rate for the agency. An AES report in Excel was produced for the 82 of the agencies participating in the FEVS that had at least 4 respondents (All DoD agencies received one overall DoD AES report).

Management Reports

For the 2015 FEVS, OPM's data presentation for the Management Reports included:

- 43 Agency Management Reports for the Departments/large agencies
- 41 Small Agency Management Reports for the small and independent agencies

The Agency Management Report (AMR) and Small Agency Management (SAM) Reports provided similar content, the AMRs for large agencies and the SAMs for the small agencies. The following sections provide more information about these reports.

Agency Management Report (AMR)

The AMRs were designed to help agency directors and managers identify what they can do to improve management in their agencies. The agency management reports included the following information:

- An introduction to the FEVS, a guide to understanding and using the Agency Management Report and an overview of the report , followed by
- A section entitled "Respondent Overview." This section provide survey administration information (data collection period, sample size, agency and component response rates, agency results margin of error), and highlights of the 2015 FEVS agency respondent characteristics;
- A section that displays results for the top 10 positive and negative survey item results for the agency;
- A series of sections that display scores, rankings, and trends for:
    - Engagement Index
    - Global Satisfaction Index
    - The New IQ Index
- A series of Decision Aid tables that present all items that increased, decreased or did not change since the 2014 FEVS;

- A section on Work/Life Programs including participation in and satisfaction with the programs from 2012 to 2015;
- A Special Topic section that highlights Engagement Index scores by selected agency characteristics (Generations, Agency tenure, most frequent Occupational series in the agency) from 2012 to 2015;
- Two appendices that show results for all items, benchmarked against the 37 agencies' (Of the 43 agencies receiving an AMR where Department of Defense agencies are rolled up into one agency) highest and lowest results, and an appendix that presents the agency's Work/Life and demographic characteristics.

Small Agency Management Report (SAM)

The SAMs are almost identical to the AMRs but were designed for the small agencies, and provided comparisons to other small agencies, rather than the governmentwide averages. The Small Agency Management reports included:

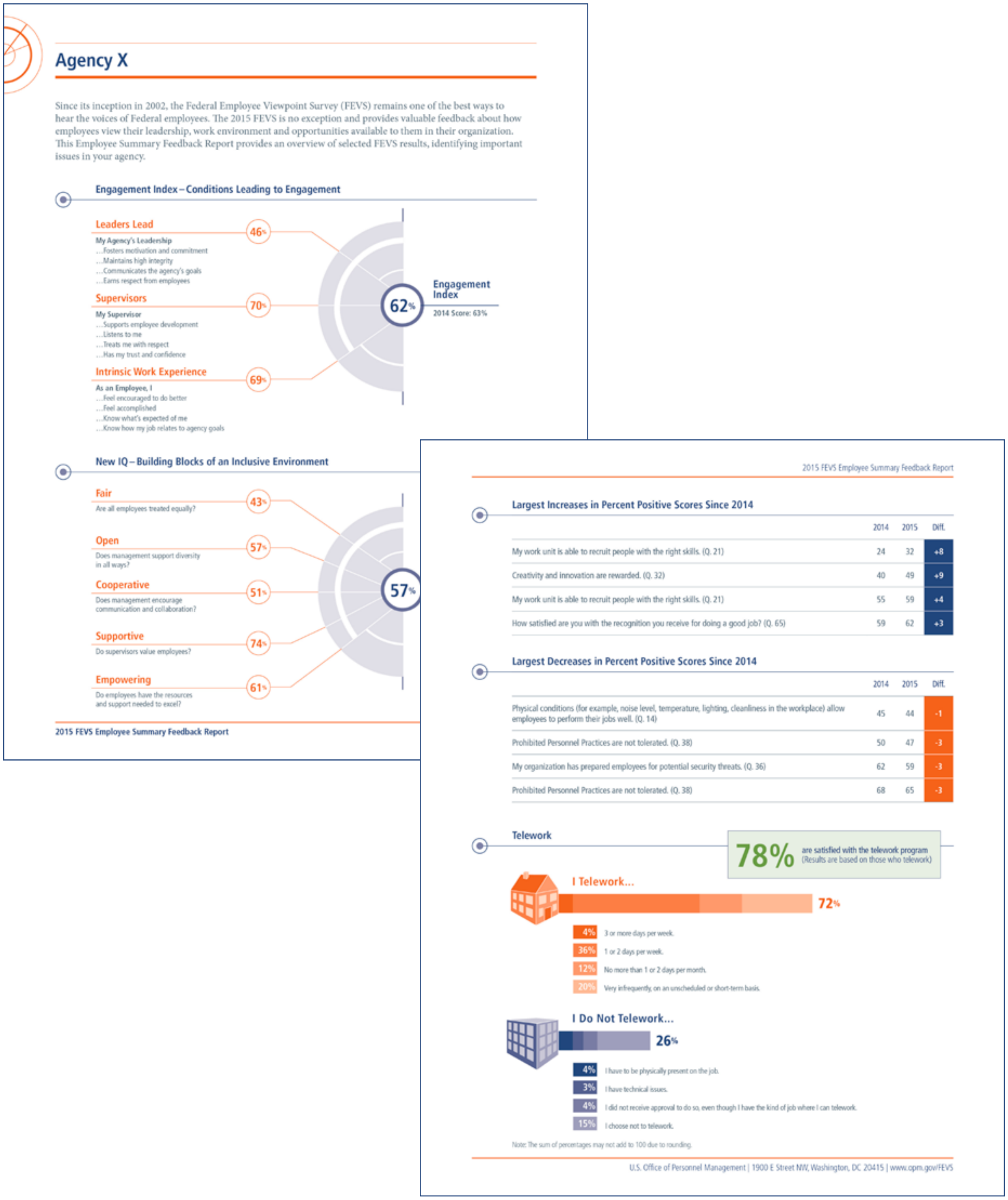
- An introduction to the FEVS, a guide to understanding and using the Small Agency Management Report, an overview of the report, and for agencies that did not administer respondent characteristic or demographic questions, survey administration information (data collection period, sample size, agency and where applicable, component response rates);
- A section for agencies that administered respondent characteristic and demographic questions entitled "Respondent Overview". This section provides survey administration information (data collection period, sample size, agency and where applicable component response rates), and highlights of the 2015 FEVS agency respondent characteristics;
- A section entitled "Results at a Glance". This section provides an overview of selected FEVS results including agency strengths and challenges, areas that have increased and decreased over time, and overall index highlights.
- A section that displays results for the top 10 positive and negative survey item results for the agency;
- A series of sections that displays scores, rankings, and trends for:
    - Engagement Index
    - Global Satisfaction Index
    - The New IQ Index
- A series of Decision Aid tables that presents all items that increased, decreased or did not change since the 2014 FEVS;
- Four appendices that provide results for all items, benchmarked against the small agencies, an appendix that presents the agency's Work/Life characteristics, an appendix on demographic results (where applicable) and an appendix that listed all the participating agencies.

Employee Summary Feedback Reports

A subset of the information that was included in the AMR and SAM was also included in a two-page summary for the agency level. These employee summary feedback reports provided the following information:

- Engagement Index results;
- The New IQ Index results;
- Items with the largest increases and decreases in percent positive response since 2014, and;
- Telework status and satisfaction results.

Figure 2: Sample Agency-Level ESF Report (Front and Back, data are fake)



Agency X

Since its inception in 2002, the Federal Employee Viewpoint Survey (FEVS) remains one of the best ways to hear the voices of Federal employees. The 2015 FEVS is no exception and provides valuable feedback about how employees view their leadership, work environment and opportunities available to them in their organization. This Employee Summary Feedback Report provides an overview of selected FEVS results, identifying important issues in your agency.

Engagement Index – Conditions Leading to Engagement

Leaders Lead 46%
My Agency's Leadership
…Fosters motivation and commitment
…Maintains high integrity
…Communicates the agency's goals
…Earns respect from employees

Supervisors 70%
My Supervisor
…Supports employee development
…Listens to me
…Treats me with respect
…Has my trust and confidence

Intrinsic Work Experience 69%
As an Employee, I
…Feel encouraged to do better
…Feel accomplished
…Know what's expected of me
…Know how my job relates to agency goals

62% Engagement Index
2014 Score: 63%

New IQ – Building Blocks of an Inclusive Environment

Fair 43%
Are all employees treated equally?

Open 57%
Does management support diversity in all ways?

Cooperative 51%
Does management encourage communication and collaboration?

Supportive 74%
Do supervisors value employees?

Empowering 61%
Do employees have the resources and support needed to excel?

57%

2015 FEVS Employee Summary Feedback Report

2015 FEVS Employee Summary Feedback Report

Largest Increases in Percent Positive Scores Since 2014

	2014	2015	Diff.
My work unit is able to recruit people with the right skills. (Q. 21)	24	32	+8
Creativity and innovation are rewarded. (Q. 32)	40	49	+9
My work unit is able to recruit people with the right skills. (Q. 21)	55	59	+4
How satisfied are you with the recognition you receive for doing a good job? (Q. 65)	59	62	+3

Largest Decreases in Percent Positive Scores Since 2014

	2014	2015	Diff.
Physical conditions (for example, noise level, temperature, lighting, cleanliness in the workplace) allow employees to perform their jobs well. (Q. 14)	45	44	-1
Prohibited Personnel Practices are not tolerated. (Q. 38)	50	47	-3
My organization has prepared employees for potential security threats. (Q. 36)	62	59	-3
Prohibited Personnel Practices are not tolerated. (Q. 38)	68	65	-3

Telework

78% are satisfied with the telework program (Results are based on those who telework)

I Telework... 72%

- 4% 3 or more days per week.
- 36% 1 or 2 days per week.
- 12% No more than 1 or 2 days per month.
- 20% Very infrequently, on an unscheduled or short-term basis.

I Do Not Telework... 26%

- 4% I have to be physically present on the job.
- 3% I have technical issues.
- 4% I did not receive approval to do so, even though I have the kind of job where I can telework.
- 15% I choose not to telework.

Note: The sum of percentages may not add to 100 due to rounding.

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Subagency Reports

Each agency and their components or subagencies (down to the 9th level) also received separate reports showing the results for each item across the subagencies. These results included weighted percentage data for all survey questions and the unweighted demographic responses.

The subagency reports for each level (1st – 9th) included both a comparison and a breakout report.

- The Comparison Reports provided the governmentwide, agency, and the specific level results (e.g., the 2nd level comparison had the governmentwide, agency, 1st level, and all 2nd level subagencies' results). In the reports for the 4th level subagency and lower, the higher level results were dropped for simplicity.
- The Breakout Reports provided the governmentwide, agency, and one specific level result (e.g., the 2nd level Breakout report had the governmentwide, agency, 1st level, and one 2nd level subagency results). In the reports for the 4th level subagency and lower, the higher level results (e.g., governmentwide, agency) were dropped for simplicity.

No reports were produced when a subagency had fewer than 10 respondents.

Trend Reports

The trend reports also provided weighted results for each item from 2010-2015 as well as the current year's demographic results. The trend reports included whether or not there was a significant increase, decrease, or no change in positive percentages from the previous year. Arrows slanting up indicate a statistically significant increase, and arrows slanting down indicate a statistically significant decrease. Horizontal arrows indicate the change was not statistically significant. For example, in the row with the 2015 results, if the arrow was slanting up (↗), there was a significant increase in positive percentages from 2014 to 2015. If there were fewer than 30 respondents for a given year, the column showing the 'Difference from previous year' will show '—' to signify that no test was performed due to small sample size. Items 72 to 78 are on a different response scale and are not included in the significance testing. 2010 response percentages were shown to provide context for the significance test from 2011 (see Figure 3 for a sample report excerpt).

Figure 3: Sample Trend Report Excerpt

Agency X
Trend Report

Response Summary

	Surveys Completed
2015 Governmentwide	421,748
2015 Agency X	**21,545**
2014 Agency X	21,399
2013 Agency X	19,545
2012 Agency X	41,109
2011 Agency X	7,753
2010 Agency X	5,095

This 2015 Federal Employee Viewpoint Survey Report provides summary results for your department or agency. The results include response percentages for each survey item. The definitions for the Positive, Neutral, and Negative response percentages vary in the following ways across the three primary response scales used in the survey:

Positive: *Strongly Agree* and *Agree / Very Satisfied* and *Satisfied / Very Good* and *Good*

Neutral: *Neither Agree nor Disagree / Neither Satisfied nor Dissatisfied / Fair*

Negative: *Disagree* and *Strongly Disagree / Dissatisfied* and *Very Dissatisfied / Poor* and *Very Poor*

Positive, Neutral, and Negative percentages are based on the total number of responses (N) that are in these three categories. The number of *Do Not Know (DNK)* or *No Basis to Judge (NBJ)* responses, where applicable, is listed separately.

The last column indicates whether or not there was a statistically significant increase, decrease, or no change in positive percentages from the previous year. Statistical significance indicates that the differences from year to year are not due to random chance. Arrows slanting up indicate a statistically significant increase, and arrows slanting down indicate a statistically significant decrease. Horizontal arrows indicate the change was not statistically significant. For example, in the row with the 2015 results, if the arrow was slanting up ➚, there was a significant increase in positive percentages from 2014 to 2015. Please keep in mind that with large sample sizes, even small differences may show statistical significance.

Note: The report tables that follow do not include results for any year listed in the Response Summary table (above) that had fewer than 10 completed surveys. If there were fewer than 30 respondents for a given year, the column showing the 'Difference from previous year' will show '--' to signify that no test was performed due to small sample size. Items 72 to 78 are on a different response scale and are not included in the significance testing. 2010 response percentages are shown to provide context for the significance test from 2011.

Agency X
Trend Report

My Work Experience

1. I am given a real opportunity to improve my skills in my organization.

	N	Positive	Neutral	Negative	Difference from previous year
2015 Governmentwide	420,841	61.3%	16.6%	22.1%	
2015 Agency X	**21,500**	**46.3%**	**18.9%**	**34.8%**	➔
2014 Agency X	21,360	46.8%	18.4%	34.8%	➘
2013 Agency X	19,511	48.4%	19.4%	32.2%	➘
2012 Agency X	41,031	52.2%	18.2%	29.7%	➘
2011 Agency X	7,742	56.0%	18.5%	25.4%	➔
2010 Agency X	5,086	57.6%	18.3%	24.1%	

2015 Federal Employee Viewpoint Survey Page 1 of 2

Agency-Specific Item Reports

In 2015, 53 agencies administered items that were specific to their agency in addition to the core survey item. These agencies received separate agency specific item reports. There were four general types of agency specific item reports:

Agency-Specific Question Reports

These reports provided the counts and the percent of respondents answering each response option for all agency specific questions.

Area of Emphasis Reports

These reports provided the counts and the percent positive, negative, and neutral for each survey item by each area of emphasis in the agency.

Occupation Reports

These reports provided the counts and the percent positive, negative, and neutral for each survey item at the agency level for the

- 1st level occupation category in the agency
- 2nd level occupation category in the agency

Agency-Specific Work Location Reports

These reports provided the counts and the percent positive, negative, and neutral for each survey item by work location in the agency.

The counts were all unweighted and the percentages were weighted for non-demographic type items only.

Demographic Comparison Reports

The demographic comparison reports provided item level results by demographic characteristics for each of the 63 agencies that answered the demographic section of the survey. The results included weighted percentage data for all survey questions by the 16 demographic variables:

- Work Location
- Supervisory Status
- Gender
- Ethnicity
- Race
- Education Level
- Pay Category
- Federal Tenure
- Agency Tenure
- Retirement Plans
- Turnover Intentions
- Sexual Orientation
- Military Service Status
- Disability Status
- Age Group
- Generations

Note: For the demographic reports, several suppression rules applied for confidentiality reasons.

- If there were fewer than 10 respondents in a demographic response category, the results by item for that demographic category were suppressed.
- If there were fewer than 10 respondents for a demographic response category for any given item, the results for that item and that category were suppressed.

- If there would be only one demographic category (e.g., Female) with data for all the survey items based on the suppression rules, the report was not generated.
- For the sexual orientation report only, there also needed to be at least 30 respondents in the agency in order for the report to be produced. And if there were fewer than 10 respondents in the LGBT category, the report was not generated.

Web Reports and Tables

OPM posted other reports to the FEVS public website (www.opm.gov/fevs). This website provides the Governmentwide reports, response percentages by question, response rates for each agency, trend analyses from 2012–2015 results, and a series of demographic comparison results.

Governmentwide Web Reports

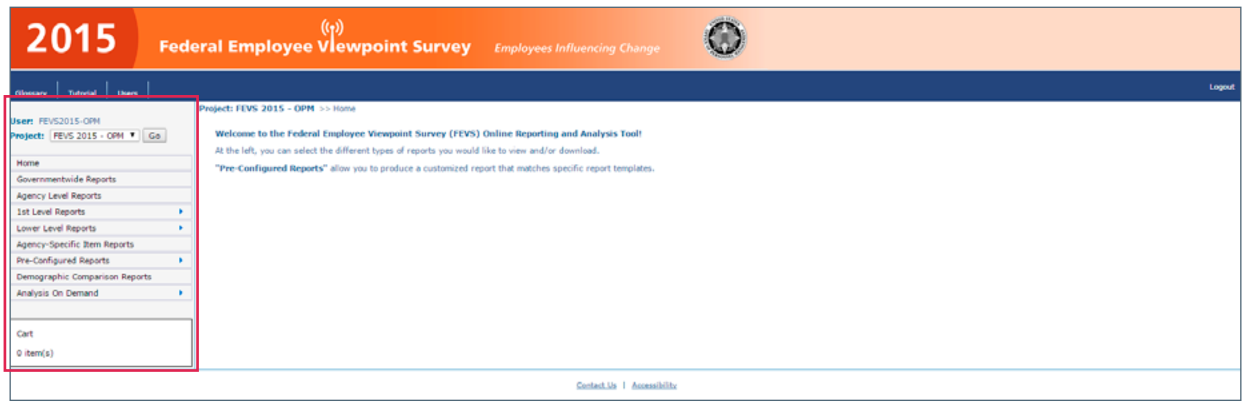
The Governmentwide Web reports show the number and percentage of respondents who chose each response option to each survey item. The reports present both weighted and unweighted FEVS results. The reports also show governmentwide responses by the demographic variables. The Web reports allow users to view the results of statistical significance tests demonstrating nonrandom or significant differences between demographic groups. The following web reports were generated:

- Unweighted results of the survey
  - Governmentwide response percentages by item
  - Response rates for each agency
- Weighted results of the survey
  - Overall Results and Comparisons
    - Governmentwide response percentages by item
    - Items rank ordered by positive responses
    - Trend analysis (2012 vs. 2013 vs. 2014 vs. 2015)
    - Annual Employee Survey items
  - Demographic Results
    - Age group comparison (%) by item
    - Disability status comparison (%) by item
    - Highest education level (%) by item
    - Gender comparison (%) by item
    - Hispanic comparison (%) by item
    - Race group comparison (%) by item
    - Supervisory status group comparison (%) by item
    - Location comparison (%) by item
    - Military veteran status comparison (%) by item

Delivery of Results, Reports and 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. It allows OPM and Federal agency users to view and download their reports by following the links as illustrated in Figure 4.

Figure 4: FEVS Online Analysis and Reporting Tool—Main Menu



Governmentwide Reports

Users were able to view/download the following 508 compliant PDF reports:

- Governmentwide Management Report
- Report by Agency
- Report by Demographics
- Unweighted Report by Demographic Questions by Agency

Agency Level Reports

Users were able to view/download their agency level reports. These included the

- Annual Employee Survey (AES) reports,
- Agency Management Report (AMR), or Small Agency Management (SAM) Report,
- Agency Employee Summary Feedback (ESF) Report, and
- Agency Trend Report.

All agency level reports except the AES and Trend Report were 508 compliant.

1st Level Reports

Users were able to drill down and view/download, in PDF format, for any 1st level subagency reports provided. These included the:

- 1st Level Response Rate Report,
- 1st Level Subagency Comparison and Breakout Reports, and
- 1st Level Trend Reports.

Lower Level Reports

Users were able to drill down and view/download, in PDF format, any applicable 2nd -9th level subagency comparison and breakout.

Agency-Specific Item Reports

For the 53 agencies that added agency-specific items to the end of the core FEVS, users were able to view/download, in PDF format, the different types of agency specific item reports. If an agency did not have any agency-specific items, this option did not show on the menu.

Demographic Comparison Reports

For the 63 agencies that answered the demographic section of the survey, users were able to view/download, in PDF format, the different types of demographic comparison reports available to them.

Preconfigured Reports

Users were able to manually configure many of the preceding agency reports to several formats, including PDF, Excel, HTML, and RTF. These included 1st level response rate reports, 1st - 9th level subagency comparison and breakout reports, agency and1st level trend reports, and agency and 1st level occupational series reports. Users were also able to create reports of the indices in the 2015 FEVS: Engagement, Global Satisfaction, the New IQ, and HCAAF indices. Two new preconfigured reports were added in 2015:

- **All Indices All Levels Reports –** Users were able to output all of the 2015 indices: the Engagement Index, Global Satisfaction Index, and the New IQ Index for all levels (1st -9th) where applicable in a formatted Excel only format.
- **Response Rate All Levels Report –** Users were able to output the 2015 response rates for all levels (1st – 9th) where applicable in a formatted Excel only format.

Cart

Similar to online shopping carts, this feature allowed 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 allowed users to 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, for the survey items of interest. Starting in 2013, users were able to access two versions of Analysis on Demand: Lite and Full. Figure 5 provides the main menu for this feature.

- The Lite Version provides the most recent three years of survey data and does not allow statistical difference testing. However, this version is appropriate for users requesting descriptive statistics and who want quick runs.
- The Full Version provides all years of survey data (starting in 2004) and allows those in larger organizations to request statistical tests (e.g., t-tests), confidence intervals, and chi-square statistics.

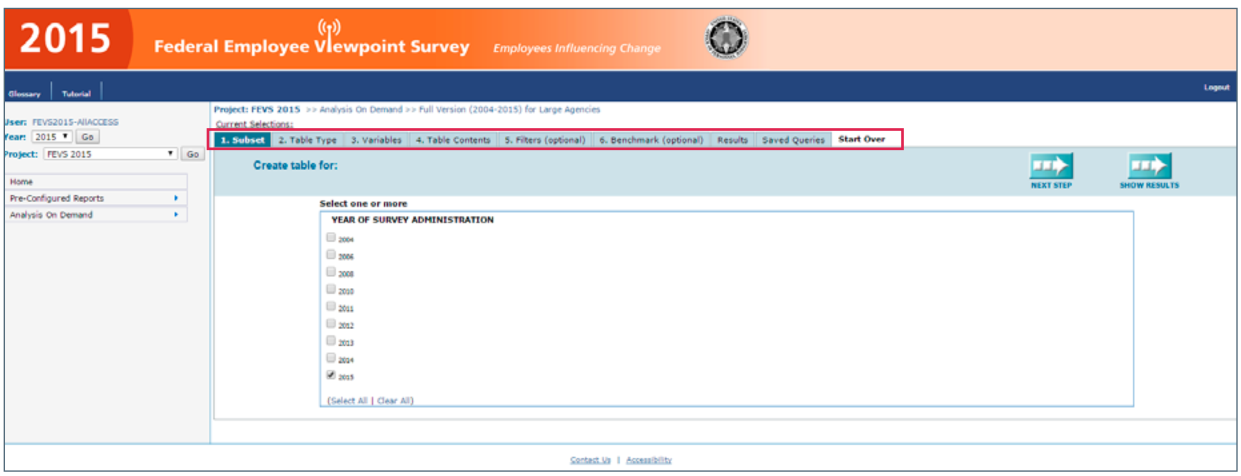
In both versions, there is a Benchmark feature that allowes users to compare results to the entire dataset or specific agencies. Users were able to tailor the type of analysis to their interests and download the analysis output.

In 2014, a new feature was added which allows the user to create charts from results in Analysis on Demand. Users were able to select various chart type (bar, pie, donut, line, and area), chart size, color palette, and data cells. Users could also specify whether or not to show the data values within the chart.

Account Access

All agency level and 1st level points of contacts and users were carried over from 2014 and provided access to 2015 data. POCs had 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 his/her 1st level subagency, the agency as a whole, and governmentwide results.

Figure 5: FEVS Online Analysis and Reporting Tool — Analysis on Demand Main Menu Lite and Full Version Options



Summary of Quality Control Process

In order to ensure the highest accuracy and validity of the data, each number within each report goes through several levels of quality control (QC). The first level of QC for the reports was the electronic quality control with the use of SAS. Two programmers created the numbers independently and electronically compared the numbers to ensure they matched. The second level of QC was performed by staff members who compare the input (SAS-produced results) to the output (the actual report with the data incorporated into it). Each type of report has a streamlined process for quality control checks to ensure the highest level of accuracy.

Appendix A

Appendix A: Sampling Rate by Agency

Agency	Population	Sample Size	Portion Sampled/ Sampling Rate	Census (Yes or No)
Presidential Management Council Agencies				
Department of Agriculture	73,563	34,003	46.2%	N
Department of Commerce	38,202	18,311	47.9%	N
Department of Education	3,893	3,893	100.0%	Y
Department of Defense	537,586	191,340	35.6%	N
United States Department of the Air Force	138,014	69,369	50.3%	N
United States Department of the Army	180,719	53,736	29.7%	N
United States Army Corps of Engineers	30,067	7,949	26.4%	N
United States Department of the Navy	170,540	55,121	32.3%	N
United States Marine Corps	18,246	5,165	28.3%	N
OSD, Joint Staff, Defense Agencies, and Field Activities (DoD 4th Estate)	90,815	34,799	38.3%	N
Department of Energy	13,040	13,040	100.0%	Y
Department of Health and Human Services	74,191	74,191	100.0%	Y
Department of Homeland Security	177,718	95,619	53.8%	N
Department of Housing and Urban Development	7,792	7,792	100.0%	Y
Department of Justice	111,729	46,956	42.0%	N
Department of Labor	15,606	15,606	100.0%	Y
Department of State	23,559	7,981	33.9%	N
Department of Transportation	53,938	30,104	55.8%	N
Department of Veterans Affairs	326,362	93,931	28.8%	N
Department of the Interior	49,785	49,785	100.0%	Y
Department of the Treasury	88,026	88,026	100.0%	Y
Environmental Protection Agency	14,885	7,596	51.0%	N

Agency	Population	Sample Size	Portion Sampled/ Sampling Rate	Census (Yes or No)
Presidential Management Council Agencies (continued)				
General Services Administration	11,065	11,065	100.0%	Y
National Aeronautics and Space Administration	17,451	17,451	100.0%	Y
National Science Foundation	1,228	1,228	100.0%	Y
Office of Management and Budget	388	388	100.0%	Y
Office of Personnel Management	4,910	4,910	100.0%	Y
Small Business Administration	2,152	2,152	100.0%	Y
Social Security Administration	63,881	18,938	29.6%	N
U.S. Agency for International Development	3,721	3,721	100.0%	Y
Large Agencies				
Broadcasting Board of Governors	1,506	1,506	100.0%	Y
Court Services and Offender Supervision Agency	1,168	1,168	100.0%	Y
Equal Employment Opportunity Commission	2,193	2,193	100.0%	Y
Federal Communications Commission	1,664	1,664	100.0%	Y
Federal Energy Regulatory Commission	1,382	1,382	100.0%	Y
Federal Trade Commission	1,080	1,080	100.0%	Y
National Archives and Records Administration	2,525	2,525	100.0%	Y
National Credit Union Administration	1,211	1,211	100.0%	Y
National Labor Relations Board	1,548	1,548	100.0%	Y
Nuclear Regulatory Commission	3,693	3,693	100.0%	Y
Pension Benefit Guaranty Corporation	910	910	100.0%	Y
Railroad Retirement Board	909	909	100.0%	Y
Securities and Exchange Commission	4,110	2,770	67.4%	N
Small Agencies				
Advisory Council on Historic Preservation	36	36	100.0%	Y
African Development Foundation	25	25	100.0%	Y

Agency	Population	Sample Size	Portion Sampled/ Sampling Rate	Census (Yes or No)
Small Agencies (continued)				
American Battle Monuments Commission	28	28	100.0%	Y
Chemical Safety and Hazard Investigation Board	34	34	100.0%	Y
Commission on Civil Rights	28	28	100.0%	Y
Committee for Purchase From People Who Are Blind or Severely Disabled	25	25	100.0%	Y
Commodity Futures Trading Commission	646	646	100.0%	Y
Consumer Product Safety Commission	496	496	100.0%	Y
Corporation for National and Community Service	650	650	100.0%	Y
Defense Nuclear Facilities Safety Board	100	100	100.0%	Y
Export-Import Bank of the United States	367	367	100.0%	Y
Farm Credit Administration	271	271	100.0%	Y
Farm Credit System Insurance Corporation	11	11	100.0%	Y
Federal Election Commission	310	310	100.0%	Y
Federal Housing Finance Agency	493	493	100.0%	Y
Federal Labor Relations Authority	123	123	100.0%	Y
Federal Maritime Commission	104	104	100.0%	Y
Federal Mediation and Conciliation Service	232	232	100.0%	Y
Federal Retirement Thrift Investment Board	187	187	100.0%	Y
Institute of Museum and Library Services	64	64	100.0%	Y
Inter-American Foundation	35	35	100.0%	Y
International Boundary and Water Commission	235	235	100.0%	Y
Marine Mammal Commission	10	10	100.0%	Y
National Capital Planning Commission	31	31	100.0%	Y
National Endowment for the Arts	120	120	100.0%	Y
National Endowment for the Humanities	127	127	100.0%	Y

Agency	Population	Sample Size	Portion Sampled/ Sampling Rate	Census (Yes or No)
Small Agencies (continued)				
National Gallery of Art	767	767	100.0%	Y
National Indian Gaming Commission	94	94	100.0%	Y
National Mediation Board	37	37	100.0%	Y
National Transportation Safety Board	397	397	100.0%	Y
Nuclear Waste Technical Review Board	10	10	100.0%	Y
Occupational Safety and Health Review Commission	49	49	100.0%	Y
Office of Navajo and Hopi Indian Relocation	34	34	100.0%	Y
Office of the U.S. Trade Representative	193	193	100.0%	Y
Overseas Private Investment Corporation	205	205	100.0%	Y
Postal Regulatory Commission	60	60	100.0%	Y
Selective Service System	115	115	100.0%	Y
Surface Transportation Board	130	130	100.0%	Y
U.S. Access Board	27	27	100.0%	Y
U.S. International Trade Commission	320	320	100.0%	Y
U.S. Office of Government Ethics	63	63	100.0%	Y
U.S. Office of Special Counsel	108	108	100.0%	Y
U.S. Trade and Development Agency	41	41	100.0%	Y
Woodrow Wilson International Center for Scholars	34	34	100.0%	Y
Total	**1,837,060**	**903,060**	**49.2%**	**—**

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
My Work Experience					
1. I am given a real opportunity to improve my skills in my organization.	☐	☐	☐	☐	☐
2. I have enough information to do my job well.	☐	☐	☐	☐	☐
3. I feel encouraged to come up with new and better ways of doing things.	☐	☐	☐	☐	☐
4. My work gives me a feeling of personal accomplishment.	☐	☐	☐	☐	☐
5. I like the kind of work I do.	☐	☐	☐	☐	☐
6. I know what is expected of me on the job.	☐	☐	☐	☐	☐
7. When needed I am willing to put in the extra effort to get a job done.	☐	☐	☐	☐	☐
8. I am constantly looking for ways to do my job better.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Do Not Know
9. I have sufficient resources (for example, people, materials, budget) to get my job done.	☐	☐	☐	☐	☐	☐
10. My workload is reasonable.	☐	☐	☐	☐	☐	☐
11. My talents are used well in the workplace.	☐	☐	☐	☐	☐	☐
12. I know how my work relates to the agency's goals and priorities.	☐	☐	☐	☐	☐	☐
13. The work I do is important.	☐	☐	☐	☐	☐	☐
14. Physical conditions (for example, noise level, temperature, lighting, cleanliness in the workplace) allow employees to perform their jobs well.	☐	☐	☐	☐	☐	☐
15. My performance appraisal is a fair reflection of my performance.	☐	☐	☐	☐	☐	☐
16. I am held accountable for achieving results.	☐	☐	☐	☐	☐	☐

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Do Not Know
17. I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.	☐	☐	☐	☐	☐	☐
18. My training needs are assessed.	☐	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	No Basis to Judge
19. In my most recent performance appraisal, I understood what I had to do to be rated at different performance levels (for example, Fully Successful, Outstanding).	☐	☐	☐	☐	☐	☐

My Work Unit

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
20. The people I work with cooperate to get the job done.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Do Not Know
21. My work unit is able to recruit people with the right skills.	☐	☐	☐	☐	☐	☐
22. Promotions in my work unit are based on merit.	☐	☐	☐	☐	☐	☐
23. In my work unit, steps are taken to deal with a poor performer who cannot or will not improve.	☐	☐	☐	☐	☐	☐
24. In my work unit, differences in performance are recognized in a meaningful way.	☐	☐	☐	☐	☐	☐
25. Awards in my work unit depend on how well employees perform their jobs.	☐	☐	☐	☐	☐	☐
26. Employees in my work unit share job knowledge with each other.	☐	☐	☐	☐	☐	☐
27. The skill level in my work unit has improved in the past year.	☐	☐	☐	☐	☐	☐

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

	Very Good	Good	Fair	Poor	Very Poor
28. How would you rate the overall quality of work done by your work unit?	☐	☐	☐	☐	☐

My Agency

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Do Not Know
29. The workforce has the job-relevant knowledge and skills necessary to accomplish organizational goals.	☐	☐	☐	☐	☐	☐
30. Employees have a feeling of personal empowerment with respect to work processes.	☐	☐	☐	☐	☐	☐
31. Employees are recognized for providing high quality products and services.	☐	☐	☐	☐	☐	☐
32. Creativity and innovation are rewarded.	☐	☐	☐	☐	☐	☐
33. Pay raises depend on how well employees perform their jobs.	☐	☐	☐	☐	☐	☐
34. Policies and programs promote diversity in the workplace (for example, recruiting minorities and women, training in awareness of diversity issues, mentoring).	☐	☐	☐	☐	☐	☐
35. Employees are protected from health and safety hazards on the job.	☐	☐	☐	☐	☐	☐
36. My organization has prepared employees for potential security threats.	☐	☐	☐	☐	☐	☐
37. Arbitrary action, personal favoritism and coercion for partisan political purposes are not tolerated.	☐	☐	☐	☐	☐	☐
38. Prohibited Personnel Practices (for example, illegally discriminating for or against any employee/applicant, obstructing a person's right to compete for employment, knowingly violating veterans' preference requirements) are not tolerated.	☐	☐	☐	☐	☐	☐
39. My agency is successful at accomplishing its mission.	☐	☐	☐	☐	☐	☐

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
40. I recommend my organization as a good place to work.	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Do Not Know
41. I believe the results of this survey will be used to make my agency a better place to work.	☐	☐	☐	☐	☐	☐
My Supervisor						
42. My supervisor supports my need to balance work and other life issues.	☐	☐	☐	☐	☐	☐
43. My supervisor provides me with opportunities to demonstrate my leadership skills.	☐	☐	☐	☐	☐	☐
44. Discussions with my supervisor about my performance are worthwhile.	☐	☐	☐	☐	☐	☐
45. My supervisor is committed to a workforce representative of all segments of society.	☐	☐	☐	☐	☐	☐
46. My supervisor provides me with constructive suggestions to improve my job performance.	☐	☐	☐	☐	☐	☐
47. Supervisors in my work unit support employee development.	☐	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
48. My supervisor listens to what I have to say.	☐	☐	☐	☐	☐
49. My supervisor treats me with respect.	☐	☐	☐	☐	☐
50. In the last six months, my supervisor has talked with me about my performance.	☐	☐	☐	☐	☐
51. I have trust and confidence in my supervisor.	☐	☐	☐	☐	☐

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

	Very Good	Good	Fair	Poor	Very Poor
52. Overall, how good a job do you feel is being done by your immediate supervisor?	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Do Not Know
Leadership						
53. In my organization, senior leaders generate high levels of motivation and commitment in the workforce.	☐	☐	☐	☐	☐	☐
54. My organization's senior leaders maintain high standards of honesty and integrity.	☐	☐	☐	☐	☐	☐
55. Supervisors work well with employees of different backgrounds.	☐	☐	☐	☐	☐	☐
56. Managers communicate the goals and priorities of the organization.	☐	☐	☐	☐	☐	☐
57. Managers review and evaluate the organization's progress toward meeting its goals and objectives.	☐	☐	☐	☐	☐	☐
58. Managers promote communication among different work units (for example, about projects, goals, needed resources).	☐	☐	☐	☐	☐	☐
59. Managers support collaboration across work units to accomplish work objectives.	☐	☐	☐	☐	☐	☐

	Very Good	Good	Fair	Poor	Very Poor
60. Overall, how good a job do you feel is being done by the manager directly above your immediate supervisor?	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Do Not Know
61. I have a high level of respect for my organization’s senior leaders.	☐	☐	☐	☐	☐	☐
62. Senior leaders demonstrate support for Work/Life programs.	☐	☐	☐	☐	☐	☐

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied
My Satisfaction					
63. How satisfied are you with your involvement in decisions that affect your work?	☐	☐	☐	☐	☐
64. How satisfied are you with the information you receive from management on what's going on in your organization?	☐	☐	☐	☐	☐
65. How satisfied are you with the recognition you receive for doing a good job?	☐	☐	☐	☐	☐
66. How satisfied are you with the policies and practices of your senior leaders?	☐	☐	☐	☐	☐
67. How satisfied are you with your opportunity to get a better job in your organization?	☐	☐	☐	☐	☐
68. How satisfied are you with the training you receive for your present job?	☐	☐	☐	☐	☐
69. Considering everything, how satisfied are you with your job?	☐	☐	☐	☐	☐
70. Considering everything, how satisfied are you with your pay?	☐	☐	☐	☐	☐
71. Considering everything, how satisfied are you with your organization?	☐	☐	☐	☐	☐

Work/Life

72. Have you been notified whether or not you are eligible to telework?

- ☐ Yes, I was notified that I was eligible to telework.
- ☐ Yes, I was notified that I was not eligible to telework.
- ☐ No, I was not notified of my telework eligibility.
- ☐ Not sure if I was notified of my telework eligibility.

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

73. Please select the response below that BEST describes your current teleworking situation.

- ☐ I telework 3 or more days per week.
- ☐ I telework 1 or 2 days per week.
- ☐ I telework, but no more than 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, Park Rangers, Security Personnel).
- ☐ I do not telework because I have 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.

	Yes	No	Not Available to Me
74-78. Do you participate in the following Work/Life programs?			
74. Alternative Work Schedules (AWS)	☐	☐	☐
75. Health and Wellness Programs (for example, exercise, medical screening, quit smoking programs)	☐	☐	☐
76. Employee Assistance Program (EAP)	☐	☐	☐
77. Child Care Programs (for example, daycare, parenting classes, parenting support groups)	☐	☐	☐
78. Elder Care Programs (for example, support groups, speakers)	☐	☐	☐

	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied	No Basis to Judge
79-84. How satisfied are you with the following Work/Life programs in your agency?						
79. Telework	☐	☐	☐	☐	☐	☐
80. Alternative Work Schedules (AWS)	☐	☐	☐	☐	☐	☐
81. Health and Wellness Programs (for example, exercise, medical screening, quit smoking programs)	☐	☐	☐	☐	☐	☐
82. Employee Assistance Program (EAP)	☐	☐	☐	☐	☐	☐
83. Child Care Programs (for example, daycare, parenting classes, parenting support groups)	☐	☐	☐	☐	☐	☐
84. Elder Care Programs (for example, support groups, speakers)	☐	☐	☐	☐	☐	☐

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

Demographics

85. Where do you work?

- ☐ Headquarters
- ☐ Field

86. What is your supervisory status?

- ☐ Non-Supervisor: You do not supervise other employees.
- ☐ Team Leader: You are not an official supervisor; you provide employees with day-to-day guidance in work projects, but do not have supervisory responsibilities or conduct performance appraisals.
- ☐ Supervisor: You are a first-line supervisor who is responsible for employees' performance appraisals and leave approval.
- ☐ Manager: You are in a management position and supervise one or more supervisors.
- ☐ Senior Leader: You are the head of a department/agency or a member of the immediate leadership team responsible for directing the policies and priorities of the department/agency. May hold either a political or career appointment, and typically is a member of the Senior Executive Service or equivalent.

87. Are you:

- ☐ Male
- ☐ Female

88. Are you Hispanic or Latino?

- ☐ Yes
- ☐ No

89. Please select the racial category or categories with which you most closely identify (mark as many as apply).

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White

90. What is the highest degree or level of education you have completed?

- ☐ Less than High School
- ☐ High School Diploma/GED or equivalent
- ☐ Trade or Technical Certificate
- ☐ Some College (no degree)
- ☐ Associate's Degree (e.g., AA, AS)
- ☐ Bachelor's Degree (e.g., BA, BS)
- ☐ Master's Degree (e.g., MA, MS, MBA)
- ☐ Doctoral/Professional Degree (e.g., Ph.D., MD, JD)

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

91. What is your pay category/grade?

- ☐ Federal Wage System (for example, WB, WD, WG, WL, WM, WS, WY)
- ☐ GS 1-6
- ☐ GS 7-12
- ☐ GS 13-15
- ☐ Senior Executive Service
- ☐ Senior Level (SL) or Scientific or Professional (ST)
- ☐ Other

92. How long have you been with the Federal Government (excluding military service)?

- ☐ Less than 1 year
- ☐ 1 to 3 years
- ☐ 4 to 5 years
- ☐ 6 to 10 years
- ☐ 11 to 14 years
- ☐ 15 to 20 years
- ☐ More than 20 years

93. How long have you been with your current agency (for example, Department of Justice, Environmental Protection Agency)?

- ☐ Less than 1 year
- ☐ 1 to 3 years
- ☐ 4 to 5 years
- ☐ 6 to 10 years
- ☐ 11 to 20 years
- ☐ More than 20 years

94. Are you considering leaving your organization within the next year, and if so, why?

- ☐ No
- ☐ Yes, to retire
- ☐ Yes, to take another job within the Federal Government
- ☐ Yes, to take another job outside the Federal Government
- ☐ Yes, other

Appendix B: 2015 Federal Employee Viewpoint Survey Instrument (continued)

95. I am planning to retire:

- ☐ Within one year
- ☐ Between one and three years
- ☐ Between three and five years
- ☐ Five or more years

96. Do you consider yourself to be one or more of the following? (mark as many as apply).

- ☐ Heterosexual or Straight
- ☐ Gay or Lesbian
- ☐ Bisexual
- ☐ Transgender
- ☐ I prefer not to say

97. What is your US military service status?

- ☐ No Prior Military Service
- ☐ Currently in National Guard or Reserves
- ☐ Retired
- ☐ Separated or Discharged

98. Are you an individual with a disability?

- ☐ Yes
- ☐ No

Appendix C: Sample Email Invitation

Invitation Email

Subject: 2015 Federal Employee Viewpoint Survey

2015 Federal Employee Viewpoint Survey: Employees Influencing Change

The Federal Employee Viewpoint Survey (FEVS) is a safe and confidential way for you to voice your opinions about critical aspects of your job and working environment. Please take this important opportunity to help guide your agency's focus in the coming years.

Click here to access your survey:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

If the link does not take you directly to the survey, copy and paste the following into a browser window:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Please DO NOT forward this e-mail, as it contains your personalized link to the survey. Answering the questions will take about 25 minutes, and you may use official time. While participation is voluntary, your feedback is important. Your individual responses are confidential.

Reply to this message if you have any questions or difficulties accessing the survey, or call our Survey Support Center toll free at: 1-855-OPM-FEVS (1-855-676-3387).

Thank you for taking the time to complete the survey.

Appendix D: AAPOR Response Rate

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

Table D1: 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	421,748
Eligible Non-respondents (ENR)	UA, RF, IN	8,577
Unknown Eligibility (UNK)	UD, NR, NE	438,723
Ineligible (IE)	IE	34,012
		903,060

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:

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

$P_{elig} = (421,748 + 8,577) / (421,748 + 8,577 + 34,012)$

$P_{elig} = 0.926751476$

$UNK_{elig} = P_{elig} * UNK = 0.926751476 * 438,723 = 406,587$

Thus,

$RR3_{AAPOR} = 421,748 / (421,748 + 8,577 + 406,587) * 100$

$RR3_{AAPOR} = 421,748 / 836,912 * 100$

$\mathbf{RR3_{AAPOR} = 50.4}$ **percent**

Appendix E: Weighting of the Survey Data

Base Weights

The base weight for a sampled employee in the FEVS is defined as the reciprocal of the employee's probability of selection into the sample. As noted in the main report, 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 28,832, with H=28,832 representing the total number of subgroups and h indexing a particular subgroup. Thus, there were H non-overlapping 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. The base weights were adjusted to reduce bias in survey estimates that occurs when the respondent population and the survey population no longer match on important characteristics. In other words, the adjustments are generally used to increase the base weights of respondents to account for non-respondents.

Nonresponse adjustments were calculated separately for individual agencies or sets of subagencies. Prior to 2015, NR adjustments were calculated separately for each agency. For 2015, nonresponse adjustments were 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 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. Since that time (i.e., for the 2008, 2010, 2011, 2012, 2013, 2014, and 2015 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. Search is a freeware product, available at the following website: http://www.isr.umich.edu/src/smp/search/. The advantage of the use of the chi algorithm in Search instead of using CHAID is that, unlike CHAID, Search is callable from SAS. Thus, it was not necessary to reformat the data into non-SAS files or to convert results back into a SAS format.

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 ineligibles 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:

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

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

nonresponse adjusted weights were $w_i^{nr} = f_c^{1,nr} * w_i$ for known ineligibles and $w_i^{nr} = f_c^{1\,nr} f_c^{2,nr} * w_i$ 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 FEVS sample population. For this third adjustment step, the sample file was subset to include only eligible respondents and known ineligibles.

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 five 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:

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

where $\tilde{f}_i^R$ 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 respondent weights 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- 2015 administrations, full-sample weights and Taylor linearization were still used for all analyses, except replicate weights were used for agency and Governmentwide trend analyses. 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. Replicate weights are calculated by assigning responding cases to groups based on the sampling strata. Each set of replicate weights corresponds to deleting one group and then recalculating the weights based on the remaining groups. The nonresponse and calibration adjustments for the 2010-2014 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 sampling variability.

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 E1 shows how the population is partitioned into five strata, and strata 4 and 5 are combined. In each of the resulting four strata, the target number of completed cases is 950. The rightmost column of Table E1 contains the base weights by stratum. For example the base weight for stratum 1 is 13,470 / 950 = 14.179.

Table E1: Population Counts, Sample Sizes, Selection Probabilities, and Base Weights

Stratum	Population Count	Sample Size	Selection Probability	Base Weight
1	13,470	950	0.071	14.179
2	12,300	950	0.077	12.947
3	22,980	950	0.041	24.189
4	450			
4/5	1,250	950	0.760	1.316
5	800			
Total	50,000	3,800		
			950/13,470	13,470/950

Table E2 contains the number of respondents by strata and the associated response rates. The rightmost column of Table E2 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 400*14.179 = 5,672. However, this is not close to the stratum population size of 13,470 for stratum 1 shown in Table E1. 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 E2: Sample, Respondents, Response Rates, and Base Weighted Totals

Stratum	Sample Size	Number of respondents	Response rate	Base weight total for respondents
1	950	400	0.421	5,672
2	950	350	0.368	4,532
3	950	380	0.400	9,192
4/5	950	410	0.432	539
Total	3,800	1,540	0.405	19,935
				400*14.179

One of the sampling-frame variables contains location information—that is, headquarters or field—about each case. Table E3 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 E4.

Table E3: Response Rates by Location

Location	Number of respondents	Response Rate	Nonresponse adjustment factor
Headquarters	952	0.500	2.000
Field	588	0.310	3.226
Total	1,540	0.405	

1/0.310

Table E4: Nonresponse Adjusted Weights

		Adjustment factor		Adjusted weight	
Stratum	Base Weight	HQ	Field	HQ	Field
1	14.179	2.000	3.226	28.358	45.741
2	12.947	2.000	3.226	25.895	41.768
3	24.189	2.000	3.226	48.379	78.035
4/5	1.316	2.000	3.226	2.632	4.245

In Table E5, 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 E5: 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	305	8,649	7,880
1	Field	95	4,345	5,590
Total for 1		400	12,995	13,470
2	HQ	130	3,366	3,752
2	Field	220	9,189	8,548
Total for 2		350	12,555	12,300
3	HQ	217	10,498	10,915
3	Field	163	12,720	12,065
Total for 3		380	23,218	22,980
4/5	HQ	299	787	800
4/5	Field	111	471	450
Total for 4/5		410	1,258	1,250
Grand Totals		1,540	50,026	50,000
			299*2.632	

Table E6 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 E6: Raking of Weights Using Stratum and Sex as Ranking Dimensions

Iteration 1

Stratum	Weighted Count	Population Count	Raking Factor
1	12,995	13,470	1.037
2	12,555	12,300	0.980
3	23,218	22,980	0.990
4/5	1,258	1,250	0.994
Total	50,026	50,000	

13,470/12,995

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	13,520	13,470	0.996
2	12,250	12,300	1.004
3	23,150	22,980	0.993
4/5	1,248	1,250	1.002
Total	50,168	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 F: Illustration of Weight Adjustment Operations

Table F1: 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 F2: Sums of Weights used to define Type 1A and Type 1B Nonresponse Adjustments

Sums of Weights	
$S_1 = \sum wgt_{status=1}$	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 F1: Type 1A Nonresponse Adjustments

Figure F2: Type 1B Nonresponse Adjustments

United States
Office of Personnel Management
Planning and Policy Analysis

1900 E Street, NW
Washington, DC 20415

www.opm.gov/FEVS